

# The JA-153E Wireless access module with RFID and keypad

The access module is a component of the **JABLOTRON 100** system. Its modular architecture enables users to create a combination whose size of installation perfectly meets their needs. The device should be installed by a trained technician with a valid certificate issued by an authorised distributor.

The wireless access module comprises the first control segment (1), an RFID chip card / tag reader and keypad (4). The JA-192E segments can be used to extend the JA-153E unit by the required number of segments (the max. allowed amount is 20 on one unit). The tilting keypad cover (6) can be removed if the user prefers permanent access. It also works as an RFID card / tag reader.

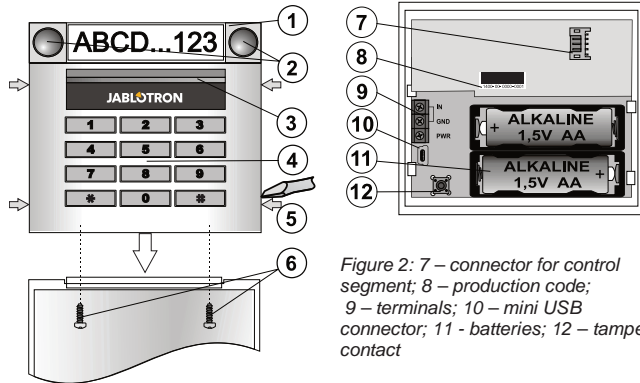


Figure 1: 1 – control segment; 2 – segment buttons; 3 – backlit activation button; 4 – access module with RFID reader; 5 – tabs for module opening; 6 – cover screws

Figure 2: 7 – connector for control segment; 8 – production code; 9 – terminals; 10 – mini USB connector; 11 - batteries; 12 – tamper contact

## Installation

- Press the four tabs (5) on the sides (see figure 1) one by one and release the module from the plastic base.
- When installing more control segments, first remove the socket cover on the 1<sup>st</sup> segment.
- Remove the transparent plastic cover from the segments (by levering on both sides of the segment near the buttons).
- Always connect the segment wires to the connector of the previous segment and click them into each other (we recommend coiling the wires by turning the segment by 360° - this will prevent any possible damage to the wires between the plastic parts). Use this method to install all the required segments. Finally push the socket cover in.
- Insert two 1.5 V alkaline AA batteries into the module.
- Attach the base onto the selected place together with the segments using screws. If more segments are required fix those onto the wall using screws as well (use the number of screws required).
- Connect the segment wires to the internal connector of the module (7).
- Insert the module into the base.
- Proceed according to the control panel installation manual. Basic procedure:
  - There must be a JA-110R radio module installed in the control panel with a reliable communication range to the access module.
  - When batteries are inserted, the yellow backlit activation button (3) starts to light permanently which indicates that the module has not been enrolled to the system yet.
  - Go to the **F-Link** software, select the required position in the **Devices** window and launch enrollment mode by clicking on the **Enroll** option.
  - Press the backlit activation button (3) – the module is thus enrolled and the yellow LED indicator goes off (this can take a few sec). An enrollment signal can also be sent by inserting the batteries.
- When you have completed installation, insert descriptive labels behind the segment transparent covers and close them, see figure 3. Label printing is a part of the F-Link software (**Devices** window, at the module position – **Internal settings**).

### Notes:

The module can also be enrolled to the system by entering its production code (8) 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).

To comply with the EN 50131-3 norm it is necessary to fix the cover tabs (5) by the screws from the accessories. In picture no 1 the cover tabs are displayed and marked by the arrows.

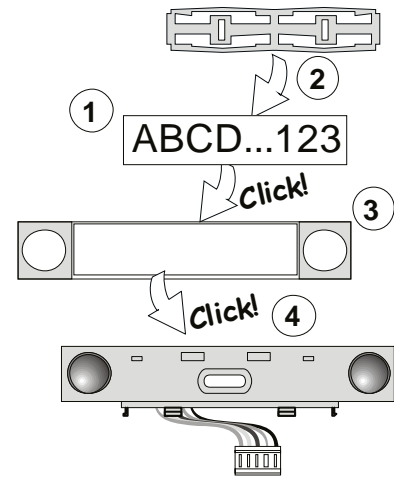


Figure 3: Insertion of a label into a control segment

## Setting the properties

Go to the **Devices** window in the F-Link software. When you are at the module position, use the **Internal settings** option. The particular unit is displayed and it is possible to set its properties. Internal settings is separated into 2 basic tabs: **Segments** and **Settings**.

It is possible to set the required functions for individual **segments** (control of sections, section status signalling, alarm triggering, PG output control, PG output status signalling, etc.). More details are available in the F-Link software.

3<sup>rd</sup> optional setting tab **Common segment** – settings and function description

A common segment (up to 2 of them allowed on one keypad unit) simulates the simultaneous pressing of several segments which are placed on this module and which control sections. **In the Segments** tab select the specific segment function called **Common segment A (B)**. Then select the segments which will be operated en bloc in the new tab **Common segment**.

**Note:** A module has to be equipped with a minimum of 3 segments otherwise this function can not be used.

The selected sections will all be set / unset after pressing a button on the common segment.

If the states of the segments which are operated by the **common segment** are mixed, then only the segments that need changing will be set / unset.

If partial setting is enabled for some segments, then the **common segment** respects this: 1<sup>st</sup> press = partially setting, 2<sup>nd</sup> press = full setting. It is not suitable to combine a common segment with a common section.

The indication of the **common segment** is: all segments unset = green, some set (partially set) = yellow, all sections fully set = red.

In the **Settings** tab you can set all other module functions like acoustic signalling, backlight intensity, RFID reader mode, optical and acoustic indication, etc. Details related to settings can be found in the installation manual of the control panel and of course in the tooltips displayed by the F-Link software.

## Battery Power save mode

The module saves its energy by shutting down the optical indication of system status, module backlight and the RFID reader after 8 sec when the button, segment or keypad cover have been pressed. The module still keeps communication with the control panel and it can signal for example: an entrance delay. Complete waking up is done when you press the cover of the module, or by pressing of any button.

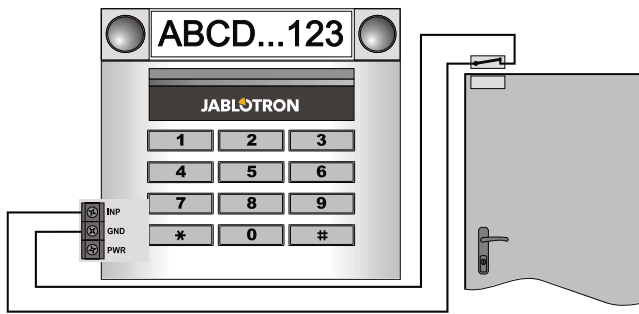
## Alternative power

The module can be powered from an external 12 V DC power supply via the PWR and GND terminals. The DE 06-12 power supply can be used. It has the advantage of hidden installation. The module does not enter battery power mode if external power is used. It permanently communicates with the control panel and it indicates the system status according to the **Devices / Internal settings**. Leave the batteries inside the module. When the mains power is cut off, the module will work from the batteries.

## Connection of an external door detector

The module has an input terminal for external door detector connection. The input (IN) reacts to disconnection from the common ground. The reaction of this input is delayed, and is linked to the module address. The input has a status reaction

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## Battery replacement

The module automatically checks the status of the batteries. When Low Batt status is reported, then the batteries should be changed within 2 weeks. Before changing the batteries, system must be firstly switched to SERVICE mode, otherwise a tamper alarm will be triggered.

**Note:** For the best possible operation we strongly recommend using only batteries supplied by Jablotron's authorized distribution (avoid usage of so called no-name batteries).

## Unit modifications

If you need to change the segments (add or take out), release them by levering on both sides of the segment near the buttons. When you have finished changing the amount of segments the new JA-192Es are not always immediately visible in the F-Link software. For synchronization, click on the **Upload** button.

**Note:** If there is a request to modify the module hardware, always remove the batteries and disconnect the external power supply.

## Optical indication

**Activation button** – indicates the system status. No light – sleep mode, green light – everything OK, green flashes – authorisation performed, red flashes – alarm, yellow light – fault / not enrolled to the system, yellow double flash – Service mode.

**Note:** The activation button doesn't indicate module tamper activation, even the INP input, in Service mode.

**Segments** – don't indicate when Service mode is entered or when the segment has the function None. The optical indication logic of a PG segment can be inverted.

Module can be preset to the following 6 indication levels:

- Indicates permanently** – Wireless modules indicate permanently only if an external power supply is connected. Without an external power supply it indicates the same as option 2. When the mains is restored module again indicates permanently.
- Section / PG status change on keypad** – the module indicates when the section / PG status has been changed. The status change is indicated on the specific segment. Entrance delays and alarms are indicated by the whole module.
- Section / PG status change on segment** – the module indicates when a section / PG output status has been changed. A segment status change, an entrance delay and an alarm is indicated on a specific segment.
- Segment status change on keypad** – The module indicates when the status of a segment has been changed (setting, unsetting, PG ON, PG OFF). The change of the status is indicated only on the specific segment.
- Entrance delays / alarms on segment** – the module indicates entrance delays and alarms on a specific segment.
- Wake-up by pressing** – the module optically and acoustically indicates after the front cover has been opened and also when a button or segment has been pressed. This setting ensures a maximum battery lifetime.

## Acoustic indication

It can be set regardless of the keypad's optical indication and sleep mode. The module can indicate entrance / exit delays or alarms. During valid authorization (by user code or RFID card), acoustic indication of exit delay is suppressed. By pressing the indication button the module is muted permanently. Entrance delays and alarms are indicated until their times expire, but only if the activation button is not pressed.

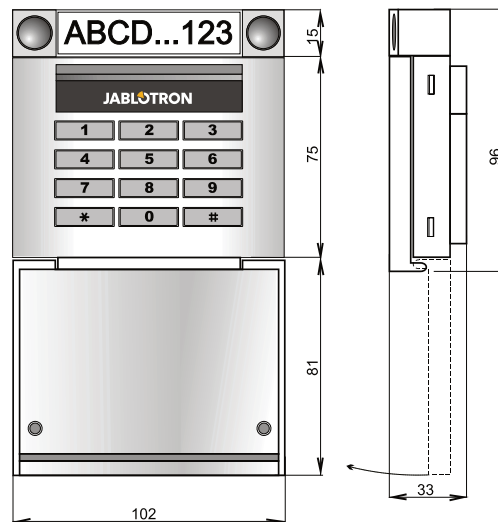
## FW upgrade

- Upgrades can only be done by a Service technician and by F-Link software.
- Start F-Link in Offline mode and open the appropriate installation database.

- Open the module by pressing on the tabs (5), remove the batteries and any possible external power supply.
- Connect the miniUSB cable to the USB port on the PC. The miniUSB cable is not in the accessories of the module, control panel or any other device. You can use the cable from the JA-190T card reader.

**Caution:** We strictly recommend connecting the USB cable straight to the PC, connection via a USB HUB can reduce the reliability).

- While keeping the button (3) pressed, connect the miniUSB cable to the connector on the module (10), and keep holding the button (3). Switching to the firmware upgrading mode is indicated by the backlight activation button flashing green and yellow. Now you can release the button (3).
- Then continue as if you are doing an upgrade via **F-Link** software: **Control panel** → **Upgrade Firmware** → choose the upgrade file pack (it is a part of the F-Link installation pack, or it can be independently published for downloading, file type \*.fwp)
- F-Link shows a window with a device listing, select the USB (typically at the first position).
- Then press **OK** and perform the upgrade for the selected device.
- Disconnect the miniUSB cable, reinsert the batteries and reassemble the module.
- Check the module via **F-Link, Devices/Internal settings**. According to the changes which have been done during the upgrade, previous settings might stay or settings could be erased to default. When a reset has been done you can reload the previous settings by the **Import** button and restore them with no negative influence on the new firmware.
- When the FW upgrade has been done, the main menu could be expanded. In this case the new options are set to default. Check their settings and adjust according to user requirements.
- Perform a last check and try out the functions by some tests.



## Technical specifications

Power	2 x alkaline batteries AA (LR6) 1.5 V
	<i>Please note: Batteries are not included</i>
Typical life time	1 - 2 year(s) according to the settings
Communication band	868.1 MHz, JABLOTRON protocol
Communication range	200 m (open area)
Power input from external supply	0.5 W
RFID frequency	125 kHz
Dimensions	102 x 75 x 33 mm
Weight	200 g
Classification	Grade II
According to	EN 50131-1, EN 50131-3, EN 50131-5-3
Operational environment	EN 50131-1 II. Indoor general
Operating temperature range	-10 to +40 °C
Also complies with	ETSI EN 300 330, ETSI EN 300 220 EN 50130-4, EN 55022, EN 60950-1

Can be operated according to ERC REC 70-03



JABLOTRON ALARMS a.s. hereby declares that the JA-153E is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC and 2011/65/EU. The original of the conformity assessment can be found at [www.jablotron.com](http://www.jablotron.com) - Technical Support 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).