

## The JA-154E Wireless access module with LCD, RFID and keypad

The JA-154E wireless access module with LCD, RFID and keypad 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 keypad (5), RFID card/tag reader (5), LCD display (4) and the first control segment (1). JA-192E segments can be used to extend the JA-154E unit by the required number of segments (the max. allowed amount is 20 on one unit). The keypad cover (7) can be removed if the user prefers for full permanent access.

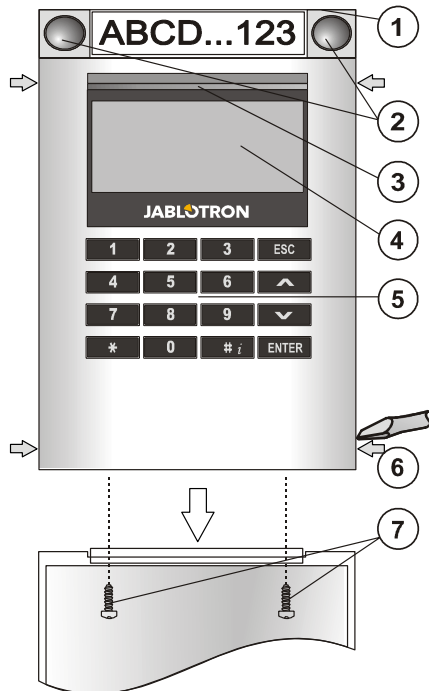


Figure: 1 – control segment; 2 – segment buttons; 3 – backlit activation button; 4 – LCD display; 5 – access module with RFID card reader; 6 – tabs for module opening; 7 – keypad cover screws

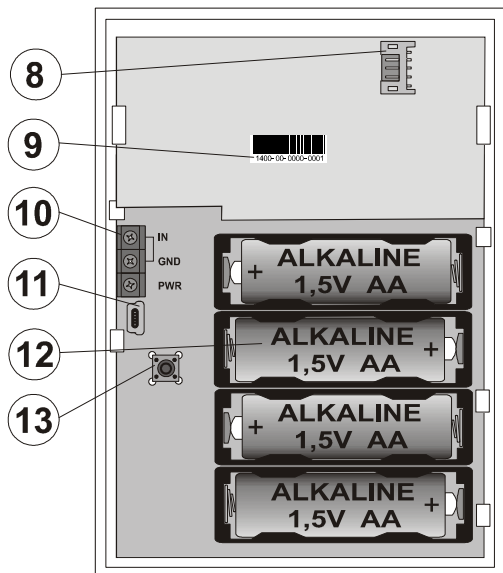


Figure: 8 – control segment connector; 9 – production code; 10 – terminals; 11 – mini USB connector; 12 – batteries; 13 – tamper contact

### Installation

1. Press the four tabs (6) on the sides (see 1st figure) one by one and release the keypad from the plastic base.
2. When installing more control segments, first remove the socket cover on the 1<sup>st</sup> segment.
3. Remove the plastic windows from the segments (by levering on both sides of the segment near the buttons).
4. 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 control segments. Finally push the socket cover in.

5. Insert four 1.5V alkaline AA batteries into the keypad.
6. Attach the base onto the selected place together with the segments using screws. If multiple control segments are required attach them onto the wall using screws as well (use the number of screws required).
7. Connect the segment wires to the internal connector of the keypad (8).
8. Insert the keypad into the base.
9. Proceed according to the control panel installation manual. Basic procedure:
  - a. There must be a JA-110R radio module installed in the control panel with a reliable communication range to the keypad.
  - b. When batteries are inserted, the yellow LED starts to light permanently which indicates that the keypad has not been enrolled to the system yet.
  - c. Go to the **F-Link** software, select the required position in the **Devices** window and launch enrollment mode by clicking on the **Enroll** option.
  - d. Press the backlit activation button (3) – the keypad 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.
10. When you have completed installation, insert descriptive labels behind the segment plastic windows and close them. Label printing is a part of the F-Link software (**Devices** window, at the keypad position – **Internal settings**), or you can use the label printer.

#### Note:

Enrolling the module to the system is possible by entering the production code (9) via F-Link software or by a production code reader. All digits under the production code are required (1400-00-0000-0001).

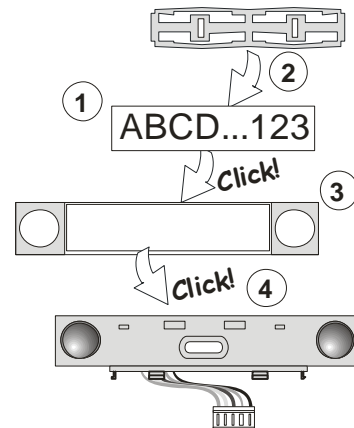


Figure: Insertion of a label into a control segment

### Setting the properties

Go to the **Devices** window in the F-Link software. When you are at the keypad position, use the **Internal settings** option. The particular unit is displayed and it is possible to set its properties. It is possible to assign the required functions to individual segments (controlling of sections, section status signalling, alarm triggering, PG output control, PG output status signalling, etc.). More details are available in the F-Link software.

A common segment (up to 2 of them allowed on one keyboard) simulates the simultaneous pressing of several segments which are placed on this keyboard and which control sections. The selection of sections which are assigned to the common segment is performed by F-Link SW, the **Devices** window. At the keyboard position select **Internal settings** / and **Common segment 1** (2) and mark the segments which will be operated en bloc. The selected sections will 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 st. press = partially setting, 2nd 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 set = green, some set (partially set) = yellow, all sections fully set = red.

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## Automatically shutting down the module

The module saves its energy by shutting down the optical indication of system status, keypad backlight and RFID reader 10 sec. after its last activity with a user. The keypad 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 keypad, otherwise by activation of the magnetic door contact connected to the IN terminal (see next paragraph).

When the parameter „Entrance delay time and alarm are triggering the keypad“ (default) is enabled, the keypad is also fully woken up when these events occur.

Disabling this parameter gives you a longer battery life time. In this case the keypad cannot wake itself and will not indicate the system status optically, and acoustic signalling can be delayed a few sec.

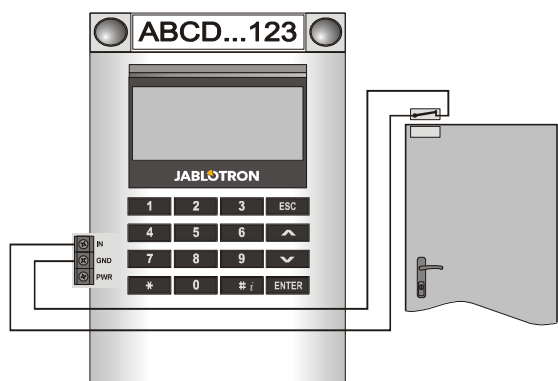
## Alternative power

The keypad can be powered from an external 12V DC power supply via the PWR and GND terminals. The DE 06-12 power supply has the advantage of hidden installation. The keypad does not sleep 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 keypad. When the mains power is cut off, the keypad will work from the batteries.

## Connection of an external door detector

The keypad 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 keypad address. The input has a status reaction. According to the settings, the keypad can be completely woken up by triggering the external detector.

Caution: this type of waking up is good to use when the keypad is powered from the external power supply otherwise every activation tends to shorten battery lifetime.



## Battery replacement

The system automatically reports a Low Batt from the keypad. Before you change the batteries, switch the system to service mode, otherwise a tamper alarm will be triggered.

## 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.

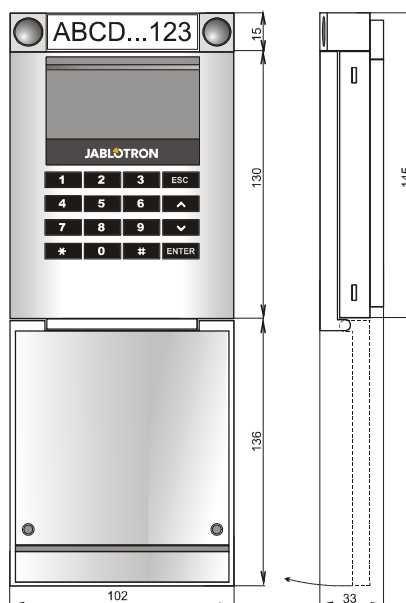
**Note:** If there is a request to modify the keypad hardware, always remove the batteries and disconnect the external power supply.

## FW upgrade

1. Upgrades can only be done by a Service technician.
2. **F-Link** software is necessary for upgrades.
3. Start the F-Link in Off-line mode and open the appropriate database.
4. Open the keypad by pressing on the tabs (6).
5. Remove the batteries and possible external power supply.
6. Connect the miniUSB cable to the USB port on the PC. (Caution: the miniUSB is not in the accessories of the keypad, control panel or any other device. You can use the cable from the JA-190T card reader. We strictly recommend connecting

the USB straight to the PC, connection via a USB HUB can reduce the reliability.

7. Press and hold the backlit activation button (3).
8. When the button (3) is pressed, connect the miniUSB cable to the connector on the module (11).
9. Switching to the mode for upgrading firmware (according to the version of the keypad in about 5 sec.) is indicated by the yellow LED flashing or by the backlit activation button flashing green and yellow (now you can release the button (3)).
10. 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)
11. F-Link shows a window with a device listing, select the USB (typically at the first position).
12. Then press **OK** and perform the upgrade for the selected device.
13. Disconnect the miniUSB cable, reinsert the batteries and reassemble the keypad.
14. Check the keypad 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.
15. 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.
16. Perform a last check and try out the functions by some tests.



## Technical specifications

Power	2 x alkaline batteries AA (LR6) 1.5 V 2400 mAh
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 145 x 33 mm
Weight	350 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 300330, ETSI EN 300220 EN 50130-4, EN 55022, EN 60950-1



JABLOTRON ALARMS a.s. hereby declares that the JA-154E is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. 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).