

JA-150E Wireless keypad

The keypad is a component of the **JABLOTRON 100** system used to control the control panel and display its current status. Using an external input a door detector can be connected to the keypad.

It is necessary to use this manual in combination with the **JABLOTRON 100** installation and user manuals.

The keypad contains 4 function buttons (5), an LCD display (3), a system indicator (2), status indicators A, B, C, D (1), a keypad with an RFID chip card/tag reader (4).

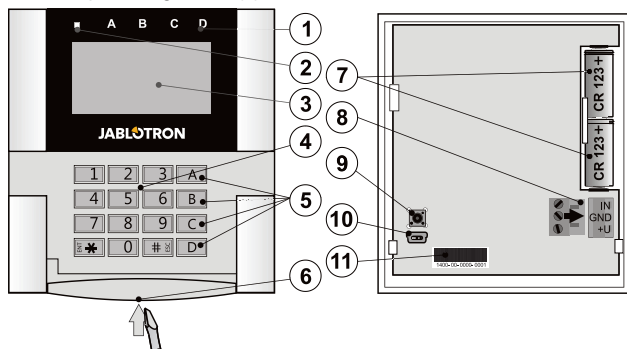


Figure 1: 1 – status indicators A,B,C,D; 2 – system indicator; 3 – LCD display; 4 – keypad and the RFID reader; 5 – function buttons A, B, C, D; 6 – keypad opening tab; 7 – batteries; 8 – detachable BUS terminals; 9 – tamper contact; 10 – mini USB connector; 11 – production number.

Installation

- Open the keypad housing by pressing the tab on the bottom (6) using a screwdriver which will release the keypad from its back part.
- Screw the back part on a selected place. We recommend using all four mounting holes and screws to attach the plastic base. To meet the criteria of EN 50131 grade 2 the plastic base must be screwed by at least two screws using the mounting hole next to the tamper contact hole and the mounting hole in the diagonal corner.
- Insert two CR123A lithium batteries in the keypad.
- Insert the keypad back into the back part and lock the bottom tab using the little screw.
- Proceed according to the control panel installation manual.

Basic procedure:

 - The JA-111R radio module must be installed in the control panel. The keypad must be in its communication range.
 - When the device is switched on, the system indicator (2) will start showing yellow light to indicate that the keypad has not yet been enrolled to the system.
 - Open the **F-Link** software, select the required position in the **Devices** window, and click on the **Enroll** button which will open the enrollment mode.
 - Press the keypad cover to enroll the keypad and the yellow LED indicator starts flashing (twice with pause) to indicate Service mode, which may take a few seconds. The enrollment signal can be sent by inserting the batteries in the keypad or pressing the tamper contact.

Notes:

- Enrollment is also possible by entering its production code (11) in the **F-Link** software or using a bar code scanner. All numbers stated under the bar code must be entered (e.g. 1400-00-0000-0001).

Installation of a magnetic contact

The keypad supports connection of a door detector. The IN input reacts to being disconnected from the common GND contact. The control panel's reaction to an activated IN input is configurable in the **F-Link** SW.

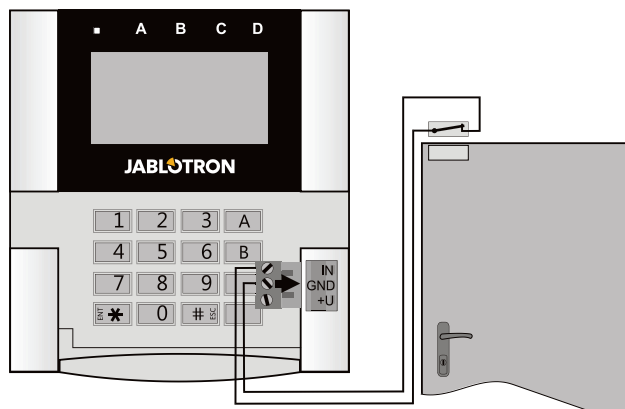


Figure 2: connecting a magnetic contact

Setting the properties

Go to the **Devices** window in the **F-Link** software. When you are at the keypad position, click on the **Internal settings** option which will display a dialogue window to configure its settings and function buttons. Internal settings are separated into 2 basic tabs: **Function** and **Settings**.

The Function tab:

- Time** – Displays the current time in the top-right corner of the display
- User text** – Enables showing any text, for example the phone number of an installer company, etc.
- Temperature** – Displays the temperature measured by one of the selected thermometers in the bottom-right corner of the keypad display.
- Buttons Function** – On the left is a selection of button functions. On the right is a selection of Sections or PG outputs to which the functions will be assigned. A function button can be assigned with these functions: None, Set/Unset, Unset/Partially set, Unset/Partially set/Set, Section indication, Panic, Fire, Audible panic, Medical Troubles, PG ON/OFF, PG ON, PG OFF, PG indication, PG indicates inversely, Common function button.

Authorization – Setting and Unsetting requires user authorization. When this parameter is disabled the function buttons can be operated without authorization, however this does not apply to Unsetting a section which always requires authorization. Both ON and OFF statuses of PG outputs can be configured to be operated with or without authorization.

Import – Enables copying settings from other keypads of the same type and FW version, which have already been enrolled. For example, this can be utilized when the building has multiple entrances and it is necessary for all keypads to have identical functions. In addition, this function can also be used when replacing a faulty keypad with another. The Import button provides the history of keypad settings on a particular position of the device.

Section selection – Selection of sections which can be controlled by authorization (using an RFID chip or a code)

PG selection – Selection of PG outputs which can be controlled by authorization (using an RFID chip or a code)

The Setting tab:

Acoustic indication of selected sections:

- Higher volume** – Increased volume of indication (it does not apply to alarm).
- Alarms** – Indicates alarm (sounds a siren).
- Entrance delay** – Continuous sound during the entrance delay.
- Exit delay** – Slow beeping (1x every second)
- Exit delay when partially set** – Slow beeping (deactivated by default).
- Segment status change** – Beeps once when a status is changed.

Function:

Optical indication setting:

- Indicates permanently** – The keypad indicates permanently. When the mains electricity is disconnected it indicates the same way as option 3. When mains electricity is restored the keypad indicates permanently again.
- Section/PG status change on keypad** – The status change of a section/PG is indicated by a specific function button and a status indicator. Entrance delay and alarms are indicated by all function buttons and status indicators.
- Section/PG status change on segment** – The keypad indicates after a change of the section/PG status, entrance delay and alarm only by a particular button and a section indicator.
- Segment status change on keypad** – The keypad indicates after a change of the section/PG status by a particular button and a section indicator. Entrance delay and alarms are indicated acoustically only.
- Entrance delay/Alarms on segment** – The keypad indicates entrance delays and alarms with a function button and a status indicator. Change of section/PG status is not indicated visually or acoustically.
- Wake-up by pressing** – The keypad starts to optically and acoustically indicate after the front cover has been opened and also when a key or a function button has been pressed.

RFID reader:

In order to save energy we limit the RFID reader to function for 3 seconds after pressing the keypad cover. The RFID reader can be also completely disabled. This setting applies to wireless keypads as long as they are permanently supplied by an external power supply, otherwise their RFID readers will always turn off automatically. **Permanently ON** – the RFID reader is always active. This works only when the **Optical indication setting** is set to the option number 1 - Indicates permanently.

Activated by pressing – When the keypad is activated the RFID wakes up for 3 seconds.

Disabled – RFID reader is permanently disabled.

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Activated by pressing or authorization requirement – the keypad wakes up after pressing a button on a keypad cover or by an authorization request, for example during the entrance delay.

Wake the keypad by applying an RFID card: Apart from opening or pressing the keypad cover, the keypad can wake up by applying an RFID card/tag. It is not recommended to enable this function if the keypad is surrounded by metal objects and electric wiring. If this function is enabled, it is necessary to check that the keypad does not wake up by itself.

Unset a section by authorization only during an entrance delay – using an access code or an RFID tag will unset a section where an entrance delay has been triggered (provided the user has access to the section). This authorization can be used with wireless keypads only when they declare an entrance delay.

WARNING: This function is not recommended when the control panel is configured to use a Common section. Unwanted unsetting may occur to all sections assigned to the Common section or it may even occur to the whole control panel (when pressing the Unsetting button is followed by authorization).

Delayed panic – this function triggers a panic alarm (silent or loud) with an adjustable delay during which the alarm can be cancelled. Activation and deactivation is done by a function button configured to Panic or Silent panic functions. The button pressed once triggers the delay. Press the button the second time to cancel the delay. When authorization is enabled then it is required for activation and deactivation. The delay is adjustable from 1 to 255 seconds.

Backlight intensity

Indicators – Backlight intensity of indicators.

Function buttons – Backlight intensity of the function buttons.

Keypad – Backlight intensity of the keypad.

Display – Backlight intensity of the LCD display.

Contrast – LCD display contrast.



A keypad configuration which complies with certification requirements must be selected from the list of System profiles in the Parameters tab of the F-Link SW.

Automatic stand-by mode

When the keypad is battery supplied it preserves energy by turning off the system indication and the display after keys on the keypad haven't been pressed within 10 second or when the keypad cover is closed. However the keypad still maintains communication with the control panel and will for example signal entrance delay. The keypad will be completely active when the keypad cover is opened, pressed or by applying an RFID card (provided this function has been activated in the *Settings*).

Alternative power supply

The keypad can be supplied from an external power supply with 12 V DC connected in +U and GND terminals. You can use the DE06-12 Power adaptor suitable for concealed installation.

When the keypad is supplied externally it will communicate with the control panel permanently and it will indicate system statuses according to the selected parameters in *Internal settings* in the *Devices* tab. If the alternative power supply is used keep the batteries in the detector, they will provide back up in case the power supply is disconnected. Batteries inserted in the detector cannot be recharged by the external power supply.

Changing the batteries

The keypad automatically checks its own battery status. When the batteries are close to being depleted, it will inform the control panel that the batteries need to be replaced. They should be replaced within two weeks after the message appears. The control panel must be switched into Service mode before removing the keypad from the back part otherwise (otherwise a tamper alarm will be triggered).

Note: In order to make sure the keypad works correctly, we recommend using batteries supplied by the distributor or other quality brand lithium batteries.

Optical indication

System indicator:

Continuous green light - Normal operation. Sections controlled by the keypad are OK, no faults.

Continuous yellow light - Normal operation, reported faults in some of the controlled sections. You can get more detailed information via the LCD keypad menu after user authorization depending on the user access rights.

Optical indication followed by a rotating Jablotron logo on the LCD keypad represents a radio communication fault between the control panel and the keypad

Continuous red light – The keypad is in BOOT mode, used while upgrading firmware.

Flashes green (2Hz) – Ongoing authorization during which the user can change the statuses of the function buttons or browse the keypad menu. Authorization times out after 8 seconds from the last time any of the buttons had been pressed or it can be cancelled by pressing ESC.

Flashes yellow (8Hz) - Unsuccessful setting warning indication

Flashes red (8Hz) - Indication of a currently triggered alarm in one of the sections controlled by the given keypad. The type of alarm, name of the section where an alarm has been triggered and the source of the triggered alarm are visible on the LCD keypad.

Flashes alternately red/yellow - Triggered alarm with an active fault indication.

Flashes alternately green/red – Ongoing authorization with an alarm memory.

Flashes alternately green/yellow – Ongoing authorization with an active fault indication.

Flashes yellow 2x every 2 seconds - Programming / Service mode. All control segment indication is disabled, function keys along with the keypad menu are unavailable for users and the Administrator. The keypad menu is only available for a service technician unless a PC is connected to the control panel.

Flashes red 2x every 2 seconds - Alarm memory indication.

Flashes yellow 1x every 2 seconds - Fault indication on a keypad which is in sleep mode (only valid for the EN50131-1 and Incert profile).

Flashes red 1x every 2 seconds - Alarm memory indication on a keypad which is in sleep mode (only valid for the EN50131-1 and Incert profile).

No indication – The keypad is in sleep mode.

Function buttons and status indicators – the status of the function buttons is simultaneously indicated by the status indicators A, B, C, D.

Continuous green light - Section status is Unset or a PG output is OFF.

Flashes green (4Hz) – Ongoing entrance delay. The control panel waits to be Unset.

Continuous yellow light - Section status is Partially set.

Continuous red light - Section status is Set or a PG output is ON.

Flashes yellow (4Hz) - The control panel expects authorization when partially set or it reports a fault during partial setting.

Flashes yellow (8Hz) - Unsuccessful setting warning indication.

Flashes red (4Hz) – The control panel waits for authorization during setting or it reports a problem during setting.

Flashes red (8Hz) - Alarm memory indication. It is indicated until it is cancelled.

No light - Service mode or a blocked section after an alarm (after blocking and cancelling alarm memory indication).

Acoustic indication

It can be set regardless of the keypad's optical indication and sleep mode. The keypad can indicate entrance/exit delay or alarm. During valid authorization (by a user code or RFID card), the acoustic indication of exit delays is suppressed. By pressing the indication button the keypad is muted permanently. Entrance delay and alarm are indicated until their time expires, unless the activation button is pressed.

Keypad FW update

The keypad supports wireless FW updating which is done in **Service mode** via the **F-Link software**.

1. Select **Control panel** → **Firmware update**. You'll see JA-150E in the dialog window. If F-Link contains newer firmware than the one in the keypad then it will be automatically offered.
2. Pressing the **OK** button will perform update of selected devices.
3. After the FW update is finished, check the keypad's internal settings in the **Internal settings** in the **Devices tab**.
4. Check the keypad's functionality.

Note:

– The mini USB connector (10) is used to update the firmware by connecting the keypad with a computer via a mini USB cable. Use this method when wireless update fails.

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Technical specifications

Power	2 x Lithium battery type CR123A
	Please note: Batteries are not included
Typical battery lifetime	1-2 years according to settings
External supply input power	0,5 W
Communication band	868.1 MHz, JA-100 protocol
Communication range	approx. 200 m (open area)
RFID frequency	125 kHz
Size	120x130x30 mm
Weight	215 g
Classification	Grade 2/environmental class III/ACE type B (if selected in the F-Link SW)
- According to	EN 50131-1, EN 50131-3, EN 50131-5-3, EN 50131-6, T 031
- Operational environment	indoor general (according to EN 50131-1)
- Operating temperature range	-10 to +40 °C
- Average operational humidity	75% RH
- Certification body	Trezor Test
- Power supply	Type C according to EN 50131-6
- Low battery voltage detection	5 V
Complies with	ETSI 300 220-2, ETSI EN 300 330-2, EN 50130-4, EN 55032, EN 60950-1
Can be operated according to	ERC REC 70-03



JABLOTRON ALARMS a.s. hereby declares that the JA-150E is in a compliance with the relevant European Union harmonisation legislation: Directives No: 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU. The original of the conformity assessment can be found at www.jablotron.com - Section Downloads.



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