The JA-156E / JA-156E-AN / JA-156E-GR
Wireless touchscreen keypad with reader RFID

Type: 5KPAD2204RN

*The keypad is a wireless component of the **JABLOTRON** system and is designed to be operated by touch. The keypad must be installed by a trained technician with a valid Jablotron certificate issued by an authorised distributor.* ***This product is compatible with JA-102K, JA-103K, JA-107K, JA-152KRY control panels.***

This manual must be used together with the installation and user manual of the JABLOTRON control panel system.

The keypad components are shown in the following figures:

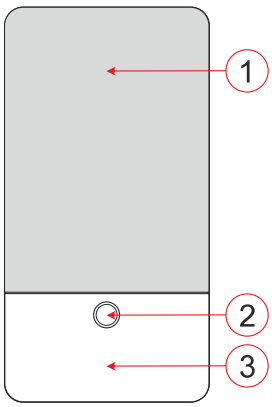


*Figure 1 – front part: **1** – touchscreen; **2** – button/system indicator; **3** – RFID reader – reading area*

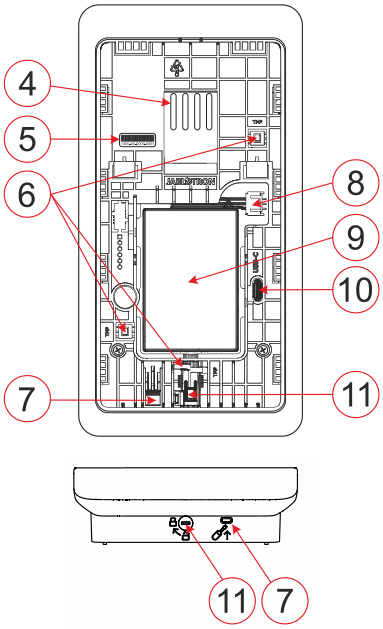


*Figure 2 – internal part: **4** – connection points of the terminal; **5** – serial number; **6** – tamper contacts; **7** – rear part tab; **8** – connector for the backup battery connection; **9** – backup battery; **10** – USB-C connector; **11** – locking mechanism*

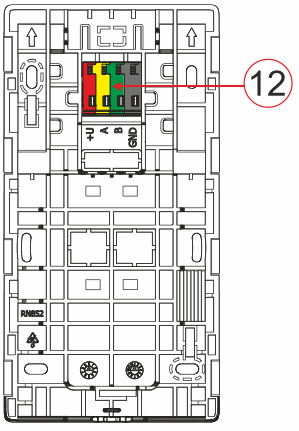


*Figure 3 – mounting pad: **12** – terminal*

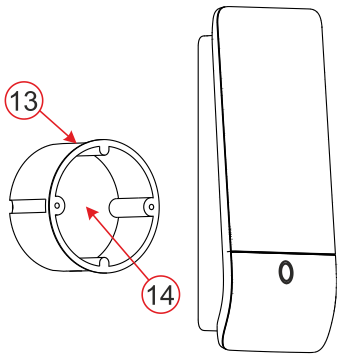
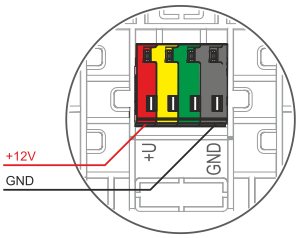


*Figure 4 – mounting box: **13** – KU68, **14** – placement for power supply*

Installation

Note: To comply with EN 50131-1 and T 031, the power supply must be installed in the included KU68 mounting box under the keypad!

1. Remove the mounting pad (Fig. 3) of the keypad. If it cannot be removed easily, open the locking mechanism, see chapter "*Keypad disassembly*".
2. Install mounting box KU68 (13) and insert the power supply (14), recommended type HLK-PM12JBT – see *Technical specifications*. In the mounting pad, break out the blank of appropriate slot, pull the power cable through, and then screw the mounting pad of the keypad to the designated place, preferably on a solid base (wall). Select the installation height of the keypad with respect to the height of the users. The ideal height for good readability and control is at eye level. It is not recommended to mount at a height consistent with electrical switches (100-110 cm).
3. Insert the backup battery (9) to the keypad and plug it to an appropriate connector (8), recommended type BAT-3V7-2500, see "*Technical specifications*".
4. Connect the individual wires of the power cable to the terminal (12) as follows:
   a) Using a flat screwdriver to press upper side of the terminal.
   b) Put a stripped wire into the appropriate terminal.
   c) Release the terminal.
   d) Test if the wire is correctly fixed with a gentle pull.



+U – red; positive power supply pole
GND – black; negative power supply pole

Notes:

- *Connect only straight, stripped wires to the terminals (their ends only).*
- ***Mind the correct polarity of the wires!***
- *Recommended alternative power supplies DE06-12 or LT-089.07.*
- *The length of the connecting cable should not exceed 3 m.*

5. First, attach the bottom edge of the keypad to the mounting pad (align the bottom sides) and slide in downwards until you hear the click of the tab (7). This will secure the keypad against falling out of the mounting pad. Then turn the locking mechanism (11) clockwise 90° to the position where the groove points to the symbol 🔒. This locks the keypad in place and engages the tamper contact.
6. There must a radio module JA-11xR installed in the system.
7. Power the keypad on.
8. Enrol the keypad to the system according to the type of control panel, use the recommended software or application, see the installation manual of the control panel.
9. The keypad downloads texts and control panel configuration after being enrolled to the system, the process is indicated by the Jablotron logo and three dots. This process can take up to several minutes.

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Type: 5KPAD2204RN

Notes:

- *Enrolment is possible by entering the serial number (5) in the F-Link software or appropriate application. All numbers stated under the bar code must be entered (1400-00-0000-0001).*
- *Another enrolment option is by the powering the keypad on - plugging in the backup battery (9), or by pressing the button (2).*
- *The keypad must be permanently powered from the +12V / 1A power supply, the battery serves as a backup to overcome short-term power failure, the maximum backup time is about 48 hours.*

Keypad disassembly

On the underside of the keypad, turn the locking mechanism (11) counterclockwise 90° until the groove points to the symbol 🔓. Insert the flat screwdriver into the tab hole (7) (push the screwdriver towards the wall) while sliding the keypad upwards. The keypad can then be easily removed from the mounting pad.

Authorisation – can be done by entering a valid access code on the virtual keypad or by applying the access card / chip. Authorization will terminate itself after 15 seconds from the last detected touch on the screen, or immediately by pressing the button (2), or it can be terminated by the logout icon in the upper left corner. The individual keypad screens and menus and the system control options are based on the user access rights configured in the control panel.

Setting the properties

The settings are configured by the F-Link software – ***Devices*** tab. Use the ***Internal settings*** option on the device position. A dialogue window will appear in which all the keypad functions can be configured. See also the F-Link help bubble for details on the settings.

*Factory parameter settings are marked with *.*

Assigned sections = Selection of system sections (all are selected from factory), which are acoustically and optically indicated by the keypad and are always displayed in the keypad menu on the section tab (regardless of the authorized user's permissions).

Assigned PG´s = Selection of PG outputs from the system (no PG outputs are selected from the factory), which are acoustically signalled by the keypad and are always displayed on the PG tab (regardless of the authorised user's permissions).

Control without authorisation – default - *off

Sections with control without authorisation – The selection of sections (none are factory selected) that can control (provision) the system from the start screen without the need for authorization are acoustically and visually signalled by the keypad and are always all displayed in the keypad menu on the section tab (regardless of the authorized user's permissions).

PG with control without authorisation – Selection of PG outputs (none are factory selected) that can be controlled. They are acoustically signalled by the keypad and are always displayed on the PG tab (regardless of the authorized user's permissions).

Note: For the correct operation of the control without authorization, it is necessary to fill in the required sections and PGs in the parameters Assigned sections and Assigned PG

Optical indication

Automatic backlight regulation - Day

Automatically adjusts the light intensity of the display and the system indicator (2) under the display according to the ambient light in day mode.

Backlight intensity Day – Allows manual adjustment of system indicator (2) light intensity and display backlight in four steps when day mode is active: minimal, low, medium, ***high**.

Automatic backlight regulation – Night

Automatically adjusts the light intensity of the display and the system indicator (2) under the display according to the ambient light in night mode.

Backlight intensity Night – Allows manual adjustment of system indicator (2) light intensity and display backlight in four steps when night mode is active: ***minimal**, low, medium, high.

System status optical indication by button / system indictor

The button / system indicator (2) indicates system status according to the following priorities:

1. USB-C cable connected / preparing for FW update – continuously lit green while the cable is connected.
2. BOOT mode / FW update - very short yellow flash with 1s pause while BOOT mode is active (FW update).
3. Keypad disabled (bypass) - system indicator off (keypad disabled in F-Link SW - red dot); lasts for the duration of keypad disablement.
4. Not enrolled to the system - yellow flashing at 2 Hz until it is enrolled to the system.
5. Full arming/unauthorised user/entry delay - green flashing at 2 Hz for the duration of the full arming if there is no authorised user.
6. Full arming/unauthorised user - no indication, for the duration of the full arming, if there is no authorised user.
7. Keypad Internal settings open – permanently lit yellow, for the duration of settings being open.
8. Loss of communication – permanently lit yellow for the duration of the loss.
9. Indicates activation and deactivation of the keypad's own tamper contact - short red flash; 1x flash during activation and deactivation of tamper contact in Service or Maintenance mode.
10. Pending information* - quick yellow flash with a pause, only indicates if there is no authorized user and for the duration of the pending information.
11. Pending information in power saving mode* - fast yellow flashing with long pause - only during power failure.
12. Service mode – fast yellow flashing; while Service mode is open.
13. Maintenance mode – fast green flashing; while Maintenance mode is open.
14. Alarm ongoing / pre-alarm - rapid red flashing; for the duration of the alarm.
15. Alarm memory - two quick red flashes and a pause; until the alarm memory indication is cancelled.
16. Unsuccessful setting - rapid yellow flashing; for the duration of the unsuccessful setting.
17. Unsuccessful setting in power saving mode - slow yellow flashing; for the duration of unsuccessful setting.
18. Entry delay - slow green flashing; for the duration of the entry delay time.
19. System fault – permanently lit yellow; out of power saving mode for the duration of the fault.
20. Authorized user - permanently lit green; for the duration of the valid authorization.
21. Everything OK without authorization request - does not light up until status change.

Notes:

- *The system indicator (2) provides indications even when the screen is off.*
- ** Pending information serves as a warning to the authorized user of some "pending" indication or information that cannot be displayed to an unauthorized user in a given system profile. Pending information is indicated if the system has an EN 50131-1 or Incert profile on when the Alarm, Alarm Memory, Fault, Service or Maintenance mode occurs.*

Acoustic indication

Description of keypad's acoustic indication settings.

Day volume = Adjusts the volume of the acoustic indication when the day mode is active. Adjustable in four steps: off, low, medium, ***high**.

Night volume = Adjusts the volume of the acoustic indication when the night mode is active. Adjustable in four steps: off**, *low**, medium, high.

Alarm and Unsuccessful setting indication = Adjusts the volume of the acoustic indication of alarm and unsuccessful setting regardless of other acoustic indication (exit / entry delay, ...).

- ***Always full*** = The keypad will always indicate an alarm and unsuccessful setting acoustically at full volume, regardless of the keypad volume setting and day / night mode.
- ****According to the intensity setting*** = The keypad will acoustically indicate an alarm and unsuccessful setting at the same volume as other acoustic indications.
- ***No*** = The keypad will not indicate alarm and unsuccessful setting acoustically.

Exit delay indication – Configures under which conditions the exit delay should be acoustically indicated.

- ***No*** = The keypad will not acoustically indicate exit delay.
- ****When fully armed*** = The keypad will acoustically indicate the exit delay only when the section is fully armed.
- ***Always*** = The keypad will acoustically indicate the exit delay when the section is fully or partially armed.

Entry delay indication – ***Enable** / disable acoustic indication during entry delay.

Section status change - ***Enable** / disable acoustic indication when section status changes.

PG status change - ***Enable** / disable acoustic indication when the PG status changes.

Pressing indication - ***Enable** / disable acoustic indication when pressing the touchscreen.

Acoustic indication of individual system states

Acoustic indication of system states according to their priorities:

1. Confirmation of action - short higher tone 1.2 kHz.
2. Action denied - short lower tone 400 Hz.
3. RFID card/tag detection - 1x short beep 2 kHz.
4. Valid authorization - 1x short higher tone beep 3.2 kHz.
5. Invalid authorization - 1x short lower tone 400 Hz.
6. Card code / card code confirmation request - 2.2 kHz.
7. Alarm - long drawn tone 3 kHz for the duration of alarm.
8. Entry delay - uninterrupted 1.25 kHz tone for the duration of entry delay.
9. Unsuccessful setting - repeated 1.25 kHz short tone until the unsuccessful setting indication is cancelled.
10. Exit delay - beeps at 1.25 kHz during the exit delay.
11. Change section status - 1x beep with 2 kHz tone.
12. PG output status change - 1x short beep with 2 kHz tone.

Thermometers

Temperature 1 and 2 – The measured temperature from the selected devices will be displayed on the Temperature tab and on the lock screen.

Temperature 3 to 8 – The measured temperature from the selected devices will be displayed on the Temperature tab.

Note:

- *A maximum of 8 temperature meters assigned to the system can be set to be displayed.*

Special options

Lock screen – Sets the period of time that the display will show the lock screen (Includes time, date, temperature) before the display is completely turned off.

Optional intervals: Off, 1 min, 2 min, ***5 min**, 15 min, 30 min, 1 hr, Persistent

Display Temperature - displays the temperature on the keypad lock screen.

Display clock - displays the hour and date on the keypad lock screen.

Background wallpaper - select the image displayed on the keypad lock screen in the following modes:

- Disabled - the lock screen background is black.
- 24 h mode - the background wallpaper changes every day at midnight
- Display permanently - permanent display of one of 7 background wallpapers, if you select this option the following parameter will appear within the wallpaper selection.

Static wallpaper mode - if static display is selected a choice of 7 background wallpapers is available.

Card reader – The setting allows you to permanently disable the card reader.

Service contact – Used to fill in the contact details of the service company.

Installation company – Allows to enter the name of the installation company, which will be visible to all users in the keypad menu.

Phone number – Allows to enter the name of the installation company, which will be visible to all users in the keypad menu.

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

Firmware update

It is done via the F-Link software using a USB-C cable and must be performed by a user with Service level authorization.

1. Start the F-Link software and open the existing database of the system.
2. Enter the service mode and remove the keypad from the mounting pad.
3. Connect the keypad with a USB-C cable to the PC.
4. Select **Control Panel** → **Firmware Update** from the toolbar.
5. In the device menu table, select the required device; if Automatic Update is disabled, select the FW package file (included in the F-Link software or can be published for download separately, file type *.fwp).
6. Press **OK** to update the selected device.
7. After the update is complete, check the keypad settings with **F-Link, Devices / Internal settings**. Depending on the changes made during the update, the previous keypad settings may be retained or reset to factory defaults.

Technical specifications

Type of control device (ACE)	*type B*
Power supply	*External power supply from adapter +12 V DC (8–15 V) type A (according to EN 50131-6)*
Recommended power supply	*type HLK-PM12JBT Please note: Power supply is not included.*
Backup battery	*Li-Ion Polymer battery*
Voltage / capacity	*3.7 V/2500 mAh, recommended type BAT-3V7-2500 Please note: Backup battery is not included.*
Maximum capacity	*2520 mAh*
Minimum capacity	*2500 mAh*
Typical backup battery lifetime	*> 48 hrs*
LowBatt state	*< 3.5 V*
Maximum charging time to reach 80% of capacity	*6–7 hrs*
Nominal current consumption (display OFF)	*58 mA*
Maximal current consumption (display ON)	*280 mA*
Communication band	*868.1 MHz, JABLOTRON protocol*
Maximum radio-frequency power (ERP)	*< 25 mW*
Communication range	*approx. 200 m (open area)*
RFID frequency	*125 kHz*
Maximum RFID magnetic field strength	*-5.4 dBμA/m (measured at 10 m)*
Dimensions	*95 x 183 x 30 mm*
Weight (without battery)	*258 g*
Classification	*Security grade 2 / Environmental class II (According to EN 50131-1)*
Environment	*indoor general*
Operating temperature range	*0 °C to +40 °C*
Average operational humidity	*75% RH, non-condensation*
Certification body	*Trezor Test s.r.o. (nr. 3025), Kiwa Nederland b. v.*
In compliance with	*ETSI EN 300 220-2, ETSI EN 300 330, EN 50130-4, EN 55032, EN IEC 62368-1, EN IEC 63000, EN 50131-1, -3, -5-3, -6, T 031*
Can be operated according to	*ERC REC 70-03*
Recommended screw	*4x ø 3.5 x 40 mm (button head)*

JABLOTRON a.s. hereby declares that the 5KPAD2204RN is in a compliance with the relevant 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: 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.

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