

Security System Control Panel

JA-101K-xx and JA-106K-xx

Warning:

The Jablotron 100 series alarm system is designed exclusively for Jablotron certified installers. It is recommended that only Jablotron 100 peripheral devices are used with the system. Proper functionality cannot be guaranteed when using third party devices.

The manual is intended for trained technicians and is valid for control panel firmware LJ60410 and MD60410 and the configuration software FLink 1.2.0. or higher.

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1 Basic description and definitions

Modular architecture – Allows the system to be configured for specific installations, sizes and user needs.

Firmware (FW) update – procedure for updating to a new FW version into the system containing new functions, improvements and adaptations. We recommend you to check FW for being up-to-date during any installation as well as during regular service checks. Besides the control panel FW we also recommend the update of FW in all peripheral devices if required. (keypads, radio modules, motion detectors with a camera etc..)

Control Keypad – (arming device) consists of an access module and control segments.

Access module – (arming device) is the basic modular element of a control keypad and its task is to identify users. The simplest version only contains a reader of contactless RFID chips / cards. A version with a keyboard and an LCD screen is also available. Access modules are produced both in a bus and in a wireless version. Each access module contains one control segment.

Control segment – Is a modular element of a control keypad. A segment has 2 buttons (green = off, red = on). By installing the required number of segments to an access module you can create a keypad that will exactly fulfill the required functions. The segments clearly indicate the system status and enable its intuitive operation. The installed segments allow the user to clearly see what functions are provided by the system (rather than being hidden inside the menus only).

Alarm types – the system is able to react to intrusion, fire, gas leak, water flooding etc. The use of suitable detectors makes it possible to report other dangers as well (somebody moving in the garden, handling of a guarded object etc.). Means to reducing the occurrence of false alarms are available. Detectors located in a difficult environment from the structural or operational point of view can be set in such a way that their activation must be confirmed by another detector or the same detector must be activated repeatedly.

Visual verification of an alarm – camera detectors are able to automatically take and send photos of what is happening in the monitored area.

Personal protection – in case of a hold-up, health problem or fire the user can call for assistance (with a keypad key or a wireless key).

Control under pressure – if the user is forced to unlock the system, he/she can inconspicuously call help by making a small change in entering the code (1*1234 = code, reversing the digit pairs 1*3412 = control under pressure). This function is only available for codes with a prefix – see below.

Delayed Panic – function for releasing a Panic alarm with a time delay during which the alarm can be prevented. The function is designed for users afraid of opening the entrance door for an unknown trespasser, who might attack them. Thus, the user activates delayed Panic before opening the door and if he/she is sure that he/she is safe, he/she must cancel the function before expiration of the preset delay time. The function is activated and deactivated with an access module segment or a remote control with bidirectional communication.

Event reporting – reporting of all events to an alarm receiving center may ensure timely intervention of professionals. Information can also be directly sent to users by means of SMS messages. Direct reports are especially suitable for monitoring power supply failures, departures and arrivals of children or employees etc.

Special reports – are SMS messages, their text and meaning can be sent independently of the other functions. Sending a report can be linked to activation of a peripheral device. This way, the status of other devices or technologies with an error output can be monitored etc.

Remote control – authorized users may phone the system and use a voice menu to control or check the setting. Statuses of individual sections can be remotely controlled by means of defined SMS commands. SMS commands can also be used to switch programmable outputs on and off. They can also be activated by mere ringing (without establishing a call) from authorized phone numbers. In some countries the system can also be remotely controlled via web access at www.myjablotron.com (or also www.jablotron.com, with the MY JABLOTRON option).

MY JABLOTRON & MY COMPANY – is a unique web-based service that provides online access to your devices through the JABLOTRON Cloud. It is designed both for end users (My Jablotron) and for installation technicians (My Company). For more information about the registration of control panels in your country, please contact your distributor or an ARC.

Users' access rights – you can restrict a standard user to which part of the building monitoring system he/she can control. You can also set authorizations to open electric door locks or to switch on various appliances (by means of programmable PG outputs). The user proves their identity by applying a contactless chip or entering a code using a keypad. You can use a weekly schedule to limit the access of users outside pre-defined hours (e.g. shop assistants outside the opening hours etc.)

Administrator – (manager) a required number of administrators can be defined in the system, they can assign access rights to standard users. Different sections in the building may have different administrators. In the default setting there is one chief administrator of the system, who is always authorized to set access rights for all users (default code 1*1234).

Service technician – A special service code (default setting 0*1010). With this code the technician is authorized to adjust all features of the system. There may be more than one authorized service technician (if the service system requires it). The access of a service technician may be conditional on the administrator's approval. A special case of service authorization is a technician of the Alarm Receiving Centre (also referred to as 'ARC' in the texts). This technician can use his/her code (F-Link menu: Settings / Users / User authorization = ARC) to lock access to settings of the parameters of communication with the Alarm Receiving Centre.

F-Link (J-Link), system settings – To program the system, a computer with a 'Windows' operating system is necessary. The control panel can be connected to the computer locally using a USB cable or remotely from a computer connected to the Internet. All features are set using the computer and the F-Link program. This program is exclusively designed for trained technicians. Access to it cannot be granted to an administrator or end user of the system. For this purpose a simplified version of this program (J-Link) is designed, which gives system administrators access to some settings (user management, diagnostics, setting of scheduled events, reading the event history).

Service mode – (Engineers/Installer Mode) Is the status in which complete configuration of the system can be modified. Only a service technician (or an ARC technician) can enter the system into service mode. This can be done by using a keypad with an LCD display, local connection of the control panel and PC (with a USB cable) or remote access via the Internet. In the SERVICE mode the system is out of operation (it does not do any monitoring and does not provide any user functions, e.g. control of programmable PG outputs). The service technician may adjust a significant part of the system features during operation (ie. without having to switch the system over to the SERVICE mode).

Control of appliances – the system has programmable PG outputs that can be used to switch various devices on and off. An output can be controlled using the keypad keys, by activation of detectors, by an event in the system (e.g. setting a section), by using a SMS command, by ringing of an authorized user or through access from the MY JABLOTRON web application. Activation of a PG output can also be prohibited by a status of a section or sensor. Activation of a PG output can also be, besides optical indication, indicated acoustically (by a siren). Activation and deactivation of an output can be reported to users using an SMS or to the alarm receiving center by data transfer.

Door lock control – an electric door lock (connected to a PG output) can be opened by application of a chip or entering of a code using a keypad. Each user can be assigned to a door he/she is authorized to open. An output can be prohibited by a set section so there is no danger of somebody entering an area if it is guarded (set). Opening of a door can be recorded in the system event history (to provide information, who was present - where and when).

Schedule of automatic events (Calendar) – using the weekly schedule automatic guarding (setting / partial setting / unsetting) of sections and control of PG (activation/deactivation, blocking/unblocking) programmable outputs can be programmed. The yearly schedule can be used to set deviations from the weekly schedule (e.g. state holidays, personal holidays). The yearly schedule can be set for the current and next year.

Bus peripheral devices – are connected to the system using a bus cable (4 core). The bus ensures power supply as well as communication. Bus peripheral devices (detectors, keyboards, sirens etc.) require enrollment to a position (address) in the system for their function. However, there are also peripheral devices that are only connected and work without being enrolled on a position (some PG output modules, status indicators, bus separators etc.).

Wireless peripheral devices – to ensure communication, the control panel must be equipped with a radio module and all the wireless peripheral devices (detectors, keypads, sirens etc.) must be enrolled to a position (address) in the system. However, there may also be peripheral devices in the system that do not occupy system positions (they are used for reception only and do not report to the control panel), e.g. modules of PG outputs. To cover the area of a larger site up to 3 radio modules can be installed in the system (connected with a bus cable). The control panel regularly checks the activity of selected wireless peripheral devices (the Supervision parameter) and also checks current state of batteries. If communication with a wireless peripheral device is lost, the control panel indicates communication fault.

Intrusion detectors – a group of detectors designed to identify the intruder. It includes detectors of motion, opening and glass breaking if they have set reactions for releasing a delayed or immediate alarm and its variations (e.g. repeated or confirmed). Fire, flood or Panic reaction detectors do not belong to the group of intrusion detectors.

GSM communicator – provides connection to a mobile phone network and the Internet. Thus, the system may transmit data to the alarm receiving center (ARC). The communicator provides remote access to the control panel with the use of the F-Link (J-Link) program, reporting events to users, remote control of some functions of the system by phone (voice menu, command SMS, ringing and MY JABLOTRON mobile application). Control panels equipped with a 3G module enable faster data transmission (comparable to LAN) independently of voice services (during a call or ringing etc.).

LAN communicator – if included in the control panel, it provides Internet connection. It can also transmit data to an alarm receiving center (ARC) that is equipped with reception technology for the JABLOTRON protocol. If the control panel contains a GSM and a LAN communicator at the same time, you can select, which communication type will be primary and which will be used as backup. LAN communication will enable faster data transmission compared to GSM/GPRS.

Phone communicator – it can be installed in the control panel as a supplementary module for analogue PSTN phone lines. It is able to transmit data to the alarm receiving center in the standard phone formats (CID and SIA). It can also report events to users (by calling) and supports the system remote control using the voice menu. The phone module is usually used as backup for the GSM or LAN communications. The module can also communicate to a phone line simulated by radio transmitter.

Section – a system can be divided into parts sections which can be set and unset independently. E.g. in a family house system can guard the ground floor and garage at night, while the bedrooms are accessible. A section may also be a separate apartment in an apartment building or a store in a shopping gallery. Thus, the users may feel that they control their own alarm, but they actually share one system.

Common section – is a separate section designed to be superior to others. There are two application options:

1. Common section controlled by the system. It is set automatically (the source of setting is the control panel) if all the sections that are assigned to it are set.

Example: in a building there are 4 different offices, each of them being a separately controlled section (1 to 4). The fifth section is a corridor that is set as common for all the offices (sections 1 to 4). This means that the corridor gets set automatically by setting the last office, i.e. when all the separately controlled offices are set. When the first office is unset, the common section will be unset, too.

2. Common section as controlling other sections. Setting the Common section will automatically set all the other sections assigned to it.

Example: there are 3 sections in a family house. If the sections are Common (superior), House and Garage, by setting the Common section, the house and garage will also set automatically.

Warning: *in this setting method no active detectors are checked and thus the system will be set in spite of the “do not set with an active element” function being activated”.*

Note: If all sections included in a common section in a building are set, they can be completely unset via the common section. However, if one of the sections contained in the common section has been unset separately, the remaining sections (which are still set) cannot be unset via the common section. These sections must be unset separately. For collective setting or unsetting it is more suitable to use the Common segment function.

Common segment – this is a function of an access module or keypad that allows you to use one segment set for the selection of a common segment A or B (there may be up to two) to control other present segments of the particular keypad at the same time. This function can only be used to control sections and it only becomes available when at least three segments are used. The common segment function replaces the Common section (as described above) with advantage that if there is a section that must not be set with active detectors, such a section will not get set.

Partial set – is adjustable for each section separately. If partial set is on, the system does not react to intrusion detectors with the parameter “internal” set (i.e. monitor the indoor space). Thus, for example movement is allowed in the residential part of the house, but the system reports entry through a door or motion in the garage. If a section is set completely, it reacts to activation of all detectors that are assigned to it.

Disabling a detector – if necessary, a system administrator can disable detectors that belong to his/her section (sections). Detectors can be disabled on two levels. These levels are only displayed in the computer (F-Link, J-Link): Yellow level – it is only activation and tampering of the peripheral device that is disabled (the peripheral device is enabled to control the PG output) and the red level disables the complete peripheral device (activation, tampering and all actions). From a computer you can use the red level to disable: a peripheral device, section, user, PG output, scheduled event in the “Disable” column. You can use a keypad with a display to only disable peripheral devices and users, on the yellow level only. Peripheral devices (e.g. Panic buttons) that are used to release a Panic cannot be disabled.

Setting methods – the setting authorization function can be configured to 4 levels, see chapter 8.9.

Event history – the system records occurring events in its memory. The contents of the memory can be viewed from the F-Link (J-Link) SW using the “Event history” key. The beginning of an event is usually registered as Activation (status of a peripheral device, fault, tampering etc.) and the end of an event as Deactivation. Statuses of sections are registered as Set / Unset, alarm statuses as Alarm / Alarm Delay Expired, Alarm Silencing or Alarm Cancellation.

ID	Time	Source	Section	Event	Channel
59	9/4/2014 9:59:32 AM	Detector 11: Living room	2: Section 2	Instant activation	11: Device 11
60	9/4/2014 9:59:32 AM	Detector 11: Living room	2: Section 2	Instant Deactivation	11: Device 11
61	9/4/2014 9:59:32 AM	Detector 11: Living room	2: Section 2	Instant alarm	11: Device 11
62	9/4/2014 9:59:33 AM	Detector 4: Kitchen window	1: Section 1	Instant activation	4: Device 4
63	9/4/2014 9:59:33 AM	Detector 4: Kitchen window	1: Section 1	Instant alarm	4: Device 4

Magnet activation and deactivation

Alarm Beginning and End

Some events may only have an activation record (e.g. New Picture, Panic Alarm, Configuration Change).

microSD memory card – the control panel uses a microSD card as a memory medium. After connecting the control panel to a PC using a USB cable two drives will be displayed in the File Manager. FLEXI_CFG and FLEXI_LOG. The capacity of the card is 2GB, or it can be higher.

FLEXI_CFG – with hidden directories and files that contain system settings. Do not alter the contents of the drive, there is a risk of loss of functionality of the system. This drive also contains the J-Link directory with the J-Link.exe program, which may be run and used by the System Administrator.

FLEXI_LOG – contains the PHOTO directory and the FLEXILOG.TXT file, where all system events are recorded. Selected data from the file can be viewed in F-Link / Event History The PHOTO directory is used to store IMGnnnnn.JPG files that have been sent to the control panel from camera devices (e.g. from motion detectors with a JA-120PC and JA-160PC camera). Both file types (txt and jpg) are stored in an encrypted form and their contents cannot be normally viewed with text and picture viewers. Their contents can only be viewed if the F-Link (J-Link) program is also run in the PC at the same time and the authorization level Service or Administrator is confirmed by entering of the respective code. Events are recorded in the FLEXILOG.TXT file up to the size of 10 MB, then the file is renamed to FLEXILOG.OLD and a new file is created.

SIMLock – a function of the control panel that can be activated by the respective ARC on registration of the control panel to My Jablotron. If this function is activated, then after replacement of the used SIM card with another one the system will automatically delete the ARC setting (the registration of the system to My Jablotron will have to be renewed). This step is used to prevent undesired transmission of information to the ARC from a different card than the one that was registered for it and from which the setting was done.

1.1 Access codes and their default settings

The authorization to control the system with a keyboard or to use the F-Link (J-Link) program must be required by entering of a numeric code. The code is entered in the following format:

0*nnnn to 300*nnnn

where: **0 to 300** is the sequential number (position) of the user (called prefix)

***** is a separator

nnnn is a 4-digit code

The control panel is delivered with 2 default codes: **Service: 0*1010**

Administrator: 1*1234

The default codes are filled in automatically by the F-Link program, so from the first activation until a code change the program does not request them. However for security reasons immediately after installation is finished, it is imperative to change all default codes. If both codes are not changed, when the Service mode is exited an SMS is sent to the service phone number, reporting “Warning, default codes, Section 1” (it can be canceled in the Parameters “Default codes warning”). You will find details of code setting in chapter 8.6.1

For systems with a smaller number of users the prefix can be disabled and the system can then be controlled with four-digit codes only. The prefix can be disabled in the Initial setup tab in F-Link. In that case the Service and Administrator codes are set as follows:

Service: 1010

Administrator: 1234

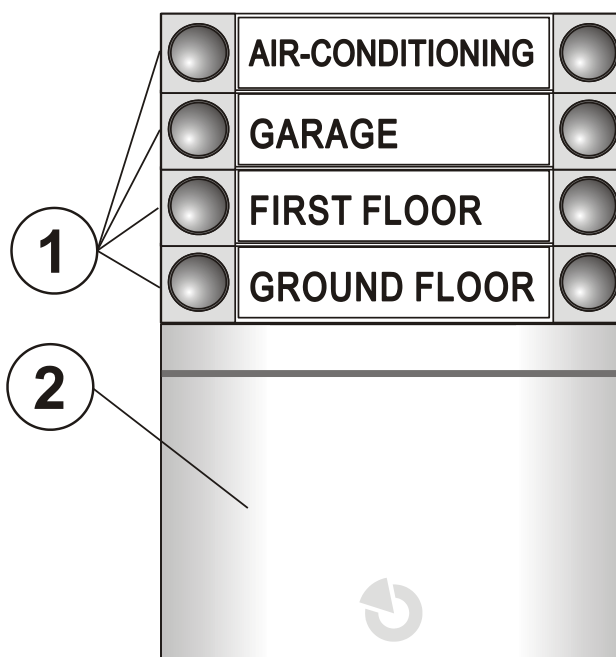
Warning: When the Prefix is disabled, the codes will always be changed to the default values (1010 and 1234) and at the same time all the access codes and RFID chips will be deleted. When the Prefix is enabled, all the codes and chips will remain set and the prefixes will only be added.

2 System size

The system range can be set with regard to the building size and user needs.

2.1 External size

The external size of the system as seen by its users can be defined by the keypad assembly.



1 – control segments; 2 – access module

Control segment - A keypad can have up to 20 control segments. Each segment has two keys (OFF – on the left) and ON – on the right). A segment is used to control a section (Set/Unset), to control appliances or to call assistance. A segment can also be used to indicate the status of a section or PG output (it can indicate the active status both with a red LED as standard and with a green LED - inverted indication). It can be used as a “Common Segment” for simultaneous control of more sections.

An **access module** verifies authorizations of users. The authorization method is determined by the module selection (RFID chip reader, keypad + RFID reader, keypad with a display + RFID reader). The module also enables opening of a door lock by mere application of a chip (code entry). Modules are available in a wireless and bus version.

Configuration of the control keyboard is described in chapter 8.5.4.

2.2 Internal size (system range)

The number of peripheral devices, sections, users and programmable outputs is set using the F-Link program. You can create a system both for a small apartment and for a large building with independently controlled sections. Setting details - see chapter 8.4

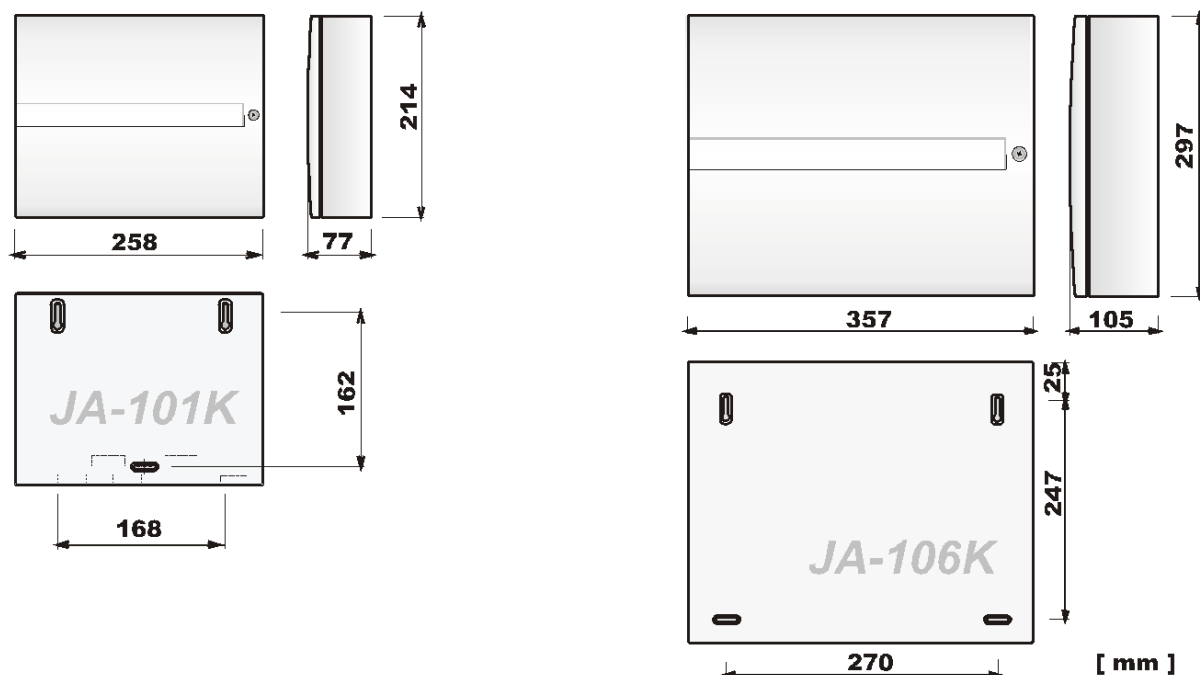
A screenshot of the 'Initial setup' window in the F-Link program. The window has a blue title bar and a light blue background. It contains several configuration options: 'Default = English' (a dropdown menu), 'Language' (a text field), 'Number of sections' (a numeric field with value 8), 'Number of devices' (a numeric field with value 50), 'Number of users' (a numeric field with value 50), 'PG outputs' (a numeric field with value 16), and 'System name' (a text field with value 'JABLOTRON 100'). There are 'Activate' and 'OK' buttons at the bottom right.

3 Types of control panels, utility parameters

In the JA-100 system 2 types of control panels are available. Their basic differences are summarized in the table below.

Tab. 1

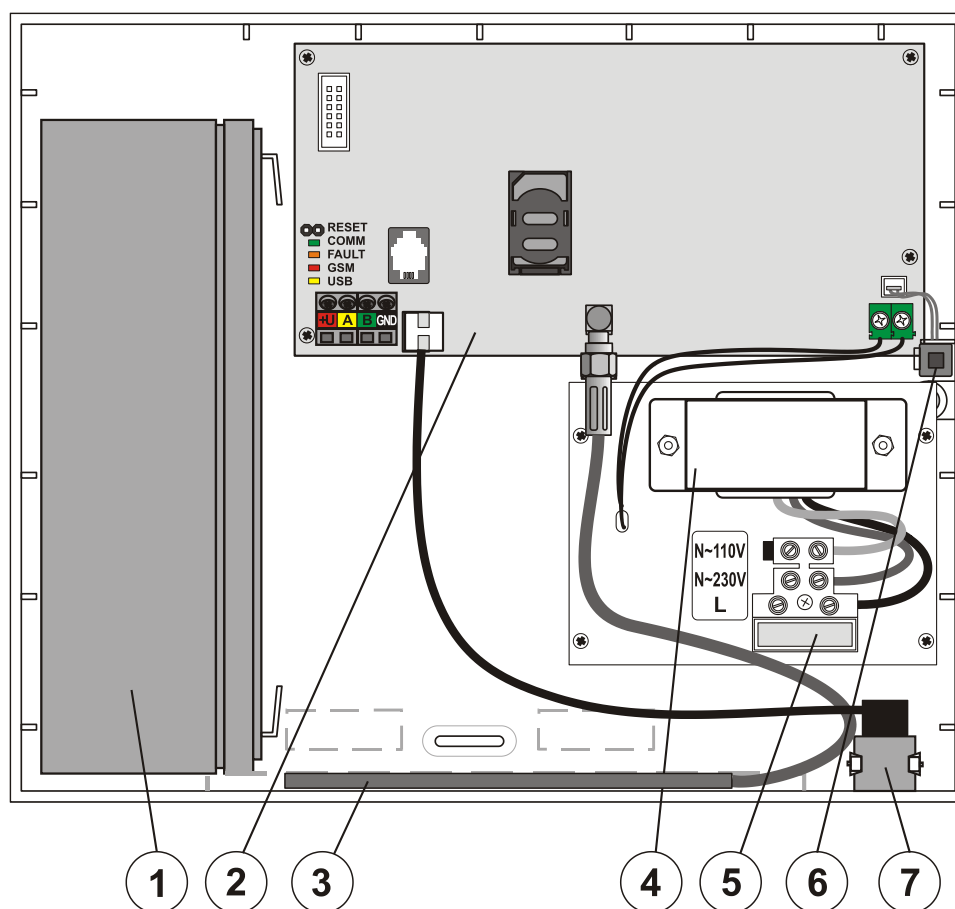
Feature / Type	JA-101K	JA-101K LAN	JA-106K	Note
max. number of peripheral devices	50	50	120	JA-106K max. 60 peripheral devices per 1 terminal board
max. number of users	50	50	300	
max. number of independent Sections (Areas/Partitions)	8	8	15	
max. number of programmable outputs	16	16	32	
GSM/GPRS communicator	yes	yes	yes	
IP LAN (Ethernet) communicator	no	yes	yes	
max. number of radio modules	3	3	3	
SMS reports	up to 8 users	up to 8 users	up to 25 users	
voice reports	up to 8 users	up to 8 users	up to 15 users	
recommended 12V backup battery	2.6 Ah	2.6 Ah	18 Ah	
max. continuous current consumption available for devices from the control panel	125mA	85 mA	1200 mA	for 12h backup supply from the recommended battery, the figure takes into account the internal consumption of the control panel
max. possible short-term current demand	1 A	1 A	2 A	max. for 5 min
bus terminal board	1+ RJ connector	1+ RJ connector	2+ RJ connector	The JA-106K terminals are isolated, i.e. short-circuiting of one branch does not have any impact on the other branch The RJ connector is only used to connect the radio module directly in the control panel
Max. bus cable length	500m	500m	2 x 500m	JA-106K makes it possible to connect 2 separated branches



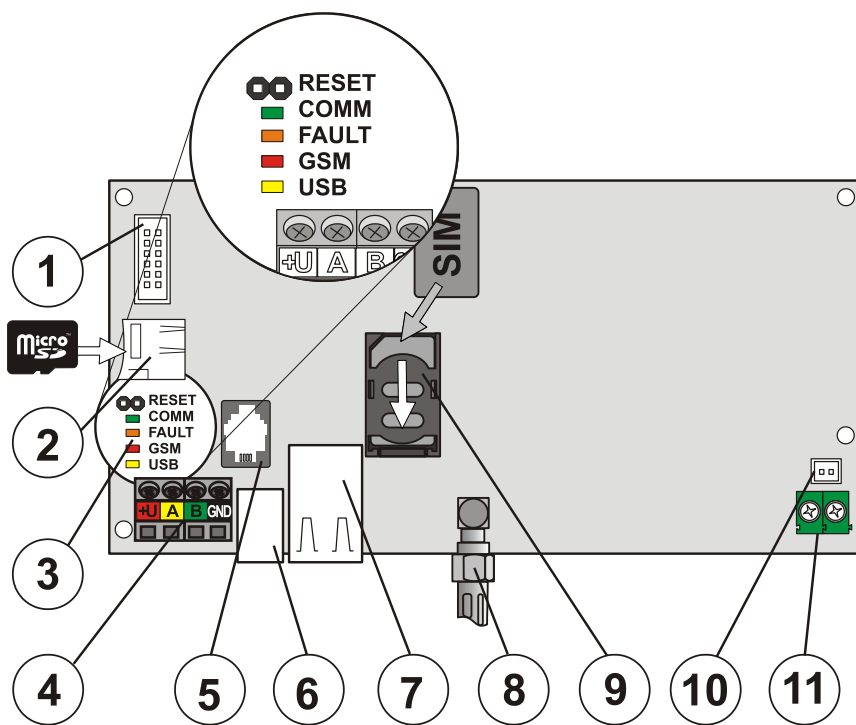
You will find more technical specifications in chapter 15

3.1 Description of JA-101K (LAN) / JA-101KR (LAN)

The JA-101K (LAN) control panel is designed for **small bus systems** (the limitation by the output of the power supply source) and for **medium-sized systems** with wireless communication (JA-101KR-xxx). The variant with R is supplemented with a radio module (JA-110R) for signal reception from wireless peripheral devices.



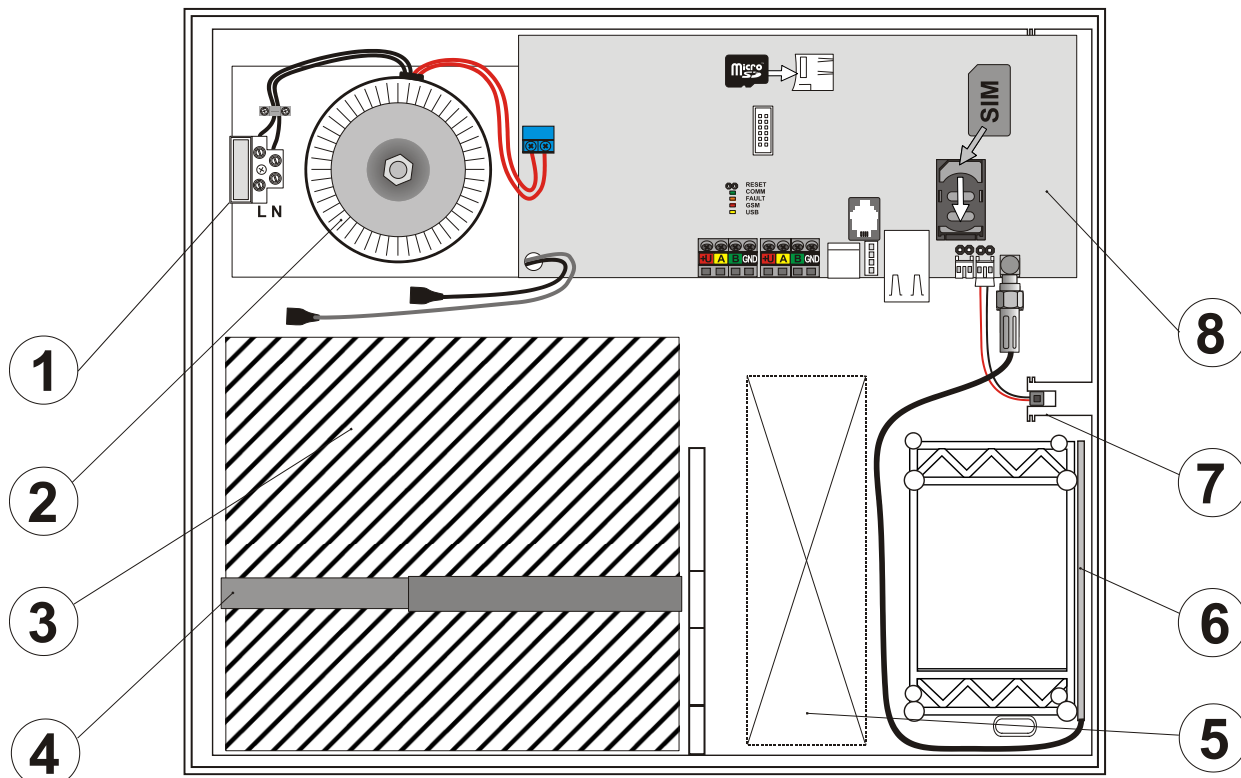
1 - backup battery 2.6 Ah; 2 - control panel board; 3 - GSM antenna; 4 - mains transformer; 5 - mains supply terminal board; 6 - tamper switch of the housing; 7 - USB connector for PC connection



1 - connector for auxiliary modules (tel.communicator, voice communicator module etc.); 2 - microSD card holder; 3 - signal lamps with a RESET jumper; 4 - bus terminal board; 5 - bus connector for internal JA-110R; 6 - USB cable connector; 7 - LAN connector (in the LAN version only), 8 - GSM antenna connector; 9 - SIM card holder; 10 - Panel Lid Tamper pins; 11 - power supply from the transformer

3.2 Description of JA-106K / JA-106KR

This control panel is suitable for **medium-sized and large bus as well as wireless systems**. The variant with R is supplemented with a radio module (JA-110R) for signal reception from wireless peripheral devices.



1 - mains supply terminal board with a 400 mA fuse; 2 - mains transformer; 3 - backup battery; 4 - attachment strap of the backup battery; 5 - cabling space; 6 - GSM antenna; 7 - Panel lid tamper pins. Including spare tamper pins; 8 - control panel boards

3.3 Signal lamps on the control panel board

All versions of control panels feature the following signal lamps on the main board:

COMM	green	flashing during operation of the communication bus
FAULT	yellow	indicating any error in the system (more information provided by F-Link or keypad with a display)
GSM	red	permanently lit after power supply connection when searching for a GSM network (for 1min. at the most) off if GSM is OK and no communication is going on flashing in 1s intervals if no GSM network is available flashing during communication, with a short repeated flash it indicates parameter setting: GSM communicator off
USB	yellow	indicating USB connection to a PC

4 Before system installation



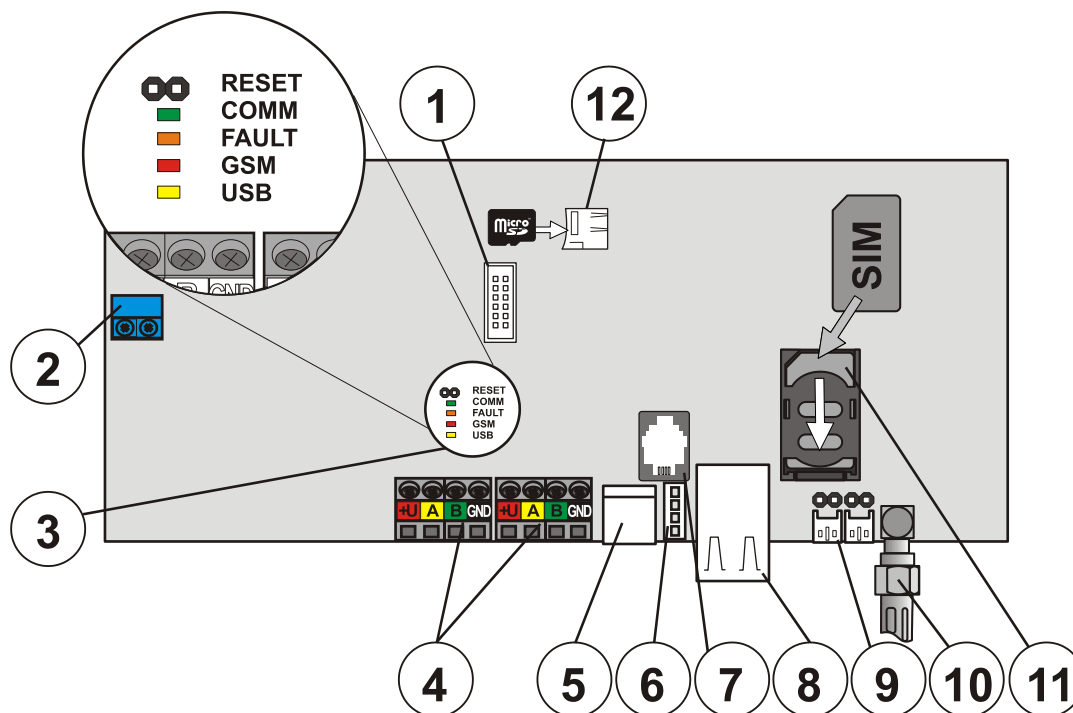
Select a hidden place for the control panel (inside the protected area) where mains supply is available. We recommend to protect the room with the control panel by a detector with immediate reaction. There must be good GSM signal reception in the location (check with a phone). Caution, if a possible intruder knows where the control panel is located, there is a risk of the system being damaged without sending information about the intrusion.

The mains supply of the control panel may only be installed by a person with the required electrical qualifications. The power supply of the control panel has double safety separation of the circuits. No protective conductor is connected.

The control unit JA-101K (-LAN) provides power supply terminals to select from 2 type of power supply voltage networks: ~230 V / 50 Hz and ~110 V / 60 Hz. According to the type of power supply voltage system, the correct connection terminal and the corresponding fuse must be used in comply with chapter no. 15 Technical parameters.

During the installation and connection of the bus components of the control panel all the power supply of the control panel must be completely off.

1. First consider the arrangement and target setting of the system. Clarify the required control method with the customer. It is recommended to prepare design documentation for a more complex system.
2. When setting up the elements follow their manuals, the general design principles of fire alarm systems and instructions provided by the manufacturer during the certification training. If you have any unclear points, phone the Jablotron consultant. **The manufacturer declines any liability for damage if the system is installed or set improperly.**
3. Prepare power supply of the control panel – use a suitable cable with double insulation and cross-section of 0.75 to 1.5 mm². Voltage surge protection means are recommended to apply to the control unit mains supply. **Do not connect the power supply for the time being.**



- 1 - connector for auxiliary modules (phone communicator, voice communication module etc.);
 2 - terminal board of power supply from the transformer; 3 - signal lamps with a RESET jumper;
 4 - two independent bus terminal boards; 5 - USB connector of the housing cable; 6 - USB connector;
 7 - bus connector for the internal JA-110R; 8 - LAN connector (Internet);
 9 - connectors of tamper switches of the housing; 10 - GSM antenna connector;
 11 - SIM card holder; 12 - microSD card holder

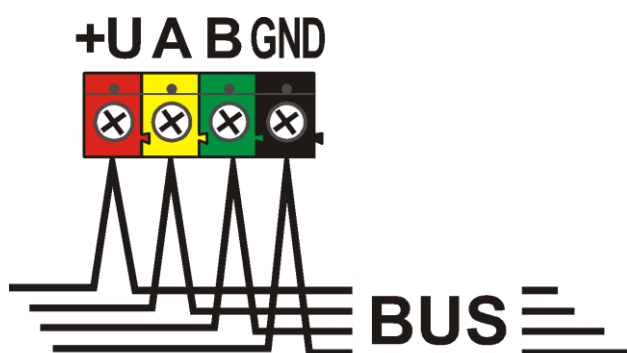
5 Installation of bus peripheral devices

Connect bus elements of the JA-1xx Jablotron series to the system. You can only connect an element of another manufacturer by means of a suitable connection module (e.g. JA-111H, JA-116H, JA-110M, JA-118M etc.). If an element of another manufacturer is used, the manufacturer cannot guarantee proper function.

1. During the connection of any bus modules the power supply of the control panel must be completely off.
2. Respect the installation manuals of individual peripheral devices.
3. The bus cable must be installed inside the area that is protected by the system. If the cable is outside the protected area, this part must be separated with a JA-110T bus isolator.
4. For line branching use a JA-110Z bus splitter
5. To boost long bus lines where the electrical current load of the cables causes high voltage losses or the electrical current of the basic power supply of the control panel is no longer sufficient, you can use a JA-120Z backed-up bus booster that separates and isolates the entire bus and also boosts the power supply of bus peripheral devices downstream of the booster, incl. backup with a backup battery in case of a power supply failure.

5.1 JA-100 bus

The bus of the JABLOTRON 100 system consist of four conductors (4-core) and is connected to four terminals identified: +U (red) positive supply voltage pole, A (yellow) data communication, B (green) data communication and GND (black) negative supply voltage pole.



Bus terminal board

Tab. 2

terminal	color	note
+U	red	positive power supply pole – can only be used to supply peripheral devices of the JABLOTRON 100 series
A	yellow	data A
B	green	data B
GND	GND	common conductor

5.2 Bus cable

Tab. 3

Resistance of the pair of power supply conductors (there and back)		
CC01	resistance of the pair per 1 m	0.0754 Ω
	resistance of the pair per 10 m	0.754 Ω
	resistance of the pair per 100 m	7.54 Ω
CC02	resistance of the pair per 1 m	0.1932 Ω
	resistance of the pair per 10 m	1.932 Ω
	resistance of the pair per 100 m	19.32 Ω
CC03	resistance of the pair per 1 m	0.070 Ω
	resistance of the pair per 10 m	0.705 Ω
	resistance of the pair per 100 m	7.05 Ω

Connect bus peripheral devices using a Jablotron CC-01, CC-02 or CC-03 cable or equivalent.

The Jablotron CC-01 cable is designed for the main bus line, or the connection of elements with a high consumption (siren) or remote elements. The cable has 4 conductors (the colors corresponding to the bus color). The power supply conductors (black and red) have a bigger cross-section of the core (0.5 mm²) as compared to the communication conductors (0.2 mm²). The cable is supplied in packs (1 pack - 305 m).

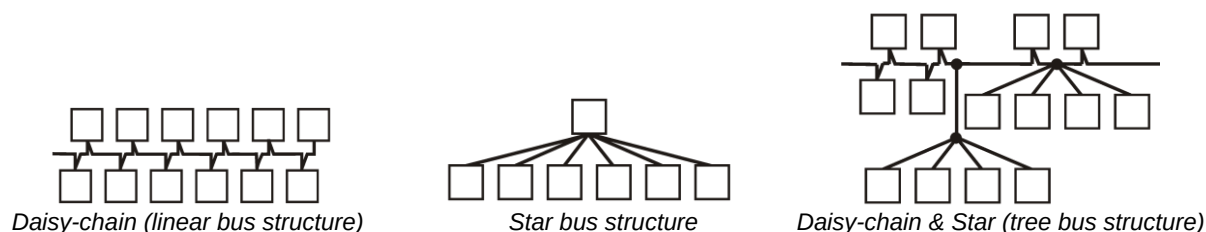
The Jablotron CC-02 cable is designed for branches from the main bus line or for the connection of elements with a low consumption (detectors) or for short distances. The cable has 4 conductors (the colors correspond to the bus color). All the conductors of the CC-02 cable have the same core cross-section (0.2 mm²). The cable is supplied in packs per 305 m.

The Jablotron CC-03 cable is designed for the main bus line, or the connection of elements with a high consumption (siren) or remote elements. The cable has 8 conductors (8core) that are divided as follows: The power supply conductors (red and black) have a bigger cross-section of 0.7 mm², the communication conductors (green and yellow) for the system bus and auxiliary conductors (brown and gray, white and blue) have the cross-section of 0.3 mm². The auxiliary conductors can be used as loops of magnetic detectors or tamper contacts. The cable is supplied in packs per 250 m.

5.3 Bus layout

When interconnecting individual parts of the system – detectors, keypads, sirens, output modules etc. you can route the bus cable in the shortest possible direction regardless of the system parts that the used elements belong to. The bus can branch as necessary. It can have a linear (Daisy-chain), Star or tree structure (Daisy-chain&Star). In real-life installation a combination of these three options is usually the most convenient choice.

Examples of possible wiring layouts of the bus:

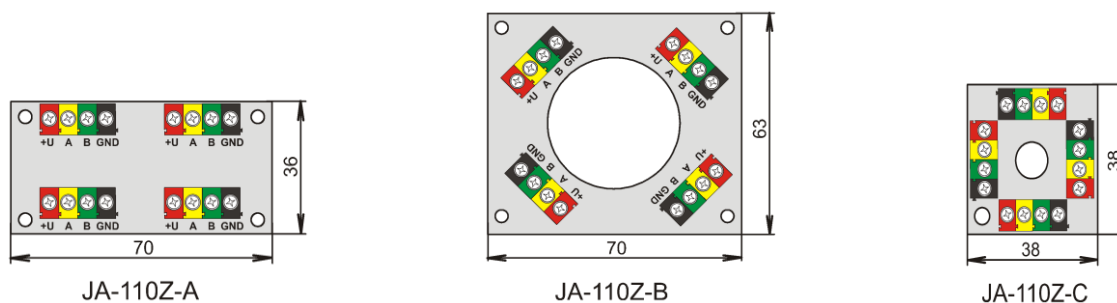


The bus cable **must not** be connected in such a way to create a **closed loop** of any conductor (the ends of individual branches must never be interconnected and the common GND conductor must not be interconnected either).

5.4 Bus branching and splitting

For branching and splitting of the bus you can conveniently use a **JA-110Z bus splitter**. It is produced in three variants, JA110Z-A, JA110Z-B and JA110Z-C. It contains four connection points of the JA100 bus, all the terminals of the same color are interconnected. Variants A and B are prepared with their dimensions for installation in the JA-190PL versatile assembly box. Variant C is prepared with its dimensions for installation in a standard KU-68 electric installation box.

Variants of interconnection terminal boards:



5.5 Bus length and numbers of connected devices

The maximum length of one bus without boosting (separation) is 500 m. The length is calculated as the sum of the length of all the cables between all the connected elements. The JA-106K control panels have two separate bus branches, i.e. the total length of both the buses can be 2x500 m. You are recommended to distribute its addressed bus peripheral devices equally between both the buses, i.e. maximum 60 peripheral devices per either bus.

The number of connected bus devices is limited by the capacity of the backup battery of the control panel. To meet the standard for security level 2, in case of a 230V mains failure the system must reliably work for at least 12 hours being powered by the backup source. Thus, the total consumption of all the bus elements must not exceed the maximum continuous consumption of current from the control panel, see chapter 5. To calculate the total continuous consumption of connected elements summarize their **backup consumption** (it is specified in the manual or use the summarizing table, see 13.1.).

Another limiting parameter for the max. length of a bus can be the voltage loss along the line (shown clearly by the System Diagnostics in F-Link).

5.6 Calculation of line losses

Voltage losses along the line depend on the line resistance, which results from the used conductor (cable) and consumed current. Current consumption values of elements can be found in individual manuals. These values can be used to calculate the line voltage loss and to find out whether there will be sufficient voltage available for the last installed device. The calculation is based on Ohm's law $U = I \cdot R$

Tab. 4

CC-01 cable (power supply pair)		CC-02 cable		CC-03 cable (power supply pair)	
total current	max. length	total current	max. length	total current	max. length
50 mA	400 m	25 mA	200 m	70 mA	400 m
100 mA	300 m	50 mA	150 m	140 mA	300 m
200 mA	150 m	100 mA	100 m	280 mA	150 m
300 mA	100 m	200 mA	50 m	420 mA	100 m
500 mA	50 m	300 mA	30 m	800 mA	50 m
The data in the table assume the worst possible case i.e. that the total consumption is at the end of the cable.					

In the normal operation state the voltage of the +U and GND terminals is nearly 14V. For the calculation consider a situation when the control panel is only powered by the battery and the voltage approximates 12V. A higher voltage than the minimum allowed voltage of 10V must be available for all the devices. For proper functioning of the connected peripheral devices the **maximum allowed voltage loss is 2.0 V**.

Unexpected voltage loss can be caused by terminal connections with a poor contact (transitional resistances).

Voltage losses of individual components can be approximately verified using the F-Link program in the Diagnostics card for addressed elements. Non-addressed elements (e.g. output modules) do not provide this possibility; they must be checked with a measuring device.

In a real-life installation we always recommend you to verify the calculation and connection by terminal measurement. In the case of high-consumption elements (siren, keypad, relay output) carry out this measurement during increased consumption periods (active siren, backlit keypad, engaged relay).

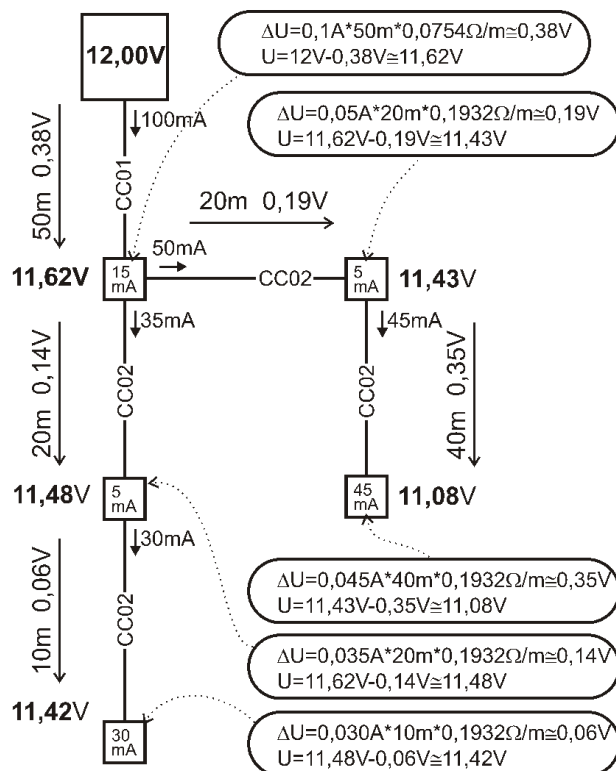
The limitations specified in the table are generally valid.

For the calculation of the total load of cables calculate the **consumption for cable selection** (you will find it in the manuals of peripheral devices or you can use the summarizing table in chapter 13.1).

5.7 Example of a voltage loss calculation:

1. Find the values of current consumption of individual peripheral devices (in the technical parameters of the products - current consumption for cable selection).
2. Get information about cable lengths. You need to know the cable length as exactly as possible from node to node.
3. Draw a plan with cable lengths and consumption of individual branches.
4. Calculate the electric current flowing through individual branches.
5. Use the assumed line length and the estimated values of current of individual branches in accordance with tab. 4 to compare suitability of cable selection.

Deduct individual losses from the supply voltage to determine the voltage at the line end. Always consider the voltage of 12 V from the control panel during mains supply failure operation.



5.8 Example of calculation of consumption of an actual system

The table presents an example of a small system with 14 elements. The total idle consumption in the backup mode is 78 mA. Thus you can use the JA-101K(LAN) control panel, which enables maximum permanent loading of 125 mA/85 mA. For larger bus systems use the JA-106K control panel

Tab. 5

Element	Description	no. of pieces	Consumption in the backup mode
JA-114E	control panel 15 mA + 3 x 1mA segments	1	18 mA
JA-110M	module of magnetic sensors 5 mA	2	10 mA
JA-110P	PIR motion detector 5 mA	6	30 mA
JA-110ST	fire detector 5mA	2	10 mA
JA-110A	internal siren 5 mA	1	5 mA
JA-111A	external backed-up siren 5 mA	1	5 mA
TOTAL			78 mA

The JA-101K(LAN) type is more suitable for wireless systems where peripheral devices are powered by batteries. When planning the configuration of a wireless control panel do not forget to include the radio module(s) in the consumption.

5.9 Bus isolation

Parts of the bus routed in unprotected areas must be protected from possible short-circuit or another attempt to disable the system by isolation using a JA110T bus isolator. This module can be incorporated in a JA-190PL versatile installation box. The isolator also improves the signal quality of the bus. It is connected to and powered by the bus, it does not occupy any position in system and makes it possible to extend the maximum bus length up to 500 m.

An application example may be routing of the bus to relay modules controlling for example blinds or a siren to which the bus is routed in such a way that it could be attacked or disabled. You will find more information in the JA-110T manual.

5.10 Use of existing cabling in refurbishment projects.

- For the installation of new lines you should preferentially use the CC-01, CC-02 and CC-03 cables.
- In case of connection to cables of the SYKFY 3x2x0.5 type the data conductors of the bus (A, B) must be connected to one selected twisted pair. For the +12V power supply and GND you can connect the respective conductors together in the remaining two pairs (doubling within a pair).
- In case of connection to cables of the UTP the data conductors of the bus (A, B) must be connected to one selected twisted pair. For the +12V power supply and GND it is suitable to connect together (double) the respective conductors of the remaining three conductor pairs.

If a shielded cable is used, do not connect the shield to the bus terminals! We recommend to bond all the shields (tinning) in the control panel to an auxiliary terminal and not to connect this bonding anywhere else. Also leave the other end of shielding at the peripheral device side unconnected.

6 Use of wireless peripheral devices

In the JA-100 system you can use wireless peripheral device of the JA-15x, JA-16x and JA-18x series. The control panel must be equipped with at least one JA-110R radio module.

When installing individual peripheral device observe the instructions in their manuals.

6.1 Installation of a JA-110R radio module

1. The module can be placed in the control panel cover or it can be installed elsewhere in the building and connect it with a bus cable. If the module is installed in the control panel cover, connect it to the internal bus connector using a flat cable equipped with RJ connectors.
2. If the control panel is installed in a place with poor GSM signal reception, the communication GSM module increases its transmission power, which can have a negative impact on the radio module range. In such a case you are recommended to place the radio module outside the control panel, namely at least 2 m from it, where it will not be negatively influenced anymore and will have higher-quality radio reception from the peripheries, which will allow for longer ranges and consequently installation distances.



The bus connector on the control panel board is exclusively designed for the connection of a radio module installed inside the control panel housing.

3. You can cover a larger area with radio signal by installing up to 3 radio modules in different places (e.g. each one on a different floor). Signal from a wireless peripheral device (hereinafter peripheral) can be received by more radio modules. The control panel communicates in a cycle with individual radio modules, so it will get information sent by a peripheral from the radio module that was the first to receive an intact signal and reacts to it. Then, it will not get the same information from the other radio modules any more even though it was received with a stronger signal. Thus, it may happen that signals from the same unidirectional peripheral may exhibit quite different data in F-Link / System settings / Diagnostics during repeated measurements depending on from which module the signal was taken. As regards to bidirectional peripherals, the control panel “reserves” the once used channel (communication with the first radio module) and after that it communicates with the particular peripheral via this radio module only (shown in Diagnostics, the Channel column) until the peripheral stops responding. Then, it looks for the connection signal in the other radio modules. If you need to verify the quality of connection of individual peripherals to individual radio modules, in the Peripherals menu you can switch off (switching off a peripheral) all the other radio modules except the measured one and check the connection. By repeating this procedure with another radio module enabled and the other modules disabled you can get comprehensive information about the connection quality. See also the Radio module paragraph in chapter 8.13
4. Install a radio module vertically on a wall. It must not be situated near objects that shield or interfere with communications (metals, electronic devices, cables, pipelines etc.).
5. After switching the system on you must **enroll the radio modules first**. It is only then that you can enroll wireless peripheral devices, see chapter 6

7 Switching the system on

1. Check connection of the bus cables.
2. Verify whether a SIM card has been inserted into its holder on the control panel board.
3. Verify whether a microSD card is present in its holder on the control panel board.
4. Check whether the mains supply cord is correctly connected to the control panel and that the supply cord is firmly fixed.
5. Insert a battery in the control panel and fix it in the housing (using self-sticking blocks or a strap)
Caution - the backup battery is delivered in the charged condition, it must not be short-circuited!
6. Connect the supply leads of the battery.
7. Switch on power from the mains and check the signal lamps on the control panel:
 - a. the green LED starts flashing (bus function).
 - b. the red LED flashes – logging in to the GSM network.
 - c. the red GSM LED goes out – the control panel has established connection to the mobile network.
 - d. the red LED permanently lit – the control panel has not logged in to the GSM network.
8. When the connected bus peripheral devices start flashing yellow, assign them to the system, see chapter 5.
9. Perform configuration of the keypads, see chapter 8.5.4.
10. Set the required functions and test the system.

8 Setting the system through F-Link

The JABLOTRON 100 system is exclusively set using a computer, through the F-Link. F-Link gets the current version of the program from version 1.2.0 through updates from the Jablotron server or after the login it can be downloaded from the MY JABLOTRON web interface at www.myjablotron.com.

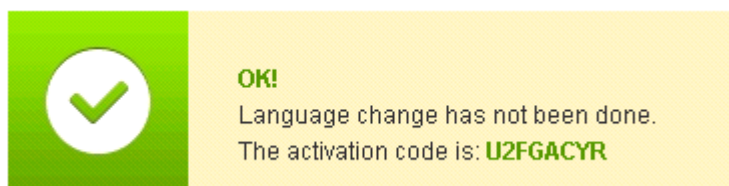
Immediately after opening the initial window for connection selection the F-Link program can be switched over to the desired language environment by clicking on a language change icon (flag). You can change the language any time later. The initial window offers the following options:

1. **Connect locally** – for the connection of the computer to the control panel a USB cable is necessary (with A-B connectors).
2. **Connect remotely** – offering selection from a file database allowing you to establish a remote connection. To establish remote communication with the control panel the computer must have access to the Internet and the used SIM card in the control panel must have active GPRS data transmission. For trouble-free connection other requirements must be met as e.g. enabled remote configuration in the control panel, proper registration code, service code, but also sufficient GSM signal in the control panel location.
3. **Offline settings** – provide access to the setting data of the control panel. Here, you can e.g. get to the list of peripheral devices or records of the last battery replacement etc.

The F-Link program can also be used to change the language of the control panel for communication with users. The language does not only refer to displayed texts on the LCD screen or SMS messages sent to mobile phones of users, but also the voice menu of communicators that communicate with the user. By changing the language of the control panel you will delete all the texts in the system and therefore this selection should be made as the first step before the installation and assignment of names to peripherals, sections or users.

The Jablotron system is delivered ex works with the communication language option set to “English” with the possibility to select “Czech”. However, other language options of the control panel are limited by the narrower choice of language(s) per the country the control panel is designed for. Installation company that is registered in the MY JABLOTRON web service www.myjablotron.com can request the “Activation key”, which will be bound to the unique equipment registration code. The “Activation Key”, will extend the available choice of languages designed by the manufacturer for the particular market. The Activation Key can be obtained in three ways:

1. From the web interface, which is only accessible for trained installation technicians:
 - a. Login to the MY JABLOTRON web service www.myjablotron.com
 - b. Open the MY COMPANY section
 - c. Select the Activation Codes service
 - d. Click on the item + Get new activation code
 - e. Enter the Registration Key of the control panel and select “Send”
 - f. If an offer of more languages is displayed, select the requested languages and complete the selection with “Send”



- g. Make note of the Activation Code displayed in green and enter it in F-Link

The list of generated Activation Codes will remain saved at the website for possible further use.

[< My COMPANY](#)

Activation code

 [Settings](#)

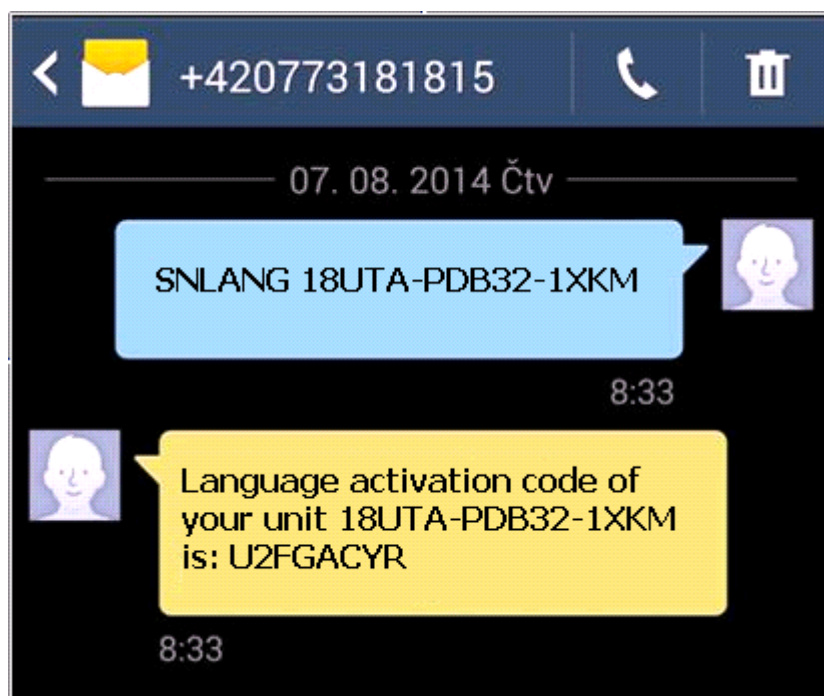
[+ Get a new activation code](#) 

Do you know you can get language activation code from anywhere by sending SMS **“SNLANG REG-KEY”** to telephone number **+420 773 181 815**?
If you want to also keep a record of control panels with activated languages (where language was activated through SMS message), you may optionally authorise your phone number in your accounts settings - Authorised contacts.

13.08.14 (16:06)	18UTA-PDB32-1XKM	CS, EN, FR	U2FGACYR	+420777775032
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2. If the installation technician cannot access the Internet (the MY JABLOTRON web service) at the moment, the Activation Code can be requested with an SMS.

An SMS message in the format: **„SNLANG_registration code“** can be sent to the phone number **+420 773 181 815**. An answer with the activation code will be sent shortly after that. The activation code may contain 8 to 14 numerals and case-sensitive letters.



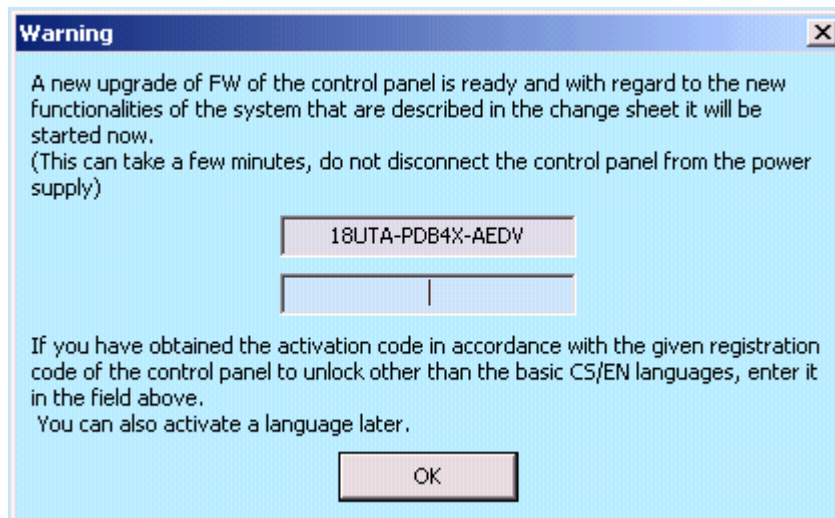
Example of sending a request using an SMS

The received activation code should be entered in F-Link in the Initial setup tab, using the Activate button.

3. Getting the Activation Code from your distributor. When asking for the Activation Code you will need to provide the registration code of the control panel. Depending on country, the activation code can be also found on the package box of the control panel.

8.1 Starting the F-Link program and setting the system size

1. Connect a computer to the control panel using a USB cable – the computer will initialize the new USB device (it may take a longer time if the control panel is being connected for the first time).
2. After the connection your computer will display two newly found drives: FLEXI_CFG and FLEXI_LOG. If displayed, you can close the window.
3. Start the F-Link program. If the control panel has default settings, the Initial setup tab will open and the system will automatically get into the Service mode. If the control panel has been configured before (its service code has been changed), the program will request entry of the code – it should be entered in the format **0*nnnn** (the default setting of the service code is 0*1010). If the prefix is disabled (in the Initial setup tab in F-Link) it is nnnn (1010). You can use the **Remember** option to make the program save the code until closing of the database. Use the **Display Code** option to check the entered code e.g. if you use an alphanumerical keyboard where a mistake can be made. Note: After establishing connection using the USB cable the possibility of programming changes of settings from the LCD keyboard will be disabled (menu item Settings will be disabled). After disconnection of the cable the item will re-appear in the menu in a few seconds.
4. After proper authorization the following window can appear:



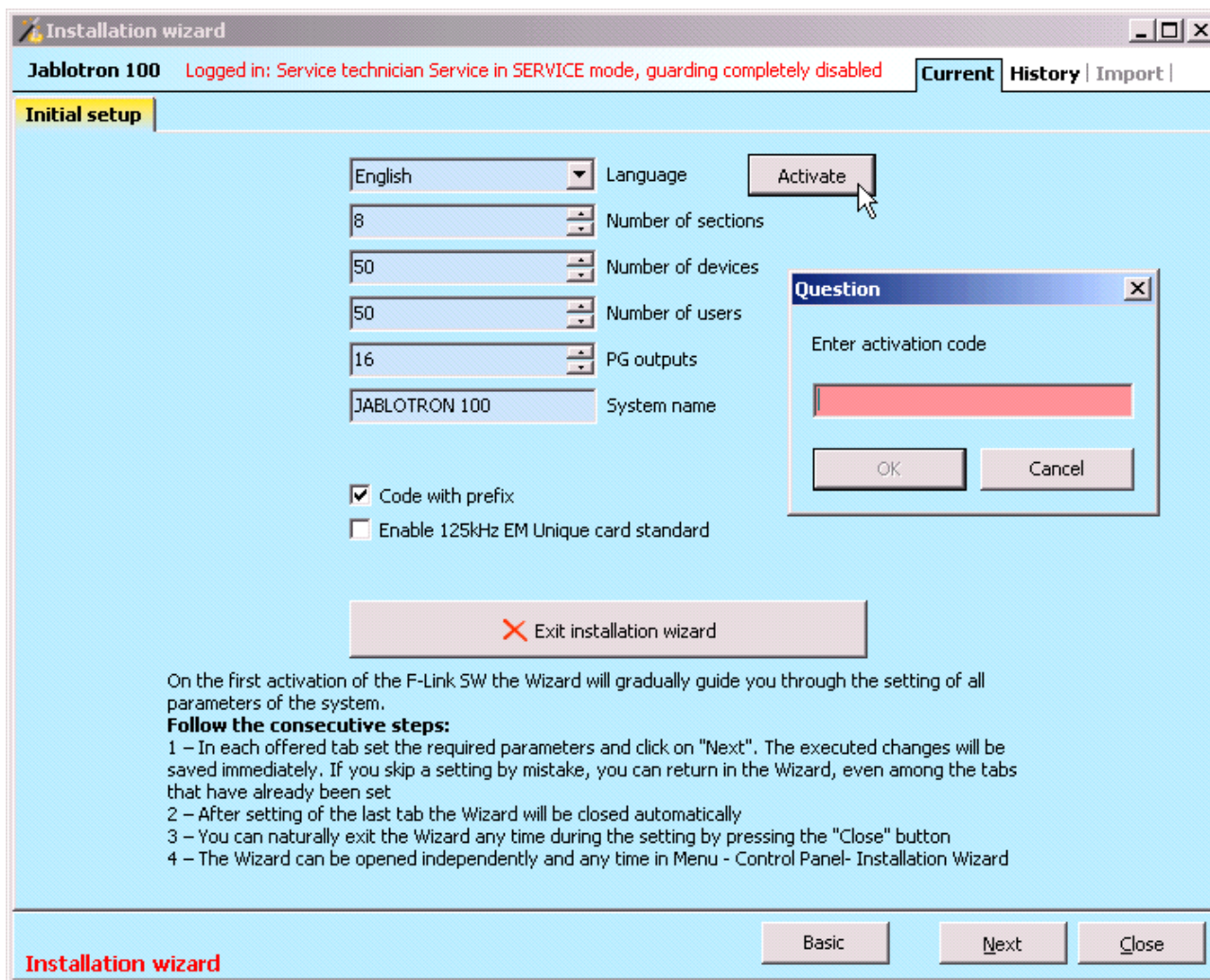
In such a case we recommend to perform the update. After confirmation of the key the new firmware package will be downloaded, which may take a few minutes. After the completion of the update the first page of the Wizard (Initial setup tab) will be displayed.

8.2 Starting the Wizard

1. In every offered tab set the required parameter and click on the “Next” button. If you skip a setting by mistake, you can return to tab that have already been previously set in the Wizard.
2. After setting the last tab press “Save” and close the Wizard with the “Exit” button.
3. After exiting you will be asked whether you want to start the Installation Wizard when starting the F-Link software next time.
4. You can exit the Wizard any time during the setting process by pressing the “Exit” button.
5. You can start the Wizard independently and any time in the Control Panel / Installation Wizard menu

8.3 Initial setup

This tab is used to set the basic size of the system. The set values can be changed any time. The range values influence the size of the database and thus the time required for loading and saving data (generally via remote access). To make changes in this tab you do not need to be in the Service mode. During the first start of the F-Link SW the Wizard will gradually guide you through the setting of all parameters of the system.



Activate: by entering a special activation code (see chapter 8) you can add a language (languages) to the choice of languages that is (are) released for the country the control panel is designed for.

Note:

- If one of the default languages (EN/CZ) is required, the Activate function will not be used.
- If you request another language, after entering the activation code you can select one of the available languages from the Language menu.

Also you will need to upgrade the firmware of the wireless components (specifically access modules with display to get selected language into them, too).

Basic description of the Initial setup tab – see paragraph 9.1. Other options are available after opening the advanced settings with the button Advanced (hide again with the button Basic):

Codes with a prefix – allow users to change their own codes from the keypad. However, to be able to control the system, you must use a code with the sequential number of the code (prefix). If this parameter is disabled, the codes may only be changed by the System Administrator, who will assign codes and will be the only person authorized to change user rights (thus he/she will have a knowledge about them).

Warning: Anytime this parameter is disabled, it will irreversibly delete all the user codes and settings of the Service Code and Administrator Code and restore the default values.

Allow EM UNIQUE 125kHz cards – if not checked, the identification elements recommended by the manufacturer may only be used, i.e. JA-190J (contactless access RFID card) and JA-191J (contactless access RFID chip - tag). After checking cards of other manufacturers working with the above mentioned frequency are also allowed. The applicability and security of such other elements in the system is not guaranteed by the manufacturer Jablotron.

8.4 Sections tab

Used to configure parameters of independently controlled monitored sections (zones). To make changes in this tab you do not need to be in the Service mode.

[illegible]

* Items described below marked * are only displayed if **Advanced Settings view** is enabled.

Section name – naming of sections is used to make textual event reports (SMS) and memory readout, for a better recognition when reported (e.g. Ground Floor, Store, ...)

Common section – allows you to select that a section is automatically set if all the sections for which it is a common one are set (suitable for corridors, staircases and other common areas). On the other hand, by setting (unsetting) the common section you can set (unset) all the sections assigned to it. However, a precondition is that the user has the access right for all the assigned sections.

Warning of limitation of possible use of the keypad segment for the common section: if any of the sections has been unset separately, the common section segment **cannot** be used to unset the remaining sections. For each of these sections its unsetting segment must be activated separately, which must be then authorized with a code or chip.

Warning: While setting the Common section segment, it does not take into an account the Ready to Arm configuration in accordance with the settings of Parameters / Setting Methods. It always sets everything.

Partial setting* – allows you to set a section partly if somebody remains inside (detectors with selected reaction of the Internal type will not be active – see chapter 8.5.2). Without activation of this parameter partial setting cannot be used in the section.

Siren ON/OFF* – possibility to disable acoustic alarm signal in a particular section. The system distinguishes two types of alarms: **EW** (external warning) and **IW** (internal warning). In the settings of the internal and external sirens you can determine which type of warning they should react to. Details of activation of these outputs - see table 8.5.1. All sirens can also be disabled centrally for all sections in the Parameters tab (e.g. while in service mode). Output devices of the relay type (output modules, indicators) react to either warning type (EW/IW).

Report unsetting* – if a section is unset and no detector is activated in it during a pre-determined period, the “Unset Section” report is used.” The time period is set in the tab Parameters - Report unset section after (h).

Limited access time* – allows you to set a weekly schedule permitting unsetting of a section. For each day you can define two zones with allowed access. You can set for individual users whether the time restriction is valid for them or whether they can control the system any time - see the Users tab.

Section disabled – disabling possibility to set section, (blocking a section means that all peripheral devices assigned to the section are collectively disabled), indicated by a red dot. You cannot block the section that the control panel is assigned to. Warning: If you block a section to which a radio module is assigned to, this radio

module will stop receiving radio elements from all the sections. If you block a section that is part of a common segment, this common segment will turn yellow (as it cannot indicate that all its sections are fully set or unset). A section may only be blocked by a service technician (through F-Link).

Status – indicates the current status of a section (Unset, Set, Exit Delay, Entry Delay, Partly Set, Alarm, Alarm Memory, Off, Service).

Note – it allows you to describe details of a section for easier orientation during annual inspections etc.

8.4.1 List of EW and IW alarm outputs

Tab. 7

Section status	Alarm type					System Settings - Parameters		Activates	
	Intrusion	Tampering	Audible Panic	Fire	24h./Flood	Siren during partial set	IW siren on case of tampering	EW	IW
Unset		X				N/A	NO		
		X				N/A	YES		X
			X			N/A	N/A	X	X
				X	X	N/A	N/A		X
Partially set		X				N/A	NO		
		X				N/A	YES		X
	X					YES	N/A		X
	X					NO	N/A		
			X			N/A	N/A	X	X
				X	X	N/A	N/A		X
Set	X	X	X	X	X	N/A	N/A	X	X

8.5 Devices tab

It is used to enroll an installed peripheral device in the system and to set its parameters. The tab will display as many positions as you have selected in the Initial setup tab. The control panel is automatically enrolled on Position 0 in Section 1 and it cannot be removed or deleted. To make changes in this tab you must be in the Service mode.

	Name	Type	Section	Reaction	Internal	PG activation	Intern...	Supervision	Alarm...	Disable	Status
0	Control panel	JA-101K	1: Groud floor				Enter				OK
1	Radio module	JA-110R	1: Groud floor				Enter	☒			OK
2	LCD keypad	JA-114E	1: Groud floor				Enter	☒			OK
3	Main door	JA-110M	1: Groud floor	Delayed zone A alarm	☐	No	Enter	☒	☐		ACT
4	Kitchen window	JA-110M	1: Groud floor	Instant zone alarm	☐	No	Enter	☒	☐		OK
5	Garage door	JA-111M	3: Garage	Delayed zone C alarm	☐	No	Enter	☒	☐		ACT
6	Hall	JA-110P	1: Groud floor	Next delay zone alarm	☒	2: Light hall	Enter	☒	☐		OK
7	Garage PIR	JA-120PW	3: Garage	Delayed zone C alarm	☐	3: Light garage	Enter	☒	☐		OK
8	Indoor siren	JA-110A	1: Groud floor	Siren mute			Enter	☒			OK
(9)	Balcony door	JA-150M	2: First floor	Instant always	☐	No		☒			ACT
(9)	Balcony window	JA-150M	2: First floor	Instant always	☐	No		☒			OK
(9)	Living room	JA-151P	2: First floor	Instant zone alarm	☒	No	Enter	☒			ACT
12	Interface	JA-121T	1: Groud floor				Enter	☐			OK
(9)	Remote control	JA-182J	4: Fully set	Set		No	Enter	☐			
14	Device 14	Enroll	1: Groud floor	-	☐	No		☒	☐		
15	Device 15	Enroll	1: Groud floor	-	☐	No		☒	☐		
16	Device 16	Enroll	1: Groud floor	-	☐	No		☒	☐		
17	Device 17	Enroll	1: Groud floor	-	☐	No		☒	☐		

* Items described below marked * are only displayed if **Advanced Settings view** is enabled.

Name - it is used in textual reports of events and in the memory readout (example Main door).

Type – displays the type of the assigned peripheral. An empty position allows you to enroll a new peripheral device. **Enrolling peripherals**, see chapter 8.5.1.

Section – determines to which monitoring section the peripheral device will report events (alarm, tampering, fault ...). Note: division of a building into sections - see the Sections tab 8.4.

Reaction – defines which reaction will be released by activation of the particular peripheral device. If a peripheral does not have any alarm input (e.g. a bus access module), it cannot be assigned a reaction. The complete list of reactions for peripherals is displayed if Advanced Settings are enabled. You will find a description of all the reactions in chapter 8.5.2.

Internal – this parameter is only available for intrusion detectors. Signals from peripherals with this indication are not evaluated as alarm signals if a section is partially set. Partial setting of a section - see chapter 8.4. If partial setting is not enabled for a section, the setting of this parameter is not applicable.

PG activation – activation of a peripheral can activate a programmable PG output with its defined reaction. One sensor can activate one PG output. This option is linked to the item PG Outputs / Activation / by a Peripheral.

Internal settings – access to settings of internal parameters of perimeters that are connected to the bus or feature bidirectional wireless communication. Individual peripherals have different internal parameters (some have none). The internal settings of a keypad are described in chapter 8.5.4. Settings of other peripheral devices are described in their manuals.

Supervision* – allows you to disable checking of regular communication with a wireless peripherals (it cannot be disabled for bus elements). By the default, setting of wireless peripherals (except remote controls and Panic buttons) is always enabled.

Memory indication – possibility of alarm memory indication by a signal lamp in the detector that has released the alarm. It can be activated for peripherals that support this function (in the default setting it is always off).

Disable – possibility to completely disable a peripheral device (no alarm, tampering, PG activation...). You cannot disable the control panel or a peripheral whose reaction is set to Panic. A yellow dot indicates partial disabling of a peripheral (such detector will not trigger alarm, however tamper alarm and fault reporting is still active by the Administrator (from the LCD keyboard), while the red dot indicates complete disabling of a peripheral (by the Administrator or Service Technician from the computer).

Status – indicates the current status of the peripheral. OK = everything all right, TMP = tampering, ACT = alarm input activated, ERR = error, ?? = no communication with the peripheral, Mains supply = supply failure, Battery = discharged or disconnected battery in the peripheral of control panel, Charging – charging the backup battery in the peripheral device or control panel, BOOT – upgrading of the peripheral is going on or upgrade failure (repeat upgrade), OFF = peripheral off. By moving the mouse cursor on the peripheral STATUS you will display detailed data.

Note – it allows you to describe details of the peripheral, e.g. location, last battery replacement date, mean RF signal strength during the last testing etc.

8.5.1 Enrolling or removing peripherals

An installed peripheral (detector, keypad, siren, tag etc.) will only work after being enrolled on a position (address) in the system. After the enrollment some peripherals occupy more positions (multiple magnet inputs, input expanders). There are also peripheral devices (PG output modules, status indicators, bus separators and splitters) that are not enrolled on any position (address). You will find details in the manual of the concerned peripheral.

1. Peripheral enrollment is performed through the F-Link program, the Peripherals tab, **Enroll** button Enrolling is **only possible in the Service mode**.
2. You can enroll a peripheral device in several ways:
 - a. **by pressing the tamper switch of a bus peripheral = closing the cover** (some peripherals can be enrolled by the pressing of a key – see the manual of the particular peripheral).
 - b. **by connecting the battery to a wireless peripheral** - however, at least one radio module must be enrolled first. In the case of remote controls of the JA-186Jx type the battery connection can be replaced by pressing and holding two buttons (forming a pair). Remote controls of the JA-154Jx type are enrolled by pressing of any button. Wireless access modules (keypads) can be enrolled by pressing of the backlit activation button
 - c. **By entering the serial number in the Serial Number field** (it is found under the barcode on the board inside the peripheral, e.g. 1400-00-0000-0123). The number can also be read with an optical barcode reader. Subsequently, you should activate the detector to verify its enrollment.
 - d. **by selectively loading not enrolled bus peripherals** – if one or more peripherals that have not been enrolled yet are connected to the bus, after pressing of **Enroll** in the **Peripheral details** the **Enroll not enrolled** button will be displayed, which will offer enrollment of the bus peripheral. You will enroll the peripheral by double clicking on the selected item.
 - e. by collectively loading **not enrolled bus peripherals** – if one or more peripherals that have not been enrolled yet are connected to the bus, after pressing of the **Enroll not enrolled** button all the bus peripherals will be enrolled collectively. This procedure does not allow you to determine the sequential positions for individual peripherals.
3. You can delete a peripheral by deleting its serial number (just the entire peripheral will be deleted) or by selecting the respective line in the Peripherals tab and the Delete option in the menu or under the right mouse button or by merely pressing the Delete key, which will delete the whole line of the peripheral (with its settings of the section, reaction, PG output control, notes and other options). This way, after marking more peripherals (click+Shift or click+Ctrl) you can delete all of them or you can just change a common parameter.

Notes:

- Bus peripherals that have not been enrolled flash with yellow light. If a not enrolled peripheral does not start flashing with the yellow lamp within approx. 180 secs. after enabling of the power supply of the control panel (in the course of initialization) check whether the peripheral is properly connected.
- Wireless peripherals with unidirectional communication do not have any means of signaling the enrollment request.
- If you enroll a peripheral in the system using the above mentioned procedure, the next position will be offered automatically. You do not need to take any steps, you just need to enroll peripherals in the selected order. Automatic movement to the next position can be canceled in the peripheral enrollment window.
- If you enroll an already enrolled peripheral on another position, it will move.

- If a peripheral device occupies more than one position, it will automatically occupy the respective number of consecutive position by one enrollment (e.g. the JA-110M module, which has two alarm inputs, will occupy two positions). Caution, inadvertent deletion of peripherals enrolled on other position can occur!
- If you enroll a peripheral on the highest possible position, the process of gradual enrollment will be completed.
- Free positions are set in section 1 by default. The selection of a section can be changed later.
- You are recommended to enroll multi-element peripherals (e.g. JA-116H, JA-118M) at the end of the defined area. If a multi-element peripheral is used at the end of an area in such a way that some positions will exceed the system range, these peripherals will be automatically disabled and will not cause an error.

8.5.2 List of applicable reactions

In the Peripherals tab you can set the reaction of the system activation of an enrolled peripheral. Only such types of reactions are offered for individual peripherals that make sense for the particular product. There are some peripherals that cannot be assigned any reaction (e.g. an external siren).

Tab. 9

Immediate	Immediate intrusion alarm if it is set. If an entry delay is set, an IW alarm is released. An EW alarm is only released after expiration of the entry delay time (more information about EW and IW - see table 8.5.1).
Delayed A	Intrusion alarm with entry delay, timer A.
Delayed B	Intrusion alarm with entry delay, timer B.
Delayed C	Intrusion alarm with entry delay, timer C. Setting of timers A, B, C - see the Parameters tab In the Parameters tab you can set for this reaction that the exit delay will be extended by an active detector with the delay C (e.g. for the time of opening of the garage gate).
Post-delayed	Intrusion alarm. A detector provides the same exit delay as the delayed detectors in the same section. This detector will only provide the entry delay if it is activated after a detector for which a delayed reaction has been set. If it is the first one to be activated, it will release an alarm immediately. This setting makes sense if a delayed detector is set in the same section.
Confirmed immediate	Immediate intrusion alarm – see Confirmed intrusion reaction below.
Confirmed delayed A	Intrusion alarm with an entry and exit delay, timer A - see Confirmed intrusion reaction .
Repeated immediate	Immediate intrusion alarm – see Repeated reaction below.
Repeated delayed A	Intrusion alarm with an entry and exit delay, timer A – see Repeated reaction below.
Tampering	Tamper alarm any time (the section does not need to be set).
24 hours	Immediate intrusion alarm (the section does not need to be set).
Silent Panic	Silent Panic report: 1) EW and IW not activated (see table 8.5.1); 2) the keypad does not beep although otherwise it is set like this; 3) if the system can distinguish who triggered the Panic alarm (e.g. through a tag with adopted user's identity or reverse entering of the code by the user, it does not send Panic SMS to this user. Peripherals with the Silent Panic reaction cannot be inhibited by the Disabled option.
Audible Panic	Loud Panic alarm (peripheral devices with this reaction cannot be inhibited in the peripherals tab by the disabled option).
Fire	Fire alarm any time (the section does not need to be set).
Fire confirmed	Fire alarm any time (the section does not need to be set) see the Confirmed fire reaction below.

Fire if set	Fire alarm only if the respective section is set
Health problem	Sends a health problem report
Flooding	Sends a flood alarm
Set / Partial Set (e.g. for JA-182J, 186J, 188J)	Setting (partial setting) of a section. If the section is a common one, all sections that belong to it will be set at the same time. This reaction also has the Unset function. If the section is a common one, all sections that belong to it will be unset at the same time.
Siren silencing	Silencing of the internal siren with a subsequent report of the presence of a person in the building.
Report A / B / C / D	A special report is sent (special reports A, B, C and D are set in the Reports to Users tab), which may be accompanied by a voice message call. If saving of special reports in the event history is enabled, reports are also sent to the ARC.
Key-Box	A special reaction designed for sealed key in case of emergency, etc the opening of which will send a report to the ARC without activating the alarm with a siren.
Immediate always	Immediate instant zone reaction. If set, then based on activation, immediate alarm including EW and IW alarm warnings is activated also during exit delay time.
None	Without any impact for intrusion alarm; however, the device may be used to activate PG outputs.

8.5.3 Limitation of false alarms

In installations with an increased risk of false alarms special reaction types can be used:

Confirmed intrusion reaction – if in a set section a detector with confirmed reaction is activated, the system only reports an unconfirmed alarm to the ARC and waits for confirmation by another detector. The alarm may be confirmed by any intrusion detector in a set section. In the Parameters tab you can define whether the confirmation can come from any set section or it must be from the same section. You can also set the time for which the system waits for confirmation by another detector (in the Parameters tab). If the alarm is not confirmed within the pre-determined period of time, no alarm is released. If a confirmed delayed reaction is set, activation of a detector only initiates sending of an unconfirmed alarm after expiration of the entry delay. Confirmed reaction can only be used if a higher number of detectors are installed in the building (to enable confirming).

Confirmed fire reaction – if a fire detector with this reaction is activated, only an unconfirmed fire alarm is reported to the ARC and the system waits for confirmation of the fire by another fire detector. In the Parameters tab you can define whether the confirmation can come from any section or it must be from the same section. The time period of waiting for confirmation of a fire alarm is set in the Parameters tab. If fire is not confirmed within the pre-determined period of time, no fire alarm is released. Confirmed reaction can only be used if a higher number of detectors are installed in the building (to enable confirming).

Repeated reaction – if a detector with this reaction type is activated, the system waits whether activation of the same detector will be repeated. In the Parameters tab you can set the time period for which the system waits for repeated activation and also the time for which the detector is disregarded. If activation of the detector is not repeated within the pre-set time period, the system will cancel the first activation. The repeated reaction is used in environment with an increased risk of occasional false alarms e.g. caused by rodents, small insects, drafts etc.

Three-strikes function - all detectors with an activated alarm reaction of the intrusion and fire type are limited to three possible activations of the control panel during one monitoring period at the most. After three activations (on the fourth intrusion) a bypass is activated for the respective alarm input and the corresponding sensor is excluded from further activity. If these three activations occur during an alarm, three SMS messages are generated altogether and then the detector is disabled. If these three activations occur in time intervals that are longer than the duration of an alarm, three SMS messages are generated, three alarms are announced and then the detector is disabled. The number of tampering, fire and detector error alarms is limited in the same way. The detector is enabled by unsetting or setting of the section. The bypass for the fire and flooding reaction is also canceled automatically on the next day at 12:00. The 3 times at the most mechanism is not applied to peripheral devices where the Panic reaction has been set. The bypass mechanism can be also modified in the Parameters / Reset Autobypass Daily (and also Autobypass of peripherals after three alarms), see chapter 8.9. Autobypass of the Error and Tamper events is always activated after three alarms. The reporting is re-activated after unsetting and setting. The bypass of sensors included in a section on position one is canceled by unsetting and setting of any section.

8.5.4 Keypad configuration

- First, assemble the control keypad mechanically. Attach the required number of control segments (max. 20) to the selected access module; their internal cables must be interconnected.
- Enroll the keypad on the selected position in the system (see chapter 8.5.1).
- On entering in the internal settings of the keypad (the Peripherals tab) the following window will open (the example refers to the JA-114E keypad), for other keypads the setting range may be smaller).

Example of keypad settings:

Note: items that are not available in the window are not included in the connected version of the keypad. The description relates to the FW version of the LUxxx20 keypads.

8.5.4.1 Segments tab:

Locks locked / unlocked – activates the display of the locks symbols (unlocked / locked) for buttons of segments controlling setting and symbols of dots (empty / full) for control of PG outputs. The symbols are considered within the print of labels.

Texts of control segment labels – the Section Name (from the Sections tab) or PG Output Name (from the PG Outputs tab) is displayed. You can also edit the entire text to be printed right here by clicking on the respective text. These changes are not saved in the system and only serve the needs of label printing. The **Print Labels** button (in the bottom bar of the card) is used to print segment labels.

Print labels – enables direct print of pre-set label texts using the installed printer. You can edit the texts by clicking on the segment, which only results in a change for the print and the changed texts will not be saved in the database. You can conveniently use the PT-P700 label printer from Jablotron, which enables automatic cutting by the required label dimension. Labels from this printer are self-sticking for better convenience.

Authorization – the user's authorization is required for setting and unsetting. When this parameter is disabled, all segments can be controlled without authorization except the Unset Section function for which authorization is always required. As regards enabling and disabling PG outputs the setting of the Authorization / without Authorization function is valid for both the controls.

Segment functions – on the left the function of the segment is selected, on the right the section or PG output that the selected function is assigned to. The following functions can be assigned to a segment:

Tab. 10

None	segment off, used for segments prepared as a reserve for future used
Unset / Set	section control. Segment indication: section unset = green, set = red
Unset / Partly set	enables activation of partial setting mode of the section (if enabled in the Sections tab). Signals from sensors defined as Internal are not evaluated as alarm signals in the partial setting mode. Segment indication: section unset = green, partially set = yellow,
Unset / Partly set / Set	allows you to select the setting level. After pressing of the right button (Set) partial setting is offered, after repeated pressing complete setting is offered. For this selection partial setting must be enabled for the section in the Sections tab. Segment indication: section unset = green, partly set = yellow, fully set = red.

Indicates section	the segment only shows the status of the section, but does not enable its control (suitable e.g. for indication of the status of common sections, staircase etc.) If an alarm is released, it allows you to cancel it by pressing the green button of the segment with subsequent valid authorization of the user.
Panic (silent)	the segment makes it possible to release a silent Panic alarm. After pressing the right button a Panic report is sent from the section the function is assigned to, without acoustic indication. The Panic alarm may also be Delayed with adjustable time and possibility of cancellation before expiration of the set time (see Delayed Panic). If the section is set, it will not be unset.
Fire	the segment triggers the fire alarm. Then, fire alarm is released from the section the segment is assigned to.
Audible Panic	the segment makes it possible to release a loud alarm. After pressing, loud Panic alarm is released from the section the segment is assigned to. The loud Panic alarm may also be Delayed with adjustable time and possibility of cancellation before expiration of the set time (see Delayed Panic). If the section is set, it will not be unset.
Medical troubles	the segment allows you to send a health problem report (without activating a siren). Then, the segment returns to the standby mode and the system sends the Medical trouble report from the section the segment is assigned to.
Disable PG / Enable PG	the segment allows you to control a PG output. Indication: PG inactive = green, PG active/enabled = red
Enable PG	the segment can only be used to enable the PG output (e.g. switch on the lights for a pre-set time)
Disable PG	the segment can only be used to disable the PG output (e.g. function of an emergency STOP button)
Indicates PG	the segment only indicates the status of the PG output without the possibility to control it (red indicates the active status)
Indicates PG inversely	the segment only indicates the status of the PG output with the inversed logic (green indicates the active status) without the possibility to control it
Common segment A / B	Enables simultaneous control of more sections that have their individual segments on the keypad with one segment. After pressing the button on the same segment the Unset/Set command is executed collectively for selected section segments. If some sections controlled from the Common Segment are set and the others unset, after using the Common Segment the remaining segments will be Unset/Set. If Partial Setting is enabled for one of the selected segments (details see 8.5 Partial Setting), the Common Segment will behave as follows: 1st pressing of Set = partial setting, 2nd pressing of Set = full setting. It is not suitable to combine the Common Segment function with the Section / Common for Sections functions. Common Segment indication: all sections unset = green, all sections fully set = red, any section set (party set) = yellow. There may be max. 2 common segments on one keypad at the most. Sections are assigned to the Common Segment in the top Common Segment tab. Note: The "Common segment x" item is only offered if more than two segments for section control are connected to the module.
PG indicates / controls	The segment can control a different PG output from the one it optically indicates. In this menu the first parameter is used to select the PG output for indication and the other one (supplementary) the PG output to control. The function is e.g. used to control a garage gate with a PG output impulse while the control segment displays the actual status of the gate obtained from the gate detector.

8.5.4.2 Settings tab:

Access module settings in position 2 (JA-114E)

Segments **Settings** Common segment 2 Position LCD keypad Name

Acoustic indication of selected sections

☐ Alarms

☐ Entrance delay

☐ Exit delay

☐ Exit delay when partially set

☐ Segment status change

Backlight intensity:

Segments

Keypads

Display

Acoustic indication for sections:

☒ 1: Groud floor

☒ 2: First floor

☒ 3: Garage

☒ 4: Fully set

☒ 5: Section 5

☒ 6: Section 6

☒ 7: Section 7

☒ 8: Section 8

Function:

Permanently ON RFID reader

1. Indicates permanently Indication setting

☒ Indicator of PG output status changes

☒ Unset section by authorisation only during entrance delay

☐ LCD backlight goes off in 5s

5 Delayed panic [s]

Display on the LCD:

1.line

JABLOTRON 100 Temperature: No

2.line

 Temperature: No

☒ Date and time

Section control from menu:

☒ 1: Groud floor

☒ 2: First floor

☒ 3: Garage

☒ 4: Fully set

☒ 5: Section 5

☒ 6: Section 6

☒ 7: Section 7

☒ 8: Section 8

Print labels Import OK

Acoustic indication of selected sections:

Alarms	acoustic output in case of an alarm (siren sound)
Entrance delay	continuous acoustic whistling tone during an entry delay
Exit delay	slow intermittent acoustic beeps (1/s)
Exit delay when partly set	slow intermittent acoustic beeps (off by default)
Segment status change	acoustic indication with one beep at a change

Functions:

RFID reader	To save energy, the activity of the reader can only be limited to 3 s from pressing of its cover. The RFID reader can also be completely disabled. This setting applies to wireless keypads and access modules if they are permanently supplied with power from an external source, otherwise their RFID reader is always switched off automatically	
	Permanently on	The RFID reader is permanently enabled. In the case of a bus keypad it does not respect the wake-up setting.
	Enabled by pressing	Waking up the RFID reader for 3 s after activation on the keypad.
	Off	The RFID reader is permanently disabled.
Indication settings	Selecting the optical indication mode of the keypad	
	1. Indicates permanently	A bus keypad indicates permanently. A wireless keypad will only indicate permanently with external power supply. Without external power supply it behaves like in option 2.

	2. After a section status change on the keypad	The keypad indicates a change of the status of a section / PG. A status change is only indicated on the concerned segment. An entry delay and alarm are indicated by the whole keypad.
	3. After a section status change on the segments	The keypad indicates a change of the status of a section / PG. A status change of a segment, entry delay and alarm are only indicated on the concerned segment.
	4. After a segment status change	The keyboard indicates a change of the segment status (setting, unsetting, enabling a PG, disabling a PG). A status change is only indicated on the concerned segment. This option is the default setting.
	5. After an entry and alarm	The keypad indicates an entry delay and alarm on the concerned segment.
	6. Wake-up by pressing	The keypad only provides optical and acoustic indications after opening of the front cover; pressing of a key, segment or front cover

Indicates PG status changes - Optical indication of changes – for bus and permanently powered wireless keypads: if this option is off, the system status indication on the keypad goes out after 3 minutes from the last operation. For wireless keypads powered by batteries only this period is reduced to 5 s; after that the keypad enters the sleep mode. The indication of a wireless keypad also goes out after closing of its cover.

Unset section by authorization only during entrance delay – by merely entering the code or applying the chip the user can unset the section where the entry delay period is running (if the user is authorized to enter the section). In the case of wireless keyboards such authorization can only be performed after activation of the entry delay. **WARNING:** It is not suitable to apply this option to a Common Section. In such a case undesired unsetting of all the sections assigned to the common section or even the whole system may occur (if the unsetting button is pressed first and the authorization is done after that).

LCD backlight goes off in 5 seconds – this option is only applicable to JA-114E or JA-154E if it is permanently powered by an external 12V DC source; otherwise it always goes out automatically.

Delayed panic – function for releasing an Panic alarm (silent or loud) with an adjustable delay period during which the alarm can be canceled. It is activated and deactivated with a segment set to the Panic or Acoustic Panic function. The red segment is used to start the timing and the green one to cancel it. If Authorization is set, it is required for activation as well as deactivation. The delay is adjustable in the range from 1 to 255 seconds.

Display on the LCD

1st line	allows you to enter a text that will be displayed on the 1st line of the LCD screen of the keypad if no other more important information is displayed, e.g. the company name etc.
2nd line	allows you to enter a text that will be displayed on the 2nd line of the LCD screen of the keypad if no other more important information is displayed, e.g. the name of a building part, section, office or a description of a thermometer temperature etc.
Date and time	possibility to display a clock and date on the LCD screen of the keypad.
Temperature	possibility to display the temperature of the 1st thermometer on screen (JA-111TH / JA-151TH)
Temperature	possibility to display the temperature of the 2nd thermometer on screen (JA-111TH / JA-151TH)

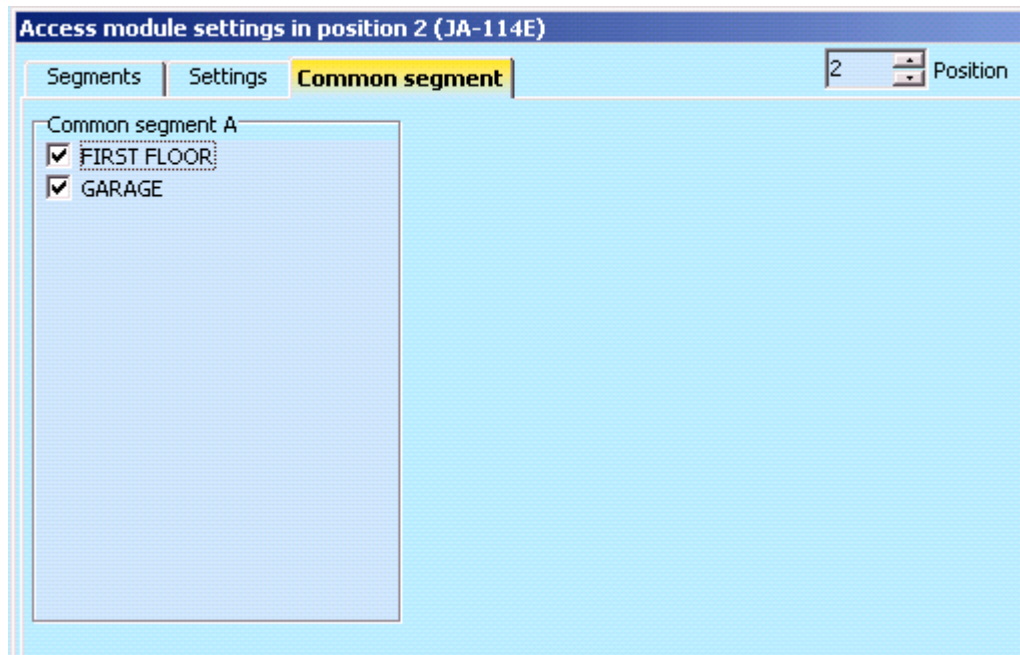
Backlight intensity:

Segments	possibility to adjust the LED illumination on the segments
Keypad	possibility to adjust the keypad backlighting
Display	possibility to set the LED display backlighting

Acoustic indication for sections – allows you to select sections for which acoustic indication will be active (of alarms, exit and entry delays, control of PG output etc.)

Sections control from menu – in a keyboard that contains an LCD screen you can define which sections can be enabled and disabled from the menu. This way you can e.g. create a keypad that normally controls 2 sections with the use of segments, but if necessary it can use the menu to control other parts of the house for which it does not have any installed segments.

8.5.4.3 Common segment tab:



Enables simultaneous control of more sections that have their individual segments on the keypad with one segment. After pressing the button on the same segment the Unset/Set command is executed collectively for selected section segments. If some sections controlled from the Common Segment are set and the others unset, after using of the Common Segment the remaining segments will be Unset/Set. If Partial Setting is enabled for one of the selected segments (details see 8.5 Partial Setting), the Common Segment will behave as follows: 1st pressing of Set = partial setting, 2nd pressing of Set = full setting. The Common Segment makes it possible to bypass an active detector in a section if its setting mode is "Sets with warning" or "Sets after confirmation" without influencing the other segments set to "Sets partly with one pressing and completely with the second one" with its second pressing.

Common Segment indication: All sections unset = green, all sections fully set = red, any section set (partly set) = yellow. Sections are assigned to the Common Segment in the top **Common Segment** tab.

Note:

- The "Common segment" is only offered if more than two segments for section control are connected to the module.
- It is not suitable to combine the Common Segment function with the Common Section function.
- There may be max. 2 common segments on one keypad at the most.

8.5.5 Example of settings of an internal siren:

Siren settings

Sections: 1, 2, 3, 4, 5

Reaction: IW

Siren sound: Continuous

Maximum siren time[min]: 3

☐ Higher volume

☒ Flash when button is pressed

☐ Beeps during section control

☒ Entrance and exit delay beeps

Acoustic signaling of PG output activity

Quickly beeping	1: Air Conditioning
Slow beeping	2: Light hall
One beep	3: Light garage
No	4: Garden watering
No	5: PG output 5
No	6: PG output 6
No	7: PG output 7
No	8: PG output 8
No	9: PG output 9
No	10: PG output 10
No	11: PG output 11
No	12: PG output 12
No	13: PG output 13
No	14: PG output 14
No	15: PG output 15
No	16: PG output 16

Test OK

Sections – used to select sections for which alarm will be acoustically indicated by the sirens

Reaction – selection for the alarm indication options EW (external warning indication) or IW (internal warning indication). The difference is described in table 8.4.1. List of alarm outputs

Siren sound – selection of the way of siren sound: Intermittent (50/50) / Continuous

Maximum siren time – limitation of the maximum hooting time to 1 to 5 minutes (supposing the control panel alarm is longer; otherwise it stops together with the control panel alarm)

Higher loudness – possibility to set higher and lower loudness volume of indication of the entry and exit delay and indication of PG output control. It does not have any impact on alarm hooting, which is always set to the highest volume.

Flash when button is pressed – optical confirmation of pressing buttons with a flash

Beeps during section control – acoustic confirmation of section status changes

Entrance and exist delay beeps – accompanying acoustic indication of an entry delay after activation of a detector with a delayed reaction and exit delay after full setting

Acoustic signaling of PG output activity – acoustic confirmation of changes of PG outputs of the used segments

Test – button for a 3second test of acoustic and optical alarm indication

8.6 Users tabs

It is used to establish new system users and to set their rights. The tab will display as many positions as you have selected in the Initial setup tab. To make changes in this tab you do not need to be in the Service mode.

P	Name	Telephone number	Code	Card	Authorization	Code change allowed	Time-limited access	Section	PG
0	Service		0*....	0	Service	☒	☐	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7,
1	Master		1*....	0	Administrator	☒	☐	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7,
2	User 2			0				No	No
3	User 3			0				No	No
4	User 4			0				No	No
5	User 5			0				No	No
6	User 6			0				No	No
7	User 7			0				No	No
8	User 8			0				No	No
9	User 9			0				No	No
10	User 10			0				No	No
11	User 11			0				No	No
12	User 12			0				No	No
13	User 13			0				No	No
14	User 14			0				No	No
15	User 15			0				No	No
16	User 16			0				No	No
17	User 17			0				No	No

* Items marked this way are displayed if **Advanced Settings** are on.

Name – names of users are used in textual event reports in the readouts of the event history, in tabs for reports, authorization settings or for authorization on a keypad with an LCD screen.

Telephone number – used for reporting events and for identification of users when the system is controlled by phone using a voice menu or for activation of PG outputs by ringing and SMS. The phone number must always be entered in the international format (e.g. +420777123456).

Code – the user access code is entered in the format **p*nnnn** (**p** = position number, ***** = separator, **nnnn** = 4 numerals). If the prefix is disabled (in the Initial setup tab in F-Link) it is **nnnn** only. The code on positions 0 and 1 cannot be deleted (Service and Chief Administrator).

Card – used to assign access cards (chips). Each user can be assigned 2 cards. Cards can be assigned:

- by entering the serial number (it can be read with a barcode reader from the RFID chip)
- using the **JA-190T reader** (connected to a USB port of the computer) by application of the RFID chip
- using a bus keypad of the LU60x20 or higher by mere application of the RFID chip

Authorization – defines user rights. The authorizations on position 0 and 1 cannot be changed. Details - see chapter 8.6.1.

Code change allowed* – allows a user to change his/her four-digit code (not the position number). The option can only be enabled after setting of a code and its rights. The option is only available for the User authorization level with the use of a prefix (Administrator, Service and ARC can change their code any time).

Time-limited access* - makes it possible to limit a user's access in accordance with the weekly schedule in the tab **Sections / Time Limited Access**. The option can only be enabled after setting of a code and its rights. Access limitation can only be applied to users with the User authorization level.

Section – defines which sections may be defined by the user (administrator). The Administrator may also set codes and cards of users in the assigned sections. A section cannot be assigned to a user that is only authorized to control PG outputs. Warning: If a user is to be authorized to directly control a common section, he/she must be also authorized to control all the subordinated sections.

PG – defines which PG outputs the user is authorized to control (if authorization is required for the output control).

Disable – possibility to inhibit a user. The user on position 0 (service technician) and 1 (chief administrator) cannot be disabled. Disabling of a user is indicated by a red dot. The Administrator (using the LCD keypad or J-Link) and Service Technician (via F-Link) are authorized to disable users.

Note – makes it possible to describe a user's details, e.g. authorization of access outside working hours etc.

8.6.1 Authorization level of users

The system enable setting of the following authorization levels:

User	can activate and deactivate setting of defined sections and control assigned PG outputs.
Guard code	can only terminate alarm and unset during or after an alarm in the system until the system status is changed (unset) - designed for the staff of the ARC intervention unit.
Panic	used to release an Panic alarm (does not unset sections). The Panic code cannot be assigned to any section, but an alarm is always released for the whole system.
PG only	only authorizes Control programmable outputs.
Set	allows the user to set but not to unset.
Administrator	can control setting and set authorizations of users in sections for which he/she has authorization. The Administrator on position 1 always has the authorization for all the sections (Chief Administrator). An administrator is authorized to inhibit users and scheduled events. In the system any number of administrators can be set with a different level of access to sections.
Service	can set parameters for the whole system. However, opening the Service mode can be made conditional on the administrator's consent (in the Parameters tab, see 8.9). The Service Technician is authorized to inhibit peripherals, users, sections, PG outputs and scheduled events. There may be mode service technicians set in the system.
ARC	can set parameters for the whole system and can inhibit the service technician's access to the ARC communication settings in the Communication tab, see chapter 8.11). Access of an ARC technician can be made conditional on the administrator's consent (in the Parameters tab, see 8.9). More ARC technicians can be set.

8.7 PG outputs tab

It is used to set functions of the programmable outputs. The tab will display as many positions as you have selected in the Initial setup tab. If no outputs are set there (Outputs = 0), the PG outputs tab will not be displayed at all. To make changes in this tab you do not need to be in the Service mode.

Installation wizard
 Jablotron 100 Logged in: Service technician Service in SERVICE mode, guarding completely disabled
 Current History Import

Initial setup Section Devices Users **PG outputs**

Posi...	Name	Logic	Function	Time	Activation	Blocking of P...	Reports	Record PG...	PG disabled	Current status	Test PG output
1	Air Conditioning	NO	Impulse	01:00:00	Activation	Sections	Enter	☒		Disabled	Test PG output
2	Light hall	NO	Delayed copy	00:05:00	Activation	None	Enter	☒		Disabled	Test PG output
3	Light garage	NO	Delayed copy	00:10:00	Activation	None	Enter	☒		Disabled	Test PG output
4	Garden watering	NO	Impulse	00:20:00	Activation	None	Enter	☒		Disabled	Test PG output
5	PG output 5	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
6	PG output 6	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
7	PG output 7	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
8	PG output 8	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
9	PG output 9	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
10	PG output 10	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
11	PG output 11	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
12	PG output 12	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
13	PG output 13	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
14	PG output 14	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
15	PG output 15	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output
16	PG output 16	NO	ON/OFF		Activation	None	Enter	☒		Disabled	Test PG output

Installation wizard Send enrollment signal Basic Next Close

* Items marked this way are displayed if **Advanced Settings** are on

Name – identification of the output (e.g. Air-conditioning, Warehouse door, ...)

Logic – possibility to set the inverted logic of the output.

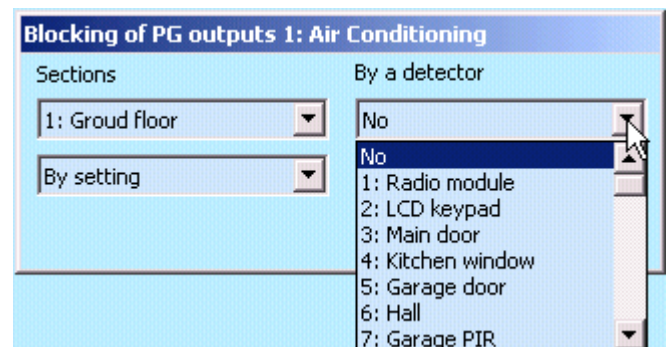
Function – determines behavior of the output after activation.

Impulse	enables activation with a time limitation (the time is set in the Time button).
Enable/disable	the enabling command will cause activation, disabling command deactivation while the status of the source or duration is not checked, the last command always performs its request
Copy	copies activation of a detector or internal status; if there is a request from two peripherals, the OR logic is used
Copy after delay	only sends a command when the activation condition is valid longer than set in the Time column (suitable e.g. for indication of forgotten closing of a garage gate).
Copy with overlap	copies activation of a peripheral device (or internal status) and extends it by the time set in the Time column (suitable e.g. for lighting of a corridor after door opening).
Change	by activation the current PG status is inverted to the opposite status (only suitable for impulse control, e.g. with a remote control button).

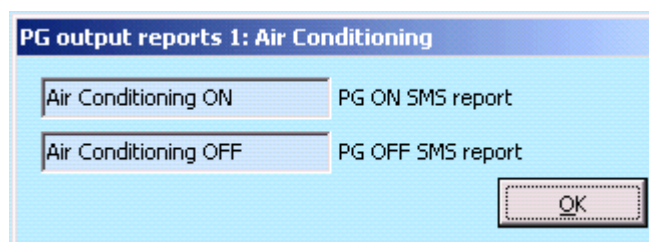
Time – setting of time for the functions Impulse, Copy after delay and Copy with overlap. Time is set in the format *hh:mm:ss* in the range of 00:00:01 to 23:59:59.

Activation – Opening the Activation Map of the PG output – see chapter 8.7.1.

Blocking of PG – makes it possible to inhibit an output by a section status or detector. The inhibition prevents the particular PG from being enabled and if it is already on, it will disable it. It is suitable e.g. to block a door lock if the respective section is set. In the case of inhibition by a section status you can select whether the inhibition is valid when the section is set or unset and in the case of inhibition by a peripheral whether by its activation or deactivation. Both the inhibition options (by a section and peripheral) can be used at the same time.



Reports – setting the texts of SMS reports sent on activation or deactivation of a PG output. The users that each of the reports is sent to are set in the Reports to Users tab. When the texts of the reports are changed, they are recorded in the log, so they cannot be completely deleted.



PG recording in the memory* – enables registration of PG activation in the event history and thus also SMS reporting to users and communication to the ARC (e.g. for monitoring the entry of users to monitored doors, registration in the Web Self Service etc.)

Disable – possibility to inhibit a PG output. Disabling (inhibition) of an output is indicated by a red dot. The Administrator (using J-Link) and Service Technician (using F-Link) are authorized to disable an output.

Current status – color-coded information about the current status of a PG output. Green description corresponds to the green light of the segment, red description corresponds to the red light of the segment.

Test – possibility to control an output manually from the computer. Depending on the selected function it will enable (or disable) the particular PG.

Note – makes it possible to describe details of a PG output, its use, special behavior, notification of activation together with other outputs etc.

8.7.1 Activation Map of a PG output7

By selecting Activation in the PG outputs tab you will enter the map of activation links. The map determines what action the output responds to.

Map of PG output activation links 1

1 Position Name PG output 1

Authorized users

0: Service
1: Master

By dialling in from users' tel. numbers

By a device

Reaction to

None
None
Unset
Any set
Partially set
Completely set
Any alarm
Instant alarm
Delayed alarm
Fire alarm
Panic alarm
Tamper alarm
Alarm memory
Unconfirmed alarm
Entry delay
Exit delay
AC fault

By a keypad segments

☒ 1: Device 1

Settings

SMS commands

SMS command for activation

SMS command for deactivation

Add Delete Add Delete Add Delete

Output activated by authorization by keypad

None

and keypad

None

Active device

By a calendar event

OK

Authorized users – defines users that are authorized to control the PG output from a keypad (with segment buttons). The setting is linked to the Users tab.

By user's authorization at a keypad – allows you to set up to 2 keypads that activate the PG output by mere authorization (application of a chip or code entry). This function is designed for opening of a door lock (i.e. no operation of the segment buttons is necessary). This function is only available if the output function is set to Impulse.

By dialing in from user's tel. numbers – defining users that are authorized to activate a PG output by calling from their phone (phone numbers are entered in the Users tab). Phone numbers used for the ringing activation must not be hidden (the CLIP service must not be deactivated for them). The term "ringing" means that after dialing the phone number the caller waits for at least one ringing tone (however, up to the answering setting, see the number of ringing tones of incoming calls in the communicator settings) and terminates the call. If the call is answered by the control panel, the output will not be activated.

By a device – enables activation of a PG output by a peripheral device (detector activation, pressing a tag etc.). The setting is linked to the Peripherals tab. A peripheral device may only activate one PG output.

Reaction to – enables activation of an output by a selected event in the system (e.g. setting, alarm, power supply failure, error etc.). For an internal status (37 internal statuses altogether, see tab. 11) you can set the group of sections the signal will be accepted from (the OR logic). The concerned PG output may be set to copy the status of another PG output or several other outputs where the mutual logic is selectable (OR or AND). The last item in the menu allows you to set activation of an output and its deactivation in response to a completely different event (e.g. activation in case of an alarm, but deactivation by unsetting only).

By a keypad segment – shows a list of keypads in the system. Using the Setting button (under the list of keypads) you can enter the internal menu of the selected keypad and adjust its settings, see chapter 8.5.4.

By SMS commands – allows you to set textual commands to activate and deactivate a PG output by phone. Reception of the respective SMS has a similar effect to pressing of the Set or Unset button on the control segment of the keypad. To control outputs use SMS in the format **code_command**, e.g. **2*2345_enable_light** (note: the _ character is a blank space). The code before the command is not obligatory if in the **Communication** tab the "Voice menu and control SMS without a code" item is enabled and the phone number of a user authorized to control the corresponding PG output is identified.

By user's authorization at a keypad – Here, up to two keypads can be defined (e.g. input and output) that will be exclusively used by **Authorized Users** to control the PG output with their authorization only (entering a code or application of an RFID chip)

Activated by peripheral – list of peripheral devices that activate the concerned PG output with their activation (information window)

By a scheduled event – list of scheduled events that activate or deactivate the concerned PG output (information window)

Warning 1: *The PG outputs are not functional if the system is in the Service mode (on activation of the Service mode all the PG outputs get disabled). After exiting of the Service mode from F-Link their re-activation is offered except Warning 2.*

Warning 2: *If the setting Parameters / On SW start activate the Service mode automatically and if on connection of the control panel to F-Link the Unset item is selected in the Warning window, after this direct entry to the Service mode F-Link does not register any possible PG outputs with impulse activation (e.g. activated by a keypad segment and the Enable / Disable function or setting in the schedule. This means that on exiting of the Service mode the question whether these PG outputs should be re-activated does not appear either.*

Internal statuses for control of PG outputs:

Tab. 11

1. Unset	13. Entry delay	25. Empty
2. Set in any way	14. Exit delay	26. 20-minute peripheral loss
3. Partly set	15. AC supply failure	27. A peripheral reports low battery
4. Completely set	16. 30-minute AC supply failure	28. A peripheral report active tamper
5. Any alarm	17. Battery error	29. Section without motion
6. Immediate alarm	18. Internal warning (IW)	30. Ready to be set
7. Delayed alarm	19. External warning (EW)	31. Ready for partial setting
8. Fire alarm	20. Error	32. Service required
9. Panic alarm	21. Active detector	33. GSM communicator error
10. Tamper alarm	22. Active detector outside delay	34. LAN communicator error
11. Alarm memory	23. Active detector delay	35. PSTN communicator error
12. Unconfirmed alarm	24. Deactivation in section	36. Copying another PG output

8.8 Reports to users tab

This tab is used to define users the system will report selected groups of event to in the form of SMS or voice calls to their phones. The groups and the SMS format are described in the attached table 13.2. The basic structure of the voice menu is described in the attached table 13.3. To make changes in this tab you do not need to be in the Service mode.

Installation wizard

Jablotron 100 Logged in: Service technician Service in SERVICE mode, guarding completely disabled

Current History Import

Initial setup Section Devices Users PG outputs **Users reports**

Pos...	User	SMS alerts	Alarm Call	SMS about setting/unsetting	Alarm photo	Fault and Service SMS	User defined 1	User defined 2
1	0: Service	☐	☐	☒	☐	☒	☒	☒
2	1: Master	☒	☒	☒	☒	☐	☐	☐
3	No	☐	☐	☐	☐	☐	☐	☐
4	No	☐	☐	☐	☐	☐	☐	☐
5	No	☐	☐	☐	☐	☐	☐	☐
6	No	☐	☐	☐	☐	☐	☐	☐
7	No	☐	☐	☐	☐	☐	☐	☐
8	No	☐	☐	☐	☐	☐	☐	☐

Groups Checking reports Special reports Basic Next Close

Installation wizard

Jablotron 100 Logged in: Service technician Service in SERVICE mode, guarding completely disabled

Current History Import

Initial setup	Section	Devices	Users	PG outputs	Users reports			
User defined 1	User defined 2	Section reporting	SMS PG ON	SMS PG OFF	Special SMS reports	Special voice reports	Test SMS	
☒	☒	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	
☐	☐	No	No	No	No	No	Test	

Groups Checking reports Special reports Basic Next Close

* Items marked this way are displayed if **Advanced Settings** are on.

User – enables selection of a user from the list of users.

SMS alerts (purple column) – group of selectable alarm reports in the case of which a textual report is sent about an alarm event in selected section, further about a failure or restoration of power supply longer than 30 minutes, setting with an open zone, or possibly a report about an unset section without motion (see the Sections tab)

Alarm call (purple column) – a group of reports in the case of which (after sending of SMS reports) the system conveys an alarm voice message to the user. The call rings for approx. 30 sec. If the call is not answered, the system calls the next user in sequence. If the call is answered, the voice message is sent repeatedly. The structure of the message is: Your alarm reports – Alarm type – Section no. After hanging up of the call by the user, however after 50s at the latest, the call is terminated and the next user is called. The user can confirm the reception of the call by pressing the **# key** on the phone and after the voice message the user must enter a valid code. When a valid code has been entered, **the alarm is stopped and the next user is not called any more**. Voice calling is time-consuming and it can be set for a limited number of users (JA-101K-xx - 8 users / JA-106K-xx - 15 users). For the voice reports universal voice message are pre-set in the system. The voice messages can be re-recorded by replacing the names with the required ones in the voice menu. Voice menu structure, see 13.3

SMS about setting/unsetting (green column) – group of reports for which a text message about setting and unsetting is sent. A setting report is sent with the fixed **delay of 60 seconds** after setting. Setting and unsetting is not reported to the user who has performed it. An exception is setting of a common section (done by the control panel, not user).

Alarm photo – sends the user an SMS saying that an alarm photo has been taken if camera detectors are installed. More details - see manuals of the respective camera detectors.

Fault and service SMS (beige column) – sends text reports about errors (discharged batteries, entering the Service mode etc.).

User defined 1 (light blue column) – special 1st group where the installation technician may transfer certain events to be reported (typically reports of failures and restoration of power supply, or possibly setting with an active peripheral) only for selected users (administrator etc.)

User defined 2 (light green column) – special 2nd group where the installation technician may transfer certain events to be reported (typically low batteries in peripherals or low charge level of the backup battery) only for selected users (typically installation technician etc.).

Reports from sections – determines which section the selected groups of events will be reported from. If Errors and Service SMS are checked and no section is selected, system errors and service are reported only (they are always assigned to the Section no. 1).

PG enabled SMS* – possibility to report enabling of PG outputs to a user. The messages are sent with a fixed delay of 60 s. The texts of the SMS messages are set in the PG Outputs tab, see chapter 8.7.

PG disabled SMS* – possibility to report disabling of PG outputs to a user. The messages are sent with a fixed delay of 60 s. The texts of the SMS messages are set in the PG Outputs tab, see chapter 8.7.

Special Reports SMS* – possibility to report activation of detectors for which the Special Report reaction (A, B, C, D) has been set to the user with an SMS. The texts of special reports are set using the **Special Reports** button on the right at the bottom of the Reports to users tab.

Special Reports by voice* – possibility to report activation of detectors for which the Special Report reaction (A, B, C, D) has been set to the user with a voice message. Voice messages can be re-recorded by calling to the phone number of the control panel where after answering of the call and authorization with the administrator's code you can use the key 9 to enter recording of voice messages, see chapter 13.2. Basic menu of the JABLOTRON 100 voice communicator:

Special reports

Report: A

Name: Garage

SMS report when PG ON: Open

SMS report when PG OFF: Close

☒ Record into event memory/transmission to ARC

OK

Test – by pressing of this button the test SMS report will be sent to the user: „Test report, Control Panel, Section 1“

Table of events and preset groups:

Groups

Event	Alarm	Setting/Unsetting	Failures and service	User defined 1	User defined 2
AC fault 30 minutes	☐	☐	☐	☐	☐
AC fault after 30 min restored	☐	☐	☐	☐	☐
Instant alarm	☐	☐	☐	☐	☐
Instant alarm cancelled	☐	☐	☐	☐	☐
Delayed alarm	☐	☐	☐	☐	☐
Delayed alarm cancelled	☐	☐	☐	☐	☐
Tamper alarm	☐	☐	☐	☐	☐
Tamper alarm cancelled	☐	☐	☐	☐	☐
Fire alarm	☐	☐	☐	☐	☐
Fire alarm cancelled	☐	☐	☐	☐	☐
Panic alarm	☐	☐	☐	☐	☐
Panic alarm cancelled	☐	☐	☐	☐	☐
Health troubles	☐	☐	☐	☐	☐
Flooding	☐	☐	☐	☐	☐
Code breaking attempt	☐	☐	☐	☐	☐
Set with active device	☐	☐	☐	☐	☐
No movement in the section	☐	☐	☐	☐	☐
Set	☐	☒	☐	☐	☐
Unset	☐	☒	☐	☐	☐
Partially set	☐	☒	☐	☐	☐
System BOOT	☐	☐	☒	☐	☐
Device low battery	☐	☐	☒	☐	☐
Device low battery restored	☐	☐	☒	☐	☐
Fault	☐	☐	☒	☐	☐
Fault restored	☐	☐	☒	☐	☐
Enter service mode	☐	☐	☒	☐	☐
Leave service mode	☐	☐	☒	☐	☐
Backup battery LOW	☐	☐	☒	☐	☐
Backup battery restored	☐	☐	☒	☐	☐
ARC communication fault	☐	☐	☒	☐	☐
ARC communication fault restored	☐	☐	☒	☐	☐
RF jamming	☐	☐	☒	☐	☐
RF jamming ended	☐	☐	☒	☐	☐
Low credit ballance	☐	☐	☒	☐	☐

Defaults

OK

Check reports – this button (bottom bar) is used to set **Check Ringing** or **Check SMS Report** sent to a defined user every day at a defined time.

Checking reports

Check connection by dialling in

00:00

Time

No

User

Check connection by SMS report

00:00

Time

No

User

OK

8.9 Parameters tab

It is used to set parameters and selectable functions of the control panel. The tab is identical to Peripherals / Control Panel / Internal Settings. To make changes in this tab you do not need to be in the Service mode.

Installation wizard Jablotron 100 Logged in: Service technician Service in SERVICE mode, guarding completely disabled

Initial setup | Section | Devices | Users | PG outputs | Users reports | **Parameters**

9/ 4/2014 Date ☐ Immediately connect to the control panel
 Thursday Day of the week ☒ Entering Service mode automatically
 9:31 dop. Time
☒ Standard time/Daylight saving time
 From GSM network Time adjustment
 +1 Time shift zone
☒ Automatically check time in the connected PC
☐ Card confirmation with a code
☐ Siren when partially set
☒ Sirens enabled
☒ Warning about default codes
☐ Administrator-restricted service and ARC rig...
☒ Service and ARC controls the system
☐ Trial operation
☐ Service requirement
☒ Panic alarm by inserting a reversed code
☐ Alarm confirmation within one section
☐ Siren (IW output) when tamper is triggered
☐ Erase tamper alarm indication by service code
☒ Reset enabled
☒ Daily reset of device autobypass
☒ Bypass after 3x triggering

Timer setting

240 Alarm length [s]
 30 Entrance delay A [s]
 30 Exit delay A [s]
 30 Entrance delay B [s]
 30 Exit delay B [s]
 60 Entrance delay C [s]
 60 Exit delay C [s]
 60 Period of waiting for alarm confirmation [min]
 60 Period of waiting for fire alarm confirmation [min]
 30 Period of waiting for repeated activation [s]
 10 Triggered-detector blanking time [s]
 1 Report when unset after [h]
 10 Maximum exit time extension C [min]
☐ Detector(s) extend exit delay C

Set after confirmation Ways of setting
 No System blocking by alarm
 Perform EN50131-1,gr.2 Changes according to EN50131

Installation wizard Basic Next Close

* Items marked this way are displayed if **Advanced Settings** are on.

Tab. 8

Date	Internal calendar setting.
Day of the week	Displaying the day of the week
Time	Internal clock setting.
Standard time / Daylight saving time*	Automatic switching of the winter and summer time can only be selected for manual time adjustment. The change occurs on the last Sunday of March or October, respectively at 1:00 UTC (i.e. e.g. 2:00 CET, or 3:00 CEST).
Time adjustment*	Internal clock adjustment method (manually, from GSM network, from the Jablotron server).
Automatically check time in the connected PC*	If the clock of the computer and control panel differ by more than 1 min, F-Link will warn the user of this fact
Ways of setting*	In providing a bypass (device is disabled), or with active devices, the user has to confirm this fact (by repeating the setting request from the keypad). This is not valid if a common section is set, that occurs regardless of the active devices.

	Set always	Set always regardless of the system status (Faults, active detectors,...)
	Set with warning	Optically indicates (on segment and display) the system status (faults, active elements, low battery or accumulator) for 8 seconds and sets automatically once this period expires. Setting is also possible by repeatedly pressing the segment (or by pressing the ENTER key).
	Set after confirmation	Optically indicates (segment and display) the system status (faults, active elements, low battery or accumulator) for 8 seconds. Can be set ONLY by repeatedly pressing the segment (or by pressing the ENTER key).
	Will not set with the active element	Optically indicates (segment and display) the system status (faults, active elements, low battery or accumulator) for 8 seconds. Can be set by repeatedly pressing the segment (or by pressing the ENTER key) but only if the active detector is of the DELAYED reaction type! An active element with any other alarm reaction CANNOT be set this way. ATTENTION!!! this also applies to the remote control (Voice menu, SMS, My JABLOTRON, action through calendar).
Card confirmation with a code	If a code and a card is assigned to a user, the user needs both for authorization (regardless of the order). In this setting the system can also be controlled by a user that has only code or only card. Warning: if this function is on, a user that has both the card and code will be asked to enter the numeric code of the card when controlling the system from the MY JABLOTRON application.	
Siren when partially set	Allows you to set acoustic alarm with the IW system if the section is partially set. The EW output never activates a siren in case of an alarm during partial set (except loud Panic).	
Sirens enabled*	Enables all bus and wireless sirens of the system (designed for disabling the acoustic alarm during system testing)	
Warning about default codes*	On completion of service an SMS message is sent to the service technician on position 0 that default codes have been left in the system.	
Administrator restricted Service and ARC	It inhibits independent access of service technicians and ARC to the system. Note: In case of remote access of a technician to the system via F-Link the administrator may get authorized using a keypad in the building. In case of local connection of a technician to the control panel using a USB cable the administrator may get authorized remotely using the voice menu.	
Service and ARC control system*	This setting allows the service technician and ARC technician to control the system for all the section. If this parameter is disabled, the technician is not authorized to control sections and will only be able to enter the Service mode after unsetting of all the sections by the Administrator or a user.	
Trial operation	All alarms are limited to 60 sec. and reported by means of SMS to defined users and the service technician (position 0) although alarm reports are not activated for him. Test operation is automatically terminated after 7 days from leaving the Service mode. During the test mode siren alarms set to EW (external warning) are disabled.	
Service required	If this function is on, 12 months after the last closing of the Service mode it initiates the "System requires service check" event in the system, which is, together with the Information icon, displayed on keypads with an LCD screen and registered in the event history. After pressing of the "i" key the text "call the service technician" will be displayed together with his phone number.	

Panic by different code entry*	Releasing an Panic alarm by interchanging a pair of numerals in the code (e.g.: 1*1234 = code, 1*3412 = Panic) – suitable for control under pressure. This function will unset a section if it is set. The function is not available if using codes without a prefix is allowed.
Alarm confirmation within one section*	If confirmation reaction by another detector is set for a detector, this confirmation option can be used to limit confirmation to the same section only (otherwise a detector from any section can confirm an alarm). This is valid equally for intrusion detectors and for fire detectors.
Siren (IW output) when tamper is triggered*	A siren with the IW response acoustically indicates a tamper alarm if the zone is unset or partially set
Tamper alarm indication reset by Service*	The tampering memory indication can only be reset by a service or ARC technician. If this option is not checked, the indication may also be reset by the Administrator (but not User).
Reset enabled*	Possibility to lock reset of the control panel with a jumper on the board. If reset is prohibited and the service code is lost, the control panel can only be unlocked by the manufacturer. Reset of the control panel is described in chapter 10.
Daily reset of device autobypass*	The option only relates to activation inputs (not tamper and error inputs). If this option is enabled, the system will automatically reset autobypassed peripherals, namely every day at 12:00. If the option is disabled, autobypass of the peripheral will only be reset with a status change of the section. This selection is suitable e.g. for the use of detectors with a 24hour reaction or flood detectors that are found in a section where setting/unsetting is not necessary.
Bypass after 3x triggering*	The option only relates to activation inputs, not tamper and error inputs. If the function is enabled, the peripheral allows 3 activations of the peripheral during one alarm period. The particular peripheral is only bypassed after three alarm periods, i.e. the peripheral is only completely bypassed after 9 activations. If the option is disabled, the peripheral is bypassed after three activations already, independently of the alarm length.
On F-link start automatically connect control panel*	On connection of the control panel to a computer with a USB cable the connection is established automatically.
Entering Service mode automatically*	When the SW gets connected to the control panel, it automatically switches the system over to the Service mode. If some of the sections are set, it will ask for permission to unset them. On entering the service mode the system will also disable all the PG outputs. On leaving the Service mode it will offer the possibility of re-setting the sections that were unset on transition to the Service mode. The PG outputs are only activated on the basis of their activation links (see also Warning 2 in chapter 8.9). If there are still default codes in the system, the initial authorization is not required.
Timer setting	In each section, the entry and exit delays A, B and C are measured separately. If different exit delays are defined for detectors within one section the longest delay is measured. In case of different entry delays the one that belongs to the activated detector is measured. If more detectors are activated, the shortest one of the defined entry delays is measured. Detectors with delay C can extend the duration of the exit delay (see the option: Detector with the Delayed C reaction extends exit in the Parameters tab)
Alarm duration	Alarm duration – valid for all sections. Range 5 sec. – 20 min.
Entrance delay A	Timer A. Range 5 sec. – 2 min.
Exit delay A	Timer A. Range 5 sec. – 2 min.
Entrance delay B	Timer B. Range 5 sec. – 2 min.
Exit delay B	Timer B. Range 5 sec. – 2 min.
Entrance delay C	Timer C. Range 5 sec. – 6 min.
Exit delay C	Timer C. Range 5 sec. – 6 min.

Waits for confirmation of intrusion by another detector	Waiting time for alarm confirmation by another detector of a set section. Valid for all detectors with the reaction Confirmed immediate / Confirmed delayed A (1 – 60 min.).	
Waits for confirmation of fire by another detector	Waiting time for fire alarm confirmation by another detector. Valid for all detectors with the reaction Fire confirmed. (1 – 60 min.).	
Waits for repeated activation of the detector	Waiting time for repeated activation of the same detector. The set time must be longer than minimum detector restoration before repeating. Valid for all detectors with the reaction Repeated immediate / Repeated delayed A (6 – 120 sec.).	
Triggered-detector blanking time	Minimum time for which the detector is not evaluated before it can repeat the activation. Valid for all detectors with the reaction Repeated immediate / Repeated delayed A (5 – 60 min.).	
Report when unset after	Time after which an unset section reports unsetting if no detector has been activated in it (the reporting is enabled in the Sections – Report unsetting tab; 1 – 48 h).	
Maximum exit time extension	Maximum time the exit delay is extended by an active delayed detector in the section. Only functional together with the option: Detector with the Delayed C reaction extends exit delay. If the detector is activated longer, the section is set and the detector is bypassed (1 – 60 min.).	
Detector(s) extend exit delay C	The “garage gate function” – an active detector with the Delayed C reaction (open gate) extends the exit delay in the respective section. Such an extension may only be caused by detectors with a status reaction (typically opening detectors). The maximum time of possible extension is set through the previous option.	
Compliance with EN50131	The button makes it possible to set the system parameters in accordance with the EN50131 standard (before the execution of changes verification confirmation is required). Inhibits selected parameters in the Range, Peripherals, Users and Parameters cards, see 8.6.1	
System blocking by alarm	Any alarm	After an alarm the system is blocked in such a way that it cannot be controlled in any way. It can only be reactivated through remote access from an ARC (designed especially for the U.K.).
	By tamper alarm	After activation of a tampering alarm the system cannot be controlled. It can only be reactivated by locally entering the service code on a keypad (designed for the Benelux countries).

8.9.1 EN50131 standard compliance

The Compliance Standard option allows you to set parameters in accordance with the EN50131-1 standard, level 2. If you use this option, the setting of some functions required by the standard will change, which will render their further changes impossible. It is the case of these functions:

In the **Parameters** tab:

- it compulsorily sets the setting methods to **“Sets after confirmation”**
- it compulsorily activates the **“Sirens on”** parameter
- it compulsorily activates the **“Administrator Limits Service and ARC”** parameter.
- it compulsorily activates the **“Tamper Alarm Reset by Service”** parameter
- it compulsorily disables the **“Service and ARC Controls System”** parameter
- it compulsorily disabled the **Reset Allowed”** parameter
- it sets the time limits without the possibility of extension:
 - entry and exit delay A and B to 30s
 - entry and exit delay C to 60s

In the **“Peripherals”** tab:

- for the JA-110R radio module it compulsorily sets the **“Interference detection”** parameter to the “low” level.
- for the access modules and keypads it inhibits selection of the **“Indication settings”** item with the “Permanently” option

8.10 Schedule tab

Here, you can set the time schedule of events that the system will carry out automatically and regularly. To make changes in this tab you do not need to be in the Service mode.

Event	Days of the week	Time	Guarding	Section	PG Control	PG number	Blocked	Note
1	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
2	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
3	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
4	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
5	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
6	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
7	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
8	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
9	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
10	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
11	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
12	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
13	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
14	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
15	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
16	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
17	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
18	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
19	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		
20	Mon, Tue, Wed, Thu, Fri, Sat, Sun	00:00	No	No	No	No		

* Items marked this way are displayed if **Advanced Settings** are on.

Days of the week – defines on which days the action is executed (e.g. every Monday)

Time – Defines at what time the action is executed on the specified day.

Setting – Allows you to execute the actions Set (providing acoustic exit delay), Partly set, Unset or Set immediately (no exit delay or acoustic indication).

Sections – Specifies in which section (sections) the action of the set type is executed.

Section

☐ 1: Groud floor

☐ 2: First floor

☐ 3: Garage

☐ 4: Fully set

☐ 5: Section 5

☐ 6: Section 6

☐ 7: Section 7

☐ 8: Section 8

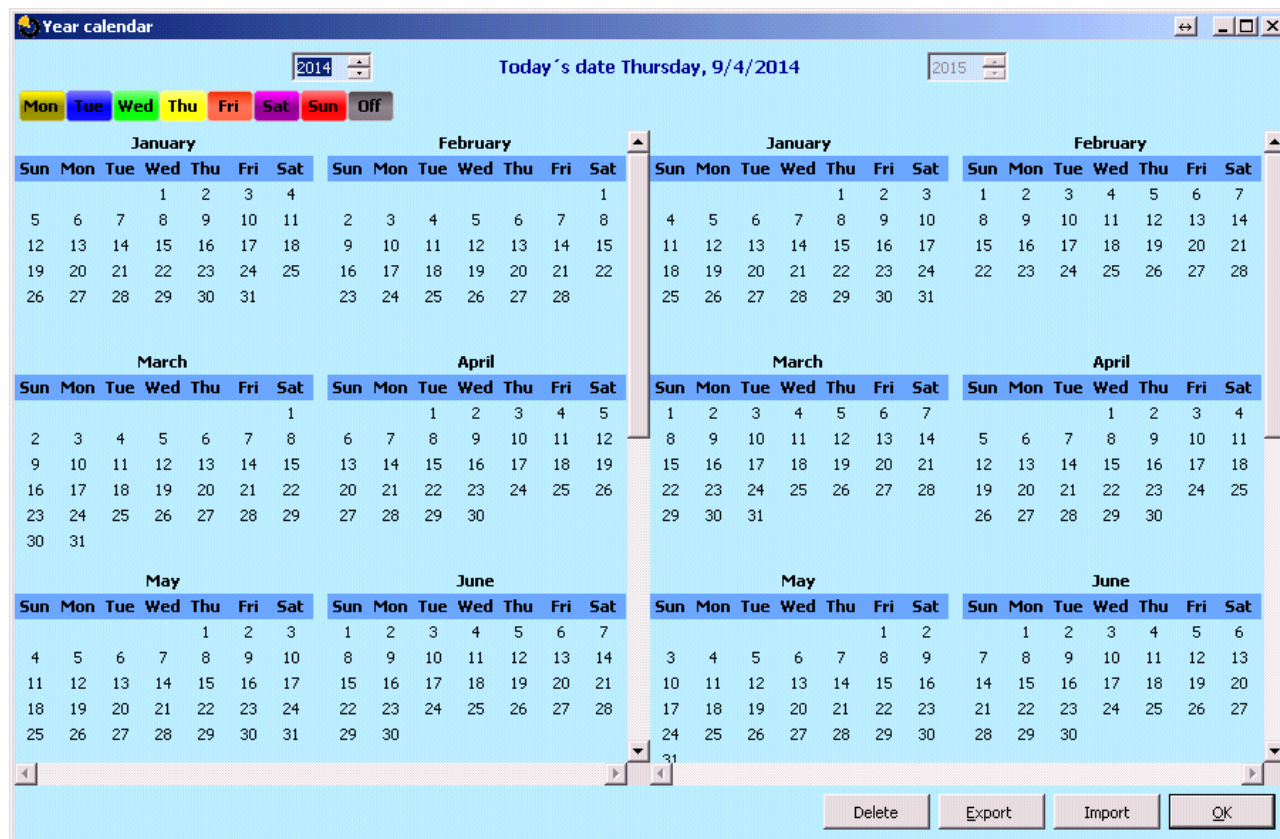
Controls PG* – Allows you to set PG Activation, PG Deactivation, PG Inhibition or Unblocking of PG outputs. Inhibited (blocked) PG outputs cannot be controlled from the segment or with an SMS.

PG number* – Specifies which output/s will be enabled or disabled.

Disable – possibility to inhibit a particular action. Disabling is indicated by a red dot. The Administrator (using J-Link) and Service Technician (using F-Link) are authorized to disable the schedule.

Note – Provides the possibility of customized description of scheduled events

Annual schedule – Allows you to change the attribute of days (Mo, Tu, ...Su) for individual days of the current and next year. You can change the attributed by (repeated) clicking of the mouse button on the corresponding day. Application example: For a public holiday (non-working day) falling on Wednesday you can change the attribute of the day from Wednesday to Sunday. Events that are automatically planned in accordance with the basic settings of the Schedule and valid for working days are not carried out on this day. However, the program valid for Sundays will be kept. This way you can adjust the control of Sections or PG Control e.g. also for company holidays etc. The “Off” attributed means disabled – on days indicated like this no scheduled event is executed.



Notes:

- One schedule event can control (enable or disable) setting and PG outputs at the same time.
- Switching an application on and off for a certain time is possible in 2 ways. You can either set an action for enabling and an action for disabling the PG output or only an action for enabling and set an impulse of the required length for the PG output.
- If you select Setting (Partial setting) of a specified section, at the specified time an exit delay with the fixed time of 3 min. is first activated. All sensors in the specified sections with the Immediate reaction are readjusted to have the Delayed reaction during this 3min period. If you select Unsetting, unsetting is executed immediately without an exit delay and all the loops are active immediately (including delayed detectors).

8.11 Communication tab

The tab is used to set the behavior of communicators of the internal and external way of communication. To make changes in this tab you do not need to be in the Service mode.

The screenshot shows the 'Installation wizard' window for 'Jablotron 100'. The user is logged in as 'Service technician' and is in 'SERVICE mode, guarding completely disabled'. The 'Communication' tab is selected, showing various configuration options:

- Primary channel for voice communication:** A dropdown menu set to 'GSM'.
- Registration key:** A text field containing '18UTA-PDB32-1XKM'.
- Service technician access to ARC settings:** A dropdown menu set to 'Yes'.
- No code for voice menu and control SMS:** An unchecked checkbox.
- Forward invalid SMS commands to:** A dropdown menu set to '1: Master'.
- All ARCs enabled:** A checked checkbox.
- Buttons:** 'GSM settings', 'LAN settings', 'PSTN settings', and 'GSM restart'.
- Communication type:** A group box containing three radio buttons: 'Without remote programming' (unselected), 'Remote programming by F-Link' (selected), and 'Jablotron Cloud communication' (unselected).

At the bottom, there are 'Basic', 'Next', and 'Close' buttons.

Primary channel for voice communication – selecting the channel that will be used for communication if a system keypad is equipped with a segment for voice communication of users with the alarm receiving center (options GSM/PSTN).

Primary transmission of voice reports – selecting the channel that the control panel will use to report voice events (options GSM/PSTN).

Registration key – unique registration number of the control panel.

Service technician's access to the ARC settings – allows an ARC technician to restrict access of a service technician to the ARC tab (completely or for reading only).

Voice menu without code – when using an authorized phone to control a function by calling, the user does not have to enter his/her code (he/she is authorized by calling from his/her phone). For this function the caller's identification (CLIP) must be activated

Forward messages to – selecting the user where SMS messages that are incomprehensible for the control panel will be forwarded (invoicing information from the operator etc.)

All ARC allowed – possibility to completely disable communication to the ARC – not available if an ARC technician has restricted access.

Communication type – the system offers several methods of remote communication/configuration

Without remote configuration – it behaves like an autonomous device with its own SIM card. The device communicates outwards (sends SMS and voice messages) and receives command SMS and has a functional voice menu. Remote configuration is not possible.

Limited remote communication – communicates like the previous type and in addition it support remote configuration of the system. Remote configuration is possible from a computer with the F-Link (J-Link) program

with an Internet connection. To establish connection to the control panel F-Link connects to the manufacturer's server to provide it with the registration code and phone number of the SIM card inserted in the control panel communicator. There must be functional data communication in the control panel (LAN or GSM/GPRS).

Jablotron communication – the device communicates with the manufacturer's server (MY JABLOTRON application) and continuously sends information about the device status to it. Thus, if F-Link (J-Link) sends a request for remote connection, the server is immediately ready to establish connection. In addition, this communication allows the user to use server services. Applications allowing the user to operate the system can be installed in mobile devices with the Android, iOS (Apple) and Windows Mobile systems. For this option it is necessary to use a LAN communicator or GSM communicator with activated GPRS data communication (a SIM card with a suitable data tariff is necessary).

8.11.1 GSM Settings button

The button is used to set parameters and behavior of the GSM communicator.

* An item marked like this is set automatically after activation of the control panel if a functional SIM card was inserted into it before activation (service of the Jablotron server)

GSM communicator – possibility to switch off the communicator.

GSM signal – information about the signal strength in percent (it is measured once every minute). For proper function the signal should be at least 30%. If you encounter problems with GSM signal quality, you are recommended to test a SIM card of another operator. You are not recommended to use a directional or gain GSM antenna for the communicator (it only reduces connection of the module to 1 network cell = unstable communication). You can also get information about the signal quality using the SMS command STATUS (see 13.4)

SIM Card PIN – We recommend the use a SIM card with the PIN code disabled.

Network APN* – GPRS data communication settings. Data communication provides access to services of the Jablotron server, enables remote access of a service technician, communication with the ACR etc. Besides the APN settings the used SIM card must support data transmission.

APN User* – name (do not enter one unless the network uses it).

APN Password* – password (do not enter one unless the network uses it).

Call limit min./day – limits the range of actual calling to 5 to 500 minutes a day.

SMS limit per day – limits the number of sent SMS to 5 to 500 SMS a day.

Allow diacritic – if international character accents (ICC) are allowed, reports can be sent from the system via more than one SMS text message. ICC must be enabled if you use e.g. Russian alphabet in your texts etc.

Remote control via telephone – setting the possibility to control the system remotely using the voice menu. If Users are selected, the menu can only be accessed from the phones of defined users (in the Communication tab you can even allow users to enter the voice menu without entering their user code – the Voice menu without code option). If Anybody is selected, the voice menu can be accessed from any phone. However, on accessing the menu the user is always requested to enter the user's code.

Remote control by sending SMS – setting the possibility to control the system remotely with the use of SMS commands. If Users are selected, the system only accepts SMS commands from the phones of defined users (in the Communication tab you can even allow users to use SMS commands without entering their user code – the Voice menu without code option). If Anybody is set, an SMS command can be set from any phone; however, it is conditional on entering the access code.

Credit enquiry – by pressing this button you can immediately get information about the credit balance from the operator's answer (if this function is supported)

Credit - limit – possibility to set the lower limit for automatic checking of the limit of a pre-paid SIM card. If the established credit is below this limit, the system will send an information SMS to the person whom the reports **SMS Errors and Service are assigned to**. Caution: **you are not recommended to use a pre-paid card in the system – they increase the risk of a communication failure.**

SIM credit sequence – command for automatic checking of the credit balance of a pre-paid SIM card (if supported by the operator). You can obtain the command from your operator.

Credit - position in text – position (sequential number of the character) in the operator's credit balance report at which the numerical information about the credit balance starts (the communicator only looks for numerals in the report and ignores the other characters)

Credit - checking period – setting how often the system will check the credit balance (you can set 0 to 99 days where 0 is off).

Tel.no. to maintain SIM card validity – if the pre-paid SIM card requires maintaining calls, you can set a phone number which the system will dial automatically (e.g. the exact time service) if there has not been any outgoing call from the system for a period longer than 90 days (10 s after answering of the call by the called party the system will hang up).

ARC tone detection volume / Volume of generated DTMF for ARC – possibility to adjust the volume of received or transmitted tones. The arrow under the runner shows the recommended setting. Perform possible changes using small gradual shifts.

SIMLock – function that links the phone number of the SIM card to the ARC settings. It means that if you replace the SIM card with another one, all the settings of the **ARC tab will be deleted**. The deletion is irreversible and other settings (registration to the MY JABLOTRON web service) must be performed by the ARC technician once again.

Sensitivity of DTMF detection from ARC – setting the sensitivity of reception of the signal generated by the ARC. The sensitivity is adjustable in 10 steps, the optimum default value is 4.

Level of generated DTMF to the ARC – setting the intensity of the transmitted tone dialing signal in DTMF generated by the control panel. The intensity is adjustable in 10 steps, the optimum default value is 2.

Number of incoming call rings – number of ringing impulses until automatic answering by the communicator. You can set answering after 1 to 10 ringing impulses (corresponding to 5 to 50 seconds). The default value is 3 (15 seconds).

8.11.2 LAN Settings button

It is used to set the LAN communicator (if the control panel contains one).

LAN communicator – possibility to disable LAN communication.

Get IP address from the DHCP server - automatic setting of network parameters. If this function is not supported by the network, the respective parameters must be entered manually. Manual entry is only possible if this option is deselected.

IP address – setting for manual IP address assignment that is only available if automatic assignment from the DHCP server is not enabled. The default setting is 192.168.1.99

LAN settings

Enabled LAN communicator

☐ Get IP address from DHCP server

192 . 168 . 1 . 99 IP address

255 . 255 . 255 . 0 Subnet mask

192 . 168 . 1 . 1 Gateway

192 . 168 . 1 . 1 DNS server

JABLOTRON Name

00-00-00-00-00-00 MAC address

Test DNS OK

Subnet mask – setting for manual subnet mask IP assignment that is only available if automatic assignment from the DHCP server is not enabled. The default setting is 255.255.255.0

Gateway – setting for manual default gateway IP assignment that is only available if automatic assignment from the DHCP server is not enabled. The default setting is 192.168.1.1

DNS server – setting for manual DNS server IP assignment that is only available if automatic assignment from the DHCP server is not enabled. The default setting is 192.168.1.1

Name – device name for easier identification in the local network

MAC address – unique address of every LAN device

LAN device for identification of the source of information

Test DNS – when the LAN communicator is connected to the Internet, the settings can be tested for correctness. If a green dot appears after pressing of the button, the connection to the server has been established, but if a red dot is displayed after a few seconds, the time for establishing the connection has expired, which indicates an incorrect setting or an error in the LAN communicator connection.

8.11.3 PSTN Settings button

It is used to set the phone communicator (if the control panel contains one).

PSTN Module – possibility to disable communication along a phone line.

Call limit min./day – limits the range of actual calling from 5 to 500 minutes a day.

Remote control via telephone – setting the possibility to control the system remotely using the voice menu. If Users are selected, the menu can only be accessed from the phones of defined users (in the Communication tab you can even allow users to enter the voice menu without entering their user code – the Voice menu without code option). If Anybody is selected, the voice menu can be accessed from any phone. However, on accessing the menu the user is always requested to enter the user's code.

Generated DTMF level (for ARC) – setting the intensity of the transmitted tone dialing signal in DTMF generated by the control panel. The intensity is adjustable in 10 steps, the optimum default value is 2.

DTMF detection sensitivity (from ARC) – setting the sensitivity of reception of the signal generated by the alarm receiving center. The sensitivity is adjustable in 10 steps, the optimum default value is 4.

Number of incoming call rings – number of ringing impulses until the call is answered by the communicator. Answering can be set after 1 to 10 ringing impulses (corresponding from 5 to 50 seconds) The default value is 3 (15 seconds).

PSTN access prefix – code for dialing through the internal phone exchange

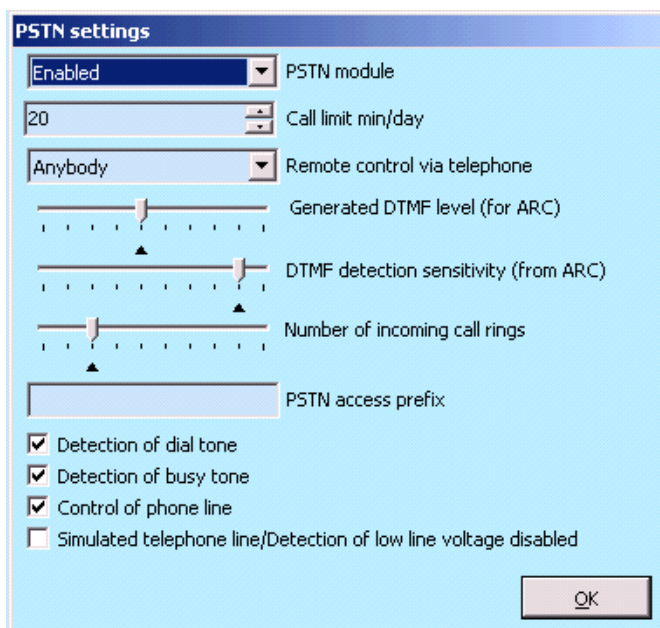
dial tone – if this parameter is off, the communicator will start dialing the set phone number regardless of the type or presence of dialing tone. If it is on, the communicator will not start working until it detects the dialing tone (e.g. dialing tone assignment delay in some phone exchanges)

Detection of busy tone – if the communicator detects the engaged tone, e.g. in a parallel line, it will hang up and inform the system. You are not recommended to enable this parameter as the communicator does not detect hanging up.

Phone line check – The communicator completely disables detection of voltage in the phone line. It means that it will not report the torn-off phone line error. If it gets torn-off, an error will be indicated after 30 min. from the detection of phone line loss. The communicator indicates the error using a yellow LED.

Simulated telephone line – If activated, the communicator does not check presence of the phone line or its tones. Thus, it will not detect a phone line error at a lower voltage than 15V. The use is designed for radio modems.

You will find a detailed description of parameter settings in the manual of the JA190X phone communicator module.



8.11.4 Restart GSM button

Button for logging the communicator out and logging it in the network again. It may take tens of seconds to log the GSM communicator in the network again (depending on the current status of the system). GSM can also be restarted using the SMS command GSM (see 13.4)

8.12 ARC tab

This tab is used to set communication for up to 5 alarm receiving centers. If in the Communication tab the access of the service technician is restricted, this parameter can only be set by a person with the ARC Technician authorization level. The option is also unavailable if Communication Jablotron is selected, which considerably simplifies setting of the communication part of the system. To make changes in this tab you do not need to be in the Service mode.

Posi...	ARC enabled	Next ARC is the backup ...	Protocol	Communicator	Domain 1 (tel. 1)	Domain 2 (tel. 2)	Section ID	Reported events	Timing	ARC test
1	☒	☒	CID	GSM			Enter	Enter	Enter	ARC test
2	☒	☐	JabloIP	LAN			Enter	Enter	Enter	ARC test
3	☐	☐	No	GSM			Enter	Enter	Enter	ARC test
4	☐		JabloIP Cr	GSM			Enter	Enter	Enter	ARC test
5	☐		JabloSMS	GSM						
			CID							
			IP SIA							
			SIA							
			IMG server							

ARC enabled – possibility to disable the set communication

Next ARC is the backup - if enabled, the next position will only be used if data cannot be transmitted from the current one.

Protocol – transmission protocol setting

Communicator – if the selected protocol can be transmitted in more ways, the communicator type is selected here

Domain 1 (phone 1) – setting of the main domain (using URL or IP address), or the main phone number depending on the used protocol. If IP communication is used, you must enter the communication port after the IP address, separated with a colon. You will obtain the communication port and IP address data from the ARC the communication is routed to. If no communication port is filled in, the event will not be transmitted

Domain 2 (phone 2) – setting of a backup domain (using URL or IP address) or a backup phone number depending on the used protocol

Section ID – setting of the building identification (common for the whole building or individually for sections). Warning: The default setting is zero, with which the communicator will not send any reports!

Reported events – selecting types of reported events and the possibility of setting codes of supplementary reports (PG outputs, special reports A to D)

Timing – setting the time limits for transmissions and setting the connection checking period.

ARC test – by pressing you will start a manual test to check connection with the respective protocol.

Note – here, you can note details of ARC settings, commencement date of the service etc.

Report events to ARC no. 1

- ☒ Burglary
- ☒ Fire
- ☒ Tamper alarm
- ☒ Panic
- ☒ Faults and service events
- ☒ Setting/unsetting
- ☒ PG controls
- ☒ Special reports
- ☒ Uncategorized

All Invert Nothing

Common accessory reports OK Cancel

8.12.1 JABLOTRON 100 CID and SIA codes

CID	SIA	Event EN	Udalost CZ
1101	QA	Health problem	Zdravotní potíže
1110	FA	Fire alarm	Požární poplach
1118	FG	Unconfirmed fire alarm	Nepotvrzený požární poplach
1120	PA	Panic alarm	Tísňový poplach
1130	BA	Instant alarm	Poplach v okamžité smyčce
1133	BA	24H alarm	Poplach 24H
1134	BA	Delayed alarm	Poplach ve zpožděné smyčce
1138	BG	Unconfirmed alarm	Nepotvrzený poplach
1144	TA	Tamper of periphery	Tamper periferie,
1154	WA	Flood alarm	Poplach zaplavením
1170	UA	Special Reaction A	Speciální reakce A
1171	UA	Special Reaction B	Speciální reakce B
1172	UA	Special Reaction C	Speciální reakce C
1173	UA	Special Reaction D	Speciální reakce D
1174	UA	Not used	Nepoužito
1175	UA	Not used	Nepoužito
1176	UA	Not used	Nepoužito
1130	UA	Keybox	Bezpečnostní schránka
1300	ET	Fault	Porucha
1301	AT	AC loss longer then 30 min	Vypadek napájení nebo delší než 30 minut
1302	YT	Low ACU control panel	Porucha akumulátoru ústředny
1305	RR	System boot	Start systému
1306	LB	Entering service	Vstup do servisu
1308	RE	System shutdown	Vypnutí systému
1313	YX	Bloeked after alarm -Engineer reset	Zablokování po poplachu (Engineer reset)
1344	XQ	RF interference	Zarušení RF
1350	YC	Event to ARC not delivered	Chyba komunikace na PCO
1354	YS	Event to ARC was not delivered in preset time	Nepředání události v nastaveném čase
1384	XT	Low batt	Nízký stav baterie periferie
1401	OP	Disarmed	Otevřeno
1402	OG	Disarmed partialy	Částečné otevření
1406	BC	Alarm canceled by user	Zrušení poplachu
1407	OQ	Remotely disarmed	Vzdáleně odjištěno
1412	LF	Remote access	Vzdálený přístup
1416	LS	Configuration saved	Úspěšné uložení konfigurace
1454	CI	Section without movement	Sekce bez pohybu (nezajištěno)
1461	JA	Over code	Překročení pokusu o zadání kódu
1521	BL	Siren mute	Ztišení sirény
1570	EB	Bypass periphery (turned off)	Vypnutí periferie
1572	TB	Tamper bypass	Bypass sabotáž
1573	BB	Activation bypass	Bypass aktivace
1574	UB	Bypass section (turned off)	Vypnutí sekce
1578	UO	Fault bypass	Bypass poruchy
1601	RX	Manual test	Manuální test
1602	RP	Periodic test	Periodický test
1625	JT	Reset of time	Reset času
1661	RC	PG1 ON	PG1 zapnuto
1662	RC	PG2 ON	PG2 zapnuto
1663	RC	PG3 ON	PG3 zapnuto
1664	RC	PG4 ON	PG4 zapnuto
1665	RC	PG5 ON	PG5 zapnuto
1666	RC	PG6 ON	PG6 zapnuto
1667	RC	PG7 ON	PG7 zapnuto
1668	RC	PG8 ON	PG8 zapnuto
1669	RC	PG9 ON	PG9 zapnuto
1670	RC	PG10 ON	PG10 zapnuto
1671	RC	PG11 ON	PG11 zapnuto
1672	RC	PG12 ON	PG12 zapnuto
1673	RC	PG13 ON	PG13 zapnuto
1674	RC	PG14 ON	PG14 zapnuto

1675	RC	PG15 ON	PG15 zapnuto
1676	RC	PG16 ON	PG16 zapnuto
1677	RC	PG17 ON	PG17 zapnuto
1678	RC	PG18 ON	PG18 zapnuto
1679	RC	PG19 ON	PG19 zapnuto
1680	RC	PG20 ON	PG20 zapnuto
1681	RC	PG21 ON	PG21 zapnuto
1682	RC	PG22 ON	PG22 zapnuto
1683	RC	PG23 ON	PG23 zapnuto
1684	RC	PG24 ON	PG24 zapnuto
1685	RC	PG25 ON	PG25 zapnuto
1686	RC	PG26 ON	PG26 zapnuto
1687	RC	PG27 ON	PG27 zapnuto
1688	RC	PG28 ON	PG28 zapnuto
1689	RC	PG29 ON	PG29 zapnuto
1690	RC	PG30 ON	PG30 zapnuto
1691	RC	PG31 ON	PG31 zapnuto
1692	RC	PG32 ON	PG32 zapnuto
3101	QR	Health problem (deactivation)	Zdravotní potíže (zklidnění)
3110	FR	Fire alarm (deactivation)	Požární poplach (zklidnění)
3118	FG	Unconfirmed fire alarm (deactivation)	Nepotvrzený požární poplach (zklidnění)
3120	PR	Panic (deactivation)	Tíseň-zklidnění
3130	BR	Instant alarm (deactivation)	Poplach okamžitý (zklidnění)
3133	BR	24H alarm (deactivation)	Poplach 24H (zklidnění)
3134	BR	Delayed alarm (deactivation)	Zpožděná smyčka (zklidnění)
3138	BG	Unconfirmed alarm (deactivation)	Nepotvrzený poplach (zklidnění)
3144	TR	Tamper (deactivation)	Tamper periferie (zklidnění)
3154	WR	Flood alarm (deactivation)	Poplach zaplavením (zklidnění)
3170	UR	Special Reaction A (deactivation)	Speciální reakce A (zklidnění)
3171	UR	Special Reaction B (deactivation)	Speciální reakce B (zklidnění)
3172	UR	Special Reaction C (deactivation)	Speciální reakce C (zklidnění)
3173	UR	Special Reaction D (deactivation)	Speciální reakce D (zklidnění)
3174	UR	Not used	Nepoužito
3175	UR	Not used	Nepoužito
3176	UR	Not used	Nepoužito
3130	UR	Keybox (deactivation)	Bezpečnostní schránka (zklidnění)
3300	ER	Fault (deactivation)	Porucha (zklidnění)
3301	AR	AC recovery	Obnovení napájení
3302	YR	Control panel battery OK	Baterie ústředny v pořádku
3306	LX	Service exit	Výstup ze servisu
3313	YZ	Unblocked after alarm	Odblokování po poplachu
3344	YH	RF interference (deactivation)	Zarušení RF (zklidnění)
3350	YK	Comunication to ARC restored	Komunikace na PCO obnovena
3354	YL	Event to ARC was not delivered in preset time (deactivation)	Nepředání události v nastaveném čase (zklidnění)
3384	XR	Battery of periphery OK	Baterie periferie v pořádku
3401	CL	Armed	Zavřeno
3402	CG	Partially armed	Částečné zavření
3407	CQ	Remotely armed	Vzdáleně zajištěno
3412	LE	Remote access closed	Vzdálený přístup ukončen
3417	CU	Remotely partialy armed	Vzdáleně částečně zajištěno
3570	EU	End of periphery bypass (deactivation)	Zapnutí periferie
3572	TU	Tamper bypass end	Bypass sabotáž konec
3573	BU	Activation bypass end	Bypass aktivace konec
3574	UU	End of section bypass (deactivation)	Zapnutí sekce
3578	UP	Fault bypass (deactivation)	Bypass poruchy konec
3661	RO	PG1 OFF	PG1 vypnuto
3662	RO	PG2 OFF	PG2 vypnuto
3663	RO	PG3 OFF	PG3 vypnuto
3664	RO	PG4 OFF	PG4 vypnuto
3665	RO	PG5 OFF	PG5 vypnuto
3666	RO	PG6 OFF	PG6 vypnuto

3667	RO	PG7 OFF	PG7 vypnuto
3668	RO	PG8 OFF	PG8 vypnuto
3669	RO	PG9 OFF	PG9 vypnuto
3670	RO	PG10 OFF	PG10 vypnuto
3671	RO	PG11 OFF	PG11 vypnuto
3672	RO	PG12 OFF	PG12 vypnuto
3673	RO	PG13 OFF	PG13 vypnuto
3674	RO	PG14 OFF	PG14 vypnuto
3675	RO	PG15 OFF	PG15 vypnuto
3676	RO	PG16 OFF	PG16 vypnuto
3677	RO	PG17 OFF	PG17 vypnuto
3678	RO	PG18 OFF	PG18 vypnuto
3679	RO	PG19 OFF	PG19 vypnuto
3680	RO	PG20 OFF	PG20 vypnuto
3681	RO	PG21 OFF	PG21 vypnuto
3682	RO	PG22 OFF	PG22 vypnuto
3683	RO	PG23 OFF	PG23 vypnuto
3684	RO	PG24 OFF	PG24 vypnuto
3685	RO	PG25 OFF	PG25 vypnuto
3686	RO	PG26 OFF	PG26 vypnuto
3687	RO	PG27 OFF	PG27 vypnuto
3688	RO	PG28 OFF	PG28 vypnuto
3689	RO	PG29 OFF	PG29 vypnuto
3690	RO	PG30 OFF	PG30 vypnuto
3691	RO	PG31 OFF	PG31 vypnuto
3692	RO	PG32 OFF	PG32 vypnuto

	Sources for JA 100	Zdroje pro JA 100
001 - 120	Peripherie	Periferie
501 - 800	User codes	Uživatelské kody
500	Service code	Servisní kod
901	Control panel	Ústředna
921	ARC1	PCO1
922	ARC2	PCO2
923	ARC3	PCO3
924	ARC4	PCO4
911	GSM communicator	GSM komunikátor
912	LAN communicator	LAN komunikátor
913	PSTN communicator	PSTN komunikátor

8.12.2 Setting of transmission of photos to an external storage

If in the region/country the MY JABLOTRON service is activated and the equipment user is going to use it, the required settings will be done completely automatically on registration of the control panel to the MY JABLOTRON web service.

If the MY JABLOTRON application is not used, to enable transmission of photos to the server and their further distribution you need to activate Transmissions on Position 5. After this activation of transmissions the user must create an account for storage of photos at the img server. The creation of the account and its operation is free of charge. The procedure is described in the manual of the modules that work with this technology (JA-120PC, JA-160PC and other future verification devices).

8.13 Diagnostics tab

It is used to check and verify the status of peripherals and their properties.

P	Name	Type	Section	Activation...	Status	Battery status/voltage	Voltage/loss	RF Signal level	Channel	Note
0	Control panel	JA-101K	1: Groud floor		OK	13.7 V/13.7 V	13.7 V/163 mA	100 % GSM		
1	Radio module	JA-110R	1: Groud floor		OK		-0,1 V		RJ	
2	LCD keypad	JA-114E	1: Groud floor		OK		-0,4 V		RJ	
3	Main door	JA-110M	1: Groud floor		ACT		0,0 V		Bus 1	
4	Kitchen window	JA-110M	1: Groud floor		OK		0,0 V		Bus 1	
5	Garage door	JA-111M	3: Garage		ACT		0,0 V		Bus 1	
6	Hall	JA-110P	1: Groud floor		OK		-0,1 V		Bus 1	
7	Garage PIR	JA-120PW	3: Garage	ACT	OK		-0,2 V		RJ	
8	Indoor siren	JA-110A	1: Groud floor		OK		0,0 V		Bus 1	
9	Balcony door	JA-150M	2: First floor		ACT	100 %		100 %		
10	Balcony window	JA-150M	2: First floor		OK	100 %		100 %		
11	Living room	JA-151P	2: First floor	ACT	OK	100 %		80 %		
12	Interface	JA-121T	1: Groud floor		OK		-0,3 V		RJ	
13	Remote control	JA-182J	4: Fully set							

* Items marked this way are displayed if **Advanced Settings** are on.

Activation memory – registers activations of the peripheral device that have occurred since the last deletion of this column. The memory of all peripherals can be deleted with the Delete memory button (bottom bar). You can delete the memory of a selected peripheral using the right mouse button. Activation of a tamper sensor (TMP) has the highest priority when events are recorded in the memory.

Status – indicates the current status of the peripheral. OK = everything all right, TMP = tampering, ACT = alarm input activated, ERR = error, ?? = no communication with the peripheral, Mains supply = supply failure (or completely discharged battery), Charging – charging the backup battery in the peripheral device or control panel. Battery = discharged or disconnected battery in the peripheral of control panel, BOOT – upgrading of the peripheral is going on or upgrade failure (repeat upgrade), OFF = peripheral off. By moving the mouse cursor on the STATUS of the respective peripheral you will display details.

Battery* – If the peripheral contains a battery, its status is displayed. For the control panel (position 0) the voltage of the backup battery is displayed. If the voltage data of a wireless peripheral device are missing, the peripheral has not communicated yet – activating its transmission (e.g. by means of the tamper sensor or in F-Link click on the Load button) or wait until automatic transmission occurs. If wireless keypads are powered by an external power supply source “Powered from external source” is indicated. The display is not functional for peripherals of the JA-18x series.

Voltage* – On the position of the control panel (0) voltage of the control panel terminals and current that is drawn by the bus peripherals from the control panel are displayed. For bus peripheral the line voltage loss as compared to the control panel is displayed. The loss must not be higher than 2V; otherwise the problem must be solved. For wireless peripherals (except the JA18x series with lithium batteries the service life of the batteries is displayed. Color coding of the battery status: 10% red, 20% yellow, 30% and higher green.

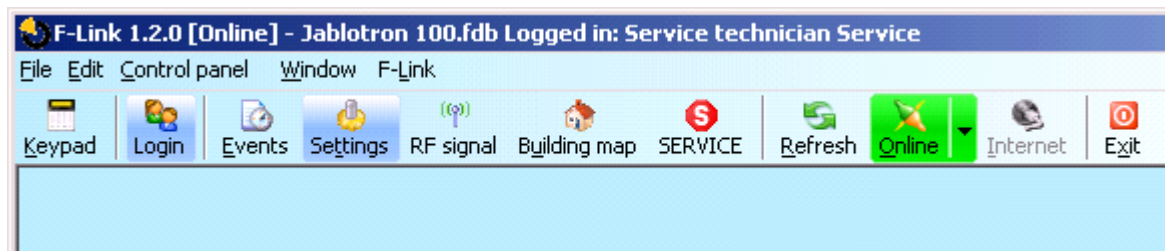
RF signal level* – indicates quality of the signal with which the control panel communicates in GSM or wireless peripheral RF. The value should be at least 30%. If the indication is missing, the peripheral has not communicated yet – activated its transmission (e.g. by means of the tamper sensor) or wait until automatic transmission occurs. The value on the control panel line is the strength of the GSM network signal (about the interference between radio modules and the GSM module see also chapter 6.1). Color coding of the GSM signal: 0-30% red, 40-50% yellow and over 50% green. Color coding of the RF signal: 10% red, 20% yellow, 30% and higher green.

Channel* – informs about the bus used by the peripheral to communicate. Three directions are distinguished: Bus 1, Bus 2 (only JA-106) and the RJ connector designed for the JA-110R radio module connected to the internal connector on the control panel board.

9 Other F-link options

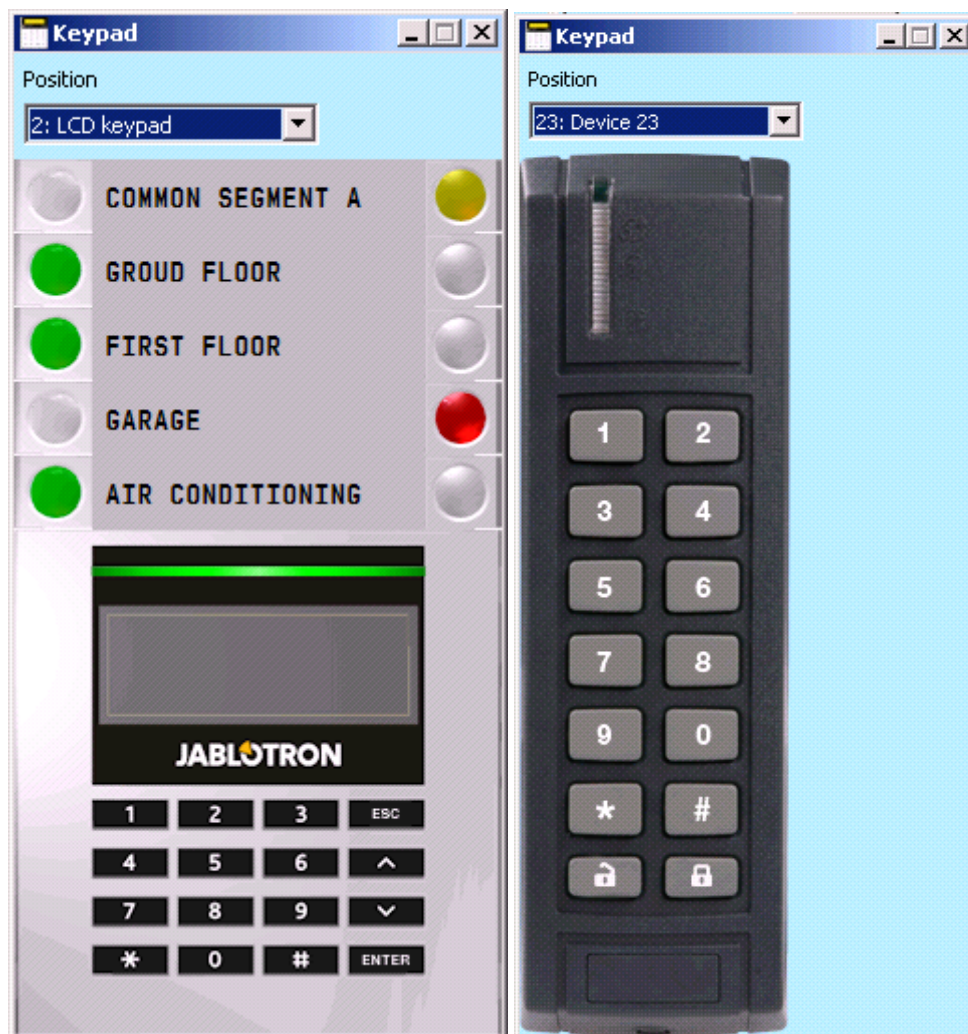
The F-Link version is always indicated in the top bar after the name.

The toolbar provides immediate access to virtual keyboards, system events, settings, RF signal of radio modules, site map, mode changes, local and remote access to the control panel.



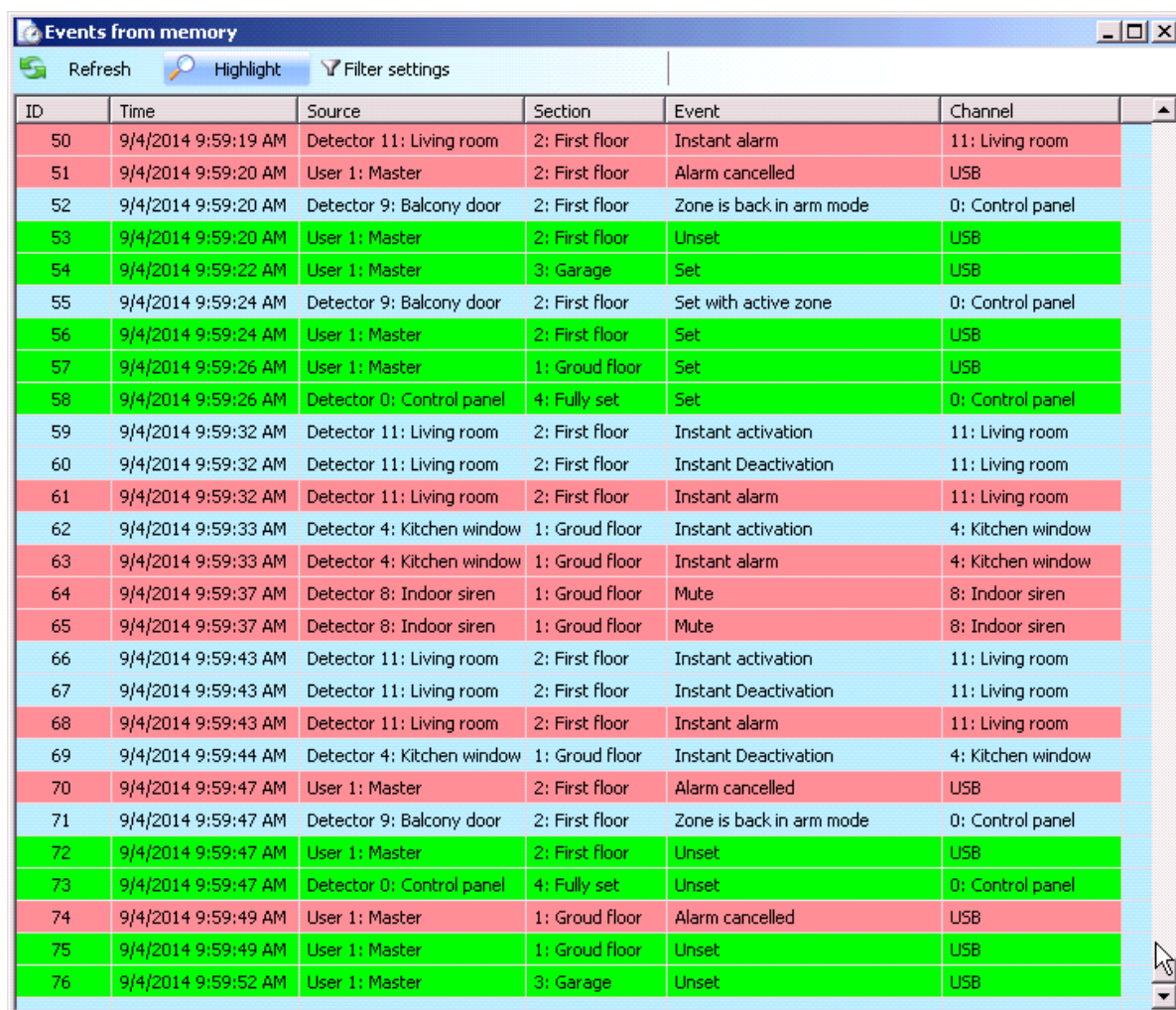
9.1 Keypad (virtual)

The virtual keypad in the F-Link (now in J-Link as well) for all types of control modules enables control (of sections, PG outputs) with the use of segments (not numbered keys) of the person logged in to F-Link. This means that codes cannot be entered.



9.2 Event history:

Event history is accessible in F-Link by pressing of the Events button and selecting “Event history”. In the memory of the control panel (microSD card) up to several millions of records may be stored with the sequential number, exact date and time and source of the event.



ID	Time	Source	Section	Event	Channel
50	9/4/2014 9:59:19 AM	Detector 11: Living room	2: First floor	Instant alarm	11: Living room
51	9/4/2014 9:59:20 AM	User 1: Master	2: First floor	Alarm cancelled	USB
52	9/4/2014 9:59:20 AM	Detector 9: Balcony door	2: First floor	Zone is back in arm mode	0: Control panel
53	9/4/2014 9:59:20 AM	User 1: Master	2: First floor	Unset	USB
54	9/4/2014 9:59:22 AM	User 1: Master	3: Garage	Set	USB
55	9/4/2014 9:59:24 AM	Detector 9: Balcony door	2: First floor	Set with active zone	0: Control panel
56	9/4/2014 9:59:24 AM	User 1: Master	2: First floor	Set	USB
57	9/4/2014 9:59:26 AM	User 1: Master	1: Groud floor	Set	USB
58	9/4/2014 9:59:26 AM	Detector 0: Control panel	4: Fully set	Set	0: Control panel
59	9/4/2014 9:59:32 AM	Detector 11: Living room	2: First floor	Instant activation	11: Living room
60	9/4/2014 9:59:32 AM	Detector 11: Living room	2: First floor	Instant Deactivation	11: Living room
61	9/4/2014 9:59:32 AM	Detector 11: Living room	2: First floor	Instant alarm	11: Living room
62	9/4/2014 9:59:33 AM	Detector 4: Kitchen window	1: Groud floor	Instant activation	4: Kitchen window
63	9/4/2014 9:59:33 AM	Detector 4: Kitchen window	1: Groud floor	Instant alarm	4: Kitchen window
64	9/4/2014 9:59:37 AM	Detector 8: Indoor siren	1: Groud floor	Mute	8: Indoor siren
65	9/4/2014 9:59:37 AM	Detector 8: Indoor siren	1: Groud floor	Mute	8: Indoor siren
66	9/4/2014 9:59:43 AM	Detector 11: Living room	2: First floor	Instant activation	11: Living room
67	9/4/2014 9:59:43 AM	Detector 11: Living room	2: First floor	Instant Deactivation	11: Living room
68	9/4/2014 9:59:43 AM	Detector 11: Living room	2: First floor	Instant alarm	11: Living room
69	9/4/2014 9:59:44 AM	Detector 4: Kitchen window	1: Groud floor	Instant Deactivation	4: Kitchen window
70	9/4/2014 9:59:47 AM	User 1: Master	2: First floor	Alarm cancelled	USB
71	9/4/2014 9:59:47 AM	Detector 9: Balcony door	2: First floor	Zone is back in arm mode	0: Control panel
72	9/4/2014 9:59:47 AM	User 1: Master	2: First floor	Unset	USB
73	9/4/2014 9:59:47 AM	Detector 0: Control panel	4: Fully set	Unset	0: Control panel
74	9/4/2014 9:59:49 AM	User 1: Master	1: Groud floor	Alarm cancelled	USB
75	9/4/2014 9:59:49 AM	User 1: Master	1: Groud floor	Unset	USB
76	9/4/2014 9:59:52 AM	User 1: Master	3: Garage	Unset	USB

Events from the control panel memory (available also after pressing F8) – approx. 100KB of events (from the microSD card) are loaded. If the loading range is insufficient, you can repeatedly select Load / Next 100(500)KB. Warning: If you select Load/All, in a control panel with a longer time of operation the loading may take a few minutes. Loaded events can be Highlighted with colors in groups (green – control; red – alarms; gray – communication to ARC; orange – service and technological events; light gray – PG control). In Filter Settings you can exactly specify which events from which source and in which period should be displayed. The history does not record events that occur during service setting (just the opening and closing of the Service mode is registered). Loaded events can be saved in a file in the File menu using the Export item (Shft+Ctrl+S), namely in several formats (FDE, PDF, TXT, CSV, XML, HTM or HTML). The FDE suffix makes it possible for the F-Link to download the events again.

Events online (available also after pressing F7) – in a temporary table all events are recorded that are saved in the event history and that occur after activation of this option, incl. events during service setting.

Signals online (available also after pressing of F6) – in a temporary table all signals are recorded that are registered by the bus (e.g. also activation and deactivation of sensors).

Events from file - events from the event history saved in the fde database file format can be opened (see Events from the control panel memory)

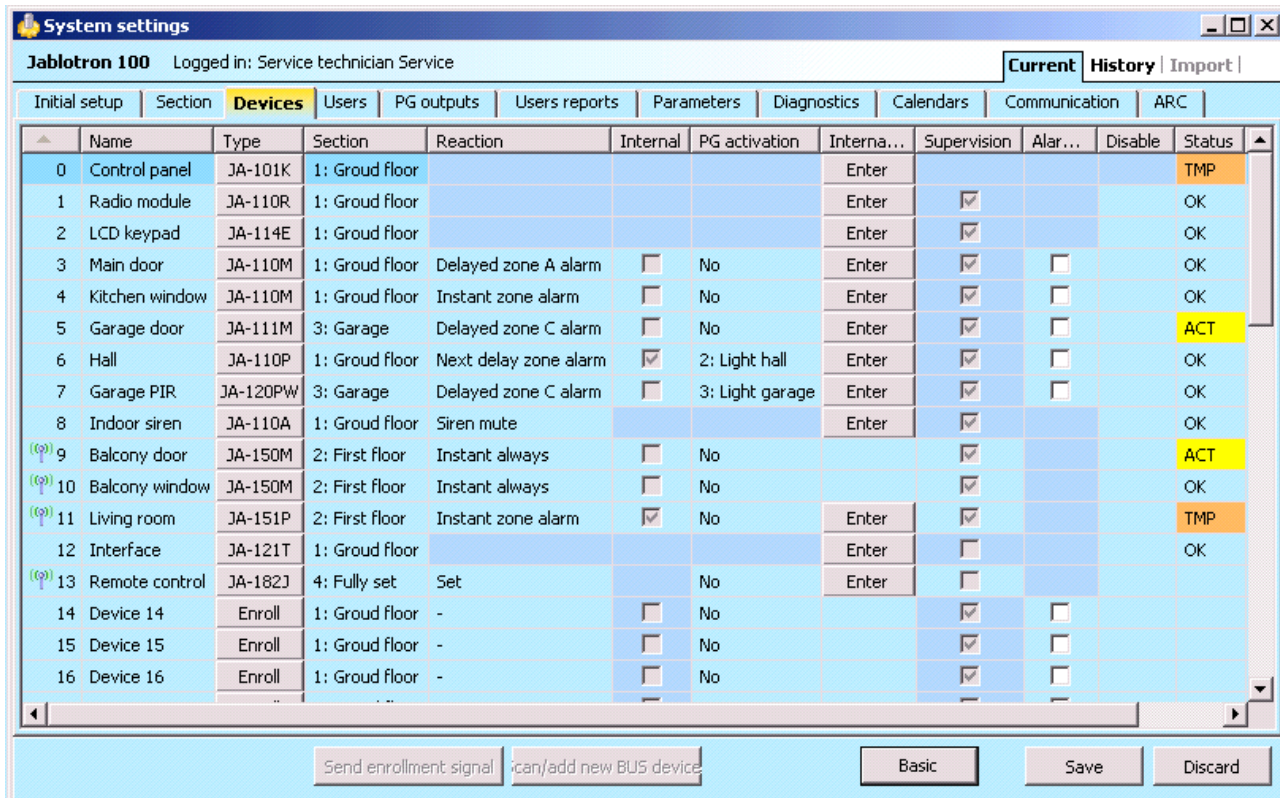
Load – makes it possible to load more events deeper from the history by 100KB or 500KB (100KB corresponds to approx. 1200 events).

Highlight – color highlighting makes it possible to distinguish event types (alarm with red, control with green, error with orange, tampering with blue, neutral with light blue, automation or transmissions with gray etc.).

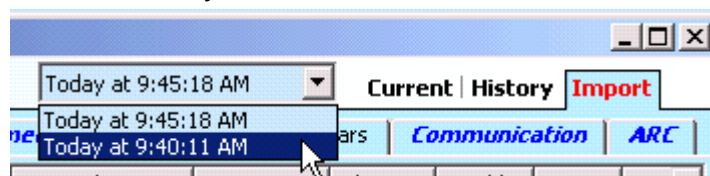
Filter Settings – the filter allows you to obtain only desired information by time, by event type, sections, users, peripherals or PG outputs in a very detailed way. Filters can be combined to increase searching efficiency in deep history.

9.3 System settings

Window used to set behavior of the system, all peripherals, sections, users, PG outputs, communicators and transmissions to ARC is available by pressing the Settings button on the basic top bar.



1. The System Settings Window is opened and closed by the **Settings** button in the top toolbar.
2. In the window you can switch between the following **tabs**: **Initial setting**, **Sections**, **Peripherals**, **Users**, **Reports**, ...
3. The window will display the **current setting of the control panel** loaded on opening of the F-Link SW (hereinafter SW only). The **Load** button in the top toolbar can be used to load the current content of the control panel at any time.
4. If you want to view **older settings of the control panel**, use the **History** tab in the top right corner. The history cannot be changed, but it can be saved in the control panel (if you need to return to earlier settings). Max. 10 previous settings are recorded in the history (arranged by the date and time).
5. You can **import settings** from another installation to the system, e.g. after replacing an old control panel with a new one or using a default template. If the control panel is replaced with a new one, after the connection a completely new database will be created in the computer. To import settings from another database, in the top bar of the main menu select **File / Import** and select the file you want to import settings from. After this selection the **Import** button in the **System Settings** tab will be active and you can also select from the history of a selected file.



6. For simpler applications you can just set the **basic functions** of the system. If you need to set **all functions** of the system, use the **Advanced** button in the bottom right corner. By repeatedly pressing this button you can hide the advanced settings options (their settings remain valid even though they are hidden). The **Advanced/Basic** button is available in the other windows as well.



7. **If you make a change to a setting, it will be indicated with blue text** (the name of the tab will become blue, too). The blue indication will disappear as soon as you save the changes.

8. You can **Save the Settings** using the **Save** button (at the bottom on the right). If you are saving settings in the control panel for the first time, SW will ask you to **enter the file name**. In the computer, a file with the *FDB suffix will be created where the history of settings is gradually saved (every time the settings are saved in the control panel). If you do not want to save the changes, select the **Cancel** button and in the confirmation question select **Ignore**. Parameters can be changed in more tabs and you can then Save all changes.
9. The **Enroll not enrolled** button will open a dialog for collective enrollment (without the possibility to select positions) of peripherals that are connected to the bus and have not been connected to the system in another way. Individual enrollment of peripherals - see 8.4.1
10. The **Send enrolling signal** button will release sending of the enrolling code of the control panel to wireless peripherals, e.g. to wireless output modules.
11. **Setting of all parameters is only possible in the Service mode** (the system is not in the active setting mode. The Service mode is activated and deactivated with the **Service** button in the top toolbar.
12. **Some parameters can be changed during operation**. Therefore, the Settings tab can be opened without entering the Service mode. However, available options can only be set.
13. **The SW contains bubble help** – after placing the mouse cursor over an item the text description will be displayed. You can disable the bubble help in the F-Link roll-down menu.

Possible problems during the use of the System Settings card

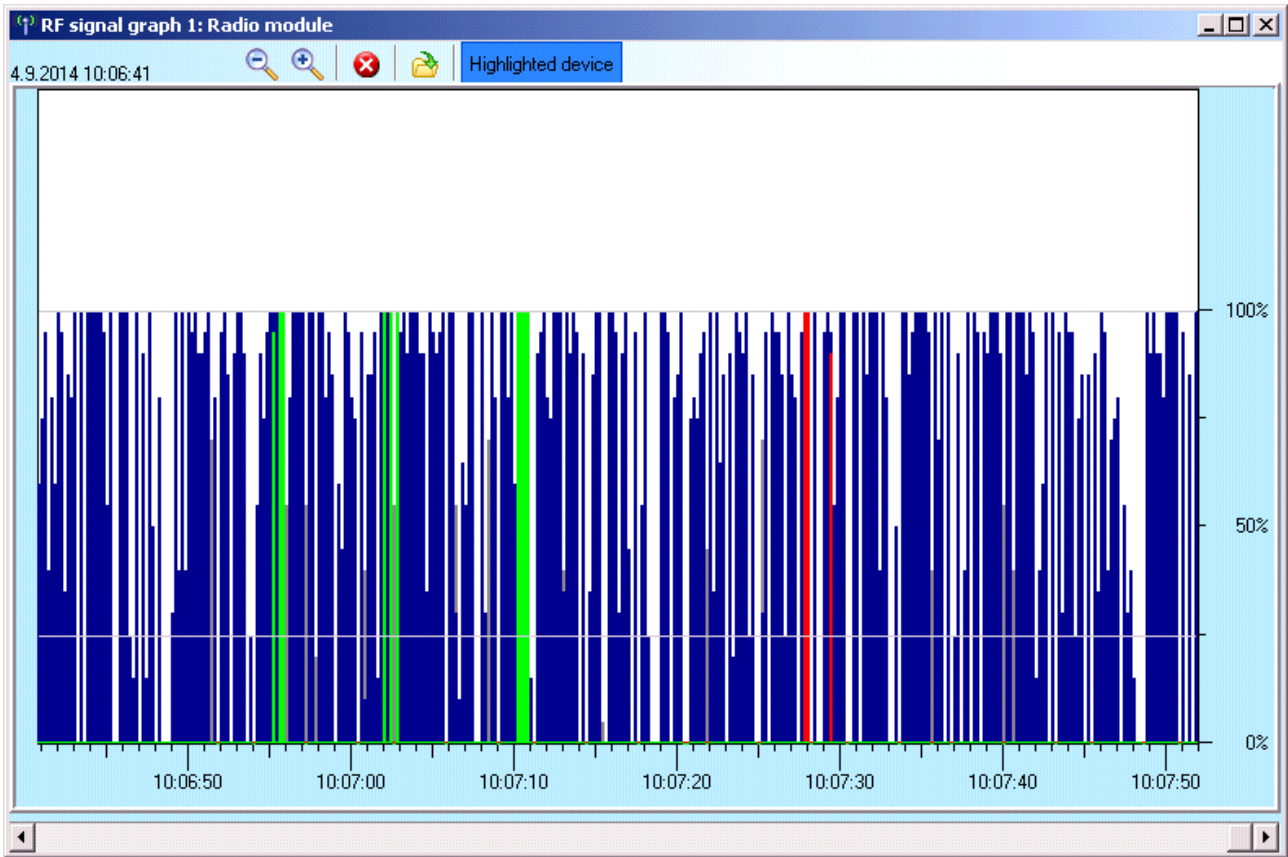
Tab. 6

Problem	Possible cause
None or some of the displayed parameters cannot be changed.	The system is not in the Service mode and you have selected a function that can only be changed in the Service code. On the start of the SW the Service Code was not entered and you do not have the authorization. This is a setting that cannot be changed (Service Technician's authorization, control panel position, the peripheral does not support it etc.), The ARC setting has been inhibited by the ARC technician You are offline You have enabled the parameter Fulfill the EN 50131 standard
The requested parameter cannot be found	Only the basic options are displayed, use the Advanced button You do not see the whole setting area on the screen – use a scroll button or enlarge the window You are authorized by a code with a different access level
The positions are arranged in a different way	By clicking on the title of a column you can select which column will be used as the criterion to arrange the positions; by clicking on the title repeatedly you can select ascending or descending order.
Some tabs are missing	If the PG Outputs tab is not available, check whether the number of PG outputs set in the Initial setting tab is not zero. The ARC tab is not available if you do not have sufficient authorization for it (it may be locked by the ARC technician). It may also be unavailable after registration of the system in the MY JABLOTRON application. You have an older version of the F-Link(J-Link) software
Internal settings cannot be modified in the Peripherals tab	Check whether the peripheral is properly connected, enrolled and functional The Service mode is not enabled Some peripherals do not have internal settings Older versions of F-Link may not have support for new types of peripherals In the case of a wireless peripheral device check whether the radio module is enrolled and functional
A peripheral device cannot be enrolled in the Peripherals tab	For wireless peripherals – you have not enrolled the JA-110R radio module In a bus peripheral the yellow signal lamp must flash regularly. If it does not flash, the element is not properly connected or has not stabilized after activation of the power supply (it may take up to 180 s.). You are trying to enroll an element that requires 2 positions on the last position in the system

	The Service mode is not on Older versions of F-Link may not have support for new types of peripherals
A PG output does not react to activation of a peripheral	Make sure the system is not in the Service mode. In the Diagnostics tab check whether the peripheral transmits information to the control panel In the PG Outputs tab check whether the output is not inhibited by a section status, peripheral or schedule; check the Functions column for proper setting. In the JA-11xN,JA-15xN modules check the DIP switches for proper binary setting of the address and function of the module

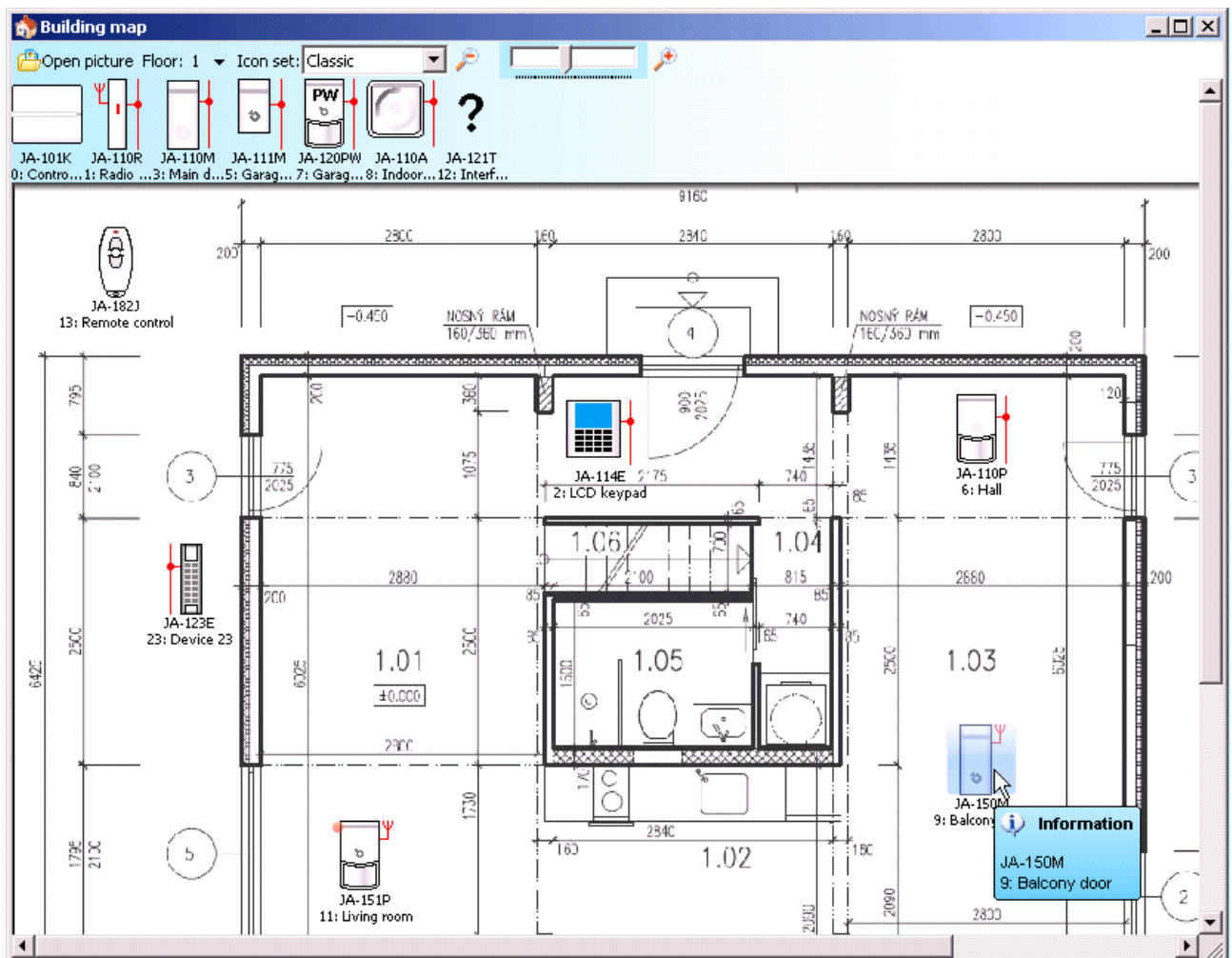
9.4 RF Signal

Window for graphic representation of radio band interference intensity with the possibility to select from the used radio modules. Presence of signals in the band is indicated in blue. Red color identifies communication signals of the entire system (enrolled peripherals) and green is used to display the selected peripheral from the list of the **Highlighted peripheral** item (see figure). Monitored interference logging (when the RF Signal window is open) can be exported from the main menu to a file with the FDR suffix and the  button can be used to import it back for viewing.



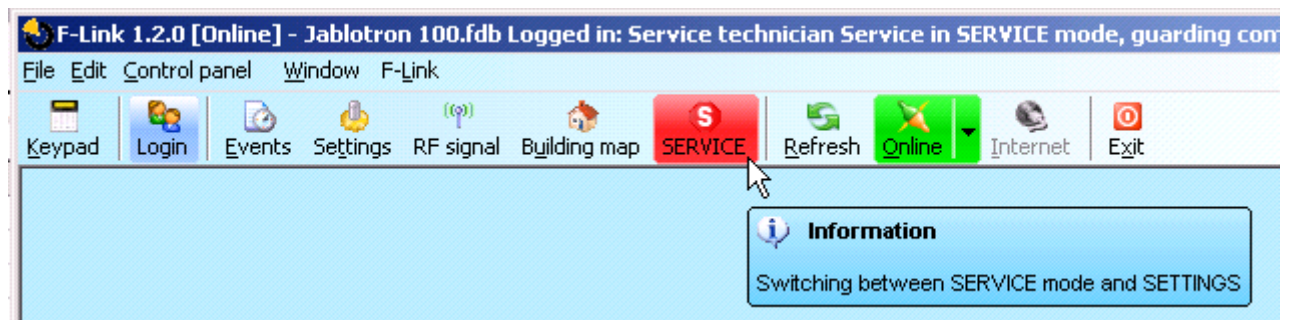
9.5 Building map

You can insert a top view (jpg, gif, bmp, tif, png etc.) into the building map for each floor separately or you can use simple lines to draw your own plan. In each floor you can only insert icons of the learnt peripherals from the icon panel by Drag&Drop. You can print the building map with the icons or you can save it as a BMP image using the Print or Export item in the main menu.



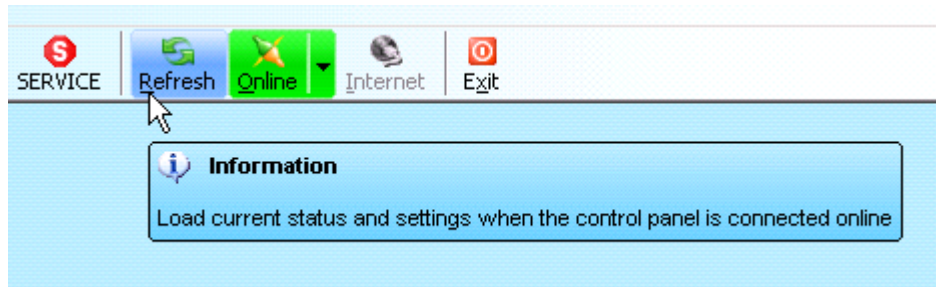
9.6 Service

Switching the control panel mode between the Unset status (when changes of setting can be done in all tabs except the Settings tab) and the Service mode (changes can be done in the Peripherals tab, incl. enrolling, changes of internal settings and deletion of peripherals).



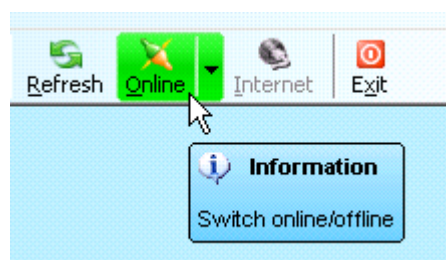
9.7 Refresh

Updating the internal settings of peripherals after a hardware change, e.g. addition of segments to access modules or keypads.



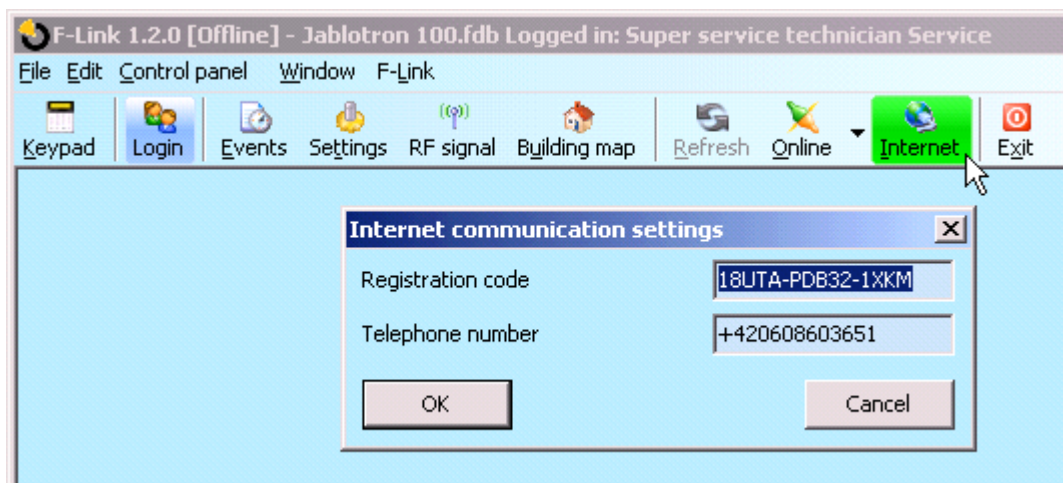
9.8 Online

Connection or disconnection of F-Link from the control panel using a USB cable. After the connection the program will find the port the control panel uses for communication automatically.



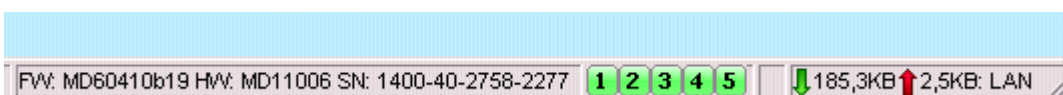
9.9 Internet

Remote connection or disconnection of F-Link from the control panel via the Internet. A precondition for establishing the connection is the properly entered registration code (it is automatically pre-entered from the database that was used to program the control panel), phone number of the SIM card in the control panel (also pre-entered from the Installation Information) and the computer connected to the Internet. Remote access can be disabled in the Communication tab / Communication Type = Without remote communication.



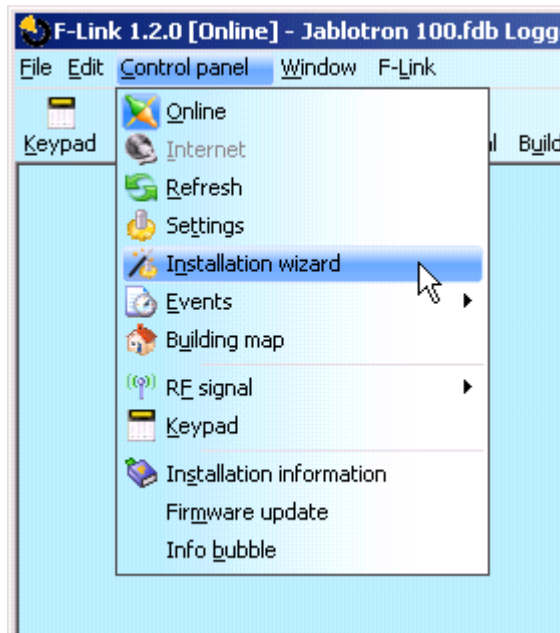
After clicking on the Internet button a dialog window with pre-entered data is displayed. If you are connecting from a new database, the registration code and the phone number will have to be added. Establishing the connection only takes a few seconds, but the downloading of the configuration depends on the system size and it may usually take 60 to 120 seconds.

Note: Information about the way of establishing the GPRS / LAN connection and the sent and received amount of data is displayed in the bottom right corner.



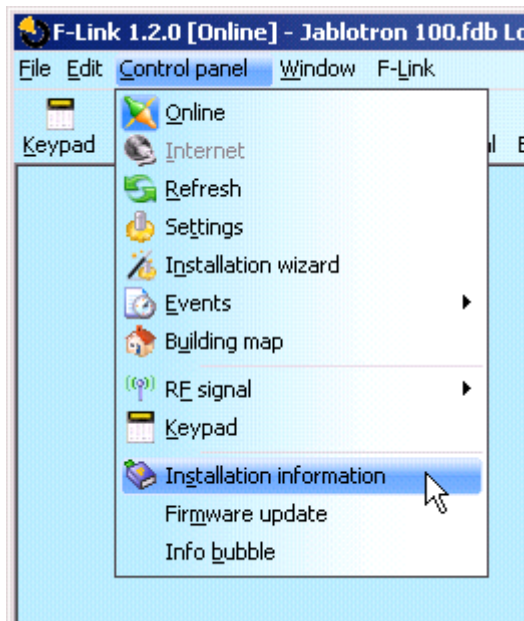
9.10 Installation Wizard

An assistant for gradual passing through the Settings tabs that facilitates the programming procedure of the system. The Wizard is enabled in the Control Panel main menu and disabled with the Close button in the bottom right corner of the Wizard window.



9.11 Installation Information

The window contains items for the installation company to save important contact information about the system owner, the entire system and possibly an external document related to the building (offer, acceptance record, invoice etc.). In the ext field the installation technician may fill in notes and information obtained during the assembly that may be useful e.g. in case of system extension.

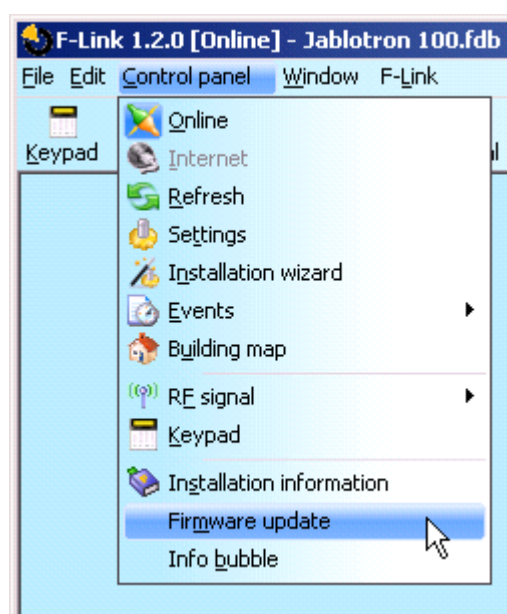


Installation information

Installation company		
Name	ID of installation company	Hotline
Masaryk		+420606652997
Customer		
Responsible person	Telephone	Email
Installation		
Name	Communicator phone no	Registration key
Jablotron 100	+420608603651	18UTA-PDB32-1XKM
Location	GPS	Land plot number
Control panel ver... LJ60410b20		
Document		 
Notes		
Number of records in history		10
OK		Cancel

9.12 Firmware upgrade

Firmware upgrade or change makes it possible to change the behavior of upgradable devices (control panel, communicators, keypads, detectors etc.) with a package that the manufacturer officially releases in the Jablotron sever. F-Link version 1.2.0 and higher downloads from the Jablotron server automatically (after a query), if in the F-Link menu the Automatic Updates item is activated (in the default setting it is activated). If the item is not enabled F-Link will make it possible to find the way to the FWP files in the computer manually before the upgrade.

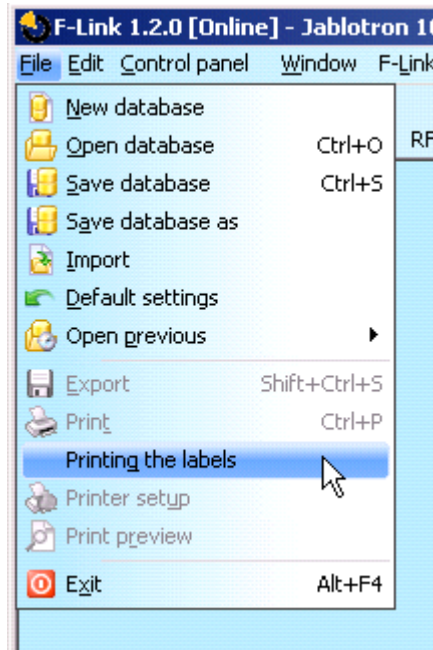


More in chapter 11. Changing the firmware of the control panel and other modules

9.13 Label Print

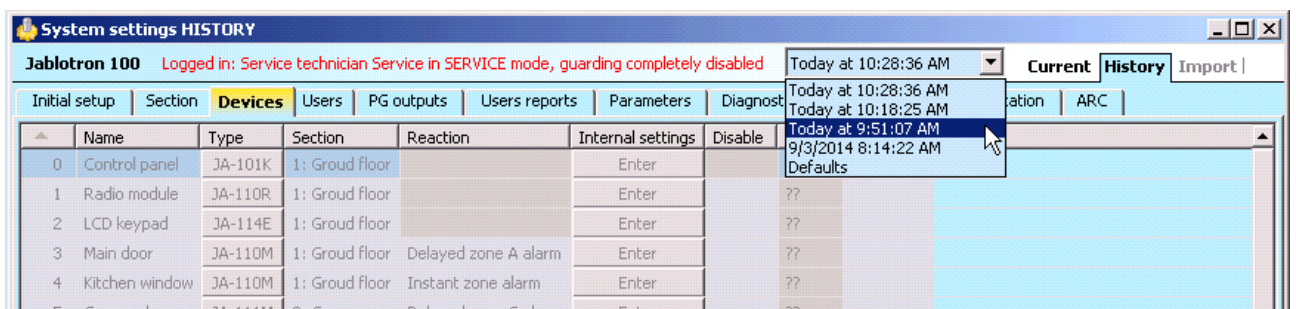
To print labels with names of the actually used segment of access modules it is convenient to use the Print Labels function in the Settings window of each used access modules, where the texts to be printed are pre-defined (the text of each label can be pre-defined).

You can enter your own text to be printed. Edited texts are not saved by the program after the print, so they are not available for possible repeated print.



9.14 History of Settings

The F-Link program saves an adjustable number (3 to 10 in the Installation Information window) records of the history of settings backwards so that a previous setting can be restored or just viewed. This history of settings is used by the program within upgrades of the control panel firmware as a change always causes loss of the previous setting and this history can be used to restore it. The same option can be used in case of Reset of the control panel to the default settings, replacement of the SD card, language change when texts are deleted, which can be restored this way or just in case of an inadvertent change of a setting.



10 Reset of the control panel

You can only restore the default settings of the control panel in the following way if in the F-Link SW in the Parameters tab the Reset allowed item is checked. If Reset is not allowed and you do not know the service code, you cannot reset the control panel and the control panel board must be sent to the distributor.

Procedure:

1. Switch the control panel to the Service mode (not obligatory)
2. Open the control panel cover: Reset requires that the tamper contact must be active. If the condition of point 1 was not fulfilled, an alarm will be released.
3. Disconnect the USB cable from the control panel.
4. Turn off the power supply (most easily by releasing the power supply fuse) and disconnect the battery.
5. Connect the pins on the control panel board marked RESET (using the jumper included in the delivery).
6. First connect the battery and then the power supply of the control panel and wait. The green, yellow and red signal lamp at the jumper will light up (if just the red signal lamp will remain on, the setting Parameters / Reset Allowed is not enabled).
7. Wait for approx. 5s and then disconnect the jumper.
8. After 5s all signal lamps will flash as a confirmation of completion of the control panel reset. Then, voltage restart of the control panel and bus peripherals will occur, which will be confirmed by a flash of all segments on the keypads.
9. This way, the control panel has been reset to the default settings, incl. language selection. However, reset of the control panel does not cause deletion of the history of events saved on the memory SD card. If Reset was not executed correctly, the control panel will keep the original settings without changes.

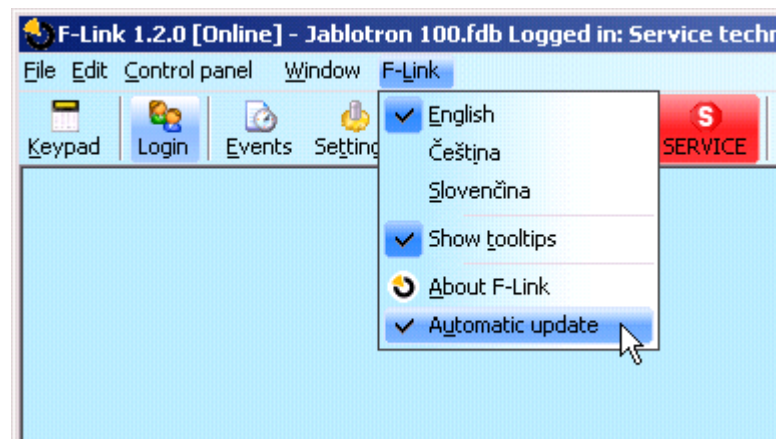
11 Change of firmware of the control panel and other modules.

The control panels and some other peripherals of the JABLOTRON 100 system enable a firmware change. Firmware is usually changed to extend the useful parameters of the equipment.

11.1 General firmware change rules (FW)

1. A change can only be performed with a computer with the installed **F-Link** SW either with the use of local access via a USB cable or remotely where the possibility to change firmware is limited to bus peripherals.
2. Firmware (FW) can be changed by a user with the Service authorization.
3. Check whether you are using the up-to-date version of F-Link. The latest version is available at the website www.myjablotron.com v **MY JABLOTRON**, section **My Company / Quick Links / Downloads**, which is only accessible for authorized technicians after login or with the Internet access F-Link (version 1.2.0 or higher) updates after the start automatically and at the same time it downloads the current package by itself.
4. Connect the computer to the control panel with a USB cable, the cable is included in the control panel delivery.
5. Start the **F-Link** program with the control panel connected.
6. Switch the control panel over to the **Service** mode.
7. Start the **Control Panel / Firmware Update**
If **Automatic Update** is allowed in the **F-Link** menu (enabled in the default setting), the list of updatable peripherals is displayed. F-Link from version 1.2.0 on automatically downloads FW updates from the website after connection to the control panel (it is also downloaded automatically when the database is opened, even in the Offline mode). If **Automatic Update** is disabled, a dialog window for selection of the firmware package file with the FWP suffix is opened. This file is part of F-Link in the **F-Link x.x.x / Firmware** directory and its up-to-date status is only guaranteed at the time of the F-Link download. The up-to-date F-Link file can be also manually downloaded from the MY COMPANY service from the same location in the above mentioned website as the entire F-Link.

Location of the Automatic Update parameter:



11.2 Changes of FW of the control panel and devices connected to the bus.

1. In the Firmware Update selection window updatable bus peripherals and the control panel are only displayed. Pre-selection is only offered automatically for peripherals for which the update is required. Wireless peripherals can only be updated one at a time after connection with the USB cable (see 11.3).
2. More detailed information about the existing and new version of individual peripherals are displayed in the bubble help after moving the mouse cursor over each of the offered peripherals.
3. In the selection boxes check the peripherals for which you want to change FW. If in the offered options there is the control panel with the offer of a newer FW version, we recommend you to leave it checked. Some items may be obligatory and thus unavailable (grayed) for update cancellation.

4. If the control panel update option is enabled, the possibility to keep the modified user voice menu is displayed. If the possibility to keep the menu is disabled, the default setting of the voice menu will be restored.
5. Click on OK to start the update of FW of all the selected peripherals. All the changes will be executed within a few minutes (depending on the number of peripherals). Finally, the control panel will restart the system.
6. After a change of FW a part of the registration code will change. Its change will not have any impact on the possibility of remote access (using F-Link) or possible communication of the control panel to the img.jablotron.com server
7. If during the control panel update F-Link finds damaged files in the SD card, it will format it and after completion of the update it will offer the possibility of re-importing the original settings.
8. Perform a check in accordance with the description in chapter Check after a FW change 11.4.

11.3 Changes of FW of updatable wireless peripheral.

1. Open the updatable wireless peripheral (JA-152E, JA-153E, JA-154E, JA-160PC, AC-160DIN etc.) by pushing the latch.
2. If it contains batteries, remove them and disconnect possible external power supply.
3. Start F-Link, open the database and connect a USB cable to the computer (miniUSB or microUSB depending on the used peripheral).

Warning: *USB cables are not included in the delivery of individual peripherals. We recommend you to use direct USB connection to the PC, possible connection with a USB HUB may reduce reliability.*

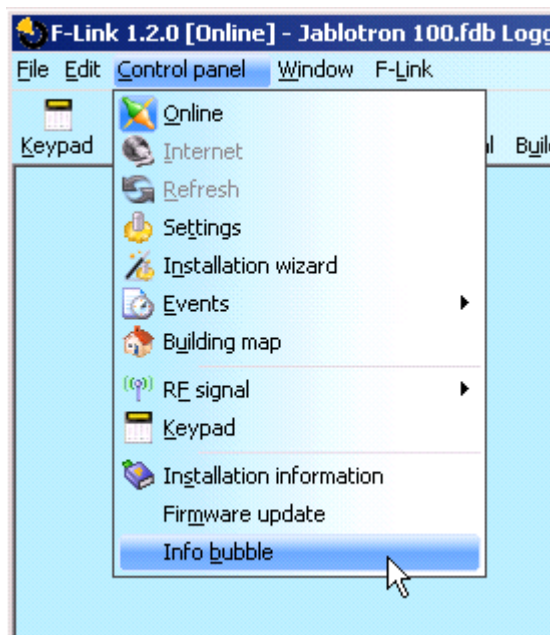
4. The update of FW of wireless peripherals must be carried out gradually, it cannot be done simultaneously with more USB cables.
5. In the wireless peripheral to be updated open the mode for loading new FW:
 - in the case of access modules press and hold the backlit activation button on the access module. With the button pressed connect the miniUSB cable to the connector of the access module, keep the button pressed for another 5sec, transition to the mode of new FW loading is indicated by intermittent lighting of the green lamp with flashing of the yellow one (now you can release the button)
 - in the case of other peripherals follow the instructions of the respective manuals
6. Then continue as during system upgrade with the **F-Link program: Control Panel → Firmware Update → Select FW package file** (see line 7.), or possibly
7. In the table of peripherals selection, select the USB item (typically in the first position).
8. More detailed information about the existing and new version of individual peripherals are displayed in the bubble help after moving the mouse cursor over each of the offered peripherals.
9. By pressing the OK button you will upgrade all the peripherals including the one that is connected to USB.
10. After completion of the update disconnect the USB cable, reinsert batteries or connect the power supply and make the module complete.
11. Perform a check in accordance with the description in the chapter **Check after a FW change** 11.4.
12. Go on to upgrade the next wireless peripheral (see line 20).

11.4 Check after a FW check

1. Check the settings of all the changed peripherals and control panel in **F-Link, Peripherals / Internal Settings** Depending on the range of changes implemented during the update the previous setting may be maintained or reset to the default production values. If reset to the default values has been done, you can use the Import button in the internal settings of individual peripherals to select from previous settings.
2. If new items were added within the update, they will have the default settings. Check them and adapt the settings as necessary for the installation
3. Check the settings and test the activity of the changed peripherals.

12 Info Window

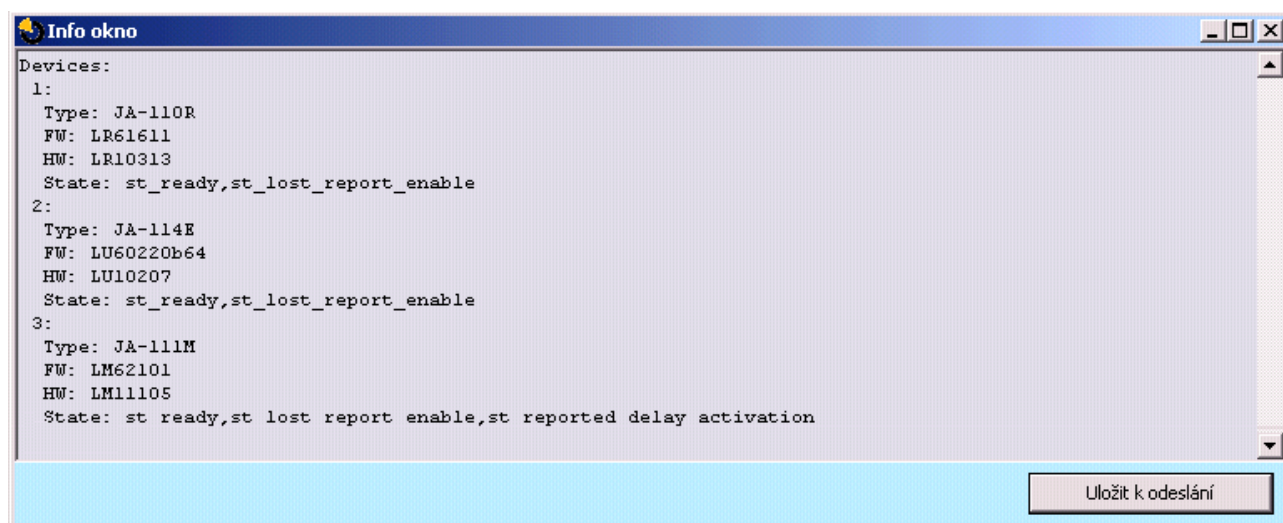
It is opened from the main menu **Control Panel / Info Windows** During generation of the Info Window the control panel addresses all connected devices and wireless peripherals to ask for their current information.



The Info Window offers a general overview of technical data of the entire system, incl. control panel (serial number, registration code, FW and HW version, voltage and current of the bus, setting range of: peripherals, sections, PG outputs), all the used communicators (GSM: phone number, signal BTS number, LAN: status, MAC, IP, PSTN, phone line status) as well as all bus and wireless peripherals (uni- and bidirectional): device type, identification of FW / HW versions of individual devices and their status. It is available in all statuses of the system (set / unset / service)

This data is necessary e.g. for communication with the technical consultant for which the Save for Sending button in the bottom right corner is designed for. The file is a ZIP compressed file and it contains numerical data of the installation, incl. a part of the event history (100kB), but it does not contain any sensitive data as phone numbers of users or their access codes or other confidential data. The saved file achieves the size on the order of hundreds of KB and therefore it can be distributed using common means, e.g. e-mail.

The figure below shows a part of the Info Window that provides necessary technical data, e.g. for solving problems concerning compatibility or functions of individual devices. The button in the bottom part allows you to save data and to e.g. send them to a technical consultant.



Info okno

Central service info

Central:

Name: JABLOTRON 100

SN: 1400-40-2653-2545

Type: JA-101K

FW: LJ60410b19

HW: LJ16107

RK: 18UTA-PDB32-1XKM

BV: 16

State: st_ready,st_tamper_active

BUS: 13,7 V/134 mA

Communication:

GSM: 100 %

GPRS: no

Phone no: +420608603651

Cell info:

Online : Telit

GE864-QUAD-V2

#MONI:	Cell	BSIC	LAC	CellId	ARFCN	Power	C1	C2	TA	RxQual	PLMN
#MONI:	S	41	8D04	AF67	13	-48dbm	59	59	1	0	Vodafone CZ
#MONI:	N1	43	8D04	AF66	1	-52dbm	53	45			
#MONI:	N2	52	8D04	0231	999	-59dbm	46	38			
#MONI:	N3	42	8D04	AF65	994	-62dbm	43	35			
#MONI:	N4	12	8D04	B178	11	-72dbm	33	25			
#MONI:	N5	53	8D04	0232	990	-76dbm	29	21			
#MONI:	N6	54	8D04	0233	3	-78dbm	27	19			

#MONI: Vodafone CZ BSIC:41 RxQual:0 LAC:8D04 Id:AF67 ARFCN:13 PWR:-48dbm TA:1

2013-01-01 00:00:26 : SIM replace detected, id=230030165478682

2014-07-17 11:00:57 : MONI: Vodafone CZ BSIC:41 RxQual:0 LAC:8D04 Id:AF67 ARFCN:13 PWR:-48dbm TA:1

2014-07-17 11:58:05 : MONI: Vodafone CZ BSIC:52 RxQual:0 LAC:8D04 Id:0231 ARFCN:999 PWR:-48dbm TA:1

2014-07-17 14:17:21 : MONI: Vodafone CZ BSIC:52 RxQual:0 LAC:8D04 Id:0231 ARFCN:999 PWR:-48dbm TA:1

2014-07-17 14:28:22 : MONI: Vodafone CZ BSIC:41 RxQual:0 LAC:8D04 Id:AF67 ARFCN:13 PWR:-48dbm TA:1

PSTN: no

PSTN Line: no

CServer: no

ARCs enabled: 2

Range:

Peripherals: 50

Users: 50

Sections: 8

PGs: 16

Devices:

1:

Type: JA-110R

FW: LR61611

Uložit k odeslání

13 Supplementary information

13.1 Overview table of current consumption of bus peripheral devices

Element	Consumption in the backup mode (mA)	Consumption for cable selection	Note
JA-110A Internal siren	5	30	30 mA during an alarm
JA-110B Glass fracture detector	5	5	
JA-110F Flooding detector	5	5	
JA-110I Section indicator / PG	3	6	
JA-110M Connection module of a magnetic detector	5	5	
JA-110N PG module of power output relay	5/45	5/45	Relay disengaged / engaged
JA-110N – DIN PG module of a power output relay	5/45	5/45	Relay disengaged / engaged
JA-110P PIR motion detector	5	5	
JA-110R Module for wireless connection	25	25	
JA-110ST Fire detector	5	10	
JA-110T Bus isolator module	5	5	
JA-111A External siren	5	50	In case of an AC supply failure without battery charging, otherwise 550 mA depending on battery charge
JA-111H Detector connection module	5 + consumption of the connected external sensor	5 + consumption of the connected external sensor	
JA-111H-AD System control module	5 + consumption of the connected external control	5 + consumption of the connected external control	
JA-111I Universal optical indicator	5	5	
JA-111ST Smoke and temperature detector			
JA-121T Bus interface for RS-485	10	20	
JA-116H Expander - 16 inputs	5/25 + consumption of connected external sensors	5/25 + consumption of connected external sensors	Connecting, disconnecting inputs, inputs with simple or double balancing
JA-118M Connection module of magnetic detectors	5	15	Connecting, disconnecting, balanced inputs
JA-111N PG module of a signal output relay	5/25	5/25	Relay disengaged / engaged
JA-111SH Vibration or tilt detector	5	5	
JA-112E RFID access module	10	15	

JA-113E Access module with a keypad and RFID	10	20	
JA-114E Access module with an LCD, keypad and RFID	15	50	
JA-111M Miniature magnet	5	5	
JA-120PB PIR detector of motion and glass fracture	5	5	
JA-120PC PIR motion detector with a camera	5	110	
JA-120PW Dual PIR detector with microwaves	5	25	
JA-122E Bus external RFID reader	15	15	
JA-123E Bus external keypad with an RFID reader	15	15	
JA-190X Phone communicator Module	11	15	
JA-192E Control segment	0,5	0,5	

Control panel	Consumption in the backup mode (mA)	Consumption in the AC power supply mode (mA)
JA-101K Small GSM control panel	45	50
JA-101K-LAN Small GSM/LAN control panel	75	80
JA-106K Large GSM control panel	55	60
JA-106K-LAN Large GSM/LAN control panel	85	90

13.2 Overview table of Groups of Events reported to users

Using the F-Link program / System Settings, Reports to Users you can determine which users a selected group of events will be sent in the form of SMS or calling (details, see 8.7).

Event	Group
Setting	Setting / Unsetting
Unsetting	Setting / Unsetting
Partial setting	Setting / Unsetting
30-minute mains failure	SMS Alarm
Mains restoration after 30 min	SMS Alarm
Immediate alarm	SMS Alarm
Immediate alarm cancellation	SMS Alarm
Delayed alarm	SMS Alarm
Delayed alarm cancellation	SMS Alarm
Tamper alarm	SMS Alarm
Tamper alarm cancellation	SMS Alarm
Fire alarm	SMS Alarm
Fire alarm cancellation	SMS Alarm
State of Panic	SMS Alarm
Panic cancellation	SMS Alarm
Health problem	SMS Alarm
Flooding	SMS Alarm
Exceeded number of attempts to enter code	SMS Alarm
Setting with an active peripheral (if confirmation is enabled)	SMS Alarm
Section without motion	SMS Alarm
System start (outside service)	Errors and service
Low peripheral battery	Errors and service
Peripheral battery restoration	Errors and service
Error (peripheral, communicator)	Errors and service
Error end	Errors and service
Entering the Service mode	Errors and service
End of service	Errors and service
Low BATTERY	Errors and service
BATTERY restoration	Errors and service
ARC error	Errors and service
ARC restoration	Errors and service
RF interference	Errors and service
End of RF interference	Errors and service
Low credit	Errors and service

The assignment of events distinguished by the system to groups is specified in the table. On occurrence of an event the system generates an SMS in the format:

Installation name (see the Initial setup tab):

Time (of event occurrence), **Event** (see table).

Event source (see the Peripheral/Name or User/Name tab), **Section** (where the event occurred); (in case of more events they are arranged one after another in one message separated with semicolons);

Time (time and date of sending)

Example of a sent SMS:

JABLOTRON 100 (installation name)

17:01:10, Delayed alarm (event time, event)

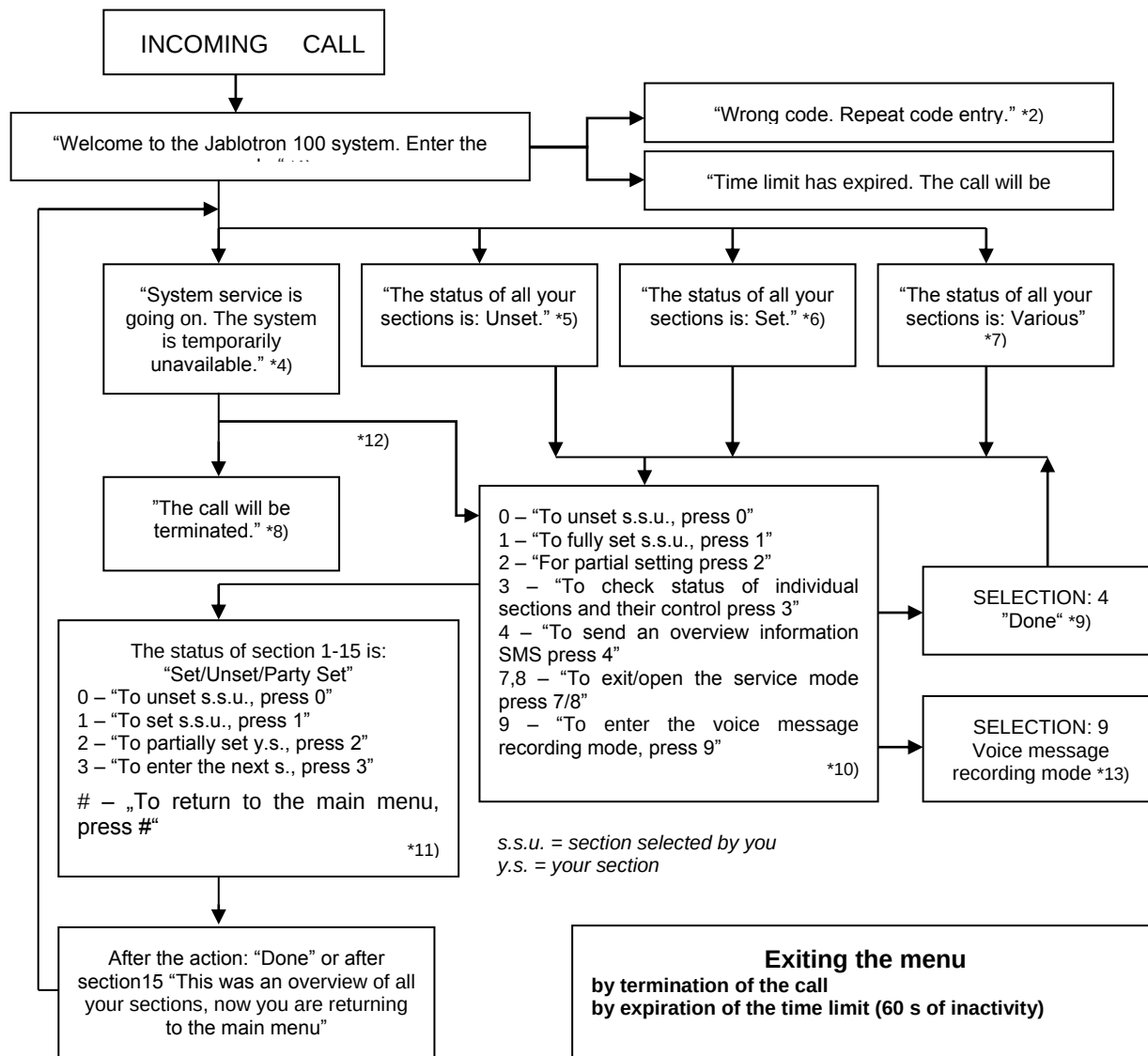
Door magnet, Ground floor (detector name, section name)

17:01:25, Immediate alarm (event time, event)

Staircase movement, Upstairs (detector name, section name)

Time 17:01 22.7. (time of sending)

13.3 Basic menu of the JABLOTRON 100 voice communicator (GSM / PSTN):



*1) Answers after 3 ringing impulses. The number of ringing impulses until answering (1.10) is adjustable in the Communication tab and the tab of the respective communicator where entry in the voice menu without code can be allowed.

*2) Wrong code entry After the third wrong entry the call will be terminated.

*3) 60s time limit for code entry. Every 5s the "Enter code" request is repeated.

*4) The voice menu cannot be used during service.

*5) All sections that can be controlled on the basis of the authorization are unset.

*6) All sections that can be controlled on the basis of the authorization are set.

*7) The sections that can be controlled on the basis of the authorization are in various statuses.

*8) Valid for all authorizations except ARC/Service.

*9) After sending of an INFO-SMS to the caller's number.

- *10) Points in the menu that do not make sense are skipped (e.g. if everything is set, the selection 1,2,3 is not applicable).
- *11) The menu is adapted to the current status of the section.
- *12) If the user has been authorized with the service code, selection 9 is possible - "For the voice message recording mode press 9"
- *13) Voice message recording mode **SELECTION 9**:
- 0 – "To record the installation name, press 0." and then "Press asterisk."
 - 1 – "To record section names, press 1", then enter the number of section that you want to record and then "Press asterisk."
 - 2 (3,4,5) – "To record messages of report A (B, C, D), press 2 (3, 4, 5)" and then "Press asterisk."
 - 9 – "To delete all recorded messages, press 9."
 - # – „To return to the main menu, press #.“

Notes:

- 1 – *"you are not authorized for this selection" – always if the user is not authorized to handle a section or check status*
- 2 – *"required report of an important message, the call will be terminated in 30 seconds" – reports / important messages to ARM have priority over the ongoing voice menu*
- *Entry in the recording mode is indicated with a beep. A recorded message is replayed for listening immediately after recording.*
- *If you are not satisfied with the record, you can select re-recording immediately.*
- *It is suitable to start recording immediately after the beep signal and to press the end character* immediately after the end of your recording*
- *The installation name may take 30 sec. at the most. Every other message may be 15 sec. long at the most.*

13.4 SMS commands

The system can be controlled or its status queried with SMS commands. SMS commands can be used to control the setting statuses of individual sections (setting, unsetting) and PG outputs, or just query about the statuses of individual sections or other statuses of the whole system. The texts of command used to control PG outputs are editable, the other texts cannot be changed.

Command structure: **m*nnnn_command**, where m is the sequential number of the user code; * is a separator (**m*** is only necessary if a code with a prefix is used); **nnnn** is a 4-digit user code; **_** is a separating gap; **command** is the execution command.

A query command for information about the system status can also be obtained with the use of the following commands

DINFO, STATUS, COM and GSM (the texts of the commands cannot be changed).

A control command for the control of setting of the **system** as a whole or just its individual **sections** can be generated with the use of the following commands

SET, UNSET, or SET x x x, UNSET x x x, where x are numbers of sections (the texts of the commands cannot be changed).

The control commands for the control of **PG** outputs are not pre-set by the manufacturer and if necessary, they must be set.

Control command and authorization	Answer (specimen)	Note
DINFO (basic information about the installation) Authorization: Service, Administrator	JABLOTRON 100: TYPE: JA-101K, SN: 14004026532523, SW: LJ60410, HW: LJ16107, RC: C5U6G-215CP-D2A6, GSM: 90%, GPRS: Ok, LAN: off Time 17:01 22.7.	Installation name in accordance with the Initial setup tab Control panel type Serial number Firmware version Hardware version Registration code of GSM communicator GSM signal quality, GPRS data availability LAN connection status (Ok or off) Time and date of handing over the SMS to the GSM network
STATUS (status of sections) Authorization: Service, Administrator, User. If the user only has access to some sections, the status of the sections that are accessible for him/her will be returned.	JABLOTRON 100: Status: Section 1: Unset; Section 2: Set; Section 3: Unset; Section 4: Set, Error; Section 5: Set; Section 6: Set; Section 7: Unset; Section 8: Unset; GSM: 90%; Time 17:01 22.7.	Installation name in accordance with the Initial setup tab Status: Name and status of Section 1 Name and status of Section 2 Name and status of Section 3 Name and status of Section 4 Name and status of Section 5 Name and status of Section 6 Name and status of Section 7 Name and status of Section 8 GSM signal quality Time and date of handing over the SMS to the GSM network
COM (info about communication) Authorization: Service	JABLOTRON 100: GSM: 90%,GPRS: ok, CELLID: 44905, OPID: 23003, LAN: ok, MAC: hh:hh:hh:hh:hh:hh, PSTN: off, ARC: 1:ok, 2:ok, 3:off, 4:ok, 5:off, Time 17:01 22.7.	Installation name in accordance with the Initial setup tab GSM signal quality, GPRS data availability Number of the cell and operator providing the GSM connection LAN connection status and MAC address Connection status of the phone line (possible with JA-190X) Activation status of transmissions to individual possible ARC's Time and date of handing over the SMS to the GSM network
GSM (restart GSM) Authorization: Service, Administrator, User	JABLOTRON 100: SMS processed OK: GSM; Time 17:01 22.7.	Installation name in accordance with the Initial setup tab Confirmation of SMS delivery (before restart) Time and date of handing over the SMS to the GSM network

Control command and authorization	Answer (specimen)	Note
SET (control of the whole system) Authorization: All	JABLOTRON 100: Status: Section 1: Set; Section 2: Set; Section 3: Set; Section 4: Set, Error; Section 5: Set; Section 6: Set; Section 7: Set with an active peripheral, Section 8: Set with an active peripheral; GSM: 90%; Time 17:01 22.7.	Installation name in accordance with the Initial setup tab Status: Name and status of Section 1 Name and status of Section 2 Name and status of Section 3 Name and status of Section 4 Name and status of Section 5 Name and status of Section 6 Name and status of Section 7 Name and status of Section 8 GSM signal quality Time and date of handing over the SMS to the GSM network
UNSET (control of the whole system) Authorization: All	JABLOTRON 100: Status: Section 1: Unset; Section 2: Unset; Section 3: Unset; Section 4: Unset, Error; Section 5: Unset; Section 6: Unset; Section 7: Unset; Section 8: Unset; GSM: 90%; Time 17:01 22.7.	Installation name in accordance with the Initial setup tab Status: Name and status of Section 1 Name and status of Section 2 Name and status of Section 3 Name and status of Section 4 Name and status of Section 5 Name and status of Section 6 Name and status of Section 7 Name and status of Section 8 GSM signal quality Time and date of handing over the SMS to the GSM network
SET 1 3 5 7 (control of selected system sections) Authorization: All	JABLOTRON 100: Status: Section 1: Set; Section 3: Set; Section 5: Set; Section 7: Set with an active peripheral, GSM: 90%; Time 17:01 22.7.	Installation name in accordance with the Initial setup tab Status: Name and status of Section 1 Name and status of Section 3 Name and status of Section 5 Name and status of Section 7 GSM signal quality Time and date of handing over the SMS to GSM
UNSET 2 4 6 8 (control of selected system sections) Authorization: All	JABLOTRON 100: Status: Section 2: Unset; Section 4: Unset; GSM: 90%; Time 17:01 22.7.	Installation name in accordance with the Initial setup tab Status: Name and status of Section 2 Name and status of Section 4 GSM signal quality Time and date of handing over the SMS to GSM

14 MY JABLOTRON web application

The Jablotron web application is a unique service that provides users and installation technicians with online access to devices produced by Jablotron. Jablotron customers can use it for administration of their systems. End users of alarms will use it to control and monitor their device. It provides installation technicians with a powerful tool that allows them to monitor and administer all installed alarms and to comfortably create quotations for new installations.

Everything concerning your alarms or installation is available clearly in one application that is accessible from anywhere.

The Jablotron Self Service enables users to:

- see the **current status of an alarm** (in the initial widget your registered devices are visible together with the last registered event and the number of sections in the unset and set status)
- **set / unset an alarm** or its part
- **control** programmable **outputs** (most frequently for appliance control)
- view history of events with the possibility to export it to a file
- **view and if allowed, take photos** from detectors with a camera
- **monitor the course of temperature** in the building or outdoors (incl. notification of exceeding of the lower or upper limit of set temperatures at a defined time of the day)
- **monitor consumption of electricity** (incl. setting of a notification in case of exceeding the daily/monthly consumption)
- **send messages** to selected contacts by SMS, E-mail using the standard PUSH mechanism for mobile phones
- and other useful functions

14.1 Management of installations and offers for an installation technician

Overview of all installed devices – Installation Management module

This is a unique tool for installation technicians, who can manage all their installed systems in one place, incl. a complete overview of their current technical status, view of the history and operation diagnostics... You will find the **Installation Management** module in your account in the Jablotron Web Self Service in the **MY COMPANY** part (if supported in your region).

My **COMPANY** ▼

 masaryk@jablotron.cz ▼

< [My COMPANY](#)

Installations Management

Search installation...

Only with fault ☐ Only in service ☐

All device types ▼

Drahomil Masaryk
Pod Skalkou 4567/33
Jablonec nad Nisou
466 04

 Configuration
JA-106K
+420775128581
DPAT7-XDN4T-AXG2

You can filter your installations by the alarm type or based on their current status. Thus, you can e.g. only view alarms that currently report a technical problem and you can quickly respond to it with a service intervention. This way, you can provide your customer with an above-standard service as you will contact him/her before the

customer starts to solve the system problem. In addition, you as an installation technician can set notification, so the Self Service will notify him/her via e-mail or SMS about the error immediately after its occurrence.

My **COMPANY**

masaryk@jablotron.cz

[< Installation](#)
Drahomil Masaryk
[> Settings](#)

Status OK (20.08.2014 07:53:16)
Last check: 10:35:18

JA-106K
DPAT7-XDN4T-AXG2
+420775128581

[State](#)
[Events](#)
[Logs](#)

Device status

	State	Lasts since
GSM:	Vodafone CZ 45 %	4.9.2014 (10:04:56)
FW:	MD60410b19	12.6.2014 (22:37:28)
CONNECTED:	Connected to LAN	4.9.2014 (01:29:16)
CLOUD COMMUNICATION:	Main channel	24.4.2014 (02:12:45)
SUPPLY STATUS:		17.8.2014 (07:25:46)
CONTROL UNIT BATTERY:		17.8.2014 (07:25:46)
DEVICE BAT:		20.8.2014 (07:53:16)
RF INTERFERENCE:		20.8.2014 (07:53:16)
SYSTEM ERROR:		20.8.2014 (07:53:16)

Contact information
Drahomil Masaryk
Pod Skalkou 4567/33
Jablonec nad Nisou
466 04

 Configuration

In the detail of every control panel the installation technician gets a general overview in the form of status display of individual groups of faults (states of power supply, communication, status of batteries in devices, interference or other faults, SIM card type in the device and current GSM signal quality, current FW version) with the date since when the status has been active. Besides, the technician gets overview of the complete event history – but it must be allowed by the building owner in his/her settings.

In the **Installation Management** application you will also find a complete log of the technical events of the alarm with a graphic representation of the GSM connection quality, history of firmware changes or communication.

14.2 WebLink application (configuration)

A very useful application for an installation technician within the MY JABLOTRON web service is **WebLink**. An installation technician can use it to change most alarm settings in accordance with the customer's requirements from any computer with Internet connection. So it is not a problem if he is just assembling another system somewhere else or does not have his computer with him. Accordingly, he is not only limited to a laptop with Windows, but can also use tablets and other devices with the Android or iOS OS.

15 Technical parameters

Utility parameters - see chapter 3

Tab. 12

Parameter	JA-101K (LAN)	JA-106K
control panel power supply	~ 230 V / 50Hz, max. 0.1 A, together with T200 mA fuse ~ 110 to 120 V / 60Hz, max. 0.2A, together with T400 mA fuse protection class II	~ 230 V / 50 Hz, max. 0.2 A, together with T400 mA fuse protection class II
back-up battery	12 V; 2.6 Ah	12 V; 7 to 18 Ah
maximum battery charging time	72 h	72 h
max. continuous consumption from the control panel	400 mA	1.2A
max. continuous consumption for backing up 12 hours	125 mA without LAN or 85 mA with active LAN with a battery 2.6 Ah	1.2 A with a battery 18 Ah
max. number of peripheral devices	50	120
LAN communicator	Ethernet interface (only LAN version)	Ethernet interface
dimensions (mm), see fig. 3	258 x 214 x 77	357 x 297 x 105
power supply unit	type A (EN 50131-6)	
GSM communicator QUAD BAND	850/900/1800/1900MHz	
operating frequency (with the JA-110R module)	868.1 MHz	
Exceeded number of attempts to enter code alarm	after 10 wrong code entries	
event history	approx. 7 million latest events, incl. date and time	
security level	grade 2 according to EN 50131-1, EN 50131-3, EN 50131-6, EN 50131-5-3	
environment	class II, indoor general (-10 to +40°C), in acc. with EN 50131-1	
radio emissions	ETSI EN 300 220-1 (module R), ETSI EN 301 419-1, ETSI EN 301 511 (GSM)	
EMC	EN 50130-4, EN 55022, ETSI EN 301 489-7	
safety	EN 60950-1	
operation conditions	ERC REC 70-03, ERC DEC (98) 20	
caller's identification	ETSI EN 300 089	



JABLOTRON ALARMS a.s. hereby declares that these control panels JA-101K(LAN) and JA-106K meet the basic requirements and other relevant provisions of the Directive no. 1999/5/EC and 2011/65/EU. You will find the original Declaration of Conformity at www.jablotron.com.

Note: Although the product does not contain any harmful materials, do not dispose of it as municipal waste, but bring it to a collection facility of electronic waste. More detailed information at www.jablotron.com Technical Support section.

[illegible]

[illegible]