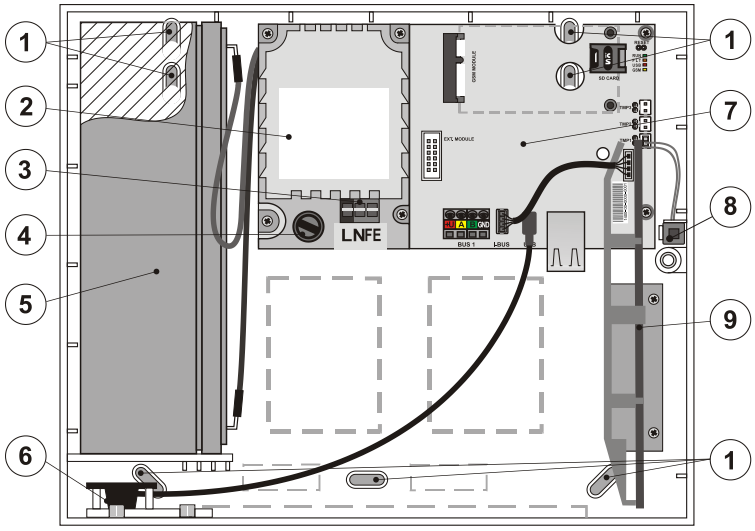
The JA-103K, JA-103K-7Ah and JA-107K Control Panels of the JABLOTRON Security System Commissioning instructions

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

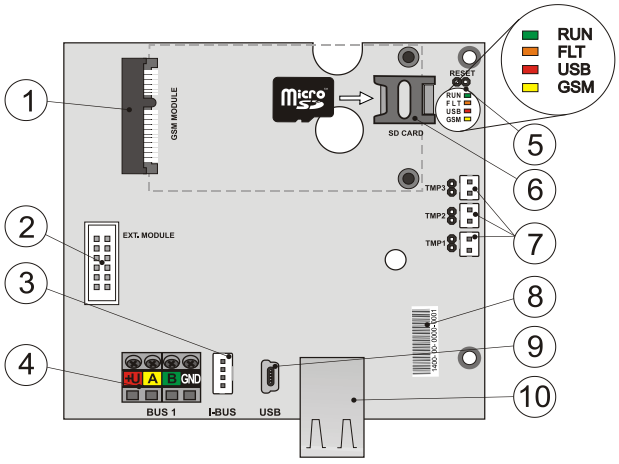
The complete manuals for installation, configuration and control of the system are available for download in the MyCOMPANY application for the installer partners.

1 Basic description of the control panels

1.1 Description of the JA-103K

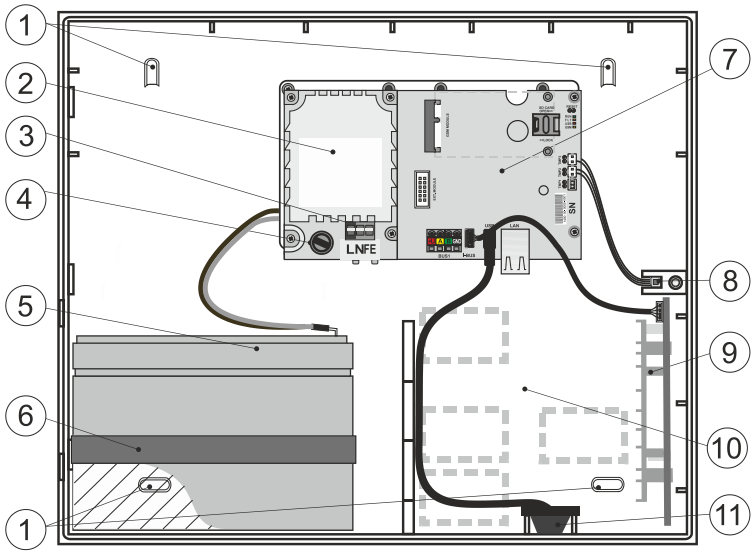


1 – Wall mounting holes; 2 – Power supply module; 3 – Mains power terminals; 4 – Mains fuse; 5 – Backup battery; 6 – USB connector for PC connection; 7 – Control panel PCB; 8 – Housing tamper contact; 9 – The JA-11xR radio module holder

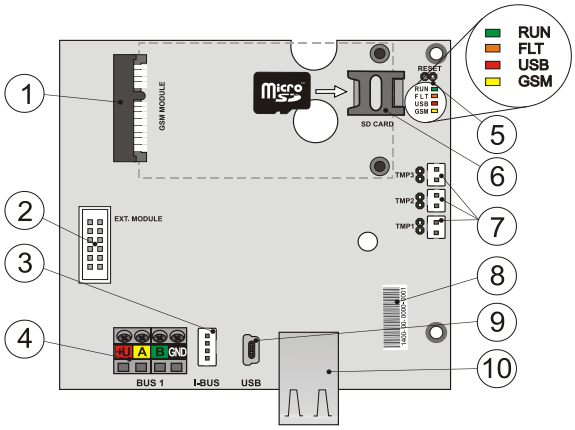


1 – GSM communicator connector; 2 – Connector for additional modules; 3 – BUS terminal for the JA-11xR internal radio module; 4 – BUS terminals; 5 – LED indicators and RESET jumper; 6 – MicroSD card holder; 7 – Connectors of the housing tamper contacts; 8 – Production code; 9 – MiniUSB connector; 10 – LAN (internet) connector

1.2 Description of the JA-103K-7Ah

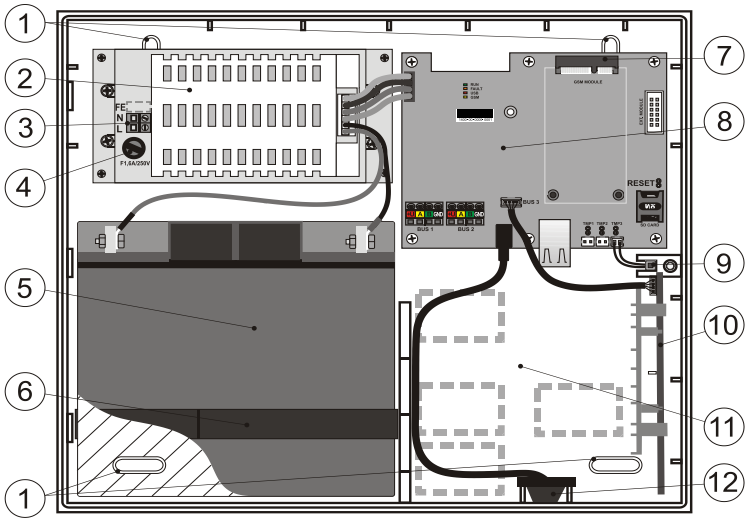


1 – Wall mounting holes; 2 – Power supply module; 3 – Mains power terminals; 4 – Mains fuse; 5 – Backup battery; 6 – Attachment strap of the backup battery; 7 – Control panel PCB; 8 – Housing tamper contact; 9 – The JA-11xR radio module holder; 10 – Cabling space; 11 – USB connector for PC connection

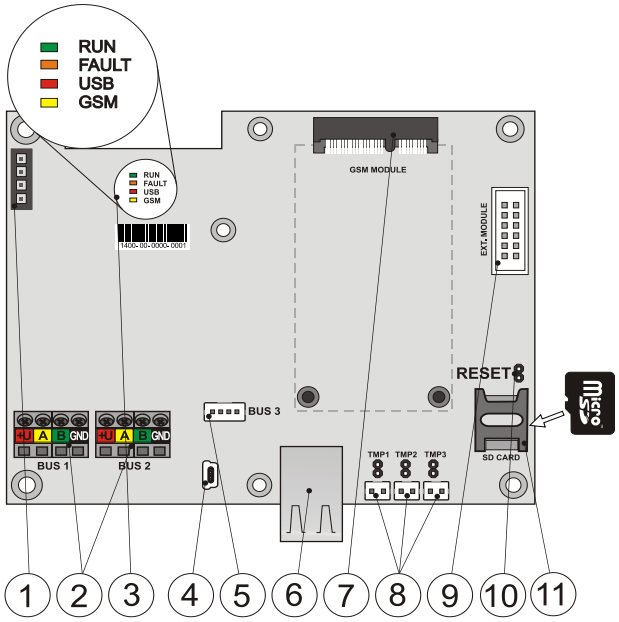


1 – GSM communicator connector; 2 – Connector for additional modules; 3 – BUS terminal for the JA-11xR internal radio module; 4 – BUS terminals; 5 – LED indicators and RESET jumper; 6 – MicroSD card holder; 7 – Connectors of the housing tamper contacts, 8 – Production code; 9 – MiniUSB connector; 10 – LAN (internet) connector

1.3 Description of the JA-107K



1 – Wall mounting holes; 2 – Control panel power supply; 3 – Mains power terminals; 4 – Mains fuse; 5 – Backup battery; 6 – Attachment strap of the backup battery; 7 – GSM communicator connector; 8 – Control panel PCB; 9 – Housing tamper contact; 10 – The JA-11xR radio module holder; 11 – Cabling space; 12 – USB connector for PC connection



1 – Power supply terminal; 2 – Two independent BUS terminals; 3 – LED indicators; 4 – MiniUSB connector; 5 – Terminal for the radio module or a 3rd BUS terminal; 6 – LAN (internet) connector; 7 – GSM communicator connector; 8 – Connectors of the housing tamper contacts; 9 – Connector for additional modules; 10 – RESET jumper; 11 – MicroSD card holder

1.4 LED indicators on the control panel PCB

RUN	green	Rapid flashing indicates operation of the communication BUS (data flow).
FAULT	yellow	Permanently lit indicates a general error in the system (more information provided by F-Link software or by a keypad with a display).
USB	yellow	Indicating USB connection to a PC.
GSM	red	If a GSM communicator is installed: – Permanently lit after power supply connection when searching for a GSM network (for 1 min at the most). – OFF if GSM is OK and no communication is going on. – Flashing in 1s/1s ON/OFF intervals if no GSM network is available. ***Note**: Flashing during communication, with a short repeated flash indicated the parameter setting: GSM communicator OFF.*

2 Connecting the control panel to a power supply, switching the system ON

1. The control panel provides connecting terminals for a power supply in a range of ~110–230 V/50–60 Hz. The control panel is a protection class 2 device with double isolation. That's why a 2-wire cable is enough (just a live phase wire and a neutral wire). The protective earth wire (if used) can be connected to the FE terminal (for JA-107K you need to remove the cover cap). Check that the wires are properly fixed in the terminal and then fix the cable with the clip. Verify that the microSD card is inserted into its holder. If the GSM communicator is in use, the SIM card must be inserted and the GSM antenna connected.
2. Insert a battery into the control panel and fix it in the housing (using self-sticking blocks or a strap).
   Caution – the backup battery is delivered in a charged condition, it must not be short-circuited!
3. Connect the supply leads of the battery. **Caution – mind the correct polarity! (red wire to the + pole, black wire to the – pole).**
4. Switch on the power from the mains and check the LED indicators 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 LED goes out – the control panel has established a connection to the GSM network.
   d. or the red LED is permanently lit – the control panel has not logged in to the GSM network
   (points b, c, d, are applied only with an installed GSM communicator).

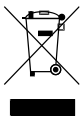
Warning

- **The manufacturer declines any liability for damage if the system is installed or set improperly.**
- There must be good GSM signal reception at the location (check with a mobile phone).
- 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 isolation of the circuits. The protective earth wire (if used) can be connected to the FE terminal (for JA-107K you need to remove the cover cap).
- During the installation and connection of the BUS devices of the control panel all the power supplies of the control panel must be completely off.
- Never connect the mains supply and the backup battery if the GSM antenna is not connected to the GSM communicator and if the microSD card is not inserted.
- The fuse case with the tube fuse does not serve for a safe disconnection.

- Use a suitable cable with double insulation and a cross-section of 0.75 to 1.5 mm^2.
- It is recommended to fit the mains supply with voltage surge protection.
- **If a shielded cable is used, do not connect the shield to the BUS terminals! We recommend you 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 the shielding at the device end unconnected.**
- The I-BUS connector (3) on the JA-103K, JA-103K-7Ah control panel PCB is exclusively designed for the connection of a radio module installed inside the control panel housing.

CE

JABLOTRON a.s. hereby declares that the devices JA-103K, JA-103K-7Ah and JA-107K are designed and manufactured in a compliance with the relevant European Union harmonisation legislation: Directives No: 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU, when used as intended. The original of the conformity assessment can be found www.jablotron.com – Downloads section.



Note: Although these products do not contain any harmful materials we suggest you return these products to either a civic amenity site collecting an electronic waste, or to the dealer or directly to the producer after use. For more detailed information visit www.jablotron.com – *Downloads section*.

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3 Technical specifications

Parametr	JA-103K		JA-103K-7Ah		JA-107K	
Control panel power supply	~ 110–230 V/50–60 Hz, max. 0.28 A with fuse F1.6 A/250 V Protection class II		~ 110–230 V/50–60 Hz, max. 0.28 A with fuse F1.6 A/250 V Protection class II		~ 110–230 V/50–60 Hz, max. 0.85 A with fuse F1.6 A/250 V Protection class II	
Back-up battery	12 V; 2.6 Ah (lead gel)		12 V; 7 Ah (lead gel)		12 V; 7 to 18 Ah (lead gel)	
Maximum battery charging time	48 h		48 h		48 h	
BUS voltage (red - black)	12.0 to 13.8 V		12.0 to 13.8 V		12.0 to 13.8 V	
Maximum continuous current consumption from the control panel	1000 mA		1000 mA		2000 mA permanent 3000 mA for 60 minutes (max. 2000 mA for one BUS)	
Max. continuous current consumption for back-up 12 hours	JA-103K – 2.6 Ah back-up battery		JA-103K-7Ah – 7 Ah back-up battery		JA-107K – 18 Ah back-up battery	
	Without GSM communicator	LAN – OFF 115 mA LAN – ON 88 mA	Without GSM communicator	LAN – OFF 328 mA LAN – OFF 304 mA	Without GSM communicator	LAN – OFF 1135 mA LAN – ON 1107 mA
	With GSM communicator	LAN – OFF 80 mA LAN – ON 53 mA	With GSM communicator	LAN – OFF 296 mA LAN – ON 272 mA	With GSM communicator	LAN – OFF 1100 mA LAN – ON 1072 mA
Max. continuous current consumption for back-up 24 hours	Without GSM communicator	LAN – OFF 21 mA	Without GSM communicator	LAN – OFF 136 mA LAN – ON 112 mA	Without GSM communicator	LAN – OFF 535 mA LAN – ON 499 mA
	With GSM communicator	LAN – OFF 17 mA	With GSM communicator	LAN – OFF 104 mA LAN – ON 80 mA	With GSM communicator	LAN – OFF 530 mA LAN – ON 494 mA
Maximum number of devices	50		50		230	
LAN communicator	Ethernet interface, 10/100BASE		Ethernet interface, 10/100BASE		Ethernet interface, 10/100BASE	
Dimensions	268 x 225 x 83 mm		357 x 297 x 105 mm		357 x 297 x 105 mm	
Weight with/without AKU	1844 g / 970 g		3755 g / 1665 g		7027 g /1809 g	
Reaction to invalid code entry	Alarm after 10 wrong code entries					
Event memory	Approx. 7 million latest events, including date and time					
Power supply unit	Type A according to EN 50131-6					
	T 031 note: In case of a main power failure is the system backed up for 24 hours and at the same time is a failure report sent to the ARC.					
Operational environment	Environmental class II (indoor general) according to EN 50131-1					
Classification	Security grade 2 according to EN 50131-1					
Average operational humidity	75 % RH, non-condensing					
Operational temperature range	-10 °C to +40 °C					
Complies with	EN 50131-1 ed. 2+A1+A2, EN 50131-3, EN 50131-5-3+A1, EN 50131-6 ed. 2+A1, EN 50131-10, EN 50136-1, EN 50136-2, EN 50581					
Radio operating frequency (with the JA-11xR module)	868.1 MHz					
Radio emissions	ETSI EN 300 220-1,-2 (module R), ETSI EN 301 419-1, ETSI EN 301 511 (GSM)					
EMC	EN 50130-4 ed. 2+A1, EN 55032 ed. 2, ETSI EN 301 489-7					
Safety conformity	EN 62368-1+A11					
Caller identification (CLIP)	ETSI EN 300 089					
Operational conditions	ERC REC 70-03					
Certification body	Trezor Test s.r.o. (no. 3025)					