INSTALLATION MANUAL

KEYBOARD **EKB3**





EKB3 is a keyboard intended to use with GSM alarm and management system ESIM264.

Main EKB3 keyboard functions are:

- arm and disarm security system
- arm and disarm STAY mode
- configure system parameters
- · display information with LED indicators
- · inform about system status via sound signaler

The keyboard uses two password levels - user and administrator. System configuration can be performed by entering administrator password and using programing commands. ESIM264 allows to connect up to 4 EKB3 keyboards. Integrated sound signaler informs about successful/unsuccessful functions performance, informs about entry and delay time countdowns.

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1. Package content

1. EKB3 keyboard qty. 1 2. User manual qty. 1 3. 5,6kΩ resistor qty. 1

2. Device installation

1. Detach Keyboard holder from EKB3 keyboard and fix it to the wall. Keyboard holder detach points are marked with rows (see Fig. No. 1).



2. Disconnect security system ESIM264 power supply and backup battery before connecting the wires.

- Connect keyboard connectors to ESIM264. Accordingly, AUX+ to AUX+, AUX- to AUX-, Y to Y, G to G. Keyboard Z1 zone connect to keyboard COM with 5,6kΩ resistor. Zone Z2 is not active and there is no need to connect it. Configure DIP switches (see chapter 3.4).
- 4. Infix the keyboard into the holder.

NOTE: Pay attention to the tamper when fixing the keyboard to the keyboard holder. It must be properly pressed.

- 5. Turn on ESIM264 power supply.
- 4. EKB3 keyboard is ready to use.

3. Technical specifications

3.1 Electrical and mechanical characteristics

Power supply	12-14V 150mA max
Maximum keyboard connection cable length	100 m.
Dimensions	140x100x18mm
Range of Operating Temperatures	0+55°C

3.2 LED indicator functionality

ARMED	Armed security status indicator
READY	Indicates when all zones are inactive
SYSTEM	Administrator mode activation indicator
BYPS	Temporary zone disconnection status indicator
1-12	Indicates violated zones

3.3 Connector functionality

AUX+	Positive supply pin 12-14V connected to the main unit AUX+
AUX-	Negative supply pin 12-14V connected to the main unit AUX-
G	G pin connected to the main unit G
Y	Y pin connected to the main unit Y
COM	Common contact
Z1	Security zone
Z2	Inactive zone

FRONT SIDE





BACK SIDE

Fig. No. 2



3.4 DIP switches



DIP switches are used to set keyboard address. ESIM264 allows to connect up to 4 EKB3 keyboards. Every keyboard must have different address (two keyboards cannot be configured with the same DIP switch combination). Possible configuration combinations are displayed in the table below.

NOTE: Third switch is not active and its position is irrelevant.

1	2	Address
OFF	OFF	Keyboard 1
ON	OFF	Keyboard 2
OFF	ON	Keyboard 3
ON	ON	Keyboard 4

4. Operation description

When the system is disarmed and operating normally it will display green LED called READY. When any zone is violated, the green LED called READY turns off and the red LED with the number of violated zone shows up. System sound signaler uses two type of signals - three short beeps and one long beep. Three short beeps stands for successful complete tasks and one long beep stands for unsuccessful complete tasks. Star (*) button stands for cancel.

4.1 Arming-Disarming the system

To arm the security system user have to enter a valid keyboard password. The system starts to count the time dedicated to leave the premises. The user is informed about the time countdown by a sound signal. When system is successful armed, the red LED called ARMED displays.

To disarm the security system user have to enter a valid keyboard password. When users enters into secured premises, the system starts to count the time dedicated to enter keyboard password. If users will no enter a valid keyboard password – the system will cause an alarm. When system is successful disarmed, the red LED called ARMED turns off.

4.2 System troubles

Yellow LED called SYSTEM indicates system troubles. To check the specific trouble use command [CODE#], where CODE means a button named CODE. The system for 15 seconds shows troubles with zones red LED indicators. The specific troubles are displayed in the table below.

Zone number	Trouble
1	Tamper
2	Backup battery
3	Main power
4	Time
5	High zones*
6	GSM connection

* High zones are troubled zones above 12.

If yellow LED called SYSTEM is blinking means that there are violated zones or tampers above 12. To check which zone is violated use command [CODE1], where CODE means a button named CODE. To check which tamper is violated use command [CODE2], where CODE means a button named CODE. The keyboard will display a code of violated zone. To know which zone or tamper above 12 is violated, use a formula B+A, e.g. if system displays zones 5 and 10, means that violated zone is 30+5=35.

A	В
Zone number 1 = 1	Zone number 7 = 12
Zone number 2 = 2	Zone number 8 = 18
Zone number 3 = 3	Zone number 9 = 24
Zone number 4 = 4	Zone number 10 = 30
Zone number 5 = 5	Zone number 11 = 36
Zone number 6 = 6	Zone number 12 = 42

4.3 Bypassing zones

To bypass any zone use the command [BYPSxxyyyy#], where BYPS - means a button named BYPS, xx – zone number and yyyy – keyboard password. Use the same command to enable bypassed zones. The zone can be bypassed only for temporary period and after arming-disarming the system it will be active again.

4.3 Configuration commands

To use configuration commands user have to enter administrator code. Administrator code can be entered to the system with command [*XXXX#], where XXXX – administrator code. When administrator code is entered successfully the red LED called ARMED starts blinking.

Allow Only Preset Users

When this function is enabled, the system reacts to the SMS messages-commands that are sent only from registered telephone numbers. If this function is disabled, the device can be controlled by all users who know the number of the SIM card inserted in the device, control commands and the main password. Factory default setting - enabled.



SMS All

When this function is enabled, in the case of an alarm, the system simultaneously sends SMS messages to all entered users. By default this function is disabled. When this function is disabled, SMS messages are delivered in a sequence starting with the first user (User1). The message will be sent to the next user only in the case the device does not receive a confirmation about a successful SMS message delivery to the first recipient.



Enter code 21 and function:

Disabled - [210#] Enabled - [211#]

Inform about Arming/Disarming

When this function is enabled, the system sends information messages to the main user (User1) about armed/disarmed security system. By default this function is disabled.





Indicates partition in which iButton key is assigned.



4.3.2 Password commands





4.3.3 Zones commands



Zone Mode ATZ

In the environment of ESIM264 Configuration Tool the user must specify the mode of connected Zones:

- Type4 $5,6K\Omega$ end of line resistor and normally closed contact with $3,3K\Omega$ end of line resistor and normally closed contact. This type of connection is used for ATZ mode.
- Type5 Tamper and 5,6K Ω end of line resistor and 5,6K Ω end of line resistor with normally closed contact and 3,3K Ω end of line resistor with normally closed contact. This type of connection is used for ATZ mode.





Zone Type

Follow - this zone doesn't react to violations during Delay time.

Instant - when this zone is violated, immediately cause an alarm.

Delay - doesn't react to violations in time period which is used to enter security password.

24H - this zone is active all the time, even when the system is disarmed.

Fire - this type of zone is used to connect smoke detectors.

 ${\bf Silent}$ - this zone works as 24H zone and when it is violated, the system doesn't turn on the siren.



Enter code 52, zone number and function:

Follow - [53xx1#] Instant - [53xx2#] 24H - [53xx3#] Delay - [53xx4#] Fire - [53xx5#] Silent - [53xx6#] *where x – zone number. Parameter range from 01 to 44*

Entry Delay

This field is used to configure the time which is dedicated to disarm the security system when users enters in the specified Delay zone. If system will not be disarmed in time, the it will cause an alarm. By default, this time is 15 seconds. This parameter can be adjusted on for Delay type zones.



STAY mode enables the users to arm and disarm security while staying inside the secured premises. The zones which are configured as STAY, will not be secured if the person does not leave the premises after activating security system. By default, this function is disabled.





4.3.4 Monitoring station commands

CID Enable

When this function is enabled, the system generates CONTACT ID messages and delivers them to monitoring stations. When this function is disabled, the system operates in normal mode, i. e., delivers messages only to registered users (other configurations in MS Settings section becomes inactive).

EKB3 EKB3 Enabled - [230#] Enabled - [231#]

CID Messages

Configure which Contact ID messages will be delivered to monitoring station. By default, all these messages are activated.

Alarm/Restore Event - the messages about system alarm and restore events.

External Power Loss/Restore Event – the messages about external power supply loss and restore events.

Akum Status Event - the messages about backup battery flat status.

Armed Event - the messages about security system arming events.

Disarmed Event - the messages about security system disarming events.

Test Event - the messages with test information about the status of the device.

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Enter code 24, event number and function:

Alarm/Restore Event - [2401x#] External Power Loss/Restore Event - [2402x#] Akum Status Event - [2403x#] Armed Event - [2404x#] Disarmed Event - [2405x#] Test Event - [2406x#] *where x – 0: disabled, 1: enabled.*

User Messages When CID Enabled

Configure which events SMS messages will be delivered to users when monitoring station function is enabled. By default, all these messages are inactive.

Alarm Event - the messages about alarm events.

Disarmed Event - the messages about disarm events.

Armed Event - the messages about arm events.

External Power Loss Event - the messages about external power supply loss events.

External Power Restore Event – the messages about external power supply restore events.

Akum Status Event - the messages about backup battery flat status.

Test Event - the messages with test information about the status of the device.



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Enter code 25, event number and function:

Alarm Event - [2501x#] Disarmed Event - [2502x#] Armed Event - [2503x#] External Power Loss Event - [2504x#] External Power Restore Event - [2505x#] Akum Status Event - [2506x#] Test Event - [2507x#] where x - 0: disabled, 1: enabled.

Monitoring Station Phone Numbers

Configure monitoring station phone numbers. The first phone number is the main monitoring station number and the other two are alternative. Phone numbers can contain from 7 to 15 numbers.

Enter code 26, phone number (01-03) and monitoring station phone number:

[26xxyyyyyyyyyy #] where xx – phone number, yyyyyyyyy – monitoring station phone number.



A device access number which is used by the Monitoring station to determine the monitoring object. Initial account number (9999) must be changed.



Enter code 27 and account number:

[27xxxx#] where xxxx - account number.

Attempts

This field is used for indicating the number of attempts the system tries to call on the telephone number of the Monitoring Station if the initial call was unsuccessful. If all the attempts were unsuccessful the system goes to the next Monitoring Station number in the hierarchy. If the call to the last telephone number Alternate Num2 in the hierarchy was unsuccessful, the calls are made from the beginning starting with the main Monitoring Station number (TelNumber1). By default settings, number of these calls is 5.



Enter code 37 and number of attempts:

[37xx#] where xx – number of attempts.

Server IP

IP address of the router that the server is connected to.







via voice calls (GSM audio channel) or GPRS network.

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Enter code 48 and select communication type:
GPRS Network – [480#]
Voice Calls - [481#]

Communication type which is used to transfer CONTACT ID protocol and can be set to operate

4.3.5 Temperature commands

ATTENTION: If you don't want to receive messages about temperature changes - temperature Min and Max parameters must be set zeros. However, if the sensor is connected, temperature information will be sent together with INFO message.





When this function is enabled, system sends the information by SMS messages about temperature deviation from the set values. By default, this function is enabled.



4.3.6 Other commands









ESIM264 communicates with on of these languages: Lithuanian, Russian, English, Estonian, Latvian, German or Slovakian.



Enter code 35 and function:

Lithuanian language - [3500#] Russian language - [3501#] English language - [3502#] Estonian language - [3503#] Latvian language - [3504#] German language - [3505#] Slovakian language - [3506#]

Log Enable

When this function is enabled, the system logs all information about system configuration, system actions and info messages to the events log. By default, this function is disabled.



Enter code 36 and function:

Disabled - [360#] Enabled - [361#]

 Control Status
 This function enables and disables automatic output control. Specific automatic output control configuration can be done only with software "ELDES Configuration Tool".

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 Enter code 49 and number of attempts:

 1 - [4901x#]
 2 - [4902x#]

 3 - [4903x#]
 ...

 10 - [4916x#]
 where x - 0: disabled, 1: enabled.



Enter code 66, date and time:

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[66yyyymmddhhxx#] where yyyy – years, mm – months, dd - days, hh - hours, xx – minutes.

5. Additional Information

Limited Liability

The buyer must agree that the system will reduce the risk of fire, theft, burglary or other dangers but does not guarantee against such events. "ELDES UAB" will not take any responsibility regarding personal or property or revenue loss while using the system. "ELDES UAB" liability according to local laws does not exceed value of the purchased system. "ELDES UAB" is not affiliated with any of the cellular providers therefore is not responsible for the quality of cellular service.

Manufacturer Warranty

The system carries a 24-month warranty by the manufacturer "ELDES UAB". Warranty period starts from the day the system has been purchased by the end user. The warranty is valid only if the system has been used as intended, following all guidelines listed in the manual and within specified operating conditions. Receipt must be kept as a proof of purchase date. The warranty is voided if the system has been exposed to mechanical impact, chemicals, high humidity, fluids, corrosive and hazardous environment or other force majeure factors.

Safety instructions

Please read and follow these safety guidelines in order to maintain safety of operators and people around:

- Don't use the system where it can be interfere with other devices and cause any potential danger.
- · Don't use the system with medical devices.
- · Don't use the system in hazardous environment.
- Don't expose the system to high humidity, chemical environment or mechanical impacts.
- Don't attempt to personally repair the system. Any system repairs must be done only by qualified, safety aware personnel.

Keyboard EKB3 is a device mounted in limited access areas. Any system repairs must be done only by qualified, safety aware personnel.

The system must be powered by 12-14V ____ 150mA power supply and must be approved by LST EN 60950-1 standard and be easily accessible.

Mains power must be disconnected before any installation or tuning work starts. The system installation or maintenance must not be done during stormy conditions.



The WEEE (Waste Electrical and Electronic Equipment) marking on this product (see right) or its documentation indicates that the product must not be disposed of together with household waste. To prevent possible harm to human health and/or the environment, the product must be disposed on in an approved and environmentally safe recycling process. For further information on how to dispose of this product correctly, contact the system supplier, or the local authority responsible for waste disposal in your area.

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