

**FIRE AND BURGLAR ALARM
SYSTEM
BASED ON Central Panel «KODOS A-20»
User Guide**

CONTENTS

| | |
|---|----|
| PURPOSE..... | 2 |
| DEVICE APPEARANCE | 3 |
| HOW TO START OPERATING THE DEVICE | 4 |
| USER RIGHTS ON MANAGING THE SYSTEM | 6 |
| HOW TO VIEW A SECTION | 7 |
| HOW TO ARM A SECTION | 8 |
| HOW TO DISARM A SECTION | 8 |
| HOW TO ARM A ZONE /DISARM A ZONE..... | 9 |
| HOW TO MAKE A CHANNEL ACTIVE / INACTIVE | 9 |
| HOW TO SWITCH ON / SWITCH OFF ZONE OR CHANNEL CONTROL..... | 9 |
| HOW TO VIEW A LIST OF ARMED ZONES AND ACTIVE CHANNELS | 10 |
| HOW TO VIEW A LIST OF SECTION GROUPS | 10 |
| HOW TO CANCEL AN ALARM..... | 11 |
| HOW TO SWITCH ON / SWITCH OFF A CONTROL CHANNEL..... | 11 |
| HOW TO VIEW THE EVENT LOG..... | 12 |
| Annex A | 14 |
| Annex B | 15 |

Graphical symbols applied in the document:



NOTE



ATTENTION!

The present document includes information on fire and burglar system control by means of security and fire alarm control and indicating equipment FBACIE “KODOS A-20” operating autonomously without computer connection.

PURPOSE

Fire and burglar alarm control and indicating equipment Central Panel “KODOS A-20” (hereinafter, *device*) is intended for utilization in fire and burglar alarm systems (hereinafter, *System*) and designed for full-time continuous operation.

Address units are connected to the device through communication line. They control security (fire) **zones** and control **channels**. Address units communicate with zones and control channels through **alarm loops**.

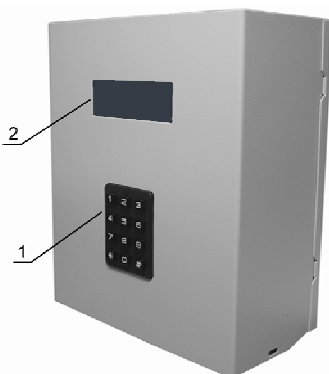
Zone means a room or its part under control being in coverage of security (fire) detector, which signal is transmitted to the corresponding address unit connected to the device.

Alarm loop (*loop*) – connection lines from detectors and executive units to the corresponding address unit.

Control channel means a loop connecting executive units (lighting indicators, sound detectors, smoke removal etc.) with the corresponding address unit connected to the device.

Via address units, the device controls zones (channels) status and manages them. Information on the System status is displayed on four-line screen of the device.

DEVICE APPEARANCE



1 – keyboard; 2 – screen.

Figure 1

The device appearance is shown in figure 1.

Plugged-in device is in **standby mode**, the screen (2) displays information on the System status, for example:

```
Armed zones      :71
Failure in zone:54
Zone:07 normal
2005.06.22      20:53
```

- in the first line – total number of active channels and zones, being on guard to the moment.
- in the second line – messages on the System status.
- in the third line – messages on status of zones (channels) with “Control” parameter set.
- in the forth line – Current date (year.month.day) and current time (hour:min).

In the standby mode, information is displayed on the screen with reduced brightness. Screen brightness of the device in the standby mode is increased on messages on alarm events (failures) in the System.

Keyboard (1) serves for data input. When a button is pressed, a dim beep signal confirming pressing the button is heard.

The keyboard includes:

- number buttons **0**, **1**, and **9** serve for command input;
- key **#** means end of an information input.
- key ***** serves for returning to the previous screen form or for clearing the input fields.



*Alternative meaning of the keys **#** and ***** is indicated in the bottom line of the device's screen.*

HOW TO START OPERATING THE DEVICE

A user (security officer, duty officer, guard) is responsible for a **section** of zones and channels assigned to him.

Section means several zones and channels separated from total number of the System zones. Uniting to sections is designed to set several zones under security and remove them from security at once. One section is assigned to each user by Administrator.

A user must watch information displayed on the screen of the device being in the standby mode and manage the System in accordance with the messages displayed.

Access to managing the device and its settings is protected with a password. A user should know his password (combination of four digits) for logging the System and number of the section assigned to him.



User passwords and section numbers are assigned by Administrator.


To enter your password, press any key of the device being in the standby mode.

The device's screen becomes brighter and a prompt for entering your password appears:

Password: █




Symbol «█» blinking on the device screen indicates that the System waits for data entering by a User.

Enter your password by means of the keyboard and press  key.

Password characters are displayed as asterisks on the screen:

Password: ****



If a wrong password is entered and  key is pressed, the devices returns to the standby mode.

If correct password is entered, **main menu** is displayed on the screen:

```
1.Off alarm
2.Zones and channels
3.Events
4.Sections      [#] ↓
```

```
5.Setting      [#] ↑
```

Symbols [#]↓ in the last line mean that the menu has a continuation. It can be viewed by pressing **#** key.

To go back to the previous menu page, press **#** key.

To exit menu, press ***** key.

To select any menu item, press a key with the corresponding number. Each menu item means either a command, which is executed by the System, or a new menu (**submenu**), or screen forms for data input/output.

The System is controlled by means of the keyboard by subsequent selection of menu and submenu items. This selection sequence is called a **menu command** and is written down as follows:

No.Name of menu item ⇒ No.Name of submenu item

If an unallowed for a certain User menu item is selected (see **USER RIGHTS ON MANAGING THE SYSTEM**) the screen displays a message:

```
No access!
```



If ***** key is pressed in the main menu or no User command has been entered within 1.5 minutes, the device returns to the standby mode.

USER RIGHTS ON MANAGING THE SYSTEM

Block diagram of the device's screen forms accessible for a User is given in figure A.1 (see Annex A). All the commands of the main menu item "5.Settings" are accessible only for Administrator.



*User can operate with a zone (channel) only if this zone (channel) is included in the given User's section (see **HOW TO VIEW A SECTION**).*

- User can view a list of zones и channels, included in a certain User's section (see **HOW TO VIEW A SECTION**). Only Administrator can edit the list of zones and channels included in the section.
- User can arm all zones covered by security detectors and switch on all active channels included in a certain User section (see **HOW TO ARM A SECTION**).
- User can disarm all zones covered by security detectors and switch off all active channels included in a certain User section (see **HOW TO DISARM A SECTION**).



*Zones covered by **fire detectors** and **manual fire detectors (MFD)** can not be armed or disarmed **by sections**. It is recognized that fire detectors must be always switched on! If necessary, each of these zones can be disarmed and, then, be armed **individually** (see **HOW TO ARM A ZONE / DISARM A ZONE**).*

- User can arm a zone and disarm it (see **HOW TO ARM A ZONE /DISARM A ZONE**). If a zone is set under security and detectors actuate in the zone, a message on the alarm event is displayed in the second line of the screen of the device being in the standby mode.
- User can make a channel active/non-active (see **HOW TO MAKE A CHANNEL ACTIVE / INACTIVE**). If the channel is active, an executive unit connected to this channel can be switched on or switched off (see **HOW TO SWITCH ON / SWITCH OFF A CONTROL CHANNEL**).
- User can switch on/switch off zone or channel control (see **HOW TO SWITCH ON / SWITCH OFF ZONE OR CHANNEL CONTROL**). If a zone (channel) control is switched on, information on this zone (channel) is displayed in the third line of the screen of the device being in the standby mode. If a failure occurs in a zone with control switched on (even if the zone is removed from security), the System receives an alarm signal and the corresponding message is displayed in the second line of the screen of the device being in the standby mode.

- User can view a list of zones set under security and active channels included in his section (see **HOW TO VIEW A LIST OF ARMED ZONES AND ACTIVE CHANNELS**).
- User can view a list of zones and channels united in groups of his section (see **HOW TO VIEW A LIST OF SECTION GROUPS**). If zones of the group are set under security, and the group's channels are active and detectors actuate in these zones, all the group channels are switched on automatically. Only Administrator can change group content.
- If an alarm event or a failure occurs in a zone set under security, the System receives an alarm signal. Alarm status can be caused by actuation of an detector, loop short circuit, commutation line breakdown or an attempt to open a unit case. Information on the alarm event is displayed in the second line of the screen of the device being in the standby mode. User can switch off all the channels of the alarm zone group and remove an alarm status message from the screen (see **HOW TO CANCEL AN ALARM**.)



If an detector is actuated, the alarm signal (horn) sounds continuously, but if line breakdown or short circuit occurs, an intermittent signal is given out.

- User can switch on/switch off an executive unit (for example fire-extinguisher), if the device control channel is included in the User's section (see **HOW TO SWITCH ON / SWITCH OFF A CONTROL CHANNEL**).



*Executive unit can be switched on/switched off only if the device control channel is active (see **HOW TO MAKE A CHANNEL ACTIVE / INACTIVE**).*

- User can view the last 7500 events registered by the System (see **HOW TO VIEW THE EVENT LOG**).

HOW TO VIEW A SECTION

Create the following command from the device's main menu:

4.Sections ⇨ 1.View section

Numbers of zones and channels included in the User's section are displayed on the screen, for example:

```

Section 02
01 05 07 08 13
          [#]-stop
    
```

User Guide

If more than five zones and channels are included in the section, the device will continue displaying the list automatically in three seconds and the screen will display next five numbers.

Press any number key to speed up displaying.

Press **#** key to stop (and then to restore) automatic displaying.

Press ***** key to finish viewing the section, the device screen returns to menu «4.Sections».

HOW TO ARM A SECTION

Create the following command from the device's main menu:

4.Sections ⇒ 3.Arm section

The section is set under security; picture on the screen is not changed.

HOW TO DISARM A SECTION

Create the following command from the device's main menu:

4.Sections ⇒ 4.Disarm section

The section is removed from security; picture on the screen is not changed.

HOW TO ARM A ZONE / DISARM A ZONE

HOW TO MAKE A CHANNEL ACTIVE / INACTIVE

HOW TO SWITCH ON / SWITCH OFF ZONE OR CHANNEL CONTROL

Create the following command from the device's main menu:

2.Zones and channels ⇒ 1.Arming/disarm

The following prompt appears on the screen:

```
Arming/disarming
Zone/chan:█
```

Enter a number of a zone (channel) of interest and press **#** key. To cancel a wrong selection, press ***** key (before **#** key is pressed).

The System requires an action, for example:

```
Arming/disarming
Zone/chan:█25
[0]- Disarm, [#]-Arm
Control [1]On [2]Off
```

Press a related button:

- #** – set a zone under security (make a channel active);
- 0** – remove a zone from security (make a channel inactive);
- 1** – switch on a zone (channel) control;
- 2** – switch off a zone (channel) control.

The device offers to proceed to operation with the next zone (channel) (in order of numbers).

Press ***** key to go back to the inquiry of zone (channel) number.

Multiple pressing the key ***** returns the screen to «2.Zones and channels» menu.

HOW TO VIEW A LIST OF ARMED ZONES AND ACTIVE CHANNELS

Create the following command from the device's main menu:

2.Zones and channels ⇒ 4.Zone viewing

If a zone is set under security (channel is active), its number is in the list, for example:

```
Zone viewing
01 05 07 08 13
[#]-stop
```

If there is no zone (channel) number in the list, this zone is not set under security (channel is inactive).

If there are more than five elements, the device will continue displaying the list automatically in three seconds and the screen will display next five numbers of zones set under security and active channels.

Press any number key to speed up displaying.

Press **#** key to stop (and then to restore) automatic displaying.

Press ***** key to finish viewing the list of zones set under security and active channels, the device screen returns to menu «2.Zones и channels ».

HOW TO VIEW A LIST OF SECTION GROUPS

Create the following command from the device's main menu:

2.Zones and channels ⇒ 5.Zone groups ⇒ 1.Viewing config

The screen displays an inquiry:

```
Group number: █
```

Enter number of a group, which contents is required to be displayed.

The screen displays number of all zones included in the group, for example:

```
Zones 05 group
08 02 04 03
07 01
0- next #- chans
```

Press **0** key for quick proceeding to the next group (in order of numbers).

Press **#** key for viewing the list of numbers of all channels included in the group, for example:

```
Chans 05 group
11 12
0- next #- zones
```

Press **0** key for quick proceeding to the next group (in order of numbers).

Press **#** key to go back to the list of numbers of zones included in the group.

Press ***** key to finish viewing the list of numbers of group zones (channels), the device's screen returns to submenu «5.Groups of zones»

HOW TO CANCEL AN ALARM

Press **1** key in the device's main menu:

1. Off alarm

Alarm is cancelled; picture on the screen is not changed.



If an alarm signal continues (for example, in a case of failure in the System), the zone should be disarmed (see HOW TO ARM A ZONE / DISARM A ZONE) and switch off the zone control (see HOW TO SWITCH ON / SWITCH OFF ZONE AND CHANNEL CONTROL). After elimination of the alarm (failure) cause, the zone can be set under security again.

HOW TO SWITCH ON / SWITCH OFF A CONTROL CHANNEL

Create the following command from the device's main menu:

2.Zones and channels ⇨ 2.TurnOn/TurnOff

The screen displays an inquiry:

```
Turn on/turn off  
control channel  
Chan:█
```

Enter a number of a channel of interest and press **#** key. To cancel a wrong input, press ***** key (before **#** key is pressed).

The System requires an action, for example:

```
Turn on/turn off  
control channel  
Chan:04  
[0]- Off   [#]-On
```

Press the corresponding key:

- #** – switch on the control channel (and, consequently, switch on the device).
- 0** – switch off the control channel (and, consequently, switch off the device).

The device offers to proceed to switch on/switch off the next channel (in order of numbers). It allows fast switching on or switching off several channels at once.

Press ***** key to go back to channel number inquiry.

Multiple pressing the key ***** returns the screen to the menu «2.Zones and channels».

HOW TO VIEW THE EVENT LOG

Press **3** key in the device's main menu:

3.Events

The device's screen displays a record on the latest event in the System, for example:

```
10.25 13:42 0229
System change
User:00
      [0]-↑ [#]-↓
```

The first line of the screen displays: event date (for example, «10.25» – October 25) and time («13:42» – 1:42 pm) and its sequential number in the list («0229»). The second line indicates the event type («System change»). For User initiated events, the third line displays his number («00» – Administrator).

Press **#** key to view the previous record of the event log.

Press **0** key to view the next record of the event log.

Press ***** key to go back to the device's main menu.



List of events registered in the System is given in table B.1 (see Annex B).

Annex A

Block Diagram of the Device's Screen Forms

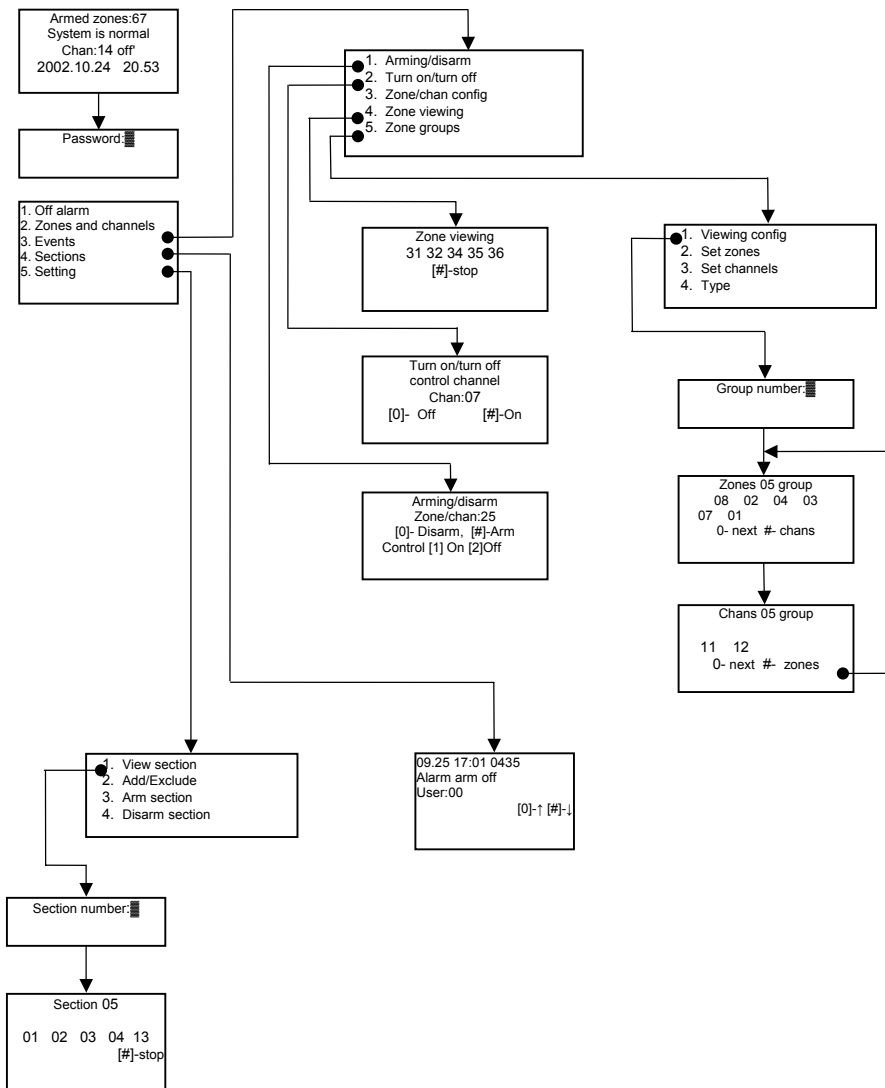


Figure A.1

Annex B

List of the System Events

Table B.1

| On the device's screen | Event in the System |
|----------------------------|---|
| AU auto operation: | autonomous operation of power supply unit (PSU) with the specified number |
| Ctrl channel on: | switching on a control channel with the specified number |
| Control chan off: | switching off a control channel with the specified number |
| Maybe fire zone: | actuation of fire sensor at set time of pending actuation in the specified zone |
| Maybe alarm zone: | actuation of security sensor at set time of pending actuation in the specified zone |
| Zone restored: | restoration of commutation with a unit, transferring the zone with the specified number to normal status |
| Restoring line | restoration of a communication line after a short circuit |
| Block opening: | tamper sensor of the AU with the specified number is cut-off |
| PU acc. recharge: | charging battery of the PSU with the specified number |
| System change User: | changing configuration of the System; number of a User who has made the change is displayed |
| Line SC | short circuit in a commutation line with address units (AU) |
| Ctrl zone on: | setting a zone under control |
| Ctrl zone off: | removing a zone from control |
| Arming hours User: | setting current time; number of a User who has set the device's clocks is displayed |
| Failure in zone: | failure of AU, the zone with the specified number is assigned; |
| Block proc. Zone: | failure of AU commutation (AU commutation line breakdown, unit failure); AU number and its zones numbers are displayed |
| Break zone : | breakdown of a loop in the zone with the specified number |
| Turning off PU: | switching-off PSU with the specified number from 220 V electrical supply mains |
| Clearing events | deleting all records from the event archive |
| Fire in zone: | alarm in the fire zone, with the specified number |
| Zone is armed: User: | setting a zone with the specified number under security; number of a User who has set the zone is also displayed |
| Arm. section User: | setting a section with the specified number under security; number of a User who has set the section is also displayed |
| Arm. by card User: | setting a section with the specified number under security by card; number of a User who has set the section is also displayed |
| Passwd change: | adding User to the System list or changing his password; number of a User whose password has been changed |
| Zone is disarmed: User: | removing a zone with the specified number from security; number of a User who has removed security is also displayed |
| Alarm off User: | canceling alarm status, switching-off the horn; number of a User who has cancelled the alarm is also displayed |
| Disarm by card User: | removing a section with the specified number from security by card; number of a User who has removed security is also displayed |
| Alarm in zone: | alarm in a zone with the specified number |
| Alarm informer: | MFA button is pressed in the specified zone |
| User deleted: | Removing a User from the System list; User number is displayed |

