

Alarm Control Panel

CA-10

Satel 

GDAŃSK

**USER
MANUAL**





WARNING

In order to avoid any operational problems with the control panel, it is recommended that you become familiar with this manual before you start using the equipment.

Making any construction changes or unauthorized repairs is prohibited. This applies, in particular, to modification of assemblies and components. Maintenance or repair operations should be performed by authorized personnel (i.e. the installer or factory service).

Telephone terminals of the panel should be connected to **PSTN lines only**. Connecting to ISDN lines may lead to damage of the equipment.

In case of upgrading the PSTN line to ISDN, system owner should contact the installer.

Pay special attention if the telephone line used by the control panel is frequently busy and/or failures are reported concerning the line and/or monitoring. Report such situations to the alarm system installer immediately.

CAUTION!

The alarm system is fitted with a battery. After expiry of its lifetime, the battery must not be thrown away, but disposed of as required by the existing regulations (European Union Directives 91/157/EEC and 93/86/EEC).

Latest EC declaration of conformity and product approval certificates can be downloaded from our Web site www.satel.pl



CONTENTS

Technical Reliability of the Alarm System		2
Alarm System Operating Costs		2
CA-10 Control Panel		2
Armed Modes		3
Full armed mode		3
Silent armed mode		3
Partially armed mode		4
Stay armed mode		4
Operating Instructions		4
LED Functions		6
States of control panel armed zones in LCD keypad		7
States signaled with sound		7
The signals produced to confirm the operation on the keypad		7
System events signaling		7
User Access Codes		8
Arming	[CODE][#]	8
Quick arming	[0][#]	9
Disarming and clearing alarm	[CODE][#]	9
Clock controlled arming / disarming		10
System status telephone messaging		10
Control panel interfacing with DTMF (MST-1) control module		10
Functions of ◀▶▲▼ Key in the LCD Keypads		11
Find the partition where alarm was activated	▲ key	11
Find the violated zones	◀ key	11
Find the zones that caused the alarm	▶ key	11
Find the partition where the keypad is attached	▼ key	11
Changing display mode of system state	▼ key	11
„HOLD DOWN” User Functions		11
Switching to n partition (GOTO n)	[1][2][3][4]	11
Viewing alarms log	[5]	12
Viewing troubles log	[6]	13
Current trouble check-out	[7]	13
Switching CHIME on/off	[8]	15
Keypad backlighting	[9]	15
Fire alarm	[*]	15
Auxiliary alarm	[0]	15
Panic alarm	[#]	15
User functions		15
User access code change	[CODE][*][1]	16
User (code) add	[CODE][*][2]	17
User (code) erase	[CODE][*][3]	18
Zone bypass	[CODE][*][4]	19
Silent arming	[CODE][*][5]	19
Time setting	[CODE][*][6]	20
MONO switch outputs activate	[CODE][*][7]	20
BI switch outputs activate	[CODE][*][8]	20
Power supply reset	[CODE][*][9]	21
Telephone DOWNLOADING start	[CODE][*][0]	21
Viewing events log	<i>(additional function in the LCD keypad)</i>	21

Technical Reliability of the Alarm System

The alarm system is built of the devices whose reliability is vital in effectiveness of offered protection. The elements of the alarm system are subject to various outside influences, for example weather conditions (outside signaling devices), lightning (overhead telephone lines, power lines, outside signaling devices), mechanical damage (keypads, detectors). Only permanent control of the alarm system operation ensures keeping high level of burglary and fire protection.

The control panel is equipped with a number of safeguards and auto diagnostic functions testing the reliability of the system. The control panel signals trouble detection by switching the TROUBLE control on the keypad on. **The signal should be immediately taken care of - if necessary, the installer should be consulted.**

It is necessary to periodically test the reliability of the alarm system - check every single detector's ability to signal zone violation by opening the protected windows, doors etc. It is also necessary to check signaling devices and telephone voice messaging system.

The installer provides detailed instructions on how the system should be checked. It is recommended that the installer carry out periodic maintenance of the alarm system by the user order.

In his best interest, the user should plan beforehand appropriate procedures in case the control panel signals any alarm conditions. It is important that he should be able to verify the alarm, determine its source on the basis of keypad information, and take an adequate action, e.g., to organize evacuation.

Alarm System Operating Costs

The main task of the control panel is signaling and efficient reporting of alarm situations and, in the case of the monitoring function, keeping the monitoring station informed about the protected facility status. Performance of these functions is to a large extent based on the use of a telephone line, which entails generating certain costs. Generally, the level of costs incurred by the alarm system owner depends on the amount of information the control panel has to transfer to the monitoring station. A failure of the telephone links, as well as incorrect programming of the control panel, may to a large degree increase these costs. Such a situation is usually related to an excessive number of connections made.

The installer can adjust functioning of the alarm system to the specific conditions and kind of the protected site, however it is the user who should decide if his or her priority is transferring information at any price, or, if some technical problems occur, the control panel is allowed to skip some events, the reception of which has not been confirmed by the monitoring station.

CA-10 Control Panel

The CA-10 control panel is a modern, microprocessor-based equipment designed for burglary and assault signaling systems. The CA-10 panel controls the alarm system, responds to information coming from the system detectors about an intrusion into the protected facility, and provides signaling and notification about the event. The control panel can be operated by means of LED or LCD type keypads.

Basic functions of CA-10:

- signaling burglary, panic and fire alarms,
- telephone messaging about the alarms with voice or pager messages,
- answering phone calls and informing the user of the system status (whether there was an alarm condition since last arming),
- MONITORING - communication with telephone monitoring stations (real-time transmission of detailed information about selected events in the protected facility),
- printing current information about all the system events on an external printer.

Features of CA-10:

- panel operation controlled with remote keypads,
- remote control by means of a telephone set (selected functions) - interfacing with the MST-1 module,
- real-time status display for armed zones,
- viewing alarm condition and trouble logs available (for up to 255 events),
- option to subdivide the alarm system into 4 partitions (subsystems),
- any partition can be operated by up to 13 users with independent access codes (up to 32 access codes) - the access codes can have different authority level, any instance of using them is recorded in the event log,
- remote control of locks, lighting system and other devices from the panel keypads,
- activation of PANIC, FIRE and AUXILIARY alarms from the keypads,
- various system arming options (with automatic bypassing, with no-exit bypassing),
- internal clock capable of automatic arming and disarming of the system,
- automatic diagnostics of the basic components of the alarm system.

Armed Modes

To adapt the alarm system to various needs, the CA-10 control panel offers several armed modes:

Full armed mode

The mode in which detectors connected to the panel control the protected facility and violation of the protected zones is signaled by the panel with all available means (sirens, reporting to telephone monitoring stations, telephone messages).

Silent armed mode

Armed mode in which alarms are signaled only in the panel keypads. The installer can decide which of the detectors are to be automatically bypassed on activating this mode; he can also choose signaling device to be used in that mode.

Partially armed mode

The installer can determine the detectors in the system which will be excluded from the supervision when the system is armed with a special access code (authority level 7). The user can, by entering an appropriate code, arm the system in a chosen part of the facility only.

Stay armed mode

In this mode the panel enables automatic bypassing of chosen detectors if after arming the system the user did not leave the supervised area and did not violate the entry/exit zone.

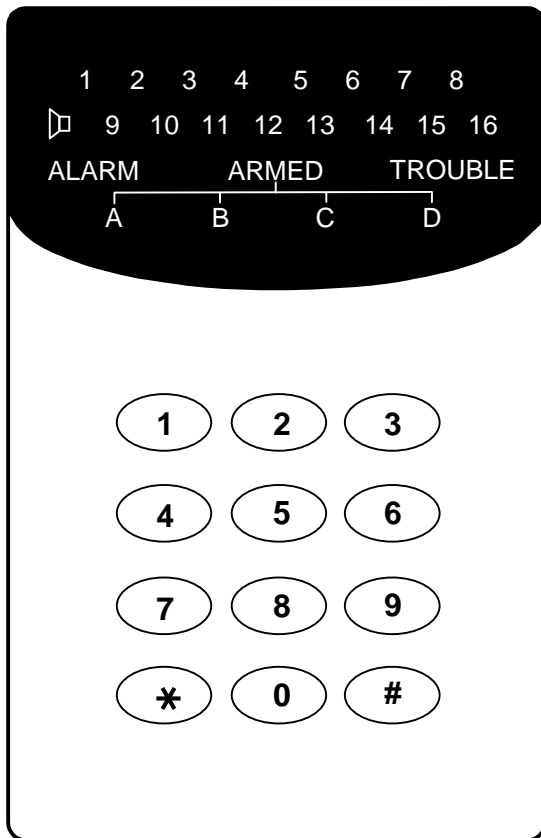
Operating Instructions

Operating of the alarm system consists basically in arming and disarming the system and responding appropriately to the information the control panel may signal on the keypad. The LED keypad conveys information on the status of the alarm system by means of several LEDs and audible signals. The LCD keypad displays the information about the status of the alarm system by means of a two-line, backlit LCD display (2x16 characters) and six additional LED controls.

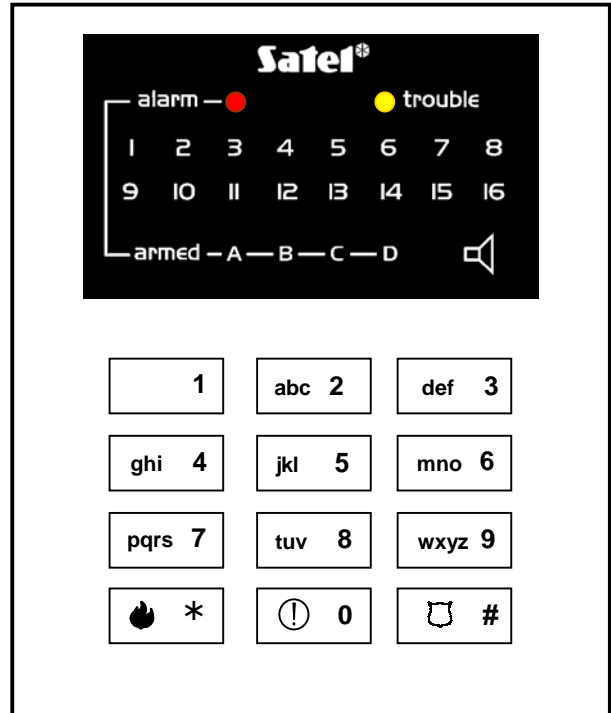
There are three types of LED keypads (CA-10 KLED, CA 10 KLED-M, CA-10 KLED-S) and three types of LCD keypads (CA-10 KLCD, CA-10 KLCD-S, CA-10 KLCD-L) that can be used together with the CA-10 control panel. All of them fully support the alarm system.

The CA-10 KLED keypads indicate simultaneously the status of one partition and up to 12 zones of the control panel, while the other ones can indicate the status of 4 partitions and 16 zones. Figure 1 shows examples of LED and LCD keypads.

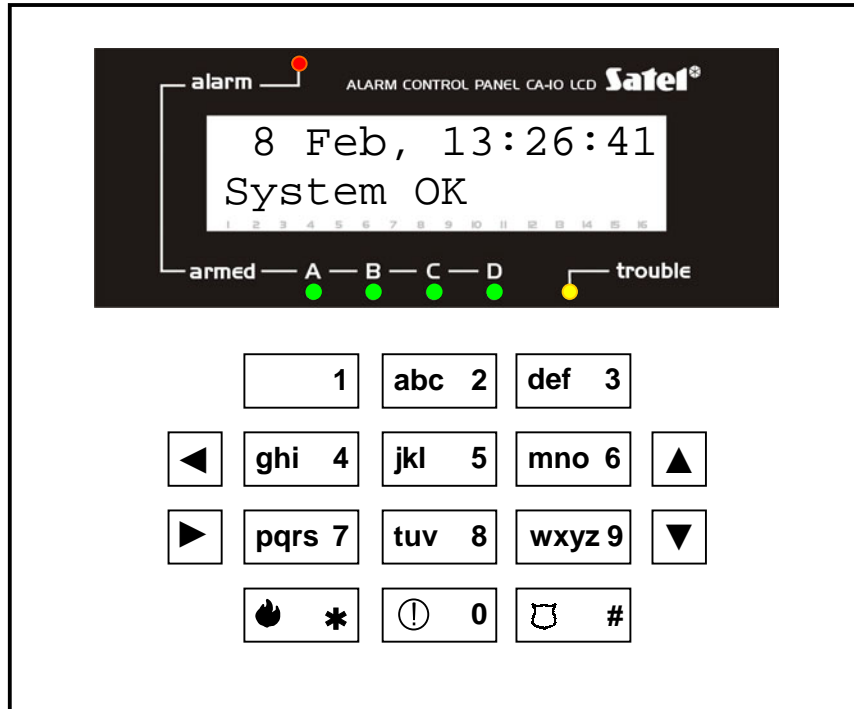
The keypad is provided with 12 keys, designated according to the telephone standard, and intended for entering data. The additional 4 arrow keys in the LCD keypad allow the user to move through the MENU and to select functions.



CA-10 KLED-M keypad



CA-10 KLED-S keypad



CA-10 KLCD-S keypad. CA-10 KLCD-S and CA-10 KLCD-L keypads differ each other in the dimension and the size of display.

Figure 1. Keypads to serve the CA-10 control panel. The CA-10 KLED and CA-10 KLCD keypads are shown at the end of this manual.

LED Functions

ALARM - alarm was triggered in the zone (when none of LEDs is blinking, the alarm cause will be shown by the function "Viewing alarm log". The alarm may have been caused by a zone not displayed in the partition, or the zone belonged also to another partition, where alarm was cleared).

Note: *When the function „display service message after tamper alarm” (FS131) is active, the ALARM LED, on detection of a tamper, is blinking until the message is cleared with a service code.*

ARMED / PARTITION A B C D (depending on the keypad type) – indicates the status of a partition:

- **blinking of the LED** (with the ALARM LED off) signals the countdown of exit delay time
- **steady light of the LED** signals the armed mode in the partition

The LEDs marked with letters A B C D correspond to numerical denotation of partitions available in the system:

- LED **A** – partition 1
- LED **B** – partition 2
- LED **C** – partition 3
- LED **D** – partition 4

TROUBLE - the LED is blinking when the control panel detects a technical problem, a telephone messaging or reporting trouble. With the option „keypad trouble alarm on until cleared” (FS131) active, it is blinking until the trouble log is viewed (key 7 function) and the function is finished by pressing the [#] key.

1-12 / 1-16 (depending on the LED keypad type) – the LEDs show the status of zones:


- off - zone is free (not violated),
- on - zone is violated,
- on with extinguishing phase every two seconds - violated anti-tampering circuit of 2EOL/NC or 2EOL/NO zone,
- blinking quickly - zone caused an alarm condition,
- flashing every two seconds - anti-tampering system caused an alarm,
- blinking slow - zone bypassed.

Functions of the LEDs change on calling the service mode or entering the user function mode.

Some states of the control panel are additionally indicated by combinations of lit LEDs
ALARM, ARMED (PARTITION), TROUBLE:

- ALARM, ARMED (PARTITION) & TROUBLE blinking - control panel signals entering the user function
- ALARM blinking, ARMED (PARTITION) & TROUBLE on - control panel performs function "Viewing alarm log"
- TROUBLE blinking, ALARM & ARMED (PARTITION) on - control panel performs function "Viewing trouble log"

Additional signaling, which is only provided in the CA-10 KLED-M and CA-10 KLED-S keypads:

- **LED** designated with the  symbol is lit when the keypad audible alarm (buzzer) is on.
- **all LEDs blinking** simultaneously (with 0,5s/0,5s timing), along with audible signaling, informs the user that connection between the keypad and the control panel has been lost.
- **keypad illumination** blinking with a high frequency - the keypad is receiving data from the control panel.

States of control panel armed zones in LCD keypad

The LCD keypad can indicate in the bottom line of its display, either periodically or permanently, the state of control panel armed zones. Given below are symbols which may be displayed at the successive items (1–16) and their meaning.

- - zone free (not violated)
- - zone violated
- S** - violated anti-tampering system of two-parameter zone
- a** - there was alarm from a zone (alarm memory)
- s** - there was tamper alarm from a two-parameter zone (tamper memory)
- b** - zone bypassed

These symbols may be changed with the service function of LCD keypad.

States signaled with sound

The signals produced to confirm the operation on the keypad

- **three short** - system arming/disarming confirmation, deactivating type 13 (BI switch) output,
- **two long** - wrong access code, canceling a function or incorrect data for a function,
- **three long** - an attempt to arm the system when the zones with PRIORITY option are violated (see Arming),
- **four short, one long** - correct user function completion, activating type 13 (BI switch) output, or activating type 12 (MONO switch) output.

System events signaling

- **continuous signal** - alarm condition,
- **intermittent signal** - fire alarm,
- **one short signal every 3 seconds** – entry delay time (or service mode),
- **one long signal every 3 seconds** - exit delay time,
- **two short signals every 3 seconds** - trouble,
- **five short** - CHIME zone violated,

- **five long** - DAY/NIGHT zone violated when the partition is disarmed, or counting zone violated when the partition is armed.

The installer determines which events and in which keypads are to be signaled acoustically.

User Access Codes

For everyday operation of the system it is necessary to know the user access code. The control panel comes with one factory-set code (master user code) for each partition:

1234 for partition 1 (A),

2345 for partition 2 (B),

3456 for partition 3 (C),

4567 for partition 4 (D).

Additional 12 user access codes may be programmed for each partition (but no more than 32 for the entire system). The code can be 4 to 6 digits long.

In some keypads, the numeric keys are provided with letters. They may help the user memorize a code by associating it with a particular word (e.g. the „[5][6][2][7][2]” code corresponds to the word „KOBRA”).

When creating a new user access code, the master user assigns a so-called authority level to it , i.e. determines which of the panel functions are available to the particular user, and which are not. Usually, an access code entered for the particular partition will only control that specific partition.

Optionally, the installer can activate the so-called "global access code" function. When selected, this option makes the user access codes accepted in all 4 partitions, irrespective of where they were entered, but the particular user number will not be recorded in the event log.

Arming

[CODE][#]

Arming is only possible when the partition is not signaling alarm and is not already armed: ALARM and ARMED (PARTITION) diodes are off.

In order to arm the system access code should be entered and confirmed by pressing [#] key. If, while typing the code, user makes a mistake, [*] key should be pressed and the code re-entered. The access codes should be entered very carefully. Giving a wrong access code three times in sequence may activate the alarm which is recorded in alarm memory log as „3 wrong codes alarm”.

If the code is entered correctly and arming is possible, the panel will confirm the entry with three short beeps. At the same time the ARMED (PARTITION) LED will start blinking, which indicates the exit delay time.

The LCD keypad will display information on arming, as well as the name of the user who activated the armed mode. It will be followed by information on the exit delay countdown (provided such an option is provided by the installer). The partitions with active exit delay countdown are also indicated by blinking of the corresponding LEDs.

The exit delay and the way of audible signaling operation should be determined by the installer.

The panel may fail to arm the system if:

- **the panel is not ready for arming:** there are specifically selected zones which cannot be violated when the system is being armed and one of them is violated at the time of arming - the panel will signal the situation with three long beeps. In such a case, it is recommended to wait until all the zones are ready (the LEDs 1-12 / 1-16 go out), and then arm the system again. If one of the zones remains violated (one of the LEDs 1-12 / 1-16 is on, which may be caused e.g. by a detector trouble) the armed mode can be activated after bypassing that zone (with function 4),
- **the access code is wrong** - the control panel will signal the event with two long beeps
- **the partition contains no armed type zones** - the control panel signals the event with two long beeps (access code is correct and allows, for example, to call user functions)
- **battery trouble** - three long beeps (proper option is selected to prevent the system from being armed in case of battery trouble).

Quick arming

[0][#]

The user can quickly arm the system without any access code by pressing the [0][#] key sequence. The Quick Arming function can be disabled by the installer. This way of arming is not affected by any detectors being violated at the time. The installer can also install a special key for quick arming of the system.

Disarming and clearing alarm

[CODE][#]

When the control panel is armed (ARMED / PARTITION LED is on or blinking) or signals an alarm (ALARM LED is blinking), it can accept only one command: disarming the system or clearing the alarm. Entering the access code confirmed by pressing the keys [#] will disarm the system or turn the alarm off. If, when entering the access code, the user makes a mistake, he should press the [*] button and re-enter the code.

The panel confirms acceptance of the command by three short beeps and extinguishing the ALARM and ARMED (PARTITION) LEDs.

The control panel will not disarm the system or clear the alarm if:

- the access code is invalid,
- the access code authority level does not allow disarming (for example, authority level 3 or 9 - see "User Functions" - "User add")

It is also possible to clear the alarm without disarming the system by using the authority level 0 access code.

In the LCD keypad disarming the system is confirmed with an appropriate message on the LCD display and the name of the user who armed the system. If the alarm has been cleared the keypad will display the message "View (↑↓←→)" - the arrow buttons allow viewing partition status to find out the source of alarm.

If the alarm system is divided into partitions, the alarm can only be cleared in the partition whose keypad signals the alarm condition with the ALARM LED.

Clock controlled arming / disarming

Arming and disarming of the system can be controlled by the control panel clock. The installer can program the exact hour and minute of arming/disarming of the system. Arming and disarming will occur **every day** at the specified time. The control panel may also be armed with the clock only - then disarming will be done manually by the user.

System status telephone messaging

The owner of the facility where a CA-10 control panel is installed can check if there was an alarm in the system by using a telephone. In order to do so, he has to call the protected facility: the control panel will answer the call and inform about the system status. The control panel will answer telephone calls only when the system in the entire protected facility is armed.

When answering the call the control panel sends:

- **one beep a second** - if there was no alarm condition since the last arming;
- **voice synthesizer message** - if an alarm occurred within the last hour;
- **sequence of five short beeps every second** - if there was an alarm, but it occurred more than an hour ago.

The panel can answer the calls in one of two modes:

- **single calling mode** - the panel answers the call after a specified number of rings (as is the case with a standard answering machine); having answered a call, the panel does not answer any more calls for 5 minutes;
- **double calling mode** - to get through to the panel, the user must call it and after hearing a specified number of the so-called callback signals (1-second continuous tone followed by a 4-second pause - this signal corresponds to the telephone ringing tone) hang up and call again (within 5 minutes) - the panel will answer the second call immediately.

The installer decides if the function is to be activated and how the control panel will answer the phone calls (number of rings, double calling, etc.)

Control panel interfacing with DTMF (MST-1) control module

The control panel can support a module which can enable the user to perform remotely, by means of a telephone and DTMF signals, the following operations:

- check the state of partitions (armed, alarm)
- check the state of zones (which of them are violated)
- arm / disarm
- clear alarm
- bypass / unbypass zones
- silent arming
- control the MONO switch and BI switch outputs

The control panel may be controlled from a telephone set which the control panel is calling during voice messaging (immediately after playback of the message from the voice synthesizer) or, after establishing connection, from any other telephone. Details regarding the control panel operation - see the manual for MST-1 module.

Functions of ◀▲▼▶ Key in the LCD Keypads

Activated by installer functions assigned to ◀▲▼▶ keys help in everyday control of the system operation. The function is called by pressing the corresponding key. The installer can disable the functions described below.

Find the partition where alarm was activated ▲ key

In multi-partition systems the find function enables determining the partition where alarm was activated. On calling, the function shows by means of ARMED (PARTITION) LEDs the partitions where alarm was activated, and on the LCD display the names of partitions (every time the ▲ key is pressed next partition name is shown).

Find the violated zones ◀ key

The function displays the names of violated zones. The zones are shown on pressing the ◀ key (the function shows the partition zones as selected by the installer).

Find the zones that caused the alarm ▶ key

The function displays the zone names for which the alarm has not yet been cleared (individual alarm memory for zones). Every time the ▶ key is pressed next zone name is shown.

Find the partition where the keypad is attached ▼ key

The function displays the name of the basic partition operated with a keypad (the partition to which the keypad is physically attached).

Changing display mode of system state ▼ key

Pressing and holding down the ▼ key for about 3 seconds will temporarily change the operating mode of LCD keypad: instead of displaying text messages on the system status it will display the state of armed zones in LCD standard (and vice versa). The keypad will automatically return to the operating mode specified by the installer after 40 or 140 seconds since the last key was pressed (depending on how the „*long backlight*“ option is set).

„HOLD DOWN“ User Functions

The functions are available to any user (without using the access code). They are activated by holding down the function key for about 3 seconds.

Switching to n partition (GOTO n) [1][2][3][4]

In the alarm systems divided into several partitions (subsystems), a single keypad control over the whole system is possible. When depressed and held down, the keys [1], [2], [3] or [4] switch over the partition the keypad is currently controlling. The control panel will confirm receiving the command with three short beeps and the LED indicating the partition served will start rapidly blinking if the partition is disarmed, or will be on with steady light, if the partition is armed. Since that moment, the panel will recognize the keypad the function was called from, as if it was connected to the given partition.

The LED keypad enables all the operations to be performed in this partition, except for the „HOLD DOWN” function (the GOTO function cannot be called again).

The given partition is exited automatically (the keypad returns to its own partition after approx. 15 seconds after the last key was depressed) or after depressing the [*] key for 3 seconds. The panel confirms the return to its basic partition with four short and one long beeps.

Pressing the [*] key in order to exit the GOTO function is immediately confirmed with two long beeps, and after 3-second holding down the key, return to the basic partition ensues.

Note: *If the panel does not confirm depressing the given key, it is already in its basic partition and after three seconds it will call fire alarm from the keypad.*

The LCD keypad makes it possible to switch over from one partition to another, and then to return to the basic partition, by holding down the key with the number of next partition (as distinct from the LED keypad, the [*] key does not switch over to the basic partition). For example, when the keypad is connected to the first partition (which is its basic partition), hold down the key [2] to switch the keypad to the second partition, then hold down the key [3] to go to the third partition, and then hold down the key [1] to go back to the basic partition.

Note: *The above mentioned GOTO function is only available when enabled by the installer.*

Viewing alarms log

[5]

By holding down the key [5] you can call the function which makes it possible to view the alarms log.

In **the LCD keypad**, the following message will be displayed: „*Viewing alarms log* (↑↓←→)”. Pressing any key will display a date, time and source of the last alarm.

In **the LED keypad**, the TROUBLE and ARMED (PARTITION) LEDs will go on, the ALARM LED will start blinking, while information on the last alarm will be shown on the LEDs 1-12.

Pressing any key (except for the [*] key, which stops viewing the alarms log immediately), you can reach information on the previous alarms, until the end of the events log. In the LCD keypads, the ▲ ▼ keys make it possible to scroll through the alarms log, and the ◀ ▶ keys to get some extra information on the alarm source.

The panel signals three types of alarms: zone alarms, anti-tampering zone alarms and keypad activated alarms. In the LED keypads they are indicated as follows:

- **zone alarms:** one of the LEDs 1-12 / 1-16 is steadily on (burglary alarms, panic alarms, fire alarms etc. depending on how the functions of the zones were set up by the installer)
- **anti-tampering zone alarms:** one of the LEDs 1 to 12 / 1-16 is blinking (this type of alarm signals an attempt to dismantle or damage detectors or alarm system wiring),
- **keypad activated alarms:** the LEDs 1 to 8 are steadily on and two LEDs - one in the 1 to 5 range and one in the 9 to 12 range - are blinking.

The LEDs have the following meaning:

1 - fire alarm keypad activated

- 2 - auxiliary alarm** keypad activated
- 3 - panic alarm** keypad activated
- 4 - anti-tampering keypad alarm**
- 5 - three wrong access codes** alarm
- 9** - alarm activated in **partition 1**
- 10** - alarm activated in **partition 2**
- 11** - alarm activated in **partition 3**
- 12** - alarm activated in **partition 4**

Viewing troubles log

[6]

The function allows the panel user to reproduce information about the system trouble conditions from the panel memory log.

After calling the function in the LCD keypad, the message "*View troubles log* ↑↓←→" will be displayed. Pressing any of the arrow keys causes the date, time, and last trouble type detected name to appear. On pressing ▲ key the list of previously detected troubles is displayed, on pressing ▼ key the list of subsequent troubles.

After calling the function in the **LED keypad**, the ALARM and ARMED (PARTITION), LEDs will go on, the TROUBLE LED will start blinking, and one of the LEDs 1 to 12 will indicate the kind of trouble. The LEDs have the following meaning:

- 1** - output 1 trouble,
- 2** - output 2 trouble,
- 3** - output 3 trouble,
- 4** - 230VAC loss
- 5** - battery trouble
- 6** - keypad power supply trouble
- 7** - time not set
- 8** - printer trouble
- 9** - telephone line loss
- 10** - problem with transmission to monitoring station
- 11** - not used
- 12** - output 4 trouble

The previously detected troubles are displayed on repeatedly pressing any key. The [*] key cancels the troubles log viewing function.

Current trouble check-out

[7]

When the control panel signals a trouble detection (TROUBLE LED is blinking), you can activate the current trouble check-out function by holding down the key [7].

In **the LCD keypad**, information on the trouble will be displayed. When there are more troubles, you can scroll through all the detected troubles list by pressing the keys ◀▲ or ▼▶.

In the **LED keypad** on activating the function, the TROUBLE LED and the LEDs indicating current troubles turn on (lack of illumination of any of the 12 LEDs is also indicative of a problem). Pressing any key stops the function.

Note: *If the installer has activated the "Indicate trouble until cancelled" option, the trouble indicator will be on until cancelled, even if the trouble cause has been removed. The trouble will be cleared after the trouble memory viewing is completed and the function is quitted by pressing the [#] key. Quitting the function by means of another key will not cancel blinking of the TROUBLE diode.*

The LEDs have the following meanings:

- 1 - output 1 trouble,**
- 2 - output 2 trouble,**
- 3 - output 3 trouble** - no load (e.g., the siren wires are cut), or overload (short circuit) - usually service intervention is required.
- 4 - 230V AC loss** - the panel is equipped with a limited time battery backup; if the AC power loss trouble occurs despite of an effective AC mains, service assistance should be called.
- 5 - battery trouble** - to check on the type of battery trouble, press the key [5] – the LED 1 or LED 2 will show the type of trouble:
 - LED 1 – the battery is not connected or almost discharged or the fuse on the control panel board is out of order,
 - LED 2 – the battery voltage is too low (lower than 12V under load) – discharged battery. This state may last for several hours after the system has operated without the mains supply (or after a discharged battery is connected). The battery charging time depends on its capacitance (the battery is charged with direct current about 350mA, the time necessary for testing the battery status is approx.12 minutes).
- 6 - keypad power supply trouble** - signals an installation fault; service intervention is necessary (the trouble can only be displayed while viewing the trouble log).
- 7 – time not set** - occurs on powering down and restarting the control panel; the clock should be set with user function 6.
- 8 - printer trouble** - stands for "not-ready" status of the printer connected to the control panel RS-232 port as a result of, e.g., paper out trouble or no power supply. The RS-232 port is monitored if the installer activates real-time event printout.
- 9 - telephone line loss** - the message indicates that the telephone line is cut off. It may also indicate lifting the receiver of a telephone connected to the same line for longer than the time specified by the installer.
- 10 - problem with transmission to monitoring station** – the control panel cannot get connected to the monitoring station, or the station fails to confirm receiving of the monitoring codes,
- 11 - telephone line trouble** - informs that the telephone messaging has failed (no dialing tone when the receiver is off-hook; interrupted signal instead of continuous one; busy line).
The troubles 10 and 11 will be signaled until next successful telephone connection. The condition can be cleared by calling the trouble check-out function and pressing the [#] key.

12 - output 4 trouble

ALL OFF - system memory error - the message appears in case of erratic microchip operation of the system (it may be caused by strong electromagnetic interference e.g. produced by lightning) - in most cases service should be called.

Pressing any key stops the function. If the installer has enabled the audible trouble signaling, activating the trouble check-out function turns the signaling off.

Switching CHIME on/off

[8]

The function makes it possible for the user to switch the chime (audible signaling of the violation of specified detectors) on/off in the keypad. Three short beeps in the keypad confirm switching off of the chime signaling. Four short and one long beeps confirm switching the chime on.

The installer decides which zones and in which keypads can use chime to signal their status.

Keypad backlighting

[9]

The function, which is only available in the CA-10 KLED-M and CA-10 KLED-S keypads irrespective of the installer's settings, is used to control the keypad backlighting.

After restarting the system (power-up), the keypad always enters the automatic backlighting mode, which is activated by pressing any key. To change the backlighting mode, press the numeric key 9 and hold it down until you hear the corresponding signal.

- One** beep - **no** backlighting.
- Two** beeps - **automatic** backlighting.
- Three** beeps - **continuous** backlighting.

Fire alarm

[*]

This function activates the fire alarm from the keypad.

Auxiliary alarm

[0]

The purpose of this alarm depends on current needs. It may be, for instance, an emergency call for medical assistance. The function may transmit an appropriate message about auxiliary alarm to the monitoring station and activate telephone messaging.

Panic alarm

[#]

This function activates the panic alarm from the keypad.

The functions of keypad alarms may be disabled by the installer.

User functions

If the control panel is disarmed and is signaling no alarm, there are some functions, useful in everyday operation of the alarm system, available to the users. The access to specific functions depends on the user's authority level.

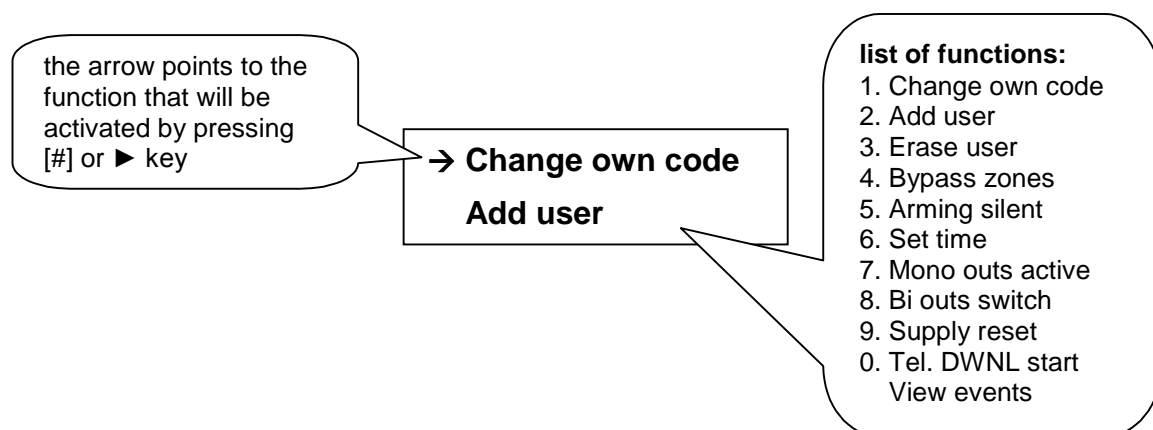
In order to get access to the user functions, enter the user access code and confirm it with the [*] key (not the [#] key, as is the case with arming / disarming). The LEDs ALARM, ARMED (PARTITION), TROUBLE will start blinking in the keypad. To start a specific function, you must first enter and confirm the user code and then press the key with the function number:

- user access code change [code][*][1]
- user (code) add [code][*][2]
- user (code) erase [code][*][3]
- zones bypass [code][*][4]
- silent arming [code][*][5]
- time setting [code][*][6]
- MONO switch outputs activate [code][*][7]
- BI switch outputs activate [code][*][8]
- power supply reset (on „RESET power supply” outputs) [code][*][9]
- telephone DOWNLOADING start [code][*][0]

Notes:

- The functions [CODE][*][2] and [CODE][*][3] are only available to the partition master code user.
- The functions [CODE][*][7] and [CODE][*][8] are always available, irrespective of whether the control panel is armed, or not.

In the LCD keypad, after entering the user code and confirming it with the [*] key, the list of user available functions will be displayed.



User access code change

[CODE][*][1]

This function enables changing the access code of the user by whom it was activated. Having called the function, enter a new code and confirm it by pressing the [#] key. The keypad will confirm the code change by a sequence of beeps (the LCD keypad will display the name of the user, whose code has been changed).

The function is available to the master user and users with authority level 1, 2 or 7.

- Example: changing the access code from [1234] to [7890]
- [1234] [*] - calling the „user function” mode confirmed by one short beep and blinking of LEDs ALARM, ARMED and TROUBLE.
- [1] - calling the „change access code” function, confirmed by two short beeps.
- [7890] [#] - entering the new code digits and their acceptance confirmed with four short and one long beeps.

User (code) add

[CODE][*][2]

This function is only available to the master user. It makes possible to add new users to a partition, assign an access code to them and determine their authority level.

After calling the function, the panel waits for a new user access code to be entered (4 to 6 digits after which the [#] key should be pressed), followed by one more digit (0 to 9) to determine the new user authority level.

As new users are being added to the partition, the panel automatically assigns consecutive numbers to them. Any partition can accept up to 12 users (besides the master user).

In **the LED keypad** the number of the user being programmed is indicated by one of the zone LEDs blinking. The illuminated LEDs indicate current users, the extinguished ones - empty items.

In **the LCD keypad**, the control panel will display the number of the new user. The new user's access code can be edited with additional arrow keys. After confirming the new access code with the [#] key and confirming its authority level, the keypad displays the current name of the user, for example "Part.1 user 1". It can be changed by entering new name (max. 16 characters) or confirmed by pressing [#] key.

The way of entering texts is explained in the table below:

Key	Numeric mode function	Text mode function	
▲	delete preceding character	previous character in the alphabet	
▼	toggle insert/overwrite	next character in the alphabet	
1	1	.	,
abc 2	2	A	a
def 3	3	D	d
ghi 4	4	G	g
jkl 5	5	J	j
mno 6	6	M	m
pqrs 7	7	P	p
tuv 8	8	T	t
wxyz 9	9	W	w
0	0	space	-

During programming of text format messages, the keys ◀ ▶ control the cursor, [*] toggles the mode (text mode / numeric mode) and [#] confirms the entire text value. The remaining keys function depend on the mode.

The text mode is signaled by * in the upper right corner of the display.

Numeric keys in text mode insert letters at the cursor position according to the preceding table. Lowercase characters are entered by pressing a numeric key twice. ▲▼ keys enable the previous/next character selection.

In numeric mode ▲ key deletes the character before the cursor, and ▼ key switches between insert/typeover modes.

An access code can have the following functions/authority levels:

- 1 - accessible **all functions**, except creating and deleting users,
- 2 - accessible **arming and disarming, change of access code**,
- 3 - accessible **arming**, while **disarming is only possible when the system was armed with the same access code**,
- 4 - **code trap**: it arms and disarms the system, but disarming sends a DURESS ("disarmed under duress") message to the monitoring station,
- 5 - activates the MONO SWITCH output, **its use is recorded in the event log**, can serve as a guard code,
- 6 - changes the state of BI SWITCH output,
- 7 - **partial arming** - the code arms the system, simultaneously bypassing a group of zones (specified by the installer in service functions), otherwise the code provides the same features as that with authority level 2,
- 8 - accessible **arming and disarming, without possibility to change own access code**,
- 9 - accessible **arming only**,
- 0 - accessible **alarm clearing only**.

Note: *The codes with authority level 5 and 6 may be used in the following manner:*

1. *To control single outputs by means of the user functions:*
 - *the code with authority level 5 enables the function 7 ([CODE][*][7]) i.e. activates any output of the MONO switch type,*
 - *the code with authority level 6 enables the function 8 ([CODE][*][8]) i.e. changes the state of any output of the BI switch type.*
2. *To control all the outputs of a particular type, which belong to the partition where the given code was created:*
 - *the code with authority level 5 will activate the MONO switch type outputs ([CODE][#]),*
 - *the code with authority level 6 will change the state of the BI switch type outputs ([CODE][#]).*

EXAMPLE: enter the user code [3546] with authority level 2; master user code [1234]
 [1234] [*] - call the "user function" mode; it should be acknowledged by one short beep and blinking of the LEDs: ALARM, ARMED (PARTITION), TROUBLE
 [2] - call the "User add" function, it should be acknowledged by two short beeps
 [3546] [#] - enter the new code digits; their acceptance will be acknowledged by three short beeps
 [2] - assign authority to the code; the function will be quitted automatically which will be confirmed by four short and one long beeps

User (code) erase

[CODE][*][3]

This function is used for deleting the codes of existing users to revoke their right to use the system. After entering the number of the user to be deleted, the panel waits for confirmation, if the selected user is to be deleted. If not, press the [*] key, if yes, press the [#] key.

In the LCD keypad, the user indicated by the cursor (flashing field) will be deleted. On pressing and holding down the ▲ or ▼ key the name of the user indicated with the cursor appears. The cursor can be positioned with ◀▶.

The function is only available to the master user.

- Example: deleting the third user's access code (master code = 1234)
- [1234] [*] - activating the „user function” mode by the master user,
 - [3] - calling the „delete code” function, the zone LEDs indicate the partition users' numbers.
 - [3] - selecting the code to delete; the LED of the chosen code starts blinking
 - [#] - selected user code deletion; four short and one longer beeps signal the end of the function.

Zone bypass

[CODE][*][4]

This function makes it possible to bypass zones in order to partially arm the alarm system or to bypass malfunctioning detectors. Only disarmed zones can be bypassed.

In the **LED keypad**, bypassing a zone consists in entering the number of the LED on which the given zone is indicated. Only the zones belonging to the keypad served partition can be bypassed. The zones 1-12 can only be bypassed when they are indicated on the keypad LEDs. The zones 13-16 can be bypassed by entering the zone number even when they are not indicated on the LEDs. When the bypass function is in use, the LED keypad indicates the state of 12 zones. With the zones bypassed, the corresponding LEDs are blinking. Enter the numbers of LEDs / zones from 10 to 16 by pressing two keys, first the key of tens [*], then the key of units (from 0 to 6). Confirm the choice by pressing [#]. The zones will remain bypassed until next disarming or until they are unbypassed.

When the function is active, on entering a zone number, the panel will signal bypassing the zone with two beeps, and enabling the zone with one beep. Two long beeps mean that the zone belongs to another partition, or it is armed and its bypassing is not possible.

In the **LCD keypad** ▼ key changes the status of the zone (bypassed - unbypassed) indicated by the cursor. Pressing ▲ key displays the zone name. The cursor can be positioned with ◀ ▶ keys. It is possible to choose a zone by giving its number with the numeric keys of the panel (for example: [*][3] will enable bypassing of zone 13).

The function is available only to the master user and the user with authority level 1.

- Example: bypassing zones 3, 5 and 12 (master access code = 1234)
- [1234] [*] - activating the „user function” mode by the master user,
 - [4] - calling the „Zone bypass” function,
 - [3][5] - selecting zones numbers 3 and 5; the panel will confirm the entry of each number by with two short beeps,
 - [*][2] - selecting zone number 12; the panel will confirm the entry with two short beeps,
 - [#] - confirmation of the data and quitting of the function programming.

Silent arming

[CODE][*][5]

In the silent armed mode the alarms are only signaled in keypads and reported to the monitoring station. The installer decides if the silent armed mode is to be active in the entire protected facility or if a selected area will remain disarmed.

The function is not available to the users with authority levels 5, 6, 0.

Time setting**[CODE][*][6]**

The function enables setting the panel's clock.

In the **LED keypad** the programming procedure is as follows:

- HOURS, MINUTES - acceptance ([H][H][M][M][#]),
- DAY, MONTH - acceptance ([D][D][M][M][#]),
- YEAR - acceptance ([R][R][R][R][#]).

It is possible to quit the function already after programming either time or date by pressing the [#] key twice.

In the **LCD keypad** the programmable parameters (time, data, year) can be edited with additional keys: ◀ and ▶ keys position the cursor, ▲ key deletes the character before the cursor, ▼ key switches data entry mode (insert/typeover).

The function is only available to the master user and users with authority level 1.

MONO switch outputs activate**[CODE][*][7]**

The purpose of the function will be determined by the installer. It can activate e.g. electric locks, bells, signal lamps, or any other devices.

After calling the function, the control panel generates two short beeps and waits for the output number key (1-6) to be pressed. The control consists in activating the given output for a period of time programmed in the control panel. Provision is made for multiple control of the same output or control of different outputs of the MONO switch type after single calling of the function. Correct performance of the control is confirmed by four short and one long beeps, and refusal of the control - by two long beeps. The control panel may refuse control, if the output is not of the SWITCH MONO type or if it belongs to another partition. Pressing the key [#] or [*] will end the function. The control panel will automatically end the function if none of the outputs is of the SWITCH MONO type, or if no key on the keypad is depressed for 40 seconds.

The function is accessible to the master user, as well as to the users with authority levels 1 and 5.

- EXAMPLE: successive control of the outputs 4, 5, 4 (master code=1234)
- [1234] [*] - calling the "user function" mode by the MASTER user
 - [7] - calling the function of "MONO switch outputs activate" (two short beeps)
 - [4] - monostable triggering of the output 4 confirmed by four short and one long beeps
 - [5] - monostable triggering of the output 5 confirmed by four short and one long beeps
 - [4] - monostable retriggering of the output 4 (four short and one long beeps)
 - [#] - end of the function (four short and one long beeps)

BI switch outputs activate**[CODE][*][8]**

The purpose of the function will be determined by the installer. It can be used e.g. for switching on external lighting or any electrical equipment.

After calling the function, the control panel generates two short beeps and waits for the output number key (1-6) to be pressed. The control consists in changing over the status of the given output to its opposite, i.e. the inactive output gets activated and vice versa. Provision is made for multiple control of the same output or control of different outputs of the SWITCH BI type after single calling of the function. Activation of the output is

confirmed by four short and one long beeps, and its deactivation - with three short beeps. Refusal of control is signaled with two long beeps. The control panel may refuse control, if the output is not of the SWITCH BI type or if it belongs to another partition. Pressing the keys [#] or [*] will end the function. The control panel will automatically terminate the function if none of the outputs is of the SWITCH BI type, or if no key on the keypad is depressed for 40 seconds.

The function is accessible to the master user, as well as to the users with authority levels 1 and 6.

Power supply reset

[CODE][*][9]

This function is used to operate special detectors equipped with individual on/off memory which is cleared by powering down the system (e.g., smoke detectors, broken glass detectors). The function temporarily disconnects power supply to such detectors (on „RESET power supply” outputs).

The function is available to the master user and users with authority level 1.

Telephone DOWNLOADING start

[CODE][*][0]

This function can be activated by the master user and the users with authority level 1. It starts the control panel - service PC telephone connection. The function enables the panel - PC telephone communication, when the possibility to initiate connection from the PC computer is blocked.

On activating the function the panel engages the telephone line and connects to the service computer. If the panel fails to establish connection, it will make four more attempts to get through. During the data exchange the telephone line will be busy. The service can temporarily suspend the connection to free the telephone line and, after some time, call back the panel to continue data exchange. The installer should make users aware of the procedure so that they do not answer the incoming calls and allow re-establishing and correct completion of the transmission.

Viewing events log

(additional function in the LCD keypad)

On activating the function, the users can view the memory log in which all the events are recorded in detail. The ▲ ▼ keys enable scrolling through the list of events, and the ◀ ▶ keys make it possible to get extra information: zone descriptions, partition and user names.

⑤ - hold down for 3 sec. to activate **alarm log viewing**

①②③④ - hold down for 3 sec. to **GOTO selected partition**

LEDs 1+12 (zones state)
ON - zone violated
OFF - zone OK
fast blinking - zone activated alarm
on , short off every 2 sec. - zone tamper violated
flashing every 2 sec. - zone tamper activated alarm
slow blinking - zone bypassed

⑦ - hold down for 3 sec. to activate **current trouble condition display**

- TROUBLE DISPLAY:**
- 1,2,3 - Output 1,2,3 trouble
 - 4 - 230V AC loss
 - 5 - Low battery
 - 6 - Keypad supply fail
 - 7 - Time not set
 - 8 - Printer trouble
 - 9 - Telephone line loss
 - 10 - Problem with transmission to monitoring station
 - 11 - Telephone line trouble
 - 12 - Output 4 trouble
 - all off - System memory fault

ALARM – blinking signals an alarm in current partition

ARMED
 on – partition armed,
 blinking – exit time countdown

TROUBLE – indicates detection of system trouble – check by holding down key ⑦ for 3 sec.

⑥ - hold down for 3 sec. to activate **trouble log viewing.**

- TROUBLE DISPLAY: LED ON =**
- 1,2,3 - Output 1,2,3 trouble
 - 4 - 230VAC loss
 - 5 - Battery trouble
 - 6 - Keypad power supply trouble
 - 7 - Time not set
 - 8 - Printer trouble
 - 9 - Telephone line loss
 - 10 - Problem with transmission to monitoring station
 - 11 - *not used*
 - 12 - Output 4 trouble

⑧ - hold down for 3 sec. to activate/deactivate **CHIME** signaling

[*] - hold down for 3 sec. to restore basic partition (GOTO) or to activate **FIRE ALARM**

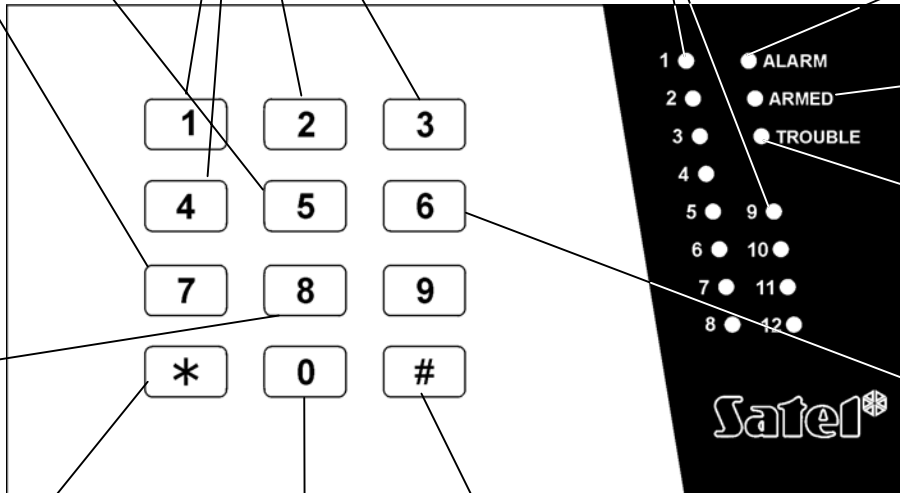
CODE+[*] - User Functions:

- [CODE][*][1] - user access code change
- [CODE][*][2] - user (code) add
- [CODE][*][3] - user (code) erase
- [CODE][*][4] - zone bypass
- [CODE][*][5] - silent arming
- [CODE][*][6] - time setting
- [CODE][*][7] - MONO switch outputs activate
- [CODE][*][8] - BI switch outputs activate
- [CODE][*][9] - power supply reset
- [CODE][*][0] - DOWNLOADING start

⑩ - hold down for 3 sec. to activate **AUXILIARY ALARM**

[#]-hold down for 3 sec. to activate **PANIC ALARM**

CODE+[#] – arm/disarm partition, clear alarm



LCD DISPLAY: time and date or partition name and system status message

ALARM - alarm in the current partition

TROUBLE - signals trouble detection in the system - to check press 7 key for 3 seconds

PARTITION 1, 2, 3, 4 control on - the zone is armed; control blinking - counting down exit delay time

1 2 3 4 - hold down for 3 sec. to GO TO selected partition

5 - hold down for 3 sec. to activate alarm log viewing

6 pressing the key for 3 seconds activates Trouble Log Review

7 - hold down for 3 sec. to activate current trouble condition display

8 - hold down for 3 sec. switches the CHIME on/off

[*] - pressing the key for 3 seconds activates FIRE ALARM
ACCESS CODE+[*] - user menu functions

0 - hold down for 3 sec. to activate AUXILIARY ALARM

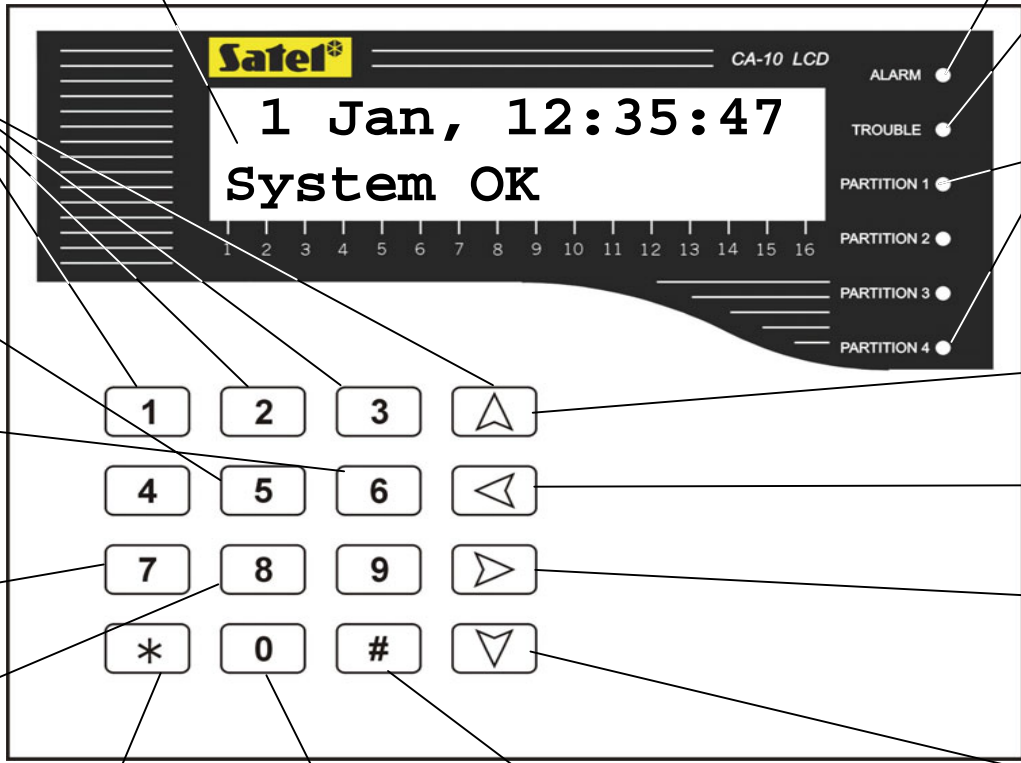
[#] - hold down for 3 sec. to activate PANIC ALARM
CODE+[#] - arming/disarming, clear alarm

▲ - identifying the partition signaling alarm

◀ - identifying violated zones

▶ - identifying zones where alarm occurred

▼ - displaying partition name, pressing the key for 3 seconds switches between text and zone state displaying



SATEL sp. z o.o.
ul. Schuberta 79
80-172 Gdańsk
POLAND
tel. + 48 58 320 94 00
info@satel.pl
www.satel.pl