Control panel
CA-64

Firmware Version 1.04.04

USER MANUAL

Satel✳

GDAŃSK

⚠ 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 **<u>PSTN lines only</u>**. 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 service, the battery must not be thrown away, but disposed of as required by the existing regulations (European 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** | CE |

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1. GENERAL

Thank you for choosing the product offered by us. High quality, large number of functions and simple operation are main advantages of the control panel offered by SATEL sp. z o.o. Hoping that you will be fully satisfied with this choice, we declare to provide you with professional assistance and information on our products. We would like to inform that, besides control panels, SATEL sp. z o.o. produces many other components of alarm system. Look for detailed information on our full offer in retail outlets dealing with our products, at our website **www.satel.pl** or directly at out site, tel.: (58) 32 09 411; fax (58) 32 09 401.

We kindly ask you to read the entire Manual carefully, since detailed knowledge on the control panel functions will allow you to fully utilize all included possibilities. The control panel may carry out functions that are nor related directly to monitoring. The use of all control panel functions and efficiency of operation of the entire system depend on the installation itself and the programming by the installer. The control panel may perform its functions in many ways, which are defined when installing and programming the system. Due to the above, the installer should give you more detailed information regarding the operation of the alarm system and procedures of its using.

All situations, where the way of the control panel operation depends on previous installer decisions (made at the time of programming), are additionally marked with text in brackets: **(service setting)** (following the description of situation). The term "**service**" used in this Manual relates to the user who maintains and takes care about the alarm system and uses the service code. It may be the installer, maintenance person, the employee caring for protection of the object, etc.

2. ABOUT THIS MANUAL

This Manual describes the basic operation of modules used for controlling the system operation, as well as the control panel functions.

The part of this Manual, titled "*Operation of Control Panel CA-64*" contains descriptions of modules used for controlling the operation of the control panel and their way of use. Also some functions related to the alarm system operation are described here. Furthermore included are the basic information on system functioning and use of the telephone line by the control panel.

The part of this Manual, titled "*User Functions*" contains full specification of functions accessible from alphanumeric LCD keypad.

The text in this Manual contains some technical terms: please use APPENDIX B at the end of Manual for explanation.

This Manual refers to **the control panel program, version 1.04.04,** and the **DLOAD64 installer's program, version 1.04.06**, up-to-date on the day of preparation hereof. Essential changes regarding the control panel operation and the contents of this manual, if related to previous software versions, are shown in the table at the end hereof.

3. 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 sirens), lightning (overhead telephone lines, power lines, outside sirens), 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 LED 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 sirens 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.

4. 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.

5. CA-64 CONTROL PANEL

The control panel CA-64 is intended for controlling operation of alarm systems, which monitor and supervise the security of medium-sized and large objects. Supervision is not limited to protection against burglary, but may also include monitoring the correct functioning of the object for 24 hours per day. The status of the alarm system is monitored continuously. Violation of any alarm system component results in a so called tamper alarm. The control panel responds to signals from individual detectors and decides whether to activate alarm or not. Since various detectors may be connected to the control panel, type and way of alarming depends on the control panel software installed (the control panel may respond in a different way to a signal from fire detector than to a signal from a water level detector).

The control panel allows grouping of detectors (zones) to obtain so called partitions, as well as free choice in determination, which partition is to be monitored (armed). Activation of any detector from such a group (called "zone violation" in the below text)

may trigger an alarm. High flexibility of the control panel in determination, which partitions may be armed at the moment, is its great advantage.

5.1 BASIC FUNCTIONS OF THE CONTROL PANEL

- signaling burglary, attack, fire, technical and auxiliary alarms,
- monitoring – communication with telephone monitoring stations (real time sending detailed information on selected events in the protected object),
- messaging on alarm by telephone – either with the use of a vocal message or to a pager,
- answering phone calls (this function is protected with a separate code) that makes possible:
  - to inform the user on a system status,
  - to control some of the control panel functions via telephone; these functions are programmed by the service,
- real time printout of information on all or selected events occurred in the alarm system,
- supervision of access to rooms through doors provided with electromagnetic locks,
- monitoring the correctness of operation of individual alarm system components (power supplies, batteries, wiring).

5.2 CONTROL PANEL USAGE PROPERTIES

- operation by means of keypads provided with LCD text display (2x16 characters) to facilitate the use of the system,
- descriptions of zones and partitions defined by the installer make easy to find the alarm source,
- visible date and time of the system clock allow controlling the correctness of functions that depend on the real time,
- option to display the status of partitions (up to 16 selected ones or all),
- accessible are: viewing the alarm memory and trouble memory (or detailed memory of all events) with event description in words, zone, module and partition name or name of the user who operates the system, together with accurate time of the event occurrence,
- control and monitoring (up to) 8 independent objects and (up to) 32 partitions armed independently,
- control of individual system parts from independent keyboards (maximum 8 LCD keypads and 64 partition LED keypads),
- control of single output types of MONO SWITCH, BI SWITCH, REMOTE SWITCH,
- control and supervision of the system by means of a computer (program GUARD64),
- dynamically changing menu (dependent on access level) to provide access to a range of user functions – the selection is made by accepting the function at the list shown in the LCD keypad screen,
- key shortcuts to facilitate calling frequently used functions.
- service note shown on LCD display.

6. OPERATION OF CONTROL PANEL CA-64

6.1 BASIC INFORMATION

LCD keypads and **partition keypads** are used for operation of alarm system based on control panel CA-64. Moreover, the control panel supervises and registers usage of **code locks** and **proximity card** as well as **Dallas chip readers,** located adjacent to doors in individual rooms of an object. Partition keypads may be also used as code locks.

Individual control devices are assigned to selected partitions by the installer. LCD keypads may operate many partitions of different objects. Partition keypads operate a single partition only. Individual users may operate the control panel when they are provided with **access** to partitions operated by specific keypads. That means, the partitions assigned to the user at the stage of a new user creation or edition (see *Description Of User Functions →Users*) must correspond to partitions operated by a keypad. The installer defines the list of partitions operated by individual LCD keypads.

Example: A LCD keypad controls operation of partitions: 1,2,3,4,5 and 6. The user has access to partitions: 5,6,7 and 8. It is seen from comparison, that by using this LCD keypad the user may control operation of partitions 5 and 6.

A similar rule applies to partition keypads, code locks and proximity card readers. With keypads, the user may control these partition to which he has access, he may open these doors with code locks and proximity card (or DALLAS chip) readers, for opening of which he has been authorized. The installer defines the list of users of individual partition keypads, code locks and proximity card readers (separately for each module).

The access to functions controlling the operation of the control panel and more important information on the system status are protected with **a CODE** (code – combination of 4 to 8 digits). In systems which require an enhanced protection, it is possible to extend the code by a prefix (1 to 8 digits), periodically changed by the object master user code.

It is possible to obtain some information on system and call some functions without using a code (service setting) – by holding down (for approximately 3 seconds) one of the following keypad keys:

[1] – zones status viewing,

[2] – keypad tamper viewing,

[3] – expander tamper viewing,

[4] – partitions status viewing,

[5] – alarm memory viewing,

[6] – trouble memory viewing,

[7] – current trouble viewing,

[8] – switching on / off chime signal in LCD keypad,

[9] – changing over partition display mode: selected / all,

▶ – viewing names of partitions, where alarm occurred (also ◀); press shortly ▶ key to activate viewing names of partitions selected for display,

▲ – viewing names of zones which caused an alarm (also ▼)

[0] – AUXILIARY alarm (for example, calling medical aid),

[*] – FIRE alarm,

[#] – PANIC alarm.

Functions of arrows and keys from 1 to 9 are accessible from LCD keypad only, and other functions may be accessible (service setting) from each keypad installed in the system (LCD keypad, partition keypad, code lock). The thus activated viewing functions provide information on all partitions operated with specific LCD keypads., They are accessible also from the User Menu (see: *Description Of User Functions – Tests, Events, Troubles, Change Options)*, however, when called via the User Menu they provide the information on partitions accessible for the individual user, who called that function, only.

It is recommended that this way of calling functions be accessible in LCD keypads fully protected against access of unauthorized persons.

If the function of partition status display is active, the key 9 changes the display operating mode. The following options are provided:

- date and status of any selected 16 partitions,
- status of all partitions in the system (without displaying date and time). The partition numbers correspond to those provided around the display.

An "PANIC alarm" (called by [**#**]) may be signaled externally, in a similar way to an alarm of "burglary" type (buzzers, lights), it also may be arranged not to activate any signaling and remain as a "silent PANIC alarm" (service setting).

Also, the installer may render accessible the function of **quick arming** of certain partitions (so called QUICK ARM) to be called by pressing two keys: [0] and [#] in sequence:

[0][#] quick arming of partitions. This function may be accessible from an LCD keypad and a partition keypad. When called from an LCD keypad, the function may arm several partitions, and when called from a partition keypad, it may arm only this partition, to which the partition keypad is assigned.

Moreover, simultaneously holding down the two keys ▲ and ▼ (for approximately 40 seconds) causes the keypad processor to restart and display the keypad software version number and the control panel software version number.

6.2 LCD KEYPAD

Shown below is the view of CA-64 K & CA-64 KLCD-S keypads. Also available is the keypad designated as CA-64 KLCD-L which only differs from the CA-64 KLCD-S in its overall dimensions.

The features (visual and audible signaling) as well as the way of security system operation are identical for each of the keypads.
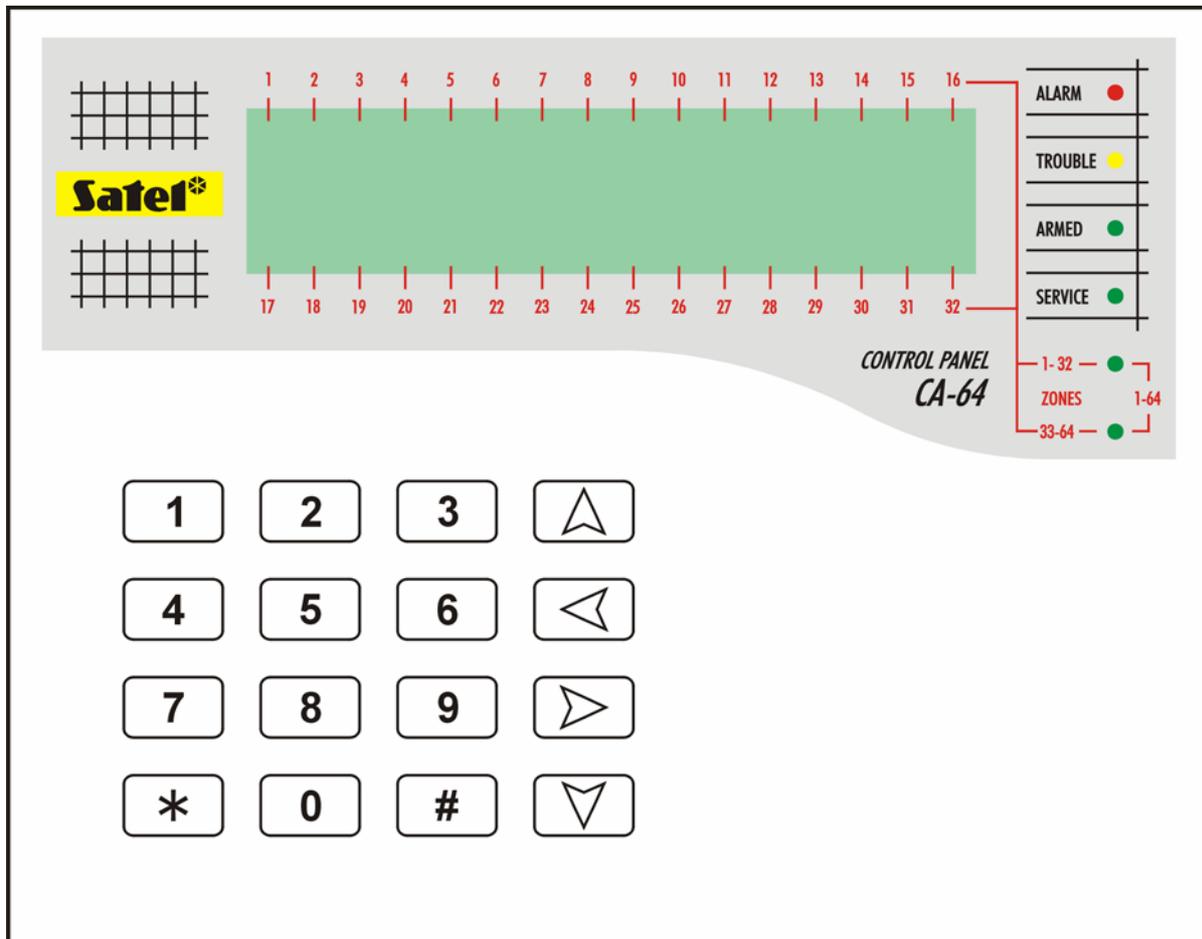
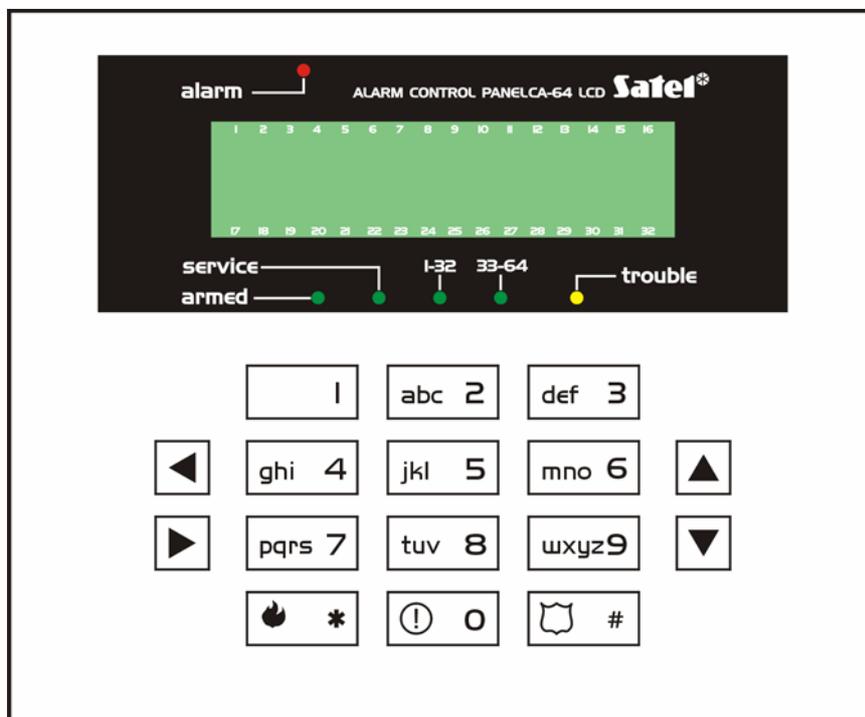*Figure 1. View of CA-64 K keypad*

Figure 2. View of CA-64 KLCD-S keypad

6.2.1 Display

An LCD keypad is provided with a large LCD display (2 x 16 characters) with permanent or temporary backlighting, the latter is activated either by pressing any key or by violation of any zone (service setting).

During normal operation, the display shows the current date and time, it can also permanently show the keypad name. Format of the information displayed is defined by the installer. The lower display line can be used to show the current status of selected partitions (up to 16), the displayed symbols being as described in the *Tests* function. The first character in the lower line (from left) shows the status of the lowest number partition, selected by the installer. The following numbers show information on the partitions in the ascending order.

The installer can activate the function of showing important technical information on the LCD display i.e. the, so-called, "*Service message*". The displayed text can contain up to 29 characters, can be displayed either permanently, or for a specified period of time, can be visible either to all users, or only to some of them after entering the access code.

6.2.2 Keys

16 keys (lighted similarly to the keypad screen) are located beneath the display, which are used for:

- entering the code,
- moving along menu and selecting appropriate functions from the list,
- entering data for functions called.

The letters provided on numerical keys in CA-64KLCD-L and CA-64KLCD-S keypads may facilitate memorization of the access code by mentally associating it with a particular word (e.g. the code „[7][8][2][7][8]" corresponds to the word: „*START*").

Special symbols in CA-64KLCD-L and CA-64KLCD-S keypads make easier associating particular keys with the alarms, which can be activated by using the keys:

      🔥 - fire,
      ① - auxiliary,
      🛡 - panic.

6.2.3 LEDs

Located at the display are 6 LEDs, which indicate current status of the system.

- **ALARM** (red) – continuous light informs on alarm signaling activation at this moment. When the LED blinks, it means that, in partitions operated with this keypad alarm signaling occurred again since the last reset of the alarm memory.

- **TROUBLE** (yellow) – the LED blinking informs on presence of a technical problem in the system. Troubles, which activate this LED, are described further in this Manual (see *Description Of User Functions → Troubles*). The LED does not light when the LCD keypad operates in partially armed mode (at least one partition accessible for the LCD keypad is armed) or armed mode (all partitions accessible for the LCD keypad are armed) (service setting).

- **ARMED** (green) - the LED blinks when some partitions are armed and lights steadily when all partitions operated by the keypad are armed.

- **SERVICE** (green) - the LED blinks when the control panel operated in the service mode (function accessible for the user provided with the service code only).

Note: Service mode limits normal operation of the control panel. Alarms from most of zones (except for zones of the following types: PANIC, 24H CASH MACHINE, and 24H VIBRATION) and tampering alarms are not signaled. In order to restore the normal control panel operation mode, just exit the service mode, for the control panel does not return to its normal operation mode automatically.

- **Zones 1-64** (two green LEDs) – they are used when viewing and testing status of zones and "expander" type modules – they indicate which group of zones (or which

expander bus) is currently displayed on the LCD keypad screen (see *Description Of User Functions →Tests).*

6.2.4 Audible signals

The keypad work may be accompanied by sounds (service setting). When operating on the keypad the following signals may be heard, which are characteristic of some situations.

- **One long beep** - refusal of arming - the zone, which shouldn't be violated at the time of arming, is violated (option - "PRIORITY"), there was a trouble with the battery, expander, or keypad. The refusal includes all zones selected for arming. Also, warning of the system failure - prior to arming.

- **Two long beeps** – the control panel did not recognize the code; function is not accessible; erratic data; confirmation of abandoning the selected function (after pressing [∗] on the keypad keyboard); the key pressed is not active.

- **Three long beeps** – the code is recognized, but the called function is not accessible (for example, temporary partition bypass is activated or the user has no access to partitions operated from the keypad; the zone).

- **Two short beeps** – selection accepted – entering more detailed menu level.

- **Three short beeps** – confirmation of arming or disarming.

- **Four short beeps and one long beep** – acceptance of execution of the selected function.

- **Three pairs of short beeps** – it is necessary to change the code (for example, another user, when changing his code, has given an identical combination of digits as the combination in the code of the user; the code validity is expiring).

Additionally, the following situations may be signaled:

- **Alarm for a partition** – continuous sound for the total alarm duration (time programmed by service).

- **Fire alarm** – series of long sounds every second for the total alarm duration.

- **Count down of entry delay** – short sounds every 3 seconds.

- **Count down of exit delay** – long sounds every 3 seconds, completed with a series of short signals (for 10 seconds) and a single long sound. The way of signaling of "exit delay" informs that the countdown is finishing.

- **Signaling the auto arming delay time countdown** (timer-controlled partitions) - a series of 7 sounds (of diminishing length).

- **Gong in the LCD keypad** – five short sounds – this is a response to activation of some detectors when the zone is disarmed.

6.3 THE USE OF LCD KEYPAD

Operation of the system from LCD keypad starts with entering the user **CODE** and pressing the key marked [#] or [∗]. Note that the control panel response (functions accessible) after pressing the [#] key is different from that generated after pressing the [∗] one. The specific feature of the control is the dynamic changing of the accessible menu, dependant on the system programmed parameters, as well as on the authorization level of the user who entered the code. The designers of the control panel have chosen such a way of its control to facilitate operation by users who do not know the system very well. Also, taking into account the safety of the object, it is not recommended that most of users have access to all control panel functions.

The system incorporates **the hierarchy system for access** to the control panel functions and partitions defined for the object by the installer.

Generally, typing at the keyboard:

[CODE][#]   gives access to functions of arming/disarming type,

[CODE][*]   gives access to all functions in the User Menu, to which the user is authorized.

Note: When an erratic code (not recognized by the control panel) is typed three times, the alarm will be activated (service setting).

Example: When you type your code and press [#], the control panel makes accessible functions of partition arming (provided there are no partitions, operated from the LCD keypad, already armed) or disarming (if any of partitions is armed). In the event of alarm occurrence in the system, the control panel may cancel this alarm and make accessible the function of partition disarming (if the user has authorization to do that). When the function of messaging by telephone is activated – function *Voice messaging clearing* may appear in menu. When the user has access to a single partition only, typing the code and pressing [#] causes immediate arming or disarming (if the partition is armed).

Typing code and pressing [*] causes that the list of functions accessible from the *User Menu* is displayed. From this menu also the functions of the following type may be accessed: *Arming* and *Disarming* (if some partitions are armed). When all partitions are armed, the function *Arming* will not be accessible.

In order to call some functions quicker, the user can use some <u>shortcut keys</u>. Having called the menu ([CODE][*]), press the suitable numerical key – the control panel will go over directly to the called function.

The following user functions are assigned to the subsequent keys:

[1] Change own code

[2] Users / Masters

[3] *none*

[4] Zone bypasses

[5] Events

[6] Set time

[7] Troubles

[8] Outputs control

[9] Service mode

[0] Downloading

The installer can assign the <u>arrow keys</u> to some functions facilitating the everyday operation of the system. These functions are called in the following way:

[CODE] ▲

[CODE] ◄

[CODE] ►

[CODE] ▼

Each arrow can be assigned to one of the following functions:

- Arming (full)
- Arming (without interior zones)
- Arming (without interior zones, without entry delay)
- Disarming
- Alarm clearing
- Zones bypassing
- Bypass clearing
- Output MONO ON

− Output BI switch state
− Output BI ON
− Output BI OFF

For each of the functions the installer determines the number of partition, zone or output it refers to. The user, who wants to perform a function must have an appropriate authority level and access to the selected partitions.

The control panel may fail to arm the system, if the selected partitions contain a violated zone which is monitored during arming.

All user functions, which are accessible from LCD keypad, are described in section "*Description Of User Functions*".

6.3.1 Selection Of Function From Menu

When the control panel accepts the code, the first user function (from all functions accessible currently) appear in the upper line of the display. You can move through the list of functions rendered accessible by the control panel by pressing key ▲ and ▼, and select the item in the list (single-selection list) by pressing the key [#] or ▶. If the selected function requires making further selection (submenu, options), the next list appears on the display, from which you can select required item in a similar way.

Some functions may need selection of few items from the list (multi-selection list). To do that, scroll the list by pressing ▲ and ▼ key and „mark" all items in the list, which should be selected. The item is marked by pressing any numeric key, the ▓ symbol appears in the upper display corner next to the text. Press the numeric key again to cancel marking.

By scrolling the list upward or downwards (list contents is displayed in a cyclic way), you can see all list items and check marking. Pressing the key [#] or ▶ accepts the selection (execution of function may be confirmed with beeping), and the control panel returns to previously displayed menu or displays the adequate message and returns to the **basic status** (waiting for code). Then, current **date** and **time** is displayed. Date and time display format is defined by the installer (service setting).

There is a control panel setting option, which activates the procedure of double acceptance of some user functions. After pressing the key [#] or ▶ (normal way of selection of function), the prompt appears on the screen asking to confirm the function, together with information: **1=Yes**. Press the key with digit **1** to confirm this function. This procedure protects against accidental double pressing the key [#] (or ▶) and execution of function, which should not be executed. The description of user functions in this Manual relates to situation when this option is switched off.

If you want to abandon the selection of function after opening the User Menu, press key [∗]. In the event no keypad button is pressed (within 2 minutes) after menu opening, the control panel automatically closes this menu and returns to its basic status.

6.3.2 Data Entering

Some functions require typing of a new code or a user name. The way of entering new data that relate to system users is described below. When changing the code, the control panel does not show the old code, unless the user has not changed the code assigned for him by the person introducing him to the system yet. But the old name always is shown on the display when changing the old name. The user name entered appears in selection lists, printouts and when viewing the event memory in the computer.

- **new code, time limit:** numeric data are entered by means of numeric keys. Arrow keys are used for modification of numbers being entered. Below the text field, where digits entered appear, the cursor (dash) is seen. Arrows: ◀ and ▶ are used for

moving the cursor to show digits in sequence. Press the key with digit to enter the digit required at the left side of cursor, and press the arrow ▲ to delete the digit at the left side of cursor. The arrow ▼ change cursor type – blinking, dark rectangle appears. Cursor of this type allows changing the digit above the dash to the digit typed at the keyboard. Press key ▼ again to return to the previous cursor type.

- **user name:** user name is entered by means of numeric keys, which change their meaning and allow entering text data (letters) to the control panel. *Table 2* contains characters accessible at the keypad keyboard. Subsequent pressing of the key with a digit changes the characters in a cyclic way. The new user is entered by changing the factory-entered name. You may delete the old name by pressing the arrow key ▲ (each single pressing deletes a character at the left side of the cursor). Press arrow key ▼ to enter space at the left side of the cursor; use arrow keys ◄ and ► to move the cursor under the user name backlighting the position to be changed. To change the character at the position indicated by the cursor, repeat pressing the key with the proper digit so many times, until the proper character appears. Then, move cursor to the next position and repeat the procedure.

Pressing [#] accepts data entered.

1	!	?	'	`	↵	"	{	}	$	%	&	@	\	^	|	∟	#	1
2	A	a	B	b	C	c	2											
3	D	d	E	e	F	f	3											
4	G	g	H	h	I	i	4											
5	J	j	K	k	L	l	5											
6	M	m	N	n	O	o	6											
7	P	p	Q	q	R	r	S	s	7									
8	T	t	U	u	V	v	8	·	●	■	▼	↑	←	→	↓			
9	W	w	X	x	Y	y	Z	z	9									
0		.	,	:	;	+	-	*	/	=	_	<	>	(	)	[	]	0

Table 2 Characters accessible for the text mode of data entering.

6.3.3 Graphic Mode

Partition selection functions allow also another way of multiple selection from the list (for example, selection of partitions for arming). It is called a **graphic mode**. When you have already entered the selection list, press key ► or ◄ to enter this mode. Dots under the number of each accessible partition (numbers 1 - 32 around the display) appear on the keypad screen. The dash under the dot (cursor) indicates which item may be marked. Use key ► and ◄ to move the cursor to the item required. Pressing any numeric key causes the symbol ▼ to appear at the item selected. Press the numeric key again to cancel marking. Press key ▲ or ▼ to restore the previous way of display (with name).

In the graphic mode, the keys 0, 1 and 2 have special editing functions assigned to them. Pressing one of them three times results in:

000 – deletion of all selected items (the ▼ symbol on)

111 – selection of all available items (the ▼ symbol off)

222 – negation of state of all available fields (inversion of selection)

6.3.4 Alarm Source Name Reading

The installer may also render accessible the function of displaying the name of the alarm source at the LCD keypad screen, without necessity of entering the code. In such an event, the partition or zone name is displayed at the keypad screen, when an alarm occurs. When there are few alarm causes, you may scroll zone names, for which alarm occurred, and names of partitions, where the alarm is (or has been) signaled. Arrow

keys: ◄ and ► allow viewing partition names (if an alarm occurred for few partitions), and keys ▲ and ▼ allow viewing zone names, for which an alarm occurred. These names (entered initially by the installer) are displayed in a cyclic way in the lower display line, and they are shown in numeric order of zones (or partitions) in the system. The information on alarm activation is stored in so called *"temporary alarm memory"*, until the contents of this memory is cleared by an authorized user (see *Description Of User Functions →Alarm clearing).* The contents of this memory may be checked many times after resetting the alarms, until it is deleted. The viewing function is activated by pressing and holding down the corresponding arrow key.

6.4 PARTITION KEYPAD
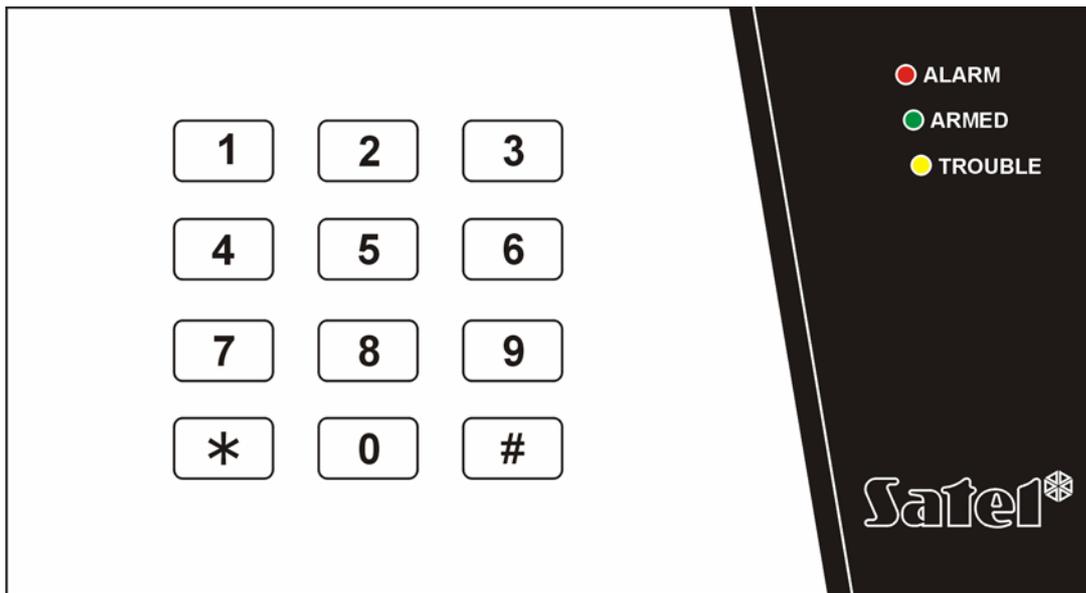
Figure 3

Partition keypad is provided with 12 keys with permanent or temporary backlighting (service setting), and three LEDs described as follows:

- **ALARM** (red) – steady light indicates an alarm in the partition operated with this partition keypad, and blinking indicates that alarm occurred in this partition earlier.

- **ARMED** (green) - steady light informs, that the partition assigned to this keypad has been armed. The LED blinks when the time for exit is being counted down.

- **TROUBLE** (yellow) – the LED blinks when a technical problem has been detected in the **system.** Check the LCD keypad for the type of trouble. Indication of this LED relates to the entire system, not only to the partition operated with this keypad. Arming of a partition switches off the LED, and disarming causes the LED to lit again.

When all of three LEDs (ALARM, ARMED, TROUBLE) flash in sequence, this indicates missing communication between the keypad and the control panel. This situation may occur when program STARTER runs in the control panel or the cable connecting the partition keypad to the control panel is damaged.

There is a possibility to program a partition to be armed or disarmed after entering two codes (service setting). In this event after entering the first code, LEDs ARMED and TROUBLE start to blink, and the control panel waits for entering the second code.

Similarly to the LCD keypad, the partition keypad may generate audible signals. This way the control panel confirms the function called, since there is no display at the partition keypad.

- **One long beep** - refusal of arming - the zone, which shouldn't be violated at the time of arming, is violated (option - "PRIORITY").

- **Two long beeps** – the code is not known to the control panel.
- **Two short beeps** – acceptance of the first of two codes needed to arm or disarm.
- **Three long beeps** – the code cannot control this partition.
- **Three short beeps** – confirmation of partition arming and disarming.
- **Three pairs of short beeps** – it is necessary to change the code - for example, a user, when changing his code, has entered an identical combination of digits as in the code of another user, or end of code validity is approaching.
- **Four short beeps and one long beep** – confirmation of the performance of a control function, code change and of a guard round.
- **Five short beeps** - the dependent door are open - the door control has not been performed. To operate the lock it is necessary to close the dependent door and reenter the code.

Blinking of the keypad illumination may substitute the audible signaling (service setting). Beeps correspond to keypad lighting off pulses, when the lighting is on, or light on pulses, when normally it is off.

Also, the partition keypad may indicate alarm occurrence in the partition concerned (service setting).

- **Alarm in the partition** – steady sound for total alarm duration.
- **Alarm memory** – long sounds every two seconds until alarm is reset. The sounds are synchronized with ALARM LED flashing. Press any numeric key to silent the sounds for approximately 40 seconds.
- **Fire alarm** – a series of long sounds every second for total alarm duration.
- **Fire alarm memory** – short sounds every two seconds until alarm is reset. The sounds are synchronized with ALARM LED blinking. Press any numeric key for approximately 40 seconds to silent the sounds.
- **Count down of time entry delay** – short sounds every 3 seconds.
- **Count down of exit delay** – long sounds every 3 seconds, completed with a series of short signals (for 10 seconds) and a single long sound. The way of signaling of exit delay informs that the countdown is finishing.
- **Signaling the auto arming delay time countdown** (timer-controlled partitions) - a series of 7 sounds (of diminishing length).
- **Door are open for too long** - short beeps repeated with high frequency till the door are closed (the function of door control is activated).

Operation of the system from the partition keypad is very limited, and it relates to the partition, to which the keypad has been assigned by the installer. There is a possibility to operate an electromagnetic door lock from the partition keypad by means of the user's code. Several partition keypads may be assigned to a single partition.

Functions accessible from the keypad are as follows:

     [CODE][#]   arming and disarming of partition and alarm clearing.

     [CODE][∗]   electromagnetic door lock opening.

Similarly to the LCD keypad, the user, who wants to start functions mentioned above, need to have access to the partition concerned and proper authorization. Besides, he need to be authorized to use the partition keypad concerned (these rights are assigned by the master user with in the GUARD64 program, or the installer (service) in the DLOAD64 program).

When the wrong code is entered three times, the alarm may be activated (service setting).

Other functions accessible from the partition keypad (without code entering) are as follows:

[0][#] quick partition arming,

and functions of calling special alarms:

[#] PANIC alarm,

[0] AUXILIARY alarm (calling for medical aid),

[∗] FIRE alarm.

The last three functions are started by longer keeping depressed (for approximately 3 seconds) the key described above.

Note: When the partition is armed, and the partition keypad also controls the electromagnetic door lock, typing: [CODE][∗] causes disarming and door opening – if the partition is not bypassed temporarily. The user should have the authority for disarming and using the particular keypad. However, If the user has no authority for disarming, the door remains closed.

Code change by the user is another, additional partition keypad function (service setting). User partition change is carried out as follows:

- Press and keep depressed (for approximately 3 seconds) the key with digit **1** (LEDs ALARM and ARMED – red and green – start to flash alternately).
- Type the old CODE and press [#] (LEDs: ALARM and TROUBLE – red and yellow - start to flash alternately).
- Type new CODE and press [#] (LEDs stop blinking and the module generates confirmation signal of function execution).

In the following four cases the control panel **cannot accept** the change of code (it is signaled with two long beeps):

1. the new code is too short or too long (acceptable are codes of length from 4 to 8 digits);
2. the new code is too simple (the function of refusal of simple codes is activated);
3. the new code is identical with a code of another user of the alarm system (someone's code has been "guessed");
4. change of the code has been blocked, because another user "guessed" the code trying to change his own code. If the function of reminding about the necessity of code change is activated, each usage of such a "guessed" code will be signaled with three double beeps. In this event the change of the code will be possible only by means of the LCD keypad - with the requirement of confirmation of the code change (see: the description of the function "*Change own code*") by the master user of the object. It makes impossible to "take over" the code by a user who accidentally "guessed" the code.

Note: With a big number of users it is advisable to use longer codes, at least 5-digit ones, to reduce the chance of "guessing" the code of another user.

6.5 CODE LOCK

The coded lock looks similarly to the partition keypad. The code lock is provided with 12-key backlit keypad. Keypad backlit may be permanent or temporary (service setting). The lock is provided with three LEDs marked as follows:

- **STAND BY** (green) – LED is on when the lock is operated by the control panel, and the door may be open.
- **ACCESS** (red) – LED is on when the door lock is being unlocked.

- **DOOR** (yellow) – this LED shows the status of zone, which monitors the door status. The LED is ON when the door is open.

When all three LEDs (STAND BY, ACCESS, DOOR) flash alternately, that means there is no communication between the code lock and the control panel. This situation may occur when program STARTER is running in the control panel or the cable connecting the code lock keypad to the control panel is damaged.

The basic code lock function is **to control the access to the room**, where the door provided with electric catch, bolt or electromagnetic interlock are installed. Also, the lock may be used for partition checking when sentry round in the object.

To open the door, type **CODE** at the lock keypad and press key [#] or [∗]. The user must have access to use this code lock.

[CODE][#]   door opening

[CODE][∗]   door locking

When an erratic code is typed three times, the alarm may be activated (service setting).

The code lock keypad can be used to **change the user code**, the changing procedure being the same as for the partition keypad.

It is possible to call special alarms using a code lock keypad. These three functions are called by longer keeping depressed (for approximately 3 seconds) the key:

[#]   PANIC alarm,

[0]   AUXILIARY alarm (calling for medical aid),

[∗]   FIRE alarm.

Confirmation of the function called by the control panel (with sound or blinking) is identical as for partition keypad.

6.6 PROXIMITY CARD AND DALLAS CHIP READER

Proximity card and DALLAS chip readers have the same role to play in the system as code locks. Proximity card readers are provided with two-color LED and buzzer for communication of the control panel with the user. DALLAS chip heads are not provided with any signaling of this type, but the installer has a possibility to provide such an external signaling.

6.6.1 Reading in cards (chips)

Each alarm system CA-64 user (master user, guard, ordinary user) may be assigned with one proximity card and/or DALLAS chip at the stage of user creation or edition. The card (chip) may be assigned by the master user or a user having the "user edition" authority level by means of the USERS function (see description of the function). When the reading stage is reached, it is followed by displaying the "Read card for the first time" message. At that moment, bring the card to be read in closer to any card reader and then move it back. If the readout is correct, it will be confirmed by the "Read card for the second time" message and the readout will have to be repeated. Subsequently, the "Card read" message appears; then, press the [#] key to accept the card assignment to the given user.

In order to provide a new user with a card (chip) with a code already known to the control panel, first remove this card (chip) from memory, and then assign it to another user.

Use the card as follows: bring the card close to the card reader and hold it there for approximately 0.5 sec. The distance between the card and reader, when reading, may be up to 12-14 centimeters, depending on reading head type. DALLAS chip should be pushed into the head slot to close the zone electric circuit. The control panel receives the code from the expander operating the reading head, recognizes the user, to whom

the card (or chip) is assigned, and operates according to settings programmed, when the user has authorization to open the door (to activate the relay).

The reader can handle cards assigned to the following types of users (codes): " Partition temporary blocking", "Bistable output", "Monostable output". Using a card activates control in the partition the reader is assigned to - in much the same way as entering this type of code on a partition keypad or a code lock.

In the alarm system CA-64, the proximity card reader signals have the following meaning (DALLAS head may generate identical signals):

- Meaning of audible signals generated after proximity card readout:
  - single short beep – card code readout (only CZ-PRD reader),
  - two short beeps – start of card code writing function, confirmation of first writing,
  - two long beeps – control panel has not recognized the card,
  - three long beeps – card code is recognized, but the user has no access to the lock (relay control),
  - four short beeps and one long beep – card code accepted, the relay activation, second correct readout of a new user card,
  - five short beeps – dependent door open (relay has not been activated),
  - short beeps (without time limitation) – door opened for a too long period.

- Meaning of visual signals emitted during armed status and after proximity card code readout:
  - LED blinks red in a uniform way – missing communication with control panel (this situation may occur when the special system initialization program STARTER is running in the control panel, the reader module has not been identified or the cable connecting the module to the control panel is damaged),
  - LED lights red steadily – module is correct, lock operation (relay control) is possible,
  - LED changes color from red to green once a second:
    o single short changes – waiting for first card reading,
    o double short changes – waiting for second reading of a new card.

- The installer may activate the option of confirming with a LED the messages sent from the control panel to the user. In this case, after the card is read, the change of LED color from red to green goes on in accordance with audible signaling described above.

6.6.2 Deleting cards (chips)

The card (chip) may be deleted by the master user or a user with the „edit user" authority, by means of the corresponding function (*Users* →*Edit user* →*Erase prox.card*). Actual removal of a card from the control panel memory takes place at the moment of exiting edition or accepting the user after pressing the [*] key and accepting the changes with the key [1].

6.7 CODES AND USERS

The functions of control panel operation is possible after entering a proper code (4 to 8 digits) and pressing key [*] or [#]. Three basic code types are used:

1. **Service code** – this code identifies the user with special authority: he controls all partitions, may open all doors controlled by the control panel, has access to most of control panel functions (except for the *Service access* and *Users* functions – see *Description Of User Functions*), and may enter and delete object master users. Factory programmed service code: 12345.

2. **Master user** (supervisor) **code** – this code identifies the user with highest authority for object. The master user has access to all partitions within his object. There is a function which unlocks the service access (see *Description Of User Functions* →*Service access)*. This function is always accessible for the master user and not for the service. Factory programmed master user code for a first object: 1111. Other master user rights may be limited by the service (installer). If few objects are defined in the system, each object has its own master user code. This user has the right to enter new users into the system.

3. **User code** – the remaining codes entered to the system by master users or users (with rights to edit the user). These are the codes for everyday operation of the system. 192 user codes may be entered in the CA-64 control panel.

Notes:

- *Each user of the system (except for the master) can have a telephone code assigned to him – see section „Answering Phone Calls".*

- *Service code is rejected by the control panel, when service access is locked. The master user may unlock the service access to the alarm system by using the function „Service access" (see: Description of the User functions).*

- *If there is no master user code in the system (all master users are removed), service access to the system is unlimited.*

- *It is recommended not to use the master user code everyday (unauthorized persons may peep the code). The master user should enter an ordinary user code, with "strategic" functions blocked, and he should use it in everyday work. Protection of access to the service mode and prevention of entering codes by unauthorized persons are main purposes of that.*

An additional possibility is to assign specific control function to a code. This function will be executed after the code is followed with the [#] key (see: *Description Of User Functions* →*Users)*.

The installer (using the service code) defines master user codes and names (one master user per each object), as well as he defines their rights.

The master user has the right to enter ordinary system users. He provides them with rights, type and defines the partitions, to which the users will have access. Also, the ordinary user may have the right to enter other users. New user may have access to these functions and partitions only, to which the user, who enters the new code has access.

Note: *If the user has authorization for changing the code, he should change it after first usage of the code. The control panel reminds by means of a message on the keypad display and an audible signal that this operation should be performed (service setting).*

The system stores the sequence order of entering users into memory. The person with authorization to enter and delete the users may remove from the memory the users entered by him/her or his/her subordinates only. The service has the right to edit all master users (as well as to change codes). The master user has such rights for users in his/her object. Ordinary users have rights to edit the users they entered. This possibility is convenient when the code is lost. The supervisor of the user concerned may enter a new code and make controlling the system available for him (of course, within the range limited by his authorization).

The control panel assigns numbers to the users to identify them in the system. This number is used in messages transmitted to the monitoring station and in event descriptions (see: *Description Of User Functions* →*Events)*.

6.8 PREFIXES

In extended systems, requiring a higher security level, the codes used are sometimes composed of two parts: one which is periodically changed by the master user (**prefix**) and the other which is determined by the user (**user code**). This ensures a periodic change of the system access codes, while the users do not have to change their codes individually. The prefix length (from 1 to 8 digits) is determined by the installer with the →*Options* →*Prefix length* service function (<u>from LCD keypad only</u>).

There are two kinds of prefixes to be determined:

Normal – the prefix normally entered before each use of the code, by default programmed as 0 or 00, or 000 ... (the number of zeros depends on the length of prefix).

Duress – the prefix normally entered before use of the code in emergency, e.g. when the user is forced by third parties to disarm the system, bypass the zones, etc., by default programmed as 4 or 44, or 444 ... (the number of fours depends on the length of prefix). Using this prefix before the code results in the *Duress* alarm code being sent to the monitoring station and activation of the **DURESS ALARM** output.

For security reasons, it is useful to periodically change the prefixes. The master user of the object is authorized to change the prefixes and define the change *Recall time* (see function →*Change prefix*).

Using the installer code does not require knowledge of the prefix - entering any digits instead of the prefix will do. It is important that the number of entered digits correspond to the length of prefix.

Note! Changing the length of a prefix restores its default value.

6.9 SYSTEM ARMED MODE

Armed mode is the basic status, for which the control panel was designed. In this mode, the control panel detectors monitor the protected object, and any violation of the protected partition is signaled by the control panel with all means accessible (programmed by the installer). Control panel CA-64 enables individual control of armed status in each partition. A single partition, several partitions and all partitions may be in armed status. Each partition may be disarmed individually (by means of partition keypad, LCD keypad) or totally (LCD keypad).

Normally, to arm the system, enter the following from the keypad:

[CODE][#] partition keypad arms a single partition, and keypad gives the possibility to arm all (or selected) partitions accessible.

[0][#] quick arming – the partition keypad arms a single partition, and keypad arms partitions programmed by the installer (no selection possible).

If one of partitions accessible to the user is already armed, then arming the other partitions by the same user is only possible when the following is entered from the keypad:

[CODE][∗] arming by selecting *Arm* from the function menu (see: *Description Of User Functions*).

Notes:

- *The arming may be refused by the control panel, if at least one „Priority" type zone is violated in any of the selected partitions; the list of violated zones is available on the display. The refusal refers to all partitions selected for arming.*

- *The control panel may fail to arm a partition if there is a trouble with the battery or one of the modules (expanders, keypads).*

- *Prior to arming, the control panel may inform the user about the zones violated at the moment of arming, which belong to the selected partitions, and were not preset by the installer as the „Priority" ones. The display will show the „Zones violated 1=Arm 2=Check" message. Press the key [1] to arm the partition, the key [2] to display the list of violated zones, or the [∗] key to quit the function without arming.*

- *Prior to arming, the control panel may give a warning message about the troubles occurring in the system.*

There are some **special methods of system arming** possible in a partition (available from the LCD keypad):

- <u>arm without interior zones</u> – the control panel does not respond to violation of zones defined as internal by the installer. This possibility allows the user to stay in the object and arm. The object is protected externally in normal way, and the system performs all functions programmed.

- <u>arm without delayed zones</u> – arming is performed in a way similar to the previous case, but additionally the delayed zones act as immediate ones.

To arm the system in one of the presented modes, proceed as follows:

1. Enter ACCESS CODE and press the [∗] key.
2. Call the „Arming mode" function.
3. Using the ▲ and ▼ keys select one of the suggested arming modes and press [#].
4. Call the „Arm" function and select (highlight) the partition to be armed.
5. Press the [#] key.

Disarming the partition will cancel the special mode of its arming. To re-arm the partition in a special mode, the procedure described above must be repeated.

The procedure of arming the system from a LCD keypad in the partition where the type (10) **24H VIBRATION** zone belongs and the testing function of vibration sensors is activated (service setting) is slightly different.

When the arming function (**[CODE][#]** or quick arming **[0][#]**) is called, the following message appears on the LCD display:

„*Vibr. zone test xx s (1=arm)*" where the *xx* field indicates the number of seconds before the end of test.

During the test, the control panel is waiting for the violation of vibration zones in a given partition. If all the vibration zones of the given zone are violated, the alarm control panel switches over to counting the exit delay time and arming the system. In case some of the vibration zones are not violated during this time, the control panel will display a list of faulty zones (number and name of zone) and will not arm the system.

Pressing the digit **1** key during the process of countdown will interrupt the test and arm the system in normal mode, while pressing the [∗] key will make it possible to cancel the arming.

Arming the system from the partition keypad will <u>bypass the testing</u> of vibration sensors in the particular partition.

Also, special control ways of partition status are possible:

- partition arming and disarming by means of timers. Timer is an internal control panel logic unit, which measures time. Timer operation is programmed by the service.

- partition arming and disarming by means of a "partition user timer". This timer may be programmed by the user, without necessity of asking the installer (or the service) for

that. There is a single timer of this type for a partition, this timer may be programmed in daily or weekly cycle (see: *Description Of User Functions* →*Change options*).

- partition arming control by means of a special zone programmed (by the installer) as arming control zone. In practice, it may be a mechanical switch; key switch, pushbutton, radio switch. It is also possible to control such a zone by means of the REMOTE SWITCH type output (see: *Answering Phone Call*). Disarming by means of the output can also clear the alarm and telephone messaging;

- arming / disarming by the use of code and arrow keys (see: *The Use Of LCD Keypad*) – this mode facilitates access to the above mentioned "special ways of arming".

6.10 ALARMS

The system may signal alarms as the response to various situations that occurred in the protected object. Basic control panel alarms are as follows:

Burglary alarm – activated when the zone is violated in the partition where arming is on. The violation of the "delayed zone" starts to count down the delay time, after which alarm is activated if the partition will not be disarmed.

Fire alarm – activated by fire detectors, from keypad or in another way (for example, pressing the pushbutton).

Tamper alarm – activated by violation of any tamper contacts in the alarm system (located in detector and module casings), damage to cables, etc.

Panic alarm – activated from keypad or in another way defined by the installer (for example - pushbutton).

Auxiliary alarm – activated from keypad (for example, call for medical aid) or in another way defined by the installer (for example - remote controller or pushbutton).

Technical alarm – activated by various specialist detectors.

The way of signalization of individual alarms may be different, and it is defined by the system installer. It may be an alarm siren, information to a monitoring station, visual alarm, audible alarm and (or) keypad message, telephone message, activation of other external devices.

6.11 MESSAGING ON ALARM BY TELEPHONE

The telephone communicator integrated in the control panel CA-64 allows transmission of information on **alarm** through the telephone line to any telephone number. The message transmitted may be adapted to the alarm type (the system installer may install voice synthesizers to allow up to 16 messages to be replayed) The installer defines, who and on which alarm will be informed by the control panel, by programming relevant telephone numbers and defining rules of messaging.

Also, the control panel may transmit the information on missing **230V power supply** in the form of voice message (or pager message). Power supply trouble is a serious danger for the protected object and the alarm system, therefore, this information has been recognized as equally important as information on alarms.

The person, whom the control panel calls, may confirm message receipt. Special code is used for that, programmed (by the installer) individually for each telephone number. When the message is not confirmed, the control panel may repeat the message transmission (number of repetitions is programmed by the installer). The telephone set must be set to the DTMF tone dialing.

If the code is not correct, the control panel signals that with two long beeps. Correct code is confirmed by four short and one long beeps.

When, instead of sounds described above, you hear a single short beep every three seconds, the code is correct, but you must wait, because there are several messages about different alarms.

If you make a mistake when entering the code, press any numeric key to supplement the code to four digits (then the control panel signals wrong code), and next enter the correct code.

Note: *The control panel analyses telephone signals in order to recognize whether the phone call is answered. Therefore, it may occur that you will hear the message after few seconds (up to 4 seconds) from picking the earphone. This effect is not an error – it results from phone call-back signal. When you say „hallo...” to the earphone, the message will be reproduced immediately.*

6.12 ANSWERING PHONE CALLS

The control panel CA-64 is able to answer phone calls and communicate information on the system status. Also, you may call control functions with the use of telephone. Each ordinary user may (at the stage of user entering or edition) be assigned with a **telephone code** (do not mix this code with the code for confirmation of receipt of a telephone message on alarm). The control panel recognizes the system user with this code and passes an information on partition status (armed, alarms) for partitions accessible for this user. Also, the user may control the status of control panel relay outputs programmed as REMOTE SWITCH. The installer has a possibility to program up to 16 remote switches. Also, the installer decides which relays may be controlled by individual users. To use this function of the control panel, you must have the telephone set operating in DTMF tone system.

Note: *Not all cellular telephones allow control in DTMF tone system.*

How to use this function:

- Dial the telephone number (line) of the control panel. The way of dialing is defined by the installer. The control panel may communicate after a defined number of dialing signals (rings). Dialing may be single or double. When double dialing is used, wait a defined number of "rings", put the handset off, and then dial the control panel telephone number again. After the number is dialed the second time, the control panel should answer immediately.

- After the communication is started, the control panel is ready to receive the user telephone code – three short beeps (prompt).

- Type code at the telephone set keypad (in the tone system). The control panel accepts the correct code with series of beeps: four short and a single long one. An incorrect code is followed with two long beeps.

- Now the control panel operates in the mode of informing on partition status. It waits for user's response for 15 seconds and generates one short beep every two seconds. Now It is required to enter the partition number at the telephone set keypad (two digits – for example, 01; 05; 12; 25). If the user does not respond within this time, the control panel will ring off.

- After the partition number is entered, the control panel generates the message. Three short beeps inform that the partition is disarmed and four short and one long beeps mean that the partition is armed.

- Alarm memory is an additional information given by the control panel. If an alarm occurred in the partition, the control panel generates series of double beeps – first is lower and second is higher – following the information on the partition status. Where no alarm occurred, the control panel generates single short beep every two seconds.

- In order to move to the control mode of the remote switches status, press [**2**] and [**#**] at the telephone set keypad. After changeover to the control function, a periodic signal in the form of two short beeps appears in the receiver.

- Now the control panel waits for the switch number (two digits). To trigger the relay status to the reverse one, type the switch number at the telephone set keypad. Two short beeps mean that the relay has been switched off and four short beeps and one long beep mean that the relay has been switched on. Each time you type the switch number, you change its status to the reverse one.

- You may move back to the partition status indication mode by pressing keys [**1**] and [**#**] one after one.

- When you press keys [**0**] and [**#**] one by one, you exit the function and terminates the phone call.

6.13 OTHER FUNCTIONS USING TELEPHONE LINE

If the alarm system uses functions of the control panel telephone communicator, the line from the local exchange to the object is connected directly to the control panel, and all telephone sets are located downstream the control panel. Therefore, no signals are heard in telephone sets, when the control panel uses the telephone line. This situation may occur frequently in multi-partition system, where monitoring is activated (a special reporting system designed for sending information on the object status to the security firm, working independently of the aforementioned user notification system). Moreover, the control panel will disconnect the telephone conversation, when taking over the telephone line in order to transmit an information on a new event. It should be said that control panel phone calls do not last for a long time (from several to tens seconds, depending on the selected format data transmission).

Another function, where the control panel occupies the telephone line, is programming by the telephone ("downloading"). This function may be initiated by the service. The telephone line may be occupied for a long time, when data are transmitted. Even if the programming is initiated by the user, the service may hold communication with the control panel for cost saving reasons, and then restore it without engaging the user.

Note: Access to the control panel in programming mode by telephone is protected with ten-byte code (more than $1.2x10^{24}$ combinations). This is a very good protection against hacking to the control panel by telephone aiming to block it. Additionally, three sequential trials to call programming from outside block the mechanism of answering to modem signals for 30 minutes.

7. USER FUNCTIONS

7.1 MAIN MENU

Presented on the following pages is menu for all the user functions. These functions are made available by the control panel after entering the service code, master code or normal user code by pressing the [#] or [∗] key. Some of the specified functions are only accessible for a selected code type. All details concerning the particular functions are described hereunder.

7.1.1 User function menu

Note: *As the menu changes dynamically, depending on the programmed system parameters and the user authority level, not all functions are visible to the user.*

[USER CODE][#] (call the user functions by pressing the [#] key)

```
├─ Arm all
├─ Arm selected ───────────────── Select partitions
├─ Disarm all
└─ Disarm selected ───────────── Select partitions
```

[USER CODE][*] (call the user functions by pressing the [*] key)

```
├─ Disarm ────────────────────── Select partitions
├─ Clear alarm
├─ Clear other alarms
├─ Abort voice messaging
├─ Arm ───────────────────────── Select partitions
├─ Arm (2 codes) ───────────── 1st code ──────────── Code validity period
├─ Disarm (2codes) ─────────── 1st code ──────────── Code validity period
├─ Defer auto-arming ───────── Select partition ──────── Defer auto-arm for
├─ Set auto-arming delay ───── Select partition ──────── Defer auto-arm for
├─ Arming mode ─────────────── Select mode
├─ Cancel 1st code ─────────── Select partitions
├─ Change own code ─────────── New code
├─ Change prefix**─────────── Prefix normal
                             ├─ Prefix duress
                             └─ Recall time
```

Masters* ──── New master
├── Edit master ──── *Select* ── Code
│   ├── Rights ──────── *Assign authority*
│   ├── Keypads etc. ──── *Assign keypads*
│   ├── Read prox. card ──┬── Read card for the first time
│   │   └── Read card for the second time
│   ├── Erase prox.card
│   ├── Read DALLAS ─────┬── Read DALLAS for the first time
│   │   └── Read DALLAS for the second time
│   ├── Erase DALLAS
│   └── Name
└── Remove master ──── *Select*

Users ──── New user
├── Edit user ──────── *Select* ── Code
│   ├── Telephone code
│   ├── Object ──────── *Assign partitions*
│   ├── Type ────────── *Select type*
│   ├── Rights ──────── *Assign authority*
│   ├── Keypads etc. ── *Assign keypads*
│   ├── Schedule
│   ├── Existence time
│   ├── Bypass time
│   ├── Read prox. card ──┬── Read card for the first time
│   │   └── Read card for the second time
│   ├── Erase prox.card
│   ├── Read DALLAS ─────┬── Read DALLAS for the first time
│   │   └── Read DALLAS for the second time
│   ├── Erase DALLAS
│   └── Name
└── Remove user ──────── *Select*

```
├─ Zone bypasses ──────────────── Select zones
├─ Set time ────────────────── Set time──────────── Set date
├─ Troubles
├─ Events ──────────────────┬─ Selected ──────────┬─ Select events
│                           │                     ├─ Select partition
│                           │                     └─ View
│                           │
│                           └─ All
│
├─ Reset zones
├─ Clear latched outputs
├─ Change options───────────┬─ Keypad chime
│                           ├─ Outputs chime──────── Outputs chime blocking ──── Select partitions
│                           ├─ Partition timers ──────── Select partition ───────┬─ Active
│                           │                                                    └─ Type ───────────┬─ Everyday
│                           │                                                                       └─ Weekly
│                           │
│                           ├─ No expanders tamper alarms
│                           ├─ Permanent service access**
│                           └─ Clear service message
├─ Tests ───────────────────┬─ Partitions
│                           ├─ Zones
│                           ├─ LCD keypads
│                           ├─ Expanders
│                           ├─ Supply voltage
│                           ├─ Zones test
│                           ├─ Manual tr. test
```

```
                                            ├── Station 1A test
                                            ├── Station 1B test
                                            ├── Station 2A test
                                            ├── Station 2B test
                                            ├── Answering test
                                            ├── View masters**
                                            ├── Keypad name
                                            ├── File in Dload 64
                                            └── Panel version
 ├── Service access** ──────────────── Service access time
 ├── Outputs control ──────────────── Select output group ──── Selects outputs to be controlled
 ├── Service mode*
 ├── Take SM (service mode) over*
 └── Downloading* ─────────────── Start DWNL-RS
                                            ├── Finish DWNL-RS
                                            └── Start DWNL-TEL
```

*- functions only available to the service
** - functions only available to the master user

7.2 DESCRIPTION OF USER FUNCTIONS

Disarm

The function allows disarming in a single partition, several partitions selected or all partitions accessible to the user, from a specific keypad.

Note: *If only one partition to be disarmed is accessible to the given user, the control panel will skip displaying the selection list, and will disarm the partition immediately.*

Clear alarm

The function clears alarm signaling and clears memory of alarms occurred since the last alarm memory clearing. Alarm memory clearing does not include the event memory, where the facts of alarm occurrence and canceling are registered and kept fully described. The function is executed automatically (when the system is armed and alarm occurs) after the code is entered and key [#] is pressed. Then, the control panel displays the menu of the function *Disarm,* and, after this function is executed, it displays an adequate message.

Clear other alarms

The function allows canceling alarms from other objects, to which normally the user has no access.

Abort voice messaging

When this function is called, messaging by telephone is stopped - the control panel should ring off. If the telephone line is still occupied, that means, that messaging for the partition non-accessible for a given user is carried out.

Voice messaging by telephone may be cancelled automatically together with an alarm clearing (service setting).

Note: *If the installer has not specified the partition for a selected telephone number, the users of which can cancel voice messaging, the procedure of voice messaging to this phone number will be carried out till the end, without possibility of stopping it.*

Arm

The function allows arming of a single partition, few partitions selected or all partitions accessible to the user.

Note:

- *If a partition with temporary blocking is selected, the control panel will ask about the blocking time before arming.*
- *If only one partition to be armed is accessible to the given user, the control panel will skip displaying the selection list, and will arm the partition immediately.*

Arm (2 codes)

The function arms special partitions. Two different codes must be used to arm them. The presence of such partitions is declared (programmed) by the installer.

Entering the first code on the LCD keypad will display a list of partitions from which you should select those to be armed. After acknowledging the selected partitions, the control panel enables programming of the code validity time – you should indicate the time period within which the second code can be entered (maximum 18 hours, 12 min.); by default, this time is equal to 1 minute.

During the first code validity time, the partitions available for arming are indicated on the LCD keypad by slow blinking of the partition status indicator (2s/2s), and on the partition keypad - by rapid, alternate blinking of the ARMED and TROUBLE LEDs. During that time the control panel makes available the selected partitions for arming to the users who may enter the other code in the same way as for the partitions armed with a single code. The user who has entered the first code has the option to cancel his "consent" to the arming in selected partitions (see description of the „*Cancel 1st code"* function).

If the first code was entered on the partition keypad, then the other one must be entered within 1 minute of entering the first one, as after expiry of that time reset of the control panel takes place. The system may demand that the second code be entered from another keypad (partition keypad) which operates that partition. The installer will assign the users authorized to enter the first or second code in such partitions.

Disarm (2codes)

The function disarms in special partitions. Two different codes must be used to disarm them. The presence of such partitions is declared (programmed) by the installer.

Entering the first code in the LCD keypad will display a list of partitions from which you should select those to be disarmed. After acknowledging the selected partitions, the control panel will request the code validity time – you should indicate within what time the second code can be entered (maximum 18 hours, 12 min.).

During the first code validity time, the partitions available for disarming are indicated on the LCD keypad by slow blinking of the partition status indicator (2s/2s), and on the partition keypad - by rapid, alternate blinking of the ARMED and TROUBLE LEDs. During that time the control panel makes available the selected partitions for disarming to the users who may enter the other code in the same way as for the partitions disarmed with a single code. The user who has entered the first code has the option to cancel his "consent" to the disarming in selected partitions (see description of the „*Cancel 1st code"* function).

If the first code was entered on the partition keypad, then the other one must be entered within 1 minute of entering the first one, as after expiry of that time reset of the control panel takes place. The system may demand that the second code be entered from another keypad (partition keypad) which operates that partition. The installer will assign the users authorized to enter the first or second code in such partitions.

Defer auto-arming

The function puts off (delays) the arming of a timer-controlled partition (auto-arming). It is intended for programming the value of time interval by which the moment of automatic arming of a partition is to be delayed. The maximum postponement time value is 4 hours, 33 minutes and 3 seconds. Entering a higher value will set the maximum permissible value, while entering the zeros alone will cancel the timer-controlled arming until the particular timer is activated again. Operation of this function pertains both to the partition timers programmed by the user, as well as to the those programmed by the installer.

The function makes it possible to select the partitions, where the countdown of the auto-arming delay has begun. This very feature distinguishes the said function from the described below user function „Set auto-arming delay", which gives access to all the partitions armed automatically with time delay which are available to the individual user. In view of a low value of the auto-arming time (max. 255 seconds), it is important that a quick option of the partition arming postponement be available in case it is necessary to stay inside.

Upon commencement of the countdown, the control panel can display on the LCD keypad the partition name and the delay time which remains to arming (service

settings). If the time is simultaneously counted in a few partitions, the display shows the name of the partition which will be armed first.

The postponement time is programmed individually for each partition for which the auto-arming delay countdown has begun.

Set auto-arming delay

The function puts off (delays) the arming of a timer-controlled partition (auto-arming). It is intended for programming the value of time interval by which the moment of automatic arming of a partition is to be delayed. The maximum postponement time value is 4 hours, 33 minutes and 3 seconds. Entering a higher value will set the maximum permissible value, while entering the zeros alone will restore the partition control according to the installer's settings. Operation of this function pertains both to the partition timers programmed by the user, as well as to the those programmed by the installer.

The delay time is programmed individually for each automatically controlled partition.

The function is available in the user menu if the user is authorized to get access to at least one partition for which a **non-zero „*auto-arming delay*" time** has been set (service setting). The value of such a delay may vary from 1 to 255 seconds.

Activation of the timer controlling the particular partition triggers the process of counting the auto-arming delay time. Then, countdown of the partition exit delay takes place (if provided), followed by arming the partition.

Arming mode

This function provides for selection of a special mode of arming. There are three options of arming modes:

- Full
- Stay
- Stay, delay = 0 (off)

Details concerning the use of functions are discussed in section „System Armed Mode".

Upon selection of the armed mode, the control panel returns to the user function menu, thus enabling the selected partitions to be armed.

Exiting the menu without arming (key [∗]) will cancel the selection made by using this function.

Cancel 1st code

The function makes it possible to cancel the decision of entering the first code to arm or disarm the two-code operated partitions. After calling the function, the control panel will display the list of partitions for which the given user has entered the first code, and will start the countdown of the code validity time. You should select the chosen partitions from the list and press [#]. Validity of the first code for arming/disarming the selected partitions will be cancelled.

Change own code

This function makes possible to change the code of the user, who called this function. To increase the safety of the system, it is recommended to change user code periodically (there is always a risk that an unauthorized person might have seen the code).

The control panel requests the user to change his code in the following cases:

- New user – the new user code is known to the person who has entered him in the system, therefore it must be changed. Until the code is changed by the new user, the „*Change code*" message will be displayed. A failure to comply with this request has

no consequences in terms of the assigned authority level and/or access to the partitions.

- Expiry of the validity time of the „*Time renewable*" code (see the *Users* function).

- Hitting the user code – it may happen when entering a new code by any user that he enters a code already used in the system. Such a "hit" code will be rejected, however its present user will be informed that it is necessary to change the code.

In the two first cases, the procedure of entering a new code is simple: having started the function, enter the new code and confirm it by pressing the [#] key.

If the code has been guessed, the procedure is more complicated, as it requires confirmation of the code change by the master user or the serviceman: having entered the new code, confirmed by pressing [#], it is necessary to enter the master code or the service code (in case the master user code has been hit).

Note: Using the service code is possible after enabling the service access by the master user.

It is possible for the service to activate the option of blocking creation of codes easy to guess. When this option is activated, the control panel does not allow to create codes of type: 1111, 1234, 1122 etc. These codes are rejected, and the control panel waits for another combination of digits.

Note: The control panel does not accept the code identical to the old code as a new one.

Change prefix

This function, available to the master user only, makes it possible to change the system prefixes.

The installer, by means of the corresponding service function (→Service mode →Options →Prefix length), will determine the prefix length (1-8 digits). When the length of prefixes programmed by the installer is 0, the function forcing the prefixes to be inserted before the user function is disabled.

If prefixes are used in the security alarm system, the master user of each object must change the default setting of the prefixes and set the time period to the next change (1-255 days).

Masters

This function is used for entering the new user with master authorization, changing data related to the existing master user, or for removing the master user. Only the installer (service) is authorized to use this function. Only one user with such authorization may be assigned to the object. The list of rights, which may be assigned to the master user, is identical with the list shown in the description of the function *Users.* The changes become valid in the system since the moment of exiting the function by pressing the [*] key and accepting the changes with the key [1].

Users

The function that gives the right to enter new alarm system users. Each user has a code for which suitable **authority** and **type** are to be determined. The function makes it possible to select keypads, locks and proximity card readers to be operated by the given user. If proximity card readers are installed in the system, read in the card, which will be used by the new user.

Rights list to be assigned to the new user is as follows (it indicates the functions, which the user will be allowed to execute):

- Arming

- Disarming
- Can always disarm
- Partition alarm clearing
- Object alarm clearing
- Other alarm clearing
- Voice messaging clearing
- Arm deferring
- Entering first code
- Entering second code
- Access to blocked partitions
- Code changing
- Users editing
- Zones bypassing
- Clock setting
- Troubles viewing
- Events viewing
- Zones reset
- Options changing
- Test
- Downloading
- Outputs control
- Guard64 using
- Clear latched outputs

Note:

- *The right „Can always disarm" defines whether the user always may <u>disarm</u> the system (option selected) or only when he previously armed it himself (option deselected).*

- *The right „Access to blocked partitions" refers to the „Access according to timer" partitions. If this option is selected, the partition of this type is always accessible, if not selected, the partition is only accessible when the selected timer is active or the partition blocking time has expired.*

- *The installer may define a list of rights to be instantly assigned to the new user. The other rights, available but not included in the list, will have to be assigned individually by the person entering the new user.*

The list of user code types is as follows:

1. ***Normal*** – basic code type assigned to the user.
2. ***Single*** – code for use once only.
3. ***Time renewable*** – code, for which the validity time period is given when entering a new user. Before the validity period elapses, the control panel reminds the user with such a code that he must change the code. After this change, the validity period is counted down from the beginning. After this user code type is chosen (when entering or editing), the function *Existence time* appears in menu, where number of code validity days should be defined.
4. ***Time not renewable*** – code, for which the validity time period is limited to the number of days specified when entering a new user. After this user code type is chosen (when entering or editing), function *Existence time* appears in the menu,

where the number of code validity days should be defined. Validity period may be changed for this code type by the user, who entered a new user, or by the master user or the service.

5. ***Duress*** – code similar to the normal user type, but the use of this code generates additional event, which is sent to the monitoring station ("Duress alarm"). At the same time, this code may activate a special alarm adequate for the situation (programmed by the installer). This code is intended for use in the case of attack.

6. ***MONO output control*** – code, which switches on the MONO SWITCH type outputs. This function may be executed in partitions assigned to a code of this type.

7. ***BI output control*** – code, which changes the status of the BI SWITCH type outputs, when used. This function may be executed in partitions assigned to a code of this type.

Note: *The control panel makes possible to define outputs used for controlling equipment of different types, for which access must be controlled. Such control is carried out by means of codes „MONO output control" and „BI output control". The installer should inform the user about devices controlled this way.*

8. ***Temporary partition bypassing*** – code, which de-activates partition detectors for a certain time period (assigned to the code) when the partition is armed. After this user code type is chosen (when entering or editing), function *Bypass time* appears in menu, where partition bypass time period should be defined (1-109min).

9. ***Access to cash dispenser*** – code, which activates the procedure of access to a cash machine. Cash machine is protected 24 hours per day, but activities connected with the cash machine service need detectors to be bypassed. The control panel automatically restores detector activation after a strictly determined time (service setting).

10. **Guard** – global code, which may be used for making rounds by guard in the whole system. Typing this code ([CODE][#]) into the keypad at the partition, to which the specific user has access, generates an event "Guard Round" and, eventually, activates partition bypass. Typing of this code into an electric lock keypad or access trial by means of a proximity card or DALLAS chip generates the event the "User Access" type. When the guard is provided with access to partitions, the partitions may be controlled in a way similar to the control with a normal code (calling function in LCD keypad: [CODE][*]).

Typing of the guard code, the use of a guard card or DALLAS chip at the equipment assigned to the partition, where a guard round is programmed, starts counting down the time to the next guard round from the beginning.

The installer defines the keypads, with the use of which the guard should type his code when performing guard round in the protected object, and maximum time period between subsequent guard rounds. The time period between guard rounds is determined for each partition individually, both when the partition is armed and disarmed.

It is also possible to plan the guard round in one of situations described above only (for example, when the partition is armed). Missing guard round generates the event "No guard", which may be signaled at one of control panel outputs.

11. ***Schematic*** - code providing the user access to the system by a time scheme. One of the eight time schemes as may be determined by the installer should be assigned to such a code. The access scheme is based on 64 system timers. The user can control the system only when one of the particular scheme timers is active. Also, duration of the actual code must be set (0-254 days) – entering 0 will set an indefinite duration (until canceled).

Note: *"Telephone code" is to be typed in this case only, when the user wants to apply the remote control function for the control panel outputs (see section „Answering Phone Calls").*

Zone bypasses

This function bypasses zones from the moment of the function entry. The control panel ignores all information coming from detectors connected to bypassed zones. The function is used in case of a detector trouble or its incorrect operation. It gives the possibility to arm the system ignoring the bypassed zones. The bypass entered with this function is cancelled after disarming. Also, zone bypass may be de-activated with the use of this function. Proceed in a way reverse to bypassing of zones – remove marking of zones marked. The installer defines zones, which cannot be bypassed with this function.

Set time

The function makes possible to enter the actual time and date to the alarm system. This data are entered in the following format:

   time - HH:mm:SS (hour:minute:second),

   date - DD:MM:YYYY (day:month:year)

New data are entered by typing the correct digit at the place of the cursor flashing. After entering the digit, the flashing indicator moves to the next position on the right. Also, it may be moved with the use of keys: ◄ and ►.

Troubles

The function makes possible to scroll the list of troubles occurred in the alarm system. It is accessible only when TROUBLE LED flashes at the LCD keypad and partition keypads. The list of possible trouble messages is included at the end of this manual in APPENDIX A.

The name of element concerned (entered by the installer) appears in messages related to zones, expanders and keypads, in bottom line of the display. No additional message is displayed at the end of this function.

Note: *Inform the service person immediately in the event of any trouble in the system, and remove the cause of the trouble alarm.*

Events

The function makes possible to scroll the list of events stored in the control panel memory. The events are given in the sequence order of their occurrence. The ▲ key permits going back to the previous event, while the ▼ key - to the next one. If none of these keys is depressed for a few seconds, names related to the particular event will appear on the display, shown alternately with the event description.

The event description contains data displayed in the following format:

   date -   DD:MM (day:month),

   time -   HH:mm (hour:minute),

   identifier -   xxxx (four characters - IDEN) which identifies the number of zone, partition, module, user operating the system, special symbol,

   event name -   text in second display line.

Description of meaning of identifiers:

   Ser.   user – service code,

   Mst[n]   [n]=1-8   user – object master code,

u [n]	[n]=1-192	ordinary user of the system,
k [n]	[n]=0-15	keypad – module connected to the keypad bus or virtual keypad accessible from the program GUARD64,
	0-7	numbers of keypads in the system,
	8-15	numbers of keypads accessible from the program GUARD64, defined as follows: no. of keypad to which the user computer is connected plus 8,
DLrs		keypad connected to the main board RS port, accessible from the program DLOAD64,
DLtl		keypad connected to telephone line at the main board, accessible from the program DLOAD64,
e [n]	[n]=0-63	expander - module connected to the expander bus,
p [n]	[n]=1-32	partition,
z [n]	[n]=1-64	zone,
T [n]	[n]=1-64	timer,
Tpar		partition timer,
MnPl		control panel main board.

Some of event descriptions allow readout of two identifiers, for example: partition number and zone number, keypad number and user number, etc. To read the second identifier, press the ◄ key. Press the key again to change the displayed identifier for the previous one. Press the ► key to display the names related to identifiers, and again to restore the event description display. Using one of the ◄ ► keys stops the automatic changeover between displaying the particular event description and the names related to the identifiers. Going over to a next event (key ▲ or ▼) will restore the mode of automatic changeover of the display contents.

Either viewing of all events or viewing of selected events is possible. Also, you may choose partitions to be viewed. The selection is made for partitions controlled by the keypad and, at the same time, accessible to the user, who called the function.

If the user wants to view selected events, he has to mark at least one event type (the ⓨ symbol must appear at the name of event type), otherwise the menu function *"View"* is not accessible. Marking of a partition is not necessary. When the partitions are not marked, the list of events from all partitions accessible for the user is displayed.

Selection of partitions influences the contents of the list displayed when viewing event types from 1 to 4 (event type numbers according to the list given below).

List of event types:

1. Zone & tamp.al. - alarms for zones, tamper alarms
2. Other alarms   - other alarms. fire, auxiliary, technical alarms, no guard round.
3. Arm/Disarm/Clr - arming and disarming, alarm clearing.
4. Zone bypasses   - the use of function "Zones bypasses", bypass canceling after disarming.
5. Access control - use of keypads and proximity card readers for controlling electromagnetic door locks, door status monitoring, temporary bypass of partitions.
6. Troubles   - technical problems in the system, restarts of modules.
7. Functions   - calls for user functions to control the operation of the control panel.
8. System   - service mode, clock programming, etc.

Note: The messages about the following event types are not displayed in the event lists on the LCD keypad:
- PANIC alarm,
- Silent PANIC alarm,
- DURESS alarm.

No additional message is displayed when exiting the function.

Reset zones

The function forces short voltage loss at detector power supply outputs with activation memory (for example, fire detectors). This operation clears detector memories.

If few identical detectors are connected to a single output, the activation memory allows finding the detector which triggered the alarm.

Clear latched outputs

The function clear outputs of control panel working in the "latch" mode. This does not apply to **alarm outputs**, which work until alarm be canceled.

Some outputs in the system may work in the "latch" mode as indicators of use selected codes or violation of the selected zones. When an output works in the "latch" mode, the output after activation doesn't return to the basic status until its activity be cleared with that described function.

Change options

This function controls the **"GONG" type signaling** and allows setting **partition user timer** which automatically arms and disarms, sets the mode of service code access to the system, and deletes the **service message**.

Keypad chime – signals the violation of any zone (detector) selected by the installer. Few zones may be selected, and they will activate signaling in the keypad. The chime signal in each keypad may be activated from different zones. The function makes possible to block and unblock the signaling mentioned above in the keypad, in which it was called.

Outputs chime – there is a possibility to configure the output intended for signaling the violation of selected zones. Such an output reacts to violation of the indicated control panel zones. It is possible to block or unblock activation of such signals for individual partition outputs separately.

Partition timers (see section: *System Armed Mode*) allows automatic zone arming and disarming.

To enable timer operation:

1. Start the „*Active*" function and enable it (☑).

2. Then, select operation mode: *everyday* or *weekly*.

3. Programming of timer on and/or off time.

    *   In case of the daily cycle timer, after selecting the mode, the „*Every day timer turned on: HH:MM*" text will appear on the display. Enter the hour (GG) and minute (MM) of switching the timer on. Press key ▲ or ▼ to enter hour and minutes of timer switching off.

    *   For a weekly cycle timer, the time of switching on and/or off is programmed in the same way, but it should be done for each weekday separately.

    Note: Entering the nines only will result in the given function (arming or disarming) being inactive.

> *For example*: the timer may arm only at the determined time, but disarming must be performed by the user himself; automatic partition control may be activated in some weekdays only.

4. To accept data entered, press key [#]. The display will show the name of the timer set data programmed.

5. Save timer settings in the control panel memory. For this purpose, press the [∗] key and accept the changes with the key [1].

No expanders tamper alarms – should any problems occur in communication with the expansion modules, report it to the service. The function allows to temporarily disable the expander tamper control.

Permanent service access – selecting this option will relieve the master user from the duty to introduce the service access time – the service code will be always accepted by the control panel. The function accessible to the master user only.

Clear service message - it is possible to delete the service message (see *LCD Keypad*), which is displayed by the installer using a suitable service function. The installer can define the user(s) authorized to deactivate the display of technical information - such a user gets access to the option described herein.

Tests

The function allows performing various operations for checking the system operation correctness.

Partitions – checking the current status of partitions accessible for an individual user and operated from the LCD keypad. The partition status is shown in the form of symbol (mark) adjacent to the number (numbers around the display screen) which corresponds to the partition number in the system. The installer assigns symbols (marks) to particular situations.

It is possible to read the following information on zones:

b - temporary partition blocking,

? - entry delay,

E - exit delay (less than 10 seconds),

e - exit delay (more than 10 seconds),

P - fire alarm

A - alarm

p - fire alarm memory

a - alarm memory

a - zone is armed,

● - violated zones,

· - zone is disarmed, zones OK.

Notes:

- *The characters shown above are default settings which can be changed. The installer should inform how the particular states of zones and partitions will be identified on the display.*

- *Symbol - ● (Violated zones) informs only about the zones in which the „Priority" option is activated.*

Zones – checking the current status of each zone in partitions accessible for an individual user. Zone status is shown in the form of a symbol (mark) adjacent to the number (numbers around the display screen) which corresponds to the zone number in the system. The installer assigns symbols (marks) to particular

situations. Two sets of information on zones are displayed: first set for zones 1-32 and second one for zones 33-64. Two green LEDs next to the display indicate, which set is displayed currently. Upon starting the function the status of zones 1-32 is displayed. Press any arrow key to move to the display of statuses for zones 33-64 (to find a zone number, add 32 to the number next to the symbol). Press any arrow key to move to the display of status for zones 1-32 again. The amount of information accessible depends on the type of detector connected to the zone. Detectors configured as 2EOL provide most detailed information.

It is possible to read the following information of zones:

b - zone bypass,

l - trouble "long violation",

f - trouble "no violation",

T - tamper alarm,

A - alarm,

☐ - zone tamper,

● - zone violation,

t - tamper alarm memory,

a - alarm memory,

· - zone OK.

Note: *Symbols shown above are factory settings, which may be changed. The installer should inform on how individual zone and partition statuses will be marked on the display.*

LCD keypads – checking the status of tamper contacts in the keypad casings. Symbols displayed at the keypad screen are as follows:

· - correct status,

● - contact violated,

X - keypad replaced (verification error),

? - keypad is missing.

Expanders - checking the status of tamper contacts in expander casings; first bus expanders and second bus expanders are checked separately. On starting the function the status of the first expander bus is seen at the display (LED marked 1-32 lights). Press any arrow key to display status of the second bus expanders (LED marked 33-64 will light). Symbols displayed at the keypad screen are as follows:

· - correct status,

● - contact violated,

X - expander replaced (verification error),

? - expander is missing.

Supply voltages - checking power supply voltage level for individual expanders. The display shows the expander name and approximate power supply voltage level for this expander.

Zone Test - the function allows to check which of control panel zones used are violated when the test is carried out. After the function is called, the display shows the text *"New"* – press key [#] or ▶ to start the function of registration of zone violations. Subsequent calling of this function by the same user makes accessible the function *"Result review"* - press key [#] or ▶ to open the list containing the number of zone, zone name and information on whether it was violated at least once

during the time the test was carried out. Next pressing of the key ▶ changes the descriptive mode of the test result display to the graphical mode. In the latter mode, the following information is displayed:

· - zone was not violated,

● - zone was violated.

The duration of the test is unlimited. Test results are accessible for the user, who started the function. The user is allowed to test the zones in these partitions, to which he has access.

*Note: Calling the **new** test function by the user cancels the test previously started by another user.*

Manual test transmission - the function generates the event, which starts the procedure of message transmission to the monitoring station.

Monitoring station test (1A,1B,2A,2B) - the function makes possible to carry out the test transmission to the monitoring station (to each accessible telephone number separately). The test transmission is carried out with tracing the data transmission process at the same time. The messages at the keypad display inform on current activity. In practice, the function is used by the installer when starting communication with a monitoring station.

Answering test – if started when answering the phone call, the function displays information on the number of rings received by the control panel, and on answering the phone call.

Viewing masters - the function is accessible for the master user only. It allows checking, for which objects the master users are created. It allows to control the number of users, who are able to give permission to access the system in the service mode.

Keypad name – the function shows on display the name of particular keypad (default or installer assigned).

File in Dload 64 – the function displays the date and time of writing the computer data (DLOAD64 program) to the control panel as well as the name of data file.

Panel version - the function shows the current control panel firmware version number at the keypad screen.

No additional message is displayed at the time of exiting the function.

Service access

The function allows the installer to access the system by means of the service code. It is accessible in the master user menu only. It requires data entering – number of hours, when the alarm system will be at installer's (service) disposal. The access to the system is blocked after this time elapses.

Typing "zero" with this function (in place of number of hours), when service access is opened, automatically blocks the access.

Access time is counted down whether the service mode is started or not. Access time counting down may be interrupted by power supply disconnection (mains 230V and battery) only. With this function you can check how much time is left (from the access time limit given by the master user) – indication „00" means that the last hour is being counted down.

Outputs control

This function permits control (activation/deactivation) of individual outputs of MONO SWITCH, BI SWITCH, or REMOTE SWITCH types, and, through these outputs, control of particular devices. The function is accessible to the users with control authority level.

The installer assigns the control outputs, respectively, to one of four groups. Each of the groups can be assigned a suitable name. Having called the function, the user must select the corresponding group, then he will be allowed by the control panel to control the outputs belonging to the given group. The ▲ ▼ keys are used for scrolling through the list of outputs assigned to the given group. Pressing the key [#] or ▶ releases the control (i.e. activates for a set time the MONO SWITCH or changes the state of the BI SWITCH) of the control panel output shown on the display. Activation of the output is confirmed with four short and one long beeps, and deactivation - with three short beeps.

Situated on the right side of the output name, in the last field of the actual display line, is a symbol of the output status or the controlled device status (service setting). The output/device status is indicated by the following characters:

- ▪ - output/device inactive (off)
- ● - output/device active (on)

The control can take place repeatedly by calling the function within one group. In order to control outputs of another group, press the ◀ key, and to quit the function - press [∗].

Notes:

- *The master code has no access to the control of the REMOTE SWITCH output types.*

- *If a particular operation time is set for the REMOTE SWITCH output, the output behaves like the MONO SWITCH - it is active throughout the preset time and deactivates after the time is expired. The status of such an output should be displayed in keypad through the zone connected to it.*

Service mode

The function starts a special control panel operation mode. The list of service mode function displays. The control panel does not signal alarms from most of zones (including tamper alarms), it responds to violation of some zones armed for 24 hours and alarms from partition keypads and coded locks (functions of long-time key pressing). In this operation mode, the control panel programming is possible with the use of program **DLOAD64** via RS port (at the main board) and via the telephone line). The control panel remains in the service mode until exiting it with function *„End of SM (service mode)"* (entry in the list of service functions).

The function is accessible after unlocking service access by the master user and entering the service code.

Take SM over

The function makes possible to switch over the operation control of the control panel being in the service mode to the keypad other than the one, from which the service mode has been called. The function is accessible for service only. It is intended for use in large objects, where several keypads are installed – the function facilitates installer work.

Downloading

The function, which starts communication with the service computer. It allows installer to program the alarm system by means of the computer and the service program DLOAD64. It is possible to start direct communication via RS port, as well as indirect communication via the telephone line (with the use of either external or internal modem). To start a telephone call it is necessary to program the service computer telephone number.

8. APPENDIX A

LIST OF MESSAGES DISPLAYED IN KEYPAD WHEN VIEWING THE TROUBLES:

`OUT[n] trouble:`	[n] =1-4	number of control panel output
`Keypad supply trouble`		
`Expander supply trouble`		
`System battery trouble`		
`System AC (230V)trouble`		
`Data bus DAT1 trouble`		
`Data bus DAT2 trouble`		
`Keypad data bus trouble`		
`System real-time clock trouble`		
`No DTR signal on RS printer port`		
`Addr. zones exp. data bus trouble`		
`Modem initiation error`		
`Modem answers ERROR AT...`		
`No voltage on telephone line`		
`Broken tone on telephone line`		
`No tone on telephone line`		
`1st monitoring station trouble`		
`2nd monitoring station trouble`		
`24C02 EEPROM memory error`		
`CRC error in RAM memory`		
`Addr. zones exp. output overload`		
`No 230V vis.m.[n]:`	[n]=0-7	number of synoptic board on keypad bus
`No batt vis.m.[n]:`	[n]=0-7	number of synoptic board on keypad bus
`No keypad No[n]:`	[n]=0-7	keypad number
`Changed keyp.[n]:`	[n]=0-7	keypad number
`Trouble zone[n]:`	[n]=1-64	zone number
`Long viol. z.[n]:`	[n]=1-64	zone number
`No violat. z.[n]:`	[n]=1-64	zone number
`No 230V exp.[n]:`	[n]=0-63	expander number
`No batt exp.[n]:`	[n]=0-63	expander number
`Overload exp.[n]:`	[n]=0-63	expander number
`No expander [n]:`	[n]=0-63	expander number
`Changed exp.[n]:`	[n]=0-63	expander number
`Reader A exp.[n]:`	[n]=0-63	expander number
`Reader B exp.[n]:`	[n]=0-63	expander number

9. APPENDIX B

EXPLANATION OF SOME TECHNICAL TERMS

All definitions are valid for the alarm system based on control panel CA-64.

|	
STARTER	The program activated in the control panel after power supply switching on, the purpose of which is to check correctness of the basic program stored in FLASH memory and make possible to load a new control panel firmware version into this memory.
FLASH memory	The memory, where the control panel basic program is stored. It is cleared electrically, and its contents may be changed with the use of computer.
2402 memory	Additional non-volatile memory, where important system parameters are stored (for example, master user codes, etc.).
DLOAD64	Computer program that enables programming of control panel settings with the use of computer, so called service program.
GUARD64	Computer program that enables operation of the alarm system with the use of computer, so called user program.
object	The group of partitions being an independent alarm system. Eight groups of this type may be created on the basis of control panel CA-64.
partition	The group of zones supervising separated part of object; arming and disarming is carried out simultaneously for the group. The alarm control panel CA-64 allows creating of 32 independent partitions.
zone	Pair of contacts at the control panel main board or module board (connected to the control panel by means of bus), to which the detectors are connected. The control panel monitors detector statuses via the zone. Monitoring of 64 zones is possible.
zone violation	Change of zones status when the detector is activated (for example: zone contact opening or shortening, change of detector parametric resistance).
output	Pair of contacts at the control panel main board or expander module boards, where the voltage is controlled by the control panel. It is possible to control 64 outputs (including relay outputs).
relay output	Electromagnetic switch located at the expander board, controlled (switched over) by the control panel.
bus	The group of wires, to which the modules operating with control panel main board are connected. The control panel CA-64 is provided with three buses. One bus is used for connecting LCD keypads, and two buses – for connecting expanders.
expander	Electronic device which extends control panel features. There are expanders to increase number of control panel zones or (and) outputs. Also, partition keypads, code locks and proximity card readers are included. It is possible to connect up to 64 expanders to the control panel.

10. APPENDIX C

This appendix contains descriptions of **examples** of activities to be carried out when calling some user functions. Since the **user function menu** depends on programming by the installer and specific user authorization, texts shown here are for orientation only and may be slightly different in practice.

Example 1: ARMING (part I)

- partition No. 2 named "Book-keeping", belonging to the object 1; user – the master user.

[1][1][1][1][*]   Enter a user code (the factory set master code for the object 1). Also, you can enter the code of any user, who has access to the partition 2 and authorization for arming.
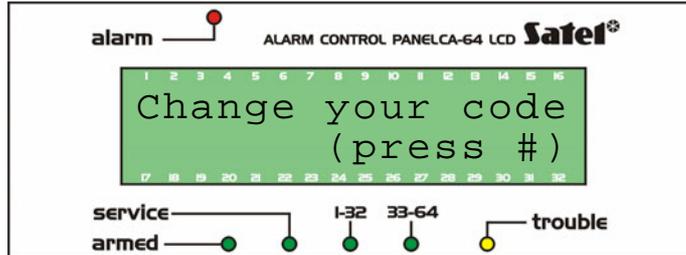
This message is displayed when the user has the right to change the code and **should** make this change (see *User Manual, CA-64*, description of function *Change own code*).

[#]   Confirm the message.
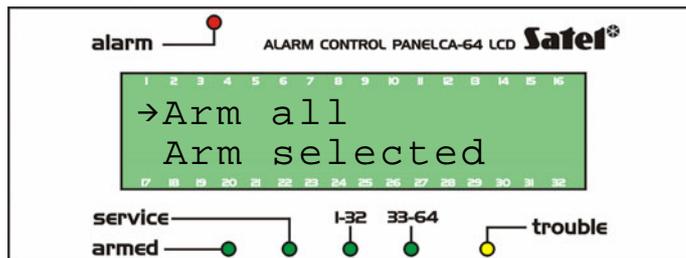
If you press key [#] or ▶, all partitions accessible for the user will be armed.

Note: *If some of partitions accessible for the user are already armed, the control panel will make available the functions of **disarming** only, but if just one partition is armed, it will be disarmed. To arm the remaining partitions, first call the user function menu by typing [CODE][*] (see continuation of the example: ARMING (part II) below).*

▼   Function **Arm selected** marked

▶ or [#]   Calling the function.
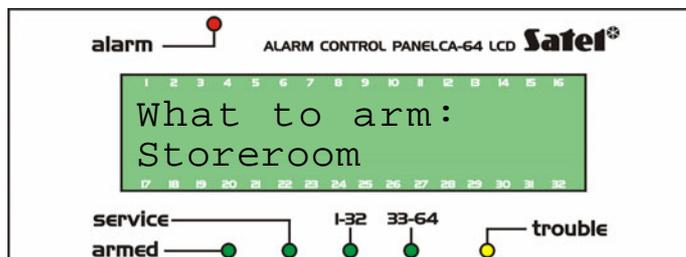
▼ or ▲   Scroll the list with partition names. Press one of these keys so many times as you need to display the name of the partition required (partition 2 – **Book-keeping**).

After the function is called, the control panel displays partition names (factory set or entered by the installer), which the user may arm. Press key ▶ to move to the **graphical mode** of partition selection.

[3]   Mark the partition selected for arming (Y mark at the right-hand side of the display) using any numeric key.
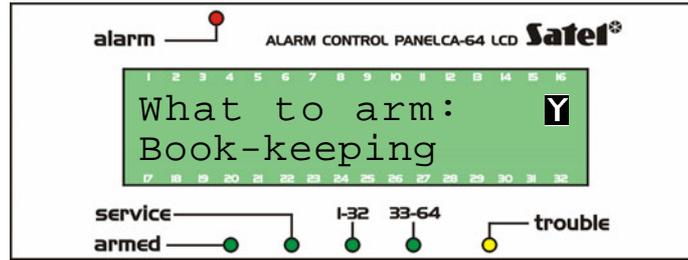
You may select for arming (mark) any number of partitions accessible to you. Also, you may cancel marking for partitions selected earlier.

[#]   End of selection and arming of all marked partitions.
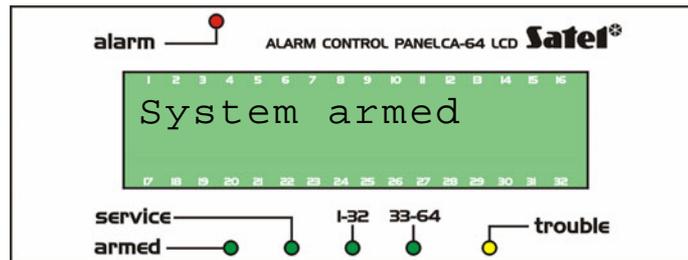
When this message appears, counting down time for leaving is started in the armed partitions.

GRAPHICAL MODE

There are two ways of selecting the partitions for arming:

- using names – as described above,
- using partition numbers – in the graphical mode described below.

This is the mode for the user who knows numbers of partitions in the alarm system, or the user, who wants to check quickly how many of zones are not armed yet.

► ◄   These keys are used to select partitions in the graphical mode.

▲ ▼   These keys are used to select partitions in the basic mode (using partition names).
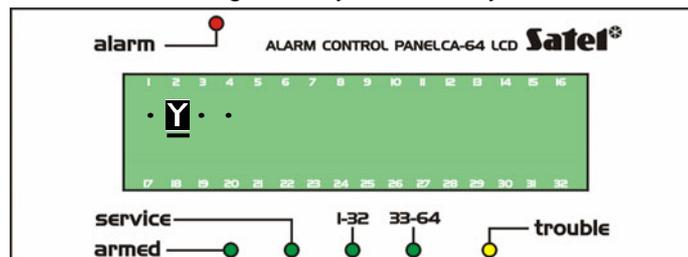
It is possible to switch over between modes as many times as necessary.
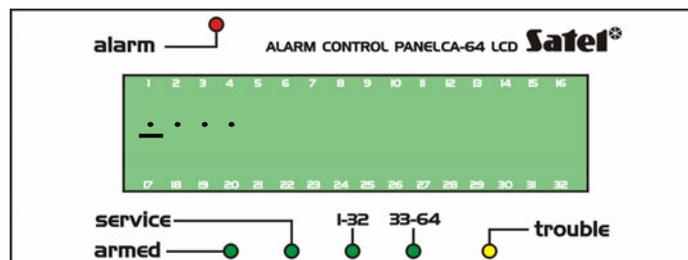
Dots next to numbers 1-32 indicate partitions, which may be armed (1, 2, 3 and 4). The cursor under a dot allows to select the partition, which may be marked for arming.

►   Move cursor under the 2nd partition field.

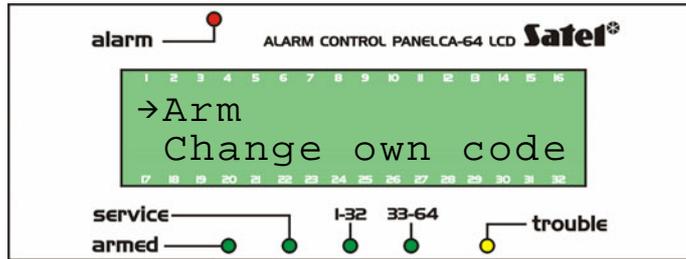[3]   Mark the partition for arming with any numeric key.

Pressing the key [#] after selection of partition makes it armed, independently of the display mode.

ARMING (part II)

- with the use of all user function menus accessible.

[1][1][1][1][*]   Enter code – calling the user function menu.

[#] or ▶   Select the function marked with arrow – moving to the stage of partition selection for arming as described in details in the first part of this example.

Note: *When all partitions accessible for you are armed, the function **Arm** will not be shown in the menu (on the keypad display). If some partitions in the object are already armed, the following texts will appear on the display:*
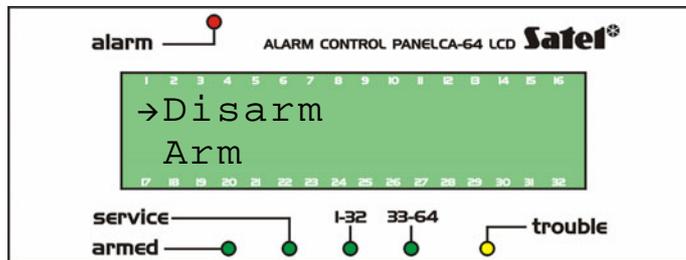
In this situation, perform as follows:

▼   Indication of the function **Arm.**

[#] or ▶   Select the function marked with arrow - moving to the stage of partition selection for arming, as described in details in the first part of this example.
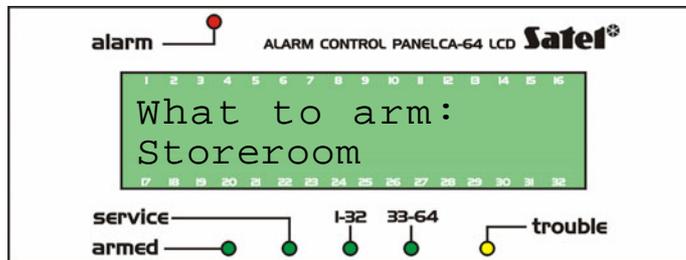
If we assume (in this example) that the partition 2 (Book-keeping) has been already armed, after calling the function **Arm** again and entering the graphical mode of partition selection the following display will be shown:
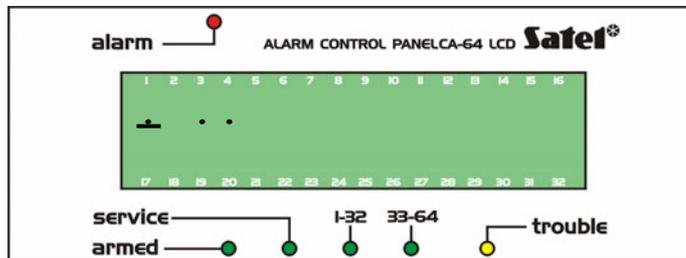
Now, partitions 1, 3 and 4 may be armed.

Example 2: DISARMING (part I)

- partition No. 2 named "Book-keeping", belonging to the object 1; user – the object master.

Note: *The function is available only when at least one of partitions accessible for the user is armed.*

[1][1][1][1][*]   Enter the user code (factory set master user code for the object 1).

Also, you can enter the code of any user, who has access to partition 2 and authorization for disarm.
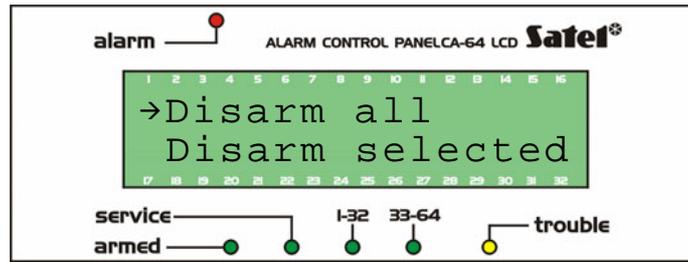
When you press key [#] or ▶ all partitions armed and accessible for the user will be disarmed.

Note: *If only one partition is armed, it will be disarmed just after pressing key [#] (together with displaying the end message). If an alarm is signaled for the partition, it may be cleared together with disarming.*

▼   Indication of the function **Disarm selected.**

▶ or [#]   Calling of the function.
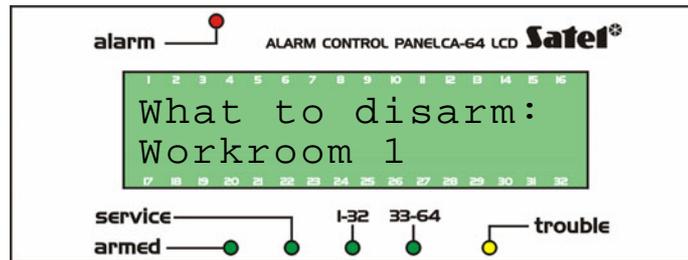
▲ or ▼   Scroll the list with partition names. Press one of these keys so many times as you need to display the name of the partition required (partition 2 – **Book-keeping**).

After the function is called, the control panel displays partition names (factory set or entered by the installer), which the user may disarm. Press key ▶ to move to the **graphical mode** of partition selection (selection in the graphical mode is carried out in a way identical with arming).

[3]   Mark the partition selected for disarming (☒ mark at the right-hand side of display) using any numeric key.
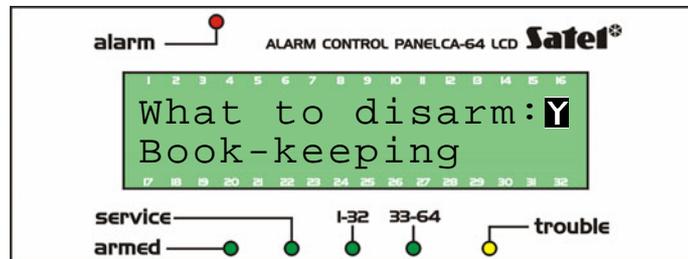
You may select for disarming (mark) any number of partitions accessible for you. Also, you may remove marking for partitions selected earlier.

[#]   End of selection and disarming of all partitions marked.
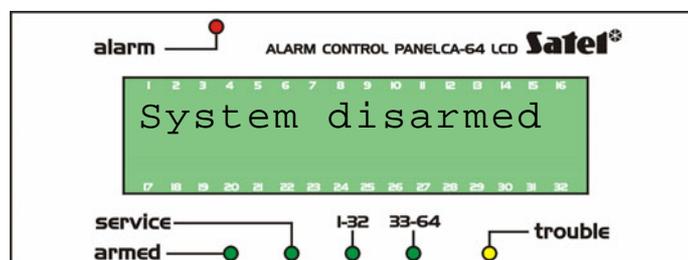
ARMING (part II)

- with the use of all user function menus accessible.

[1][1][1][1][∗]   Type code – calling the user function menu.

[#] or ▶   Select the function marked with arrow – moving to the stage of partition selection for disarming, as described in detail in the first part of this example.
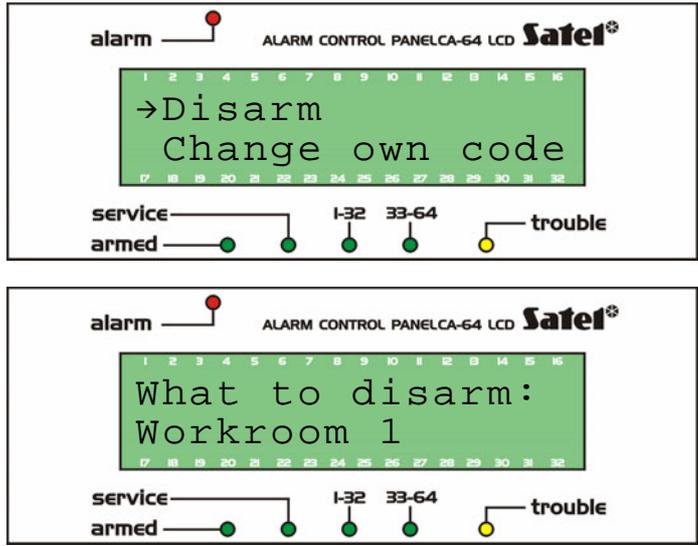
Note: *If only some partitions in the object are armed, the following texts appear at the display:*
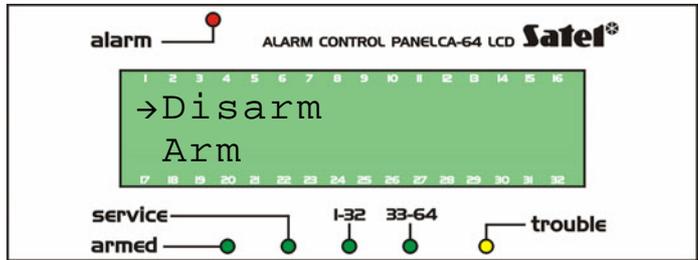
Performance in this situation should be identical as when all partitions are armed.

If we assume data from the example presented earlier, the following picture may be shown at the keypad screen being in the graphical mode of partition selection:
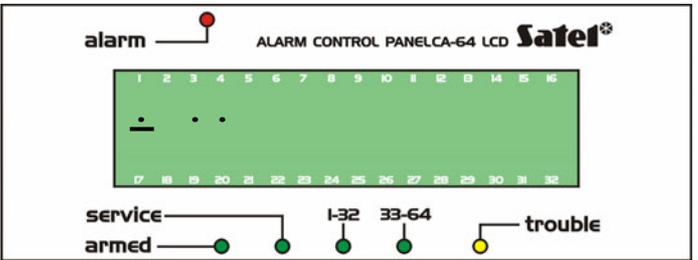
Example 3: ZONE BYPASSING

- bypass zone No. 4 named **Entrance door** and zone No 49 named **PIR secr.office**; the user code: 38407.

[3][8][4][0][7][∗]   Type code – calling the user function menu.
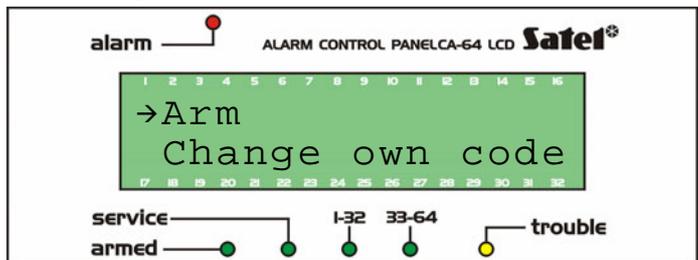
The use of most user functions (except functions called with longer pressing of a single key and the function of quick arming) starts with entering code and pressing key [∗] (or [#] - example 1 and 2).

▼ or ▲   Scroll the list with accessible function names. Press one of these keys so many times as you to display the name of proper user function next to the arrow.
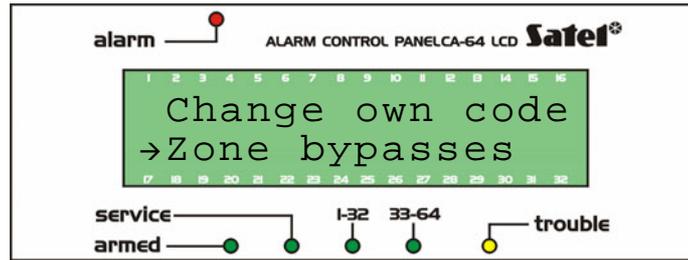
[#] or ▶   Select function indicated with arrow – moving to the stage of zone (detector) selection to be bypassed.
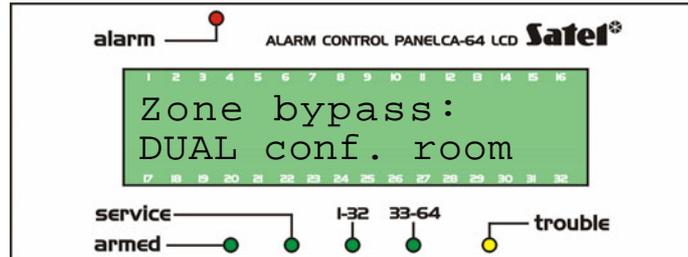
▼ or ▲   Scroll the list with zone names. Press one of these keys so many times as you need to display the name of the first zone to be bypassed (**Entrance door**) next to the arrow.
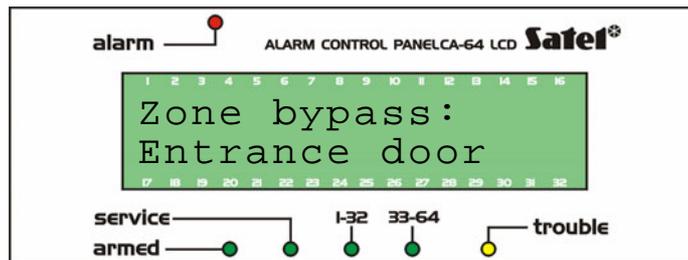
[9]   Mark the zone selected for bypassing (Y mark at the right-hand side of display) using any numeric key.
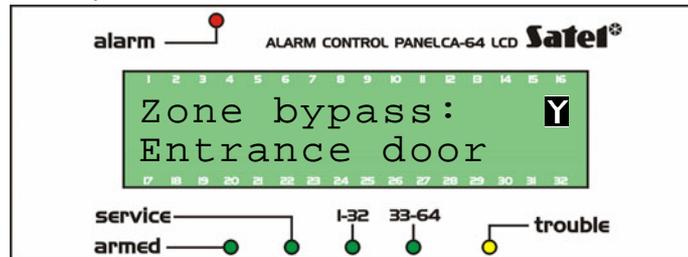
▼ or ▲   Scroll the list with zone names to select next zone (detector) for bypassing (**PIR secretary office**).

[9]   Marking of the zone selected for bypassing.
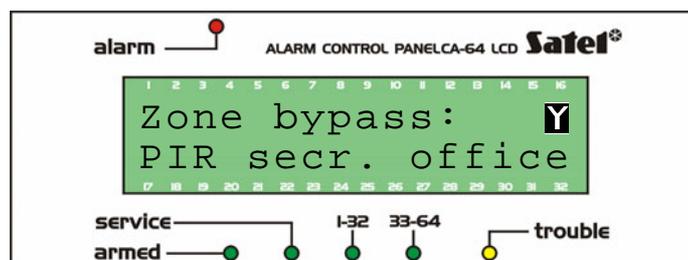
[#]   End of selection and bypassing of status monitoring for all zones (detectors) marked.
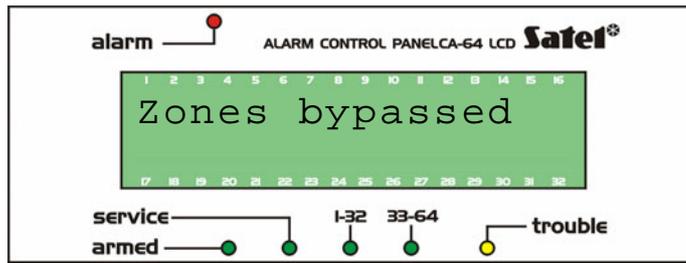
Note: *Zone bypass is cancelled after disarming of the partition, to which the bypassed zones belong.*

Example 4: ZONE STATUS VIEWING

- call function by long keeping pressed of the key [1].

[1]   Call the function of control panel zone status viewing. Keep pressed the key for approximately 3 seconds – information on first 32 system zones will be shown in the graphical mode display.
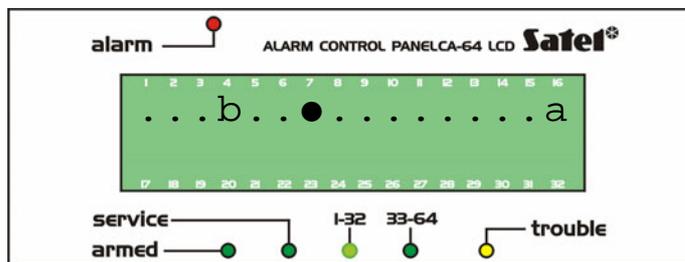
The LED 1-32 being ON indicates the set of zones, the status of which is shown on the display. Symbols representing zone status are described in the *User Manual. CA-64* – description of function *Tests.*

▶   Move to the second zone set display, zones 33-64. Use any arrow key to do that. You may switch over between zone sets as many times as needed.
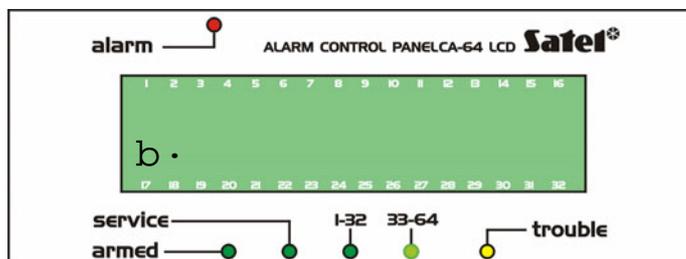
The LED 33-64 being ON indicates the set of 33-64 zones, the status of which is shown on the display. Add 32 to the number next to the zone symbol (numbers around the display) to obtain the zone number.

[*]   Termination of the function.

Functions of LCD keypad keys and LEDs (see pages 7 - 10 for detailed description).

1] to **[6]** - keep pressed for 3 seconds to get **access to the viewing functions**
[1] - zone status viewing
[2] - keypad tampers viewing
[3] - expander tampers viewing
[4] - partition armed status viewing
[5] - alarm memory viewing
[6] - trouble memory viewing
  (see: descriptions of functions TESTS and EVENTS)

[8] - when pressed for 3 seconds, gong signalling in KEYPAD is switched on/off

[7] - when pressed for 3 seconds, **a message on currently detected trouble** is displayed

[*] - when pressed for 3 seconds, **FIRE ALARM** is activated
[CODE]+[*] - call for the user function menu
[CODE][*][1] – change own code
[CODE][*][2] – users/masters
[CODE][*][4] – zone bypasses
[CODE][*][5] – events
[CODE][*][6] – set time
[CODE][*][7] – troubles
[CODE][*][8] – outputs control
[CODE][*][9] – service mode
[CODE][*][0] – downloading

[0] - when pressed for 3 seconds, **AUXILIARY ALARM** is activated

LCD display:
 date and hour;
 partition status (p. 38)

ALARM
- steady light – alarm in the operated partition
- blinking light – alarm memory for the partition

[#] - when pressed for 3 seconds, **PANIC ALARM** is activated
 [0]+[#]- arming
[CODE]+[#] -arming/disarming

[9] - press and hold for 3 sec. to change partition status display mode: selected / all

TROUBLE – indicates detection of a technical problem in the system – to check, press and hold key [7] for 3 seconds

ARMED
– steady light – all partitions operated by the keypad are armed.
- blinking light – some partitions are armed.

SERVICE – blinking informs that the service mode is activated

1-32 - zones 1-32 or the first expander bus

33-64 - zones 33-64 or the second expander bus

▲▼ - press and hold for 3 sec. to scroll through names of zones which triggered an alarm

◄ ► - press and hold for 3 sec. to scroll names of partitions where alarm has occurred;
Press briefly to view names of partitions shown on display.

CONTROL PANEL
CA-64

ALARM
TROUBLE
ARMED
SERVICE
ZONES 1-32 1-64
33-64

29 Dec, 12:39:44
cc···w··● b

1] to **[6]** - keep pressed for 3 seconds to get **access to the viewing functions**
[1] - zone status viewing
[2] - keypad tampers viewing
[3] - expander tampers viewing
[4] - partition armed status viewing
[5] - alarm memory viewing
[6] - trouble memory viewing
   (see: descriptions of functions TESTS and EVENTS)

ALARM
- steady light – alarm in the operated partition
- blinking light – alarm memory for the partition

LCD display:
   date and hour;
   partition status (p. 38)

1-32 - zones 1-32 or the first expander bus

33-64 - zones 33-64 or the second expander bus

SERVICE – blinking informs that the service mode is activated

TROUBLE – indicates detection of a technical problem in the system – to check, press and hold key [7] for 3 seconds

ARMED
– steady light – all partitions operated by the keypad are armed.
- blinking light – some partitions are armed.

◄ ► - press and hold for 3 sec. to scroll names of partitions where alarm has occurred;
Press briefly to view names of partitions shown on display.

▲▼ - press and hold for 3 sec. to scroll through names of zones which triggered an alarm

[7] - when pressed for 3 seconds, **a message on currently detected trouble** is displayed

[9] - press and hold for 3 sec. to change partition status display mode:
         selected / all

[*] - when pressed for 3 seconds, **FIRE ALARM** is activated
[CODE]+[*] - call for the user function menu
[CODE][*][1] – change own code
[CODE][*][2] – users/masters
[CODE][*][4] – zone bypasses
[CODE][*][5] – events
[CODE][*][6] – set time
[CODE][*][7] – troubles
[CODE][*][8] – outputs control
[CODE][*][9] – service mode
[CODE][*][0] – downloading

[8] - when pressed for 3 seconds, gong signalling in KEYPAD is switched on/off

[0] - when pressed for 3 seconds, **AUXILIARY ALARM** is activated

[#] - when pressed for 3 seconds, **PANIC ALARM** is activated

       [0]+[#]- arming
[CODE]+[#] -arming/disarming

ALARM CONTROL PANEL CA-64 LCD Satel

14 Nov, 13:26:41

alarm   service   1-32   33-64   trouble   armed

1   abc 2   def 3
ghi 4   jkl 5   mno 6
pqrs 7   tuv 8   wxyz 9
*   0   #

11. HISTORY OF THE MANUAL UPDATES

Given below is a description of changes in the manual contents as compared with the v1.04.02 firmware.

Date	Version	Changes
March 2004	1.04.03	Illustration of the CA-64 KLCD-S keypad has been added (p. 8) Description of the keypad displayed data has been supplemented (p. 9). Notes have been added in section „*System Armed Mode*", p. 20. Information on the option to arm the system after entering the code and pressing the arrow key has been added (p. 22). Operation of the „*Arm... / Disarm (2 codes)*" function has been changed (p. 29). „*Cancel 1st code"* function has been added (p. 31). The note on access to blocked partitions has been corrected (p. 33). A note on the list of active rights assigned to a new user has been added (p. 33). New functions have been added in the submenus „*Tests*": „*Answering test*" and „*File in Dload 64*" (p. 40). Description of the „*Outputs control*" function has been supplemented (p. 41). Lists of messages in Appendices A and B have been supplemented. Examples of symbols indicating partition status on display have been included (p. 38)
July 2004	1.04.04	A note regarding the existence of telephone code has been added (p. 19). Information on controlling the partition armed mode by means of output has been supplemented (p. 22). A full menu of user functions has been developed (p. 24). A note regarding the partition selection list has been added in the description of „*Arm*" and „*Disarm*" functions (p. 29). Section „*Summary*" has been deleted. The appendix on messages to be displayed in keypad when viewing events has been deleted. Description of the „*No expanders tamper alarms*" function has been added (p. 38)