

Alarm Control Panels

**VERSA**

Program version 1.00

# PROGRAMMING

**Satel**   
GDAŃSK



The SATEL's goal is to continually upgrade the quality of its products, which may result in alterations of their technical specifications and firmware. The current information on the introduced modifications is available on our website.

Please visit us:

<http://www.satel.pl>

## CONTENTS

<b>1. Control Panel Firmware Replacement</b> .....	<b>3</b>
1.1 Firmware replacement using the service function .....	3
1.2 Firmware replacement without entering the service mode .....	3
<b>2. Programming</b> .....	<b>4</b>
2.1 Keypad .....	4
2.1.1 Starting the service mode .....	4
2.1.2 Starting the service mode "from pins" .....	4
2.1.3 Access to functions by using arrow keys .....	5
2.1.4 Access to functions by using numerical shortcuts .....	5
2.1.5 "Step by step" programming method .....	6
2.1.6 Service mode menu .....	6
2.1.7 Entering data by means of the VERSA-LCD-GR keypad .....	11
Selection from the single-choice list .....	11
Selection from the multiple-choice list .....	11
Entering decimal values .....	11
Entering hexadecimal values .....	11
Programming telephone numbers .....	11
Entering names .....	12
2.1.8 Entering data by means of the VERSA-LED-GR keypad .....	13
Selection from the single-choice list .....	13
Selection from the multiple-choice list .....	13
Entering decimal values .....	13
Entering hexadecimal values .....	15
Programming telephone numbers .....	15
2.1.9 Quitting the service mode .....	16
2.2 DLOADX program .....	16
2.2.1 Main menu of the DLOADX program .....	16
2.2.2 Changing the program access code .....	18
2.2.3 Parameters related to programming by means of the DLOADX program .....	18
2.2.4 Starting local programming without verification of identifiers .....	19
2.2.5 Starting local programming with verification of identifiers .....	19
2.2.6 Starting local programming "from pins" .....	19
2.2.7 Finishing local programming .....	20
2.2.8 Starting remote programming via modem .....	20
Configuring settings of modem connected to computer .....	20
Initiating connection from the DLOADX program .....	20
Initiating connection from the DLOADX program, but with the control panel calling back and establishing connection .....	21
Initiating connection by the control panel .....	21
<b>3. Global Parameters</b> .....	<b>22</b>
3.1 Global options .....	22
3.2 Global times .....	24
<b>4. Partitions</b> .....	<b>24</b>
4.1 Partition parameters .....	25
<b>5. Zones</b> .....	<b>27</b>
5.1 Numeration of system zones .....	28
5.1.1 Hardwired zones .....	28
5.1.2 Wireless zones .....	28
5.2 End of line resistors .....	28
5.3 Zone parameters .....	28
5.4 Types of reaction .....	31
5.5 Zone options .....	32
<b>6. Outputs</b> .....	<b>34</b>
6.1 Numeration of outputs in the system .....	34
6.1.1 Hardwired outputs .....	34

---

6.1.2	Wireless outputs .....	34
6.2	Output functions .....	34
6.3	Output parameters .....	35
6.4	Output options .....	37
6.5	Quick control of outputs .....	38
<b>7.</b>	<b>Programming Keypads and Expanders .....</b>	<b>39</b>
7.1	VERSA-LCD-GR / VERSA-LED-GR keypad .....	40
7.2	ABAX wireless system controller .....	41
7.2.1	Parameters of ABAX system wireless devices .....	43
7.2.2	Wireless detectors – general programming rules .....	44
7.2.3	Wireless sirens – general rules of programming .....	44
7.2.4	Wireless expanders of hardwired zones and outputs – general rules of programming .....	45
7.2.5	230 V AC wireless controllers – general rules of programming .....	46
7.2.6	Configuration of wireless devices by means of the DLOADX program .....	46
7.2.7	Configuration of wireless devices by means of the LCD keypad .....	48
7.3	Proximity card reader .....	50
<b>8.</b>	<b>Timers .....</b>	<b>51</b>
<b>9.</b>	<b>Reporting .....</b>	<b>52</b>
9.1	Reporting parameters and options .....	53
9.2	Event codes .....	55
9.3	Starting the reporting .....	55
<b>10.</b>	<b>Messaging .....</b>	<b>56</b>
10.1	Messaging parameters and options .....	57
10.2	Event assignment .....	57
10.3	SMS/Pager messages .....	57
10.4	Starting the messaging .....	57
<b>11.</b>	<b>User Schedules .....</b>	<b>58</b>
11.1	Parameters of the user schedule .....	58
11.2	Functions assigned to key fob .....	60

# 1. Control Panel Firmware Replacement

---

This manual applies to the control panels with firmware version 1.00. If a newer version of firmware is available on our [www.satel.pl](http://www.satel.pl) website, an update of the control panel firmware is possible. For this purpose, the control panel RS-232 (TTL) port (RJ type socket) should be connected to the computer COM port (DB9 type socket) with the SATEL made cable which is included in the DB9FC/RJ-KPL set.

## Notes:

- From the moment of establishing communication between the control panel and the firmware updating program, the control panel will not execute its normal functions until the firmware replacement procedure is completed.
- If, for whatever reason, the firmware replacement procedure is abruptly terminated (e.g. because of power failure) and, as a result, the control panel firmware gets damaged, the control panel will not start normally, but will be waiting for the firmware replacement to begin.

## 1.1 Firmware replacement using the service function

---

1. Enter the **service code** on the keypad (by default: 12345) and press the  key.
2. Press in turn the      keys to start the service mode.
3. Press in turn the       keys (the STARTER function will start). The "Run updating program on PC..." message will be displayed. The control panel will be waiting until communication with the firmware updating program is established (press the  key to terminate operation of the STARTER function).
4. Start the control panel firmware update program in the computer.
5. Click on the  button.
6. A window will open where you should indicate the computer COM port to which the control panel is connected and press the "OK" button. The firmware updating program will establish communication with the control panel.
7. Information will be displayed showing the version of firmware installed on the control panel and available in a file (version, compilation date, language) and a window will open, prompting whether you would like to continue. If the firmware is to be replaced, press "Yes" to begin the control panel firmware replacement.

## 1.2 Firmware replacement without entering the service mode

---

1. Start the control panel firmware update program on the computer.
2. Click on the  button.
3. A window will open where you should indicate the computer COM port to which the control panel is connected and select the RESTART field.
4. Power down the control panel (first switch off the 230 V AC circuit to which the control panel transformer is connected, and then the battery).
5. Power up the control panel (first switch on the battery, and then the 230 V AC circuit to which the control panel transformer is connected).
6. Information will be displayed showing the version of firmware installed on the control panel and available in a file (version, compilation date, language) and a window will open prompting whether you would like to continue. If the firmware is to be replaced, press

"Yes" (the control panel will only wait 10 seconds after power-up for the firmware replacement to begin). Then the replacement of control panel firmware will start.

## 2. Programming

The alarm control panel may be configured for operation by using the keypad (locally) or the computer with the DLOADX program installed (locally and remotely).

### 2.1 Keypad

Programming is only possible when the control panel is accessible to the service. By default, the PERMANENT SERVICE ACCESS option is enabled ([code]\* ►0. SERVICE ►5. PERM. SV. AC). After the installation is completed, the user having the DOWNLOAD/SERVICE privilege can disable the PERMANENT SERVICE ACCESS option and define each time the duration of service access to the control panel ([code]\* ►0. SERVICE ►6. ACCESS TIME).

Programming the control panel from keypad is carried out by using the functions grouped in the service mode menu. Access to the menu, submenus and particular functions is facilitated by numerical shortcuts. In case of the LED keypad, programming is subject to some limitations (e.g. entering names is impossible). **SATEL recommends that the LCD keypad be used for programming the control panel.**

The service mode is indicated on the keypads by means of the blue  LED. The  LED is lit on the keypad in which the service function menu is available, while it is blinking on all the other keypads connected to the control panel. The service mode may also be signaled acoustically, after the corresponding option is enabled. Additional information is provided by the  LED, which is:

- blinking during navigation throughout the menu and submenus;
- lit when any service function is running.



**When in the service mode, the alarm system signals no alarms.**

#### 2.1.1 Starting the service mode

1. Enter the **service code** (by default: 12345) and press the  key.
2. Press in turn the     keys to start the service mode.

#### 2.1.2 Starting the service mode "from pins"

If entering the service mode in the normal way is impossible, you can use the emergency hardware procedure, so-called starting "from pins".

1. Power down the control panel (first, switch off power in the 230 V AC circuit, to which the control panel transformer is connected, and then disconnect the battery).
2. Place a jumper across the RESET pins on the control panel mainboard.
3. Power up the control panel (first, connect the battery, and then switch on power supply in the 230 V AC circuit, to which the control panel transformer is connected).
4. Wait a few seconds and remove the jumper from the RESET pins.
5. On the keypad with the lowest address, the  LED will light up and the  LED will start blinking, indicating that the service menu is available on the keypad (in case of the LCD keypad, the menu will be displayed). On the other keypads, the  LEDs will start blinking.



If the **SERVICE MODE FROM RESET PINS** option is disabled in the control panel (see: Section GLOBAL OPTIONS) then, depending on the type of keypad in which the lowest address is set:

- LCD: the , and LEDs of the second partition will be lit, and the message "Restore factory settings ? 1=Yes" will come up on the display;
- LED: the and LEDs of the second partition will be lit and the LED will be blinking rapidly.

Pressing the key with digit 1 will reset the control panel to its factory settings, but will enable entering the service mode.

### 2.1.3 Access to functions by using arrow keys

This way of starting the function is only available in the VERSA-LCD-GR keypad.

1. Use the and keys to find the required submenu (the shape of submenu cursor is: ).
2. Press the or key to enter the submenu (use the key to return to the previous menu/submenus, and the key to return to the main menu).
3. Repeat the steps described in 1 and 2 until you find the required function (the shape of submenu indicating cursor is: ). Press the or key to start the function.
4. When entering new settings, accept them using the key and return to the submenu. Press the key to cancel entering the new settings and return to the submenu.

### 2.1.4 Access to functions by using numerical shortcuts

This way of starting the function is available in both types of keypads supported by the VERSA control panels (VERSA-LCD-GR and VERSA-LED-GR). All submenus and functions are numbered. In order to enter a submenu, just press the key with number corresponding to the submenu number. In order to start a function, press the key with number corresponding to the function number, and then the key. You can quickly start the selected function by entering at once a sequence of some digits (corresponding to the consecutive submenu numbers and the function number) and confirming them by pressing the key.

For example, to start the expander identification function, first enter the service mode and then press in turn the keys, where:

- |  |                                  |
|--|----------------------------------|
|  | - enter submenu 2. HARDWARE;     |
|  | - enter submenu 1. KPDS & EXPS.; |
|  | - start function 1. IDENTIFICAT. |

In the VERSA-LCD-GR keypad, use the key to return from a submenu to the main menu or from a function to a submenu, and use the key to return from a submenu to the previous menu/submenu.

In the VERSA-LED-GR keypad, use the key to return to the main menu.

#### Notes:

- When using the numerical shortcuts, remember that the sequence of digits which starts a function e.g. from the service mode main menu level will not start the same function from the submenu level.
- In the LCD keypad, the shape of the submenu cursor is: , and that of the function indicating cursor is: .

## 2.1.5 "Step by step" programming method

Some components of the system (e.g. zones, outputs, expanders, wireless devices, event codes for monitoring, etc.) should be programmed using the "step by step" method. When the function is called up and the component to be configured selected from the list, the first parameter available for programming will be displayed. After it has been configured and confirmed by pressing the   key, you will automatically proceed to programming a next parameter. The confirmed parameter is saved to the control panel memory. After all available parameters are configured, return to the submenu follows in the VERSA-LCD-GR keypad, and to the main menu in the VERSA-LED-GR keypad. The programming can be terminated at any moment by using the   key (you will return to the submenu). The  and  LEDs of the first and second partitions show the programming step number in binary mode (see: page 14 Table 4).

## 2.1.6 Service mode menu

Shown in square brackets are sequences which enable calling up a particular submenu or starting a particular function from the main menu level.

### 0. SrvMod config

- [00#] 0. Quit SrvMod
- [01#] 1. VERSA id.
- [02#] 2. DloadX id.
- [04#] 4. DloadX tel.
- [06#] 6. SrvMod opt.
- [07#] 7. Restore all
- [08#] 8. Default usr.
- [09#] 9. STARTER

### 1. Partitions

- [11#] 1. Part. 1 zones
- [12#] 2. Part. 2 zones
- [13] 3. Part. 1 times
  - [131#] 1. Exit delay
  - [132#] 2. Entry delay
  - [133#] 3. Warning
  - [134#] 4. Verification
  - [135#] 5. Autoarm delay
  - [136#] 6. A-arm defer
- [14] 4. Part. 2 times
  - [141#] 1. Exit delay
  - [142#] 2. Entry delay
  - [143#] 3. Warning
  - [144#] 4. Verification
  - [145#] 5. Autoarm delay
  - [146#] 6. A-arm defer
- [15#] 5. Part. 1 name
- [16#] 6. Part. 2 name
- [17#] 7. Part. options

### 2. Hardware

- [21] 1. Kpds. & exps.
  - [211#] 1. Identificat.
  - [212#] 2. Settings
  - [213#] 3. ACU-100
    - [213#1#] 1. New device.
    - [213#2#] 2. Config. device
    - [213#3#] 3. Remove device
    - [213#4#] 4. ACU-100 zones
    - [213#5#] 5. Synchronize
    - [213#6#] 6. Test mode on
    - [213#7#] 7. Test mode off
  - [219#] 9. Remove k-fobs
  - [210#] 0. Keypads addr.
- [22#] 2. Zones
- [23#] 2. Outputs
- [24] 4. Quick control
  - [241#] 1. Control 1#/1\*
  - [242#] 2. Control 2#/2\*
  - [243#] 3. Control 3#/3\*
  - [244#] 4. Control 4#/4\*
  - [245#] 5. Control 5#/5\*
  - [246#] 6. Control 6#/6\*
  - [247#] 7. Control 7#/7\*
  - [248#] 8. Control 8#/8\*
  - [249#] 9. Control 9#/9\*
  - [240#] 0. Control 0#/0\*
- [25#] 5. EOL 1 resist.
- [26#] 6. EOL 2 resist.
- [27#] 7. VERSA zones

### 3. Global param.

- [31#] 1. Options
- [32#] 2. Kpds al. time
- [33#] 3. Hide arm st.
- [34#] 4. AC trbl. delay
- [35#] 5. Tel. trbl. del.
- [36#] 6. RTC adjustm.
- [37#] 7. Daylight sav.
- [38#] 8. Summer time
- [39#] 9. Winter time

### 4. Timers

- [41#] 1. Timer 1 name
- [42#] 2. Timer 2 name
- [43#] 3. Timer 3 name
- [44#] 4. Timer 4 name

## 5. Monitoring

- [50#] 0. Stations
- [51] 1. Station 1
  - [511#] 1. Tel. number
  - [512#] 2. Tel. format
  - [513#] 3. Options
  - [514#] 4. Attempts no.
  - [515#] 5. Suspens. time
  - [516] 6. Identifiers
    - [5161#] 1. Id. 1
    - [5162#] 2. Id. 2
    - [5163#] 3. Id. 3
    - [5160#] 0. System Id.
  - [517#] 7. T-M/SIA pref.
- [52] 2. Station 2
  - [521#] 1. Tel. number
  - [522#] 2. Tel. format
  - [523#] 3. Options
  - [524#] 4. Attempts no.
  - [525#] 5. Suspens. time
  - [526] 6. Identifiers
    - [5261#] 1. Id. 1
    - [5262#] 2. Id. 2
    - [5263#] 3. Id. 3
    - [5260#] 0. System Id.
  - [527#] 7. T-M/SIA pref.
- [53#] 3. SIA options
- [54] 4. Event codes
  - [541] 1. Partition 1
    - [5411#] 1. Arm by user
    - [5412#] 2. Arm other
    - [5413#] 3. Quick arm
    - [5414#] 4. Disarm by usr
    - [5415#] 5. Disarm other
    - [5416#] 6. Rest. by user
    - [5417#] 7. Restore other
    - [5418#] 8. Duress
  - [542] 2. Partition 2
    - [5421#] 1. Arm by user
    - [5422#] 2. Arm other
    - [5423#] 3. Quick arm
    - [5424#] 4. Disarm by usr
    - [5425#] 5. Disarm other
    - [5426#] 6. Rest. by user

		[5427#]	7. Restore other
		[5428#]	8. Duress
	[543]	3. Zones	
		[5431#]	1. Alarm
		[5432#]	2. Alarm restore
		[5433#]	3. Tamper
		[5434#]	4. Tmp restore
		[5435#]	5. Trouble
		[5436#]	6. Trouble rest.
		[5437#]	7. Bypass
		[5438#]	8. Unbypass
	[544]	4. ABAX zones	
		[5441#]	1. Commun. loss
		[5442#]	2. Commun. rst.
		[5443#]	3. Battery low
		[5444#]	4. Battery rst.
	[545]	5. Exp. modules	
		[5451#]	1. Tamper
		[5452#]	2. Tmp restore
		[5453#]	3. Fire alarm
		[5454#]	4. Medical alarm
		[5455#]	5. Panic alarm
		[5456#]	6. 3 wrong codes
		[5457#]	7. 3 wrong cards
	[546]	6. Exp. supply	
		[5461#]	1. AC trouble
		[5462#]	2. AC restore
		[5463#]	3. Batt. trouble
		[5464#]	4. Batt. restore
		[5465#]	5. Overload
		[5466#]	6. Overload rst.
	[547]	7. System	
		[5471#]	1. Troubles
		[5472#]	2. Troubles rst.
		[5473#]	3. Other
		[5474#]	4. RTC setting
	[540#]	0. TELIM codes	
	[55#]	5. Test at	
	[56#]	6. Test every	
	[57#]	7. Test (armed)	
6. Messaging			
	[61#]	1. Zone alarms	
	[62#]	2. Output trig.	
	[63]	3. Arming	

- [631#] 1. Part. 1 user
- [632#] 2. Part. 1 other
- [633#] 3. Part. 2 user
- [634#] 4. Part. 2 other
- [64] 4. Disarming
  - [641#] 1. Part. 1 user
  - [642#] 2. Part. 1 other
  - [643#] 3. Part. 2 user
  - [644#] 4. Part. 2 other
- [65] 5. Other
  - [651#] 1. Tamper alarm
  - [652#] 2. Tamper rest.
  - [653#] 3. AC trouble
  - [654#] 4. AC restore
  - [655#] 5. Battery trbl.
  - [656#] 6. Battery rest.
  - [657#] 7. Tel. lin. rest.
- [66] 6. Message type
  - [651#] 1. Tel1 msg. type
  - [652#] 2. Tel2 msg. type
  - [653#] 3. Tel3 msg. type
  - [654#] 4. Tel4 msg. type
  - [655#] 1. Tel5 msg. type
  - [656#] 2. Tel6 msg. type
  - [657#] 3. Tel7 msg. type
  - [658#] 4. Tel8 msg. type
- [67] 7. PAGER param.
  - [671#] 1. PAGER1
  - [672#] 2. PAGER2
- [68#] 8. Queues/tries
- [69#] 9. Messages
- [60#] 0. Tel. names
- 7. Answering
  - [71#] 1. Rings to ans.
- 8. Usr templates
  - [81#] 1. Settings
  - [82#] 2. Key fob func.
  - [83#] 3. Name
- 9. User menu

Function 9. USER MENU enables access to the user functions when the control panel remains in the service mode (press the  key to return to the main menu of the service mode). The user menu and functions are described in the User Manual.

## 2.1.7 Entering data by means of the VERSA-LCD-GR keypad

The data being entered are presented on the display. The method of programming depends on the type of data to be entered by service function. To save the data in the control panel, press the  key. To exit the function without saving the changes, press the  key.

### Selection from the single-choice list

The upper line of display shows the function name, and the lower one – the currently selected item. To scroll through the item list, use the  keys (down) and the  keys (up). The  and  keys are not used.

### Selection from the multiple-choice list

The upper line of display shows the function name, and the lower one – one of the items to choose from. To scroll through the item list, use the  keys (down) and the  keys (up). Shown in the upper right corner of the display is an additional symbol:

 – displayed item is selected / option is enabled;

· – displayed item is not selected / option is disabled.

Press any numerical key to change the currently shown symbol for another one.

Press the  or  key to switch over the keypad to the **graphical mode programming**. By means of the  and · symbols, the display presents the current status of all items accessible within this function (these can be e.g. zones, outputs, options, etc.). The  key moves the cursor to the right, and the  key – to the left. When you press the  or  key, the keypad returns to the text mode.

### Entering decimal values

Digits are entered by pressing the suitable keys. The  key moves the cursor to the right, and the  or  key – to the left.

### Entering hexadecimal values

Digits are entered by pressing the suitable keys. Characters from A to F available under the  and  keys. Keep pressing the keys until the required character appears.

The  key moves the cursor to the right, and the  or  key – to the left.

### Programming telephone numbers

Keep pressing particular keys until the required character appears. Characters available in the keypad are presented in Table 1. Up to 16 characters can be programmed. Some of the special characters (a, b, c, d, # and \*) are coded so that the character takes up two items, hence the maximum number of characters available for entering, if they are used, will be lower.

Shown on the right side in the upper line of the display is information about the letter case: [ABC] or [abc] (it will be displayed after pressing any key and will be visible for a few seconds after the last keystroke).

The  key moves the cursor to the right, and the  or  key – to the left. The  key deletes the character on the left side of the cursor.

Characters available after next keystroke							
key	mode [ABC]			key	mode [abc]		
	1	#			1	#	
	2	B	C		2	a	b c
	3	D	E F		3	d	
	4				4		
	5				5		
	6				6		
	7				7		
	8						
	9				8		
	0	*			0	*	

Table 1. Characters available in the keypad when entering telephone numbers (to change the letter case, press ).

Special character	Function description
B	switch-over to pulse dialing
C	switch-over to tone dialing (DTMF)
D	waiting for additional signal
E	3 second pause
F	10 second pause
*	signal * in DTMF mode
#	signal # in DTMF mode
a b c d	other signals generated in DTMF mode

Table 2. Special character functions.

### Entering names

Keep pressing particular keys until the required character appears. Characters available in the keypad are presented in Table 3. Hold down the key to display the digit assigned to the key.

Shown on the right side in the upper line of the display is information about the letter case: [ABC] or [abc] (it will be displayed after pressing any key and will be visible for a few seconds after the last keystroke).

The key moves the cursor to the right, and the or key – to the left. The key deletes the character on the left side of the cursor.

Key	Characters available after next keystroke																		
1	!	?	'	`	←	"	{	}	\$	%	&	@	\	^		⌫	#	1	
2abc	a	b	c	2															
3def	d	e	f	3															
4ghi	g	h	i	4															
5jkl	j	k	l	5															
6mno	m	n	o	6															
7pqrs	p	q	r	s	7														
8tuv	t	u	v	.	⌫	■	☐	↑	←	→	↓	8							
9wxyz	w	x	y	z	9														
0!	.	,	:	;	+	-	*	/	=	_	<	>	(	)	[	]	0		

Table 3. Characters available in the VERSA-LCD-GR keypad when entering names. The lower case letters are available under the same keys (to change the letter case, press ).

### 2.1.8 Entering data by means of the VERSA-LED-GR keypad

The data being entered are presented by means of LEDs. The method of programming depends on the type of data to be entered by service function. To save the data in the control panel, press the key. To exit the function without saving the changes, press the key.

#### Selection from the single-choice list

The lit LEDs show the available items on the list. Blinking LED indicates the current position of the cursor and, consequently, the item which is currently selected. The key moves the cursor to the right, and the key – to the left. As all the LEDs are numbered, you can use the numerical keys to select the item at once and move the cursor there. The and keys are not used.

#### Selection from the multiple-choice list

The lit LEDs show which items have been selected. Blinking LED indicates the current position of the cursor. The key moves the cursor to the right, and the key – to the left. Press any numerical key to toggle the status of the LED over which the cursor is placed (depending on its current status, the LED comes on or goes out). The and keys are not used.

#### Entering decimal values

After entering the selected parameter programming function, the currently programmed value will be presented in binary mode on LEDs 1-12 (see: Fig. 1). LEDs 1-4 present (see: page 14 Table 4) the first digit, LEDs 5-8 – the second one, LEDs 9-12 – the third one. To enter the new numerical value, press the corresponding numerical keys. You can enter:

- 1 digit – it will be shown on LEDs 1-4 (the other LEDs are off);
- 2 digits – they will be shown on LEDs 1-8 (the other LEDs are off);
- 3 digits – they will be shown on LEDs 1-12.

The arrow keys are not used.

Correction of the entered value is only possible after re-entering the selected parameter programming function.

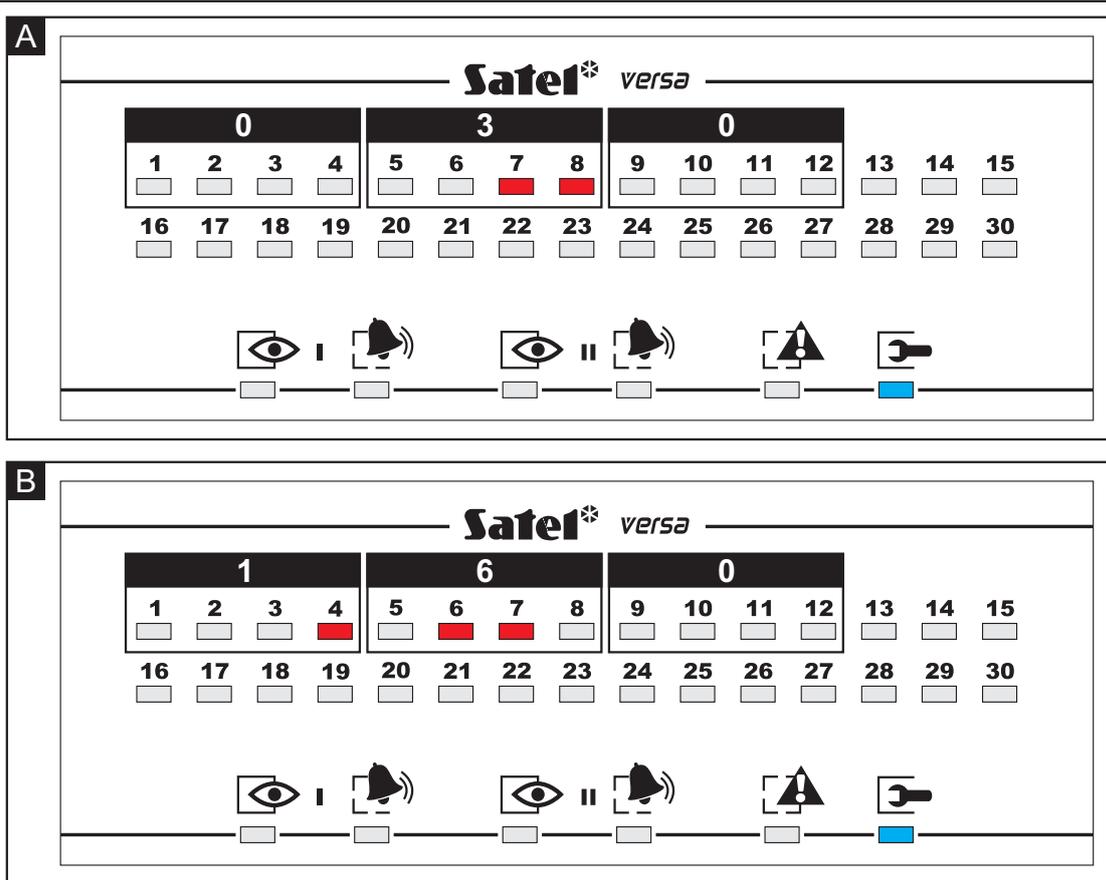


Fig. 1. Examples of presenting decimal values by means of LEDs in the VERSA-LED-GR keypad. Value 30 (030) is programmed in Example A, and value 160 in Example B.

LED status				Digits and characters	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	<input type="checkbox"/> – LED OFF
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	<input checked="" type="checkbox"/> – LED ON
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	B	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	F	

Table 4. The binary mode of presenting digits and characters.

### Entering hexadecimal values

After entering the selected parameter programming function, the currently programmed value will be presented on the LEDs. Up to 6 characters can be presented (most functions require a lesser number: 2 or 4 characters). LEDs 1-4 present in binary format (see: page 14 Table 4) the first character, LEDs 5-8 – the second one, LEDs 9-12 – the third one, LEDs 16-19 – the fourth one, 20-23 – the fifth one, and LEDs 24-27 – the sixth one.

The digits are to be entered by pressing the corresponding keys. Characters from A to F are available under the **2<sub>abc</sub>** and **3<sub>def</sub>** keys. Keep pressing the keys until the required character is displayed in binary mode on the LEDs (see: page 14 Table 4).

The arrow keys are not used.

Correction of the entered value is only possible after re-entering the selected parameter programming function.

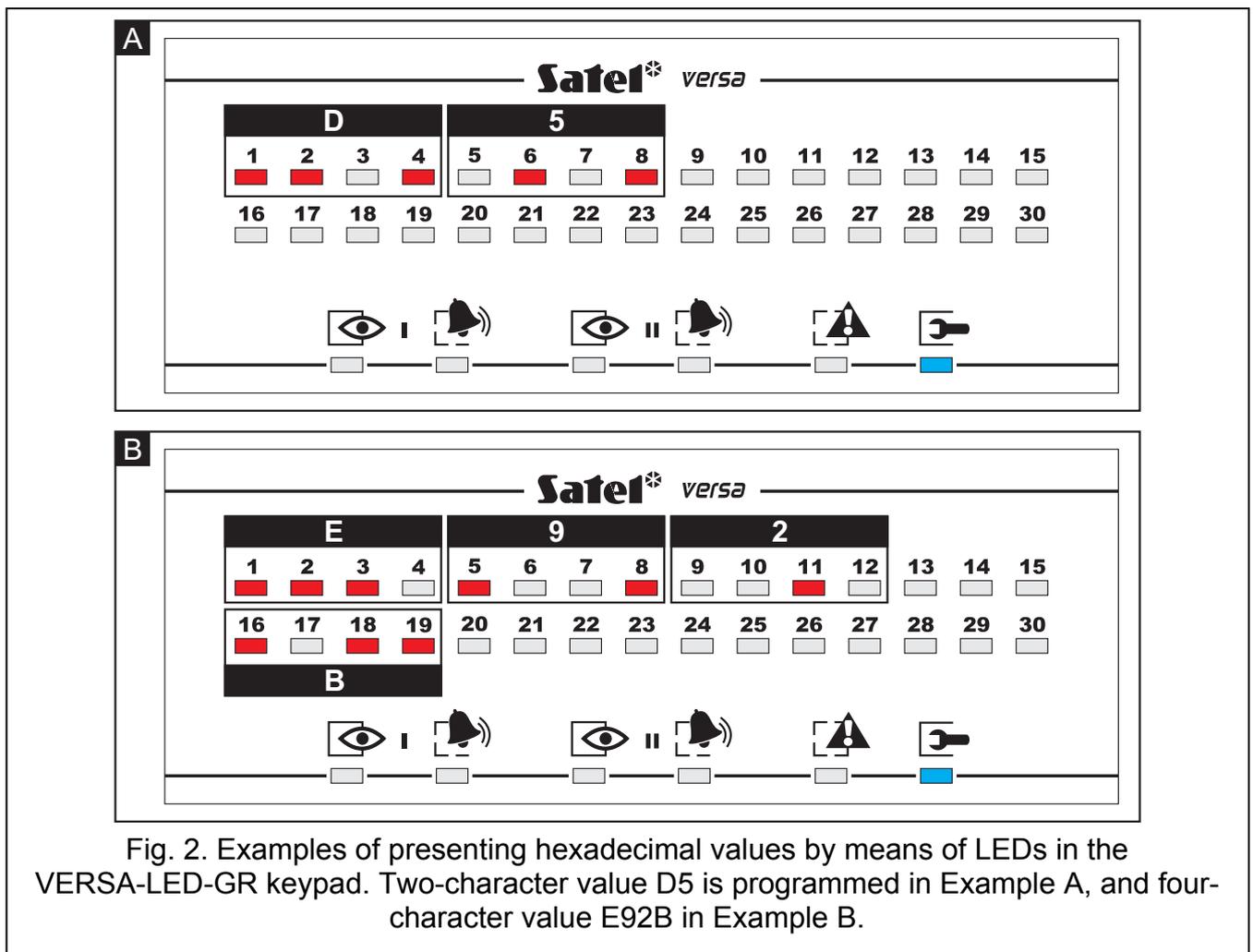


Fig. 2. Examples of presenting hexadecimal values by means of LEDs in the VERSA-LED-GR keypad. Two-character value D5 is programmed in Example A, and four-character value E92B in Example B.

### Programming telephone numbers

The telephone numbers are entered in much the same way as in the VERSA-LCD-GR keypad, however the LEDs can only present the first 6 characters (only digits and characters B, C, D, E and F – see: page 14 Table 4).

The arrow keys are not used.

Correction of the entered value is only possible after re-entering the selected parameter programming function.

### 2.1.9 Quitting the service mode

In order to quit the service mode, use the QUIT SERVICE MODE function:

To end the service mode, do the following:

- in the VERSA-LCD-GR keypad, keep pressing the  key until the 0. SRVMOD CONFIG submenu will appear in the upper line of the display, and then press successively the     keys;
- in the VERSA-LED-GR keypad, press the  key and then press successively the     keys.

## 2.2 DLOADX program

The DLOADX program enables data exchange between the computer and the control panel, facilitates alarm system configuration, and ensures easy viewing of the status of zones, partitions, outputs, troubles, and other components of the system. Access to the program is protected by a code (password). To obtain access at the first run of the program, enter the factory default code: 1234 (you need not enter the factory code, just click on the "OK" button). **It is recommended that the factory access code be changed.**

**Note:** Entering an invalid code three times will terminate the program.

Communication between the program and the control panel is coded. The alarm control panel may be programmed locally or remotely:

1. **Local programming** requires connection between the RS-232 (TTL) port on control panel mainboard (RJ type socket) and the computer COM port. The connection should be made by using the cable manufactured by SATEL and available in the DB9FC/RJ-KPL set.
2. **Remote programming** is possible, owing to the built-in 300 bps modem. This programming method requires connection of the control panel to the telephone line. An analog modem must be connected on the computer side.

### 2.2.1 Main menu of the DLOADX program

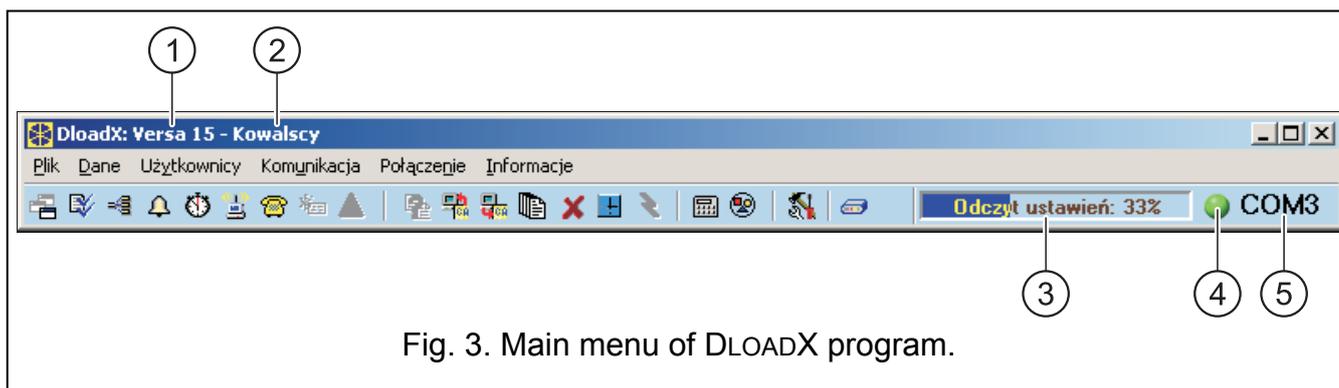


Fig. 3. Main menu of DLOADX program.

Explanations for Fig. 3:

- 1 - type of alarm control panel.
- 2 - name of alarm system / data file.
- 3 - information on data writing/reading progress.
- 4 - icon indicating the status of communication with the module:
  - green color – COM port ready for sending data;
  - alternating green and yellow color – data transmission in progress;
  - gray color – COM port disabled.

A click on the icon button:

- in case of communication via the RS-232 port – will enable/disable the COM port;
- in case of communication via the modem – will display the modem connection window.

5 - information on the way of communication with the alarm control panel:

- COMn (n = number of COM port) – communication via the RS-232 port;
- Modem – communication via the modem.

Buttons:

-  System and hardware structure – button opens the "Versa – Structure" window.
-  Options and global times – button opens the "Global parameters" window.
-  Zones data – button opens the "Versa – Zones" window.
-  Outputs data – button opens the "Versa – Outputs" window.
-  Timers – button opens the "Versa – Timers" window.
-  Reporting – button opens the "Versa – Reporting" window.
-  Telephone messaging – button opens the "Versa – Tel. messaging" window.
-  Panel's data reading – button enables data reading from the control panel.
-  Write to panel – button enables data writing to the control panel.
-  Event log – button opens the window containing event log.
-  Cancel – button makes it possible to cancel the data reading/writing.
-  Clock setting – button saves the time in the control panel, based on the computer clock.
-  LCD keypad – button displays a virtual keypad.
-  System status – button opens the drop-down menu shown in Fig. 4.
-  Configuration – button opens the "Configuration" window.
-  Connection – button opens the drop-down menu, where you can select the method of establishing communication between the program and the alarm control panel.



Fig. 4. Menu displayed after pressing the  button.

## 2.2.2 Changing the program access code

1. Open the FILE menu, select ACCESS SETUP and then CHANGE ACCESS CODE (see: Fig. 5).

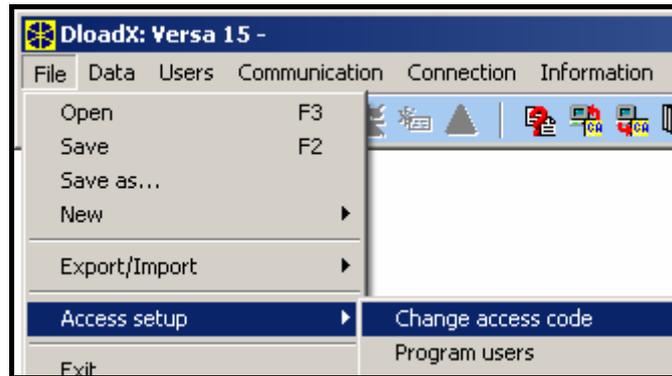


Fig. 5. Functions related to the access to DLOADX program.

2. Enter your present access code to the program and click on the "OK" button.
3. Enter the new access code to the program and click on the "OK" button.
4. Re-enter the new program access code and click on the "OK" button.

The program allows you to obtain access, based on additional access codes, which can be defined and for which the authority level can be defined (FILE → ACCESS SETUP → PROGRAM USERS – see: Fig. 5).

## 2.2.3 Parameters related to programming by means of the DLOADX program

In case of remote programming, it is necessary to configure some communication parameters and options in the control panel. In case of local programming without verification of identifiers, the parameters described below may be configured after communication with the control panel is established.

**VERSA communication identifier** – identifier of the alarm control panel which makes it possible to identify the control panel and match the data file to it, provided that the data file has been saved on the computer. It consists of 8 hexadecimal characters (digits or letters from A to F). The same identifier must not be programmed for different control panels operated from the same computer (the DLOADX program will be incapable of distinguishing between them).

**DLOADX communication identifier** – identifier of the computer with DLOADX program. If communication is effected, including verification of identifiers, the control panel will only establish connection with the program which uses the valid identifier. It consists of 8 hexadecimal characters (digits or letters from A to F).

**Note:** *In case of establishing communication with the alarm system whose identifiers have factory defaults (00000000), the DLOADX program will suggest random generated identifiers.*

**VERSA panel telephone number** – telephone number of the control panel. Available for programming only in DLOADX program.

**PC telephone number** – telephone number of the computer from which the control panel is to be programmed. It should be programmed if the telephone connection is to be made by the control panel (the panel initiates the connection or calls back).

**Rings before answer** – number of rings after which the control panel will go off hook.

In the DLOADX program, the identifiers and telephone numbers are programmed in the window "Identifiers and telephone numbers". The command to open this window is available in the COMMUNICATION menu. It can also be opened by using the Ctrl+R key shortcut. In the

keypad, the identifiers and computer telephone number are programmed from the submenu 0. SRVMOD CONFIG.

The number of rings in the DLOADX program should be programmed in the "Global parameters" window. The same parameter in the keypad is programmed from the submenu 7. ANSWERING.

Options related to remote programming via the modem (e.g. ANSWERING – MODEM and DOUBLE CALL) are described in Section GLOBAL OPTIONS.

## 2.2.4 Starting local programming without verification of identifiers

With this method of establishing communication between computer and alarm control panel you do not have to know any identifiers programmed in the control panel (the START DWNLRS function will be activated automatically). After establishing communication with the control panel, identifiers will be read by the DLOADX program.

1. Connect the control panel RS-232 (TTL) port with the computer port.
2. Enter the **service code** (by default: 12345) and press the  key.
3. Press in turn the     keys to start the service mode.
4. Start the DLOADX program on the computer. If the control panel RS-232 (TTL) port is connected to the computer COM1 port, communication with the control panel will start automatically. Otherwise, click on the  button and, in the window that will open, indicate the computer port through which communication is to be effected.
5. The DLOADX program will signal establishing communication by displaying an appropriate message.

## 2.2.5 Starting local programming with verification of identifiers

Communication between the computer and the alarm control panel in this mode will be established, when the communication identifiers in control panel and program are identical or the identifiers programmed in the control panel have the factory value.

1. Connect the control panel RS-232 (TTL) port with the computer port.
2. Enter the **service code** (by default: 12345) and press the  key.
3. Press in turn the      keys (the START DWNLRS function will start).
4. Start the DLOADX program on the computer. If the control panel RS-232 (TTL) port is connected to the computer COM1 port, communication with the control panel will start automatically. Otherwise, click on the  button and, in the window that will open, indicate the computer port through which communication is to be effected.
5. The DLOADX program will signal establishing communication by displaying an appropriate message.

## 2.2.6 Starting local programming "from pins"

If the local programming cannot be started in normal manner, you can use the emergency hardware procedure, so-called starting "from pins".

1. Connect the control panel RS-232 (TTL) port with the computer port.
2. Start the service mode in the control panel "from pins" (see: Section STARTING THE SERVICE MODE "FROM PINS").
3. Start the DLOADX program on the computer. If the control panel RS-232 (TTL) port is connected to the computer COM1 port, communication with the control panel will start automatically. Otherwise, click on the  button and, in the window that will open, indicate the computer port through which communication is to be effected.

4. The DLOADX program will signal establishing communication by displaying an appropriate message.

### 2.2.7 Finishing local programming

The local programming function will stop automatically after 4 hours have elapsed since operation of the DLOADX program was completed. The function may also be terminated by using the FINISH DWNLRS command, available from the keypad.

1. Enter in the keypad the **service code** (by default 12345) and press the  key.
2. Press in turn the    keys (to start the FINISH DWNLRS function).

### 2.2.8 Starting remote programming via modem

For remote programming to be possible, the modem and the control panel must be suitably configured. Communication between the control panel and the modem can be established in a few ways:

1. Connection is initiated from the DLOADX program.
2. Connection is initiated from the DLOADX program, but the control panel calls back and establishes the connection.
3. Connection is initiated by the control panel.

#### Configuring settings of modem connected to computer

Configuration of the modem connected to computer is possible by using the DLOADX program. For this purpose, click on the  button. The "Configuration" window will open, in which you should click on the "Modem" tab. When you click on the  button, you will be able to edit parameters of the port used for communication with the modem, as well as the initiation commands.

#### Initiating connection from the DLOADX program

This method makes it possible to establish connection with the control panel from any location. Make sure that in the control panel:

- the computer telephone number has not been programmed!
- the **ANSWERING – MODEM** option is enabled (SERVICE MODE ►3. GLOBAL PARAM. ►1. OPTIONS ►MODEM ANSWERING);
- you have defined the number of rings after which the control panel will go off-hook (SERVICE MODE ►7. ANSWERING ►1. RINGS TO ANS.);
- you have defined whether the control panel will go off-hook after the first, or after the second call (SERVICE MODE ►3. GLOBAL PARAM. ►1. OPTIONS ►DOUBLE CALL).

Telephone number of the control panel must be programmed in the DLOADX program.

1. Start the DLOADX program on computer.
2. Initialize the modem connected to the computer. For the modem to be initialized, click on the  button and, from the menu that will be displayed, select the 300 bps modem. The window will then open where the modem initializing information will be shown.
3. Click on the "Connect" button.
4. After the preprogrammed number of rings (after the second call, if the DOUBLE CALL option is enabled), the control panel will answer the call and the connection will be established. The DLOADX program will signal it by an appropriate message.

## Initiating connection from the DLOADX program, but with the control panel calling back and establishing connection

This method ensures better security of the system, because the control panel may only be remotely programmed from a specified locality. Make sure that in the control panel:

- you have programmed telephone number of the computer from which the control panel is to be programmed (SERVICE MODE ►0. SRVMOD CONFIG ►4. DLOADX TEL.);
- the **ANSWERING – MODEM** option is enabled (SERVICE MODE ►3. GLOBAL PARAM. ►1. OPTIONS ►MODEM ANSWERING);
- you have defined the number of rings after which the control panel will go off-hook (SERVICE MODE ►7. ANSWERING ►1. RINGS TO ANS.);
- you have defined whether the control panel will go off-hook after the first, or after the second call (SERVICE MODE ►3. GLOBAL PARAM. ►1. OPTIONS ►DOUBLE CALL).

Telephone number of the control panel must be programmed in the DLOADX program.

1. Start the DLOADX program on computer.
2. Initialize the modem connected to the computer. For the modem to be initialized, click on the  button and, from the menu that will be displayed, select the 300 bps modem. The window will then open where the modem initializing information will be shown.
3. Click on the "Connect" button.
4. After the preprogrammed number of rings (after the second call, if the DOUBLE CALL option is enabled), the control panel will answer the call, acknowledge receiving the connection, and then disconnect.
5. The control panel will call back the number programmed in the control panel and the connection will be established, which will be indicated by the DLOADX program by an appropriate message.

## Initiating connection by the control panel

Like the previous method, also this one ensures enhanced security of the system, because the control panel may only be remotely programmed from a specified locality. It can be applied if the system user prefers that the remote programming cannot be carried out without his knowledge. Telephone number of the computer from the control panel is to be programmed must be programmed in the control panel (SERVICE MODE ►0. SRVMOD CONFIG ►4. DLOADX TEL.).

1. Start the DLOADX program on computer.
2. Initialize the modem connected to the computer. For the modem to be initialized, click on the  button and, from the menu that will be displayed, select the 300 bps modem. The window will then open where the modem initializing information will be shown.
3. Enter in the keypad the service code (by default 12345) or the code of user having the DOWNLOAD/SERVICE privilege and press the  key.
4. Press in turn the     keys (the START DWNLTELE con. function will start).
5. The DLOADX program will signal establishing communication by an appropriate message.

## 3. Global Parameters

---

### 3.1 Global options

---

**Reporting – TELEPHONE** – the control panel can send event codes to the monitoring station by means of the telephone line.

**Telephone messaging** – the control panel can notify about the occurrence of specific events by means of voice messages or SMS messages using the telephone links.

**Answering – modem** – an option of external initiation of the communication between modem and control panel.

**Double call** – the control panel must be called twice for the modem communication to be established. The first time you must wait for the preprogrammed number of rings and hang up. Then you must call back within three minutes and the control panel will answer the call immediately. This solution makes it possible to connect after the control panel some additional devices which will be activated after a preset number of rings (e.g. answering machine, fax, etc. ).

**Tone dialing** – the control panel will tone dial the telephone numbers (pulse dial, if this option is disabled).

**Pulse 1/1.5 (off 1/2)** – this option applies to dialing the telephone numbers by using the pulse mode. Before you enable it, make yourself familiar with the valid standard of pulse dialing.

**No dial tone test** – the control panel will not perform the test for dial tone before dialing the number and will start dialing the number 5 seconds after going "off hook". This makes it possible for the control panel to dial the number when some non-standard tones occur on the telephone line after going off hook (e.g. interrupted tone). When this option is disabled, the control panel will start dialing the number 3 seconds after going off hook, provided that the dial tone is present.

**No answer tone test** – in case of notifying by means of voice messages, the control panel will not perform the test for "off hook" condition. The voice message will be played back 15 seconds after completion of the number dialing. In case of monitoring, the control panel will ignore any signals (including the busy tone) received from the telephone exchange after dialing the telephone number, and will wait for the handshake from the monitoring station. Enable this option if, after dialing the number, non-standard signals are received from the telephone exchange or in case of very poor quality connections.

**Store key fob events** – using the key fob is written into the events log.

**Trouble memory until review** – the trouble memory is being signaled until it is cleared (clearing the trouble memory is possible when you quit the TROUBLES user function).

**Serial data on OUT 3/4** – OUT3 and OUT4 outputs send the system status data (zone alarms, fire alarms, troubles, armed modes, etc.) and do not execute any other programmed functions. The outputs may be used to control the NR2-DSC radio monitoring transmitter (NEMROD system – PC-16 OUT format), made by NOKTON.

**OUT 3/4 data extended mode** – this option is active, if the SERIAL DATA ON OUT 3/4 option is enabled. The OUT3 and OUT4 outputs will send the system status data in the form of frames (PC-16 OUT UA format).

**Arming/Disarming/Clearing signaling from zones only** – outputs with the functions 1. EXTERNAL SIREN and 2. INTERNAL SIREN with enabled ARMING/DISARMING/CLEARING SIGNALING option will signal arming and disarming, as well as alarm clearing executed by means of zones (the arming and disarming, as well as alarm clearing by means of keypad, proximity card reader or timer will not be signaled).

**Clear messaging on alarm clearing** – clearing the alarm will automatically cancel messaging about this alarm, if the user clearing the alarm has the TELEPHONE MESSAGING CLEARING right.

**Service message after tamper alarm** – this option is active, if the TROUBLE MEMORY UNTIL REVIEW option is enabled. Information on the tamper alarm can only be cleared from the troubles memory by using the service code. In the LCD keypad, the " System tamper, call service" message will be displayed after the tamper alarm (unless the alarm messages are displayed). The message will no longer be displayed after the troubles memory is reset by the service.

**Warning alarm** – the system includes an activated warning alarm feature, whose purpose is to delay the loud signaling and reporting, if any mistakes are made when entering the protected facility. The warning alarm is not monitored. It can be signaled on the keypad, proximity card reader or outputs with the function 2. INTERNAL SIREN. The warning alarm is triggered by zones with the following reaction types:

- 0. ENTRY/EXIT or 1. ENTRY/EXIT FINAL – unless the system is disarmed before completion of the ENTRY DELAY countdown;
- 2. ENTRY/EXIT ROUTE – if it is violated during the ENTRY DELAY countdown, and the system is not disarmed before completion of the DELAY TIME countdown;
- 3. INSTANT – if it is violated during the ENTRY DELAY countdown.

The warning alarm lasts 30 seconds. Unless the alarm system is disarmed during this time, the alarm will be triggered by the zone.

**Warning alarm on internal sirens** – this option is active, if the WARNING ALARM option is enabled. The warning alarm will be signaled on outputs with the 2. INTERNAL SIREN function.

**Tamper alarm always audible** – the tamper alarm will be signaled always on outputs with the functions 1. EXTERNAL SIREN and 2. INTERNAL SIREN (in armed mode only if the option is disabled). Also, lack of the expander is always saved in the event log as a tamper alarm. If the option is disabled, lack of the expander will be saved in the event log:

- as a trouble, if the partition to which the expander is assigned, is disarmed (but the keypad will signal tamper alarm anyway);
- as a tamper alarm, if the partition is armed.

**Tamper alarm on internal sirens** – the tamper alarm will be signaled always on outputs with the function 2. INTERNAL SIREN (in armed mode only if the option is disabled). Additionally, the will always signal lack of the expander (also when the event is logged as a trouble – see: option TAMPER ALARM ALWAYS AUDIBLE).

**Block after 3 unknown codes/cards** – after entering an invalid code / reading in an invalid card three times, the keypad / reader will be blocked for 90 seconds. After this period of time has expired, each subsequent entry of an invalid code / read-in of an invalid card will block the keypad / reader at once. The counter of invalid codes / cards will be reset after a correct code is used.

**Service Mode from RESET pins** – it is possible to start the service mode and local programming "from pins" (on the keypad this option is available in the submenu 0. SRVMOD CONFIG (►SERVICE MODE ►0. SRVMOD CONFIG ►6. SRVMOD OPT. ►SRVMOD VIA RESET)).

**Limit storing "Test transmission" events** – if the "Test transmission" events directly follow one another, they are only written to the event log 3 times. Information on sending next test transmissions is not recorded. Any other event occurring in the system will reset the counter of "Test transmission" events, i.e. it will be possible to log next three consecutive test transmissions.

**Note:** Additionally, the list of global options in the keypad includes:

- *TMP ALARM IN P.2* – alarm from the mainboard TMP zones is signaled in partition 2. In the *DLOADX* program, the partition in which alarm from TMP zones will be signaled is to be selected in the "Versa – Structure" window, "Hardware" tab, after clicking on the system name on the left side;
- *EVENTS LIMITAT., EXP. RESTART. REP., REST. AFT. BELL and REST. AFT. DISARM.* – options available in the *DLOADX* program, "Versa – Reporting" window, and described in section *REPORTING PARAMETERS AND OPTIONS*.

## 3.2 Global times

---

**Keypad's alarm time** – time period during which alarm is signaled in keypads and proximity card readers. Up to 255 seconds can be programmed. Programming the value 0 means that the *KEYPAD'S ALARM TIME* will be 3 seconds.

**No armed indication after** – time counted from the moment of partition arming, after expiry of which the keypad LED indicating the partition armed status will go out. Up to 255 seconds can be programmed. Programming the value 0 means that the LED will be lit as long as the partition is armed.

**AC loss report delay** – time during which the control panel must be without AC power before the trouble is reported. A delay in reporting the trouble prevents sending information about short-time voltage decays, having no effect on normal operation of the system. The trouble reporting delay can be up to 255 minutes.

**Telephone line loss report delay** – time during which abnormal voltage must be on the telephone line for the control panel to report the telephone line trouble. A delay in reporting the trouble prevents sending information about short-time voltage dips (e.g. during a phone call) or decays. The trouble reporting delay can be up to 255 minutes.

**RTC clock correction** – if the accuracy of control panel clock is inadequate, the clock settings may be adjusted once per 24 hours (at midnight) by a defined time. The correction time is programmed in seconds. The maximum correction can be  $\pm 19$  seconds per 24 hours.

**Summer/winter time** – the control panel can automatically adjust the clock settings due to a change from the summer time to the winter time and vice versa. The following correction schemes are available:

- no correction;
- according to the European Union rules;
- according to the United States' rules;
- correction by 1 hour according to dates;
- correction by 2 hours according to dates.

**Summer time from / Winter time from** – if the control panel clock is to be corrected by 1 or 2 hours according to dates, you should enter the dates (day, month) after the clock is changed to the summer time (moved forward) or to the winter time (moved back).

## 4. Partitions

---

A system based on the *VERSA* control panels can be subdivided into 2 partitions. The partition means a separated area in the building protected by the alarm system. Because the partitions can be armed independently, subdividing the system into partitions will allow the user to arm/disarm just a part of the building. Additionally, the subdivision into partitions makes it possible to restrict access to a part of the building to selected users.

In the DLOADX program, the partition parameters are programmed in the "Versa – Structure" window, "System" tab. The partitions and zones are presented in a tree-like form on the left side of the window (see: Fig. 6). In the keypad, the partition parameters are configured by using the functions available in the PARTITIONS submenu (SERVICE MODE ►1. PARTITIONS).



Fig. 6. List of partitions and zones in a tree-like form in the "System" tab, "Versa – Structure" window (an example of configuration).

### 4.1 Partition parameters

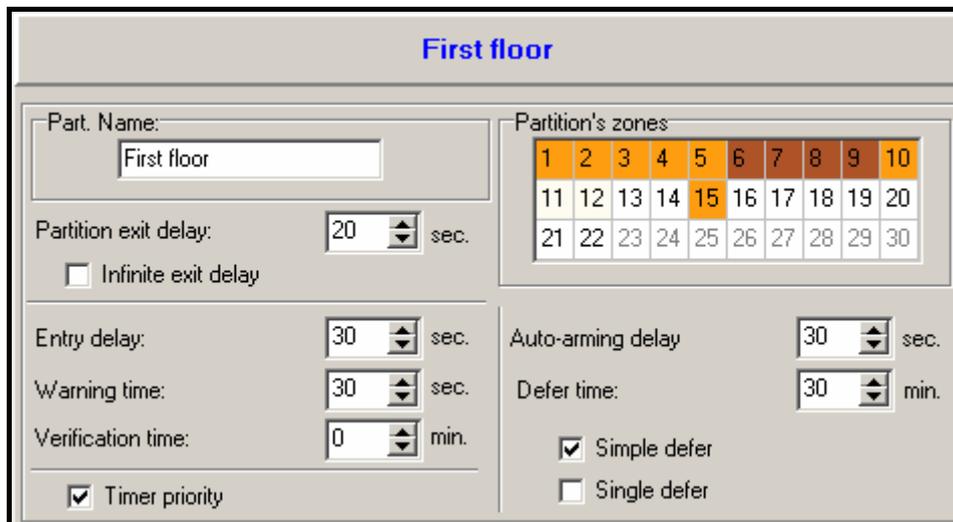


Fig. 7. Programming partition parameters in the "Versa – Structure" window, DLOADX program (an example of configuration).

**Name** – individual name of the partition (up to 16 characters ).

**Partition exit delay** – the time counted from the moment of partition arming which enables the protected area to be left without triggering an alarm. Violation of the zones with the reaction type 0. ENTRY/EXIT, 1. ENTRY/EXIT FINAL, 2. ENTRY/EXIT ROUTE or 4. DOUBLE KNOCK during the exit delay time will trigger no alarm. Up to 255 seconds can be programmed.

**Notes:**

- *The exit delay countdown can be terminated by means of the zones type 1. ENTRY/EXIT FINAL or 16. EXIT DELAY TERMINATOR. All zones in the partition will be armed before expiry of the programmed exit delay time.*
- *Using the keypad, you can arm the system without the exit delay, if the hold down the key which ends the arming sequence (, ,  or ) for approx. 3 seconds.*

**Infinite exit delay** – the partition exit delay time can only be ended by means of the zones with reaction type 1. ENTRY/EXIT FINAL, 16. EXIT DELAY TERMINATOR or 17. SHUNT LOCK. If the exit delay countdown is not completed, the armed mode will not be activated (only the zones with reaction type 3. INSTANT will be armed).

**Entry delay** – the time counted from the moment of entry into the protected area which enables the partition to be disarmed before triggering an alarm. This parameter applies to the zones type 0. ENTRY/EXIT and 1. ENTRY/EXIT FINAL. The delay programmed for the partition is taken into account in case of the zones for which the value 0 has been individually programmed. The delay is programmed in seconds. Up to 255 seconds can be programmed. If the value 0 is programmed, the zone will act as an instant one.

**Warning time** – the time of warning alarm signaling for the partial armed mode (see: zone option WARNING IN PARTIAL ARMING). The time is programmed in seconds. Up to 255 seconds can be programmed. If the value 0 is programmed, the WARNING TIME will be 30 seconds. After expiry of the WARNING TIME, unless the partition is disarmed, the burglary alarm will be triggered.

**Note:** *The WARNING TIME parameter does not apply to the time of signaling the warning alarm which is generated when mistakes are made when entering into the protected object (see: WARNING ALARM global option).*

**Verification time** – programming a value different from 0 means activating the alarm verification feature in the partition. Subject to verification are alarms from zones with reaction type from 0 to 5. The VERIFICATION TIME runs from the moment of alarm being triggered by such a zone. If during the VERIFICATION TIME an alarm is triggered by another zone in the partition, with the reaction type from 0 to 5, the control panel will report a verified alarm. The time is programmed in minutes. Up to 255 minutes can be programmed.

**Timer priority** – the timer will always arm / disarm the partition according to the preset times (if this option is not enabled, the timer will only disarm the partition, if the arming was done by the timer).

**Auto-arming delay** – the time counted from the moment when the timer is to arm the partition, enabling the arming to be deferred. The delay time is programmed in seconds. Up to 255 seconds can be programmed. Programming the value 0 means that the arming deferment will be unavailable.

**Deferment time** – the time by which the user can defer arming by the timer. The time is programmed in minutes. Up to 255 minutes can be programmed. Programming the value 0 means that the arming deferment will be unavailable.

**Simple deferment** – the user can defer arming by the timer by pressing the  key twice during the auto-arm delay time countdown.

**Single deferment** – the user can only use the simple deferment once, so as to postpone the arming by timer. Subsequent arming deferments are only possible by using the AUTO-ARMING DEFERMENT user function ([CODE]  ►6. SETTINGS ►1. A-ARM DEFER.).

## 5. Zones

A zone can be assigned to one or two partitions. If the zone is assigned to two partitions, it can be armed when both partitions are armed or one of them only.

The system supports the following zones:

- hardwired – on the control panel PCB and in expanders. The number of available hardwired zones is determined by the control panel during the identification procedure.
- wireless – after connection of the ACU-100 controller. The number of available wireless zones depends on the number of wireless devices registered in the system and is determined during the procedure of adding the same.
- virtual – zones which do not physically exist, but are controlled by means of key fobs.

In the DLOADX program, parameters and options of the zones can be programmed in the "Versa – Structure" window, "System" tab. Partition and zones are presented in the tree-like form on the left-hand side of the window (see: Fig. 6). The zone parameters and options can also be programmed in the "Versa – Zones" window (see: Fig. 8).

In the keypad, parameters and options of the zones are configured by means of the Zones function (SERVICE MODE ►2. HARDWARE ►2. ZONES). The programming is performed using the "step by step" method (the numbers are shown in binary form on the  and  LEDs of the first and second partitions):

1. Zone selection.
2. EOL type.
3. Sensitivity [line type NO, NC, EOL and 2EOL].
4. Pulse validity [only for ROLLER type of line].
5. Pulses count [only for ROLLER type of line].
6. Sensitivity [only for Vibration type of line].
7. Pulses count [only for Vibration type of line].
8. Reaction type.
9. Alarm delay [ARM MODE should be programmed in this step for zones with reaction type 13. ARM/DISARM and 14. ARMING].
10. Max. violation time.
11. Max. no violation time.
12. Zone options.
13. Zone name [only in LCD keypad].

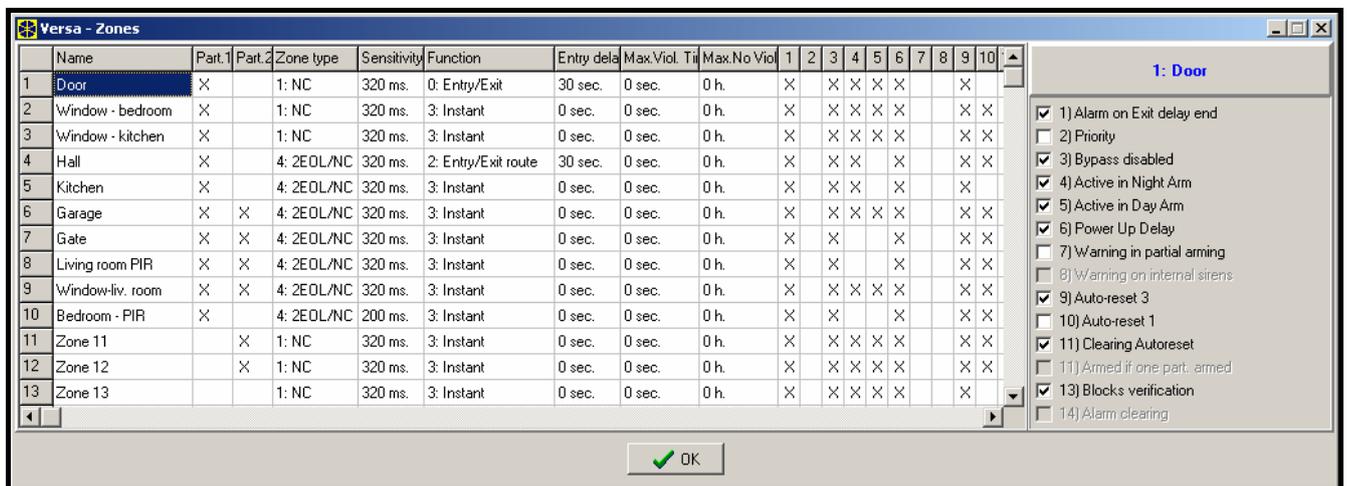


Fig. 8. "Versa – Zones" window in the DLOADX program.

## 5.1 Numeration of system zones

---

### 5.1.1 Hardwired zones

Numbers are assigned to the hardwired zones automatically:

- the zones on control panel PCB always have initial numbers (1-5 for the VERSA 5 control panel; 1-10 for the VERSA 10 control panel; 1-15 for the VERSA 15 control panel);
- the zones in expanders are numbered depending on the address which is set in them:
  - expander with address 12 (0Ch) – numbers from 7 to 14;
  - expander with address 13 (0Dh) – numbers from 15 to 22;
  - expander with address 14 (0Eh) – numbers from 23 to 30.

If the expander zones coincide with those on the control panel PCB, you may define which of the zones will be supported by the mainboard, and which ones by the expander. In the keypad, the VERSA ZONES service function (SERVICE MODE ►2. HARDWARE ►7. VERSA ZONES) is provided for this purpose. In the DLOADX program, this can be done in the "Versa – Structure" window, "System" tab, when programming the selected zone.

### 5.1.2 Wireless zones

The wireless zones may be assigned any numbers in the system. The numbers are assigned during the procedure of adding wireless devices. When the wireless zone number coincides with that of the hardwired zone, you may define which of the zones is to be supported. In the keypad, the ACU-100 ZONES service function (SERVICE MODE ►2. HARDWARE ►1. KPDS & EXPS. ►3. ACU-100 ►4. ACU-100 ZONES). is provided for this purpose. In the DLOADX program, this can be done in the "Versa – Structure" window, "System" tab, when programming the selected zone.

## 5.2 End of line resistors

---

For the zones on mainboard and in zone expanders identified by the control panel as CA-64 Ei and CA-64 EPSi, the value of resistors used in the EOL and 2EOL configurations is programmable within the range from 500  $\Omega$  to 15 k $\Omega$ .

In the DLOADX program, the resistor value should be entered in the "Versa – Structure" window, "Hardware" tab, after indicating the mainboard or selected zone expander in the list.

In the keypad, the resistor value should be programmed as follows:

- for mainboard – by means of the EOL 1 RESISTOR and EOL 2 RESISTOR function (SERVICE MODE ►2. HARDWARE ►5. EOL 1 RESIST. / ►6. EOL 2 RESIST.).
- for zone expander – during configuration of the expander by using the SETTINGS function (SERVICE MODE ►2. HARDWARE ►1. KPDS & EXP. ►2. SETTINGS ).

#### Notes:

- *The sum of values programmed for the resistors R1 and R2 may not be lower than 500  $\Omega$  or higher than 15 k $\Omega$ .*
- *In case of the zone expander, it is possible to program the value 0 for the resistor R2. The 2EOL configuration requires that two resistors be used, each having resistance equal to half the value defined for the resistor R1.*
- *In the EOL configuration, the resistance value is equal to the sum of values programmed for the resistors R1 and R2.*

## 5.3 Zone parameters

---

**Zone name** – individual name of zone (up to 16 characters).

**Partition 1 / Partition 2** – partition to which the zone is assigned. The zone must be assigned at least one partition, for its status to be supervised.

Fig. 9. Programming the zone parameters in "Versa – Structure" window in the DLOADX program (an example of configuration).

**Entry delay** – the time counted from the moment of violating a zone with the reaction type 0. ENTRY/EXIT or 1. ENTRY/EXIT FINAL, which makes disarming possible before triggering the alarm. It is programmed in seconds and can be up to 255 seconds. If the value 0 is programmed, the ENTRY DELAY programmed for the partition will be taken into account. If the value 0 is programmed for both the zone and the partition, the zone will act as an instant one.

**Delay time** – the time counted from the moment of violating a zone with the reaction type 2. ENTRY/EXIT ROUTE, if it acts as a delayed one. The time is programmed in seconds and can be up to 255 seconds. If the value 0 is programmed, the ENTRY DELAY programmed for the partition will be treated as the DELAY TIME. If the value 0 is programmed for both the zone and the partition, the zone will act as an instant one.

**Delay activation time** – the time counted from the moment of violating a zone with the reaction type 18. ENTRY ROUTE ENABLING. During countdown of this time, the zones with the reaction type 2. ENTRY/EXIT ROUTE WILL act as the delayed ones. The time is programmed in seconds and can be up to 255 seconds. If the value 0 is programmed, the ENTRY DELAY programmed for the partition will be treated as the DELAY ACTIVATION TIME. If the value 0 is programmed for both the zone and the partition, violation of the zone will have no effect.

**Waiting time** – the time counted from the moment of violating a zone with the reaction type 4. DOUBLE KNOCK. If the zone is violated again during the waiting time, it will trigger alarm. The time is programmed in seconds and can be up to 255 seconds. Programming the value 0 means that the WAITING TIME will be 30 seconds.

**Note:** *In the LCD keypad, the ENTRY DELAY, DELAY ACTIVATION TIME and WAITING TIME parameters are programmed as the ALARM DELAY.*

**Arm mode** – the armed mode activated after violating a zone with the reaction type 13. ARM/DISARM or 14. ARMING. You can select either fully arming, day arming or night arming.

**Detector** – type of detector and the method of its connection (zone configuration):

- no detector** – no detector is connected to the zone;
- NC** – the zone supports a detector of NC (normally closed) type;
- NO** – the zone supports a detector of NO (normally open) type;
- EOL** – the zone supports a NO or NC detector in EOL configuration;
- 2EOL/NO** – the zone supports a NO detector in 2EOL configuration;
- 2EOL/NC** – the zone supports a NC detector in 2EOL configuration;
- roller** – the zone supports a roller shutter detector;
- vibration** – the zone supports a vibration detector.

**Note:** *In case of the VIBRATION configuration, opening the circuit for 200 ms – irrespective of the programmed number of pulses and sensitivity (see below) – will be interpreted as violation. This solution enables a magnetic detector to be connected in series with the vibration detector.*

**Sensitivity** – depending on selected zone configuration:

- **NO, NC, EOL and 2EOL** – the time during which the zone must be violated, so that it can be noted by the control panel. The sensitivity is programmed in milliseconds. Values from the 20 ms to 5100 ms range can be entered.
- **Vibration** – the pulse whose duration is equal to or longer than the defined time will cause violation of the zone. Values from the 3 ms to 96 ms range can be programmed (every 3 ms).

**Pulse validity** – the time counted from the pulse occurrence during which subsequent pulses must occur (their number being defined as the PULSE COUNT) so that the zone is violated. The following values can be programmed: 30 ms, 120 ms, 240 ms and 0. If no further pulses will occur within the defined time period, the pulse counter will be reset. The pulse counter is reset automatically at arming/disarming. If the value 0 is programmed, the counter will only be reset at arming/disarming. This parameter is programmed for the ROLLER configuration.

**Pulse count** – the number of pulses after which the zone will be violated. This parameter is programmed for the ROLLER and VIBRATION configuration. For the VIBRATION configuration, it is possible to program values from 0 to 7 (for the value 0, the pulses will not be counted, the SENSITIVITY parameter only being taken into account). For the ROLLER configuration, you can program values from 1 to 8.

**Note:** *In the DLOADX program, all the required parameters for zones in ROLLER and VIBRATION configuration are programmed in the SENSITIVITY field.*

**Max. violation time** – exceeding the maximum violation time is recognized by the control panel as the detector trouble (e.g. damage or masking). The time is programmed in seconds and can be up to 255 seconds. Programming the value 0 means that the control panel will not check the zone for maximum violation time.

**Max. no violation time** – exceeding the maximum time of no violation is recognized by the control panel as the detector trouble (e.g. damage or masking). The time is programmed in hours and can be up to 255 hours. Programming the value 0 means that the control panel will not check whether the zone is violated or not.

## 5.4 Types of reaction

---

- 0. ENTRY/EXIT** – a delayed zone combining two functions:
  - entry line* – violation of the zone triggers the entry delay countdown in the partition and activates delay for the zones with reaction type 2. ENTRY/EXIT ROUTE. The entry delay may be signaled on keypads or proximity card readers.
  - exit line* – the zone status is monitored during the partition exit delay time. Violation of the zone is treated as an exit from the partition.
- 1. ENTRY/EXIT FINAL** – the same as the type 0. ENTRY/EXIT, but after arming and registering the zone restore the control panel will end the exit delay countdown.
- 2. ENTRY/EXIT ROUTE** – during the countdown of ENTRY DELAY or DELAY ACTIVATION TIME the zone acts as a delayed one (alarm will be triggered after expiry of the DELAY TIME). In other situations it acts as an instant zone.
- 3. INSTANT** – instant zone. It enters the armed mode as it is activated, irrespective of the value of EXIT DELAY time programmed for the partition.
- 4. DOUBLE KNOCK** – the zone triggers the burglary alarm only after the second violation. The first violation of the zone only results in the "Zone violation" event being logged (the event to may reported in format 4/2). The second violation must take place during the WAITING TIME countdown.
- 5. 24H BURGLARY** – dedicated zone for the detectors which should be armed at all times (e.g. glass break detectors).
- 6. 24H TAMPER** – dedicated, permanently armed zone for tamper circuits. Violation of the zone is additionally signaled as a trouble.
- 7. 24H PANIC** – permanently armed zone, intended for operating the panic buttons.
- 8. 24H PANIC SILENT** – permanently armed zone, intended for operating the panic buttons. Alarm from the zone is not signaled on keypads, readers and outputs, but the event code is sent to the monitoring station.
- 9. 24H MEDICAL** – permanently armed zone for calling medical assistance.
- 10. 24H FIRE** – dedicated, permanently armed zone for operating fire detectors.
- 11. DETECTOR MASK** – permanently armed zone for antimasking control. Violation of the zone is interpreted by the control panel as a detector trouble.
- 12. NO ALARM ACTION** – the zone may be used to control the output with function 13. ZONE VIOLATION, 15. CONTROLLED or 16. READY STATUS. An additional option enables the zone to be used for supervision of the key box (KEYBOX CONTROL option).
- 13. ARM/DISARM** – the zone controls the arming status of the partition it belongs to. Violation of the zone arms or disarms the partition (depending on the current status of the partition).
- 14. ARMING** – violation of the zone arms the partition to which the zone belongs.
- 15. DISARMING** – violation of the zone disarms the partition to which the zone belongs.
- 16. EXIT DELAY TERMINATOR** – violation of the zone ends the partition exit delay countdown.
- 17. SHUNT LOCK** – the zone ends the partition exit delay countdown and – depending on the BLOCKS VERIFICATION option – will disable verification or disarm the partition to which it belongs. The way of controlling (the zone violation / zone restore) is determined by the option RESTORE DISABLES VERIFICATION or RESTORE DISARMS.
- 18. ENTRY ROUTE ENABLING** – violation of the zone activates delay for the zones with 2. ENTRY/EXIT ROUTE reaction type in the partition to which the zone belongs. The zones will act as delayed ones for the DELAY ACTIVATION TIME. After expiry of the time, unless the system is disarmed, the zones will again act as the instant ones. If the DELAY ACTIVATION TIME for a zone will be programmed as equal to 0, and at the same time the ENTRY DELAY programmed for the partition is equal to 0, violation of the zone will have no effect.

## 5.5 Zone options

---

**Alarm on exit delay end** – if the zone is violated at the moment of ending the exit delay countdown, it will trigger an alarm (if this option is disabled, the zone will only trigger the alarm when the status changes from normal to violation during the armed mode).

**Priority** – arming is impossible when the zone is violated.

**Bypass disabled** – user cannot bypass the zone using the BYPASSES function (this restriction does not apply to the service).

**Active in night arm** – the zone is armed when the night armed mode is activated.

**Active in day arm** – the zone is armed when the day armed mode is activated.

**Power-up delay** – the zone is bypassed for 120 seconds after power supply is turned on (this will prevent triggering false alarms e.g. during start-up of the control panel).

**Warning in partial arming** – option for the zones which are armed when the day or night armed mode is activated in the partition. Violation of the zone will not immediately trigger the burglary alarm but the warning alarm which is not monitored. It may be signaled on the keypad, proximity card reader or on the output with 2. INTERNAL SIREN function. The warning alarm at partial armed mode is signaled during the WARNING TIME (see: Section PARTITION PARAMETERS). If the partition is not disarmed before expiry of the warning time, the zone will trigger the burglary alarm.

***Note:** Warning alarm in the partial armed mode will work irrespective of the WARNING ALARM global option, which refers to the delay of loud signaling and monitoring if any mistakes are made when entering into the protected facility.*

**Warning on internal sirens** – warning alarm in the partial armed mode, is signaled on the output with the 2. INTERNAL SIREN function.

**Auto-reset 3** – the zone can trigger up to 3 alarms. As long as the alarm is not cleared or the partition is not armed/disarmed, violations of the zone will not trigger any alarm.

**Auto-reset 1** – the zone can trigger only 1 alarm. As long as the alarm is not cleared or the partition is not armed/disarmed, violations of the zone will not trigger any alarm.

***Note:** If the AUTO-RESET 3 and AUTO-RESET 1 options are enabled at the same time, the AUTO-RESET 3 option will have priority.*

**Clearing Autoreset** – the alarm counters for zones for which the AUTO-RESET 3 or AUTO-RESET 1 option is enabled will be automatically reset at midnight (violations of these zones will be able to trigger alarms again).

**Armed if one partition armed** – the option refers to the zones which are assigned to both partitions. The zone is armed when one of the partitions is armed. Unless this option is disabled, the zone is armed when both partitions are armed.

**Blocks verification** – an option for the reaction types 0. ENTRY/EXIT, 1. ENTRY/EXIT FINAL and 17. SHUNT LOCK. The zone will block alarm verification in the partition:

- after the zone violation – the reaction types 0. ENTRY/EXIT and 1. ENTRY/EXIT FINAL, and also the reaction type 17. SHUNT LOCK, when the RESTORE DISABLES VERIFICATION option is not enabled;
- after the zone restore – the reaction type 17. SHUNT LOCK, when the RESTORE DISABLES VERIFICATION option is enabled.

In case of the reaction type 17. SHUNT LOCK, the zone will disarm the system when the BLOCKS VERIFICATION option is not enabled.

**Restore disarms** – an option for the reaction type 17. SHUNT LOCK. It is active, if the BLOCKS VERIFICATION option is not enabled. The zone restore will disarm the partition

to which the zone belongs, and the zone violation will shorten the exit delay time. If the RESTORE DISARMS option is not enabled, the zone violation will disarm the partition, and zone restore will shorten the exit delay time.

**Restore disables verification** – an option for the 17. SHUNT LOCK reaction type. It is active, if the BLOCKS VERIFICATION option is enabled. The zone restore will blocks verification in the partition to which the zone belongs, and the zone violation will shorten the exit delay time. If the option RESTORE DISABLES VERIFICATION is not enabled, the zone violation will blocks verification, and the zone restore will shorten the exit delay time.

**Alarm clearing** – an option for the 13. ARM/DISARM and 15. DISARMING reaction types. Together with disarming, the alarm is cleared (except for the tamper alarms). Violation of the zone with 15. DISARMING type of reaction will also clear the alarm, when the system is not armed.

**Write violations to event log** – an option for the 12: NO ALARM ACTION reaction type. Violation of the zone is saved into the event log (the way of saving the event depends on the KEYBOX CONTROL option).

**Store event only if armed** – an option for the reaction type 12: NO ALARM ACTION. It is active when the WRITE VIOLATIONS TO EVENT LOG option is enabled. Zone violations are saved in the event log when the partition to which the zone belongs is armed.

**Keybox control** – an option for the reaction type 12: NO ALARM ACTION. It is active when the WRITE VIOLATIONS TO EVENT LOG option is enabled. Violation of the zone will result in logging an event which informs that the keybox is open. The event code is sent to the monitoring station. If this option is disabled, an event will be logged informing about zone violation, which will not be reported.

LED	Name displayed on LCD keypad	Options	Reaction type
1	Al. on exit end	Alarm on exit delay end	0-11
2	Priority	Priority	all
3	Bypass disabled	Bypass disabled	all
4	Active night arm	Active in night arm	0-4
5	Active day arm	Active in day arm	0-4
6	Power up delay	Power-up delay	all
7	Warn. in part. arm	Warning in partial arming	0-4
8	Warn. on int. sir.	Warning on internal sirens	0-4
9	Auto-bypass 3	Auto-reset 3	0-10
10	Auto-bypass 1	Auto-reset 1	0-10
11	Autobypass reset	Clearing Autoreset	0-10
12	Arm.with one p.	Armed if one partition armed	0-4
		Keybox control	12
13	Disable verific.	Blocks verification	0, 1, 17
		Write violations to event log	12
14	Finish exit time	Restore disarms	17
		Restore disables verification	17
		Store event only if armed	12
		Alarm clearing	13, 15

Table 5. The method of presenting zone options on keypads. In graphic mode, the options in the LCD keypad are numbered in the same way as in the LED keypad.

## 6. Outputs

---

There can be up to 12 outputs in the system:

- hardwired – on the control panel PCB and in the expander. The number of available hardwired zones is determined by the control panel during the identification procedure.
- wireless – after connection of the ACU-100 controller. The number of available wireless zones depends on the number of wireless devices registered in the system and is determined during the procedure of adding the same.

In the DLOADX program, the parameters and options of outputs are programmed in the "Versa – Outputs" window (see: Fig. 10).

In the keypad, the parameters and options of outputs are configured by means of the OUTPUTS function (SERVICE MODE ►2. HARDWARE ►3. OUTPUTS). Programming is performed by means of the "step by step" method (the numbers are displayed in binary mode on the  and  LEDs of the first and second partition):

1. Select output.
2. Output function.
3. Cut-off time.
4. Triggering zones [actually, the partition armed mode is selected for the output with function 18. ARMED STATUS, and the troubles for the output with function 19. TROUBLE STATUS (see: Section OUTPUT PARAMETERS)].
5. Output options.
6. Output name [only in LCD keypad].

### 6.1 Numeration of outputs in the system

---

The control panel supports outputs having numbers from 1 to 12. The numbers of hardwired and wireless outputs may coincide. The control panel will support them simultaneously.

#### 6.1.1 Hardwired outputs

The hardwired outputs are assigned numbers automatically:

- the outputs on control panel main board have numbers from 1 to 4;
- the outputs in expander have numbers from 5 to 12.

#### 6.1.2 Wireless outputs

The wireless outputs can be assigned numbers from 1 to 30. The numbers are assigned during the procedure of adding wireless devices (the output number is the same as the number of selected zone). You should bear in mind that the control panel does not support the outputs with numbers from 13 to 30.

## 6.2 Output functions

---

### 0. NOT USED

1. **EXTERNAL SIREN** – signals the burglary, panic and tamper alarms.
2. **INTERNAL SIREN** – signals the burglary, panic and tamper alarms, as well as the warning alarms.

**Note:** The way of signaling the tamper alarms by the outputs with functions 1. EXTERNAL SIREN and 2. INTERNAL SIREN depends on the global options TAMPER ALARM ALWAYS AUDIBLE and TAMPER ALARM ON INTERNAL SIRENS.

3. **BURGLARY** – signals the alarms from zones with reaction types from 0 to 7.

4. **FIRE ALARM** – signals the fire alarms from keypad and from zones with reaction type 10. 24H FIRE.
5. **“DURESS” ALARM** – signals that code with DURESS right was used for arming/disarming or alarm clearing.
6. **PANIC ALARM** – signals the panic alarms from keypad and from zones with reaction type 7. 24H PANIC.
7. **AUX. ALARM** – signals the medical assistance call alarms triggered from keypad and from zones with reaction type 9. 24H MEDICAL.
8. **ALARM – NOT VERIFIED** – signals the unverified alarms.
9. **ALARM - VERIFIED** – signals the verified alarms.
10. **TAMPER ALARM** – signals the tamper alarms.
11. **FIRE DETECTORS POWER SUPPLY** – the dedicated output for power supply of the fire detectors with automatic verification alarm. After violation of the fire zone the output will be disabled for 16 seconds. If, after the power is turned on again, another violation from the fire zone occurs, the fire alarm will be triggered.
12. **POWER SUPPLY ON ARMED** – the dedicated output for power supply of the detectors which should not be active when the system is disarmed. It gets activated at moment of arming, without taking into account the EXIT DELAY.
13. **ZONE VIOLATION** – signals violation of the zones.
14. **CHIME** – signals violation of the zones when they are disarmed.
15. **CONTROLLED** – controlled by means of zones, timers, keypad or from key fob.
16. **READY STATUS** – indicates whether the system is ready for arming, i.e. whether there are no violated zones (active when there is no violation).
17. **EXIT DELAY STATUS** – indicates that the EXIT DELAY countdown is running.
18. **ARMED STATUS** – indicates the armed mode (after completion of the exit delay countdown).
19. **TROUBLE STATUS** – indicates troubles.

### 6.3 Output parameters

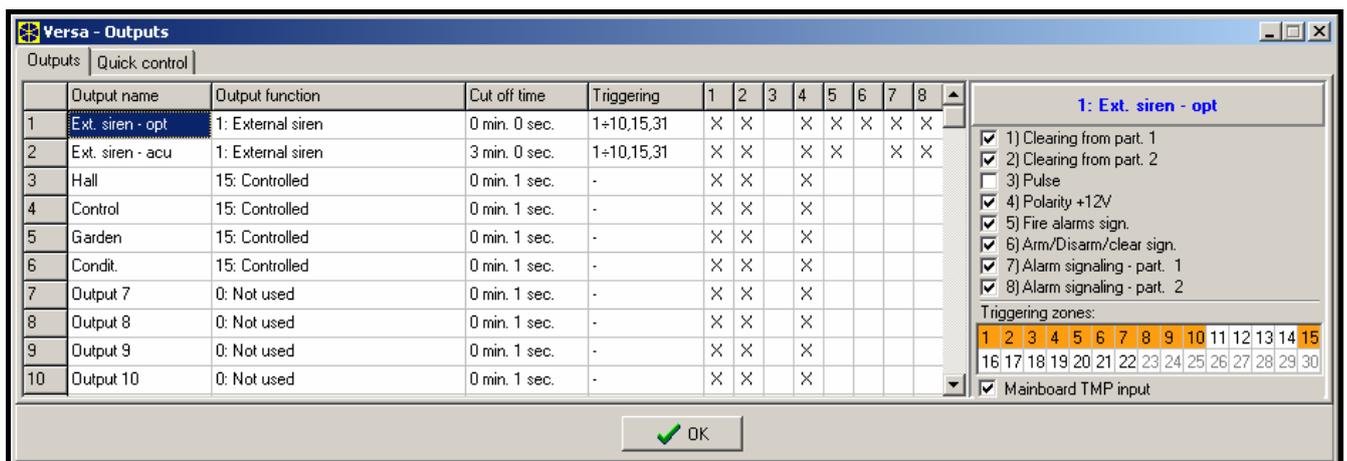


Fig. 10. "Versa – Outputs" window in the DLOADX program.

**Output name** – individual name of the output (up to 16 characters).

**Cut-off time** – time during which the alarm outputs and the outputs with functions 13. ZONE VIOLATION, 14. CHIME and 15. CONTROLLED are active. Entering the value 0 modifies the way of functioning of some outputs:

- alarm outputs remain active until the alarm is cleared,

- output 13. ZONE VIOLATION remains active throughout the time of zone violation,
- output 15. CONTROLLED remains active until another violation of the controlling zone, disabling of timer or disabling of the output by means of keypad (bistable mode).

**Activation: zones** – the zones whose status has effect on the output status.

**Activation: partition armed mode** – the armed modes whose activation in the partition will activate the output with function 18. ARMED STATUS (the number corresponds to the LED number in the LED keypad and to the item number in graphic mode in the LCD keypad):

1. Partition 1 – full armed mode
2. Partition 1 – night armed mode
3. Partition 1 – day armed mode
4. Partition 2 – full armed mode
5. Partition 2 – night armed mode
6. Partition 2 – day armed mode

If no armed mode is selected, the output will activate any armed mode is activated.

**Activation: troubles** – the troubles the occurrence of which will activate the output with function 19. TROUBLE STATUS (the number corresponds to the LED number in the LED keypad and to the item number in graphic mode in the LCD keypad):

1. AC loss – control panel mainboard
2. Battery trouble – control panel mainboard
3. Telephone line – no voltage
4. Telephone line – no dial tone
5. OUT1 output trouble
6. OUT2 output trouble
7. KPD output trouble
8. AUX output trouble
9. Reporting trouble – monitoring station 1
10. Reporting trouble – monitoring station 2
11. Wireless system jamming
12. Communication bus short circuit
13. Clock loss
14. RAM memory error
15. Mainboard TMP open
16. Zones – tamper
17. Zones – long zone
18. Zones – no violation
19. Zones – masking
20. Wireless device battery low
21. Wireless device communication loss
22. Module tamper
23. No presence (module)
24. AC loss (module)
25. Battery trouble (module)
26. Power output overload (module)
27. Low battery (key fobs)
28. Module restart

## 29. Control panel restart

## 6.4 Output options

**Clearing from partition 1 / Clearing from partition 2** – depending on the output function:

- alarm outputs – the alarm can be cleared by users having access to the selected partition,
- outputs 1. EXTERNAL SIREN and 2. INTERNAL SIREN with enabled ARMING/DISARMING/CLEARING SIGNALING option – the output will be activated when the selected partition is armed/disarmed, or when alarm is cleared in it.

**Partition 1 / Partition 2** – depending on the output function:

- 12. POWER SUPPLY ON ARMED – the output is active when the selected partition is armed (it activates on arming, without taking the exit delay into account),
- 15. CONTROLLED – the output can be controlled by the users having access to the selected partition by means of the user function 8. CONTROL (if no partition is selected, the function 8. CONTROL will not be available in the keypad),
- 17. EXIT DELAY STATUS – the output is active when the exit delay countdown is running in the selected partition,
- 18. ARMED STATUS – the output is active when partition/partitions is/are armed (see: parameter ACTIVATION: PARTITION ARMED MODE and option ONE PARTITION ARMED SIGNALING).

**Reset in partition 1 / Reset in partition 2** – the output with function 13. ZONE VIOLATION, in which the CUT-OFF TIME equal to 0 is programmed, can be reset with the OUTPUTS RESET user function by the users having access to the selected partition.

**Pulse** – output with pulsating mode of operation (0.5/0.5 sec.). This option refers to the outputs for which the cut-off time is to be programmed (except for the OUTPUTS 1. EXTERNAL SIREN and 2. INTERNAL SIREN).

**Polarity +12V** – activation results in switching on the device connected to the output. If the option is disabled (reverse polarity), will result in switching off the device connected to the output (the device will be switched on, when the output is inactive).

		high-current output	
		option enabled (normal polarity)	option disabled (reverse polarity)
active state	inactive state	+12V voltage supplied	+12V voltage cut off
	inactive state	+12V voltage cut off	+12V voltage supplied
		low-current output	
		option enabled (normal polarity)	option disabled (reverse polarity)
active state	inactive state	shorted to ground	disconnected from ground
	inactive state	disconnected from ground	shorted to ground

Table 6. Mode of output operation depending on the POLARITY +12V option.

**Fire alarms signaling** – option for the OUTPUTS 1. EXTERNAL SIREN and 2. INTERNAL SIREN. The output signals in pulsating mode the fire alarms from selected zones (see: ACTIVATION: ZONES) and partitions (see: output options ALARM SIGNALING – PARTITION 1 and ALARM SIGNALING – PARTITION 2).

**One partition armed signaling** – option for the output 18. ARMED STATUS, active when the PARTITION 1 and PARTITION 2 options are enabled. The output indicates armed mode when

any of the two partitions is armed (if the option is disabled, only when both partitions are armed).

**Arming/Disarming/Clearing signaling** – option for the outputs 1. EXTERNAL SIREN and 2. INTERNAL SIREN (see also: output options CLEARING FROM PARTITION 1 and CLEARING FROM PARTITION 2 and global option ARMING/DISARMING/CLEARING SIGNALING FROM ZONES ONLY). The output signals arming and disarming as well as alarm clearing. Arming is signaled by one pulse, disarming – by two pulses, and alarm clearing – by four pulses. Pulse duration is approx. 0.3 second.

**Alarm signaling – partition 1 / Alarm signaling – partition 2** – an option for the alarm outputs. The output signals the selected partition alarms which were not triggered by zones.

**Timer 1 / Timer 2 / Timer 3 / Timer 4** – options for the 15. CONTROLLED outputs. The output is controlled by selected timer (switch on the timer to activate the output for the CUT-OFF TIME).

LED	Name displayed on LCD keypad	Options	Output function
1	Part.1 clears	Clearing from partition 1	1-10
		Partition 1	12, 15, 17, 18
		Reset in partition 1	13
2	Part.2 clears	Clearing from partition 2	1-10
		Partition 2	12, 15, 17, 18
		Reset in partition 2	13
3	Pulsation	Pulse	3-10, 13-15
4	Polarization +	Polarity +12V	all
5	Fire alarm	Fire alarms signaling	1, 2
		Timer 1	15
		One partition armed signaling	18
6	Arm/dArm/Cl.chrp	Arming/Disarming/Clearing signaling	1, 2
		Timer 2	15
7	Part.1 alarms	Alarm signaling – partition 1	1-10
		Timer 3	15
8	Part.2 alarms	Alarm signaling – partition 2	1-10
		Timer 4	15

Table 7. The way of presenting output options in keypads. The options in the graphic mode in the LCD keypad are numbered in the same way as in the LED keypad.

## 6.5 Quick control of outputs

If the quick control of the outputs 15. CONTROLLED is to be available in keypads, the outputs of this type must be assigned to the corresponding keypad keys. One output can be assigned to each of the keys designated with numerals. To activate that output, press the key with respective numeral and confirm using the  key, and to deactivate the output, press the same key and confirm using the  key.

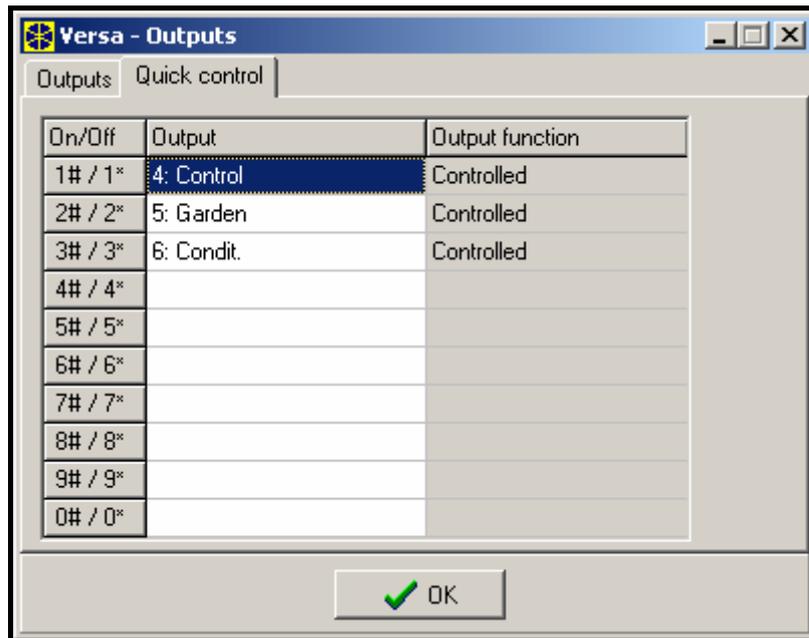


Fig. 11. Assigning the outputs to corresponding keypad keys in the DLOADX program (an example of configuration).

## 7. Programming Keypads and Expanders

In the DLOADX program, the working parameters of keypads and expanders should be programmed in the "Versa – Structure" window, "Hardware" tab, after the required device is selected in the list (see. Fig. 12). In the keypad, their working parameters should be configured by means of the SETTINGS function (SERVICE MODE ►2. HARDWARE ►1. KPDS & EXPS. ►2. SETTINGS). Having selected the device from the displayed list, the programming is performed using the "step by step" method.

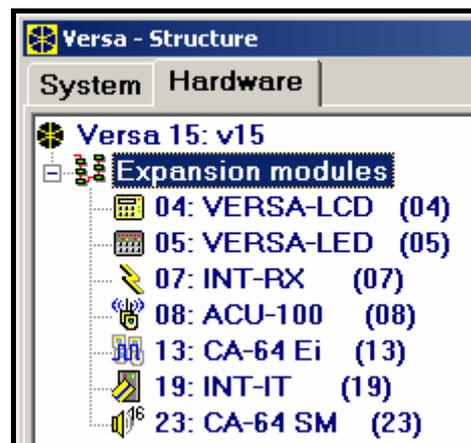


Fig. 12. List of devices connected to the control panel, displayed in the "Hardware" tab, "Versa – Structure" window (an example of configuration).

The following can be programmed for all devices connected to the communication bus:

**Name** – individual name of the device (up to 16 characters).

**Tamper signaled in partition** – the partition in which tamper alarm will be triggered in the event of tamper or disconnection of the device from the system.

## 7.1 VERSA-LCD-GR / VERSA-LED-GR keypad

**Signaling CHIME from zones** – a list of zones which, when violated, will generate chime signal in the keypad.

**Date/Time format** – display mode for time and date.

**LCD backlight** – display backlight mode in the VERSA-LCD-GR keypad.

**Keys backlight** – backlight mode for the keys.

**Auto-backlight** – automatic illumination switch-on mode for the keys (in VERSA-LCD-GR keypad, also for the display).

**Sounder volume** – control of the loudness level of sounds generated in the keypad.

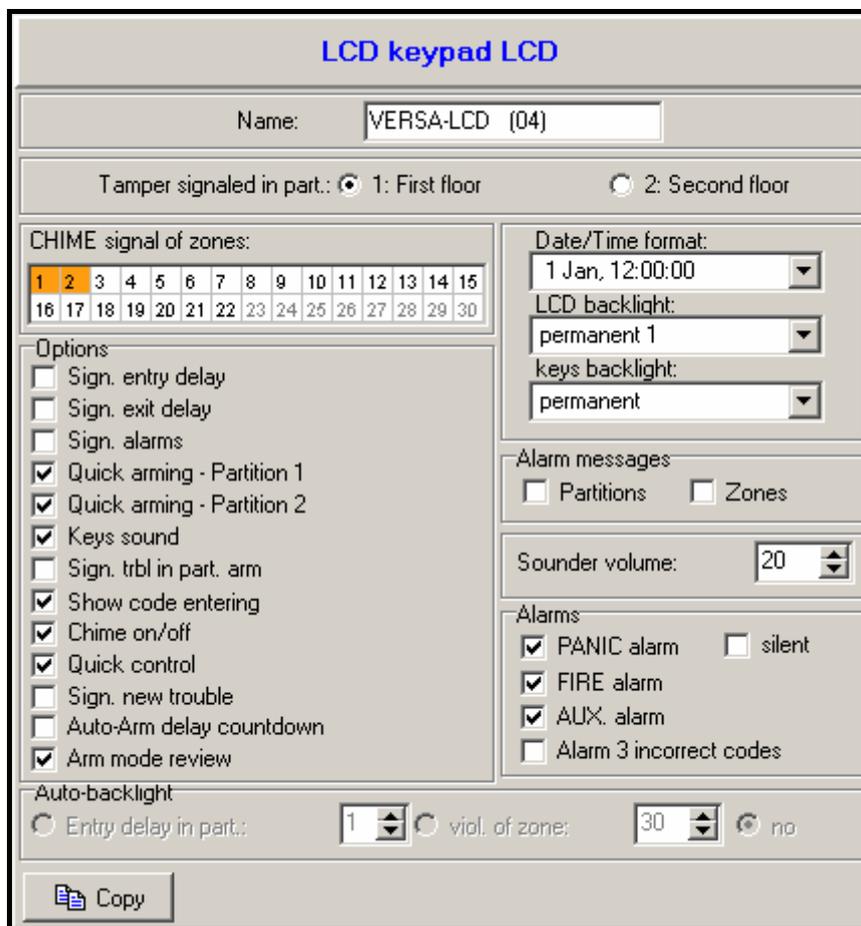
### Keypad options

- **Signal entry delay** – the keypad will acoustically signal the entry delay countdown.
  - **Signal exit delay** – the keypad will acoustically signal the exit delay countdown.
  - **Signal alarms** – the keypad will acoustically signal alarms. Duration of signaling is determined by the KEYPAD'S ALARM TIME (see: GLOBAL TIMES).
  - **Quick arming – Partition 1** – quick arming is possible in partition 1 (see: USER MANUAL).
  - **Quick arming – Partition 2** – quick arming is possible in partition 2 (see: USER MANUAL).
  - **Key sound** – keystrokes on keypad are acoustically signaled.
  - **Signal trouble in partially armed** – the  LED will be signaling trouble until both partitions are fully armed (if this option is disabled, activation of any armed mode in any partition will disable trouble signaling in the keypad).
  - **Show code entering** – the keypad will inform about a code being entered:
    - VERSA-LCD-GR** – entering the code is shown by means of asterisks in the lower line of the LCD display;
    - VERSA-LED-GR** – entering the code is shown by means of LEDs in the lower line of LEDs.
  - **Chime ON/OFF** – the chime signal can be enabled/disabled by means of the  key (the key is to be pressed for about 3 seconds).
  - **Quick control** – the outputs can be quickly controlled by means of numerical keys. If any 15. CONTROLLED output is assigned to the key (see: Section QUICK CONTROL OF OUTPUTS), press that key and confirm using  to activate the output, and press the same key and confirm using  – to deactivate it.
  - **Signal new trouble** – the keypad will acoustically signal occurrence of a new trouble, if the TROUBLE MEMORY UNTIL REVIEW option is enabled (see: Section GLOBAL OPTIONS).
  - **Auto-arm delay countdown** – the keypad will acoustically signal the auto-arm delay countdown.
  - **Arm mode review** – press and hold down the  key for about 3 seconds to display information on the partition status (whether or not they are armed and what is their armed mode – see: USER MANUAL).
- Alarms** – options regarding the alarms triggered from keypad (the list of options in keypad includes also those for displaying alarm messages on the VERSA-LCD-GR keypad, as described below):
- **Fire alarm** – press the  key for approx. 3 seconds to trigger the fire alarm.

- **AUX. alarm** – press the  key for approx. 3 seconds to trigger the medical assistance call alarm.
- **Panic alarm** – press the  key for approx. 3 seconds to trigger the panic alarm.
- **Panic alarm silent** – if the PANIC ALARM option is enabled, press the  key for about 3 seconds to trigger the silent panic alarm. The silent panic alarm is not signaled, but the event code is reported to the monitoring station.
- **Alarm: 3 incorrect codes** – if an invalid code is entered three times, alarm will be triggered.

**Alarm messages** – these options apply to the VERSA-LCD-GR keypad:

- **Partitions** – an alarm in the partition will result in the alarm message being displayed. The message includes name of the partition in which the alarm was triggered.
- **Zones** – an alarm from zone will result in the alarm message being displayed. The message includes name of the zone which triggered the alarm. The zone alarm message has priority.



**LCD keypad LCD**

Name:

Tamper signaled in part.:  1: First floor  2: Second floor

CHIME signal of zones:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Options

- Sign. entry delay
- Sign. exit delay
- Sign. alarms
- Quick arming - Partition 1
- Quick arming - Partition 2
- Keys sound
- Sign. trbl in part. arm
- Show code entering
- Chime on/off
- Quick control
- Sign. new trouble
- Auto-Arm delay countdown
- Arm mode review

Date/Time format:

LCD backlight:

keys backlight:

Alarm messages

- Partitions
- Zones

Sounder volume:

Alarms

- PANIC alarm  silent
- FIRE alarm
- AUX. alarm
- Alarm 3 incorrect codes

Auto-backlight

Entry delay in part.:   viol. of zone:   no

Fig. 13. Programming keypad settings in the DLOADX program (an example of configuration).

## 7.2 ABAX wireless system controller

**Response period** – communication with the wireless devices takes place in preset time intervals. During that time the controller collects information on the status of devices and, if necessary, sends commands to the devices, e.g. switches the detectors to active/passive mode, enables/disables the test mode and modifies configuration of the devices. The response period can be **12**, **24** or **36** seconds. The less frequently communication between controller and wireless devices takes place, the more wireless devices can work within

their mutual operating range. For 12 s, the maximum number of devices is 150, for 24 s – 300, and for 36 s – 450. Outside the response period, information on device tampers and on violations of active mode detectors is sent to the controller. Additionally, the RESPONSE PERIOD has an effect on the level of energy consumption by the wireless devices. The less frequently communication between controller and wireless devices takes place, the lower energy consumption and the longer battery life is.

**Synchronize** – the function starts the procedure of synchronization, i.e. checking whether other ABAX wireless system controllers operate within the controller range. The controller will adjust the response period so that radio transmissions from several controllers should not be jammed by each other. Synchronization takes place automatically on starting the controller and after each operation of adding/removing devices supported by the controller.

**Test mode** – in the test mode, all wireless devices will signal communication with the controller by blinking LED, and the detectors will signal violations and tampers on their LED indicators. During normal operation of the wireless devices, the LED signaling is switched off for energy-saving considerations. Siren signaling is disabled in the test mode. The test mode is enabled/disabled during the response time, thus causing a delay, the duration of which depends on the defined response period. The test mode will be automatically exited after 30 minutes of:

- starting the test mode by using the DLOADX program (the 30 minutes' time runs from the moment of exiting the controller settings),
- terminating the service mode in control panel.

**Note:** According to requirements of the EN50131 standard, the level of radio signals sent by wireless devices is reduced during the test mode operation.

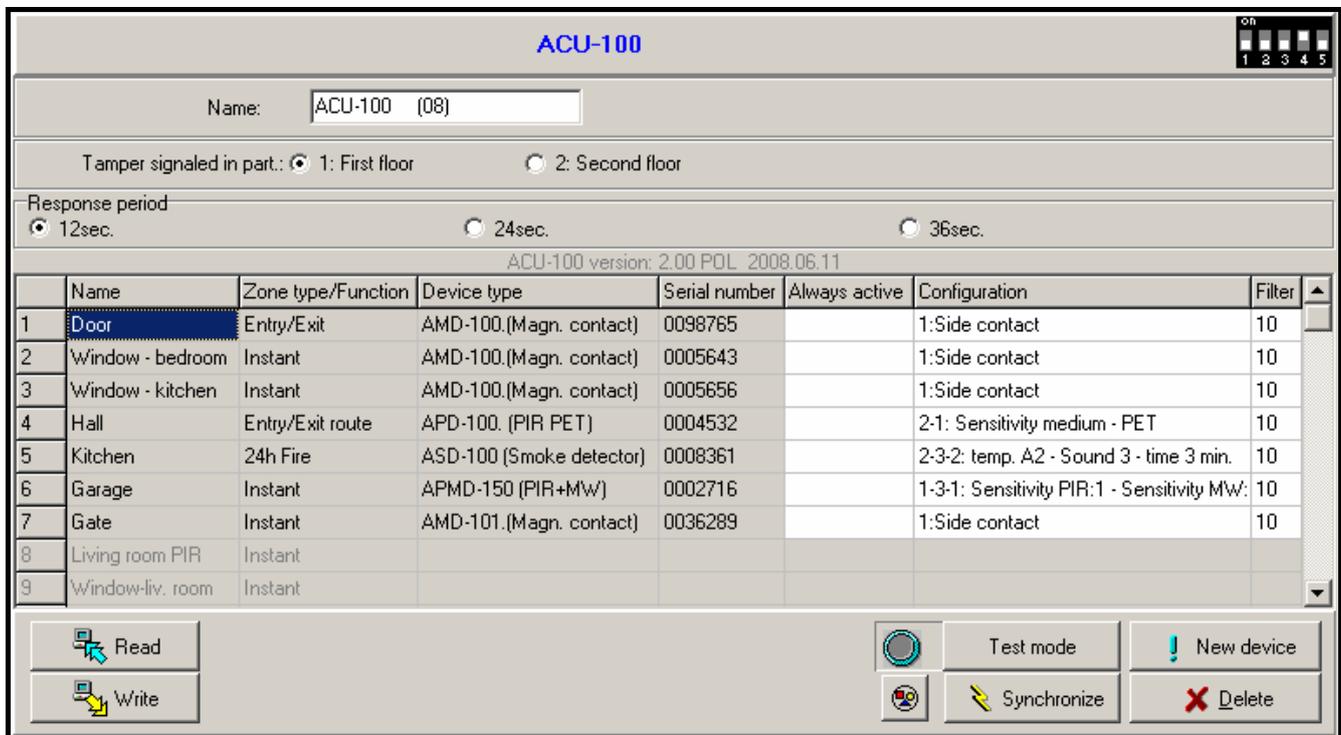


Fig. 14. Programming the settings of wireless system controller and wireless devices in the DLOADX program (an example of configuration).

## 7.2.1 Parameters of ABAX system wireless devices

**Filter** – the number of consecutive response periods, during which establishing communication with the device was unsuccessful, for the loss of communication with the device to be reported. You can enter values from 0 to 50. Entering the digit 0 will disable the check for device availability in the system.

**Always active** – option available in most wireless detectors. It enables the detector to be permanently switched over to the active mode (see: Section WIRELESS DETECTORS – GENERAL PROGRAMMING RULES).

**Note:** *The ALWAYS ACTIVE option does not have to be enabled for the wireless detectors assigned to 24-hr zones, because those zones are active at all times.*

**Configuration** – some of the wireless devices provide additional parameters and options, which can be configured by radio:

- **APD-100** – wireless passive infrared detector. Sensitivity is to be programmed. In case of detectors with firmware version 2.01, determine additionally whether the option of immunity to pets up to 15 kg in weight should be enabled.
- **APMD-150** – wireless dual motion detector. The following is to be programmed:
  - sensitivity of infrared path;
  - sensitivity of microwave path;
  - test mode operation.
- **AMD-100** and **AMD-101** – wireless magnetic detectors with an additional input. The AMD-101 detector takes up 2 zones in the system (the first zone – magnetic detector, the other zone – additional input of the detector). For detectors with electronics version 3.5 D or later, it should be determined which of the two reed switches on the electronics board is to be active.
- **AGD-100** – wireless glass break detector. Sensitivity of the high-frequency channel is to be programmed.
- **AVD-100** – wireless vibration detector and magnetic contact. The detector occupies 2 zones in the system (the first zone – magnetic contact, the other zone – vibration detector). Determine for the magnetic contact which of the two reed switches on the electronics board is to be active. Program the following for the vibration detector:
  - sensitivity. Sensing a single vibration meeting the sensitivity criterion will cause violation of the detector.
  - number of pulses. Registering the predefined number of vibrations within 30 seconds will cause violation of the detector. All vibrations count (they do not have to meet the sensitivity criterion). For the value 0, the pulses are not counted.

**Note:** *Parameters are being independently analyzed. As a result, the detector can signal violation after registering a strong single vibration, caused by a powerful impact, as well as after a few slight vibrations, caused by a series of weak strikes.*

- **ASD-100** – wireless smoke and heat detector. The following is to be programmed:
  - operating mode of the heat detector (you can disable the detector or select the detection class in accordance with Standard EN 54-5);
  - operating mode of the buzzer;
  - duration of alarm signaling by buzzer/LED.
- **ASP-105** – wireless triggered outdoor siren. The following is to be programmed:
  - type of acoustic signaling;
  - duration of acoustic signaling.

- **ASP-205** – wireless indoor siren. You can program two types of signaling, defining for each of them:
  - signaling duration;
  - type of acoustic signaling;
  - whether optical signaling is to be enabled.
- **ASW-100 E** and **ASW-100 F** – 230 V AC wireless controller. Operating mode should be selected.

### 7.2.2 Wireless detectors – general programming rules

The wireless detectors send information on violations, tampers and low battery. Information on violations and tampers is transmitted to the zones to which the detectors are assigned. The system zones to which the wireless detectors are assigned may be programmed as:

- NC, NO or EOL – the zone will only inform about detector violation;
- 2EOL/NC or 2EOL/NO – the zone will inform about detector violation and tamper.

The manner of operation of wireless detectors depends on the status of partition to which the zone with wireless detector belongs:

- **partition is disarmed** – the detector works in **passive mode**. It is a battery saving mode, in which communication with the controller takes place mainly during time intervals determined by the RESPONSE PERIOD option, when information on violations and battery state is sent. Only detector tampers are sent immediately.
- **partition is armed** – the detector works in **active mode**. The detector sends all information to the controller right away.

Changing the detector operating mode from passive to active and conversely takes place during the response time, hence it is carried out with a time delay as against the arming/disarming. Such a delay – depending on the selected frequency of polling – can be up to 12, 24 or 36 seconds.

The wireless detectors assigned to the 24-hr zones, which are always armed, are always in the active mode. Also other wireless detectors may always work in the active mode, if the ALWAYS ACTIVE option is enabled for them (see: Section PARAMETERS OF ABAX SYSTEM WIRELESS DEVICES).



**Batteries ensure approx. 3 years' operation of the detectors, assuming that the detectors are in passive state for part of that period and that the RESPONSE PERIOD is 12 seconds. The battery life in detectors which have been permanently switched to active state will be reduced. On the other hand, reducing the frequency of polling will extend the battery life. For example, the life of battery in magnetic detector protecting a window will be longer than indicated in the manual, even if switched permanently to the active state, when the response period is set at 36 seconds. The number of possible violations of the detector will be lower than the number of additional transmissions at the 12 seconds' response time.**

### 7.2.3 Wireless sirens – general rules of programming

The wireless sirens take up 2 outputs and 2 zones in the system. How the signaling is controlled depends on the siren:

- **ASP-105** – the first of outputs to which the siren is assigned controls the acoustic signaling. Parameters of the acoustic signaling are programmed for the siren (type and duration of acoustic signaling). The other output controls the optical signaling. The optical signaling is enabled when the output is active. The command to start signaling (and in case of optical signaling, also to stop it) is sent to the siren immediately.

- **ASP-205** – both outputs to which the siren is assigned control both acoustic and optical signaling. Parameters of the signaling triggered by each of the outputs are programmed separately for the siren. It makes it possible to configure two different, independently triggered ways of signaling. The outputs can thus separately control optical and acoustic signaling or signal different types of alarm (e.g. burglary and fire). The command to trigger signaling is sent to siren only during the response time. Hence the cut-off time for the control panel outputs which control the siren must be longer than the response time. It is recommended that that time correspond to the time programmed in the siren for signaling triggered by the output.

The system zones to which the wireless sirens are assigned may be programmed as:

- NC, NO or EOL – the zone will only inform about troubles related to power supply;
- 2EOL/NC or 2EOL/NO – the zone will inform about troubles related to power supply and tamper.

Reaction type of the zones to which the wireless siren is assigned should be suitable for the information to be sent:

- **ASP-105**
  - first zone: low battery and tamper;
  - second zone: 12 V DC external power loss and tamper.
- **ASP-205**
  - both zones: low battery and tamper.

Information on tamper is sent immediately, and that on troubles – during the response time.

#### **Notes:**

- *After starting the SERVICE MODE or TEST MODE and for 40 seconds after power-up, signaling in the siren is blocked to enable installation work to be carried out. Opening the tamper contact will not trigger any loud signaling, but information on tamper will be sent (when in service mode, the control panel is signaling no tamper alarms). The command to block/unblock signaling in connection with entering/exiting the test mode or service mode is sent during the response time.*
- *Violation of the ASP-205 siren tamper will generate a tamper alarm which will last 3 minutes (sound type 1 and optical signaling).*

### **7.2.4 Wireless expanders of hardwired zones and outputs – general rules of programming**

The wireless expander for hardwired zones and outputs (ACX-200 or ACX-201) takes up 4 zones and 4 outputs in the system. Parameters of the expander zones and outputs are programmed in the same way as for the other hardwired zones and outputs of control panel. You should however remember that the sensitivity of expander zones may be different from that programmed in the control panel:

- from 20 ms to 140 ms – it corresponds to sensitivity programmed in the control panel;
- over 140 ms – only some values are available: 300 ms, 500 ms, 700 ms, etc. every 200 ms (the programmed value is rounded off to that supported by the expander).

The expander provides on-line information about the zone status. The expander outputs are also controlled in the on-line mode. Only the programming of zones takes place during the response time (during one period, configuration data regarding one zone are sent to the expander, i.e. 4 response periods are required to send information on settings of 4 zones).

**Note:** *If communication with the controller is lost, all previously activated outputs will be deactivated after 20 response periods.*

Additionally, the ACX-201 expander will send information on:

- status of AUX1 and AUX2 power supply outputs – information on overload is sent when the load current of AUX1 or AUX2 output exceeds 0.5 A.
- battery status – information on low battery will be sent when the battery voltage drops below 11 V for more than 12 minutes (3 battery tests). The information will be sent to the controller when the battery voltage rises above 11 V more than 12 minutes (3 battery tests).
- AC supply status – information on the loss of power supply will be sent when the AC power loss lasts for more than 30 seconds. The AC supply restore is reported with the same delay.

### 7.2.5 230 V AC wireless controllers – general rules of programming

Activation of the output to which the controller is assigned will result in energizing the 230 V electrical circuit (if reverse polarity of the output has been programmed, the circuit will be deenergized).

Depending on the operating mode, information on the button status (mode 0) or on the electrical circuit status (mode 1 and mode 2) will be sent to the control panel zone to which the controller is assigned. Information on the button status is being sent in on-line mode. Information on the electrical circuit status is sent during the response time. Pressing the button/closing the electrical circuit means violation of the zone to which the controller is assigned.

Be careful when selecting the FILTER value for ASW-100 E or ASW-100 F controller, i.e. the number of unanswered response periods after which the loss of communication with the controller will be reported. As the 230 V sockets are installed at low height, the controllers mounted in them are subject to the risk of being covered by people moving around the facility.

### 7.2.6 Configuration of wireless devices by means of the DLOADX program

In the DLOADX program, parameters of the wireless devices are configured in the "Versa – Structure" window, "Hardware" tab, after selecting the ACU-100 controller in the list of devices. Click on the "Read" button in the table to display the list of wireless devices available in the system. In order to save the new setting of wireless devices, click on the "Write" button situated below the table (the  and  buttons in the main menu of the DLOADX program are not provided for reading/writing the settings of wireless devices supported by the controller). Described below is the procedure of programming additional parameters and options for wireless devices, available in the "Configuration" column.

#### APD-100 detector

For detectors with firmware version 2.01, enter a 2-digit sequence. The first digit relates to sensitivity (see: Table 8), and the second one – to the pet immunity option (0 – option disabled, 1 – option enabled). For detectors with older firmware, enter a digit from 1 to 3, which corresponds to the selected sensitivity (see: Table 8).

Digit	Detector sensitivity
1	low
2	medium
3	high

Table 8.

**APMD-150 detector**

Enter a 3-digit sequence:

**1<sup>st</sup> digit** – sensitivity of infrared path: from 1 to 4,

**2<sup>nd</sup> digit** – sensitivity of microwave path: from 1 to 8,

**3<sup>rd</sup> digit** – type of operation in the test mode: 0 (signaling violation after motion is sensed by both detectors), 1 (signaling violation after motion is sensed by infrared detector) or 2 (signaling violation after motion is sensed by microwave detector).

For example, entering the values 4-4-0 means that the infrared sensitivity path has been set to 4, the microwave sensitivity path also to 4, and in the test mode the detector will signal violation (the LED will light up) after motion is sensed by both detectors.

**AMD-100 and AMD-101 detectors**

For detectors with electronics version 3.5 D or newer, enter the digit 0 (the lower reed switch) or 1 (the side reed switch) to select which of the two reed switches is to be active. For detectors with an older electronics version, no additional parameters can be programmed (the active reed switch is selected by means of jumpers).

**AGD-100 detector**

Enter a digit from 1 to 3 which corresponds to the selected sensitivity for the high-frequency channel (see: Table 8).

**AVD-100 detector**

For the magnetic contact (the first zone occupied by the AVD-100 detector), enter the digit 0 (the lower reed switch) or 1 (the side reed switch) to select which of the two reed switches is to be active.

For the vibration detector (the second zone occupied by the AVD-100 detector), enter a 2-digit sequence:

**1<sup>st</sup> digit** – sensitivity: from 1 to 8,

**2<sup>nd</sup> digit** – number of pulses: from 0 to 7.

For example, entering the values 4-6 means that sensitivity has been set to 4, and the number of pulses to 6.

**ASD-100 detector**

Enter a 3-digit sequence corresponding to the selected parameters, as shown in Table 9.

1st digit		2nd digit		3rd digit	
digit	heat detector	digit	acoustic signaling	digit	signaling time
0	disabled	0	none	1	1 minute
1	A1	1	sound type 1	2	3 minutes
2	A2	2	sound type 2	3	6 minutes
3	B	3	sound type 3	4	9 minutes

Table 9.

For example, entering the 0-2-4 means that the heat detector has been disabled, acoustic signaling type 2 has been selected, and the signaling by means of buzzer/LEDs will last 9 minutes.

**ASP-105 siren**

Program the acoustic signaling parameters (the first zone to which the siren is assigned), i.e. enter the two-digit sequence, according Table 10.

1st digit		2nd digit	
digit	acoustic signaling	digit	signaling time
1	sound type 1	1	1 minute
2	sound type 2	2	3 minutes
3	sound type 3	3	6 minutes
4	sound type 4	4	9 minutes

Table 10.

For example, entering the values 2-3 means that acoustic signaling type 2 has been selected and that its duration will be 6 minutes.

**ASP-205 siren**

Configure the parameters of signaling triggered by the outputs to which the siren is assigned. Each output can trigger an individual type of signaling, thus you should program parameters for two signaling types, entering in each case a 3-digit sequence according to Table 11.

1st digit		2nd digit		3rd digit	
digit	signaling time	digit	acoustic signaling	digit	optical signaling
1	1 minute	0	none	0	disabled
2	3 minutes	1	sound type 1	1	enabled
3	6 minutes	2	sound type 2	-	-
4	9 minutes	3	sound type 3	-	-

Table 11.

For example, entering the values 2-0-1 means that the signaling will last 3 minutes, the acoustic signaling has been disabled, and the optical signaling enabled.

**ASW-100 E and ASW-100 F controllers**

Enter a digit from the 0 to 2 range, which corresponds to the selected mode of operation:

- 0 – electric circuit is only remotely controlled;
- 1 – electric circuit may be controlled remotely or manually;
- 2 – electric circuit may be controlled remotely or manually, but remote control can be manually disabled.

**7.2.7 Configuration of wireless devices by means of the LCD keypad**

The working parameters for each wireless device are configured by the "step by step" method as the device is added to the system. In the first step, the FILTER parameter should be always programmed, which is applicable to nearly all wireless devices (except for the ARF-100 tester). The next steps depend on the type of device (e.g. for most detectors, it is defined in the next step whether the detector is to be always active).

The parameters of each wireless device can be modified at any moment by means of the CONFIGURE DEVICE function (SERVICE MODE ►2. HARDWARE ►1. KPDS & EXPS. ►3. ACU-100 ►2. CONFIG. DEVICE). After the function is started, the keypad will display a list of zones to which the wireless devices are assigned. Even if the device occupies a few zones, only the first of them can be displayed. The number of displayed zones depends on the type of device. Using the  and  keys, select from the list the zone to which the device to be configured is assigned, and confirm your selection using the  key. Described below

is "step by step" programming the settings of the wireless devices for which additional configuration options and parameters are available.

### APD-100 detector

1. Enter an appropriate value for the FILTER and press .
2. Determine whether the detector is to be always active (· – option disabled,  – option enabled). Press .
3. Enter a digit from the 1 to 3 range, corresponding to the selected sensitivity level (see: page 46 Table 8). Press .
4. Determine whether the pet immunity option is to be enabled (· – option disabled,  – option enabled). Press .

**Note:** The last (fourth) step of programming is available for detectors with firmware version 2.01 or newer. In the detectors with older firmware, the programming ends after the third step.

### APMD-150 detector

1. Enter an appropriate value for the FILTER and press .
2. Determine whether the detector is to be always active (· – option disabled,  – option enabled). Press .
3. Enter a digit from the 1 to 4 range, corresponding to the selected sensitivity of infrared path. Press .
4. Enter a digit from the 1 to 8 range, corresponding to the selected sensitivity of microwave path. Press .
5. Using the  and  keys, select the way of operation in the test mode (PIR+MW, PIR or MW). Press .

### AMD-100 and AMD-101 detector

1. Enter an appropriate value for the FILTER and press .
2. Determine whether the detector is to be always active (· – option disabled,  – option enabled). Press .
3. Using the  and  keys, select which of the two reed switches (lower or side) is to be active. Press key .

**Note:** The last (third) step of programming is available for detectors with electronics version 3.5 D or newer. In the detectors with older electronics, the programming ends after the second step.

### AGD-100 detector

1. Enter an appropriate value for the FILTER and press .
2. Determine whether the detector is to be always active (· – option disabled,  – option enabled). Press .
3. Enter a digit from the 1 to 3 range, corresponding to the selected sensitivity of high-frequency channel (see: page 46 Table 8). Press .

### AVD-100 detector

The AVD-100 detector occupies 2 zones. Select the first one of the two zones to which the detector is assigned and:

1. Enter an appropriate value for the FILTER and press .

2. Determine whether the detector is to be always active (· – option disabled,  – option enabled). Press  .
3. Using the  and  keys, select which of the two reed switches of the magnetic contact (lower or side) is to be active. Press key .

Then select the second zone to which the detector is assigned and:

1. Enter a digit from the 1 to 8 range, corresponding to the selected sensitivity of vibration detector. Press .
2. Enter a digit from the 1 to 7 range, corresponding to the number of pulses, the recording of which will result in violation of the vibration detector. Press .

### ASD-100 detector

1. Enter an appropriate value for the FILTER and press .
2. Using the  and  keys, define operating mode of the heat detectors. Press .
3. Using the  and  keys, define operating mode of the buzzer (· – acoustic signaling disabled; 1, 2 or 3 – type of acoustic signaling). Press .
4. Using the  and  keys, determine the time of alarm signaling by the detector (buzzer or LED). Press .

### ASP-105 siren

1. Enter an appropriate value for the FILTER and press .
2. Using the  and  keys, select the type of acoustic signaling. Press .
3. Using the  and  keys, determine the time of alarm signaling. Press .

### ASP-205 siren

In the event of the ASP-205 siren, two types of signaling are to be programmed. Select the first zone to which the siren is assigned to program the signaling triggered by the first siren control output. Select the second zones to program the signaling triggered by the second siren control output. In both cases, the process of configuration is almost identical (except that the FILTER parameter is not programmed for the second zone).

1. Enter an appropriate value for the FILTER and press .
2. Using the  and  keys, select the operating mode of acoustic signaling (· – acoustic signaling disabled; 1, 2 or 3 – type of acoustic signaling). Press .
3. Using the  and  keys, determine the duration of acoustic signaling. Press .
4. Define whether the optical signaling is to be enabled (· – signaling disabled,  – signaling enabled). Press .

### ASW-100 E and ASW-100 F controllers

1. Enter an appropriate value for the FILTER and press .
2. Using the  and  keys, select operation mode for the button ("inactive" – the electric circuit is only remotely controlled; "interim control" – the electric circuit may be controlled remotely or manually; "combined control" – the electric circuit may be controlled remotely or manually, but the remote control can be blocked manually). Press .

## 7.3 Proximity card reader

**LED R** – reaction of the partition after removal of the card from the reader, when the red LED is lit. The partition can be fully armed or its status may remain unchanged.

**LED G / LED Y** – reaction of the partition after removal of the card from the reader, when the green / yellow LED is lit. One of the three armed modes can be enabled in the partition, the partition can be disarmed or its status may remain unchanged.

**Note:** In the DLOADX program, the type of partition reaction after removal of the card from the reader face is to be programmed by clicking in table on the field corresponding to the selected partition. A double click on the field will change the icon displayed in it. In the LCD keypad, the type of partition reaction should be selected from the list.

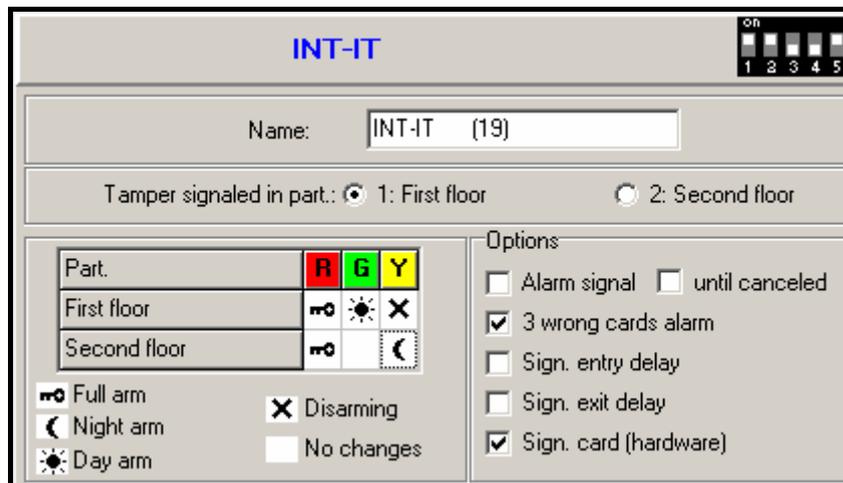


Fig. 15. Programming the proximity card reader settings in the DLOADX program (an example of configuration).

### Reader options

- **Alarm signaling** – the reader will be audibly signaling alarms during the KEYPAD'S ALARM TIME.
- **Alarm signaling until canceled** – the reader will be audibly signaling alarms until they are cleared.
- **3 wrong cards alarm** – reading the unknown card code three times by the reader will trigger alarm.
- **Signaling entry delay** – the reader will be audibly signaling the entry delay countdown.
- **Signaling exit delay** – the reader will be audibly signaling the exit delay and auto-arm delay countdown.
- **Signaling card (hardware)** – the reader will signal readout of the card code with a single beep (the code will be sent to the control panel after the card is removed and only then the reader will audibly signal its reaction to the read code).

## 8. Timers

4 timers can be programmed in the VERSA control panels. Using the timers, it is possible to control the armed mode of partitions and the outputs 15. CONTROLLED. The timer compares time with the control panel clock and executes the selected function at a set time. In the LCD keypad, only the timer names can be programmed in the service mode. The other parameters are programmed by means of functions available in the user menu ([CODE] \* ↵ ▶6. SETTINGS ▶3. TIMERS). In the DLOADX program, all parameters can be programmed in the "Versa – Timers" window.

The following can be programmed for each timer:

- individual name (up to 16 characters);

- activation/deactivation time individually for each day of the week and globally for all days of the week (consequently, the timer can be activated/deactivated twice a day: according to the settings defined for that day and according to the settings defined for the whole week);
- 4 exceptions, i.e. the time periods when the timer will be activated/deactivated at a different time than that programmed individually for each day of the week or globally for all days of the week.

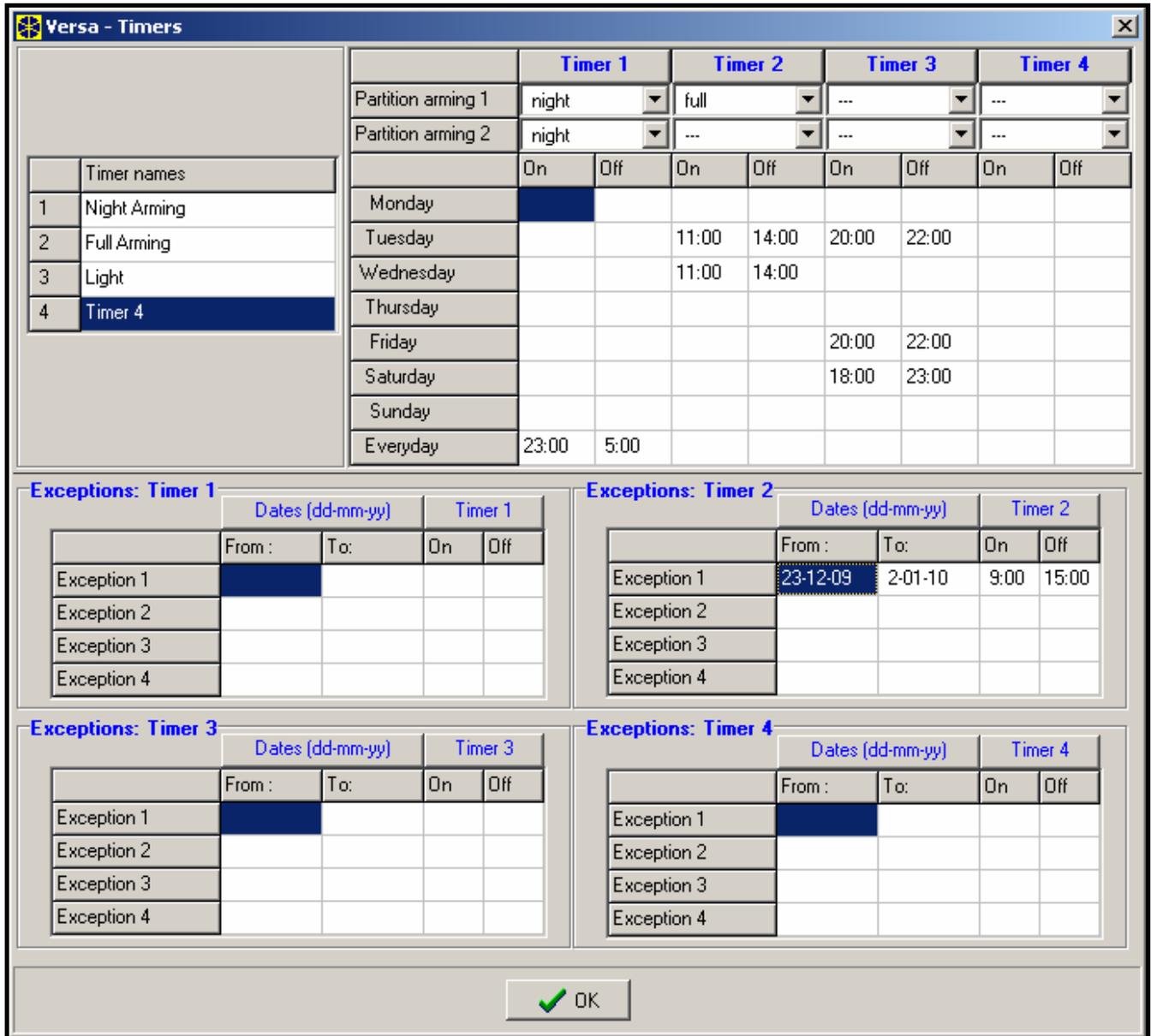


Fig. 16. "Versa – Timers" window in the DLOADX program.

## 9. Reporting

The control panel telephone dialer enables sending event codes to two monitoring stations. The following events can be reported:

- alarms,
- tampers,
- zone bypasses,

- troubles,
- arming/disarming,
- some other system related events (e.g. start and end of service mode, clock programming, end of remote programming, etc.).

Fig. 17. Programming the monitoring parameters and options in the DLOADX program (an example of configuration).

## 9.1 Reporting parameters and options

### Reporting options

- **Station 1 or 2** – event code will be sent to the station to which the control panel will be able to connect.
- **Station 1** – all event codes will be sent to Station 1.
- **Station 2** – all event codes will be sent to Station 2.
- **Station 1 and 2** – all event codes will be sent to both monitoring stations.
- **Events amount limiting** – events from the same source are saved into the event log and reported to the monitoring station 3 times only. This option does not apply to the

alarms from zones. For each zone, the number of alarms can be individually limited by means of the AUTO-RESET 3 or AUTO-RESET 1 option.

- **Report module restarts** – in case of sending event codes in Contact ID or SIA format, the monitoring station is informed about module restarts.
- **Restore after bell** – the zone restore code will only be sent to the monitoring station after the alarm signaling ends. If a few outputs are signaling alarm, the zone restore code will be sent when one of them stops signaling the alarm.
- **Restore after disarm** – the zone restore code will only be sent to the monitoring station after disarming the partition to which the zone belongs.

### Station 1 / Station 2

**Reporting format** – format in which event codes are sent to the monitoring station. The VERSA series control panels allow to chose from several formats, including Contact ID and SIA.

**Telephone number** – telephone number of the monitoring station.

**Repetitions** – the number of attempts to establish connection with the monitoring station after which, if there is no connection (busy number, no answer from the station, etc.), the control panel will suspend reporting. Up to 31 retries can be programmed. Programming the value 0 means that monitoring will be suspended after 8 attempts.

**Suspend time** – the time for which reporting is suspended, after making the programmed number of attempts to establish connection with the monitoring station. The control panel will resume the attempt of establishing telephone connection with the monitoring station after this time expires or a next, new event occurs. Up to 30 minutes can be programmed. Programming the value 0 means that an attempt to establish telephone connection with the monitoring station will only be taken after occurrence of a new event in the system.

**Identifiers** – event codes are sent to the monitoring station in one of the four identifiers:

- identifier 1 – events from zones (alarms, tampers, troubles);
- identifier 2 – alarms triggered from keypad, arming/disarming by means of zones, quick arming, loss of communication with wireless devices, as well as expander troubles and tampers;
- identifier 3 – arming/disarming and alarm clearing by means of code or proximity card;
- system identifier – power supply troubles, zone bypasses, troubles of control panel high-current outputs, communication bus trouble, programming related events, etc.

4 hexadecimal characters (digits or letters from A to F) should be programmed for each identifier. Entering the value 0000 means that events assigned to that identifier will not be reported. Using the digit 0 in the identifiers is not recommended.

**SIA / TELIM prefix** – 2 characters which will precede each of the identifiers in case of the SIA and TELIM formats. Thus an identifier consisting of 6 characters can be obtained. 2 hexadecimal characters (digits or letters from A to F) can be programmed. Entering 00 means that the prefix will not be added. Using the digit 0 in the prefix is not recommended.

### Station 1 options / Station 2 options

- **Longer waiting for initial handshake** – the control panel will wait longer for handshake from the monitoring station in case of sending events in the Ademco Express, Contact ID or SIA format. Enable this option if the monitoring station sends a non-standard initial handshake.

- **Long kiss-off signal** – the control panel will accept a long acknowledgement signal for receiving events in case of Ademco Express and Contact ID formats. Enable this option if the monitoring station acknowledges receiving events in a non-standard way (the kiss-off signal is longer than 800 ms).
- **SIA – send partition name** – in the SIA format, the name of partition where the event took place will also be sent, in addition to the event code.
- **SIA – send event source name** – in the SIA format, the name of event source (zone, user, etc.) will also be sent, in addition to the event code.
- **SIA – confirm each block** – the control panel will wait for acknowledgement by the monitoring station of receiving every data block sent in the SIA format.
- **SIA – identifier confirmation required** – the control panel will wait for acknowledgement by the monitoring station of receiving the identifier with which the data were sent.

**Test transmissions** – the test transmission may be sent:

- at a specified time. The test transmission code is sent regularly at a defined time. The number of days between transmissions and the time of sending transmission are programmed. Programming the value 0 for days means that the transmission will be sent everyday (in the same way, as in case programming the value 1).
- in specified time intervals. The test transmission code is sent after expiry of a defined time after the last transmission (irrespective of whether it was a test transmission or a code of another event was sent). The test transmission of this type may be sent in other time intervals, when the control panel is armed (which requires programming some additional parameters). The number of days, hours and minutes between transmissions are to be programmed.

All types of test transmission may be programmed simultaneously.

## 9.2 Event codes

---

For the pulse and Ademco Express formats, it is necessary to program codes which will be sent to the monitoring station if the defined events occur. The reported events are those for which a code different from "00" has been programmed. 2 hexadecimal characters (digits or letters from A to F) are to be programmed.

For the Contact ID and SIA formats, event codes consistent with format specification are sent. In case of the CONTACT ID (SELECTED) and SIA (SELECTED), the codes must be programmed at the events which are to be reported (not the programmed code, but a code consistent with the format specification will be sent).

## 9.3 Starting the reporting

---

Before you proceed to the programming, obtain from the monitoring station operator all data necessary to correctly start the reporting function:

- telephone number of the monitoring station,
  - transmission format required by the monitoring station,
  - identifiers assigned to the alarm system,
  - list of event codes (not applicable to Contact ID and SIA formats).
1. Enable the REPORTING – TELEPHONE option (see: GLOBAL OPTIONS).
  2. Determine how the telephone numbers should be dialed (global option TONE DIALING; in case of the pulse dialing option – PULSE 1/1,5 (OFF 1/2)).

3. Determine whether the control panel, prior to dialing the number, should check the telephone line for dialing signal (global option NO DIAL TONE TEST).
4. Determine the reaction to signals received after dialing the number (global option NO ANSWER TONE TEST).
5. Determine whether the event codes will be sent to both monitoring stations or to one of them only (enable one of the options: STATION 1 OR 2, STATION 1, STATION 2 or STATION 1 AND 2).
6. Determine whether the number of events from the same source is to be limited (option EVENTS AMOUNT LIMITING).
7. Determine when the restore code is to be sent (options RESTORE AFTER BELL, RESTORE AFTER DISARM).
8. Program the following for the monitoring station to which event codes are to be sent:
  - format in which the codes will be sent,
  - telephone number,
  - the number of attempts to connect to the station after which, if there is no connection, the control panel will suspend reporting,
  - time for which reporting will be suspended after the programmed number of attempts to establish connection with the station has been made,
  - identifiers with which the events will be sent,
  - additional options (if Ademco Express, Contact ID, SIA or TELIM format is selected).
9. Define the parameters of test transmissions.
10. If a transmission format other than CONTACT ID (FULL) or SIA (FULL) is selected, program the codes for events which are to be reported.

## 10. Messaging

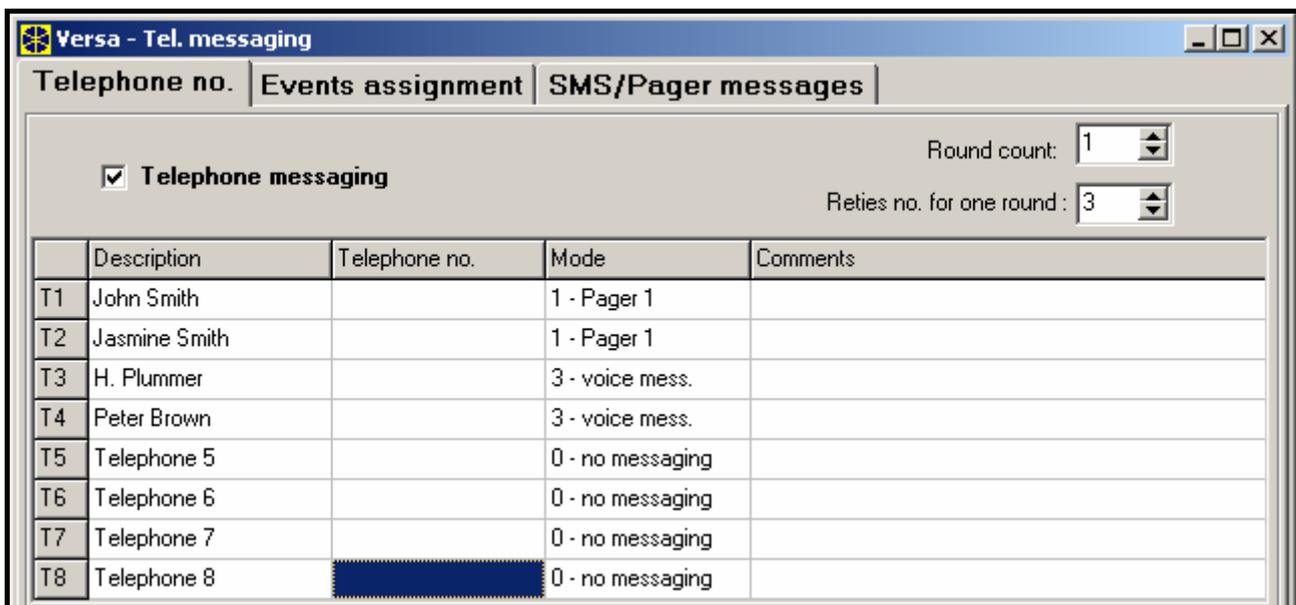


Fig. 18. Programming the messaging parameters in the DLOADX program (an example of configuration).

The VERSA series control panels can notify about occurrence of specified events by means of 64 text messages (the SMS messages are sent by means of SATEL's GSM modules) and 16 voice messages (connection of voice synthesizer is required).

The messaging is effected independently of the reporting, however the reporting has priority. If, during the messaging, any events occur which must be reported by the control panel to the monitoring station, the messaging will be interrupted. The control panel will resume the messaging function after the event codes are sent to the monitoring station.

## 10.1 Messaging parameters and options

---

**Round count** – the number of event notification rounds to be completed by the control panel. Values from 1 to 7 can be programmed.

**Retries number for one round** – the number of unsuccessful attempts to notify a single telephone number about the event, after which the control panel gives up messaging to that number for the current round. Values from 1 to 7 can be programmed.

**Description** – individual name of the telephone number (up to 16 characters).

**Telephone number** – the telephone number to which messaging is effected.

**Note:** *The users having the PROGRAMMING right may edit the telephone numbers to be notified by means of the TELEPHONE NUMBERS user function ([code] \*  ► 6. SETTINGS ► 4. TEL. NUMBERS).*

**Mode** – selection of the form in which the indicated telephone number is to be notified (0 – no messaging, 1 – PAGER1, 2 – PAGER2, 3 – voice message).

## 10.2 Event assignment

---

Enter the following information for the events of which the control panel is to notify:

- number of the text message by means of which messaging will be effected. If the messaging is to be effected in the form of text messages, the voice message assigned to the given text message will be used.
- telephone numbers to which the messaging will be effected if an event occurs.

## 10.3 SMS/Pager messages

---

The control panel makes it possible to program 64 different text messages to be used for messaging notification. The text messages are numbered from 1 to 64. After the CA-64 SM synthesizer is connected, one voice message of 16 available, can be assigned to each text message. The voice messages are numbered from 0 to 15. The same voice message can be assigned to several text messages.

## 10.4 Starting the messaging

---

1. Enable the TELEPHONE MESSAGING option (see: GLOBAL OPTIONS).
2. Define the mode of dialing the telephone numbers (global option TONE DIALING; in case of the pulse dialing option – PULSE 1/1.5 (OFF 1/2)).
3. Determine whether the control panel, prior to dialing the number, should check the telephone line for dialing signal (global option NO DIAL TONE TEST).
4. Determine whether the control panel is to play back the voice message after going off-hook, or 15 seconds after the dialing is completed (global option NO ANSWER TONE TEST).
5. Determine whether alarm clearing should cancel the messaging (global option CLEAR MESSAGING ON ALARM CLEARING).
6. Define the number of attempts made by the control panel to notify about the event (parameters ROUND COUNT and RETRIES NUMBER FOR ONE ROUND).

7. Program the following data for at least one telephone to which notification messages will be sent:
  - description,
  - telephone number,
  - messaging type.
8. Record on voice synthesizer the voice messages which are to be used for messaging (see: CA-64 SM synthesizer manual).
9. Define the content of text messages which are to be used for messaging.
10. Assign the voice messages to the text messages.
11. Determine of which events to which telephone numbers and by means of which messages the control panel is to notify.
12. Program additional parameters for messaging by means of text messages.

## 11. User Schedules

---

The VERSA control panels enable 5 user schedules to be defined. These schedules are used when adding or editing users and specify their authority level. Additionally, they make it possible to define which functions will be assigned by default to the key fob buttons, if key fob is assigned to a user created with the use of the given schedule.

**Note:** *Changing the rights in user schedule will change the rights of all users created with the use of that schedule, but changing the functions assigned to key fob buttons will only have effect on the users to whom the key fobs are yet to be added.*

In the DLOADX program, the user schedules are programmed in the "Versa – Users" window, "User Schedules" tab (see: Fig. 19). In the keypad, the user schedules are configured by means of the function available in the USER TEMPLATES submenu (SERVICE MODE ►8. USR TEMPLATES).

### 11.1 Parameters of the user schedule

---

**Schedule name** – individual name of the user schedule (up to 16 characters).

**Right** – defines which functions are available to the user. The following rights can be assigned to the user schedule (all or selected ones):

- **Arming** – the user can arm the system.
- **Disarming** – the user can disarm the system.
- **Alarm clearing** – the user can clear alarms.
- **Telephone messaging clearing** – the user can cancel messaging by means of the user function 3. ABORT MESSAGING (if he has at same time the ALARM CLEARING right and the global option CLEAR MESSAGING ON ALARM CLEARING is enabled, the messaging will be automatically canceled when the alarm is cleared).
- **Auto-arming defer** – using the AUTO-ARMING DEFERMENT function ([CODE]  ►6. SETTINGS ►1. A-ARM DEFER.), the user can defer arming by the timer.
- **Zones bypassing** – the user can bypass zones in the system (user function 4. BYPASSES).
- **Change access code** – the user can change own access code (user function 1. CHANGE CODE).
- **Users editing** – the user can add, edit and delete users (user function 2. USERS).
- **Control** – the user can control the status of outputs by means of the user function 8. CONTROL.

- **Programming** – the user has access to the user function 6. SETTINGS, which allows him to program the control panel clock, timers and telephone numbers for messaging.
- **DOWNLOAD/SERVICE** – the user has access to the user function 0. SERVICE, which allows him to determine the service access time and start the remote programming of the control panel (see: Section STARTING REMOTE PROGRAMMING VIA MODEM).
- **Inspection** – the user has access to the user functions 5. EVENT LOG and 7. TROUBLES.
- **Tests** – the user has access to the user function 9. TESTS.
- **DURESS** – a special privilege which allows the user to define a system code, which when used for arming/disarming or clearing alarm will trigger a silent alarm (which is in no way signaled, but the alarm code is sent to the monitoring station).

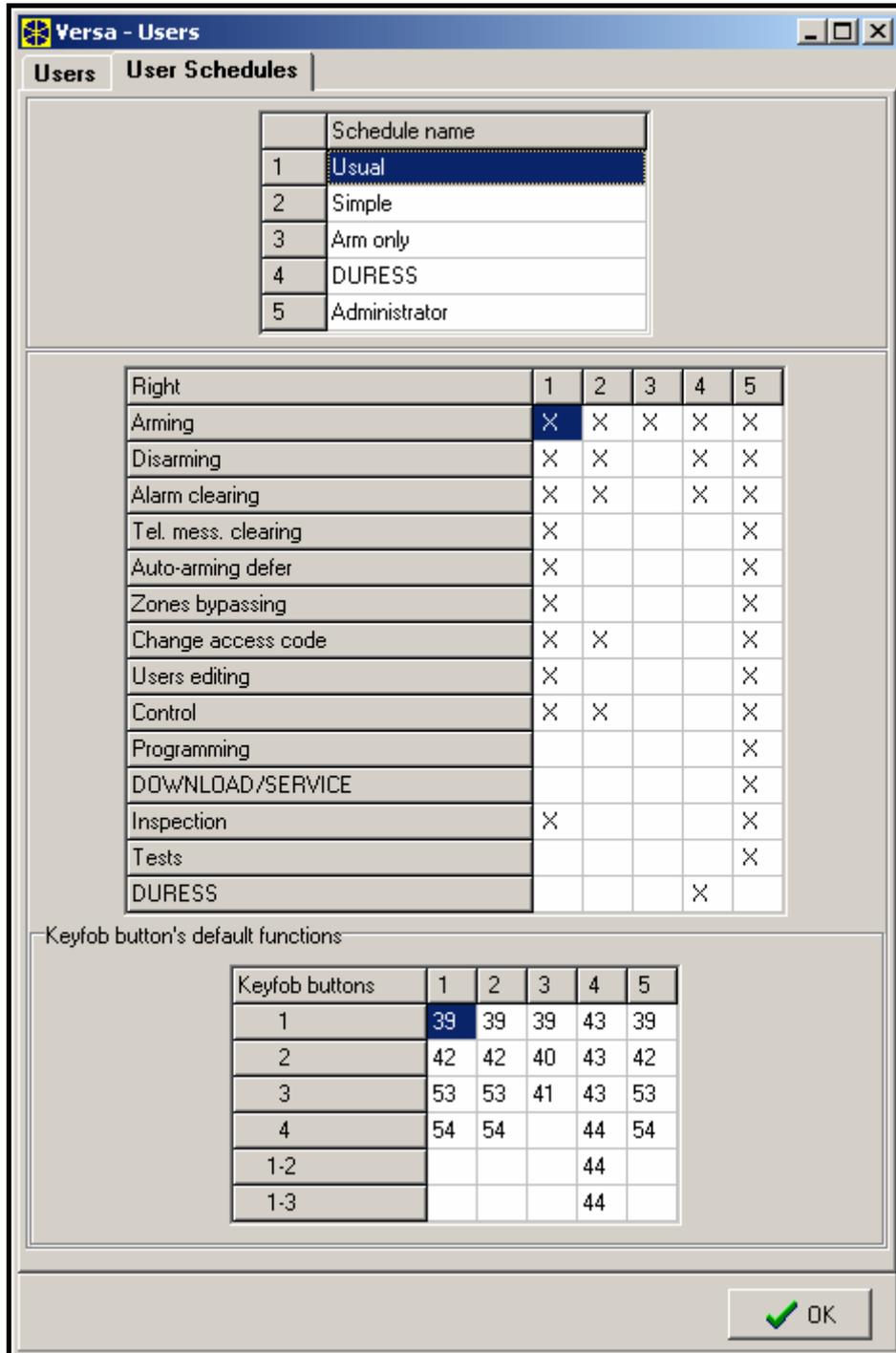


Fig. 19. Programming user schedules in the "Versa – Users" window, DLOADX program (example of settings).

## 11.2 Functions assigned to key fob

---

Functions that can be assigned to the key fob buttons are numbered, which makes easier their programming in the keypad (the keypad list can also be scrolled through by means of the  and  keys).

In the LED keypad, the function number is presented in binary form on the LEDs 1-12, in the same way as the decimal values (see: page 14 Table 4). Only values corresponding to the function numbers can be entered.

0. Not used

1. Zone 1 violation
2. Zone 2 violation
3. Zone 3 violation
4. Zone 4 violation
5. Zone 5 violation
6. Zone 6 violation
7. Zone 7 violation
8. Zone 8 violation
9. Zone 9 violation
10. Zone 10 violation
11. Zone 11 violation
12. Zone 12 violation
13. Zone 13 violation
14. Zone 14 violation
15. Zone 15 violation
16. Zone 16 violation
17. Zone 17 violation
18. Zone 18 violation
19. Zone 19 violation
20. Zone 20 violation
21. Zone 21 violation
22. Zone 22 violation
23. Zone 23 violation
24. Zone 24 violation
25. Zone 25 violation
26. Zone 26 violation
27. Zone 27 violation
28. Zone 28 violation
29. Zone 29 violation
30. Zone 30 violation
  
31. Arming partition 1 – full armed mode
32. Arming partition 1 – night armed mode
33. Arming partition 1 – day armed mode
34. Disarming / clearing alarm in partition 1
35. Arming partition 2 – full armed mode
36. Arming partition 2 – night armed mode
37. Arming partition 2 – day armed mode
38. Disarming / clearing alarm in partition 2

39. Arming partitions 1 and 2 – full armed mode
40. Arming partitions 1 and 2 – night armed mode
41. Arming partitions 1 and 2 – day armed mode
42. Disarming / clearing alarm in partitions 1 and 2
43. Loud panic alarm
44. Silent panic alarm
45. Fire alarm
46. Medical alarm

51. Output 1 activation
52. Output 2 activation
53. Output 3 activation
54. Output 4 activation
55. Output 5 activation
56. Output 6 activation
57. Output 7 activation
58. Output 8 activation
59. Output 9 activation
60. Output 10 activation
61. Output 11 activation
62. Output 12 activation

71. Output 1 deactivation
72. Output 2 deactivation
73. Output 3 deactivation
74. Output 4 deactivation
75. Output 5 deactivation
76. Output 6 deactivation
77. Output 7 deactivation
78. Output 8 deactivation
79. Output 9 deactivation
80. Output 10 deactivation
81. Output 11 deactivation
82. Output 12 deactivation

91. Output 1 switchover
92. Output 2 switchover
93. Output 3 switchover
94. Output 4 switchover
95. Output 5 switchover
96. Output 6 switchover
97. Output 7 switchover
98. Output 8 switchover
99. Output 9 switchover
100. Output 10 switchover
101. Output 11 switchover
102. Output 12 switchover

SATEL sp. z o.o.  
ul. Schuberta 79  
80-172 Gdańsk  
POLAND  
tel. + 48 58 320 94 00  
[info@satel.pl](mailto:info@satel.pl)  
[www.satel.pl](http://www.satel.pl)