Alarm Control Panel

CA-5

Program Version 2.10

SETTINGS LIST

Satel

GDAŃSK

CE

ca5list_en 02/09

TABLE OF BINARY CODES

The numbers are to be read out from the LED 2 to 5 of the LED keypad and entered as indicated in the table below and on the keypad.

Decimal numbers – items 0–9 of the table.

Hexadecimal numbers – items 0–15 of the table. In the LED keypads the hexadecimal characters from A to F should be entered by pressing in turn the asterisk key and the numeric key.

			INDICATIONS OF LEDs			
VALUE	CHARACTER	KEYS	**2**	**3**	**4**	**5**
0	**0**	**0**	○	○	○	○
1	**1**	**1**	○	○	○	●
2	**2**	**2**	○	○	●	○
3	**3**	**3**	○	○	●	●
4	**4**	**4**	○	●	○	○
5	**5**	**5**	○	●	○	●
6	**6**	**6**	○	●	●	○
7	**7**	**7**	○	●	●	●
8	**8**	**8**	●	○	○	○
9	**9**	**9**	●	○	○	●
10	**A**	***0**	●	○	●	○
11	**B**	***1**	●	○	●	●
12	**C**	***2**	●	●	○	○
13	**D**	***3**	●	●	○	●
14	**E**	***4**	●	●	●	○
15	**F**	***5**	●	●	●	●

○ – LED is off

● – LED is on

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CE

SECURITY SYSTEM.....

USER .....

TELEPHONE NUMBER .....

ADDRESS .....

REMARKS.....

.....

The mode of operation of the alarm control panel is defined by the security system parameters. Changing these parameters makes it possible to adapt the panel operation to individual needs of the protected site. The initial settings, or the so-called „*defaults*", are indicated in the description of each service function.

The service functions allow changes in the settings of particular system parameters to be made by means of the keypad. Such changes can only be made when the control panel is not armed and when it signals no alarm.

The parameters can also be changed remotely by means of the computer and the DLOAD10 program. In order to do so, the „downloading" (DWNL) function of the control panel must be used (see description in the CA-5 INSTALLER MANUAL). The program makes it possible to assign **names** to the users and zones. Such names will be displayed when viewing the memory log in the LCD keypad or on the computer screen.

ACTIVATION OF SERVICE MODE

To change any parameter by means of the service function, activate the service mode in the control panel ([SERVICE CODE] [#]), enter the number of the corresponding service function and press the [#] key. The numbers and descriptions of functions are included hereunder in this manual.

It is also possible to call the service mode without entering the service code. With this aim you should:

- disconnect the control panel power supply (first the mains, then the battery),
- put a jumper on the RESET pins on the control panel mainboard,
- reconnect the control panel power supply: first the battery, then the mains – the LED keypad will start blinking with all its LEDs and generating short beeps; the LCD keypad will display a "No CLK signal" massage and generate short beeps,
- remove the jumper – the keypads will confirm the panel entering the service mode by four short and one long beeps; in the LED keypad, the [PROGRAM] diode will light up; in the LCD keypad, the service mode menu will display.

This procedure is colloquially known as the entry „from pins" (see: description of function FS 9).

PROGRAMMING WITH LED KEYPAD

Having called the service function, check the current setup or enter new data. The way of data entry is described in subsequent sections. Press [#] in order to memorize the new setting of a parameter, or press [*] and hold down until you hear two long beeps, or, alternatively, press in turn [*][#] to quit the function without making any changes.

Checking the setup of numeric parameters (which require numbers to be entered) is possible by **double pressing** the [*] key. Displayed in the binary system on the LEDs (2–5) are

consecutive digits of the number programmed with the given function (the review procedure is presented in the CA-5 USER MANUAL - description of the „*Set time*" function).

In order to change a parameter after beginning the review (readout) of the settings, bring to an end the sequence of checking the settings (two long beeps after pressing the [*] key), enter the new data and press [#]. Optionally, exit the function, call it again and enter the changes.

After quitting the function, the control panel returns to the service mode. In order to exit the service mode, call the function **FS 0**.

PROGRAMMING WITH LCD KEYPAD

Programming the system parameters is carried out in much the same way as for the LED type keypad. When in the service mode [SERVICE CODE][#], the access to any of the service functions included in the „CA-5 Settings List" is possible after entering the function number and pressing the [#] key. The values of parameters being currently programmed are shown directly on the display. It is possible to change the values of these parameters by entering corresponding data from the keypad.

Select the option by calling the corresponding function to light up the Y character at the option name. The character lights up on pressing any numeric key. Press any numeric key again to extinguish the Y character (deactivate the option).

Another method of programming consists in moving around the service functions menu by means of the [▲],[▼],[◄],[►] arrow keys. The functions have been grouped so as to facilitate search for the required parameters. The keypad indicates by suitable prompts which parameter is currently being programmed.

[►],[#] – go up the menu, call the displayed function,

[#] – confirm the change of function parameters,

[◄],[*] – return to the previous level of menu, quit the function without saving the changes,

[▲],[▼] – scroll the menu within the current level.

When entering the hexadecimal code values in LCD keypads, press the [▲] key to make possible input of the A, B, C, D, E, F characters, which is indicated by appearance of the * mark at the right upper corner of the display. When entering the telephone numbers, the A (end of number) character is unavailable – it is added automatically. In order to enter the event codes for monitoring purposes, the A, B, C, D, E, F characters can be input upon pressing the [◄] or [►] key.

SERVICE FUNCTIONS (FS) MENU IN LCD KEYPADS

→0 End service

- Configuration
  - 1 Service code
  - 2 System ident.
  - 3 Comp. ident.
  - 4 Comp. tel. num.
  - 5 Rings to answer
- Options
  - 6 Kpd. functions
  - 7 Kpd. signals
  - 8 User options
  - 9 Syst. opt.1
  - 79 Syst. opt.2
  - 10 Tel. opt. 1
  - 11 Tel. opt. 2
- Times
  - 12 Exit time
  - 13 Alarm time
  - 14 Clock adjus.
  - 15 Year
- Zones
  - Zone (Zn)
    - Sensitiv.
    - EOL
    - Type
    - Al. delay
    - Opt. #1
    - Opt. #2

Z1	Z2	Z3	Z4	Z5
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	32	33	34	35
36	37	38	39	40
41	42	43	44	45

(Table contains service function numbers)

- Outputs
  - 46 OUT1 delay
  - 47 OUT1 time
  - 48 OUT2 funct.
  - 49 OUT2 time
  - 50 OUT3 funct.
  - 51 OUT3 time
  - 82 OUT2 delay
  - 83 OUT3 delay
  - 84 OUTs options
- Monitoring
  - Stations
    - 52 MS1 tel. num.
    - 53 MS2 tel. num.
    - 54 MS1 format
    - 55 MS2 format
    - 56 Identifier
  - Codes
    - 57 Zone alarm
    - 58 Zone restore
    - 59 Keypad alarm
    - 60 Zone tamper
    - 61 Zone tmp. rst.
    - 62 Keypad tamp.
    - 63 Keypad pres.
    - 64 Arming
    - 65 Disarming
    - 66 System #1
    - 67 System #2
    - 68 System rest.
    - 80 Zone bypass
    - 81 Zone unbyps.
  - Parameters
    - 69 Test at
    - 70 Test every
    - 85 Test.tr. armed
    - 71 Suspens. time
    - 72 AC loss del.
    - 73 Tel. loss. dl.
- Restarts
  - 74 Clear sett.
  - 75 Clear codes
  - 76 Clear mon. c.
  - 77 Local DWNL
  - 78 RS-232 DWNL

SERVICE MODE FUNCTIONS

FS 0 – END OF SERVICE MODE

Note: *Termination of the service mode activates the* ***control panel restart*** *function (without recording this event in memory). If any 24h zones or tampers (e.g. of detectors) are violated at that moment, alarm will be triggered. If violated, the arming zone will arm the control panel.*

1. CONFIGURATION OF SERVICE MODE

In order to enter digital data, press in turn the keypad keys as indicated at the beginning of the manual in the table of binary codes.

In functions requiring value entry, the 0–255 range numbers may be entered without the leading zeros. For example, the number 7 can be entered as 007 or 07 or 7. During the parameter setting review, the control panel will always display at the beginning of the number the non-significant zeros complementing it to three digits, as shown in default settings of those functions (e.g. FS 5).

FS 1 – SERVICE CODE |___|___|___|___|___|___|___|___|#

(decimal) *default |1|2|3|4|5|#|*

Program from 4 to 8 digits.

Note:

- *The service code settings cannot be checked.*
- *The service code ending with [#] provides access to the service mode menu. The service code ending with [*] provides access to some of the user functions (for details refer to the USER MANUAL, see: notes to section USER FUNCTIONS ACCESSIBLE WITH ASSESS CODE).*

FS 2 – SYSTEM IDENTIFIER

|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|#

(hexadecimal - acc. to the table of codes) *default |3|7|3|6|3|5|3|4|3|3|3|2|3|1|3|0|#*

Program all 16 characters. The table of codes is shown at the beginning of this manual.

FS 3 – COMPUTER IDENTIFIER

|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|#

(hexadecimal) *default |3|0|3|1|3|2|3|3|3|4|3|5|3|6|3|7|#*

Program all 16 characters.

FS 4 – COMPUTER TELEPHONE NUMBER

|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|#

(hexadecimal) *default |A|A|A|A|A|A|A|A|A|A|A|A|A|A|A|A|#*

Program from the first space up to maximum 16 characters, end the number with the AA character).

Notes:

- *Altogether, the telephone number can have sixteen digits and special characters. The special characters are used to control the number dialing process. To program the telephone number from a LED keypad, enter the consecutive digits and characters in one sequence and terminate it by entering [*][0][*][0][#] (AA#). The LEDs 2–5 show (in binary format) values of the character being programmed.*
- ***Do not** insert the **B, C** and **D** control characters before the telephone number (they should be set in the FS10 function options).*

- ***Waiting for the dial tone (D code) will not reduce the counter of attempts in case of a busy signal*** *(e.g. when the control panel is connected to the local line and the outside line is busy, the panel keeps on dialing until successful). Only after the whole number has been dialed, the busy signal or no answer signal will change this counter.*
- *When programming from the LED keypad, you **must** end any telephone number being shorter than 16 characters with the special **AA** code („AA" means end of number).*
- *Special signals generated in the DTMF system require that two characters be taken up in the telephone number (A and corresponding digit).*

Special character	Programming	Function description	Display mode (HEX)
A	[*][0]	special character	A
AA	[*][0][*][0]	end of number	AA
B	[*][1]	pulse dialing	B
C	[*][2]	tone dialing	C
D	[*][3]	waiting for dial tone	D
E	[*][4]	short pause (3 sec.)	E
F	[*][5]	long pause (10 sec.)	F
*	[*][0][0]	* signal in DTMF mode	A0
#	[*][0][1]	# signal in DTMF mode	A1
a	[*][0][2]	other signals generated in DTMF mode	A2
b	[*][0][3]		A3
c	[*][0][4]		A4
d	[*][0][5]		A5

FS 5 – RINGS TO ANSWER – number of rings before answer

|___|___|___|# program from 0 to 7 *default |0|0|2|#*

2. SECURITY SYSTEM OPTIONS

In order to select an option, press the key with the LED number – the corresponding diode will light up. To deselect the option – extinguish the LED which corresponds to its number. For LCD light up/extinguish the Y character. Accept the setting with the [#] key.

FS 6 – KEYPAD FUNCTIONS

LED No.	Name of option in LCD keypad	Set option	Description of option
1	panic alarm		PANIC ALARM ([#]) enabled
2	fire alarm		FIRE ALARM ([*]) enabled
3	medical alarm		MEDICAL ALARM (HELP) ([0]) enabled
4	quick arm.	***X***	Quick Arm ([0][#]) enabled
5	silent panic		SILENT Panic Alarm

***X** – default*

Note: *The option 5 has meaning when the option 1 has been selected.*

FS 7 – KEYPAD SIGNALS

LED No.	Name of option in LCD keypad	Set option	Description of option
1	entry time	***x***	Entry delay signaling (T_{en})
2	exit time	***x***	Exit delay signaling (T_{ex})
3	alarm	***x***	Alarm signaling
4	perm. backlight		Permanent illumination
5	auto backlight	***x***	Auto illumination (on pressing the key)

***x** – default*

Note: *With the options 4 and 5 selected at the same time, the illumination is activated as in the **Auto** mode, and after violation of any control panel zone when armed.*

FS 8 – USER (CODES) OPTIONS

LED No.	Name of option in LCD keypad	Set option	Description of option
1	us.4 – duress		Code 4 generates the DURESS ALARM event
2	us.5 – dis if arm		Code 5 disarms the system, only if it armed itself
3	3bad c. – event	***x***	3 wrong codes generate an event
4	3bad c. – alarm		With 3 wrong codes, event and ALARM
5	no kpd. – alarm	***x***	Missing keypad (or DTA shorting) triggers the ALARM

***x** – default*

FS 9 – SYSTEM OPTIONS part 1

LED No.	Name of option in LCD keypad	Set option	Description of option
1	SM via jumpers	***x***	Entry in service mode „from pins” enabled
2	tmp in arm. only	***x***	Audible tamper alarm in armed mode only
3	suppr. arm. sts.	***x***	Blanking of armed mode information after 180s
4	3 ev. test.tr.		Only 3 successive events of test transmission are stored in memory
5	monitor. limit.		Maximum 3 alarms from one zone in time intervals shorter than 1 minute

***x** – default*

Notes:

- ***The option 1*** *refers to entering the service mode „from pins”. With this option deactivated, entering the service mode is only possible by means of the **service code**. If the service code has been lost, unblocking of the control panel results in loosing all the settings - the control panel returns to its default settings as after calling the service functions FS 74 and FS 75. To enter the service mode not knowing the code, do the following:*
  1. *disconnect first the main power supply, then the battery,*
  2. *put a jumper on the RESET pins,*
  3. *connect first the battery, then the main power supply,*
  4. *wait 60 seconds (±5 seconds) and remove the jumper,*

5. *enter the code [1][2][3][4][5] from the keypad (the code is to be entered within 15 seconds of removing the jumper) and terminated by pressing the key [#] or [*].*

After completion of the a.m. operations, the control panel should return to its default settings and stay in the service mode.

- *With the **option 2** selected, violation of the 24H TAMPER zone type NO, NC, EOL, or violation of this zone tamper circuit in the 2EOL configuration, when the control panel is disarmed, will be alarm signaled **in the keypad only**. On the other hand, normal violation of the 2EOL 24H TAMPER zone (activating the detector) will set off audible alarm, irrespective of this option setting.*

  This option does not refer to keypad tampering. If the keypad is cut off when the control panel is disarmed, the alarm will be signaled on the alarm outputs (audible alarm).
- *The **option 3** – 3 minutes after the system has been armed, the keypad stops indicating the armed mode status.([ARMED] LED is off) The indicator lights up again when one of the zones is violated, or when tamper alarm is triggered.*
- *The option 4 should be enabled if test transmissions are conducted frequently. Only 3 successive events of the test transmission are then saved in memory. Next transmissions will not be saved, thus preventing the events memory of the control panel from being quickly filled up. Occurrence of any event other than test transmission will reset the blocking and activate event saving, which means that next three test transmissions can be written to the memory.*
- *The **option 5** limits the number of saved alarms triggered by one zone down to 3 in time intervals shorter than 1 minute. The option 5 limits the number of events generated in the system by reducing the number of alarms triggered by one zone down to 3 in time intervals shorter than 1 minute. If the control panel, being in armed state, has received 3 violations from a given zone within a shorter time than 1 minute, then every next violation will be ignored unless 1 minute has passed since the previous violation.*

FS 79 – SYSTEM OPTIONS part 2

LED No.	Name of option in LCD keypad	Set option	Description of option
1	troubles memory	***x***	trouble until the current troubles are reviewed (key 7)
2	alarms memory	***x***	alarm in the zone until the alarm log is reviewed (key 5)
3	new trbl. sign.		audible signaling of new trouble
4	OUT1 fr.zn.only.		OUT1 from zone only – blocking acknowledgement on OUT1 of arming/disarming from the keypad.
5	not used		

x *– default*

Notes:

- *Selection of the **option 1** results in signaling the trouble (blinking of the [TROUBLE] LED) even after its cause has ceased to exist, until the current troubles have been reviewed (press and hold down the key 7).*
- *With the option 2 selected, clearing the alarm signal will not reset the alarm memory for the particular zones which triggered the given alarm. The signaling will be cleared after reviewing the alarm log (press and hold down the key 5) or after arming the system.*
- *With the option 3 activated, occurrence of a trouble in the system is indicated in the keypad by means of the [TROUBLE] LED, as well as audibly, until the trouble cause is removed. Viewing the current trouble, unless the trouble cause has been cleared, will only mute the signaling (the LED keeps on blinking until the trouble is cleared, or a new review*

is made, if the option 1 is enabled). Occurrence of a new trouble will trigger the acoustic signaling again.

- *Enabling the option 4 will restrict the signaling of arming/disarming on the OUT1 output, only arming/disarming from the zone (e.g., by means of the remote control set) being signaled. Arming/disarming from the keypad will not be signaled on OUT1.*

FS 10 – TELEPHONING OPTIONS part 1

LED No.	Name of option in LCD keypad	Set option	Description of option
1	monitoring		Monitoring unblocked
2	no dialton.tst.		Without signal control after lifting the handset
3	Ground Start		Generate GROUND START before beginning of dialing
4	pulse 1/1.5		Pulse proportions in case of pulse dialing 1:1,5 (LED off - 1:2)
5	tone dialing	***x***	Tone dialing (LED off – pulse dialing)

x *– default*

FS 11 –TELEPHONING OPTIONS part 2

LED No.	Name of option in LCD keypad	Set option	Description of option
1	external DWNL		DWNL initialization possible from outside via a telephone line
2	double call.	***x***	Double call (LED off – after a determined number of rings)
3	always monit.		Do not skip events not confirmed by the monitoring station
4	no DWNL if arm.		DWNL from outside unavailable in the armed mode
5	not used		*reserve*

x *– default*

Note: *The option 2 and the number of rings set with the FS 5 function should be identical on the control panel and on the computer communicating with it by phone (which enables activation of the downloading).*

3. TIMES

FS 12 – EXIT TIME DELAY(T_{ex})

|___|___|___|# program from 0 to 255 seconds *default|0|3|0|#*

FS 13 – KEYPAD ALARM TIME

|___|___|___|# program from 0 to 255 seconds *default|0|3|0|#*

Note: *When signaling alarm in the keypad, the control panel generates no subsequent alarms and records no events.*

FS 14 – CLOCK ADJUSTING

|___|___|# *default|0|0|#*

program: 01 to 19 – positive correction 1 s to 19 s
00 – no correction
81 do 99 – negative correction 1 s to 19 s

FS 15 – YEAR

|___|___|___|# program from 0 to 255 *default|0|0|5|#*

For example, in case of year 2005, enter 5.

Note: *The year is important for the correct functioning of calendar in leap years.*

4. ZONES

FS 16, 17, 18, 19, 20 – SENSITIVITY OF ZONES 1, 2, 3, 4, 5

	FS 16 Z1	FS 17 Z2	FS 18 Z3	FS 19 Z4	FS 20 Z5
Zone sensitivity					
default	*030*	*030*	*030*	*030*	*030*

program: from 1 to 255 (from 16 ms to 4080 ms)
To calculate the actual sensitivity, multiply the entered number by 16 ms.
***Default** sensitivity: 30 x 16 ms = 480 ms (**0,48 seconds**)*

FS 21, 22, 23, 24, 25 – EOL FOR ZONES 1, 2, 3, 4, 5

	FS 21 Z1	FS 22 Z2	FS 23 Z3	FS 24 Z4	FS 25 Z5
Zone type					
default	*003*	*003*	*003*	*003*	*003*

program: from 0 to 5
0. No detector
1. NC detector
2. NO detector
3. EOL detector
4. 2EOL/NC detector
5. 2EOL/NO detector

FS 26, 27, 28, 29, 30 – REACTION TYPE OF ZONES 1, 2, 3, 4, 5

	FS 26 Z1	FS 27 Z2	FS 28 Z3	FS 29 Z4	FS 30 Z5
Zone reaction					
default	*000*	*002*	*002*	*002*	*006*

program: from 0 to 7
0. ENTRY/EXIT
1. INTERIOR DELAYED
2. INSTANT
3. COUNTING
4. 24H PANIC
5. 24H FIRE
6. 24H TAMPERING
7. ARMING/DISARMING, CLEARING ALARM
8. PERIMETER
9. ENTRY/EXIT FINAL
10. DELAYED

Note: *The COUNTING zone (type 3) counts up to 2 violations (the second one triggers alarm). The counting time is set by the „zone alarm delay" parameter (FS 31–35). If no entry delay time is programmed for the counting zone (i.e. the parameter value is 0), the counting time is 30 sec.*

FS 31, 32, 33, 34, 35 – ZONES 1, 2, 3, 4, 5 ALARM DELAY

	FS 31 Z1	FS 32 Z2	FS 33 Z3	FS 34 Z4	FS 35 Z5
Zone alarm					
default	*030*	*000*	*000*	*000*	*000*

program: from 0 to 255 seconds

Note:

- *The parameter has meaning for zone types 0, 1, 3, 9 and 10. For the ENTRY/EXIT zone, it is the „entry delay time" (T_{en}), and for the COUNTING zone – the „violations counting time".*
- *Setting the delay time equal to zero for the INTERIOR DELAYED reaction type results in this zone delay time being assumed as equal to the highest value of the current entry delay countdown.*

FS 36, 37, 38, 39, 40 – OPTIONS OF ZONES 1, 2, 3, 4, 5 part 1

LED No.	Name of option in LCD keypad	Description of option	FS 36 Z1	FS 37 Z2	FS 38 Z3	FS 39 Z4	FS 40 Z5
1	auto reset 3*	Auto reset 3					
2	al. on exit end*	Alarm when zone is violated after exit delay	***x***	***x***	***x***	***x***	***x***
3	bypass no exit	Bypass when no exit					
4	priority	Controlled while arming		***x***	***x***	***x***	
5	power up delay	Power up delay 120 s.					

x *– default*

Note:

- *The options designated with the * symbol change the meaning* ***<u>for the type 7 zone</u>****:*

  Option 1 *– sets the manner of panel control by the zone:*

  - *LED is off –* ***bistable*** *control: the control panel is armed when the zone is violated, and disarmed when the zone status is normal. If it is armed and an alarm is triggered, the end of zone violation will disarm the system and clear the alarm; if the control panel is alarming but disarmed, violating the zone will not arm the system, but the end of violation will clear the alarm,*
  - *LED is on –* ***monostable*** *control: each violation of the zone will change the control panel status to the opposite one: it will arm the system, when the control panel is disarmed, and it will disarm the system and clear the alarm, when the control panel is armed (and alarming). If the control panel is alarming but disarmed, violating the zone will not arm the system, but it will clear the alarm. When in the monostable mode, the installer can restrict functioning of the zone to arming only (option 2).*

  Option 2 *– sets the monostable control range (important if the option 1 selected):*

  - *LED is off – zone violation can arm/disarm the system and clear the alarm,*
  - *LED is on – zone violation can only arm the system (disarming and clearing alarm is only possible with the code from keypad).*

- *Option 3 – the zone will be bypassed if no zone with the ENTRY/EXIT function (function 0 or 9) will be violated during the exit delay countdown.*

- *The zone with option 4 selected may not be violated or tampered at the moment of arming – if it is, the arming will be refused by the alarm control panel, and names of the violated zones will be displayed on the LCD keypad. This option does not apply to arming by means of the function 7 zone (Arm/Disarm).*

- *The zone with option 5 selected is not monitored by the control panel for 120 seconds, starting from the moment of the control panel power-up.*

FS 41, 42, 43, 44, 45 – OPTIONS OF ZONES 1, 2, 3, 4, 5 part 2

LED No.	Name of option in LCD keypad	Description of option	FS 41 Z1	FS 42 Z2	FS 43 Z3	FS 44 Z4	FS 45 Z5
1	rest. aft. disarm	Reset after disarming and alarm					
2	rest. aft. bell	Reset after bell					
3	abort delay	Abort monitoring during entry delay	***x***	***x***	***x***	***x***	***x***
4	chime in keypad	Chime in keypad	***x***				
5	triggers OUT1	Triggers alarm on OUT1*	***x***	***x***	***x***	***x***	***x***

* and output programmed as BURGLARY ALARM ***x*** *– default*

5. OUTPUTS

FS 46 SIGNALING DELAY ON OUTPUT OUT1

|___|___|___|# *default|0|0|0|#*

Program: from 0 to 255 (from 0 s to 1020 s).
To calculate the actual delay time, multiply the entered number by 4 seconds.

FS 47 SIGNALING TIME ON OUTPUT OUT1

|___|___|___|# *default|0|1|5|#*

Program: from 1 to 255 (from 4 s to 1020 s),
for 0 – the output active time is 60 seconds.
To calculate the actual signaling time, multiply the entered number by 4 seconds.

*The **default** alarm time: 15 x 4s = 60s (**1 minute**)*

FS 48, 50 – FUNCTIONS OF OUTPUTS OUT2, OUT3

FS 49, 51 – ACTIVE TIME OF OUTPUTS OUT2, OUT3

	FS 48 OUT2	FS 50 OUT3
Output function	| |	| |
default	*001*	*005*

Program from 0 to 16.
0. NOT USED
1. BURGLARY ALARM
2. KEYPAD ALARM
3. READY STATUS
4. ARMED STATUS
5. INDICATOR OF AC, BATTERY OR TELEPHONE LINE TROUBLE
6. AC LOSS INDICATOR
7. BATTERY TROUBLE INDICATOR
8. TELEPHONE LINE TROUBLE INDICATOR
9. GROUND START SIGNAL
10. TELEPHONE LINE RELAY
11. MONO SWITCH
12. BI SWITCH
13. RESETTABLE POWER
14. DURESS ALARM
15. MONITORING ACKNOWLEDGEMENT
16. PARTIALLY ARM STATUS

	FS 49 OUT2	FS 51 OUT3
Output active time	| |	| |
default	*000*	*000*

Program: from 1 to 255 (from 4 s to 1020 s).
The times are calculated similarly as for FS 47.
(for 0 – the output active time until cleared)

Notes:

- *Functioning of the type 10 output is described in the CA-5 USER MANUAL, Section „Connection of Telephone Line".*
- *If active time equal to zero has been programmed for the type 1 (BURGLARY ALARM) or 14 (DURESS ALARM) output, the output will remain active until the alarm is cleared.*
- *The active status of the DURESS ALARM output cannot be reset by using the user code No.4, when the DURESS option has been selected (FS 8 option 1).*

FS 82 OUT2 OUTPUT ALARM DELAY

|___|___|___|# *default|0|0|0|#*

Program: from 0 to 255 (from 0 s to 1020 s).
To calculate the actual delay time, multiply the entered number by 4 seconds.

FS 83 OUT3 OUTPUT ALARM DELAY

|___|___|___|# *default|0|0|0|#*

Program: from 0 to 255 (from 0s to 1020s).
To calculate the actual delay time, multiply the entered number by 4 seconds.

Note: *The delay time programmed with the function FS 82 or FS 83 refers to the alarm function output only.*

FS 84 – OUTs OPTIONS

Nr LED	Name of option in LCD keypad	Set option	Description of option
1	OUT1 polar."-"		Polarization OUT1 reversed
2	OUT2 polar."-"		Polarization OUT2 reversed
3	OUT3 polar."-"		Polarization OUT3
4	OUT1-fire=burg.		Fire alarm on OUT1 as burglary one (continuous signal)
5	OUT1 confirm.		Arming/disarming and clearing alarm signaled on OUT1

Notes:

- *With the **option 1** selected, the **–OUT1** terminal is shorted to the COM while in inactive state, and is cut off from the COM while in active state.*
- *With the **option 2 or 3** selected, the **OUT2** or **OUT3** output is shorted to the ground in its inactive state and cut off from the ground in its active state.*
- *The fire alarm is normally signaled on the OUT1 output with an intermittent signal (1sec./1sec.). When the **option 4** is selected, the fire alarm will be signaled in the same way as the burglary alarm i.e. with a continuous signal.*
- *When switched on, the **option 5** activates in the following situations the function of generating short beeps on the OUT1 output:*
  - *one beep – arming,*
  - *two beeps – disarming (if there was no alarm),*
  - *four beeps – clearing alarm, or disarming and clearing alarm.*

  *Option 4 in **FS 79** (system options, part II) will limit signaling on OUT1 to arming/disarming from the zone (e.g., by means of a remote control or button).*

6. MONITORING

The monitoring codes can be transmitted to one or two telephone numbers. It is possible to choose a different transmission format for each of them. Selecting the „Contact ID – all codes" for the first number makes the choice of format for the other number irrelevant – CID will be set automatically.

6.1 STATIONS

FS 52 – MONITORING STATION TELEPHONE FIRST NUMBER

|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|#
(hexadecimal) *default* |*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|#

A=end of number C=tone dial E=short pause
B=pulse dial D=wait for continuous tone F=long pause

Program from the first space up to maximum 16 characters, end the number with the # key – the panel will automatically fill out unused spaces with the A character.

FS 53 – MONITORING STATION TELEPHONE SECOND NUMBER

|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|#
(hexadecimal) *default* |*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|*A*|#

FS 54, 55 – FORMAT OF DATA TRANSMISSION TO THE MONITORING STATION

	FS 54 Telephone 1	**FS 55 Telephone 2**
Transmission format	|___|___|___|	|___|___|___|
default	*015*	*007*

Program from 0 to 15

0. Silent Knight, Ademco slow (10 BPS)
1. Sescoa, Franklin, DCI, Vertex (20 BPS)
2. Silent Knight fast
3. Radionics 1400 Hz
4. Radionics 2300 Hz
5. Radionics with parity 1400 Hz
6. Radionics with parity 2300 Hz
7. Ademco Express (DTMF)
8. Silent Knight, Ademco slow, extended
9. Sescoa, Franklin, DCI, Vertex, extended
10. Silent Knight fast, extended
11. Radionics 1400 Hz, extended
12. Radionics 2300 Hz, extended
13. 0 no handshake (Silent Knight, Ademco 10BPS – without confirmations)
14. Contact ID – selected codes
15. Contact ID – all codes

Note: *The 14 format (Contact ID selected codes) is used to monitor those events, which have any non-zero monitoring code programmed in the corresponding functions.*

FS 56 – IDENTIFIER

|___|___|___|___|# program from 0000 to FFFF *default*|*0*|*0*|*0*|*0*|#
(hexadecimal)

Notes:

- *The identifier 0000 blocks the monitoring feature,*
- *Use the characters 1 to 9 and A to F. In case of three character identifiers, the fourth character should be programmed as 0 (zero is not transmitted),*
- *If the station requires zero in the identifier, program "**A**" instead of "0" (i.e. 12**A**3 instead of 12**0**3).*

6.2 CODES

FS 57, 58, 60, 61 – EVENT CODES FOR ZONES 1, 2, 3, 4, 5

Function No.	Event description	Z1	Z2	Z3	Z4	Z5
FS 57	Zone alarm	1 1	1 2	1 3	1 4	1 5
FS 58	Zone restore	3 1	3 2	3 3	3 4	3 5
FS 60	Zone tamper	**2 1**	**2 2**	**2 3**	**2 4**	**2 5**
FS 61	Zone tamper restore	4 1	4 2	4 3	4 4	4 5
FS 80	Zone bypass	**A 1**	**A 2**	**A 3**	**A 4**	**A 5**
FS 81	Zone unbypass	B 1	B 2	B 3	B 4	B 5

default

FS 59 – KEYPAD ALARM CODES

PANIC alarm [#]	FIRE alarm [*]	HELP alarm [0]
1 6	1 7	1 8

FS 62 – KEYPAD TAMPER CODES

DURESS alarm	3 WRONG CODES alarm	KEYPAD ABSENT CODE
1 9	1 A	1 B

FS 63 – TAMPER RESTORE CODE

KEYPAD ABSENT RESTORE CODE
3 6

Note: *The „Keypad absent code" is sent after discovering lack of data exchange with the keypad (cut-off of data bus).*

FS 64, 65 – CODES OF ARMING, DISARMING AND CLEARING ALARM

	FS 64 Arming	FS 65 Disarming
User **1**	5 1	6 1
User **2**	5 2	6 2
User **3**	**5 3**	**6 3**
User **4**	5 4	6 4
User **5**	5 5	6 5
MASTER user	5 6	6 6
Arming/Disarming **zone**	**5 7**	**6 7**
Quick arming **[0][#]**	5 8	
Clearing ALARM		6 8

FS 66, 68 – SYSTEM EVENT CODES (part 1)

Event description	FS 66 Event	FS 68 Event restore
AC power loss	7 | 1	8 | 1
Battery trouble	7 | 2	8 | 2
Overload AUX and KPD outputs	**7 | 3**	**8 | 3**
Overload OUT1 output	7 | 4	8 | 4
DTA bus trouble	7 | 5	8 | 5
Monitoring trouble	7 | 6	8 | 6
Clock loss	**7 | 7**	**8 | 7**

default

FS 67 – SYSTEM EVENT CODES (part 2)

Event description	FS 67 Event
Control panel restart	7 | 8
DWNL call-back	7 | 9
Successful DWNL	**7 | A**
DWNL fail	7 | B
Monitoring test	7 | C
Service mode start	7 | D
Service mode end	**7 | E**

6.3 PARAMETERS

FS 69 – TEST AT – test transmission time

|___|___|___|___|# *default|9|9|9|9|# (disabled)*

format – HH:MM (hours:minutes)

FS 70 – TEST EVERY – test transmission period

|___|___|___|___|___|___|# *default|0|0|0|0|0|0|# (disabled)*

format – MM:HH:DD (minutes:hours:days)

FS 85 – TEST TRANSMISSION WHEN ARMED

|___|___|___|___|___|___|# *default|0|0|0|0|0|0|# (disabled)*

format – MM:HH:DD (minutes:hours:days)

The function makes it possible to program a separate period of the test transmission, valid only when the system is armed (for example, when more frequent test transmissions are needed during the armed mode). The control panel will call the monitoring station every period of time specified in the given function. When 0 value is entered, then, irrespective of whether the control panel is armed or not, only the time programmed in **FS 70** is used.

FS 71 – MONITORING SUSPENSION TIME

|___|___|___|# program from 0 to 255 minutes *default|0|3|0|#*

Notes:

- *Entering 0 value suspends monitoring until next event.*
- *Monitoring will be suspended after 8 unsuccessful attempts (busy condition, no signal of invitation or confirmation) to send the code to each of the monitoring station numbers.*
- *Selecting the **option 3 in FS 11** results in the control panel trying, after suspension period, to resend the codes not confirmed by the station. If this option is not selected, the control panel skips unconfirmed codes and proceeds to handling subsequent events.*

FS 72 – AC LOSS REPORTING DELAY

|___|___|___|# program from 0 do 255 minutes *default|0|1|0|#*

Note: *Entering the „0" value will block sending the „AC loss" event code, while during review of the current troubles, information on such a failure will be displayed on the LEDs.*

FS 73 – TELEPHONE LINE VOLTAGE LOSS REPORTING DELAY

|___|___|___|# program from 0 to 99 minutes *default|0|0|0|#*

Note: *Entering the 0 value will block reporting troubles of the „telephone line voltage loss" type.*

7. RESTARTS

Performance of the functions FS 74 and FS 75 will restore default values of the parameter settings. The special way these functions (request to confirm execution of the function with the key [1]) are executed protects the settings against an accidental deletion.

FS 74 – CLEAR SETTINGS

After calling the function, the LEDs 2 to 4 will light up. Press the [1] key to restore the default settings. The function also resets the names of users and zones.

FS 75 – CLEAR CODES

After calling the function, the LEDs 1, 3, 4 and 5 will light up. Press the [1] key to restore the default settings.

FS 76 – CLEAR MONITORING CODES AND IDENTIFIER

All the codes are pre-programmed according to the default settings (see: FS 56 to FS 68). The purpose of the function is to quicken the process of programming the selected monitoring codes. An earlier activation of the function makes unnecessary the individual deletion of the codes not sent to the station. The deletion consists in programming the zero code.

After calling the function, the LEDs 1, 2, 4 and 5 will light up. Press the [1] key to reset all the control panel monitoring codes and identifier.

FS 77 – LOCAL DOWNLOADING (local communication)

Note: *All the changes introduced in the process of communication become valid as soon as they are uploaded to the panel, except for some parameters (zone sensitivity, zone types, telephone messaging options), which become valid after the communication is ended or a full minute is counted by the panel (after the end of uploading).*

FS 78 – RS-232 DOWNLOADING

Calling the function starts data exchange between the panel and the computer via the RS-232 port.

Note:

- *To connect the ports of the control panel and the computer, use the special cable of SATEL make, which is designed for conversion of the **TTL** (0V, +5V) standard signal into the RS-232 (-12 V, +12 V) standard. The cable enables two-way data transmission. In case of laminate version 4.0 and up (PCB with RJ socket), the cable with DB9FC/RJ designation is necessary. In case of an earlier version of laminate, the cable with DB9FC/PIN3 designation is needed.*

- *The function may start no communication (3 long sounds), if the control panel is currently dialing. If the problem exist for a longer time it is possible to deactivate monitoring for the period of programming (FS 10 option 1).*

History Of Manual Updates

The changes described refer to the manual drawn up for the CA-5 v1.09 control panel.

DATE	VERSION	DESCRIPTION OF CHANGES
April 2007	2.10	New designations (pictograms) have been introduced for the keypad LEDs. A new cable is necessary to program the control panel from the computer (p. 16). A new function „Test transmission when armed" (p. 3 and 15) and a new option „3 test transmission events" (FS 9, option 4, p. 6) have been added. Audible signaling of a new trouble has been added (p. 7). An option to restrict signaling on OUT1 output has been added (p. 7). Description of monostable and bistable control of the zone with function 7: ARMING/DISARMING has been modified (p. 10).
May 2008	2.10	New notes (FS 56) have been added (p. 13)

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