

CA864 PROGRAMMING MANUAL

Version 3.4

WARNING

This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer. The entire manual should be carefully read.

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CONTENTS

INTRODUCTION	5
OTHER GUIDES	5
PROGRAMMING THE CA864 ALARM SYSTEM	6
RESTORING FACTORY SETTINGS	7
SETTING THE SYSTEM TO PROGRAMMING MODE	7
STEPS FOR PROGRAMMING SYSTEM CONFIGURATIONS	7
LEAVING PROGRAMMING MODE	8
Physical and Logical Level of the System	8
Procedure PnP for Identification of New Hardware	8
Replacement of a Defective Module	9
Removal of a Module from the Network	9
Temporary Disabling of a Module in the Network	9
0. Maintenance	13
0.0. Display Log	13
0.0.0. All Areas	13
0.0.1. Select area	13
0.1. Show Open Zones	15
0.1.0. All areas	15
0.1.1. Select area	15
0.2. Zone Walk Test	15
0.3. PGM Test	15
0.4. Printer Test	16
0.5. Dialler Test	16
0.5.1. Phone 1 test	16
0.5.2. Phone 2 test	16
0.5.3. Phone 3 test	16
0.5.4. Phone 4 test	16
0.6. System troubles	17
0.6.0. AC-trbl delay	17
0.6.1. Show troubles	17
0.7. LCD settings	17
0.7.0. Contrast	17
0.7.1. Backlight	17
0.8. Reset menu	18
0.8.0. Time slots reset	18
0.8.1. Users reset	18
0.8.2. Zones reset	18
0.8.3. PGM reset	18
0.8.4. Areas reset	18
0.8.5. Device reset	18
0.8.5.0. Device inputs reset	18
0.8.5.1. Device output reset	18
1. Timeslots	19
1.0. Define timeslots	19
1.0.x.x.0. Start/Stop Time	19
1.0.x.x.1. Week days	19
1.0.x.x.2. Holiday slot	19
1.1. Define XTimeslots	19
1.2. Define Holidays	20
1.3. Define XHolidays	20
1.4. Define XXHolidays	20
2. Users	21

2.0. User codes	21
2.0.x.x.0. Rename code	21
2.0.x.x.1. User rights	21
2.0.x.x.1.0. Upon areas 1-8	21
2.0.x.x.1.1. Upon areas 9-16	22
2.0.x.x.2. User attributes	22
2.0.x.x.3. User timeslots	22
2.0.x.x.4. User Proxi Card	23
2.0.x.x.4.0. Add Card	23
2.0.x.x.4.1. Arm/Disarm Rights	23
2.0.x.x.4.2. Entry Rights	23
2.0.x.x.4.2.0. Areas: 12345678	23
2.0.x.x.4.2.1. Areas 9-16	24
2.0.x.x.4.3. Remove Card	24
2.1. Code length	24
2.2. Engineer code	24
3. Zones	25
3.0. Zones definition	25
3.0.x.x.0. Rename zone	25
3.0.x.x.1. Zone type	25
3.0.x.x.2. Attach to area	27
3.0.x.x.2.0. Areas 1-8	27
3.0.x.x.2.1. Areas 9-16	27
3.0.x.x.3. Zone parameters	27
3.0.x.x.4. Zone timeslot	28
3.0.x.x.5. Entry/Stay delay	28
3.1. Auto shutdown	29
3.2. Double knock	29
3.3. Zones hardware	29
4. Outputs	30
4.0. PGM definition	30
4.0.x.x.0. Activation by	30
4.0.x.x.1. Deactivation by	30
4.0.x.x.1.0. Event	30
4.0.x.x.1.1. Time period	30
4.0.x.x.2. Normal state	33
4.1. Function definition	33
4.1.x.x.0. Switch A	34
4.1.x.x.1. Switch B	34
4.1.x.x.2. Switch C	34
4.1.x.x.3. Switch D	34
5. Split system	35
5.0. Define areas	35
5.0.x.x.0. Rename area	35
5.0.x.x.1. Options	35
5.0.x.x.2. Panic options	36
5.0.x.x.3. Bell options	37
5.0.x.x.4. Bell cut-off time	38
5.0.x.x.5. Assign timeslot	38
5.0.x.x.6. Exit time	38
5.0.x.x.7. Disarm options	38
5.1. Area assign	38
5.1.d.d.0 Assign to areas 1-8	39
5.1.d.d.1. Assign to areas 9-16	39
6. Dialer	40

6.0. Telephone numbers	40
6.0.1. Central station 1	40
6.0.2. Central station 2	40
6.0.3. Central station 3	40
6.0.4. Central station 4	40
6.1. Account number	40
6.1.x.x. Account number area xx	41
6.2. Wait dial tone	41
6.3. Report options	41
6.3.0. Areas report options	42
6.3.0.x.x.0. Arm/disarm report	42
6.3.0.x.x.1. Alarm/restore report	42
6.3.0.x.x.2. Tamper/restore report	42
6.3.1. System report code	42
6.3.1.0. Trouble/restore report	43
6.3.1.1. Special report	43
6.3.1.2. Medical report	43
6.3.1.3. Fire report	43
6.4. Test call time	43
6.5. Line monitor	43
6.5.0. Telephone line monitoring	44
6.5.1. Telephone line monitor trouble delay	44
6.6. Up/Down load	44
6.6.0. PC phone number	44
6.6.1. PC ID number	44
6.6.2. Panel ID number	44
6.6.3. Number of rings	44
6.6.4. Call Back	44
6.6.5. Answer machine	45
7. Peripherals	46
7.0. Printer	46
7.1. Memory card	47
7.1.0. Upload to card	47
7.1.1. Download from card	47
8. System edit	48
8.0. Device config	48
8.0.x.x.0. Inputs config	48
8.0.x.x.1. Outputs config	48
8.0.x.x.2. Assign trouble	49
8.0.x.x.3. Disable	49
8.0.x.x.4. Enable	49
8.0.x.x.5. Remove	49
8.0.x.x.6. Replace device	49
8.1. Add hardware	49
8.2. Info	49
9. Engineer out	49
Supplement A: Time Slot Adjustment	50
Supplement B: User Programmable Menu Chart	52
Supplement C :Troubleshooting	53

INTRODUCTION

This Programming Manual presents all possible programming configurations for the CA864 Alarm System. The integrated menu structure can be used to utilise all system parameters. The Manual includes a chart of the structure of menus enabling to detect and access system configurations.

The programming scheme allows for quick scan of all menus for programming the CA864 Alarm System configurations.

There are two options for reaching a specific programming menu.

1. Use the down arrow, up arrow, ENT and CLR keys to browse the menus. These keys are shown on the scheme.

The symbols representing the keys are as follows:

◀ A left arrow for back moves within the menu structure

▶ A right arrow for forward moves within the menu structure

ENT The ENT key for confirmation of any corrections / a transition to the following level of menu structure

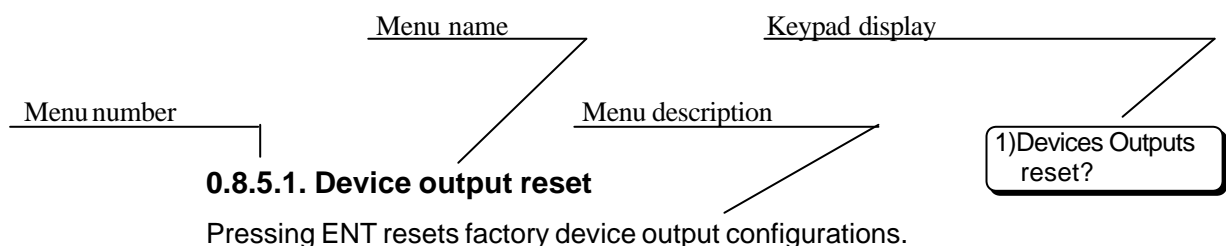
CLR The CLR key for rejection of any corrections / a transition to prior level menu structure

2. Use the short menu code. Here you only introduce the figure shown on the scheme in the respective menu and the system is immediately positioned in the desired menu. This method is quicker than the previous one because it only needs several clicks on the key. It also prevents from mistakes.

The quick menu access code is not displayed on the keyboard. It is on the scheme.

A detailed description of the menus can be found in the MENU section. There they are listed by quick access code.

The system menus are described in the Manual as follows:



OTHER GUIDES

1. CA864 Alarm System Installation Guide – provides information on system installing.
2. CA864 Alarm System User Guide – provides information on user system handling.
3. CA864 Alarm System Up/DownLoad Programming Guide – provides information about remote programming of CA864 Up/DownLoad Alarm System.

PROGRAMMING THE CA864 ALARM SYSTEM

1. Read this manual in advance to learn about all system options and programming steps.
2. All necessary changes to system configurations have to be set prior to programming, in order to comply with the specifications of your security system.
3. Alterations to system configurations can be done at any time.
4. Fig. 1 shows LCD keys.

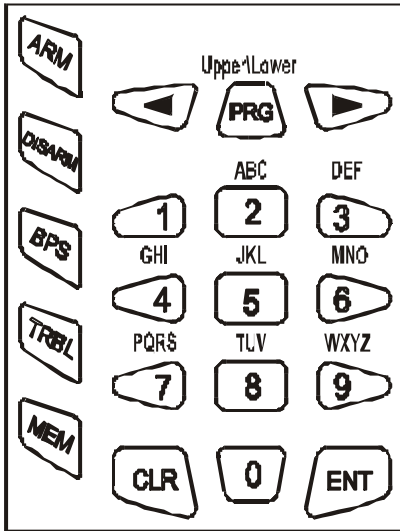


Fig. 1 LCD keypad

Both, figures and letters can be keyed in. The letter and respective figure association is shown in Fig. 1.

Any figure or letter can be introduced depending on the number of clicks on the button. The PRG key changes capital to small case and vice-verse. Special symbols like space or coma can be introduced via 1 and 0 keys. The correspondence between the number of key clicks and the symbol to be displayed is shown in Table 1.

The arrows will shift the cursor within the edited section. Pressing ENT confirms any changes. Pressing CLR rejects the changes.

Table 1 Correspondence between number of key clicks and symbol

		Number of clicks							
		1	2	3	4	5	6	7	8
Keys	0	0		.	,	:	!	<	>
	1	1	-	=	+	\$	%	@	/
	2	2	A	B	C	?	?	?	?
	3	3	D	E	F	?	?	?	?
	4	4	G	H	I	?	?	?	?
	5	5	J	K	L	?	?	?	?
	6	6	M	N	O	?	?	?	?
	7	7	P	Q	R	S	?	?	?
	8	8	T	U	V	?	?	?	?
	9	9	W	X	Y	Z	?	?	?

RESTORING FACTORY SETTINGS

Use the RESET jumper on the motherboard. Proceed as follows:

- Power down the system – both battery and mains;
- Place the RESET jumper on the main panel;
- Power up the system and remove the RESET jumper. System factory configurations have now been restored. The Engineer Code is 7777.

Partial restoration of system factory configurations is possible. The procedure has been described in detail in Item 0.8.

SETTING THE SYSTEM TO PROGRAMMING MODE

It is recommended to RESET in order to restore factory settings before attempting to programme the new system.

To set the system to programming mode:

1. There must be no system-armed areas, as these will remain inaccessible for programming. To obtain complete access to system configurations lift all protection from all areas. This does not apply to systems to be programmed for the first time after RESET.
2. There must be no areas in alarm mode. Such areas will remain inaccessible for programming until the alarm mode is suspended.
3. Enter sysadmin access code. Default sysadmin access code is 0000.
4. Press PRG to enter programming mode.
5. Press buttons “4” and “0” one after the other in order to enter Menu “Unlock Engineer Code”. Use the arrows to position on “Single” (single access authorization) or “Always” (permanently authorized access).
6. Press 1 to allow engineer access to programming mode.
7. Press CLR until the TeleTek CA864 system message is displayed.
8. Enter Engineer Code. The default Engineer Code is 7777.
9. You have now accessed programming mode.

Note: After the exit from the programming mode with “Single” access authorization of the engineer, the system will block the engineer’s code. The procedure described in items 3 through 9 is to be performed in order to switch the system to programming mode.

STEPS FOR PROGRAMMING SYSTEM CONFIGURATIONS

In order to reduce the mistake and omission risk, it is advisable, after entering programming mode, to follow the order of programming described below:

1. Install system-integrated modules – keyboard, zone expanders, programmable output expanders, etc. Enter device input and output figures observing the requirements of your own security system. The procedure has been described in Item 8.
2. Programme the areas within the system. The procedure has been described in Item 5.
3. Programme a code for each area or one code accessing all areas. The procedure is described in Item 2.
4. Programme zones according to requirements – name the zones, programme the type and attributes for the zones, determine system area attachment. The procedure is described in Item 3.
5. Programme outputs. The procedure is described in Item 4.
6. Programme system times (entry/exit, bell, date, time, etc.). Do not programme a Timeslot.
7. Programme other configurations.
8. Test the performance of the zones. The procedure is described in Item 0.
9. Leave programming mode and test the performance of the system according to requirements.
10. Go back to programming mode and adjust dialler. The procedure is described in Item 6.
11. Programme timeslots and test them carefully. The procedure is described in Item 1.

LEAVING PROGRAMMING MODE

To leave programming mode key in CLR until the display shows **9) Engineer out good-bye?**, and then confirm by pressing the ENT key.

The system must be checked for open zones before leaving programming mode. This is necessary because any 24-hour open zone would sound the alarm upon leaving programming mode. **If the system siren is triggered, introduce a valid user code and then press the DISARM key to halt it.**

To avoid this, go through the list of zones in menu 010, which are open or have a tampered self-protection circuit. Restore all zones, which may trigger off the alarm.

Physical and Logical Level of the System

The CA864-based security system should be considered as an entity operating at both the physical and logical levels.

The physical level includes all modules and their resources (inputs and outputs). The restrictions at this level relate to the number of modules that can be connected to the bus, i.e. up to 32. As to the resources (inputs and outputs), there exist no restrictions at this level. This means that the modules actually connected to the bus can provide inputs and outputs in a larger number than those maintained at the logical level.

The logical level of the system includes zones and their types, their belonging to groups and others, the programmable outputs together with their operational logic; user codes with all their settings, established groups, etc. Generally, the logical level is the allocation of the resources available at the physical level and the setting of the operation of the system as a security center.

Actually, zones and programmable outputs start operating only upon assignment of a logical number and definition of the parameters of each one to be used. This is performed separately for each module at the **8.0.x.x.0. Inputs config** address for the inputs and **8.0.x.x.1. Outputs config** for the outputs, where x.x. denotes the shortcut address of the module. These addresses are inaccessible to modules that have no resources at these addresses.

The restrictions for the zones are up to 64 logical numbers, while for programmable outputs they are up to 48 logical numbers. Resources for modules that will not be used retain the logical number 00.

The modules engaged by the system can be activated in “double zoning” performance mode or deactivated in that mode. The “double zoning” mode is universal for all devices and means that two sensors can be connected to any input of a given device. Hence, $2 \cdot N$ sensors can be connected to a module which has N number of inputs. Two menu inputs correspond to one physical input. These are located at address 8.0.xx.0, where device inputs can be configured and therefore $2 \cdot N$ zones can be attached to module inputs in programming mode.

Where the double zoning option has not been activated, only one sensor can be connected to one input, thus attaching only one zone to this input, when in programming mode. Therefore, where one module has N inputs in this mode, no more than N sensors can be connected to it.

Only one zone can be connected to one input, irrespective of whether the double zoning mode is active or not.

Figure 2 in Item 4.3 – Zone Hardware – describes how to connect sensors.

Module inputs will be processed only after they are assigned a number for the zone they are connected to. This is done separately for each individual module at address 8.0.xx.0, Inputs config. XX designates the number of the module from the list of devices included in the system. The parameters of the respective zone also have to be assigned at address 4.1.

This address is inaccessible for modules without inputs.

Table 1. Correspondence between the physical inputs and the input numbers of the menu located at address 8.0.xx.0 for double zoning mode.

Physical input number	1	2	.....	N
Input number from the menu for Zone 1	1	2	.....	N
Input number from the menu for Zone 2	N+1	N+2	.....	$2 \cdot N$

Elaboration on Table 1. The columns indicate which inputs of the menu, rows 2 & 3, correspond to a given physical input in row 1. In Figure 2, input numbers for Zone 1 are in row 2. Input numbers for Zone 1 in Figure 2 are in row 3. For example – 1 and N+1 inputs from the menu at address 8.0.xx.0 correspond to first physical input. Input number 1 corresponds to Zone 1 and input number N+1 corresponds to Zone 2.

Table 2. Correspondence between the physical inputs and the numbers of the inputs in the menu located at address 8.0.xx.0 for deactivated double zoning mode.

Physical input number	1	2	.....	N
Input number from the menu	1	2	.....	N

Module inputs are processed only after they are assigned the number of the zone to which they are connected. This is done for every module separately at address 8.0.xx.0. Input config. XX designates the number of the module within the list of devices, which have been included in the system. The parameters of the respective zone also need to be assigned, at address 5.1.

This address is inaccessible for modules with no outputs.

Any arbitrary number of physical outputs can be connected to one PGM. These outputs can belong to different system devices.

Procedure PnP for Identification of New Hardware

Each module of the set of the CA864 system has a unique number recorded in the manufacturing process. It is with this number that the device will take part in the exchange on the bus. The number consists of the serial number of the device plus a two-digit code corresponding to the module type.

The PnP procedure is used for switching on new modules connected to the bus in the logical structure of the system. There exist two options for starting PnP:

- **automatically** upon power supply with Reset jumper installed. This option is used in the initial setting of the network configuration. All modules need to have been connected in advance to the System Bus.
- **manually** from the **8.1. Add hardware** address in the mode of programming by the engineer. This option is used when the network is expanded with new modules or a defective module is replaced. The new module needs to have been connected in advance to the System Bus.

When the PnP procedure is started, the main module of the system sends a command to identify new devices to the modules on the bus. The procedure takes 20 seconds and ends up with the compilation of a list of devices on the bus. This list can be seen at the 8.0 address in the mode of programming by the engineer.

When a specific module is selected, the screen will display its unique number and the number of the module on the list of devices on the bus (hereinafter referred to as "the shortcut address of the module"). In the further programming at the logical level of the system, module resources will be identified with regard to the module on the basis of its shortcut address.

Replacement of a Defective Module

Modules need to be replaced in the system when a defect occurs. The in-built replacement procedure can be used to avoid re-programming for the new module. Devices of the same type can be replaced. As a result of this procedure, the whole programming of the defective device is transferred onto the new one.

The sequence of operations is as follows:

1. Disable the defective module in the network temporarily. The command to disable it is given at the **8.0.x.x.3. Disable** address, where x.x. is the shortcut address of the defective module.
2. Dismantle the defective module.
3. Install the new module at the same place.
4. Run the PnP procedure from the **8.1 Add hardware** address.
5. After the procedure is over, the new module should have been added at the end of the list of modules.
6. A replacement command is given for the new module from the **8.0.x.x.6 Replace** address, where x.x. is the shortcut address of the new module. Here you have to enter the shortcut address of the defective module.

Removal of a Module from the Network

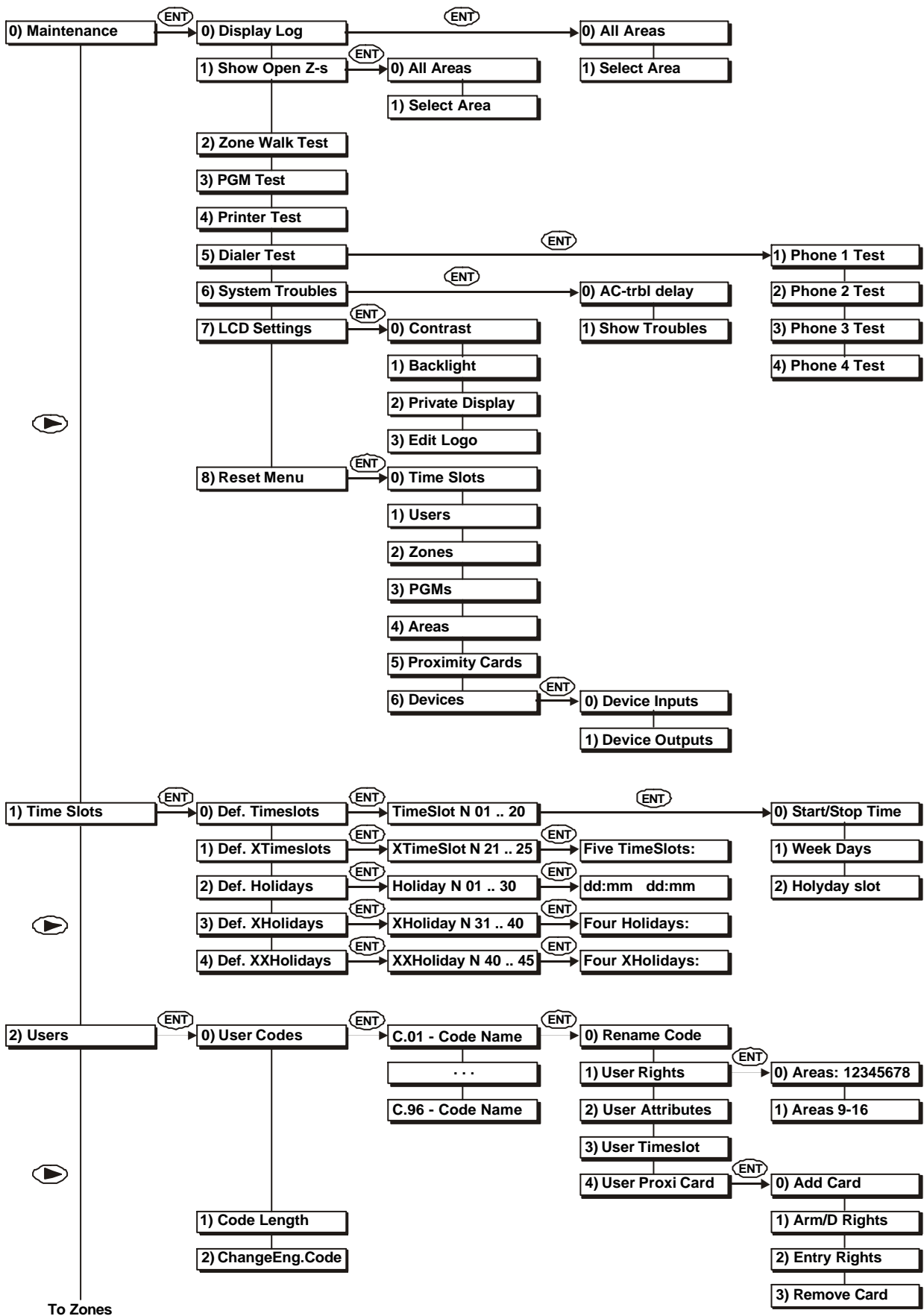
If a module is to be removed from the system, the following sequence is applied:

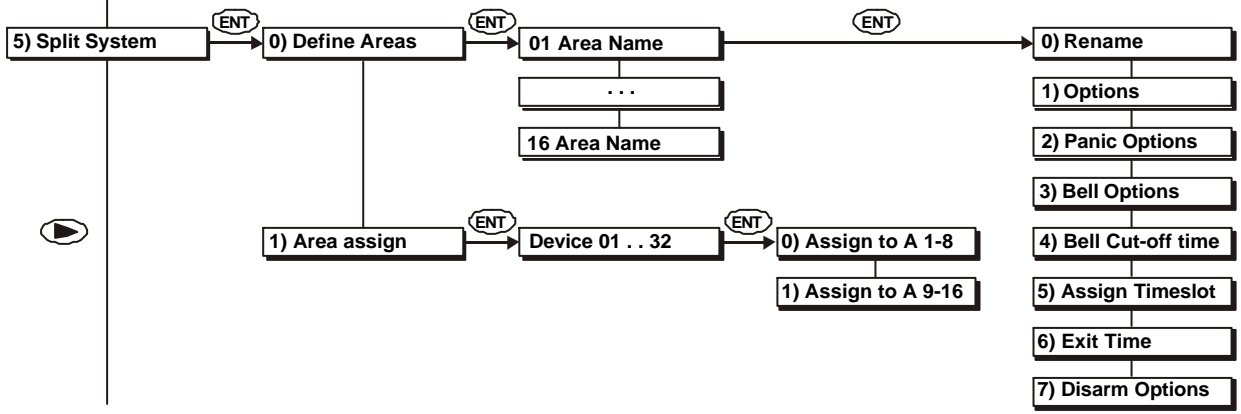
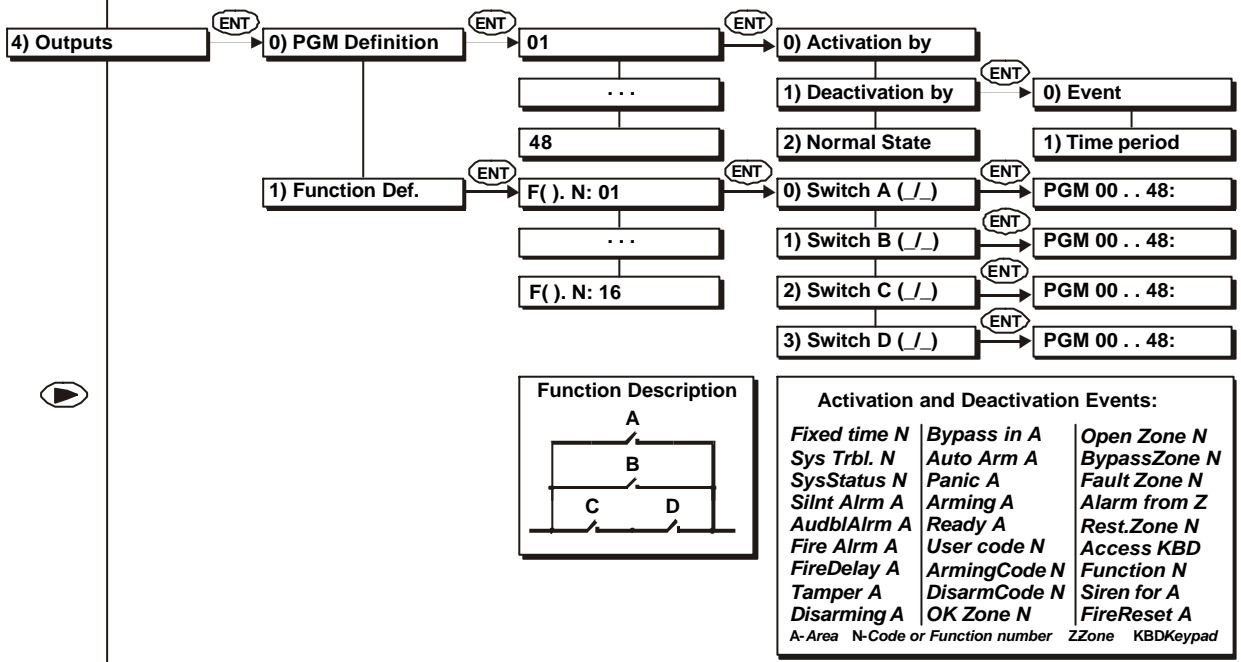
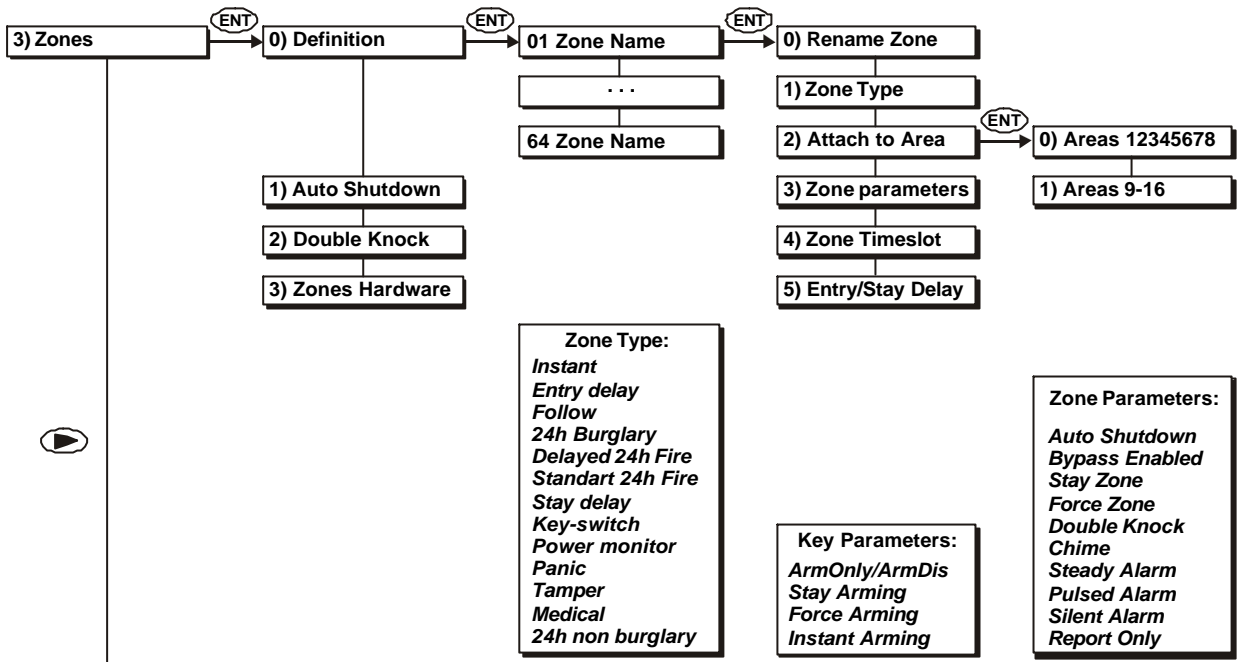
1. Remove the module from the list of modules and the network, sending the command from the **8.0.x.x.5. Remove** address, where x.x. is the shortcut address of the module.

Temporary Disabling of a Module in the Network

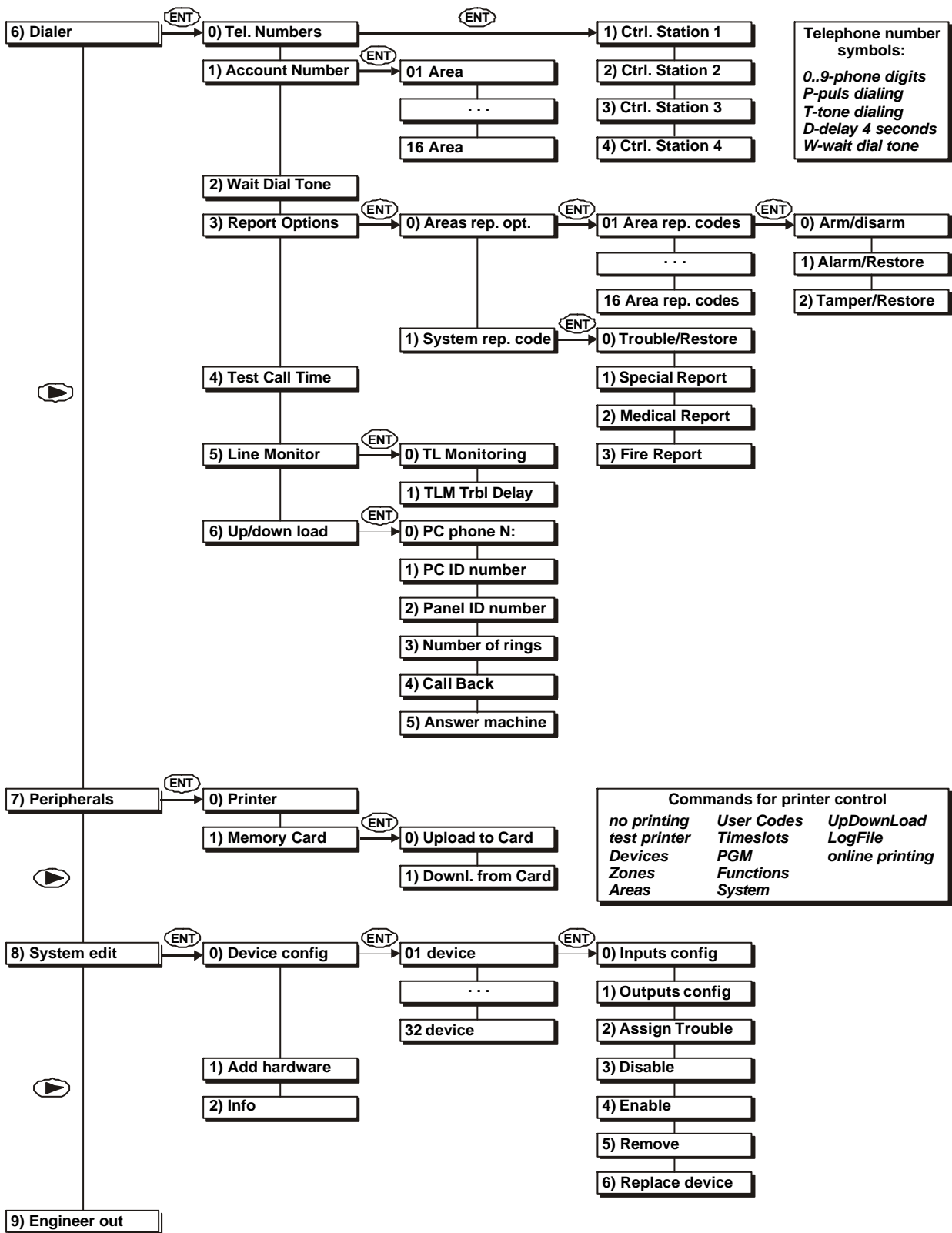
The following sequence of operations is applied if a module is to be disabled temporarily in the network:

1. Disable the module temporarily in the network by sending a disabling command from the **8.0.x.x.3. Disable** address, where x.x. is the shortcut address of the module.
2. If necessary, the module can be enabled again and integrated into the normal operation of the system with a command from the **8.0.x.x.4 Enable** address, where x.x. is the shortcut address of the module.





To Dialer Menu



0)Maintenance
0)Display Log

0. Maintenance

This menu allows for system testing and diagnostics. It includes the following submenus:

0)Display Log
0)All Areas

0.0. Display Log

The system keeps a 1,000 event log. The type of printout must be selected at menu entry – for all areas (complete list) or for a specific area. After the type of printout is selected the display shows the latest event. The arrows help move around the file. The latest event bears the number 999 and will be deleted from the memory upon occurrence of a new event.

XXX D/U/Z short text
A.XX dd/mm hh:mm

0.0.0. All Areas

Events from all areas are displayed in chronological order. The display shows the following data:

- R - indicates type of event – alarm or restore
- XXX - the successive memory number of the event
- D/U/Z - specifies device, user or area event number
- short text - short description of event (see Table 2)
- XX - area number of event occurrence

Pressing the PRG key will display the entire text of the event message. The display shows:

- ..entire text of event - the complete text of event (see Table 2)
- XX - system area number
- name of U/Z - user name / event zone

..entire text of event
A.XX name of U/Z

0.0.1. Select area

1)Select Area
A. XX - ..name..

Selecting this printout type requires the respective area number to be specified. This can be done either by moving the arrows through the list with the areas or directly entering the area number.

Table 2 Text and Meaning of Log Messages

Text		Meaning
Short	Long	
Medical	Medical alarm	Medical type ZZ zone has been activated or a Medical signal has been triggered from keyboard/DD device.
Fire	Fire alarm	Fire type ZZ zone has been activated or a Fire signal has been triggered from keyboard/DD device.
Panic	Panic alarm	Panic type ZZ zone has been activated or a Panic signal has been triggered from keyboard/DD device.
Duress	Duress	A UU code has been entered under duress.
Alarm	Burglary alarm	Entry Delay, Follow or Instant type ZZ zone has been activated.
Alarm	24 hour alarm	24h Burglary type ZZ zone has been activated.
Tamper	Tamper	Tamper type ZZ zone has been activated
ExpFail	Exp. module fail	Connection with DD module has failed along the rim

Table 2 Text and Meaning of Log Messages - cont.

Text		Meaning
Short	Long	
SenrTmp	Sensor tamper	A ZZ zone sensor has been self-armed.
Exp.Tmp	Exp. module tmp.	DD module has been self-armed.
24h nB	24h non-burglary	24h Non-burglary ZZ zone has been activated.
SystTrb	System trouble	PGM or AUX fuse of main module has failed.
AC loss	AC loss	220V mains power loss.
Battlow	Low system Batt.	Low system battery voltage.
SystRst	System reset	System hardware has been reset.
BattFlt	Batt test failed	No battery or blown system battery fuse.
Printer	PRN paper out	No paper in printer.
Printer	Local PRN failed	Connection to printer terminated along rim.
RAM bad	RAM checksum bad	Mistake in computed checksum in main module RAM.
C-tion	Fail to commun.	Communication failure in built-in communicator
UserO/C	User Open/Close	User arming via UU code.
AutoO/C	Auto. Open/Close	Automatic arming by time window. Marked by user code 65.
Arm Q	Quick Arming	Arming by keying in one key of the keyboard/DD device.
C-tion	CommunicationERR	Telephone line breakdown.
KeyOpen	Key switch Op/Cl	Arming by Key-switch type ZZ zone.
CallB-k	CallBack Request	Up/DownLoad system programming callback request has been received.
U/D OK.	Succ.Down.Access	Successfully completed Up/DownLoad system programming.
Bypass	Zone Bypass	Successful bypassing ZZ zone.
TestMan	M-ual T-ger Test	Manual test report via in-built communicator.
TestRep	Per. Test report	Periodic test report via in-built communicator.
TimeRST	Time/Date reset	System date and time resetting.
Eng In	Prog. mode entry	Programming mode entry.
Eng Out	Prog. mode exit	Programming mode exit.
Cancel	Cancel	Cancel day mode alarm.
System	System shut down	System power failure.
A-Arm F	Auto-arm failed	System auto-arm failure.
gBypass	Group bypass	Zone partial arming within an area.

1)Show Open Z-s.
0)All Areas

0.1. Show Open Zones

This menu shows all open (activated) zones in the system. A list of the open zones and those with tampered self-arming circuits for all or selected areas can also be displayed.

open Zs. in syst
XXSiDDII ..name..

0.1.0. All areas

The display shows all open zones in the system, listed by successive number. The information provided is as follows:

- XX gives the logical number of the zone within the system;
- S designates the zone status – “” for an open zone, T for a tampered self-arming circuit;
- DD shows the number of the device connected to the zone;
- II gives the number of the physical input of the device.

1)Select Area
A. XX - ..name..

0.1.1. Select area

The number of the area has to be specified in order to set up a list of the open zones in a specific area. This can be done either by moving through the area list with the help of the arrows or by introducing the area number.

To leave the menu press CLR.

2)Zone Walk test
XXSiDDII ..name..

0.2. Zone Walk Test

The system integrity of a specific zone can be tested in this menu. The zone has to be selected. This can be done either by moving the arrows through the list with the system zones or by introducing the zone number.

If the selected zone is opened (activated) or self-protected circuit tampered, the keypad sends out a regular sound signal. The information sent out is:

- XX gives the logical number of the system zone
- S designates the zone status – “c” for a closed zone, “o” for an open zone, “T” for a tampered self-arming circuit
- DD shows the device number connected to the zone
- “II” shows the number of the physical input of the device.

Press CLR to leave the menu.

3)PGM Test
XX oDDII

0.3. PGM Test

The system integrity of programmable outputs (PGM) can be tested in this menu. A programmable output has to be selected. This can be done either by moving the arrows through the list with programmable outputs within the system or by introducing the output number. The selection can be confirmed by pressing ENT.

The output status can be altered by keying in 0 to inactivate the programmable output, and 1 to activate the programmable output.

Press CLR to leave the menu.

0.4. Printer Test

Checks printer system integrity.

4)Printer Test
start?

0.5. Dialler Test

Checks system integrity of the inbuilt digital communicator. A test message can be sent to the central station about each telephone number.

The telephone numbers need to have been introduced in advance. Sending a test message requires an area identification number to which distress calls from main panel are directed. If no such have been introduced, 0000 will serve as identification number.

5)Dialer Test
1)Phone1 Test

0.5.1. Phone 1 test

After confirmation with the ENT key, the system sends a TEST event to central station at telephone number 1.

1)Phone1 Test
start?

0.5.2. Phone 2 test

After confirmation with the ENT key, the system sends a TEST event to central station at telephone number 2.

2)Phone2 Test
start?

0.5.3. Phone 3 test

After confirmation with the ENT key, the system sends a TEST event to central station at telephone number 3.

3)Phone3 Test
start?

0.5.4. Phone 4 test

After confirmation with the ENT key, the system sends a TEST event to central station at telephone number 4.

4)Phone4 Test
start?

Table 3 Communicator Test Messages and Meaning

Message	Meaning
taking line	The line is taken
wait dial tone	Waits for dialling tone
dialing	Dials the telephone number
wait handshake	Waits for the handshake tone from the central station
transmit	Transmits message
wait kiss-off	Waiting for kiss-off confirmation of received message
test OK	Successfully transmitted test signal
test FAILED	Failed test signal transmission

0.6. System troubles

6)System TRBLs
0)AC-trbl delay

This menu shows system problems and a delay is set to indicate an “AC loss” problem.

0.6.0. AC-trbl delay

0)AC-trbl delay
0/1 OFF

Delayed indication of AC loss is allowed or prohibited.

If delayed indication of AC loss is set, the signal to report this problem will be sent from the keyboards of the system 30 minutes after the occurrence of the AC loss. All other failures will be reported immediately.

By pressing button “1” you allow delayed indication of AC loss. This is seen on the screen with the “ON*” sign.

By pressing button “0” you prohibit delayed indication of AC loss. This is seen on the screen with the “OFF*” sign.

1)Show troubles
AC loss

0.6.1. Show troubles

This menu shows system trouble.

Table 4 System Trouble Messages and Meaning

Message	Meaning
AC loss	Loss of 220V mains supply.
AUX Power Failed	AUX power failed at main module.
Batt Loss	No battery or system battery failure.
Batt Low	Low system battery voltage.
Bus Error	Bus communication error with module.
PGM Power Failed	PGM power failed at main module.
Printer Problem	No paper in printer.
Tel 1 Failure.	Inbuilt communicator telephone 1 failure.
Tel 2 Failure.	Inbuilt communicator telephone 2 failure.
Tel 3 Failure.	Inbuilt communicator telephone 3 failure.
Tel 4 Failure.	Inbuilt communicator telephone 4 failure.
TL Fault	Telephone line fault

0.7. LCD settings

7)LCD settings
0)Contrast

The LCD – display settings can be adjusted in this menu – contrast of signs and brightness of screen backlight.

0.7.0. Contrast

0)Contrast
<- . . .->

The contrast of the display signs can be adjusted with the help of the arrows.

0.7.1. Backlight

1)Back light
<- . . .->

The brightness of screen backlight can be adjusted with the help of the arrows.

0.8. Reset menu

8)Reset Menu
0)Time Slots

This menu allows for partial RESET of system configurations. This will result in restoring factory default settings.

0.8.0. Time slots reset

0)Time Slots
reset?

Factory default Timeslot settings can be reset after confirmation by pressing ENT.

0.8.1. Users reset

1)Users
reset?

Factory default user codes can be reset after confirmation by pressing ENT.

0.8.2. Zones reset

2)Zones
reset?

Factory default zone settings can be reset after confirmation by pressing ENT.

0.8.3. PGM reset

3)PGMs
reset?

Factory default settings for programmable PGM outputs can be reset after confirmation by pressing ENT.

0.8.4. Areas reset

4)Areas
reset?

Factory default area settings can be reset after confirmation by pressing ENT.

0.8.5. Device reset

5)Devices
0)Devices Inputs

Factory default settings for device inputs and outputs can be reset.

0.8.5.0. Device inputs reset

0)Devices Inputs
reset?

Factory default device input settings can be restored after confirmation by pressing ENT.

0.8.5.1. Device output reset

1)Devices Outputs
reset?

Factory default device output settings can be restored after confirmation by pressing ENT.

1. Timeslots

1)Time Slots
0)Def. Timeslots

Timeslots can be set in this menu. Timeslots are used for automated user access to armed sites, for automated arming and disarming of systems, etc.

The system sustains two timeslot areas:

- timeslots for astronomical time – hours and minutes
- timeslots for calendar time –days and months

1.0. Define timeslots

0)Def. Timeslots
TimeSlot N: XX

Timeslots can be defined in this menu. Numbers 01 to 20 have been allocated to this type of timeslots. A timeslot number (given by XX) can be selected either by moving through the numbers with the arrows or by introducing the number. The settings can be adjusted after confirmation by pressing ENT.

TimeSlot N: XX
0)St./stop time

1.0.x.x.0. Start/Stop Time

hh:mm hh:mm
00:00 00:00

The start and stop times of a timeslot can be set. The action assigned to the timeslot will be activated during the period from “start time” to “stop time”.

The start time field must be less than the stop time field.

Example: If a user code has been set a timeslot from 8:30 to 17:00h, the respective user can use his code within that specified time. From 17:00 to 0:00h and from 0:00 to 8:30h the respective code will remain inactive.

1.0.x.x.1. Week days

1)WeekDays
- Monday

The days of the week during which the timeslot is to be used can be set.

The days of the week can be browsed with the help of the arrows.

Press “1” to set the desired day of the week. The “*” symbol will be indicated on the display.

Press “0” to ignore the selected day of the week. The “-” symbol will be indicated on the display

For example, if only Wednesday is set for the timeslot in the example above, the user code will only be valid on Wednesday from 8:30 to 17:00h.

1.0.x.x.2. Holiday slot

ent. Holiday slot
01. . 45: XX

A certain period (in calendar days) can be set as a timeslot, during which the slot will remain inactive irrespective of other settings. The timeslot number is defined according to the Holiday Slot type. Valid timeslot number can be from 01 to 45.

1.1. Define XTimeslots

1)Def. Xtimesl-s
Xtimeslot N: XX

Extended timeslots can be set in this menu. These slots constitute a combination of preset ordinary timeslots.

The number of the timeslot is defined. This can be done either with the help of the arrows, or by entering the number. The extended timeslots are numbered from 21 to 25.

Up to five ordinary timeslots can be defined, with numbers from 01 to 20.

five TS.N:01..20
00:00:00:00:00

1.2. Define Holidays

2)Def. Holidays
Holiday N: XX

The active start and stop times of the Holiday type timeslot can be set. The number of the Holiday type timeslot is defined. This can be done either with the help of the arrows or by introducing a number. The valid timeslots have numbers between 01 and 30.

A timeslot which has been attached a Holiday type timeslot will remain inactive for the period beginning from "start date" until "end date".

dd:mm dd:mm
00:00 00:00

1.3. Define XHolidays

3)Def. XHolidays
XHoliday N: XX

This menu defines extended timeslots of the XHoliday type. These slots comprise of a combination of preset timeslots of the Holiday type.

The number of the XHoliday type timeslot is defined. This can be done either with the help of the arrows or by introducing a number. The valid XHoliday type timeslots have numbers between 31 and 40.

Up to four timeslots of the Holiday type can be assigned, with numbers from 01 to 30.

four Hs.N:01. .30
00:00:00:00.

1.4. Define XXHolidays

4)Def.XXholidays
XXHoliday N: XX

This menu defines extra-extended timeslots of the XXHoliday type. These slots comprise of a combination of preset extended timeslots of the XHoliday type.

The number of the XXHoliday type timeslots can be set. This can either be done with the help of the arrows or by introducing the respective number. The valid XXHoliday type timeslots are numbered between 41 and 45.

Up to four extended timeslots of the XHoliday type can be assigned, with numbers ranging between 31 and 40.

four Hs.N:31. .40
00:00:00:00.

2)Users
0)User Codes

2. Users

This menu defines system access codes. The length of any access code can be set – 4 or 6 digits. There are 64 user codes in the system. Each can be assigned a unique name, and have its authorities defined, as well as the areas it has access to.

With the help of timeslots it is possible to construct a scheme whereby the code authority would be limited in time.

For every access code the system automatically maintains duress codes. A duress code is obtained by the following rule: <user code>+1. Therefore, if the access code is 1234, the duress code would be 1235.

0)User Codes
C. 01 - CodeXX

2.0. User codes

The parameters of the user access codes can be set in this submenu.

A number for the access code has to be set (given by XX). This can be done by going through the list of codes with the help of the arrows or by entering the code number.

The selected code is confirmed by pressing ENT.

C. 01 - CodeXX
0)Rename code

0)Rename code
new: CodeXX

2.0.x.x.0. Rename code

The code name can be entered in this submenu. The name may contain figures and letters. To enter letters use the enclosed table.

Pressing the PROG key changes upper to lower case and vice-versa.

To go to the following/previous positions use the arrows.

The maximum length of the name can be 8 digits.

1)User rights
0)Upon Areas 1-8

2.0.x.x.1. User rights

The code attachment to areas in the system is defined in this submenu.

There is no limitation to the number of zones a code can be attached to.

Areas:1.....8
0/1 :-----

2.0.x.x.1.0. Upon areas 1-8

The code attachment to areas 1 to 8 is set.

With the help of the arrows the cursor is positioned below the number of the selected area.

Keying in 1 will set the attachment of the code to the respective area. This is marked by the symbol "*" on the display.

Keying in 0 disallows the attachment of the code to the respective area. This is marked by the symbol "-" on the display.

Settings are confirmed by pressing ENT.

Areas:9.....16
0/1 :-----

2.0.x.x.1.1. Upon areas 9-16

The code attachment to areas 9 to 16 is set.
 With the help of the arrows the cursor is positioned below the number of the selected area.
 Keying in 1 will set the attachment of the code to the respective area. This is marked by the symbol “*” on the display.
 Keying in 0 disallows the attachment of the code to the respective area. This is marked by the symbol “-” on the display.
 Settings are confirmed by pressing ENT.

2)User Attributes
- Full arming

2.0.x.x.2. User attributes

Access code attributes are set.
 Browse through the list of user attributes with the help of the arrows
 Keying in 1 will set the selected code attribute. This is marked by the symbol “*” on the display.
 Keying in 0 disallows the selected code attribute. This is marked by the symbol “-” on the display.
 Settings are confirmed by pressing ENT.

Table 5 User Code Attributes

Attribute	Function
Log View	Authority to review memory for zone Log-file events the user code belongs to
Force Arming	Authority to Force type arming
Stay/Instant Arming	Authority to Stay and Instant type arming
Manager	Authority of manager creates and edits user codes
Bypass	Authority to terminate Bypass zones
Disarming	Authority to disarm
Time/Date Set	Authority to change system time
Full Arming	Authority to arm Full Set

enter Time slot
N:01 .. 25: 00

2.0.x.x.3. User timeslots

An access code timeslot is set.
 The valid timeslot numbers are from 01 to 15. If the selected access code is not to be restricted by a timeslot, enter 00.
 See the example in Supplement A.

4)User Proxi Card
0)Add Card

2.0.x.x.4. User Proxi Card

The Proxy-card for the selected code is recorded in this sub-menu and the card parameters are set.

Each card has an in-built unique number, which is recorded on a list in the system. The Full Arming and Disarming rights programmed for the code are valid for the card, as well.

The card can be used to:

- remove security from a group;
- put security on a group;
- open a door connected to the card reader.

Only one card can be programmed for any single code.

0)Add Card
start?

2.0.x.x.4.0. Add Card

A card is added into the system. The new card takes over the condition of the Full Arming and Disarming rights for the respective code.

Start the procedure by pressing the ENT button. The system will wait for the card to be brought to the reader. After the read is read, a sound signal comes from the keyboard for confirmation and the "Success" sign appears.

1)Arm/D. Rights
to Area N: 00

2.0.x.x.4.1. Arm/Disarm Rights

The group for which security is to be removed or put is set with the card.

Settings are confirmed by pressing the ENT button.

Security is put on or removed from a group if the rights Full Arming and Disarming are set for the code. The code needs authorization to operate with the specified group!

2)Entry rights
0)Areas: 12345678

2.0.x.x.4.2. Entry Rights

The right of the card to enable the relay in-built in a reader is identified. Groups are set. In menu 5.1, the groups to be served by the in-built relay are set for each reader.

When a card attached to a code, which is authorized to operate with any of the highlighted groups, is recognized the in-built relay will be enabled in five seconds.

0)Areas: 12345678
0/1 :- - - - - -

2.0.x.x.4.2.0. Areas: 12345678

The operation of the card with groups 1 through 8 is authorized.

The highlight arrows are used to position on the number of the selected group. Press button "1" to authorize operation of the card for the respective group.

The screen will display the "*" sign.

Press button ")" to terminate the authorization to operate the card for the respective group. The screen will display the "-" sign.

Settings are confirmed by pressing the ENT button.

1)Areas:9 16
0/1 :- - - - - -

2.0.x.x.4.2.1. Areas 9-16

The operation of the card with groups 9 through 16 is authorized. The highlight arrows are used to position on the number of the selected group. Press button "1" to authorize operation of the card for the respective group. The screen will display the "*" sign. Press button ")" to terminate the authorization to operate the card for the respective group. The screen will display the "-" sign. Settings are confirmed by pressing the ENT button.

3)Remove Card
start?

2.0.x.x.4.3. Remove Card

Removal of a card from the list of cards in the system
Run the procedure by pressing the ENT button. A sound signal will come from the keyboard for confirmation and the "Success" sign will appear.

1)Code Length
long code:OFF

2.1. Code length

The length of the code is set. There is an option between a short (4 digits) and long (6 digits) code. The selected code length is valid for all codes in the system, including the engineer code.
Note: When switching from short to long code, the figures 00 will automatically be added to all short codes. For example the short code 1234 will become 123400. When changing over from long to short code, only the first four figures in the long code will remain valid. For example the long code 123456 will become 1234.
Due to risk of coincidence of codes, changing over from long to short code IS NOT RECOMMENDED!

Switching over between two code lengths is done as follows:
- press the "1" key for a 6-digit code. "Long code: ON" is displayed.
- press the "0" key for a 4-digit code. "Long code: OFF" is displayed.
The selected code length is confirmed by pressing ENT.

2)Eng.Code Menu
0)ChangeEng.code

2.2. Engineer code

The Engineer Code is changed in this submenu. The new Engineer Code has to be entered twice.

0)ChangeEng.code
new:[]

3)Zones
0)Definition

3. Zones

The system zone/input configurations are set in this menu. It defines the zone/input type, zone name, zone area attachment, etc. In addition to these configurations, general input configurations can also be adjusted – zone/input auto shutdown time, Double knock function time, type of balancing.

0)Definition
01 iDDII ZoneXX

3.0. Zones definition

The system zone/input configurations are set in this submenu.

It is necessary to enter zone/input number. This can be done either by moving the arrows through the list with the system zones/inputs or by introducing the zone/input number. The selected zone/input is confirmed by pressing ENT.

01 iDDII ZoneXX
0)Rename zone

0)Rename zone
new: ZoneXX

3.0.x.x.0. Rename zone

The zone name is entered in this submenu. The name may contain figures and letters. To enter letters use the enclosed table.

Pressing the PROG key changes upper to lower case and vice-versa.

To go to the following/previous position use the arrows.

The name cannot exceed 8 digits.

1)Zone Type
Instant

3.0.x.x.1. Zone type

This submenu sets the zone/input type. The type is selected by going through the list of zone types with the help of the arrows. After positioning on the specific type of zone/input, press ENT for confirmation.

The possible zone/input types are listed in the following table.

Table 6 Zone Types and Function

Zone Type	Function
Instant	<p>Activating a zone in armed mode immediately triggers the alarm. The function of the zone disregards the type of arm mode.</p> <p>Parameters: Auto Shutdown, Bypass Enabled, Stay Zone, Force Zone, Double Knock, Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>
Entry Delay	<p>Activating a zone in armed mode of the type Force, Stay or Full starts input time. The alarm will be triggered if not disarmed by the time it is out. In case of successive activation of several zones of this type in armed mode of the type of Force, Stay or Full within one area will record the input time of the first.</p> <p>Activating a zone in armed mode of Instant type immediately triggers the alarm.</p> <p>Parameters: Auto Shutdown, Bypass Enabled, Stay Zone, Force Zone, Double Knock, Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>
Follow	<p>Activating a zone during input or output time will not trigger the alarm. Activating a zone in armed mode immediately triggers the alarm.</p> <p>Parameters: Auto Shutdown, Bypass Enabled, Stay Zone, Force Zone, Double Knock, Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>

Table 6 Zone Types and Function - cont.

Zone Type	Function
24h Burglary	<p>A 24-hour zone, which, if activated, immediately triggers the alarm.</p> <p>Parameters: Auto Shutdown, Bypass Enabled, Stay Zone, Force Zone, Double Knock, Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>
24h Delayed Fire	<p>A 24-hour zone, which, if activated, immediately starts time-delay. When the time-delay expires, the alarm will be triggered immediately. During time-delay keypads send out pulsed sound signal.</p> <p>Parameters: Auto Shutdown, Bypass Enabled, Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>
24h Standart Fire	<p>A 24-hour zone, which, if activated, immediately triggers the alarm.</p> <p>Parameters: Auto Shutdown, Bypass Enabled, Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>
Stay	<p>In Full or Force type armed mode the zone behaves as Follow type zone. In Instant or Stay type armed mode the zone behaves as Entry Delay type zone.</p> <p>Parameters: Auto Shutdown, Bypass Enabled, Stay Zone, Force Zone, Double Knock, Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>
Key-Switch	<p>A 24 hour zone, which, if activated, manages arming and disarming an area. It is commanded by an impulse key-switch. Activating a zone while disarmed will start arming. Activating a zone while armed will start disarming.</p> <p>Parameters: Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only, Arm Only/ArmDisarm, Stay Arming, Force Arming, Instant Arming</p>
Power Monitor	<p>A 24-hour zone, which, if activated, generates the message "EXP. MODULE DC LOSS".</p> <p>Parameters: Bypass Enabled, Stay Zone, Force Zone, Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>
Panic	<p>A 24-hour zone, which, if activated, generates the message Panic.</p> <p>Parameters: Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>
Tamper	<p>A 24-hour zone, which, if activated, immediately triggers the alarm.</p> <p>Parameters: Bypass Enabled, Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>
Medical	<p>A 24-hour zone, which, if activated, generates the message Medical.</p> <p>Parameters: Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>
24h Non burglary	<p>A 24 hour zone, which, if activated, generates the message 24h Non Burglary.</p> <p>Parameters: Bypass Enabled, Stay Zone, Force Zone, Double Knock, Chime, Steady Alarm, Pulsed Alarm, Silent Alarm, Report only</p>

2)Attach to Area
0)Areas 1-8

3.0.x.x.2. Attach to area

The zone/input attachment to system areas is specified in this submenu.

There are no limitations to the number of areas a zone/input can be attached to.

Any zone attached to more than one area will be armed when all areas it is attached to are armed.

A zone attached to more than one area will be disarmed when at least one area it is attached to is disarmed.

Areas:1 8
0/1 :-----

3.0.x.x.2.0. Areas 1-8

The zone/input attachment to areas 1 to 8 is set.

With the help of the arrows the cursor is positioned below the number of the selected area.

Keying in 1 will set the zone/input attachment to the respective area. This is marked by the symbol "*" on the display.

Keying in 0 disallows the zone/input attachment to the respective area. This is marked by the symbol "-" on the display.

Settings are confirmed by pressing ENT.

Areas:9 16
0/1 :-----

3.0.x.x.2.1. Areas 9-16

The zone/input attachment to areas 9 - 16 is set.

With the help of the arrows the cursor is positioned below the number of the selected area.

Keying in 1 will set the zone/input attachment to the respective area. This is marked by the symbol "*" on the display.

Keying in 0 disallows the zone/input attachment to the respective area. This is marked by the symbol "-" on the display.

Settings are confirmed by pressing ENT.

Zone Parameters
- Auto Shutdown

3.0.x.x.3. Zone parameters

The zone/input parameters are specified here. The table shows possible parameters.

With the help of the arrows the cursor is positioned on the list of zone/input parameters.

Keying in 1 will select the parameter. The selected parameters are marked by the symbol "*" to the left of the name of the parameter.

Keying in 0 will remove the parameter. This is marked by the symbol "-" to the left of the name of the parameter.

! The KeySwitch zone type can be assigned only the parameters ArmOnly/ ArmDisarm, Stay Arming, Force Arming and Instant Arming.

Selecting ArmOnly/ ArmDisarm (marked "*") may arm and disarm the respective area when that zone is activated. Not selecting this parameter (marked "-") can arm the respective area only when that zone is activated.

Of Stay Arming, Force Arming and Instant Arming only one parameter can be selected. If none of the three are selected it is understood that Full Arming will be set!

Table 7 Zone Parameters and Functions

Parameters	Function
Auto Shutdown	Activating a zone more times than set for a given armed period will shut it down automatically.
Bypass Enabled	User enabled to bypass zone.
Stay Zone	Zone is bypassed when reverted to Stay type arming.
Force Zone	Active zone is automatically shut down when reverted to Force type arming.
Double Knock	A timeslot assigned to Double Knock Time starts after a zone is activated. If the zone is activated again before the set time expires the alarm is immediately triggered. If the zone remains active for more than 15 seconds the alarm is immediately triggered.
Chime	Permits a Chime sound signal when a zone in day mode is activated.
Steady Alarm	Steady sound alarm signal when alarm is triggered from zone.
Pulsed Alarm	Pulsed sound alarm signal when alarm is triggered from zone 2 seconds steady signal, 1 second pause.
Silent Alarm	No sound alarm signal when alarm is triggered from zone. Memory for keypad alarm shows.
Report Only	No sound alarm signal when alarm is triggered from zone. No memory for keypad alarm is shown. A message is sent along the digital communicator.
ArmOnly/ ArmDisarm	Activating a KeySwitch type zone will arm the respective area without being able to disarm (parameter marked with "-") or will be armed and disarmed (parameter marked with "**")
Stay Arming	Activating a KeySwitch type zone will arm the respective area with Stay Arming type.
Force Arming	Activating a KeySwitch type zone will arm the respective area with Force Arming type.
Instant Arming	Activating a KeySwitch type zone will arm the respective area with Instant Arming type.

enter Time slot
N:01 . . 25 : 00

3.0.x.x.4. Zone timeslot

A zone/input is assigned a timeslot. The zone will be bypassed for the term of validity of the timeslot.

For example, if a zone is assigned a timeslot from 8:30 to 17:00h it will be bypassed at the stipulated time. From 17:00 to 0:00h and from 0:00 to 8:30h the respective zone will operate depending on the arm mode.

Valid numbers for timeslots are from 01 to 25. If no timeslot is to be used for the selected zone then 00 has to be assigned.

5)Entry/Stay Del
01 . . 99sec: 00

3.0.x.x.5. Entry/Stay delay

Values in seconds are entered for entry time for Entry delay type zone/input.

The smallest value is 1 second and the maximum is 99 seconds.

1)Auto Shut Down
01 . . 99times: 00

3.1. Auto shutdown

Sets a number with a value equal to the number of alarm signals from the sensor in the selected zone, after which the zone is ignored.

The counter for the number of signals is nullified every time the area of the zone is armed.

The parameter Auto shutdown must be assigned in order to activate this function.

2)Double Knock T
01 . . 99min: 00

3.2. Double knock

Values in minutes are entered for the Double Knock function timeslot.

The parameter Double Knock must be assigned in order to activate this function.

3)Zones Hardware
- Doubling

3.3. Zones hardware

The type of zoning and balancing of system inputs can be set. These settings are valid for all system inputs.

The parameters of the type of zoning and balancing of system inputs can be browsed with the help of the arrows.

Press "1" to set the selected parameter. The "*" symbol will be indicated on the display.

Press "0" to ignore the selected parameter. The "-" symbol will be indicated on the display.

The Doubling parameter indicates a function with one (inactive) or two (active) zones of one physical input.

The Wire EOL parameter indicates a function with (an active) or without (an inactive) balance resistor.

The possible options for adjusting and connecting the sensors to the input of the system are shown in the Figure 2.

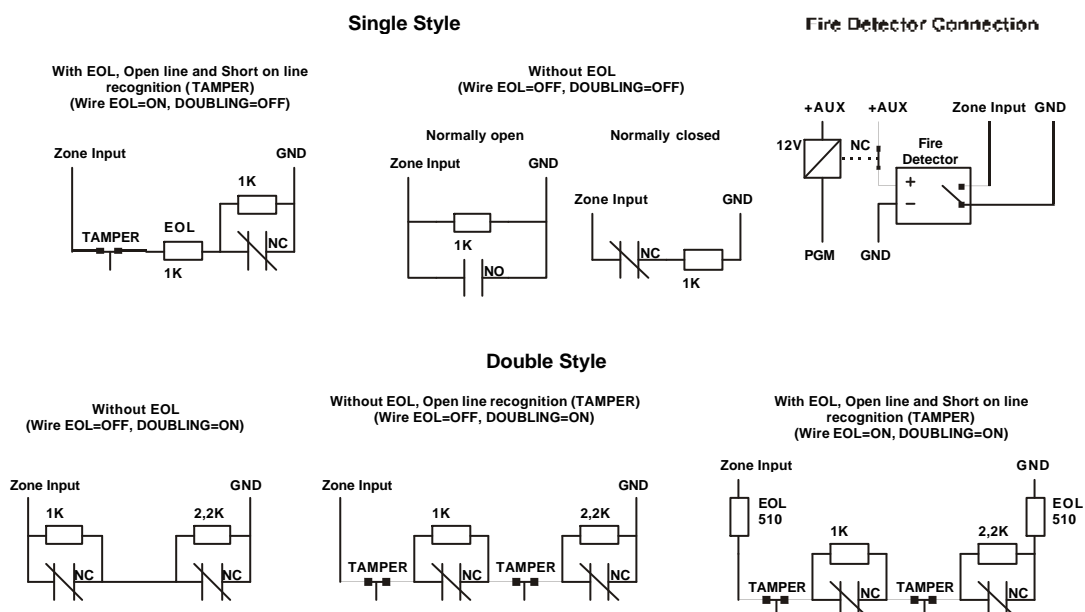


Fig. 2 Zones connection

4. Outputs

This menu configures programmable system output parameters.

0)Outputs
0)PGM definition

4.0. PGM definition

A number for the programmable output has to be assigned. This can be done either by moving the arrows through the list with the programmable outputs or by introducing the programmable output number. The selected programmable output is confirmed by pressing ENT.

0)PGM definition
XX oDDOO

XX oDDOO
0)Activation By

4.0.x.x.0. Activation by

An event is selected, the occurrence of which will activate the output. Possible events are listed in the table.

The arrows help to find a position within the list of events. Only one listed event can be selected. The selected item is confirmed by pressing ENT.

0)Activation By
none : 00

4.0.x.x.1. Deactivation by

Assigns the method to restore the programmable output in deactivated/normal status. There are two possible methods – upon the occurrence of a listed in the table event or after a lapse of a time interval.

1)DeactivationBy
0)Event

4.0.x.x.1.0. Event

An event is selected, the occurrence of which will cause the output to change to inactive/normal status.

Possible events are listed in the table.

The arrows help to find a position within the list of events.

Only one listed event can be selected. The selected item is confirmed by pressing ENT.

0)Event
none : 00

4.0.x.x.1.1. Time period

A time limit is defined for output transition to inactive/normal status.

The time set starts running the moment the output is activated.

A time limit can be set between 01 to 99 seconds or 01 to 99 minutes.

Pressing PROG changes over between the two.

The selected value is confirmed by pressing ENT.

PROG for sec/min
01 .. 99sec: 00

Table 8 Events for Activating and Restoring Programmable Outputs

Event	Function										
Fixed Time N	<p>on at the indicated hour. The values are given in the table. A two-digit figure has to be entered, comprised by the row and column. off 15 minutes after on.</p>										
		0	1	2	3	4	5	6	7	8	9
	0	none	00:00	00:15	00:30	00:45	01:00	01:15	01:30	01:45	02:00
	1	02:15	02:30	02:45	03:00	03:15	03:30	03:45	04:00	04:15	04:30
	2	04:45	05:00	05:15	05:30	05:45	06:00	06:15	06:30	06:45	07:00
	3	07:15	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15	09:30
	4	09:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00
	5	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30
	6	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00
	7	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30
	8	19:45	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00
	9	22:15	22:30	22:45	23:00	23:15	23:30	23:45			
Sys Trbl. N	<p>on for respective system trouble. The values are given in the table. A two-digit figure has to be entered. off upon problem solution</p>										
	01	AC Loss	no 220V mains supply								
	02	Batt Low	low battery								
	03	Batt Loss	lost battery								
	04	NA	not in use								
	05	NA	not in use								
	06	Aux Power Failed	no AUX power supply								
	07	PGM Power Failed	no PGM power supply								
	08	TLM Fault	no telephone line								
	09	TEL1 Failure	failure communicating tel. 1								
	10	TEL2 Failure	failure communicating tel. 2								
	11	TEL3 Failure	failure communicating tel. 3								
	12	TEL 4 Failure	failure communicating tel. 4								
	13	Ram Error	RAM error								
	14	Rom Error	ROM error								
	15	Bus Error	Bus error								
	16	Printer paper out	No paper in printer								
SysStatus N	A two-digit figure is introduced according to table										
	01	Silent Alarm/ Report Only	<p>on for silent alarm or alarm report from arbitrary area off for Disarm or alarm cycle expiration ! All other alarms are ignored until alarm cycle expires.</p>								
	02	AudibleAlarm	<p>on for sound alarm except Fire from arbitrary area off for Disarm or alarm cycle expiration ! All other alarms are ignored until alarm cycle expires.</p>								
	03	FireAlarm	<p>on for fire alarm from arbitrary area off for Disarm</p>								
	04	FireDelay	<p>on for activating Fire Delay type zone of arbitrary area off for Disarm code or fire alarm</p>								
	05	Tamper	<p>on for activating a tamper type zone from an arbitrary area off for restoring all system Tamper type zones</p>								

Table 8 Events for Activating and Restoring Programmable Outputs - cont.

Event	Function		
SysStatus N	06	Bypass Zone	on if any bypassed zones during arming off during disarming
	07	Panic	on during Panic in arbitrary area off when introducing valid code
	08	Arm	on when all areas are armed off when at least one area is under day mode
	09	Disarm	on when all areas are in day mode off when at least one area is in armed mode
	10	Trouble	on at least one available problem in the system off no problem within the system
	11	Siren	on during sound alarm from arbitrary group off during Disarm or alarm cycle expiration ! All other alarms are ignored until alarm cycle expires.
	12	Program Mode	on when starting programming mode off when leaving programming mode
SilntAlrm A	on during silent alarm, or silent alarm report, or duress codes from area A off during Disarm in area A or alarm cycle expiration ! All other alarms are ignored until alarm cycle expires.		
AudblAlrm A	on during sound alarm from area A off during Disarm in area A or alarm cycle expiration ! All other alarms are ignored until alarm cycle expires.		
Fire Alrm A	on during fire alarm in area A off during Disarm in area A		
FireDelay A	on during fire alarm from Fire Delay type zone in area A off during Disarm+code in area A or fire alarm		
Tamper A	on for activating a tamper type zone from an area A off for restoring all Tamper type system zones in area A		
Disarming A	on during Disarm in area A off during Arm in area A		
Bypass in A	on during Arm in area A with bypassed zones in the area off during Disarm in area A		
Auto Arm A	on during Auto Arm in area A off during Disarm in area A		
Panic A	on during Panic from area A off when introducing area A valid code		
Arming A	on during Arm in area A off during Disarm in area A		
Ready A	on during a Ready status in area A off no Ready status in area A		
User Code N	on when introducing user code N off when leaving user menu for code N		
ArmingCode N	on during Arm with user code N off during Disarm with user code N		
DisarmCode N	on during Disarm with user code N off during Arm with user code N		
OK Zone Z	on for restoring zone Z off for activating zone Z		
Open Zone Z	on for activating zone Z off for restoring zone Z		
BypassZone Z	on during Arm with bypass of zone Z off during Disarm with bypass of zone Z		

Table 8 Events for Activating and Restoring Programmable Events - cont.

Event	Function
Tamper Zone Z	on for activating a Tamper type zone or breaking the self-protection circuit in zone Z off for restoring a Tamper type zone or the self-protection circuit in zone Z
Alarm from Z	on for alarm in zone Z off for restoring the alarm in zone Z
Rest.Zone Z	on for restoring the alarm in zone Z off for alarm in zone Z
Access KBD	on for introducing valid code through KBD keypad off when leaving user menu through KBD keypad
Function N	on during on status of function N off during off status of function N
Siren for A	on during alarm in area A off during expiration of alarm cycle of area A alarm ! Selecting this programmable output event disallows setting any deactivating event!
FireReset Z	sets 6 seconds Reset for fire sensors ! Selecting this programmable output event disallows setting any deactivating event!

2)Normal State
0/1 : ON

4.0.x.x.2. Normal state

Inactive/normal status can be assigned to the programmable output.

Keying 1 assigns inactive/normal ON status, which corresponds to N.C. Given this state, the output will have a pressure of 0 V (or GND).

Keying in 0 assigns inactive/normal OFF status, which corresponds to N.O. Given this state, the output will have a pressure 12V.

1)Function def.
0)F(). N : XX

4.1. Function definition

Defines system function parameters.

16 functions can be configured. The performance scheme of a function is provided in a figure. It is possible to impose a function upon a function, but no more than four functions in all.

The number of a programmable output is assigned for each key. The operation of the programmable output is programmed in the 4.0.x.x. menus.

When a given switch is not intended to be used, it should be thus configured so as not to hinder the performance of the function. If no number of a programmable output is entered for a specific key, the latter will remain open.

A function number has to be defined. This can be done with the help of the arrows by going through the list of functions, or by keying in the number of the function. The selected function is confirmed by pressing ENT.

0)F(). N : XX
0)switch A (_/_)

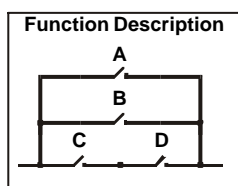


Fig. 3 Logical description of a function

0)switch A (/_/)
PGM 00 . . 48: 00

4.1.x.x.0. Switch A

Set the parameters of key A.

Enter the number of a programmable output. Key A will reproduce the condition of the programmable output. The disabled condition of key A will be determined by the settings of the programmable output in the 4.0.x.x.2 menu. The ON condition corresponds to a closed key and the OFF condition corresponds to an open key.

The entered number of a programmable output is confirmed by pressing the ENT button.

1)switch B (/_/)
PGM 00 . . 48: 00

4.1.x.x.1. Switch B

Set the parameters of key B.

Enter the number of a programmable output. Key B will reproduce the condition of the programmable output. The disabled condition of key B will be determined by the settings of the programmable output in the 4.0.x.x.2 menu. The ON condition corresponds to a closed key and the OFF condition corresponds to an open key.

The entered number of a programmable output is confirmed by pressing the ENT button.

2)switch C (/_/)
PGM 00 . . 48: 00

4.1.x.x.2. Switch C

Set the parameters of key C.

Enter the number of a programmable output. Key C will reproduce the condition of the programmable output. The disabled condition of key C will be determined by the settings of the programmable output in the 4.0.x.x.2 menu. The ON condition corresponds to a closed key and the OFF condition corresponds to an open key.

The entered number of a programmable output is confirmed by pressing the ENT button.

3)switch D (/_/)
PGM 00 . . 48: 00

4.1.x.x.3. Switch D

Set the parameters of key D.

Enter the number of a programmable output. Key D will reproduce the condition of the programmable output. The disabled condition of key D will be determined by the settings of the programmable output in the 4.0.x.x.2 menu. The ON condition corresponds to a closed key and the OFF condition corresponds to an open key.

The entered number of a programmable output is confirmed by pressing the ENT button.

5) Split System
0) Define areas

5. Split system

The system can be split into areas in this menu. Specific parameters can be defined for each area. The keypads installed in the system are allocated to the formed areas.

0) Define areas
A. XX - AreaXX

5.0. Define areas

The parameters are defined for the areas in the system.

Up to 16 areas can be defined.

Areas have to be set a number. This can be done by going through the list of functions with the help of the arrows, or by keying the number of the function. The selected function is confirmed by pressing ENT.

A. XX - AreaXX
0) Rename

0) Rename
new : AreaXX

5.0.x.x.0. Rename area

The area name is defined in this menu. The name may contain figures and letters. To enter letters use the enclosed table.

Pressing the PROG key changes upper to lower case and vice-versa.

To go to the following/previous positions use the arrows.

The maximum length of the name is 8 symbols.

1) Options
- Auto Arming

5.0.x.x.1. Options

This menu enables or disaables automatic arming, automatic disarming and arming by pressing a single key.

A time slot needs to be configured in order to use the functions for automatic arming and disarming which then has to be set in menu 5.0.X.X.5.

Browse through the list of options with the help of the arrows

- Auto arming

Enables or disables auto arming.

Upon arming time the system will attempt to set Full Arming type. In case of failure the system will attempt Force Arming. In case of failure the area will not be armed.

Activating this function requires for a timeslot to be defined and then entered in menu 5.0.X.X.5.

Keying in 1 enables automatic arming. The "*" symbol will be indicated on the display.

Keying in 0 disables automatic arming. The "-" symbol will be indicated on the display.

- Auto disarming

Enables or disables auto disarming.

Keying in 1 enables automatic disarming. The "*" symbol will be indicated on the display.

Keying in 0 disables automatic disarming. The "-" symbol will be indicated on the display.

- One touch arming

Enables or disables a quick arming function for the area.

Keying in 1 enables quick arming of the area. The "*" symbol will be indicated on the display.

Keying in 0 disables quick arming of the area. The "-" symbol will be indicated on the display.

5.0.x.x.2. Panic options

The menu configures event parameters with Panic properties for the respective area. Events can be disallowed or allowed; as well as the type of announcement defined. Browse through the list of panic options with the help of the arrows

- Police panic

Enables or disables announcing a Police Panic event.

Keying in 1 enables announcing the Police Panic event. The "*" symbol will be indicated on the display.

Keying in 0 disables announcing the Police Panic event. The "-" symbol will be indicated on the display.

- Silent police panic

Configures the Police Panic event announcement type.

Keying in 1 will send a message from the communicator only. The "*" symbol will be indicated on the display.

Keying in 0 will activate the siren upon occurrence of a Police Panic event and will send a message along the communicator. The "-" symbol will be indicated on the display.

- Medical panic

Enables or disables announcing a Medical Panic event.

Keying in 1 enables announcing the Medical Panic event. The "*" symbol will be indicated on the display.

Keying in 0 disables announcing the Medical Panic event. The "-" symbol will be indicated on the display.

- Silent medical panic

Configures the Medical Panic event announcement type.

Keying in 1 will send a message from the communicator only. The "*" symbol will be indicated on the display.

Keying in 0 will activate the siren upon occurrence of a Police Panic event and will send a message along the communicator. The "-" symbol will be indicated on the display.

- Fire panic

Enables or disables announcing a Fire Panic event.

Keying in 1 enables announcing the Fire Panic event. The "*" symbol will be indicated on the display.

Keying in 0 disables announcing the Fire Panic event. The "-" symbol will be indicated on the display.

5.0.x.x.3. Bell options

The options for the alarm signal of the respective area are defined in this submenu.
Browse through the list of bell options with the help of the arrows

- Audible tamper

Enables or disables sound alarm upon occurrence of Tamper event in the area.

Keying in 1 enables sound alarm upon occurrence of Tamper event. The "*" symbol will be indicated on the display.

Keying in 0 disables sound alarm upon occurrence of Tamper event. The "-" symbol will be indicated on the display.

- Squawk on arm

Enables or disables single sound signal of 1 second duration when arming area.

Keying in 1 enables sound signal upon arming the area. The "*" symbol will be indicated on the display.

Keying in 0 disables sound signal upon arming the area. The "-" symbol will be indicated on the display.

- Squawk on disarm

Enables or disables single sound signal of 1 second duration when disarming area.

Keying in 1 enables sound signal upon arming the area. The "*" symbol will be indicated on the display.

Keying in 0 disables sound signal upon arming the area. The "-" symbol will be indicated on the display.

- Squawk on cancel

Enables or disables three sound signals of 1 second duration each when receiving a Cancel signal in the area.

Keying in 1 enables sound alarm when receiving a Cancel signal in the area. The "*" symbol will be indicated on the display.

Keying in 0 disables sound alarm when receiving a Cancel signal in the area. The "-" symbol will be indicated on the display.

- Ringback squawk

Enables or disables four sound signals of 1 second duration each when disarming if an alarm was available in the area.

Keying in 1 enables sound alarm when disarming if an alarm was available in the area. The "*" symbol will be indicated on the display.

Keying in 0 disables sound alarm when disarming if an alarm was available in the area. The "-" symbol will be indicated on the display.

- Warning 10 minutes

Enables or disables three sound signals of 1 second duration each 10 minutes before automated arming of area.

Keying in 1 enables sound alarm 10 minutes before auto arming of area. The "*" symbol will be indicated on the display.

Keying in 0 disables sound alarm 10 minutes before auto arming of area. The "-" symbol will be indicated on the display.

4)Bell Cutoff Time
01 . . 99min: 00

5.0.x.x.4. Bell cut-off time

The time duration of the alarm cycle for the respective area is set in minutes.
The value of this parameter is between 0 and 99 minutes.
An 0 value will block the alarm cycle.
The value entered can be confirmed by pressing ENT.

enter Time slot
01 . . 25 : 00

5.0.x.x.5. Assign timeslot

A timeslot is assigned for automatic arming/disarming of an area. For programmed timeslot the area will be disarmed - in 'Start time' the area will be disarmed and in 'Stop time' the area will be Armed.
Enabling the function AutoArming/AutoDisarming requires, in addition to setting the respective area timeslot, for automated arming of AutoArming in menu 5.0.X.X.1.0. to be enabled, and/or for automated disarming of AutoDisarm in menu 5.0.X.X.1.1. to be enabled. There are no restrictions for manual arming or disarming in or out of the timeslot.
Valid timeslot numbers are from 01 to 25. In case no timeslot is to be used for the selected area, 00 must be entered.

enter exit time
00 . . 99sec: 00

5.0.x.x.6. Exit time

An exit time is specified for all Entry Delay type zones within the area.
The values in this parameter are between 0 to 99 seconds.

Clear Bypass on
DisArm OFF

5.0.x.x.7. Disarm options

An option is assigned to remove Bypass zone in areas following disarming.
Keying in 1 enables removal of Bypass zone in area following disarming. The display shows ON.
Keying in 0 disables removal of Bypass zone in area following disarming. The display shows OFF.

1)Area assign
02 LCD used

5.1. Area assign

The belonging of a keyboard or a Proxy-reader to groups is set.
There is no restriction for the number of keyboards or Proxy-readers belonging to a group or the number of groups belonging to a keyboard or a Proxy-reader.
A number has to be assigned to the keyboard of the Proxy-reader. This can be done by following the list of devices with the highlight arrows or by entering the number of the device, a keyboard or a Proxy-reader. The selected device is confirmed by pressing the ENT button. The screen will display the unique identification number of the device, i.e. the keyboard or the Proxy-reader. After a single pressing of the ENT button, the belonging of the device to the groups can be identified.
Any attempt at setting a device which is not a keyboard or a Proxy-reader will be denied.

02 LCD used
SNo:030001234500

Areas:1 8
0/1 :-----

5.1.d.d.0 Assign to areas 1-8

Assigns keyboard attachment to groups 1 to 8.

With the help of the arrows the cursor can be positioned below the number of the selected area. Pressing 1 sets keyboard attachment to respective area. This is marked on the display by the symbol “*“.

Pressing 0 removes keyboard attachment to respective area. This is marked on the display by the symbol “-“.

Adjustments can be confirmed by pressing ENT.

Areas:9 16
0/1 :-----

5.1.d.d.1. Assign to areas 9-16

Assigns keyboard attachment to groups 9 to 16.

With the help of the arrows the cursor can be positioned below the number of the selected area. Pressing 1 sets keyboard attachment to respective area. This is marked on the display by the symbol “*“.

Pressing 0 removes keyboard attachment to respective area. This is marked on the display by the symbol “-“.

Adjustments can be confirmed by pressing ENT.

6. Dialer

6)Dialer
0)Tel. numbers

The parameters of the inbuilt digital dialer are set in this menu.

6.0. Telephone numbers

0)Tel. numbers
1)Ctrl. Station1

Telephone numbers for connecting the central monitoring station can be set in this menu. The specific telephone numbers must be requested from the respective security organization. The system maintains up to four different telephone numbers.

The following symbols are used for setting telephone numbers:

- the figures from 0 to 9;
- P for pulse dialling;
- T for tone dialling;
- D for 4 second pause while dialling;
- W for waiting for dial signal.

Telephone numbers may contain no more than 16 symbols.

6.0.1. Central station 1

Enter telephone number 1.

tel. N./Symbols

6.0.2. Central station 2

Enter telephone number 2.

tel. N./Symbols

6.0.3. Central station 3

Enter telephone number 3.

tel. N./Symbols

6.0.4. Central station 4

Enter telephone number 4.

tel. N./Symbols

6.1. Account number

1)Account number
A. XX - AreaXX

The account numbers for connecting a central station for each system area can be set in this menu.

The account numbers consist of 4 digits.

Each area must be set a number. This can be done by going through the list of areas with the help of the arrows, or by keying in the number of the area. The selected area is confirmed by pressing ENT.

enter four digit
for A. ID : 0000

6.1.x.x. Account number area xx

The account number of the area is entered.
The specified number can be confirmed by pressing ENT.

2)Wait dial tone
OFF

6.2. Wait dial tone

Enables or disables the wait dial tone before dialling.

When enabled to wait for a dial tone, the system will not begin to dial until it detects the tone "dial" from the telephone line. If the tone "dial" is not detected within 5 seconds, the system will discontinue and after 20 seconds will attempt again to detect the "dial" tone.

During disabled wait dial tone, the system will initiate dialling by the 5th second after engaging the telephone line.

Keying in 1 enables wait dial tone. The display shows ON.

Keying in 0 disables wait dial tone. The display shows OFF.

3)Report options
0)Areas rep.opt.

6.3. Report options

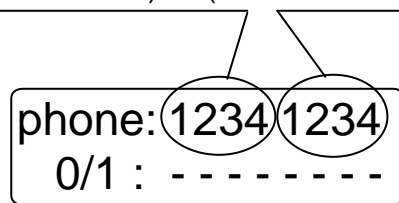
This menu adjusts the flows of reports to the central station.

The types of reports to be transmitted are defined for each area in the system, as well as the telephones to be used for transmission, and the scheme to be used for delivering reports. The telephone numbers used for transmitting reports to the central station are repeated twice in the menus.

Marking the telephones in first area as 1,2,3, or 4 defines that a report is being transmitted from at least one of them.

Marking the telephones in second area as 1,2,3, or 4 defines compulsory transmission of report from each of the marked telephones, irrespective of the results from the attempts to transmit from the telephones in first area.

(1or 2 or 3 or 4)and(1 and 2 and 3 and 4)



6.3.0. Areas report options

The number of the area has to be defined. This can be done by going through the list of areas with the help of the arrows, or by keying in the number of the area. The selected area is confirmed by pressing ENT.

0)Areas rep.opt.
A. XX - AreaXX

A. XX - AreaXX
0)Arm/D r.codes

phone:12341234
0/1 : -----

6.3.0.x.x.0. Arm/disarm report

Sets the telephone numbers and the scheme for transmitting reports about arming and disarming areas.

With the help of the arrows the cursor can be positioned below the respective telephone number.

Pressing 1 allows transmission of arm/disarm areas reports for the respective telephone number. This is marked on the display by the symbol “*“.

Pressing 0 disallows transmission of arm/disarm areas reports for the respective telephone number. This is marked on the display by the symbol “-“.

phone:12341234
0/1 : -----

6.3.0.x.x.1. Alarm/restore report

Sets the telephone numbers and the scheme for transmitting report about an alarm event and restoration from an alarm event in the area.

Pressing 1 allows transmission of messages about an alarm event and restoration from an alarm event in the area for the respective telephone number.

This is marked on the display by the symbol “*“. Pressing 0 disallows transmission of messages about an alarm event and restoration from an alarm event in the area for the respective telephone number. This is marked on the display by the symbol “-“.

phone:12341234
0/1 : -----

6.3.0.x.x.2. Tamper/restore report

Sets the telephone numbers and the scheme for transmitting tamper/restore area reports.

Pressing 1 allows transmission of reports about tamper/restore events in the area for the respective telephone number. This is marked on the display by the symbol “*“.

Pressing 0 disallows transmission of reports about tamper/restore events in the area for the respective telephone number. This is marked on the display by the symbol “-“.

1)System rep.op.
0)Trouble/Restor

6.3.1. System report code

The flows of system reports to the central station are adjusted.

phone:12341234
0/1 : -----

6.3.1.0. Trouble/restore report

Sets the telephone numbers and the scheme for sending system trouble/restore reports.

Pressing 1 allows transmission of messages about system trouble/restore reports for the respective telephone number. This is marked on the display by the symbol “**“.

Pressing 0 disallows transmission of messages about system trouble/restore reports for the respective telephone number. This is marked on the display by the symbol “-“.

phone:12341234
0/1 : -----

6.3.1.1. Special report

Sets the telephone numbers and the scheme for sending Special Report messages. Pressing 1 allows transmission of Special Report messages for the respective telephone number. This is marked on the display by the symbol “**“.

Pressing 0 disallows transmission of Special Report messages for the respective telephone number. This is marked on the display by the symbol “-“.

phone:12341234
0/1 : -----

6.3.1.2. Medical report

Sets the telephone numbers and the scheme for sending Medical Report messages. Pressing 1 allows transmission of Medical Report messages for the respective telephone number. This is marked on the display by the symbol “**“.

Pressing 0 disallows transmission of Medical Report messages for the respective telephone number. This is marked on the display by the symbol “-“.

phone:12341234
0/1 : -----

6.3.1.3. Fire report

Sets the telephone numbers and the scheme for sending Fire Report messages.

Pressing 1 allows transmission of Fire Report messages for the respective telephone number. This is marked on the display by the symbol “**“.

Pressing 0 disallows transmission of Fire Report messages for the respective telephone number. This is marked on the display by the symbol “-“.

6.4. Test call time

Time is set for transmitting TEST reports to the central station and the period for transmission in days.

hh:mm day
00:00 01

6.5. Line monitor

The telephone line monitoring function is adjusted in this menu.

5)Line monitor
0)TLMonitoring

6.5.0. Telephone line monitoring

0)TLMonitoring
0/1 : OFF

Allows or disallows telephone line monitoring function.

Pressing 1 enables telephone line monitoring function. This is marked on the display by ON.
Pressing 0 disables telephone line monitoring function. This is marked on the display by OFF.

6.5.1. Telephone line monitor trouble delay

1)TLM Trbl delay
01 .. 99min: 00

Sets time period for indication of telephone line trouble.

6.6. Up/Down load

Parameters are assigned for up/down loading of system parameters.

6)Dialer
6)Up/down load

6.6.0. PC phone number

The telephone number of the station for up/down load is set.

tel. N./Symbols

6.6.1. PC ID number

The identification number of the station for up/down load is set.

enter four digit
for PC ID :

6.6.2. Panel ID number

The identification number of the CA864 system for up/down loading is set.

enter four digit
for P. ID :

6.6.3. Number of rings

Sets the number of rings after which the system will switch to up/down load mode.

3)NumberOf rings
01 .. 08 :

6.6.4. Call Back

Allows or disallows call back function.

When call back function is enabled, the system will exchange identification passwords with the station for up/down loading. When identification is positive, the two devices will disconnect and then the CA864 system will connect the station for up/down loading at the telephone set in menu 6.6.0.

When call back function is disabled and identification is positive, the system will switch over to up/down load mode. Pressing 1 allows call back function. This is marked on the display by ON.

Pressing 0 disallows call back function. This is marked on the display by OFF.

4)Call Back
0/1 : OFF

5)Answer machine
0/1 ON

6.6.5. Answer machine

Allows or disallows answer machine function. An answer machine is an intelligent device that can take on telephone conversations, faxes, etc.

When answer machine function is enabled, the system will ignore the first ring giving the answering device a chance to take on the conversation. If within three minutes there is a new incoming ring, the system will take on the conversation at the first ring impulse. The number of ring impulses set in menu 6.6.3. must exceed the number of ring impulses set for the answer machine.

When answer machine function is disabled, the system will answer after detecting the number of ring impulses set in menu 6.6.3.

Keying in 1 allows answer machine function. This is marked on the display by ON.

Keying in 0 disallows answer machine function. This is marked on the display by OFF.

Table 9 Contact ID Protocol Reports from CA864

CONTACT ID codes, transmitted from CA864 to central station	
100	MEDICAL ALARM
110	FIRE ALARM
120	PANIC ALARM
121	DURESS
130	BURGLARY
133	24 HOUR
137	TAMPER
143	EXPANSION MODULE FAILURE
144	SENSOR TAMPER
145	EXPANSION MODULE TAMPER
150	24 HOUR NON-BURGLARY
300	SYSTEM TROUBLE
301	AC LOSS
302	LOW SYSTEM BATTERY
303	RAM CHECKSUM BAD
304	ROM CHECKSUM BAD
305	SYSTEM RESET
306	PANEL PROGRAM CHANGED
308	SYSTEM SHUT DOWN
311	BATTERY MISSING/DEAD
335	LOCAL PRINTER PAPER OUT
336	LOCAL PRINTER FAILURE
337	EXP. MODULE DC LOSS
350	COMMUNICATION
354	FAIL TO COMMUNICATE
400	OPEN/CLOSE
401	OPEN/CLOSE BY USER
403	AUTOMATIC OPEN/CLOSE
406	CANCEL
408	QUICK ARM
409	KEYSWITCH OPEN/CLOSE
411	CALL BACK REQUEST MADE
412	SUCCESSFUL DOWNLOAD ACCESS
455	AUTO-ARM FAILED
570	ZONE BYPASS
574	GROUP BYPASS
601	MANUAL TRIGGER TEST
602	PERIODIC TEST REPORT
621	EVENT LOG RESET
625	TIME/DATE RESET
627	PROGRAM MODE ENTRY
628	PROGRAM MODE EXIT

7. Peripherals

7)Peripherals
0)Printer

This menu is compatible with the peripheral devices Printer and Memory Card.

7.0. Printer

0)Printer
no printing

With the help of the arrows find the necessary printer command. Press ENT to confirm selection. The printer commands are described in the table below.

Table 10 Printer Commands

Command	Function
no printing	Stops Log File printing in real time
test printer	Prints test page
Devices	Prints list of devices and thereto programmed parameters.
Zones	Prints list of zones and thereto programmed parameters.
Areas	Prints list of areas and thereto programmed parameters.
User codes	Prints list of user codes and thereto programmed parameters.
Time slots	Prints list of timeslots and thereto programmed parameters.
PGM	Prints list of PGM and thereto programmed parameters.
Functions	Prints list of functions and thereto programmed parameters.
System	Prints system parameters parameters of communicator, type of zone balancing, etc.
UpDownload	Prints Up/DownLoad parameters.
Log File	Prints entire Log File.
online printing	Prints Log File in real time.

1)Memory Card
0)Upload to card

7.1. Memory card

This submenu is used to store programme set parameters of the system on Memory Card carrier or is used to programme/restore the programme set parameters of the system on Memory card carrier.

0)Upload to Card
start?

7.1.0. Upload to card

After the Memory Card carrier is installed on the socket of the main panel, press ENT to start recording system programme parameters to card. The display shows:

please wait...

When transfer is completed, the display shows:

transfer OK

The card can be removed from the socket of the main panel.

If a fault is found during the recording process, the display shows:

transfer error

The recording is not valid.

1)Downl.FromCard
start?

7.1.1. Download from card

After the Memory Card carrier is installed on the socket of the main panel, press ENT to start recording system programme parameters from card to system. The display shows:

please wait...

When transfer is completed, the display shows:

transfer OK

The card can be removed from the socket of the main panel.

If a fault is found during the recording process, the display shows:

transfer error

The recording is not valid.

8)System edit
0)Device config

8. System edit

This menu edits the system at device level.

Each system device has its own identification number set by the producer. When starting the system for the first time, all devices connected to the bus are recorded in the main module. The detected devices have to be adapted then to the system – configure their inputs and outputs, identify the area where the keypads will indicate problems arising in devices.

During troubleshooting of any device in the system, a relief procedure is used to replace it with a working one.

If system expansion is required, a relief procedure is used to connect the new device to the system.

0)Device config
DD Name Status

8.0. Device config

Devices included in the system can be configured in this submenu.

The number of the device to be configured must be set. This can be done by going through the list of devices with the help of the arrows, or by keying in the number of the device.

The following information can be derived for every device on this list:

- DD – device number in the list of devices;

- Name – device name;

- Status – shows device status:

--> unused – no device assigned to this number;

--> unfixed – device assigned to this number; area not assigned to indicate

device troubleshooting on keypad;

--> used – device connected to the system with assigned area to indicate device troubleshooting on keypad;

--> removed – device, removed from system software;

--> disabled – device, temporarily removed from system;

- SNo - the serial number of the device.

DD Name Status
SNo:000512389050

SNo:000512389050
0)Inputs config

0)Inputs config
Inp.01=Zn.: 00

8.0.x.x.0. Inputs config

Configures selected device inputs, if any.

All available inputs are assigned a number to represent the input in the system.

Inputs, not to be used, are assigned 00.

1)Outputs config
Out.01=PGM: 00

8.0.x.x.1. Outputs config

Configures selected device outputs, if any.

All available outputs are assigned a number to represent the output in the system.

Outputs, not to be used, are assigned 00.

8.0.x.x.2. Assign trouble

2)Assign trouble
to Area N: 01

A number is given to the area with the keypad displaying trouble reports in selected devices. This is usually the area that the system LCD keypad is attached to.

8.0.x.x.3. Disable

3)Disable
disable?

Temporarily disables the system to work with selected device. This option is used when replacing a troubleshooting device with a new one of the same type. The parameters/configurations of the selected device are stored in the system memory.

After confirmation by pressing ENT, the selected device is temporarily cut off from the system.

8.0.x.x.4. Enable

4)Enable
enable?

Enables the system to work with a device which has been temporarily been disabled.

Note: The same device, which had been disabled, has to be connected to the bus.

After confirmation by pressing ENT the selected device is again connected to the system.

8.0.x.x.5. Remove

5)Remove
remove?

The selected device is removed from the list of system devices.

Note: Following this command all settings of the selected device are nullified.

After confirmation by pressing ENT, the selected device is removed from the system.

8.0.x.x.6. Replace device

6)Replace device
With Device:

Used for replacing troubleshooting device with good device.

During this command the parameters of the same type device are transferred to the new device.

The number for the existing device of the same type is indicated and confirmed by pressing ENT.

8.1. Add hardware

1)Add hardware
start PnP?

Triggers a procedure to detect new devices connected to the bus.

After the procedure the new devices are added to the system device list and marked as unfixed.

8.2. Info

MotherboardSoft.
version: 2.2

The software version of the MainBoard is indicated.

9. Engineer out

9)Engineer out
good bye?

Programming mode is exited after confirmation by pressing ENT.

Supplement A Time Slot Adjustment

The term Time Slot is used to represent a set of functions related to time intervals. A time slot is used to automate operations fixed in time, which are periodically repeated by the security system. Such operations can be:

Managing programmable input (e.g. managing door access)

Turning on lights

Automatic arming or disarming security

Restricting user code access

Automatic setting up of temporary passage routes in secured site.

CA864 can organize time slots to help solve tasks related to automation of periodically recurring operations.

A user code access restriction will be analysed as example. The table sets the requirements for the time slot.

In fact, the table sets the times when the time slot should remain active.

This time slot will remain inactive over non-working days.

Week Days	From	To
Monday	12:30	18:45
Tuesday	08:30	18:45
Wednesday	08:30	18:45
Thursday	08:30	21:45
Friday	08:30	18:45
Saturday	08:30	17:45
Sunday	All day	

Hollydays:

1 January

3 March

24 May

1 August to 23 August

25 December to 31 December

The table indicates that four regular time slots would be needed, respectively:

- for Monday
- for Tuesday, Wednesday and Friday
- for Thursday
- for Saturday

No time slot is needed for Sunday.

The time slot adjustment for the described scheme should begin by configuring the non-working days in HolidaySlot in menu 1.2.

Five HolidaySlot type time slots would be needed. Their numbers and configuration are shown in the table.

HolidaySlot number	From	To
01	01/01	01/01
02	03/03	03/03
03	24/05	24/05
04	01/08	23/08
05	25/12	31/12

The configuration of these HolidaySlot type time slots should be done through extended XHolidaySlot type time slots in menu 1.3. Two XHolidaySlot type time slots would be needed, because each can hold up to 4 HolidaySlot type time slots.

The HolidaySlots numbered 01, 02, 03 and 04 can be set in XHolidaySlot numbered 31 (in menu 1.3.3.1.), and the HolidaySlot numbered 05 in XHolidaySlot numbered 32 (in menu 1.3.3.2.).

The final configuration of the non-working days is done in XXHolidaySlot type time slot in menu 1.4. The XHolidaySlots numbered 31 and 32 are set XXHolidaySlot numbered 41 (in menu 1.4.4.1.).

Thus XXHoliday Slot 41 covers all specified holidays.

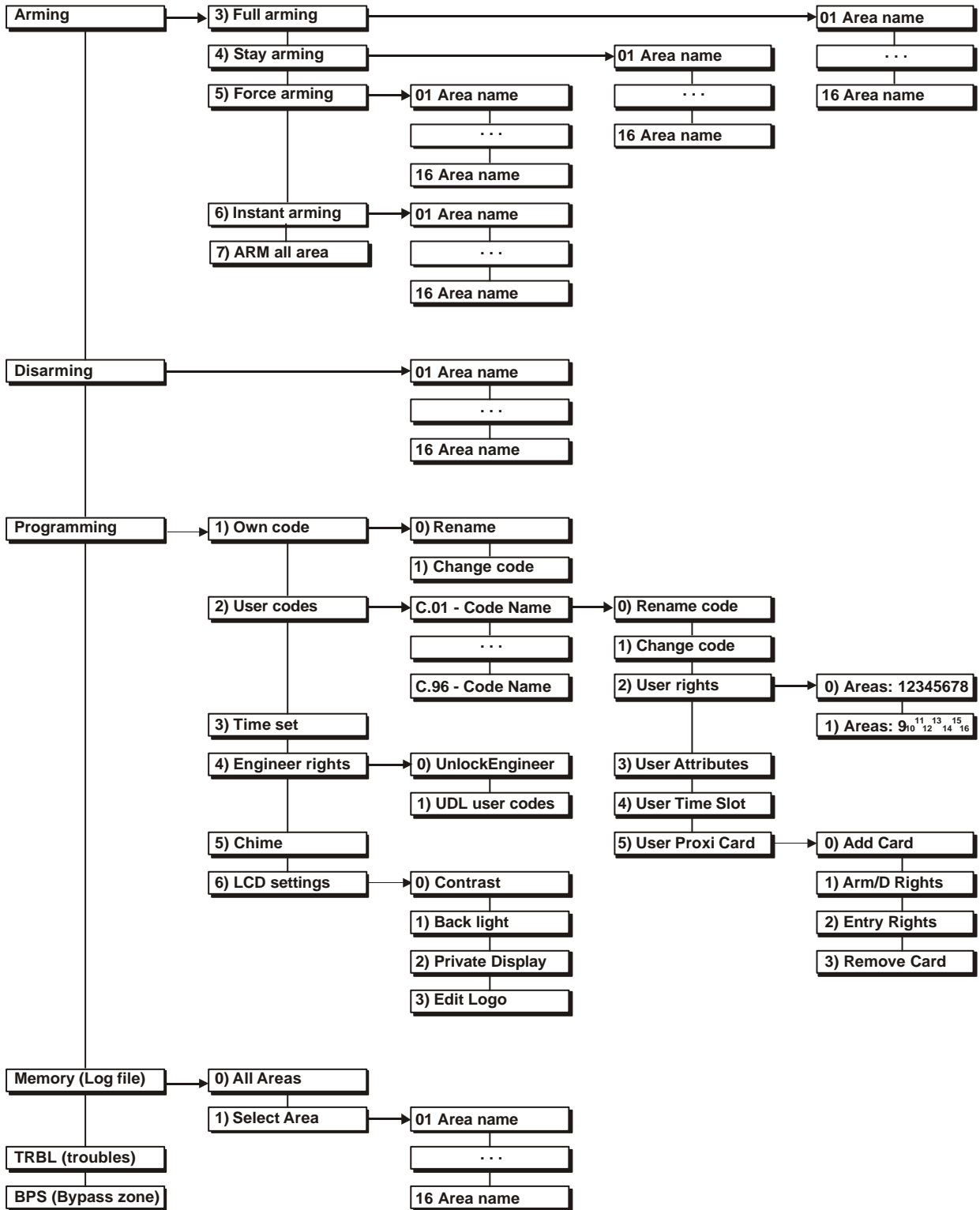
Next follows adjustment of time slots by days of the week. This is done in menu 1.0. The table gives the numbers of the time slots and their configuration. The XXHolidaySlot number 41, already preset, has been configured as HolidaySlot for each time slot.

TimeSlot number	From	To	Week Days	HolidaySlot number
01	12:30	18:45	M - - - - -	41
02	08:30	18:45	- T W - F - -	41
03	08:30	21:45	- - - T - - -	41
04	08:30	17:45	- - - - - S -	41

All these time slots have to be configured in one time slot, which meets the restriction, set at the very beginning.

Time slots 01, 02, 03 and 04 are recorded in the XtimeSlot type time slot (in menu 1.1.) numbered 21. Now, every user code, area with enabled automatic arming and disarming of security, programmable output, etc., for which a time slot numbered 21 is set, will function according to the described scheme.

Supplement B User Programmable Menu Chart



Supplement C: Troubleshooting

All table addresses belong to CA864 engineer programming, unless explicitly stated otherwise.
Call the manufacturer's service station where the provided recommendations are of no avail.

Problem	Suggested remedy
<p>No siren sound signal during keypad indication of an area alarm event.</p>	<p>There are two programme options for PGM siren control.</p> <p>The first programming option applies to a common system siren. In this case event number 11 (Siren) event of the SystStat area can be programmed at address 4.0.x.x.1, where x.x. is the number of the respective PGM. In this case no restoration events must be programmed – neither event, nor time. During output performance the programme will account for the duration of the alarm cycle and for any premature introduction of the user code for stopping the siren.</p> <p>The second siren programming option requires the areas, for which the alarm events are to be reported, to be specified. This is done by selecting the Audible alarm A event and introducing the number of the respective areas at address 4.0.x.x.0, where x.x. is again the number of the respective PGM.</p> <p>For further details on the performance for arming and restoring programmable outputs see the CA864 Programming Guide.</p> <p>The zone, which causes the alarm, must further be checked for a preset Steady alarm configuration. This can be done at address 3.0.z.z.3., where z.z. is the number of the respective zone.</p> <p>Programming PRG must observe the fact that the dependencies AND or OR between events cannot be programmed. Where this is required, the functions described at addresses 4.1.f.f., are to be used, where f.f. denotes the function number. For more information on constructing the functions see the CA864 Programming Guide.</p> <p>Finally, the programmed Bell cut-off times must be checked at address 5.0.a.a.4, where a.a. indicates the area number. This time shall be other than 0.</p>
<p>The reader built-in output cannot arm the system programmed proximity card.</p>	<p>The following programmes must have been implemented in order for the proximity card to activate the reader built-in output:</p> <ul style="list-style-type: none"> - the numbers of those areas that will have their doors opened, shall be marked at address 2.0.c.c.4.2., where c.c. denotes the number of the respective code; - the numbers of the areas that this reader will function with, shall be recorded at address 5.1.d.d.0 and 5.1.d.d.1, where d.d. denotes the number of the respective proximity-reader; - the code does not need to be assigned rights to work with those areas that will have their doors opened. Such programming will authorize the code to control the security of the respective areas, which shall be undesirable in most cases.
<p>The system programmed proximity card cannot control area security.</p> <p>The communicator does not function.</p>	<p>A proximity card used to control the security of an area can be written to any code in the system. This function can be programmed as follows:</p> <ul style="list-style-type: none"> - the right to work with an area or areas can be programmed as user code at address 2.0.c.c.1.0 and 2.0.c.c.1.1, where c.c. denotes the respective user code; - Full Arming and/or Disarming rights can be programmed as the user code at address 2.0.c.c.2. - the number of the area, whose security will be controlled at address 2.0.c.c.4.1., can be programmed for the proximity card as the user code. <p>The availability of a code combination and a proximity card are admissible for user code.</p> <p>The following settings have to be programmed for the communicator:</p> <ul style="list-style-type: none"> - at least one telephone number for communicating with the central station. The telephones can be programmed at address 6.0.1, 6.0.2, 6.0.3 and 6.0.4. - the ID number of the respective area can be set at address 6.1.a.a. - groups of events for the selected area can be allowed to be transmitted at addresses 6.3.0.a.a.0, 6.3.0.a.a.1 and 6.3.0.a.a.2. - system events can be allowed to be transmitted at address 6.3.1. - the time and period for automatic text message transmission can be set at address 6.4. <p>Contact ID is the protocol for transmitting messages to the central station.</p>

Supplement C: Troubleshooting cont.

Problem	Suggested remedy
The communicator engages the telephone line but disengages it in about 5 seconds without having accomplished any dialling.	It is possible that the dial signal contains unusual settings. In such case the dial tone detector can be turned off at address 6.2. If still the monitoring centre perceives no messages, the control panel must be serviced at the manufacturer's service station.
The panel does not properly detect the zones during programmed coupling of the zones.	Twice the number of inputs is indicated in the module input lists when programming the Double zones function. The correspondence of the listed inputs to the actual inputs can be determined by the following formulae: <ul style="list-style-type: none"> - IN (x) – where ? is within the interval from 1 and the actual number of inputs of the module N – corresponds to the group of detectors with a 1 kΩ resistor connected in parallel to its contacts - IN (x+N) – where ? is within the interval from 1 to the actual number of inputs of the module N – corresponds to the group of detectors with a 2.2 kΩ resistor connected in parallel to its contacts Example: Inputs numbered 1 to 8 will be seen in the list of inputs for MRI4/8 module. The inputs are allocated as follows: <ul style="list-style-type: none"> - the inputs numbered IN1 and IN5 on the list are connected to the module IN1 input. - the inputs numbered IN2 and IN6 on the list are connected to the module IN2 input. - the inputs numbered IN3 and IN7 on the list are connected to the module IN1 input. - the inputs numbered IN4 and IN8 on the list are connected to the module IN1 input. If zone numbers are programmed for IN1=01 and for IN5=02, then: <ul style="list-style-type: none"> - the detector outputs, connected to a 1 kΩ resistor, will arm 01 zone - the detector outputs, connected to a 2.2 kΩ resistor, will arm 02 zone
How to programme arming of an area with minimum user actions.	An area can be programmed to be armed by pressing a single button without the need to enter a user code. The following programming is required: <ul style="list-style-type: none"> - the option One touch arming is programmed at address 5.0.a.a.1. for an area numbered ?.?. Depending on the settings, two arming scenarios are available with the keyboard: <ul style="list-style-type: none"> - the keyboard is programmed to work with only one area in the system – single press the ARM button - the keyboard is programmed to work with more than one area in the system – single press the ARM button and position the arrows over the selected area. Confirm the selection by single pressing the ENT button. It is possible to programme area arming by entering a user code and then pressing a single button. The respective user code has to be programmed to work only with the specific area and to be allowed only Full arming and Disarming parameters. The keyboard sequence operations are: <ul style="list-style-type: none"> - enter user code and press ARM. This sequence does not depend on the programming of the keyboard in the system.
Is it possible to arm all system areas by one command?	It is possible to arm all areas that a given user code is authorized to work with. The sequence is as follows: <ul style="list-style-type: none"> - introduce a user code with programmed rights for at least two types of arming - single press ARM - select number 7 from the list of possible arming modes – ARM ALL.
Is it possible to disarm all system areas by one command?	No.

Supplement C: Troubleshooting cont.

Problem	Suggested remedy
The system sirens turn on when leaving engineer programming.	<p>The system has 24 hour armed zones. Most frequently these are module or detector tampers.</p> <p>The cause for the alarm must be verified in the list of events. System module alarms contain the number of the module with a tamper – d03, which means tamper in module 3. Either the tamper in the module should be removed, or its indication must be prohibited at address 8.0.d.d.ENT.2, where the value of 00 is introduced.</p>
No connection to the programming computer even though all remote programming parameters having been programmed.	<p>One reason could be the incorrect setting of the identification numbers on the panel and the programming computer at the respective addresses 6.6.2. and 6.6.1.</p> <p>Check the settings for Number of rings at address 6.6.3. It must not be 0.</p> <p>Check the settings for the Call back function at address 6.6.4. If it has been allowed, introduce the telephone number of the programming computer at address 6.6.0.</p> <p>Check the settings of the Answer machine function at address 6.6.5. If it has been allowed to operate with the programming computer, it has to observe the algorithm of this function as described in the Programming Guide.</p> <p>Where all settings have been correctly programmed, check the settings of the programming computer. If these are correct, the control panel must be serviced in the manufacturer's service station.</p>
What is the maximum number of detectors per input.	<p>The reasonable number of detectors for single zoning is 10. This is brought about by the additional resistance, which is induced in the signal line of the detector by the 10 or 15 Ω protective resistors, installed sequentially on the relay contacts in the detectors. In the case of 10 detectors, the additional resistance becomes 100 Ω, and together with the resistance of the signal line (conductor) can cause serious error in detection.</p> <p>The recommended number of detectors for double zoning is up to 2 per zone or 4 per input. The reason for this restriction is the error imported from cable resistances and the protective resistors in the detectors.</p>
A programmable output does not function.	<p>The programmable output used must be checked whether it has been programmed for the actual module output in the system.</p> <p>An immediate test of the output can be performed at address 0.3. Position over the output and alternatively change the statutes by pressing buttons 1 and 0.</p> <p>If this test is positive, the programming of the output must be checked at address 4.0.o.o., where o.o. represents the number of the programmable output.</p>
What are the probabilities to programme the engineer settings in the system?	<p>From an LCD keyboard connected to the system.</p> <p>From a servicing LCD keyboard – any LCD864 which can be connected to the system by pressing the PRG button.</p> <p>From a remote programming computer, UDLManger software and a telephone line.</p> <p>From a remote programming computer, UDLManger software and a special APC864 cable.</p>
A module supplemented to the system does not appear in the list of modules at address 8.0.	<p>It is quite possible for the supplemented device to exceed the system restrictions for modules. The maximum number of modules is 15 (without the control panel).</p> <p>It is more probable that the supplemented module used to be part of a functioning security system. In such case it must have been removed without the Remove command to have been fulfilled. Thus, the settings of the previous system have remained in its power autonomous memory, which now impede its unification with the new one.</p> <p>There are three solution to this situation:</p> <ul style="list-style-type: none"> - incorporating the module into the old system and performing a Remove command - connecting the module to a control panel and an LCD keyboard, resetting the system and performing a Remove command - resetting the security system.

Guarantee

During the guarantee period the manufacturer shall, at its sole discretion, replace or repair any defective product when it is returned to the factory. All parts replaced and/or repaired shall be covered for the remainder of the original guarantee, or for ninety (90) days, whichever period is longer. The original purchaser shall immediately send manufacturer a written notice of the defective parts or workmanship, which written notice must in all cases be received prior to expiry of the guarantee.

International Guarantee

Foreign customers shall enjoy the same guarantee rights as those enjoyed by any customer in Bulgaria, except that manufacturer shall not be liable for any related customs duties, taxes or VAT, which may be payable.

Guarantee Procedure

This guarantee will be granted when the appliance in question is returned. The manufacturer shall accept no product whatsoever, of which no prior notice has been received.

Conditions for waiving the guarantee

This guarantee shall apply to defects in products resulting only from improper materials or workmanship, related to its normal use. It shall not cover:

- § Damages resulting from transportation and handling;
- § Damages caused by natural calamities, such as fire, floods, storms, earthquakes or lightning;
- § Damages caused by incorrect voltage, accidental breakage or water; beyond the control of the manufacturer;
- § Damages caused by unauthorized system incorporation, changes, modifications or surrounding objects;
- § Damages caused by peripheral appliances (unless such peripheral appliances have been supplied by the manufacturer);
- § Defects caused by inappropriate surrounding of installed products;
- § Damages caused by failure to use the product for its normal purpose; Damages caused by improper maintenance;
- § Damages resulting from any other cause, bad maintenance or product misuse.

In the case of a reasonable number of unsuccessful attempts to repair the product, covered by this guarantee, the manufacturer's liability shall be limited to the replacement of the product as the sole compensation for breach of the guarantee. Under no circumstances shall the manufacturer be liable for any special, accidental or consequential damages, on the grounds of breach of guarantee, breach of agreement, negligence, or any other legal notion.

Waiver

This Guarantee shall contain the entire guarantee and shall be prevailing over any and all other guarantees, explicit or implicit (including any implicit guarantees on behalf of the dealer, or adaptability to specific purposes), and over any other responsibilities or liabilities on behalf of the manufacturer. The manufacturer does neither agree, nor empower, any person, acting on his own behalf, to modify or alter this Guarantee, nor to replace it with another guarantee, or another liability with regard to this product.

Unwarranted Services

The manufacturer shall repair or replace unwarranted products, which have been returned to its factory, at its sole discretion under the conditions below. The manufacturer shall accept no products for which no prior notice has been received.

The products, which the manufacturer deems repairable, will be repaired and returned. The manufacturer has prepared a price list and those products, which can be repaired, shall be paid for every repaired appliance.

The closest equivalent product, available at the time, shall replace the products manufacturer deems unrepairable. The current market price shall be charged for every replaced product.

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