

AMAX panel

AMAX panel 2100 | AMAX panel 3000 | AMAX panel 3000 BE | AMAX panel 4000



en Installation Manual

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1	Safety
Â	Danger! Electricity Injuries due to electricity are possible if the system is not operated correctly or if the system is opened or modified not accordingly to this manual.
	 Make sure that all power (AC and battery) is switched off during the installation and wiring process. Only open or modify the system accordingly to this manual. Only qualified installers/service personnel are allowed to install this system. Disconnect all Telecommunication Network Connectors before switching off the power. To switch off the power, make sure to have a circuit breaker available. Make sure to connect the system to a socket-outlet with a protective grounding contact.
Â	Danger! Battery Injuries due to electric shock, fire or explosion are possible if the battery is handled or connected incorrectly.
	 Always handle the battery carefully and replace it carefully. Make sure that the grounding terminal is always connected and that N, L1 or ⁽¹⁾xx are connected correctly. Make sure to first disconnect the positive wire of the battery when removing it from the system. Be careful when connecting the positive (red) wire and the "BATT +" port of the system. Make sure not to short-circuit with the "BATT +" port of the AMAX panel or the housing to prevent electric arc from occurring.
	Danger! Electrostatic-sensitive components Injuries due to electric shock are possible if anti-static steps are not followed. Always contact the grounding terminal before installing or altering the system to discharge the possibly carried static electricity.
	Caution! Sensitive components Damage of sensitive components is possible if the system is not handled carefully or if the system is opened or modified not accordingly to this manual.
	 Always handle the system carefully. Only open or modify the system accordingly to this manual.
\triangle	Caution! Battery Damage or contamination of the system is possible if the battery is not handled correctly or if the battery is not replaced on a regular basis.
	 Only use a non-spillable battery. Place a label with the last replacement date on the battery. Under normal conditions of use, replace the battery every 3-5 years. Recycle the battery after replacement according to local regulations.

Caution! Installation Damage or malfunction of the system is possible if the system is not mounted and installed correctly.
 Place the system inside the monitored area on a stable surface. Make sure to mount keypads on the inner side of the monitored area. Once the system is tested and ready to use, secure the enclosure door and additional enclosures with screws.
Caution! Maintenance Damage or malfunction of the system is possible if it is not maintained on a regular basis.
 It is recommended to test the system once a week.

- Make sure to get the system maintained four times a year.
- Only qualified installers /service personnel are allowed to maintain this system.

2 Short information

This manual contains detailed and advanced information on installation, settings and programming of the AMAX panel 2100 / 3000 / 3000 BE / 4000 together with the applicable keypads, modules and devices.

• For information on operating the AMAX panel, refer to the AMAX Operation Manual.

2.1 Keypad indicators

The following tables show an overview and a description of the keypad indicator icons.

All keypad types

Keypad Indicator Icons	Status	Definition				
	on	Area is armed in AWAY mode.				
	off	Area is not armed in AWAY mode.				
AWAY	Slow flash (1 second lights on/1 second lights off)	Exit time.				
	Fast flash (0.25 seconds lights on/0.25 seconds lights off)	System is in programming mode of code function mode. STAY indicator flashes simultaneously. Or: One or more areas but not all are in AWAY mode (master keypad)				
	on	Area is armed in STAY mode.				
	off	Area is not armed in STAY mode.				
STAY	Slow flash (1 second lights on/1 second lights off)	Exit time.				
	Fast flash (0.25 seconds lights on/0.25 seconds lights off)	System is in programming mode or code function mode. AWAY indicator flashes simultaneously. When bypass function is performed, only the STAY indicator flashes. Or: One or more areas but not all are in STAY mode (master keypad)				
▶	on	AC main power is normal.				
MAINS	Slow flash (1 second lights on/1 second lights off)	AC main power supply failed.				
FAULTS	on	System fault, tamper, bypassed zone or isolated zone condition is present and has been viewed but not restored yet. Or: System is in service mode.				

	off	System is in normal status.
	Flashes	System fault, tamper, bypassed zone or isolated zone condition must be acknowledged.
All icons	Flashing	No communication to the keypad.

Only for LED/LCD

Keypad Indicator Icons	Status	Definition
	on	Zone is triggered.
	off	Zone is normal.
123	Fast flash (0.25 seconds lights on/0.25 seconds lights off)	Zone was alarmed or is in alarm status.
	Slow flash (1 second lights on/1 second lights off)	Interior zone is in STAY arm mode. Or:
ZONE (1-8)		This zone is bypassed or isolated in the current area (area keypad) / There is a bypassed or isolated zone in this area (master keypad).

Only for LCD

Keypad Indicator Icons	Status	Definition
\bigcirc	on	Area is disarmed.

The following table shows an overview and a description of the keypad sound icons.

Sound Indicator	Definition
Short beep	A keypad button has been pressed.
Short beep, followed by a one-second beep	The requested operation is refused. Incorrect operation signal.
Two short beeps	The system accepted the code. The system executed the requested function.
One short beep every minute	Fault tone, unacknowledged system failure.
One short beep every two seconds	Exit time started.
Continued sound	 Last 10 seconds on exit time Keypad fault or tamper sound (fault or tamper to be acknowledged) Keypad alarm sound
Continuous 0.5 second beep, stops for 0.5 seconds	Entry delay time (until alarm occurs or area is disarmed)



Wiring diagrams





Figure 3.3: Wiring diagram AMAX 2100 / 3000



Figure 3.4: Wiring diagram AMAX 3000 BE / 4000

4 Optional modules and peripheral devices

4.1 Bosch option bus

The AMAX panel provides Bosch option bus 1 and option bus 2 (only for AMAX 3000 BE and AMAX 4000) to connect modules and devices. Each module can be connected to each bus. A maximum of 14 modules (8 keypads) can be connected to each bus.

The total length of the cable for the connection of all keypads and expansion modules wired to one option bus must not exceed 700m. Particular modules require limitation in cable distance, e.g. the last keypad must be placed within 200m.

The AMAX panel tests the communication with the modules and transmits the communication failure report in case of failure of communication.

Cable Details:

- R: AUX 12V +
- B: 12V –
- G: Data
- Y: Data

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Notice!

AMAX 2100 / 3000 provides 12 VDC power supply with a maximum of 500mA for option bus 1. AMAX 3000 BE / 4000 provides a maximum of 900mA for each option bus 1 and 2. When the total current of the bus exceeds the limit, an external power supply is required.

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Notice!

When a data bus address is changed, the module needs to be re-powered to enable the new address.

The following overview displays the maximum number of modules that can be connected.

Module	AMAX 2100	AMAX 3000 / 3000 BE	AMAX 4000
Keypads	4	8	16
DX2010	-	3	6
DX3010	1	2	
B426-M	2 or 1 if B450-M w	ith B442 or B443 is	used
B450-M + B442 GPRS	1	1	1
RF receiver	-	1	1

Tab. 4.1: Maximum number of modules

4.2 Keypad

4.2.1 General

The following keypads can be used for operating AMAX panel 2100 / 3000 / 3000 BE / 4000.

- IUI-AMAX4-TEXT (LCD text keypad)
- IUI-AMAX3-LED8 (8 zone LED keypad)
- IUI-AMAX3-LED16 (16 zone LED keypad)
- IUI-AMAX-LCD8 (8 zone LCD keypad)

Dedicated zones for keypads

Keypads can not be assigned to any zones. Certain zones are dedicated to keypads. The following table shows which zones are dedicated for keypad 1 - 16.

Panel	Key	Keypad														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
AMAX 2100	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
AMAX 3000 / 3000 BE / 4000	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

4.2.2 Address setting

Address setting for IUI-AMAX4-TEXT, IUI-AMAX3-LED16 and IUI-AMAX3-LED8 Keypads For IUI-AMAX4-TEXT, IUI-AMAX3-LED16 and IUI-AMAX3-LED8 keypads, the address of the keypad is programmed with 6-position DIP switch. The address of each keypad is unique.

DIP switch	S1	S2	S3	S4	S5	S6
Keypad address	1	2	3	4	5	6
1	On	Off	Off	Off	Off	Off
2	Off	On	Off	Off	Off	Off
3	On	On	Off	Off	Off	Off
4	Off	Off	On	Off	Off	Off
5**	On	Off	On	Off	Off	Off
6**	Off	On	On	Off	Off	Off
7**	On	On	On	Off	Off	Off
8**	Off	Off	Off	On	Off	Off
9*	On	Off	Off	On	Off	Off
10*	Off	On	Off	On	Off	Off
11*	On	On	Off	On	Off	Off
12*	Off	Off	On	On	Off	Off
13*	On	Off	On	On	Off	Off
14*	Off	On	On	On	Off	Off
15*	On	On	On	On	Off	Off
16*	Off	Off	Off	Off	On	Off

 Tab. 4.2: Keypad address settings

* AMAX 4000

** AMAX 3000 / 3000 BE / 4000



Figure 4.1: 6-Position DIP Switch

DIP switches 5 and 6 are not used.

Address setting for IUI-AMAX-LCD8 Keypads

IUI-AMAX-LCD8 keypads can be set only to address 1 or address 2 through the address jumper.

Address 1	Jumper not short-circuited
Address 2	Jumper short-circuited (both metal pins are covered)

Tab. 4.3: Keypad Jumper Settings

4.2.3 Wiring

The following graphic shows how to wire a keypad to the option bus of the AMAX panel. The last keypad must be placed within a cable distance of 200m.



AMAX 3000 BE / 4000 Figure 4.2: Connecting a keypad to the AMAX Panel

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Notice!

The maximum number of keypads to be added to one option bus is 8.

4.2.4 Status indicator

If all indicators of the keypad are flashing, the keypad loses connection to the AMAX panel.

4.3 DX2010

4.3.1 General

The AMAX panel 3000, AMAX panel 3000 BE and AMAX panel 4000 support DX2010 input expansion modules. Each expansion module supports up to 8 zone inputs.

For information on the installation, refer to Module installation, page 23.

4.3.2 Address setting

Each DX2010 module connected to the AMAX panel needs its own data bus address.

Data Bus Address	Zones
102***	9 - 16
103**	17 - 24
104**	25 - 32
105*	33 - 40
106*	41 - 48
107*	49 - 56
108*	57 - 64

Tab. 4.4: DX2010 Address Settings

DIP switch	S1	S2	S3	S4	S5	S6
Data bus address	32	16	8	4	2	1
102***	Off	Off	Off	Off	Off	On
103**	Off	Off	Off	Off	On	Off
104**	Off	Off	Off	Off	On	On
105*	Off	Off	Off	On	Off	Off
106*	Off	Off	Off	On	Off	On
107*	Off	Off	Off	On	On	Off
108*	Off	Off	Off	On	On	On

Tab. 4.5: DX2010 DIP switch settings

* AMAX 3000 BE / 4000 ** AMAX 3000 / 3000 BE / 4000 *** AMAX 3000



Figure 4.3: DX2010 DIP Switch Settings



Notice!

When the data bus address is changed, the module and the panel need to be re-powered to enable the new address

4.3.3

Wiring

The following table and graphic show how to wire DX2010 to the option bus of the AMAX panel.

Do not use twisted pair or shielded cables to connect DX2010 to the AMAX panel.

Power Supply	Wire diameter of 0.8mm	Wire diameter of 1.2mm
AMAX panel	30m	76m
AMAX panel (DX2010 out not used)	305m	610m
External power supply	305m	610m

Tab. 4.6: Lengths of cable for DX2010



AMAX 3000 BE / 4000

Figure 4.4: Connecting DX2010 to the AMAX panel

4.3.4 Status indicator

LED condition	Denotation	
On	 Trouble condition: Grounding conductor is not connected or there is a communication failure between the module and the AMAX panel No zones distributed Module address setting error 	
Stable flash	Normal operation	
Off	Power failure	

4.4 DX3010

4.4.1 General

The AMAX panel supports DX3010 output expansion modules. Each module supports 8 fully programmable relay outputs.

For information on the installation, refer to *Module installation, page 23*.

4.4.2 Address setting

Each DX3010 module connected to the AMAX panel needs its own data bus address.

Data Bus Address	Outputs
150	5-12

1	15	1	*

Wiring

13-20

Tab. 4.7: DX3010 Address Settings

DIP switch	S1	S2	S3	S4	S5	S6
Data bus address	1	2	4	8	16	Mode
150	On	On	On	On	On	Off
151*	Off	On	On	On	On	Off

Tab. 4.8: DX3010 DIP switch settings

* AMAX 3000 / 3000 BE / 4000

On	Off	1 2 3 4 5 6 DIP ON↓

Figure 4.5: DX3010 DIP Switch Settings

4.4.3

The following table and graphic show how to wire DX3010 to the option bus of the AMAX panel.

Power Supply	Wire diameter of 0.8mm	Wire diameter of 1.2mm	
AMAX panel	12.2m	24.4m	
External power supply	305m	610m	

Tab. 4.9: Lengths of cable for DX3010



AMAX 3000 BE / 4000 Figure 4.6: Connecting DX3010 to the AMAX Panel

4.4.4 Status indicator

None.

4.5 B426-M

4.5.1 General

The AMAX panel supports the following communication modules:

- B450-M with B442 or B443 and B426-M
- B426-M and B426-M

The B426-M module supports monitored two-way IP communication via Ethernet to perform alarm transmission, remote programming, and control of the AMAX panel.

Installation

- 1. Disconnect all power supplies of the AMAX panel before installing the B426-M module.
- 2. Use the standard three-hole installation mode to install the B426-M module in the enclosure of the AMAX panel or another enclosure. For more information refer to *Module installation, page 23* and to the B426-M module documentation.
- 3. Use network or direct connection to access the built-in web server when reconfiguring the module or when connecting the module to the AMAX panel with A-Link Plus.

4.5.2 Address setting

Set the rotary switch to 6 which corresponds to option bus address 134 for the first B426-M module or B450-M module.

Set the rotary switch to 9 which corresponds to option bus address 250 for the second B426-M module.

4.5.3 Wiring

The following graphic shows how to wire the B426-M module to the option bus 1 or 2 of the AMAX panel.

Make sure that the cable doesn't exceed 150 meters.



AMAX 3000 BE / 4000 Figure 4.7: Connecting the B426-M module to the AMAX panel

4.5.4 Status indicator

The B426-M module provides several LED indicators. The following table describes the system status indicator (blue).

LED condition	Denotation
On	Trouble condition
Stable flash	Normal operation
3 quick flashes	Communication error
Off	Power failure or other failure conditions

Tab. 4.10: B426-M system status indicator

4.6 B450-M with B442 or B443

4.6.1 General

Conettix Plug-in Communicator Interfaces (B450/B450-M) work with plug-in communicators for primary or backup alarm communication, remote programming, and other remote applications. The plug-in communicator interface supports Conettix IP protocol with full authentication, 256-bit AES encryption, and resistance to Denial of Service attacks. The interface also supports compatible Bosch control panels with SIA DC-09, CSV-IP. The interface is a reliable way to add cellular network communications to existing or new commercial security and fire installations.

For the AMAX panel, the B450-M module can be used in combination with either the B442 module or the B443 module with the following communication possibilities:

- B442: GSM (GPRS)
- B443: GSM (GPRS, EDGE), UMTS

The communication of the B443 module is faster than the B442 module.

Installation

- 1. Disconnect all power supplies of the AMAX panel before installing the B450-M module.
- 2. Use the standard three-hole installation mode to install the B450-M module in the enclosure of the AMAX panel or another enclosure. For more information refer to *Module installation, page 23* and to the B450-M module documentation.
- 3. Insert SIM card into the B442 module.
- 4. Insert the B442 module into the B450-M module.
- \checkmark The B442 module clicks and the module combination is ready to be wired.

4.6.2 Address setting

• Set the rotary switch to 6 which corresponds to option bus address 134.

4.6.3 Wiring

The following graphic shows how to wire the B450-M module to the option bus of the AMAX panel.



AMAX 3000 BE / 4000 Figure 4.8: Wiring of the B450-M module with an AMAX panel

4.6.4 Status indicator

The B450-M module with the B442 module or the B443 module provide several LED indicators. The following table describes the heartbeat LED indicator of the B450-M module and the status LED indicator of the B442 module or the B443 module (blue).

LED Condition		Denotation
Heartbeat LED of B450-	On	Trouble Condition
M module	Stable flash	Normal Operation
	3 quick flashes	Communication error
	Off	Power failure or other failure conditions
Status LED of B442	Stable flash	Normal Operation
module or B443 module	3 quick flashes	Communication error
	Off	Power failure or other failure conditions

Tab. 4.11: B450-M module with the B442 module system status indicator

4.7 RF radion receiver

4.7.1 General

The RADION receiver OP is a wireless receiver that connects the RADION wireless system components to AMAX 3000 / 3000 BE / 4000. Features include the following:

- Cover and wall tamper protection
- RFID and configuration data contained in persistent memory
- Detection and reporting of radio frequency interference
- Support of two types of device enrollment

Installation

- 1. Disconnect all power supplies of the AMAX panel before installing B450-M.
- 2. Mount the receiver onto a wall in a location accessible for future maintenance using the provided anchors and screws. For best reception, place the receiver in a central location among the transmitters. In situations where there is a large distance between the transmitter and receiver, it might be necessary to install receivers for optimum results.

4.7.2 Address setting

• Set the rotary switch to 1.

The AMAX panel supports only one receiver.

4.7.3 Wiring

- 1. Connect the RADION receiver to the option bus.
- 2. Make sure that the cable distance to the AMAX panel doesn't exceed 300 meters.

4.7.4 Status indicator

The following table describes the system status indicator of the RFRC-OPT RADION receiver.

LED condition	Denotation
On	Normal operation
Stable flash	Receiver is being programmed with the zone and transmitter IDs from the AMAX panel.
Turns off momentarily	Receiver has obtained a valid transmission from a RADION transmitter.

3 quick flashes	Communication error and/or self-test failure
	Causes:
	– A communication failure between the AMAX panel and the
	receiver or
	 An invalid address switch setting
Off	Power failure or wiring failure

Tab. 4.12: RFRC-OPT RADION receiver system status indicator

5	Installation						
	This chapter describes the installation and the system power up of the AMAX panel.						
Â	Danger! Electricity Injuries due to electricity are possible if the system is not operated correctly or if the system is opened or modified not accordingly to this manual.						
	 Make sure that all power (AC and battery) is switched off during the installation and wiring process. Only open or modify the system accordingly to this manual. Only qualified installers/service personnel are allowed to install this system. 						
$\underline{\land}$	Caution! Installation Damage or malfunction of the system is possible if the system is not mounted and installed correctly.						
	 Place the system inside the monitored area on a stable surface. Make sure to mount keypads on the inner side of the monitored area. Once the system is tested and ready to use, secure the enclosure door and additional enclosures with screws. 						
5.1	Module installation						
	 The enclosure contains only PCBs and transformers of the fixed AMAX panel for installation, no other hardware. 1. Open the knockout holes for wiring in the module. 2. Position two upper mounting holes on the installation wall with the module. 3. Pre-install screws on the mounting holes (provided by the installer). 4. Mount the screws on the module. 5. Fasten the screws. 6. Fix the two lower mounting holes with screws. 						
	Notice!						

Make sure to choose a appropriate positioning screw kit when you install the system in a nonload bearing wall.

Expansion modules can be placed in the enclosure of the AMAX panel. Several places are available. Figure 6.1. and figure 6.2 show the standard enclosure installation and the enclosure installation with a mounting plate.

(1)



Enclosure - Standard Enclosure with mounting plate Figure 5.1: Enclosure Standard / Enclosure with mounting plate



Figure 5.2: Enclosure Standard / Enclosure with mounting plate

5.2 Battery installation

The AMAX Panel supports one sealed lead-acid rechargeable battery. After the battery is fully charged, it can be used as backup power supply to support the system. For further information refer to *Technical data, page 163.*



Danger!

Battery

Injuries due to electric shock, fire or explosion are possible if the battery is handled or connected incorrectly.

- Always handle the battery carefully and replace it carefully.
- Make sure that the grounding terminal is always connected and that N, L1 or example xx are connected correctly.

- Make sure to first disconnect the positive wire of the battery when removing it from the system.
- Be careful when connecting the positive (red) wire and the "BATT +" port of the system.
 Make sure not to short-circuit with the "BATT +" port of the AMAX panel or the housing to prevent electric arc from occurring.



Caution!

Battery

Damage or contamination of the system is possible if the battery is not handled correctly or if the battery is not replaced on a regular basis.

- Only use a non-spillable battery.
- Place a label with the last replacement date on the battery.
- Under normal conditions of use, replace the battery every 3-5 years.
- Recycle the battery after replacement according to local regulations.

How to mount the battery

- 1. Place the battery on the bottom of the enclosure.
- 2. Position the red and black wires.
- 3. Connect one end of the black wire to the "BATT -" port of the AMAX panel, and the other end to the negative (-) pole of the battery.
- 4. Connect one end of the red wire to the "BATT +" port of the AMAX panel, the other end to the positive (+) pole of the battery.
- \checkmark Once the installation is complete, the AMAX panel will begin to charge the battery.



Figure 5.3: Connection of the battery for AMAX 2100 / 3000 and AMAX 3000 BE / 4000

5.3 System power up

1. Power up the AMAX panel.

The language setting menu is displayed.

- 2. Set the date and time. Otherwise, the system prompts as fault.
- ✓ After the AMAX panel is powered up or reset, it resets to previous arming / disarming status.

To reduce false alarms caused by system power up (or by power supply restoration after both mains supply and AUX power supply fail), the AMAX panel is does not perform zone tests within one minute after the system power up.

Battery

5.4 System status indicator

The AMAX panel indicates the system status by using the LED status indicator on the system main board.

Slow flash of red on status indicator (repeating on and off with an interval of one second) indicates a normal system operation.

5.5 Certification

Prerequisites for certification conform installation

The AMAX panel is certified. To realize a usage of the system conformable to the certification described in this chapter, the following prerequisites have to be fulfilled:

- Use one of the following possibilities for devices:
 - Two supervised warning devices (PO-1 PO-2 & PO+) and one ATS 2 communicator (onboard dialer, B426-M or D4020)
 - One self powered warning device and one ATS 2 communicator (onboard dialer, B426-M or D4020)
 - Two communicators, one ATS 2 (onboard dialer, B426-M or D4020) and one ATS 1 (onboard dialer, B426-M or D4020)
 - One ATS 3 communicator (DX4020 or B426-M)
- Connect all communicators to a central monitoring station.
- Only use the onboard dialer and the option bus communicator for alarm transmission.
- Connect one 12V / 7AH or one 12V / 18Ah battery to the system.
- Ensure the maximum current for all components with a 7Ah Battery to be 550mA.
- Ensure the maximum current for all components with a 18Ah Battery to be 1500mA (standby 12h, recharge battery 80% in 72h) (PCB =I 00mA, IUI-AMAX Keypads = 31mA, DX2010 = 35mA, DX3010 = 10mA, B426-M = 100mA, B450-M = 180mA, RF3227E = 30mA, RFRC-OPT = 30mA).
- Make sure to have an indication of the arm / disarm status accessible from outside the monitored area (this indication has to be time limited).
- Use one of the following methods for the access to the monitored area:
 - Starting the entry procedure by opening a door
 - Indicating the arm / disarm status
 - Preventing the access to the monitored area (e.g. mechanical door strike)
- Only use the enclosure lock only in non EN setup.
- Only use the telephone arming in non EN setup.
- Only mount additional modules (except input module DX2010) inside the enclosure.
- If one or more communicator modules are mounted in an extra enclosure, this enclosure must have a tamper protection.
- Install the tamper skirt on the PCB of the input module DX2010, if the input module DX2010 is mounted on the external enclosure (AE20).
- Program the system with the EN settings indicated on the programming sheet.
- Remove the EN indication (on label) if the system is set without EN parameters.
- Connect no more than 10 devices to one zone input (Panel, Keypad, Input Module, RFUN, ...)
- For an EN50136-1, -2 SP4 compliant installation, select the transmission format "SIA DC09 (2x ID)".

5.5.1 EN 50131-3 Grade 2, Environmental Class 2 - AMAX 2100 / 3000 / 3000 BE / 4000 Certification Body:

VDS Schadenverhütung Amsterdamer Str. 172 50735 Köln Website: <u>www.vds.de</u>



The panel complies with the following standards: EN 50131-3 EN 50131-6 EN 50136-2-1 EN 50136-2-3

5.5.2 INCERT - AMAX 4000

INCERT certification number (only for AMAX 3000 BE): B-509-0063

Prerequisites for an INCERT conform installation

For an INCERT conform installation, it is necessary to set the enclosure tamper timing to the value 0001.

5.5.3 SFF - AMAX 2100 / 3000 / 3000 BE / 4000

Certification Body: VDS Schadenverhütung Amsterdamer Str. 172 50735 Köln Website: <u>www.vds.de</u>



Certification Body: SSF Stöldskyddsföreningen Tegeluddsvägen 100 115 87 Stockholm Website: www.stoldskyddsfpreningen.se



The panel complies with the following standards: SSF 1014 Edition 4 Alarm class 1

6 Settings

This chapter describes the settings of the AMAX panel in the same order as they appear in the menu structure of the text keypad. For an overview of the menu structure, refer to *Text keypad programming, page 93*.

The settings can be configured either via a text keypad or via the PC software A-Link Plus. For information on how to configure the settings via a text keypad and how to navigate a text keypad, refer to *Text keypad programming, page 93*.

For information on how to connect the AMAX panel to a PC, refer to *Communication with PC software, page 104*.

6.1 Communication and reporting

This section outlines the programming information required for the AMAX panel when communicating with a base station receiver. These parameters specify the telephone numbers/IP address to be called, transmission formats, and internet communication options.

6.1.1 Receivers

Receiver telephone number / IP address and port

The AMAX panel can report event information from an on-board dialer, which can call four different receivers and four different telephone numbers. The dialer reports to receiver 1 to 4 by programming. You can program the dialer with 4 separate telephone numbers/IP addresses and ports, reporting format type and subscriber ID number, and internet communication options if necessary.

Example

You can set up dialer 1 to report to receiver 1 in Bosch Network (Conettix) format and set up dialer 2, dialer 3, and dialer 4 to report to a receiver of a central monitoring station in Contact ID format only, if dialer 1 is unsuccessful.

How to program a telephone number via a text keypad

- 1. Enter the digits of a telephone number in the text keypad.
- To enter a 4-sec pause in the dialing sequence, enter [*] [3].
 A pause might be necessary when the dialer communicates through an old (slower)

telephone exchange or when a PABX system is in place.

How to program a telephone number via address programming

- 1. Enter one digit of a telephone number in each address for the telephone numbers.
- To enter a 4-sec pause in the dialing sequence, insert "13".
 A pause might be necessary when the dialer communicates through an old (slower) telephone exchange or when a PABX system is in place.
- 3. To terminate the input, insert "15".

Example for address programming

- To program the telephone number "9672 1055" as the telephone number for receiver 1, program the following sequence into address 000 016:
 [9 6 7 2 1 0 5 5 15 x x x x x x x] (x stands for any digit)
- To program the number "02 pause 9672 1055", program the following sequence into address 000 - 016:

[0 2 13 9 6 7 2 1 0 5 5 15 x x x x x]

The following table shows how to program the numbers, keys, and functions for a telephone number via address programming or via installer menu programming.

Digit required	Number to program via address programming	Button to press via installer menu programming
0 - 9	0 - 9	0 - 9
*	11	* 1
#	12	* 2
4 sec pause	13	* 3
Terminal	15	Not required

How to program an IP address and port

- 1. Program an IP address with 17 digits: digits 1 12 for the IP address and 13 17 for the port.
- 2. Use no punctuation in the IP address.
- 3. If any unit of the IP address has less than 3 digits, use 0 to fulfill the data in the higher bits.
- 4. The remaining 5 digits program the port. Port number ranges from 0-65535.
- 5. If a port number has less than 5 digits, use 0 to fulfill the data.

Example

• To program the IP address "10.16.1.222:80", enter the following sequence into the correspondent address:

 $[0\ 1\ 0\ 0\ 1\ 6\ 0\ 0\ 1\ 2\ 2\ 0\ 0\ 0\ 8\ 0]$

Notice!

Programming option anti-replay, acknowledge wait time, and pulse interval time are only used in Conettix IP.

Telephone number for receiver 1 - 4 / IP address and port

When the corresponding data format for above programming address is a network communication format, it is explained as an IP address, and port. For a non network format, it is explained as a telephone number.

The AMAX panel contacts the telephone number / IP Address of the central monitoring station in order to transmit a report. If the contact is successful, the relevant information is transmitted, and the communicator returns to standby mode.

Contact your monitoring station for the correct telephone number / IP address before you program these addresses.

Receiver subscriber ID number

Receiver 1 - 4 subscriber ID number

The subscriber ID number is transmitted to identify the calling AMAX panel. Digits from 0 - 9 and letters from B - F are supported

How to program a subscriber ID number

- 1. Enter the subscriber ID number in the six addresses provided for each destination.
- If a subscriber ID number has less than 6 digits, use 0 to full fill the data in the higher bits.

Example

Program subscriber ID number as 4729 in six addresses: [0 0 4 7 2 9]

The following table shows how to program the numbers, keys, and functions for a subscriber ID number via address programming or via installer menu programming.

Digit required	Number to program via address programming	Button to press via installer menu programming
0 - 9	0 - 9	0 - 9
В	11	* 1
С	12	* 2
D	13	* 3
E	14	* 4
F	15	* 5

Receiver transmission format (Contact ID, SIA, Conettix IP)

Receiver 1 - 4 transmission format

When an event occurs, reports are sent to the central monitoring station via different communication protocols using the transmission format CID or SIA.

The communication protocols contain various information on the events to be reported, for example:

- event code
- alarm type
- subscriber ID / ID number 1 and 2 for account number 1 and 2 (4 digits for CID, 6 digits for SIA)
- new event or previously reported
- zone number
- area number
- RRCVR (receiver number)
- LPREF (account prefix)

For reports with the AMAX panel, five kinds of communication protocols are available:

- Contact ID (default)
- SIA DC03
- Conettix IP
- SIA DC09
- SIA DC09 (2x ID)

Which communication protocols can be used in a particular case depends on the receiver of the provider. Therefore, contact your provider.

Notice!

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EN 50136-1, -2 SP4 compliant installation

For an EN 50136-1, -2 SP4 compliant installation of the system, select the transmission format "SIA DC09 (2x ID)". Enter the correct values provided by the central monitoring station for the parameters **DC09 acct1**, **DC09 acct2**, **DC09 encryption option** and **DC09 encryption key**.

TCP/UDP transmission

For SIA DC09 and SIA DC09 (2x ID) both TCP and UDP are available.

Protocols overview

The following table shows an overview of the available communication features for each communication protocol.

Communication features	Communication protocol							
	Contact ID	SIA DC03	Conettix IP	SIA DC09	SIA DC09 (2x ID)			
Transmission via telephone line	\checkmark	\checkmark						
Transmission via IP Ethernet				\checkmark	\checkmark			
Transmission via IP Wireless								
Transmission format	CID	SIA	CID	CID/SIA	CID/SIA			

The following table shows an overview of the available configurations for each communication protocol.

Configurations	Transmission format							
	Contact ID	SIA DC03	Conettix IP	SIA DC09	SIA DC09 (2x ID)			
Phone number	\checkmark							
IP address and port				\checkmark	\checkmark			
Subscriber ID*	\checkmark		\checkmark					
ID number 1*				\checkmark	\checkmark			
ID number 2*					\checkmark			
LPREF				\checkmark	\checkmark			
RRCVR				\checkmark	\checkmark			
TCP/UDP transmission**				\checkmark	\checkmark			
Encryption option				\checkmark	\checkmark			
Time zone				\checkmark	\checkmark			
Local time synchronization								

* 4 digits for CID, 6 digits for SIA

** SIA DC09 TCP only works with B426-M v03.04.001 or later and B450-M v03.03.001 or later

Receiver transmission encryption

The transmission encryption function is only available for the transmission format SIA DC09 and SIA DC09 (2x ID).

The following transmission formats can be selected:

- 128 bits key
- 192 bits key
- 256 bits key

The maximum length of the encryption key is 64 digits.

Time zone

This option is used to set the GMT offset for the time zone of the panel. Only one time zone can be set for the panel.

Local time synchronization

The option enables or disables the synchronization with the local time.

Events and message overview

The following table shows an overview of the events and their message formats.

Event Description	CID	SIA	ALL	КР	Dialer	EN
	format	format	Event	Recall	Event	Event
SYSTEM RESET						
BURG ALARM	1130	BA		\checkmark		\checkmark
BURG ALARM RESTORE	3130	BR				
BURG 24-HOUR	1133	BA				
BURG 24-HOUR RESTORE	3133	BH				
SENSOR FAULT	1380	BT	\checkmark			
SENSOR FAULT RESTORE	3380	BJ				
SENSOR BYPASS	1570	BB				
SENSOR BYPASS RESTORE	3570	BU				
SENSOR TAMPER	1144	TT				
SENSOR TAMPER RESTORE	3144	TJ				
ARM AWAY	3401	CL				
DISARM AWAY	1401	OP				
ARM STAY	3441	CL				
DISARM STAY	1441	OP				
KEYPAD PANIC	1120	PA				
KEYPAD FIRE	1110	FA				
KEYPAD EMERGENCY	1100	QA	\checkmark			
DURESS	1121	HA				
KEYPAD TOOMUCH RETRY	1421	JA				
BATTERY LOW	1309	ΥT				
BATTERY RESTORE	3309	YR				
AC FAIL	1301	AT				
AC RESTORE	3301	AR				
AUX POWER	1300	IA				

Event Description	CID format	SIA format	ALL Event	KP Recall	Dialer Event	EN Event
AUX POWER RESTORE	3300	IR				
COMM TEST	1602	RP				
CONFIG CHANGED	1306	YG				
COMM FAIL	1350	YC				
COMM RESTORE	3350	YK				
EXTERNAL MODULE FAULT	1333	EM				
EXTERNAL MODULE RESTORE	3333	EN				
EXTERNAL MODULE TAMPER	1341	ES				
EXTERNAL MODULE TAMPER RESTORE	3341	EJ				
DATE TIME SET	1625	JT				
USER CODE CHANGE		JV				
SERVICE MODE ON						
SERVICE MODE OFF						
ENTER PROGRAM MODE		LB				
EXIT PROGRAM MODE		LX				
PHONE LINE FAIL	1351	LT				
PHONE LINE RESTORE	3351	LR				
PANIC 24-HOUR	1120	PA				
PANIC 24-HOUR RESTORE	3120	PH				
FIRE 24-HOUR	1110	FA				
FIRE 24-HOUR RESTORE	3110	FH				
FIRE UNVERIFIED	1378	FG				
OUTPUT FAULT	1320	YA				
OUTPUT RESTORE	3320	YH				
DAYLIGHT SAVING TIME +1h	1625	JT				
DAYLIGHT SAVING TIME -1h	1625	JT				
FAULT OVERRIDE						
PANEL ACCESS	1422	JP				
SOFTWARE UPDATE		YZ				
REMOTELINK SUCCESS	1412	RB				
CLOCK FAIL	1626					
TAMPERZONE TAMPER	1137	TA				

Event Description	CID format	SIA format	ALL Event	KP Recall	Dialer Event	EN Event
TAMPERZONE TAMPER RESTORE	3137	ТН				
ZONE EXT FAULT	1150	UA				
ZONE EXT FAULT RESTORE	3150	UR				
DELAY EXIT	1134	BA		V		
DELAY EXIT RESTORE	3134	BR				
BURG ALARM VERIFIED	1139	BV		\checkmark		
BURG ALARM UNVERIFIED	1130	BG				
IP MODULE FAULT	1333	EM				
IP MODULE RESTORE	3333	EN				
IP MODULE CFG CHANGE						
IP MODULE NETWORK TROUBLE						
IP MODULE NETWORK RESTORE						
PRINTER MISSING	1336	VZ				
PRINTER MISSING RESTORE	3336	VY				
PRINTER ERROR	1335	VT				
PRINTER ERROR RESTORE	3335	VR				
PRINTER MODULE MISSING	1333	EM				
PRINTER MODULE MISSING RESTORE	3333	EN				
RF RECEIVER MISSING	1333	EM				
RF RECEIVER MISSING RESTORE	3333	EN				
RF RECEIVER TAMPER	1341	ES				
RF RECEIVER TAMPER RESTORE	3341	EJ				
RF RECEIVER FAULT	1333	ET				
RF RECEIVER FAULT RESTORE	3333	ER				
RF RECEIVER JAM	1344	XQ				
RF RECEIVER JAM RESTORE	3344	ХН				
RF RECEIVER CONFIGURATION CONFLICT						
RF RECEIVER CONFIGURATION CONFLICT RESTORE						
RF POINT MISSING	1381	UY				
RF POINT MISSING RESTORE	3381	UJ				
RF POINT BATTERY FAULT	1384	ХТ				
RF POINT BATTERY FAULT RESTORE	3384	XR				

Event Description	CID format	SIA format	ALL Event	KP Recall	Dialer Event	EN Event
RF POINT FAULT	1380	BT				
RF POINT FAULT RESTORE	3380	BJ				
RF REPEATER MISSING	1150	UZ				
RF REPEATER MISSING RESTORE	3150	UH				
RF REPEATER BATTERY FAULT	1384	ХТ				
RF REPEATER BATTERY FAULT RESTORE	3384	XR				
RF REPEATER TAMPER	1383	TA				
RF REPEATER TAMPER RESTORE	3383	ТН				
RF REPEATER AC FAULT	1334	YP				
RF REPEATER AC FAULT RESTORE	3334	YR				
RF KEYFOB BATTERY FAULT	1384	ХТ				
RF KEYFOB BATTERY FAULT RESTORE	3384	XR				
RF KEYFOB PANIC ALARM	1120	PA				
RF KEYFOB SILENT ALARM	1122	HA				
RF CHANGE KEYFOB						
RF POINT ENCLOSURE TAMPER	1383	TA		\checkmark		\checkmark
RF POINT ENCLOSURE TAMPER RESTORE	3383	ТН				
RF POINT MISSING ALARM	1150	UZ		\checkmark		\checkmark
RF POINT MISSING ALARM RESTORE	3150	UH				

Receiver network programming options

When the AMAX panel transmits a report via a network, the following options should be programmed other than the IP address and port.

Anti reply

Anti reply prevents unauthorized messages from being sent to the Central Monitoring Station and being recognized as originating from the AMAX panel.

• Contact your central monitoring station for the correct setting.

Acknowledge wait time

When no callback from the receiver after the acknowledge time is reached, the AMAX panel takes it as an unsuccessful communication and makes another attempt. The time ranges from 5 to 99 sec.

• Contact your central monitoring station for the correct setting.

Network polling time

The polling is used for both panel and remote receiver to know whether the network connection is good or not. Each time when polling is due, the AMAX panel will send a polling message. The polling time ranges from 1 to 999 minutes.

- 1. For time less than 3 digits, use 0 to fulfill.
- 2. Contact your central monitoring station for the correct setting.
6.1.2 Reports

System reporting

Report transmission sequence

If the event has disabled the report (option 0), no report is sent out. If the report has any destination to contact the panel (option 1 - 11), It will call the related destination by related reporting format type and subscriber ID number.

Attempt rules:

1. Attempt times and duration

- Within the report expiring time the AMAX panel will retry sending the report to each enabled destination till the report has been sent to the destination, or till the report buffer overflows and the old report is replaced by new incoming reports.
- For each enabled destination, the retry interval time between two retries is 15 seconds for the 1st retry to 4th retry, and the retry interval time between two retries is 10 minutes for the 5th retry to 8th retry, after the 8th retry the retry interval time between two retries is 60 minutes.

2. Attempt priority

- The attempt priority is destination 1, 2, 3, 4 Domestic. The disabled destinations will be ignored.

3. Communication fail fault

- If the attempt times for one destination reaches 4, the system will cause the communication fail fault for this destination.

4. Backup destination process

The AMAX panel can save up to a maximum of 50 un-reported events. If the un-reported events are more than 50, it will delete earlier event and only save the last 50 events in the buffer to send out.

Sequential logic to send report

- If the event reporting path is disabled, the relevant reports will not be sent.
- If the event reporting path is set to a single path (receiver 1, 2, 3 or 4), the AMAX panel will send a report to the corresponding path.
- If the event reporting path is set to more than one path (e.g. receiver 1, 2, 3, 4) and any of these paths fails, the reporting will fail.
- If the event reporting path is set to one or more receivers with other receivers as backup, the AMAX panel will send the report to the main receivers first. Only this reporting fails, the AMAX panel attempts to send the report to the backup receivers in succession. Communication path fault will occur when all valid paths fail. Communication path fault will recover when any one of the paths recovers.

Display of faults

When multiple reports are queued for delivery, the communication path fault is displayed as a logic or relationship. Example:

Set zone status recovery report to send report to receiver 1. Set keypad emergency report to send report to receiver 1, with receiver 2, 3, and 4 as backup.

Communication path fault is as follows: When communication paths 1, 2, 3, and 4 all fail, only the illumination of zone indicator 1 expresses that communication path 1 of the zone status recovery report fails and the all communication paths 1, 2, 3 and 4 of the keypad emergency report fail as well.

Communication path fault recovery is as follows:

- When communication path 1 fault recovers, zone indicator 1 goes off, indicating that the communication path 1 fault of the zone status recovery report recovers and the communication part 1 fault of the keypad emergency report recovers
- When any one path fault of communication paths 2, 3, and 4 recover, as the communication path fault is displayed as a logic or relationship, zone indicator 1 still illuminates, indicating that the communication path 1 fault of the zone status recovery report has not be recovered, but the path fault of the keypad emergency report has been recovered

Zone status reporting and zone recovery reporting

Zone restore report

Alarm report

In arming status, in case of alarm event, the alarm report will be sent.

Alarm recovery report

In arming status, when a zone is restored, a zone recovery report is sent either if the lock-out option for the zone is disabled or if the lock-out option for the zone is enabled and the alarm output time has ended.

If the non-24-hour zone is not recovered in disarming, the system will automatically send a zone recovery report. The 24-hour zone sends the recovery report only when the zone recovers.

Zone fault report

If the zone is triggered at the end of exit delay, a zone fault report will be sent, indicating that the zone is automatically bypassed by the system. At the end of exit delay time, the 24-hour zone in triggering status will not send the fault report, i.e. the 24-hour zone will not be automatically bypassed.

The non 24-hour zone fault recovery report will be sent when the zone recovers or the system disarms. For the 24-hour zone, only the alarm recovery event will occur.

The zone fault occurs when the zone is triggered and recovers when the zone is normal. Zone fault will occur when one of the following conditions is met:

- For 24-hour zone, (internal) instant zone, if the forced arming option is set to allow, the zone fault event will occur when the arming operation is executed while the zone is in triggering status
- When the zone is locked
- For (internal) delay and (internal) follow zone, if they are still in triggering status at the end of exit delay, zone fault event will occur
- For 24-hour zone, if it is in triggering status when the bypass is cancelled, zone fault event will occur

Fault recovery conditions:

- Zone resumes to normal conditions
- When the failed (internal) delay zone, (internal) instant zone and (internal) follow zone are disarmed, the fault recovery event will occur even if the zone is still in triggering status

Zone bypass report

After a manual zone bypass operation is executed, the zone is bypassed and a relevant zone bypass report is sent.

The zone bypass will be recovered when the system is disarmed and the zone bypass recovery report will also be sent while disarming.

Zone tamper alarm

In case of zone tamper event, the tamper report will be sent. When zone tamper recovers, the system status report will be sent.

AWAY arm / disarm report

The system disarming report is sent at the disarming command and the system arming report is sent when the arming succeeds.

Duress report

The duress report is sent at the disarming command. The duress report will not be sent in the operation of arming, but sent with ordinary disarming report. The duress report has no corresponding alarm recovery report.

Key switch arming

Sends system arming report when the transient key switch or locking key switch is used to arm areas.

Quick arming

Sends system arming report when the keypad is used for quick arming.

Telephone arming

Sends system arming report when the telephone is used for arming of the panel. Telephone arming is only available when the system is configured for no other area than area 1.

RPC arming

Sends system arming report when the remote PC is used to arm areas through network or telephone connection.

STAY arm / disarm report

The perimeter disarming report is sent at the disarming command and the perimeter arming report is sent when the arming succeeds.

Quick arming

Sends perimeter arming report when the keypad is used for quick arming.

RPC arming

Sends perimeter arming report when the remote PC is used to arm areas through network or telephone connection.

AC fault report recovery

When the system detects a recovery of the AC power that lasts longer than the AC power delay report time, the report will be sent.

AC fault report domestic

When the system detects disconnection of AC power and after the AC fault delay time has ended, the report will be sent.

System status reports

- External module fault reports
 - System tamper report and recovery report
 - Zone expansion module fault report and recovery report for zone expansion module
 1 6
 - Output expansion module fault report and recovery report for output expansion module 1 or 2
 - Network module fault report and recovery report for network module 1 or 2

- Keypad fault report and recovery report
- Zone expansion module tamper report and recovery report
- Keypad tamper report and recovery report
- Auxiliary power fault report
- Auxiliary power fault restore report
- Battery low voltage fault report

When the battery voltage is lower than 11.0V or battery low voltage is detected in the dynamic battery test, the AMAX panel will send the battery low voltage report. The system continuously monitors the battery voltage and will perform a dynamic battery test each time the system is armed, when the system is reset or in every battery check interval.

- Battery low voltage fault recovery report

When the battery voltage is lower than 12.0V or recovery to normal voltage is detected in the dynamic battery test, the battery low voltage fault recovery report will be sent.

Access denial report

When the times of entering wrong code reaches the specified value, an access denial report will be generated and alarm will be made. For more information on how to set a limit to failure attempts, refer to *Follow EN standard, page 76* and *Keypad lock count, page 76*.

This function is used to prevent unwanted users from accessing the system. When the number of incorrectly entered codes reaches a specific value, the AMAX panel will execute following actions:

- Activate alarm siren and other alarm outputs
- Lock the keypad in which the incorrect codes have been entered for 3 minutes
- Send an access denial report
- On-board output 1 2 fault report and recovery report
- Communication path 1 4 fault report and recovery report
- Changing programming parameters report

System report with domestic

The system reports for domestic calls behave in the same way as the system status reports.

Panic alarm report

In case of panic, a panic alarm report can be executed. The panic alarm report has no corresponding alarm recovery report.

• For information on how to execute a panic alarm report, refer to *Panic 2 button alarm, page 41.*

Fire alarm report

In case of fire, a fire alarm report can be executed. The fire alarm report has no corresponding alarm recovery report.

• For information on how to execute a fire alarm report, refer to *Fire 2 button alarm, page 41*.

Medical alarm report

In case of a medical emergency, a medical alarm report can be executed. The medical alarm report has no corresponding alarm recovery report.

• For information on how to execute a medical alarm report, refer to *Medical 2 button alarm, page 41.*

Automatic test report

The system supports sending automatic test report. The interval of sending automatic test reports is configurable.

For more information on automatic test reports, refer to *Test report duration, page 42*.

Report expiry time

If a report or a domestic call is sent but can not be acknowledged, this option defines the amount of time in minutes of how long the report or a domestic call will be sent. After the defined amount of time has been passed and the report or a domestic call still has not been acknowledged, it will be ignored. Possible values are 1 to 255 minutes. If 000 or any other value is entered, the report or a domestic call will be sent without time limit until it is acknowledged.

Report delay entry time

This option defines the delay time until a report is sent or a domestic calling is initiated when an alarm occurs during entry time. The possible value range is 00-99 seconds. If 00 is selected and an alarm occurs during entry time, a report is send immediately or the domestic calling is initiated immediately after the entry time ends. The default setting is 30.

Panic 2 button alarm

If the user presses and holds both the buttons 1 and 3 on the keypad for 3 seconds, or presses and holds both [#] and [*] for 3 seconds, the emergency alarm will be triggered. The following settings are possible:

- Disabled
- Report will be sent
- Siren will be triggered
- Report will be send and siren will be triggered.

Fire 2 button alarm

If the user presses and holds both the buttons 4 and 6 on the keypad for 3 seconds, the fire alarm will be triggered. The following settings are possible:

- Disabled
- Report will be sent
- Siren will be triggered
- Report will be send and siren will be triggered.

Medical 2 button alarm

If the user presses and holds both the buttons 7 and 9 on the keypad for 3 seconds, the medical aid alarm will be triggered. The following settings are possible:

- Disabled
- Report will be sent
- Siren will be triggered
- Report will be send and siren will be triggered.

6.1.3 Test report duration

There are two types of automatic test reports, configurable periodic reports and regular daily reports. The periodic test is sent according to the configuration (interval, hour and minute) and the local time. Therefore, the date and time of the system has to be set correctly. When the time that is configured as hour and minute is reached, a periodic test report is sent. The next periodic test report is sent after the configured interval and is not influenced by any other reports sent in between periodic test reports.

Test report interval

The test report interval can be set to 1 hour, 2 hours, 3 hours, 4 hours, 6 hours, 8 hours, 12 hours or 24 hours.

The periodic test report can be disabled. Regular daily automatic test reports will be sent instead.

Test report hour

In this option the reference hour from which the test report interval will be started can be entered. Values from 00 - 23 are valid. An invalid value will be treated as 00.

Test report minute

In this option the reference minute from which the test report interval will be started can be entered. Values from 00 - 59 are valid. An invalid value will be treated as 00.

6.1.4 Dual IP

Dual IP Settings are valid only when used with Conettix IP communication format. For IP module 1 and 2, B426-M module are used. IP module 2 does not support RPC connection. When the report is transmitted with Conettix IP communication, some reports might be missed.

The communication path of B426-M module / B450-M module is as follows:

Module	Address Setting	Corresponding Communication Path
Module 1: B426-M module 1 / B450-M	134	Paths 1 and 2
Module 2: B426-M module 2	250	Paths 3 and 4

Only when IP module 1 is used and set to paths 1 to 4, the report can be sent to those paths.

6.1.5 IP communicator

Modules

The modules B426-M and B450-M can be connected to the AMAX panel and used as IP communicators.

B426-M can be set as module 1 or 2. B450-M can only be set as module 1.

For more information on B426-M and B450-M, refer to the corresponding manuals.

IPv6 mode

This option enables / disables the IPv6 mode. If this option is disabled, the IPv4 mode is used.

IPv4 DHCP

This option enables / disables the IPv4 DHCP. If a DHCP service is available is this option is enabled, the IPv4 address, the IPv4 subnet mask, the IPv4 default gateway, the IPv4 DNS server IP and alternative IPv4 DNS server IP are configured automatically.

IPv4 address

This option sets the IPv4 address. Possible values are 0.0.0.0 to 255.255.255.255.

This option is only configurable if IPv4 DHCP is disabled.

IPv4 subnet mask

This option sets the address of the IPv4 sub-network mask. Possible values are 0.0.0.0 to 255.255.255.255.

This option is only configurable if IPv4 DHCP is disabled.

IPv4 default gateway

This option sets the address of the local network gateway to the internet or intranet. Possible values are 0.0.0.0 to 255.255.255.255.

This option is only configurable if IPv4 DHCP is disabled.

IPv4 DNS server IP

This option sets the IPv4 DNS server IP address in static IP mode. Possible values are 0.0.0.0 to 255.255.255.255.

This option is only configurable if IPv4 DHCP is disabled.

IPv6 DNS server IP

UPnP (universal plug and play) enable

This option enables / disables devices to connect to the network. If this option is enabled, IP devices discover each other's presence on the network and can connect to communicate. If this option is enabled, a router can forward port numbers, allowing reports to reach receivers behind the router.

HTTP port number

This option defines the web server port number. Possible values are 1 to 65535. If TLS enhanced security is enabled, HTTPS is applied instead of HTTP. The default value for HTTPS is 443.

ARP cache time (sec)

This option defines the time-out for ARP cache entries (in seconds). Possible values are 1 to 600.

Web/USB access enable

This option enables / disables authorized users to view and modify the B426-M configuration parameters through a standard web browser or the B450-M configuration through a USB connection.

Web/USB access password

This option defines the password required to log in for web access. Possible values are ASCII printable characters. The length must be 4 to 10 characters.

Firmware upgrade

This option enables / disables the module's firmware to be modified via the external web interface. If this option is disabled, the module's firmware has to be modified through the control panel.

Module hostname

This option allows the user to customize a hostname for the module. Once set, this hostname can be used to contact the control panel via RPS over network. If enabled, a web browser can connect to this communication unit at this hostname for the purposes of configuration and diagnostics.

If this field is left blank, the module will determine its hostname based on its MAC address (the factory default hostname).

Possible values are characters (letters, numbers and dashes). The maximum length is 63 characters.

Unit description

This option allows the user to enter a description of the module (location, attributes, etc.). Possible values are ASCII printable characters. The maximum length is 20 characters.

TCP/UDP port number

This option defines the local port number that the module listens to for incoming network traffic.

The TCP/UDP port is typically configured as 7700 when the control panel is communicating with the B5512, B4512 and B3512, a central station receiver, RPS, or automation. Possible values are 0 - 65535. Port numbers are assigned in various ways based on three ranges:

System ports	0 - 1023
User ports	1024 - 49151
Dynamic or private ports	49152 - 65535

In order to limit unwanted traffic, select a number above 1023.

TCP keep alive (sec)

This option defines the time (in seconds) between TCP keep-alive transmissions to verify that an idle connection is still active.

Possible values are 0 - 65.

Alternative IPv4 DNS server IP

This option sets an alternate IPv4 DNS server IP address.

If the module fails to obtain an address from the primary server, the alternate DNS server will be used if one has been specified. The alternate IPv4 DNS address has a dot decimal notation, which consists of the four octets of the address expressed separately in decimal and separated by periods. Possible values are 0.0.0.0 to 255.255.255.255. A default value is entered if the DHCP service is available.

This option is only configurable if IPv4 DHCP is disabled.

Alternative IPv6 DNS server IP

This option sets an alternate IPv6 DNS server IP address.

AES (advanced encryption standard) encryption

This option enables / disables AES encryption. The AES specifies a FIPS approved cryptographic algorithm that protects electronic data. The AES algorithm is a symmetric block cipher that can encrypt and decrypt information.

AES key size

This option defines the cryptographic key bit size that is used for encryption. Possible values are:

- 128 bits
- 192 bits
- 256 bits

AES key string

This option defines the encryption key in hexadecimals. Possible values are 32 or 48 or 64 hexadecimals characters:

- For a 128-bit key length, enter 32 hexadecimal characters.
- For a 192-bit key length, enter 48 hexadecimal characters.
- For a 256-bit key length, enter 64 hexadecimal characters.

Cloud connection

This option enables / disables the cloud connection. This option must be enabled if the user wants to use the RSC+ app.

 If this option is enabled, put the QR code and ID label that can be found in the communicator box into the designated space in the AMAX Operation Manual, chapter "Cloud connection". The QR code and ID label shows the unique cloud ID.

Caution!



Sensitive data protection

Make sure that the cloud ID on the QR code and ID label is handled with care and that no copies are made.

Give the cloud ID on the QR code and ID label directly only to the user. Make the user aware of the sensitivity of the cloud ID on the QR code and ID label.

VdS Home conform usage of the RSC+ app

To ensure arming/disarming in accordance with VdS Home, an activation of a key switch installed outside the area to be armed must be provided. Wiring diagram of the key switch:



Configure B450-M?

This option defines whether or not you are using a B450-M module.

SIM PIN

This option defines the SIM PIN. This option is only applicable if the SIM card uses a PIN for security.

The SIM PIN is hidden on the display and appears as asterisks (*******) when entered. If an invalid SIM PIN is entered, an event is logged in history. A report is sent only if the report function is enabled. If no SIM PIN is required, you can leave the field blank. Possible values are numbers. The length must be 4 to 8 characters.

Network access point name

This option defines the IP address for the network access point. Possible values are ASCII printable characters. The maximum length is 99 characters. The entry is case sensitive.

Network point user name

This option defines the user name for the network access point. Possible values are ASCII printable characters. The maximum length is 30 characters. The entry is case sensitive.

Network access point password

This option defines the password required to access the network access point. Possible values are ASCII printable characters. The maximum length is 30 characters. The entry is case sensitive.

6.1.6 Remote access

The AMAX panel supports remote programming via USB, telephone, or IP network using the remote programming software A-Link Plus. The following options can be performed:

- Setting the date and time
- Uploading / downloading programming parameters
- Remote arming / disarming of each area
- Enabling / disabling the alarm siren of each area
- Enabling / disabling each output
- Maintenance
- Domestic testing
- Communication testing
- Downloading voice files
- Viewing history events

Remote access armed

This option enables / disables the remote access while the system is armed.

Remote PSTN access

This option enables / disables the remote access for telephone.

Remote IP access

This option enables / disables the remote access for programming. If this function is disabled, the system can not be programmed via an IP network anymore.

Automation pass code

In this option the automation pass code can be entered. The maximum length is ten digits.

6.1.7 Remote PC

IP Address

RPC IP address is a fixed IP address for remote programming software.

Port number

RPC port number is the port number for remote programming.

How to program an IP address and port

- 1. Program an IP address with 17 digits: digits 1 12 for the IP address and 13 17 for the port.
- 2. Use no punctuation in the IP address.
- 3. If any unit of the IP address has less than 3 digits, use 0 to fulfill the data in the higher bits.
- 4. The remaining 5 digits program the port. Port number ranges from 0-65535.
- 5. If a port number has less than 5 digits, use 0 to fulfill the data.

Example

To program the IP address "10.16.1.222:80", enter the following sequence into the correspondent address:
 [0 1 0 0 1 6 0 0 1 2 2 2 0 0 0 8 0]

[01001600122200080]

DHCP Update / RPC poll Time Interval

DHCP update / RPC poll time is the interval at which AMAX panel connects to the RPC (Remote Programming PC).

The AMAX panel sends UDP data packets to the RPC according to the DHCP Update Time Interval setting (0=disabled 1-15h Interval), when the panel is reset and when call back is finished.

RPC gets the Subscriber ID, IP address and port from the UDP data packets (IP No. and Port is parsed from UDP data packet).

RPC with running RPS (Remote Programming Software = A-Link Plus) saves the received UDP data packet information into its own RAM, the information is lost after RPS is closed. When a connection is started and the IP address set in the customer information doesn't match with the IP Address from the RAM, the A-Link Plus opens a window to ask if the new IP Address and Port should be used.

When RPS is opened, a connection can only be established when the IP address and port number of the AMAX panel have not changed, after RPS received previous data. If the IP address has changed RPC with running RPS must wait for the next UDP Data package send from the Panel. When the connection is established, the AMAX panel sends a polling telegram of 25 bytes.

6.1.8 Call back and domestic call

Call back telephone number

This address stores the telephone number to call when upload / download is requested or the user enters his code + [5] [7] and presses [#] to initiate a modem call from the AMAX panel to establish a communication link with the remote computer. The computer must be running remote programming software A-Link Plus and must be set to waiting for an incoming call. The call back telephone number is also necessary if remote connect with call back verification is required.

Domestic call

Four recordable voice messages for four dialing telephone numbers are supported. Each of the four recordable voice messages can take up to 9 seconds. The voice messages are recorded with the tool "Rec.exe" that comes with A-Link Plus and are transferred via A-Link Plus to the AMAX panel. They can only be transferred via USB or network connection. The supported format of the voice message files is the following:

- For firmware version up to 1.4: .wav
- For firmware version 1.5 and higher: .va3

When the AMAX panel is activated into zone tamper / zone alarm, the programmed telephone number is dialed and the recorded voice message is played.

All alarm events only need one report / acknowledgement.

The transmission sequence is repeated until the AMAX panel receives an acknowledgement tone.

The AMAX panel automatically hangs up after about 45 seconds if it cannot detect the acknowledgement tone and redial later.

The user presses any key on the telephone between two acknowledgement tones to confirm the alarming.

The acknowledgement tone is the DTMF signal sent by the remote user with any key ([0] - [9] or [*] or [#]).

If the AMAX panel received the acknowledgement from the user, it will send a 2 seconds long confirmation beep as an acknowledge tone and hang up the line.

6.1.9 Ring times

Ring Count

This function defines the number of rings before the AMAX panel answers an incoming call. It is necessary to enable remote arming and remote upload/download to use this function.

The following values are selectable:

- 0 = The panel does not answer any incoming calls.
- 1 13 = Number of rings until the control panel answers.
- 14 = The control panel is called, the phone is allowed to ring only twice and hangs up.
 After 8 to 45 seconds the control panel is called again and answers to the first ring. If the control panel is called before 8 seconds have passed, it does not answer the call.
- 15 = The control panel is called, the phone is allowed to ring only four times and hangs up. Within 45 seconds the control panel is called again, it answers to the first ring and the connection is established. This prevents the answering machine or fax machine from answering the call.

6.1.10 Cloud status

This option shows the cloud status of module 1 and module 2 and the cloud ID of module 1 and module 2.

• For information on how to enable the cloud connection, refer to *Cloud connection, page* 45.

For information on how to connect to the cloud, refer to Network connection, page 106.

 If this option is enabled, put the QR code and ID label that can be found in the communicator box into the designated space in the AMAX Operation Manual, chapter "Cloud connection". The QR code and ID label shows the unique cloud ID.

Caution!

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Sensitive data protection

Make sure that the cloud ID on the QR code and ID label is handled with care and that no copies are made.

Give the cloud ID on the QR code and ID label directly only to the user.

Make the user aware of the sensitivity of the cloud ID on the QR code and ID label.

6.2 Users and codes

The AMAX system provides two types of access codes, the installer code and user codes. Each of them allows specific access and operation of the AMAX panel functions.

6.2.1 User code

The default users are master user 1 (code: [2580]) and master user 2 (code: [2581]). These codes should be changed to individual codes. If a new user is assigned, an individual user code is assigned to this user.

Notice!

Identical codes are not allowed. User codes are not permitted to be the same as the installer code.

User Code Priority

User codes can differ in permission levels. Each user code is assigned to a permission level.

Code Permission Level	User Type
00	Master User 1
01	Master User 2
02	Super User

03	Basic User
04	Arming User
05	Duress User
06 -15	No Priority

Please refer to *Installer code, page 49* for a description of the user permission levels.

User Code in Area

This option has a different function dependant on which user type has been selected above.

- For Super User, Basic User, Arming User and Duress User:

For each of these user types any area can be assigned individually. Keyfobs are automatically assigned to the selected areas as well.

For example: If 01 and 02 is selected in this option, area 01 and 02 is assigned. Keyfobs are also assigned to area 01 and 02.

For Master User 1 and 2:

For master users all areas are automatically assigned although they are displayed as unassigned on the keypad. Areas can not be unassigned. Changes in this option only apply to keyfobs.

For example: If 01 and 02 is selected in this option, all areas are assigned and keyfobs are assigned to area 01 and 02.

User Macro Authorizing

For each user, up to three recordable macros can be assigned.

Keyfob ID

Keyfobs are designed for arming and disarming the system remotely, trigger a panic alarm, or for additional control functionality. For each user, one keyfob ID can be assigned

To operate the buttons, press and hold either button for at least one sec in order to use the desired feature.

The AMAX panel identifies keyfob users by device RFID. AMAX Keypad programming supports entering RFID automatically for Radion devices.

 When the keyfob RFID is asked for, press [*] for 3s to toggle between AUTO and MANUAL mode.

When **MANUAL** is selected, enter the 9-digit RFID manually.

When AUTO is selected, trigger the RF device and the RFID is entered automatically.

Keyfob Button 3

For the keyfob button 3 the following settings can be selected:

- 0 not used
- 1 output control
- 2 STAY arm

6.2.2 Installer code

The installer code is designed to program the AMAX panel. In addition, the installer code is used for some code commands.

The default installer code is 1234. The default user code 1 is 2580. The default user code 2 is 2581. These codes should be changed to an individual code.



Notice!

Identical codes are not allowed. User codes are not permitted to be the same as the installer code.

Quick keypad operations

The following table shows an overview of the quick keypad operations and the corresponding user permissions of user codes and installer codes.

Function	Command Default code for user 1 = 2580 Default code for user 2 = 2581	D	A	В	S	M 2	M 1	IN
Arm/Disarm								
AWAY Arm	[code] + [#] / [#] for 3 sec. (quick arm)							\checkmark
AWAY Arm All Areas (only on master keypad)	[code] + [0] [0] + [#]	V	V	V	√	√	√	√
Direct AWAY Arm (only on master keypad	[code] + [2-digit area no.] + [#]					√	V	\checkmark
STAY Arm	[code] + [*] / [*] for 3 sec. (quick arm)						\checkmark	\checkmark
STAY Arm All Areas (only on master keypad)	[code] + [0] [0] + [*]	√	V	√	√	√	√	√
Direct STAY Arm (only on master keypad	[code] + [2-digit area no.] + [*]	√	V	√	√	√	√	√
Disarm	[code] + [#]	√			√	√	\checkmark	\checkmark
Disarm One Area (only on a master keypad)	[code] + [2-digit area no.] + [#]	V		V	√	√	√	√
Disarm All Areas (only on master keypad)	[code] + [#]	V		√	√	√	V	√
Display								
Display Info (Fault/Tamper Analysis)	[code] + [2] [1] + [#]				√	√	V	\checkmark
Bypass/Isolate								
Bypass/Unbypass Zone	Text keypad: [code] + [3] [1] + [#] + [1 or 2-digit zone no.] + [#] LED/LCD keypad: [code] + [3] [1] + [1 or 2-digit zone no.] + [*] + [#]			V	V	V	V	V
	[code] + [3] [1] + [#] (cancel LED keypad)			√	√	√	V	√
Bypass Fault/Tamper	[code] + [3] [4] + [#]					√	\checkmark	\checkmark
Inquire Bypass	[code] + [3] [3] + [#]					√	\checkmark	\checkmark
Isolate/Unisolate Zone	[code] + [3] [5] + [#]						\checkmark	\checkmark
Inquire Isolate	[code] + [3] [6] + [#]						\checkmark	\checkmark
Reset								

Function	Command Default code for user 1 = 2580 Default code for user 2 = 2581	D	Α	В	S	M 2	M 1	IN
Reset Fault/Tamper (In some country versions only the installer can reset a tamper alarm)	[code] + [6] + [#]				√	√	V	√
Macros								
Record Macro 1	[code] + [8] [1] + [#] + sequence to be recorded + [#] for 3 sec.				√	√		√
Record Macro 2	[code] + [8] [2] + [#] + sequence to be recorded + [#] for 3 sec.				V	√	√	√
Record Macro 3	[code] + [8] [3] + [#] + sequence to be recorded + [#] for 3 sec.				V	√		\checkmark
Play Macro 1	[code] + long press [1] / [1] for 3 sec. (quick macro)	*	*	*	*	*	*	\checkmark
Play Macro 2	[code] + long press [2] / [2] for 3 sec. (quick macro)	*	*	*	*	*	*	\checkmark
Play Macro 3	[code] + long press [3] / [3] for 3 sec. (quick macro)	*	*	*	*	*	*	\checkmark
Alarm commands								
Keypad Emergency Alarm	long press [1] and [3] or [*] and [#]	√	\checkmark		√			\checkmark
Keypad Fire	long press [4] and [6]	√			√		\checkmark	\checkmark
Keypad Medical Alarm	long press [7] and [9]	√	√	√	√	√	√	√
Other Commands								
Switch to Master Keypad	[code] + [0] [0] [0] + [#] (only on text keypad)				√	√	V	√
Switch to Area 01-16	[code] + [0] [2-digit area no.] + [#] (only on text keypad)				V	√		\checkmark
Display all Event Log	[code] + [2] [2] + [#] (only on text keypad)				V		\checkmark	\checkmark
Display EN Event Log	[code] + [2] [3] + [#] (only on text keypad)				V			\checkmark
Display Dialer Event Log	[code] + [2] [4] + [#] (only on text keypad)				V			\checkmark
Siren Test	[code] + [4] [1] + [#]				√	√		\checkmark
Communication Test	[code] + [4] [2] + [#]				√	√		\checkmark
Walk Test	[code] + [4] [3] + [#]							
Change Date/Time	[code] + [5] [1] + [#]							

Function	Command	D	Α	в	s	м	м	IN
	Default code for user 1 = 2580					2	1	
	Default code for user 2 = 2581							
Daylight Saving Time (+1h)	[code] + [5] [2] + [#]				√	√	√	
Daylight Saving Time (-1h)	[code] + [5] [3] + [#]					√	√	\checkmark
Add/Change User Code	[code] + [5] [4] + [#]					√	√	\checkmark
Change Individual Code	[code] + [5] [5] + [#]		√	√		\checkmark	\checkmark	\checkmark
Call Back	[code] + [5] [7] + [#]					\checkmark	\checkmark	\checkmark
Change Language	[code] + [5] [8] + [#] + [2-digit no. for available languages] + [#] 01=EN; 02=DE; 03=ES; 04=FR ; 05=PT; 06=PL; 07=NL; 08=SE; 09=TR; 10=HU; 11=IT; 12=EL				√	V	V	\checkmark
Installer Access	[code] + [7] [1] + [#] (enable) [code] + [7] [2] + [#] (disable)					V	V	
System Reset	[code] + [9] [9] [8] [9] + [#]							

D = Duress User

A = Arming User

B = Basic User

S = Super User

M1 = Master User 1

M2 = Master User 2

IN = Installer

* This function can be enabled/disabled individually for every user.

Quick keypad configurations

The following table shows an overview of the quick keypad configurations and the corresponding user permissions of user codes and installer codes.

Function	Command Default code for installer = 1224	D	Α	В	S	M	M 1	IN
	Default code for user 1 = 2580 Default code for user 2 = 2581					2	1	
Change Dom. Phone No. 1	[code] + [5] [6] + [#] + [] + [#] (LED keypad)							\checkmark
Change Dom. Phone No. 2	[code] + [5] [6] + [#] [#] + [] + [#] (LED keypad)							\checkmark
Change Dom. Phone No. 3	[code] + [5] [6] + [#] [#] [#] + [_] + [#] (LED keypad)							\checkmark
Change Dom. Phone No. 4	[code] + [5] [6] + [#] [#] [#] [#] + [] + [#] (LED keypad)							\checkmark
Change Dom. Phone No. 1-4	[code] + [5] [6] + [#] + [_] +[#] +[] + [#] (text keypad)							\checkmark
Service Mode	[code] + [7] [3] + [#] (enable/disable)							

Function	Command Default code for installer = 1234 Default code for user 1 = 2580 Default code for user 2 = 2581	D	A	В	S	M 2	M 1	IN
Programming Mode	[code] + [9] [5] [8] + [#]							√
Commands only for addres	s programming mode				-			
Exit Programming Mode without saving	[9] [5] [9] + [#]							√
Exit Programming Mode with saving	[9] [6] [0] + [#]							√
Set Factory Default	[9] [6] [1] + [#]							√
Copy Control Panel Data to Programming Key	[9] [6] [2] + [#]							√
Copy Programming Key Data to Control Panel	[9] [6] [3] + [#]							V
Display Firmware Version	[9] [9] [9] + [#]							

- D = Duress User
- A = Arming User
- B = Basic User
- S = Super User
- M1 = Master User 1
- M2 = Master User 2
- IN = Installer

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Notice!

The installer commands can be used only when all areas of the system are in disarmed status with no alarm activated and when the installer access is enabled by the user.

6.2.3 Code length

The length of the codes can be set in a range from 4 to 6 digits. For an EN 50136-2 compliant remote access, the code length has to be set to 6 digits.

6.2.4 Code permissions

Tamper reset by user

This option defines whether tampers can be reset with a user code. If this option is disabled, tamper resets can only be performed with the installer code.

Arm / disarm installer

This option defines whether the arm / disarm function can be performed with the installer code. If this option is disabled, the arm / disarm function can not be performed with the installer code.

Date / time master user

This option defines whether the date / time function can be performed with a master user code. If this option is disabled, the date / time can not be set with a master user code.

6.2.5 Force code change

This option defines whether the installer code and master user 1/2 code has to be changed during programming. If this option is enabled, programming can only be finished if the installer code is changed. For an EN compliant operation, it is necessary to enable this option.

6.2.6 Macro configuration

Macros are used to assign complicated or often used button sequences on the keypad to one button to simplify the operation of the system. Therefore, a button sequences is entered on the keypad, recorded and assigned to a macro. If this macro is played, the recorded button sequence will be executed.

It is possible to record up to three macros.

Input Macro Number

In this option the number of the macro to be configured is selected. (Possible numbers are 1, 2 and 3.)

Macro without Code

This option enables/disables the quick play function of the macro. If this function is enabled, the user can press the number of the macro for three seconds to execute the macro playing function without entering a code.

Macro Recording Timeout

This option defines the timeout of the macro recording process. (Possible values are 01 - 99 seconds.) The timeout defines the time after which the macro recording process is cancelled due to inactivity of the user.

Play Pause Time

This option defines the speed of the macro playing process. If a user wants to observe the macro playing process more closely, it can be adjusted to display the single operations longer. The default setting is **03=300ms** and can be adjusted to **01=100ms**, **02=200ms** and so on.

Level 1 access

This option enables/disables the code inside a macro. This function is relevant only if the macro without code function is disabled.

The possible selections are:

- 1-enable
- 0-disable

If this function is enabled, a code will be recorded during the macro recording process and will be executed during the macro playing process. This means that a user switch is possible when the macro playing function is executed.

If this function is disabled, there will be no code recorded during the macro recording process and the operation assigned to the macro will be executed without a code. This means that there is no user switch possible in the macro playing function and that the user who is executing the macro playing function is also executing the operation assigned to the macro.

6.2.7 Code reporting

The following codes are reported when an alarm occurs:

Installer	Report = 0
User 1 - 250	Report = 1 - 250
A-Link Plus	Report = 251
Phone arm	Report = 252

Single-button arm / disarmReport = 253Key switch arm / disarmReport = 254

6.3 Zones

6.3.1 Add / delete zone

When adding or changing a zone, it is required to select the area, the zone functions and the module of the zone source, based on zone numbers.

When the zone is specified as "0", i.e. the zone is not used; any address set on the zone function and module selection is invalid.

Zone module

The AMAX panel supports onboard zones, keypad zones and DX2010 zones and RF zones. For each zone number a certain range of selectable modules is defined.

Zone function

In this option, the zone function can be selected. Up to 15 configurations for zone functions can be defined under the option zone function.

When selecting the zone function via text keypad, the zone type that has been selected for the zone function of each zone is displayed.

Zone in area

Each zone is assigned to an area. This assignment influences the way how zones are indicated on keypads.

• For more information, please refer to *Zone indication keypad and event log, page 71*.

Zone Name

This option is used to name zones.

• Use the numbers on the text keypad as an alphabetical input.

Number	Alphabetical input when number is pres	sed consecutively
on the text keypad	Selected language: Dutch, English, French, German, Hungarian, Italian, Polish, Portuguese, Spanish, Swedish, Turkish	Selected language: Greek
1	.,'?!"1-()@/:_ ¹²³ © ^{®0} «»µ¶	.,;:1()\/[]+-=^@#%*\$€
2	a b c 2 æ å ä à á â ã ç ć č	αβγά2
3	d e f 3 è é ê ë ð ę	δεζέ3
4	ghi4ìíîïğ	ηθιἡίϊ4
5	j k l 5 £	кλμ5
6	m n o 6 ö ø ò ó ô õ ñ	νξοό6
7	p q r s 7 ß š ś ş	πρσς7
8	t u v 8 ù ú û ü ű ț	τυφύϋ8
9	w x y z 9 ý þ ź ż ž Ÿ	χψωώ9
*	Switches between small letters and capital letters	Switches between small letters and capital letters

0	Space 0 ; + & % * = < > £ € \$ ¥€ []{}\ ~ ^	0 Space
	`¿;§#	

RF zones

AMAX 3000 / 3000 BE / 4000 identifies RF zones by Zone RFID. AMAX Keypad programming supports entering RFID automatically for Radion devices.

How to enter the RFID on the keypad

- When the zone RFID is asked, press * button for 3 second toggles between AUTO and MANUAL mode.
- When MANUAL is selected, enter 9 digit RFID using pin keys.
 When AUTO is selected, trigger RF device in order to enter RFID automatically.

Hardwired input zones

On-board inputs:

The AMAX panel provides onboard hard-wired inputs. An additional input is provided for the enclosure tamper.

On-board zone response time:

The AMAX panel supports different response times for the onboard zones. The response time value range is 000.0-999.9 seconds.

On-board zone EOL

Single EOL: If the zone tamper function is not selected, each zone uses a single 2.2 kilo ohm EOL. The panel can detect the zone as short, normal or open.

Loop resistance (ohm)			Zone status
Min	Туре	Max	
0		1430	triggered
1650	2200	2750	normal
2970		∞	triggered

The detectors (sensors) will be connected between zone and COM terminal through EOL series (open triggered) or parallel connection (short triggered).



The detectors (sensors) will be connected between zone and COM terminal through EOL series connection (open triggered) or EOL parallel connection (short triggered).



The panel sets the short / open as activate when connecting with single EOL.

The valid zone number is 1-8 for AMAX 2100 / 3000 / 3000 BE, 1-16 for AMAX 4000.

Dual EOL: If the tamper supervision is set, we only can use the NC contact point. The EOL status is:

Loop resistance (ohm) Zone Status

Min	Туре	Max	
0		1430	tamper
1650	2200	2750	normal
2970	4400	4950	triggered
5220		∞	tamper

Using one 2.2 kilo resistor as EOL of the tamper zone, which works together with the zone EOL 2.2 kilo.



NC (normally close): If the zone option is set to "NC", an alarm occurs when the zone is opened. When the zone is closed, the system is in normal mode.

NO (normally open): If the zone option is set to "NO", an alarm occurs when the zone is closed. When the zone is opened, the system is in normal mode.

On-board tamper input

A separate input is provided for enclosure tamper. The response time of the tamper input can be programmed individually. The response time value range is 000.0-999.9 seconds.

6.3.2 Zone function settings

Zone type

The following zone types can be selected for each zone function.

Zone function option		Description
Zone type	00	Not used
	01	Instant
	02	Interior instant
	03	Delay 1
	04	Interior delay 1
	05	Delay 1 exit
	06	Interior delay 1 exit
	07	Delay 2
	08	Interior delay 2
	09	Delay 2 exit
	10	Interior delay 2 exit
	11	Follower
	12	Interior follower

13	24-hour
14	Key AWAY toggle
15	Key AWAY on/off
16	Key STAY toggle
17	Key STAY on/off
18	24-hour panic
19	24-hour fire
20	24-hour fire with verification*
21	Tamper
22	Bold contact
23	External fault
24	Technical alarm
25	Reset
26	Instant report

* Only possible for AMAX 4000 zone 1

00 - Not used

If a zone is not used, program the zone type location to 0. An EOL resistor is not required if this zone type is not used. This zone type never activates the sirens or the dialer.

01 - Instant

The instant zone type performs as described below:

- 1. Disarm:
 - Zone normal no alarm / no report
 - Zone triggered no alarm / no report
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered alarm / report
 - (Zone triggered during exit time no alarm / no report)
 - (Zone triggered during entry time alarm / report is delayed for 30 seconds or entry time is expired, when system is disarmed before, no report)
- 3. STAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered alarm / report
 - (Zone triggered during exit time no alarm / no report)
 - (Zone triggered during entry time alarm / report is delayed for 30 seconds / entry time is expired, when system is disarmed before, no report) When zone is triggered, not bypassed and system is forced to arm, a zone fault report is sent.
 - When the system is disarmed and zone is not restored before, a Zone fault restore report is sent.

02 - Interior instant

The interior instant zone type performs as described below:

- 1. Disarm:
 - same as the instant zone disarm status
- 2. AWAY Arm:
 - same as the instant zone AWAY arm status
- 3. STAY Arm:
 - When zone is triggered, not bypassed and system is forced to arm, a zone fault report is sent.
 - When system is disarmed and zone is not restored before, a zone fault restore report is sent.
 - This zone will be ignored and performed as disarm.
- > Refer to Keypad Indicators to see how the zone is displayed during exit time.

03 - Delay 1

The delay 1 zone type performs as described below:

- 1. Disarm: same as instant zone disarm status
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered entry time starts no alarm / no report
 - Disarming during entry time no alarm / no report
 - Zone triggered during exit time no alarm / no report
 - Zone triggered during entry time no alarm / no report
 - Zone triggered entry time is expired alarm / report
 - (report is delayed for a specified time (default: 30s; value range: 00-99), when system is disarmed before, no report)
- 3. STAY Arm: same as AWAY arm performance.
 - First delay zone will start the entry time; all other delay zones will follow.
 - When system is disarmed and zone is not restored before, a zone restore report is sent.

04 - Interior delay 1

The interior delay 1 zone type performs as described below:

- 1. Disarm: same as the instant zone disarm status
- 2. AWAY Arm: same as the delay zone AWAY arm status
- 3. STAY Arm:
 - This zone will be ignored and performed as disarm.
- Refer to Keypad Indicators to see how the zone is displayed during exit time.

05 - Delay 1 exit

The delay 1 exit zone type performs as described below:

- 1. DISARM: same as instant zone disarm status
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered entry time starts no alarm / no report
 - Disarming during entry time no alarm / no report
 - Zone triggered during exit time no alarm / no report / abbreviates remaining time for exit to 5 seconds
 - Zone triggered during entry time no alarm / no report

- Zone triggered entry time is expired alarm / report (report is delayed for 30 seconds, when system is disarmed before, no report)
- 3. STAY Arm: same as AWAY arm performance
 - First delay zone will start the entry time; all other delay zones will follow.
 - When system is disarmed and zone is not restored before, a zone restore report is sent.

06 - Interior delay 1 exit

The Interior delay 1 exit zone type performs as described below:

- 1. Disarm: same as the instant zone disarm status
- 2. AWAY Arm: same as the delay exit zone AWAY arm status
- 3. STAY Arm:
 - This zone will be ignored and performed as disarm.
- Refer to Keypad Indicators to see how the zone is displayed during exit time.

07 - Delay 2

The delay 2 zone type performs as described below:

1. Disarm: same as instant zone disarm status

- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered entry time starts no alarm / no report
 - Disarming during entry time no alarm / no report
 - Zone triggered during exit time no alarm / no report
 - Zone triggered during entry time no alarm / no report
 - Zone triggered entry time is expired alarm / report
 - (report is delayed for a specified time (default: 30s; value range: 00-99), when system is disarmed before, no report)
- 3. STAY Arm: same as AWAY arm performance.
 - First delay zone will start the entry time; all other delay zones will follow.
 - When system is disarmed and zone is not restored before, a zone restore report is sent.

08 - Interior delay 2

The interior delay 2 zone type performs as described below:

- 1. Disarm: same as the instant zone disarm status
- 2. AWAY Arm: same as the delay zone AWAY arm status
- 3. STAY Arm:
 - This zone will be ignored and performed as disarm.
- Refer to Keypad Indicators to see how the zone is displayed during exit time.

09 - Delay 2 exit

The delay 2 exit zone type performs as described below:

- 1. DISARM: same as instant zone disarm status
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered entry time starts no alarm / no report
 - Disarming during entry time no alarm / no report

- Zone triggered during exit time no alarm / no report / abbreviates remaining time for exit to 5 seconds
- Zone triggered during entry time no alarm / no report
- Zone triggered entry time is expired alarm / report (report is delayed for 30 seconds, when system is disarmed before, no report)
- 3. STAY Arm: same as AWAY arm performance
 - First delay zone will start the entry time; all other delay zones will follow.
 - When system is disarmed and zone is not restored before, a zone restore report is sent.

10 - Interior delay 2 exit

The Interior delay 2 exit zone type performs as described below:

- 1. Disarm: same as the instant zone disarm status
- 2. AWAY Arm: same as the delay exit zone AWAY arm status
- 3. STAY Arm:
 - This zone will be ignored and performed as disarm.
- Refer to Keypad Indicators to see how the zone is displayed during exit time.

11 - Follower

The follower zone type performs as described below:

- 1. Disarm:
 - same as the instant zone disarm status
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered alarm / report
 - Zone triggered during exit time no alarm / no report
 - Zone triggered during entry time no alarm / no report
 - The remaining delay time is handed over from the delay zone to the follower zone.
 - The follower zone performance as the same as a delay zone.
 - If there are two or more zones programmed as delay zones and both are triggered, the follower zone will follow the first triggered delay zone.
- 3. STAY Arm: same as the delay zone.

12 - Interior follower

The interior follower zone type performs as described below:

- 1. Disarm: same as the instant zone disarm status
- 2. AWAY Arm: same as the follower zone AWAY arm status
- 3. STAY Arm:
 - This zone will be ignored and performed as disarm.
- Refer to Keypad Indicators to see how the zone is displayed during exit time.

13 - 24 hour

The 24-hour zone type performs as described below:

- 1. Disarm:
 - Zone normal no alarm / no report
 - Zone triggered alarm / report
- 2. AWAY Arm:
 - Zone normal no alarm / no report

- Zone triggered alarm / report
- Zone triggered during exit time alarm / report
- Zone triggered during entry time alarm / report
- 3. STAY Arm: same as AWAY arm performance.
 - A 24 hour zone does not send a restore report until the zone is restored.

14 - Key AWAY toggle

The key switch AWAY toggle zone type performs as described below:

- 1. Disarm:
 - Zone normal no action
 - Zone triggered activate AWAY arm / report
- 2. AWAY Arm:
 - Zone normal no action
 - Zone triggered activate disarm / report
- 3. STAY Arm: same as AWAY arm performance

This zone will ignore all other programming items, such as bypass, forcing arm.

When the system is armed in this mode, the keypad activates two beeps and report sent is by user code 254.

15 - Key AWAY on/off

The key switch AWAY on / off zone type performs as described below:

- 1. Disarm:
 - Zone normal no action
 - Zone triggered activate AWAY arm / report
- 2. AWAY Arm:
 - Zone normal activate disarm / report
 - Zone triggered no action
- 3. STAY Arm: same as AWAY arm performance

Wiring diagram for key-switch zone: short for arm. The momentary time is capable of lasting Minimum 300ms.



Wiring diagram for key-switch zone: open for arm. The momentary time is capable of lasting Minimum 300ms.



When the key-switch operates the arm/disarm, the keypad sounds two beeps and report sent to the system by user code 254.



Notice!

When the key-switch operates the arm/disarm successfully, the siren sounds short to indicate it.

16 - Key STAY toggle

The key switch momentary STAY zone type performs as described below:

- 1. Disarm:
 - Zone normal no action
 - Zone triggered activate STAY arm / report
- 2. AWAY Arm:
 - Zone normal no action
 - Zone triggered activate disarm / report
- 3. STAY Arm: same as AWAY arm performance

This zone will ignore all other programming items, such as bypass, forcing arm.

When the system is armed in this mode, the keypad activates two beeps and report sent is by user code 254.

17 - Key STAY on/off

The key switch on/off STAY zone type performs as described below:

- 1. Disarm:
 - Zone normal no action
 - Zone triggered activate STAY arm / report
- 2. AWAY Arm:
 - Zone normal activate disarm / report
 - Zone triggered no action

3. STAY Arm: same as AWAY arm performance

When the key-switch operates the arm / disarm, the keypad sounds two beeps and report sent to the system by User Code 254.



Notice!

When the key-switch operates the arm/disarm successfully, the siren sounds short to indicate it.

18 - 24-Hour panic

The 24-hour panic zone type performs as described below:

- 1. Disarm:
 - Zone normal no alarm / no report
 - Zone triggered silent alarm / report
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered silent alarm / report
 - Zone triggered during exit time silent alarm / report
 - Zone triggered during entry time silent alarm / report
- 3. STAY Arm: same as AWAY arm performance
 - A 24-hour panic zone has no restore report until the zone is restored.

19 - 24 Hour fire

The 24-hour fire zone type performs as described below:

- 1. Disarm:
 - Zone normal no alarm / no report

- Zone triggered alarm / report
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered alarm / report
 - Zone triggered during exit time alarm / report
 - Zone triggered during entry time alarm / report
- 3. STAY Arm: same as AWAY arm performance
 - A fire zone does not send a restore report until the zone is restored.

20 - 24-hour fire with verification

(Only possible for AMAX 4000 / AMAX 3000 BE zone 1)

The 24-hour fire with verification zone type performs as described below:

- 1. Disarm:
 - Zone normal no alarm / no report
 - Zone triggered: After the first alarm, the AMAX panel performs a fire verification reset (10 seconds) and then waits a period up to two minutes for a second alarm. If a second alarm occurs within this period, the AMAX panel indicates a fire alarm. Otherwise, the AMAX panel resets back to its normal condition. At the end of the two minutes period an unverified fire alarm is logged and reported. A fire zone does not send a restore report until the zone is restored.
- 2. AWAY arm: same as disarm performance
- 3. STAY arm: same as disarm performance

21 - Tamper

The tamper zone type performs as described below:

- 1. Disarm:
 - Zone normal no alarm / no report
 - Zone triggered alarm / report
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered alarm / report
 - Zone triggered during exit time alarm / report
 - Zone triggered during entry time alarm / report
- 3. STAY Arm: same as AWAY arm performance
 - A tamper zone does not send a restore report until the zone is restored.

22 - Bolt contact

The bolt-contact zone type performs as described below:

- 1. Disarm:
 - Zone normal no alarm / no report
 - Zone triggered no alarm / no report
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered no alarm / no report
 - Zone triggered during exit time no alarm / no report
 - Zone triggered during entry time no alarm / no report
- 3. STAY Arm: same as AWAY Arm performance.

- This zone is mainly for prevention of arming (to ensure exit/entry door is locked before arming the system and no alarm occurs when entering the premise through the entry/exit door).

23 - External fault

The external fault zone type performs as described below:

- 1. Disarm:
 - Zone normal no alarm / no report
 - Zone triggered fault / report
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered alarm / report
 - Zone triggered during exit time fault / report
 - Zone triggered during entry time fault / report
- 3. STAY Arm: same as AWAY Arm performance
 - The restore report will be sent when the zone is restored.

24 - Technical alarm

The technical alarm zone type performs as described below:

- 1. Disarm:
 - Zone normal no alarm / no report
 - Zone triggered alarm / report
- 2. AWAY Arm:
 - Zone normal no alarm / no report
 - Zone triggered alarm / report
 - Zone triggered during exit time alarm / report
 - Zone triggered during entry time alarm / report
- 3. STAY Arm: same as AWAY arm performance.
 - A technical zone does not send a restore report until the zone is restored.

25 - Reset

The reset zone type performs as described below:

- 1. Disarm:
 - Zone normal no alarm / no report
 - Zone triggered performs system reset / no report
- 2. AWAY Arm:
 - Zone normal no alarm / no report
- 3. STAY Arm: same as AWAY arm performance

26 - Instant report

The instant report zone type performs as described below:

- 1. Disarm:
 - Zone normal no action
 - Zone triggered report
- 2. AWAY Arm: same as disarm performance
- 3. STAY Arm: same as disarm performance

Overview of the zone function options

Zone function option		Description	
Force arm / bypass	0	Disabled	
	1	Force arm	
	2	Bypass	
	3	All	
Silent alarm / Chime	0	Disabled	
mode	1	Silent alarm	
	2	Chime mode	
	3	All	
Zone pulse count	0	Disabled	
	1-9	1-9 pulses	
Zone lockout	0	Disabled	
	1	1 times alarm lockout	
	2	3 times alarm lockout	
	3	6 times alarm lockout	
	4	Alarm duration	
Zone EOL 0		EOL 2,2k	
	1	DEOL 2,2k / 2,2k	
	2	Reserved	
	3	NC	
	4	NO	
Zone status report 0		No report required	
	1	Receiver 1	
	2	Receiver 2	
	3	Receiver 3	
	4	Receiver 4	
	5	Receiver 1, 2, 3, and 4	
	6	Receiver 1 (2, 3, and 4 for backup)	
	7	Receiver 1 (2 for backup) and receiver 3 (4 for backup)	
	8	Receiver 1, 2	
	9	Receiver 1 (2 for backup)	
	10	Receiver 3, 4	
	11	Receiver 3 (4 for backup)	

Unverified alarm	0	Disabled	
report / cross zone	1	Unverified alarm report	
	2	Cross zone	
	3	All	
Zone domestic call	Follow '	Follow "alarm report" option's logic. range 0-11	
	0	No reports allowed	
	1	Report to destination 1	
	2	Report to destination 2	
	3	Report to destination 3	
	4	Report to destination 4	
	5	Report to destination 1 ,2, 3, 4	
	6	Report to destination 1 (2, 3, and 4 for backup)	
	7	Report to destination 1 (2 for backup) and 3 (4 for backup)	
	8	Report to destination 1, 2	
	9	Report to destination 1 (2 for backup)	
	10	Report to destination 3, 4	
	11	Report to destination 3 (4 for backup)	
Zone alarm on keypad	0	Disabled	
	1	Enabled	
Trouble domestic	0	Disabled	
	1	Enabled	
Detection time x100ms	000-99	0 – 999ms	
	9		

Force arm / bypass

This option defines whether a zone is allowed to be force armed or bypassed. The following options are possible:

- Disable forced arming and bypass
- Allow forced arming
- Allow bypassing
- Allow both forced arming and bypassing

Force arm

If forced arming is allowed, a zone can be armed when it is in triggering status. If forced arming is not allowed, the system does not allow the user to arm the system unless the zone with problems has resumed to normal status or been manually bypassed. The arming with a zone in triggering status is called forced arming. When the operating system arms:

- When the keypad or key switch zone is used to execute system arming, the system will show the zone status at first. If a zone in triggering status is not bypassed and the forced arming option is in disabled status, it cannot be successfully armed.
- When the keypad or key switch zone is used to execute system arming, the system shows the zone status at first. If a zone in triggering status is not bypassed and the forced arming option is in enabled status, the system is successfully armed. If the zone is still not recovered at the end of the exit delay time, the system shows the fault report of the zone.
- When the fault is recovered, a zone recovery report is sent.

The exceptions to forced arming option:

 In telephone and programming software remote arming, forced arming is available even if the zone is programmed as enabled or disabled forced arming.

Bypassing

If bypassing is allowed, the operator can bypass zones before arming the system. If bypassing is not allowed, manual bypass of the zone is not available. After manual bypass of the zone, a zone bypass report is sent.

The zone bypass is valid in only one arming period and will be resumed after disarming. Before disarming, the bypassed zones ignore all zone triggering and restoration events. The key switch zone cannot be bypassed.

Silent alarm / chime mode

This option defines whether silent alarm and chime mode are allowed for a zone. The following options are possible:

- Disable silent alarm and chime mode
- Allow silent alarm
- Allow chime mode
- Allow both silent alarm and chime mode

Silent alarm

Allowing the silent alarm option sets the zone to mute alarm. The silent alarm option is only effective for output event type 03 "system alarm".

To disable the keypad buzzer, refer to *Zone alarm on keypad, page 70*.

Chime mode

If chime mode is allowed, the process is as follows:

If the chime mode is used and a zone is triggered the keypad buzzer will sound for 1 second (only in disarmed status).

Zone pulse count

This option defines whether the zone pulse count mode is allowed for a zone. The process is as follows:

- Pulse count duration time must be configured
- Pulse count for a zone can be set to a value between 1 and 9 (0 = disabled)

The process is as follows:

- An alarm is created only if the zone is triggered as many times as the value "pulse count" within the time "count duration"
- For more information, refer to *Pulse count duration programming, page 134*.

Zone lockout

The zone lockout defines after how many times of triggering an alarm during one arming cycle, the zone in which the alarm occurred will be "locked". If a zone is locked, the alarms its alarms will be ignored by the system. This option defines whether the zone lockout mode is allowed for a zone and after how many times of triggering an alarm the zone will be locked. The following selections are possible:

- Disabled
- Locked after triggering the alarm 1 time
- Locked after triggering the alarm 3 times
- Locked after triggering the alarm 6 times
- Alarm duration

The zone lockout will be reset after disarming.

1 time

The AMAX panel will process locking according to the following logic:

- 1. When an alarm is triggered within the period of alarm output time, the AMAX panel will ignore the status detection of the zone.
- 2. After the alarm has been triggered 1 time, the zone will be locked.
- 3. If the alarm occurs in the locked zone, the zone will send zone fault report.
- 4. Before the end of the alarm output time, ten zone recovery events will not be transmitted.
- 5. If the zone locking option is disabled, the times of alarms will not be restrained. Even when other zones are locked, that zone can still generate the alarm.

3 times

Similar to 1 time of alarm locking, with alarm limited to not more than 3 times.

6 times

Similar to 3 times of alarm locking, with alarm limited to not more than 6 times.

Alarm duration

Locking occurs within the period of alarm output time. Repeating the process of alarm locking in the period of alarm output time, without limit to times.

Zone EOL

The system supports tamper detection of the zone. This function ensures that the zone is in normal operating status and triggers an alarm if not. The following selections are possible:

- 0 = EOL 2,2k
- 1 = DEOL 2,2k / 2,2k
- 2 = reserved
- 3 = NC
- 4 = NO

EOL 2,2k (end of line)

An EOL resistor with 2,2k is required for the zone. A zone alarm is triggered if another value than 2,2k is registered.

DEOL 2,2k / 2,2k (double end of line)

A DEOL resistor with twice 2,2k is required for the zone. A zone alarm is triggered if 4,4k are registered. A tamper alarm is triggered if any other value is registered.

NC (normally closed)

A NC resistor is required for the zone. A zone alarm is triggered if the resistor is opened.

NO (normally open)

A NO resistor is required for the zone. A zone alarm is triggered if the resistor is closed.

Zone status report

This option defines whether and to which destinations a zone status report is sent. The AMAX panel reports the zone status according to the specified path, including alarm, zone fault, zone bypass and zone tamper alarm.

Unverified alarm report / cross zone

This option defines whether the unverified alarm report and cross zone options are allowed for a zone. The following selections are possible:

- Disable unverified alarm report and cross zone option
- Allow unverified alarm report option
- Allow cross zone option
- Allow both unverified alarm report and cross zone option

Unverified alarm report

If the unverified alarm report option is allowed and when a cross zone is triggered, but no alarm is created, system creates an unverified alarm in order to report. The system reports unverified alarms if option unverified alarm report is enabled.

Cross zone

If the cross zone option is allowed, the process is as follows:

Prerequisites:

- At least two zones in the same area have option cross zone enabled
- System option cross zone timer is set to a value higher than 0

When one of these zones is triggered for more than 20 seconds, an alarm is created.

When one of these zones (the first zone) is triggered for a shorter time than 20 seconds, the cross zone timer starts, no alarm is created at this time

- When no more zones (with cross zone option) are triggered within the cross zone time, no alarm is created
- When the first zone is triggered twice or more within the cross zone time, no alarm is created
- When a second zone or further zones (with cross zone option) is / are triggered within the cross zone time, then an alarm is created for all triggered zones
- When the first zone or one of the other zones (with cross zone option) is / are triggered twice or more after cross zone time is expired, the timer restarts

Zone domestic call

The system supports domestic call mode.

The process is as follows:

- If the domestic call mode is configured for a zone and an alarm from this zone is created the alarm will be reported via the onboard voice dialer to the destination(s) configured and needs acknowledgement.

Zone alarm on keypad

This option enables / disables the zone alarm on the keypad. If this option is enabled, a zone alarm can be sounded on the keypad buzzer.

If the keypad alarm tone function is disabled and the zone alarm on keypad function is enabled, the alarm tone on the keypad is still enabled.

If the keypad alarm tone function is enabled and the zone alarm on keypad function is disabled, the alarm tone on the keypad is still enabled.

For more information on the keypad alarm tone, refer to Keypad alarm tone, page 74.

Trouble domestic

This option enables / disables the domestic call for trouble. If this option is disabled and a trouble event occurs for the zone, a domestic call will not be sent.

Detection time x100ms

This option defines the amount of time in ms which has to pass before an event will be recognized. Any event that occurs and disappears before that amount of time has passed will be ignored. Possible values are 0 to 999ms.

6.3.3 Pulse count duration

The pulse code duration defines the period for the zone pulse count feature.

6.3.4 Cross zone timer

The cross zone timer defines the period for the cross zone feature.

6.3.5 Zone indication keypad and event log

Zones may be indicated on LED/LCD keypads and in event logs with a number that are different from the zone number used for programming and hardware input.

One area system

Zones are indicated on LED/LCD keypads according to the zone numbers. When one zone is disabled the indication number of all following (higher) zone numbers will shift to a value decreased by one.

Multi area system

Only zones assigned to one area are indicated on an area LED/LCD keypad in order beginning with 1 and by following the order of zone numbers.

Examples:

AMAX 3000 / 3000 BE / 4000:

In a one area or area 1 system keypad the zone number 17 is indicated on a 16 zone LED/LCD keypad. After disabling zone 16 (or another one in range 1 to 16), zone number 17 is indicated on the LED/LCD keypad as zone number 16.

AMAX 2100:

In a one area system keypad the zone number 17 is indicated on an 8 zone LED/LCD keypad. After disabling zone 5, zone number 17 is indicated on the LED/LCD keypad as zone number 5.

The following table shows the area assignment and keypad indication of zones in a multi area system:

Zone Number	Area	Indication keypad area 1	Indication keypad area 2
1	2		1
2	2		2
3	1	1	
4	1	2	

Zone Number	Area	Indication keypad area 1	Indication keypad area 2
5	1	3	
6	1	4	
7	2		3
8	2		4
9	2		5
10	2		6
11	1	5	
12	1	6	

6.4 Keypads and areas

6.4.1 Keypad area

Master keypad

The AMAX panel supports master keypads. User access to a master keypad differs from user access to an area keypad. The master keypad switches to the master keypad mode or to the area that the user declares after entering the user code. The arming/disarming, area alarm, AC power fault, system fault and system event of each area can be displayed on the master keypad. The master keypad can also enter the user menu.

It is possible to execute arming/disarming on a master keypad. It is possible to either arm all areas or to arm only a single area via the direct arm function.

It is not possible to perform a bypass operation on a master keypad. When relevant operations are made to an area, the master keypad should be switched to the corresponding area.

Area keypad

It is possible to operate each area with a single or multiple independent keypads. Each area keypad can only operate the corresponding programmed area.

When the area keypad has no corresponding zones, the area keypad cannot be used to execute zone-related operations such as arming/disarming and bypassing, but can be used to execute operations unrelated to zones, e.g. event inquiry.

Each area keypad can display the status of the zone belonging to the area. However, for IUI-AMAX3- LED8 keypad, IUI-AMAXLED 8 keypad and IUI-AMAX-LCD 8 keypad, each area can display up to 8 zones and cannot display other zones, but can report zone events. For IUI-AMAX3LED16 keypad, each area can display up to 16 zones and cannot display other zones, but can report zone events. Keypad IUI -AMAX4-TEXT can display up to 64 zones.

How to program keypads

- To program a master keypad via installer menu programming, enter area 00 in the section KEYPAD IN AREA.
- To program a master keypad via address programming, enter area 00 into the corresponding addresses.
- To program an area keypad via installer menu programming, enter area 01 16 in the section KEYPAD IN AREA.
- To program an area keypad via address programming, enter area 01 16 into the corresponding addresses.
- For keypad no. 1 the default setting is area **01**
- For keypads no. 2 16 the default setting is **99** for not used.
Displaying areas in a LED/LCD keypad

For any area, the logic numbers of the zones are displayed on the LED/LCD keypad and logic numbers or zone names of the zones are displayed on the keypad instead of actual physical numbers. For example: The zones 1, 2, and 3 of 1 area or area 1 displayed on the keypad are actually zones 20, 31, and 37.

6.4.2 Entry/exit timing

The AMAX panel supports separate entry and exit delay times for each area.

Exit delay

The programming range is 0 - 255 seconds. In the mode of system arming, the keypad will beep during exit and will make continuous long beep sound in the last 10 seconds to notify the exit time is coming to an end.

Entry delay 1

The programming range is 0 - 255 seconds. Entry delay time starts when a delay zone 1 (zone type 03, 04, 05, 06) is triggered in armed state.

Entry delay 2

The programming range is 0 - 255 seconds. Entry delay time starts when a delay zone 2 (zone type 07, 08, 09, 10) is triggered in armed state.

Entry and exit delay time audible

This option defines whether an entry or exit delay time is silent or audible. One or more of the following entry and exit delay time scenarios can be selected individually for audible or silent indication of entry and exit time.

- Entry time (STAY) for area keypad
- Exit time (STAY) for area keypad
- Entry time (STAY) for master keypad
- Exit time (STAY) for master keypad
- Entry time (AWAY) for area keypad
- Exit time (AWAY) for area keypad
- Entry time (AWAY) for master keypad
- Exit time (AWAY) for master keypad

Per default, all entry and exit time scenarios are set to audible indication.

6.4.3 Common area

Area 1 can be used as an independent or a common area with other areas being subordinated. If area 1 is a common area the following applies:

- Only when all subordinate areas are armed, the common area can be armed.
- If a subordinate area is in STAY arm mode, the common area is in STAY arm mode too.
- If a subordinate area is disarmed, the common area will be disarmed too.
- If any zones under common zones are triggered or in tamper status and forced arming is disabled, the common area cannot be armed.

Common area indication

If area 1 is a common area, the following icons are used to indicate the status on the keypad:

Indication on keypad	Description
COMM 🗸	No event in common area, no open zones
сомм Ø	Event in common area if force arming is disabled for the zone, e.g. open zone
READY	No event in area, no open zones

Indication on keypad	Description
Ø READY	Event in area if force arming is disabled for
	the zone, e.g. open zone

The following cases of common area and subordinate areas behavior are possible:

	Case 1	Case 2	Case 3	Case 4	Case 5
Area 1 (common area)	сомм 🗸	сомм Ø	сомм ø	сомм 🗸	сомм Ø
Area 2	READY	READY	Armed / exit delay	Armed	Armed
Area 3	READY	READY	COMM Ø	Ø READY	Ø READY

6.4.4 Keypad indication

Keypad alarm tone

This option enables / disables the area keypad alarm tone.

If the keypad alarm tone function is disabled and the zone alarm on keypad function is enabled, the alarm tone on the keypad is still enabled.

If the keypad alarm tone function is enabled and the zone alarm on keypad function is disabled, the alarm tone on the keypad is still enabled.

For more information on the zone alarm on keypad, refer to Zone alarm on keypad, page 70.

Alarm indicator enable

This option enables / disables the alarm indication on keypads depending on the arming status. The following selections are possible:

- Disabled
- STAY armed enabled
- AWAY armed enabled
- Both enabled

Backlight on entry time

This option enables/disables the keypad backlight during entry time. If this option is enabled, the keypad backlight turns on when the system is in STAY arm mode and the entry time starts and turns off when the entry time ends and no other button is pressed.

Keypad LED expiration

This option defines the keypad LED indication timeout in seconds when armed. Possible values are 00 - 99. If 00 is selected, the LED indication stays on.

Master keypad LED on

This option defines the LED indication of the master keypad. The following selections are possible:

- 0 = disable
- 1 = 1st area on
- 2 = 1st area flash
- 3 = all area on
- 4 = 1st area on ex
- 5 = 1st area flh ex
- 6 = all area on ex

0 = disable

The master keypad LED indication is disabled.

1 = 1st area on

When the first area is armed, the master keypad LED is on (STAY or AWAY LED, depending on the arming mode).

When no area is armed, the master keypad LED is off.

2 = 1st area flash

When the first area is armed, the master keypad LED is flashing (STAY or AWAY LED, depending on the arming mode).

When all areas are armed, the master keypad LED is on (STAY and / or AWAY LED, depending on the arming mode).

When no area is armed, the master keypad LED is off.

3 = all area on

When all areas are armed, the master keypad LED is on (STAY and / or AWAY LED, depending on the arming mode).

When no or not all areas are armed, the master keypad LED is off.

4 = 1st area on ex

When the first area is armed, the master keypad LED is on (STAY and / or AWAY LED, depending on the arming mode).

When no area is armed, the master keypad LED is off.

During the exit time, the master keypad LED is flashing (STAY and / or AWAY LED, depending on the arming mode).

5 = 1st area flh ex

When the first area is armed, the master keypad LED is flashing (STAY and / or AWAY LED, depending on the arming mode).

When all areas are armed, the master keypad LED is on (STAY and / or AWAY LED, depending on the arming mode).

When no area is armed, the master keypad LED is off.

During the exit time, the master keypad LED is flashing (STAY and / or AWAY LED, depending on the arming mode).

6 = all area on ex

When all areas are armed, the master keypad LED is on (STAY and / or AWAY LED, depending on the arming mode).

When no or not all areas are armed, the master keypad LED is off.

During the exit time, the master keypad LED is flashing (STAY and / or AWAY LED, depending on the arming mode).

Master keypad alarm tone

This option enables / disables the master keypad alarm tone.

For panic, fire and medical alarms that are triggered on a master keypad, this option defines whether a master keypad alarm tone occurs or not, no matter what settings are configured for the option keypad alarm tone.

For all other alarms, faults and tampers, this option defines whether the master keypad alarm tone settings follow the area keypad alarm tone settings or not.

Master keypad restore

This option defines the time in seconds after which a master keypad switches back from area mode to master mode. Possible values are 00 -99. If 00 is selected, the keypad never switches back to master mode.

6.4.5 Keypad lockout

Follow EN standard

This option defines whether the EN standard concerning keypad lockout is followed or not. If this option is enabled, the EN standard concerning keypad lockout is followed. That means that when it is possible to attempt access more than 3 times in a period of 60 seconds, then the number of successive failure attempts is limited to 3. The keypad will then be locked for 5 minutes.

If this option is enabled, the option "keypad lock count" cannot be configured anymore.

Keypad lock count

The number of attempts to enter a wrong user code can be set from 1 to 15 in order to supervise valid user access. The keypad will be locked for 3 minutes, when the number of attempts reaches the declared value.

This option is only available if the option "Follow EN Standard" is disabled.

6.5 System

6.5.1 System setting

This chapter describes the system settings that can be accessed via the **SYSTEM SETTINGS 1** and the **SYSTEM SETTINGS 2** menu and their submenus if available.

Date and time

Change date and time

The AMAX panel has a 24-hour clock and a 12-month calendar that need to be set after power up. The order is day, month, year, hour, and minute, with each item occupying two digits [DD] [MM] [YY] [HH] [MM].

DST options

The daylight saving time setting determines when daylight saving time will start and end. Therefore, date and time has to be set correctly.

Predefined daylight saving time settings are available for four regions. Alternatively, a daylight saving time setting can be configured individually.

Daylight saving time starts and ends according to the daylight saving time settings of a certain region. Individually configured daylight saving time starts and ends at 1 a.m.

The daylight saving time settings are the following:

1 - Euro	Europe, Azerbaijan, Turkey, Lebanon, Cyprus
2 - Brazil	Southern region of Brazil
3 - Mexico	Southern region of Mexico
4 - US nor Mexico	USA, Canada, northern region of Mexico
5 - Customize	Can be customized individually

Fault configuration

Fault sound reminder

When the command [2] [1] on the keypad is used for fault inquiry, the keypad can be programmed to sound prompt tone to indicate new system fault. The system is defaulted to enable. In case of a new fault, all keypads will sound a short beep once a minute.

AC fault delay time

The fault report to display on the keypad will be delayed for the selected time (01 - 98 minutes; default = 60 minutes; disabled = 99).

Date/time fault

In case of date/time settings fault, it is possible to choose to display the fault or transmit fault prompt tone at the same time, or to not display and stop fault prompt tone. If it is chosen to not display, the fault prompt tone is set, and the system will prompt nothing if no date and time are set after power-up.

Battery check interval

This option defines the time interval in which the battery test is carried out (01 - 15 minutes; 00 = disabled). The battery test is also carried out when the system is armed or during system power up.

Phone line supervision

If this option is enabled, the system supervises whether the phone line is broken or disconnected.

Siren supervision

If this option is enabled, the system supervises whether the siren is shortened or disconnected.

The possible values are:

- Disabled
- Siren 1 monitored
- Siren 2 monitored
- Siren 1 and 2 monitored

AC fault auto reset

This option enables/disables the automatic AC fault reset function.

If this option is enabled, an AC fault indication is restored automatically after the AC power supply is restored.

If this option is disabled, an AC fault indication has to be reset manually after the AC power supply is restored.

Communication fault auto reset

This option enables/disables the automatic communication fault reset function.

If this option is enabled, a communication fault indication is restored automatically after the communication is restored.

If this option is disabled, a communication fault indication has to be reset manually after the communication is restored.

Phone fault auto reset

This option enables/disables the automatic phone fault reset function.

If this option is enabled, a phone fault indication is restored automatically after the phone is restored.

If this option is disabled, a phone fault indication has to be reset manually after the phone is restored.

General fault auto reset

This option enables/disables the automatic general fault reset function.

If this option is enabled, any fault indication is restored automatically after the fault is restored.

If this option is disabled, any fault indication has to be reset manually after the fault is restored.

Quick arming

This option enables/disables the quick arm function via which the user can arm the system by pressing and holding [*] / [#] for three seconds without entering the code.

Installer access until next arming

Before using installer access, a standard user has to enable installer access first. If the option installer access until next arming is enabled, installer access permission is limited to next arming.

Force arm when system is in trouble condition

This option enables/disables the forced arming of an area although it is in a fault or tamper condition.

Event record count per set/unset period

This option defines the maximum number of records for an event within the set / unset period.

Language version

In this option, the currently used language can be changed to the displayed languages.

Keypad 2 button alarm

This option enables/disables the keypad 2 button function: The emergency alarm is transmitted, if [1] and [3], or [*] and [#] are pressed on the keypad and held for three seconds. The fire alarm is transmitted, if [4] and [6] are pressed and held for three seconds. The silent keypad emergency alarm is transmitted, if [7] and [9] are pressed and held for three seconds.

System tamper indication

System tamper all areas

In case of a system tamper event, all keypads indicate an alarm. This option defines the behavior of the alarm on the keypad for area 01 if the alarm is acknowledged on a master keypad.

– 0 = area 1:

If the tamper event alarm is acknowledged on a master keypad and **0** = **area 1** is selected, the alarm on the keypad for area 01 is still indicated and has to be acknowledged separately.

– 1 = all areas:

If the tamper event alarm is acknowledged on a master keypad and **1** = **all areas** is selected, the alarm on the keypad for area 01 is not indicated any more.

Zone tamper bypass when DEOL zone is bypassed

If the option is enabled, the system creates a tamper alarm when DEOL zone is tampered, even when this zone is bypassed or isolated.

Enclosure tamper timing

The AMAX panel supports different response times for the onboard tamper used for panel enclosure. The response time value range is 000.0-999.9 seconds.

Area name

Þ

This option is used to name areas. The maximum length of an area name is ten characters.

Use the numbers on the text keypad as an alphabetical input.

Number	Alphabetical input when number is pressed consecutively			
on the text keypad	Selected language: Dutch, English, French, German, Hungarian, Italian, Polish, Portuguese, Spanish, Swedish, Turkish	Selected language: Greek		
1	.,'?!"1-()@/:_ ^{1 2 3} © ^{® 0} «»µ¶	.,;:1()\/[]+-=^@#%*\$€		
2	a b c 2 æ å ä à á â ã ç ć č	αβγά2		
3	d e f 3 è é ê ë ð ę	δεζέ3		
4	ghi4ìíîïğ	ηθιήίϊ4		
5	j k l 5 £	κλμ5		
6	m n o 6 ö ø ò ó ô õ ñ	νξοό6		
7	p q r s 7 ß š ś ş	πρσς7		
8	t u v 8 ù ú û ü ű ț	τυφὑϋ8		
9	w x y z 9 ý þ ź ż ž Ÿ	χψωώ9		
*	Switches between small letters and capital letters	Switches between small letters and capital letters		
0	Space 0 ; + & % * = < > £ € \$ ¥€ []{}\ ~ ^ `¿;§#	0 Space		

Company name

This option is used to name the company in which this AMAX system is used.

• Use the numbers on the text keypad as an alphabetical input.

Voice default

This option enables/disables the voice default settings for the domestic call. If **DEFAULT VOICE YES** is selected, all recorded voice messages are deleted and the default tone is used for domestic calls. For more information on recorded messages and domestic calls, refer to *Call back and domestic call, page 47*.

Schedule programming

This function is used to schedule operations according to the needs of the users. The following operations can be scheduled:

- Arming/disarming
- Switching output on/off
- Activating/deactivating users
- It is possible to schedule up to 16 operations on a daily or hourly basis.

i

Notice!

Please note that this function can only be accessed and programmed via the remote programming software A-Link Plus.

How to program a schedule

- Select the function you want to schedule. The following function can be selected: Arm (up to 16 areas) Disarm (up to 16 areas) Switch on output (up to 20 outputs) Switch off output (up to 20 outputs) Activate user (up to 250 users) Deactivate user (up to 250 users)
 Enten the desired start time (bb mark) and the date (dd/mark) for the schedule.
- 2. Enter the desired start time (hh:mm) and the date (dd/mm) for the schedule.
- 3. Choose the selected days for the schedule (yes/no for each weekday).
- 4. Optionally select a exception (e.g. for holidays)
- \checkmark The schedule is programmed and can be enabled/disabled by the user.

6.5.2 System view

Fault analysis

This option display faults, tampers and the bypass/isolate status. The AMAX panel can display eight categories of 41 types of system faults and tampers.

How to display faults and tampers via a text keypad

In a text keypad the faults and tampers are displayed directly.

How to display faults and tampers via a master keypad

In a master keypad the system faults and tampers are displayed directly. After an area is selected, the area-specific faults and tampers are displayed.

How to display the bypass status

- 1. Enter your code + [3] [3] and press [#].
- The system beeps twice and the bypassed zones are displayed.
- 2. Use [▲] and [▼] to display all bypassed zones.
- 3. Press [#] to exit.

How to display the isolate status

- Enter your code + [3] [6] and press [#]. The system beeps twice and the isolated zones are displayed.
- 2. Use [▲] and [▼] to display all isolated zones.
- 3. Press [#] to exit.

How to display faults and tampers via a LED/LCD keypad

- Enter your code + [2] [1] and press [#]. The system beeps twice. The FAULT indicator is extinguished and the STAY and AWAY indicators flash. One of the number indicators is lit. Example: 2.
- 2. Enter the number that is lit in the system. Example: 2. One of the number indicators is lit. Example: 1.
- 3. Repeat step 2 until there is no number lit anymore.
- Refer to the table Types of fault or tamper conditions for a description of the fault or temper. The consecutively lit number indicators correspond to fault or tamper types. Example: 2 – 1, which indicates a panel AC failure.
 - If necessary press [0] to return to step 2.
- 6. Press [#] to exit.

5.

✓ The STAY and AWAY indicators are extinguished and the FAULT indicator is lit. For an overview of the possible faults and tampers and how to solve them, see *Trouble fault inquiry, page 150*.

Firmware version

This option displays the current firmware version.

6.5.3 System factory default

The system can be reset to the factory default settings either via software or via hardware. Recorded voice messages are not automatically deleted when the system is reset to the factory default setting. Voice messages have to be deleted separately. Therefore, refer to *Voice default, page 79.*

How to reset the system to the factory default settings via software

Factory default

This option resets the system to the factory settings.

- Select DEFAULT PANEL YES if you really want to reset the system or select DEFAULT
 PANEL NO if you don't want to reset the system.
- ✓ All programming parameters are reset to factory default.

PAD default option

This option enables/disables the possibility to reset the system via hardware. If this option is disabled, the system can not be reset via hardware any more.

How to reset the system to the factory default settings via hardware

The system can be reset to factory default settings with the 'resetting to factory default' pads at the top on the printed circuit board on the main board of the AMAX panel if this possibility is enabled in the software.

- 1. Disconnect the AC power supply and the backup battery.
- 2. Short-circuit the "resetting to factory default" pads.
- Power up the system.
 Quick flash of the red LED indicator on the printed circuit board of the AMAX panel indicates that the factory default is reset.
- All programming parameters are reset to factory default immediately after releasing the short-circuited bonding pads.

Notice!

If the default pads are short-circuited for over 10 seconds after power-up, the AMAX panel discards resetting to factory default.

6.6 Outputs and sirens

6.6.1 Outputs

Onboard / extension output

The AMAX panel is equipped with on-board outputs and supports DX3010 output extension modules with each extension module supporting 8 relay outputs.

When on-board output 1 or 2 fails due to a short circuit or an open circuit, as long as there is a backup power supply, the output fault will not affect the normal operation of the whole system, but will be detected by the system, if monitoring of siren 1 is enabled. Refer to *Siren supervision, page 77*.

Each output is programmable and can be set to follow multiple events.

Depending on the type of the output event, the output parameters can be defined as area output or follow zone alarm output. The output polarity of each output can be programmed and defined as one of the following modes: continuous output, pulse output or inverted output.

The maximum output time is specified by programming and will automatically be reset after expiration.

Output event types

For one output up to three output event types can be defined. For each of the three output event types the output area and zone, the output mode and output time can be set individually. In case of an alarm, output, output event type 1 has the highest priority; output event type 3 has the lowest.

Output event type	Description	Output area / zone
00	Not used	No
01	System disarmed	0 = All areas
02	System armed	1 - 16 = areas 1 - 16*
03	System alarm	0 = Any area
04	System alarm (audible and silent)	1 - 16 = areas 1 - 16*
05	External AWAY siren	
06	External STAY siren	
07	Internal siren	
08	Internal siren with tamper	
09	Entry / exit delay warning	1 - 16 = areas 1 - 16*
10	Telephone line fault	
11	AC power supply fault	
12	Low battery	
13	Tamper	0 = Any area
14	External fault	1 - 16 = areas 1 - 16*
15	All faults	
16	Fire alarm	0 = Any area
17	Fire reset	1 - 16 = areas 1 - 16*
18	AWAY armed	0 = All areas
19	STAY armed	1 - 16 = areas 1 - 16*
20	Reset	0 = Any area 1 - 16 = areas 1 - 16*

Output event types - overview

21	Follow zone event	Zone number 1 - 64*
22	RF keyfob button 3 (e.g. garage door)	0 = Any area 1 - 16 = areas 1 - 16*
23	RF keyfob button 4 (e.g. light)	
24	Chime indication	
25	Verified alarm	
26	Unverified alarm	
27	Technical alarm	
28	Bypassed zone	
29	Ready to arm	0 = All areas 1 - 16 = Areas 1 - 16*
30	Walk test output mode	
31	24h alarm	0 = Any area
32	24h panic alarm	1 - 16 = areas 1 - 16
33	Medical alarm	
34	RF power fault	0 = Any repeater
35	Follow zone	Zone 1 - 64*
36	Schedule	

Tab. 6.13: The value ranges of output event options

* AMAX 2100 areas 1 - 2 zones 1 - 8 AMAX 3000 / 3000 BE areas 1 - 8 zones 1 - 32 AMAX 4000 areas 1 - 16 zones 1 - 64

Output events - detailed description

00 - Not used

01 - System disarmed

The output is operated in the following cases:

- The system is disarmed after a system reset.
- The system operated the disarm command.

The output is reset in the following cases:

- The system is armed.
- The programmed output time ends.

02 - System armed

The output is operated in the following cases:

- The system is armed after a system reset.
- The system operated the arm command. (After the exit time ends.)

The output is reset in the following cases:

- The system is disarmed.

- The programmed output time ends.

If the output time is set to 000, the output will continue until the system is disarmed.

03 - System alarm

This output is operated when an alarm occurs.

The output is reset in the following cases:

- The system is disarmed and alarm is reset.
- The programmed output time ends.

In case of a new alarm, the output time will be reset.

If the output time is set to 000, the output will continue until the zone is restored or the system is disarmed.

04 - System Alarm (audible and silent)

This output is operated in case of an audio alarm of the system:

- Zone (alarm or tamper) programmed to disable zone silent alarm
- System tamper / DX2010 tamper / keypad tamper
- Keypad alarm (emergency alarm, fire alarm, medical aid alarm)
- This output also operates in case of a silent alarm of the system:

- Zone (alarm or tamper) programmed to enable zone silent alarm.

The output is reset in the following cases:

- The alarm is reset.
- The system is armed.
- The system is disarmed.

In case of a new alarm, the output time will be reset.

If the output time is set to 000 and the alarm siren sounds time to 0, the output will continue until the alarm output is reset or the system is disarmed by entering your code + [3] [2] + [#]. The output of the following system alarms is only one second:

- Alarm siren test
- Pacing (tamper / alarm / reset)
- Key switch arming or locking key switch disarming

05 - External AWAY siren

The output is operated in the following cases:

- The system is in AWAY mode and a zone intruder alarm (intruder alarm = instant / interior instant / delay / interior delay exit / interior delay exit / follower / interior follower / 24h (can be silenced) / fire (can be silenced) / technical alarm (can be silenced)) occurs.
- The system is in AWAY mode and a tamper alarm occurs.
- (No output is operated when the system is disarmed.)

06 - External STAY siren

The output is operated in the following cases:

- The system is in STAY mode and a zone intruder alarm (intruder alarm = instant / interior instant / delay / interior delay exit / interior delay exit / follower / interior follower / 24h (can be silenced) / fire (can be silenced) / technical alarm (can be silenced)) occurs.
- The system is in STAY mode and a tamper alarm occurs.

(No output is operated when the system is disarmed.)

07 - Internal siren

The output is operated in the following cases:

- The system is in AWAY mode and a zone intruder alarm (intruder alarm = instant / interior instant / delay / interior delay exit / interior delay exit / follower / interior follower / 24h (can be silenced) / fire (can be silenced) / technical alarm (can be silenced)) occurs.
- The system is in AWAY mode and a tamper alarm occurs.
- The system is in STAY mode and a zone intruder alarm (intruder alarm = instant / interior instant / delay / interior delay / delay exit / interior delay exit / follower / interior follower / 24h (can be silenced) / fire (can be silenced) / technical alarm (can be silenced)) occurs.
- The system is in AWAY mode and a tamper alarm occurs.
- The system is disarmed and a zone tamper alarm occurs.

When the system is armed the output mode is a one pulse activation (1sec) (enabled / disable option can be combined with disarm).

When the system is disarmed the output mode is a two pulse activation (1sec) (enabled / disable option can be combined with arm).

When programming mode is entered the output mode is a one pulse activation (1sec) (enabled / disable option).

08 - Internal siren with tamper

The output is operated when an internal siren with tamper occurs.

09 - Entry/exit delay warning

Entry delay warning

This output is operated during the entry time.

The output is reset in the following cases:

- The system is disarmed.
- The entry time expires.
- The programmed output time ends.

Exit delay warning

This output is operated during the exit time when the system is armed.

The output is reset in the following cases:

- The system is disarmed.
- The exit time expires.
- The programmed output time ends.

If the output time is set to 000, the output will continue until the delay warning time ends.

10 - Telephone line fault

This output is operated when a telephone line fault occurs.

The output is reset in the following cases:

- The telephone line is restored and the fault is reset.
- The programmed output time ends.

If the output time is set to 000, the output will continue until the telephone line is restored and the fault is reset.

11 - AC power supply fault

This output is operated when an AC power fault occurs.

The output is reset in the following cases:

- The AC power supply is restored and the fault is reset.
- The programmed output time ends.

If the output time is set to 000, the output will continue until the AC power supply is restored and the fault is reset.

12 - Battery fault

This output is operated when a low battery fault occurs.

The dynamic battery test is performed every four hours after the system is powered up and every time the system is armed.

The output is reset in the following cases:

- A dynamic battery test reports that the backup battery voltage is normal and the fault is reset.
- The programmed output time ends.

If the output time is set to 000, the output will continue until the battery is restored and the fault is reset.

13 - Tamper

This output is operated when a tamper occurs.

The output is reset when the programmed output time ends.

If the output time is set to 000, the output will continue until the tamper condition is restored and the tamper is reset.

14 - External fault

This output is operated when an external fault occurs.

The output is reset when the programmed output time ends.

If the output time is set to 000, the output will continue until the external fault is restored and the fault is reset.

15 - All faults

This output is operated when a fault occurs.

The output is reset when the programmed output time ends.

If the output time is set to 000, the output will continue until the fault is restored and the fault is reset.

16 - Fire alarm

This output is operated when a fire alarm occurs.

17 - Fire reset

This output is operated when a fire alarm is reset.

18 - AWAY armed

This output is operated when the system is in AWAY mode. The output is reset when the programmed output time ends. If the output time is set to 000, the output will continue until the system is disarmed.

19 - STAY armed

This output is operated when system is in STAY mode. The output is reset when the programmed output time ends. If the output time is set to 000, the output will continue until the system is disarmed.

20 - Reset

This output is operated when a reset is performed in the system.

21 - Follow zone event

This output imitates the zone alarm state. The output is operated when an alarm or a tamper is generated in the corresponding zone.

The output is reset when the system arming or disarming or the output time ends.

22 - RF keyfob button 3

If the output time of this output is set to 000, the keyfob button 3 works as a toggle: This output is operated when the keyfob button 3 is pressed. The output is reset when the keyfob button 3 is pressed again.

23 - RF keyfob button 4

If the output time of this output is set to 000, the keyfob button 4 works as a toggle: This output is operated when keyfob button 4 is pressed. The output is reset when the keyfob button 4 is pressed again.

24 - Chime indication

This output is operated when a chime indication occurs.

25 - Verified alarm

This output is operated when a verified alarm occurs.

26 - Unverified alarm

This output is operated when an unverified alarm occurs.

27 - Technical alarm

This output is operated when a technical alarm occurs.

28 - Bypassed zone

This output is operated when a zone is bypassed.

29 - Ready to arm

This output is operated when the system is in ready to arm state.

30 - Walk test output mode

This output is operated when the system is in walk test mode.

31 - 24h alarm

This output is operated when a 24h alarm occurs. This output works only a 24-hour zone.

The output is reset when the 24h alarm is reset or the output time ends.

32 - 24h panic alarm

This output is operated when a 24h panic alarm occurs. This output works only on zone type 10.

The output is reset when the 24h panic alarm is reset or the output time ends.

33 - Medical Alarm

This output is operated when a medical alarm occurs. The output is reset when the medical alarm is reset or the output time ends.

34 - RF power fault

The output is operated in the following cases:

- The battery of the RF transmitter is low.
- The battery of the RF repeater is low.
- An AC power fault of the RF repeater occurs.

The output is reset in the following cases:

- The RF power is normal and the system is reset.
- The programmed output time ends.

35 - Follow zone

This output imitates the zone state. The output is operated according to the corresponding zone.

The output is reset according to the corresponding zone.

36 - Schedule

This output is operated when a schedule is enabled. The output is reset when the schedule is reset or the output time ends.

Output mode

Three different output modes are available.

0 - Continuous output

The output is continuous, the level is high.

1 - Pulse output

The output occurs in pulses, the period is 1 second.

2 - Continuous inverted output

The output is continuous, the level is low (level is high in idle state). When PO-1 or PO-2 is set to inverted, supervision is disabled for these outputs.

Output time

Each output is operated for a specific time and resets at the end of output time. The actual output time of system audio alarm, system alarm, and follow zone event is related to the ringing of the alarm siren.

The possible output time value range is 0 - 999 seconds.

6.6.2 Sirens

Alarm Siren Ringing Time

The alarm siren ringing time is valid only when the keypad alarm tone is enabled. When an audio alarm occurs in the system, the alarm siren begins to ring. After a valid arming / disarming command, an alarm reset or after the alarm siren ringing duration ends, the alarm siren stops ringing.

• For programming of alarm time, refer to *Output programming, page 142*.

Beep For Warning Devices

Enables / disables beep for warning devices when the system is armed, disarmed, or during walk test.

Internal Siren Beep as Indication

Enables / disables internal siren beep as indication when the system is armed, disarmed, or programming mode is entered.

Silence Warning Device When Disarmed

Enables / disables silence warning device when disarmed or by pressing any key.

6.7 RF devices

6.7.1 RF options

RF receiver functionality

Enables or disables RF receiver functionality.

RF supervision interval

Disables or defines RF Supervision Interval. The interval can be set to 20 minutes, 1, 2.5, 4, 12 or 24 hours.

RF jam detect level

Defines RF jam detect level. The range is 00 - 15:

- 00 = disabled
- 01 = most sensitive
- 15 = least sensitive

RF device low level battery resound

Disables or sets the interval for keypad acoustic indication of RF device low level battery fault.

Siren beep arm / disarm (RF keyfob)

Enables or disables siren beep indication on arm / disarm.

Keyfob panic option

Defines the behavior when keyfob panic button is pressed. The option can be set to no alarm, silent alarm, or non silent alarm.

Zone missing as alarm

This option enables / disables the alarm function for a missing zone.

6.7.2 RF devices / user

RF User

Keyfobs are designed for arming and disarming the system remotely, trigger a panic alarm, or for additional control functionality.

To operate the buttons of the keyfob, press and hold either button for at least one sec in order to use the desired feature.

The AMAX panel identifies keyfob users by device RFID. AMAX Keypad programming supports entering RFID automatically for Radion devices.

 When the keyfob RFID is asked for, press [*] for 3s to toggle between AUTO and MANUAL mode.

When MANUAL is selected, enter the 9-digit RFID manually.

When AUTO is selected, trigger the RF device and the RFID is entered automatically.

RF Repeater

The AMAX panel identifies repeater devices by device RFID. AMAX Keypad programming supports entering RFID automatically for Radion devices.

 When the repeater RFID is asked for, press [*] for 3s to toggle between AUTO and MANUAL mode.

When MANUAL is selected, enter the 9-digit RFID manually.

When AUTO is selected, trigger the RF device and the RFID is entered automatically.

RF Sensor Diagnose

The AMAX panel supports diagnostic feature for RF sensors. The keypad diagnose displays signal/noise ratio distance. In dependency of the rating, the AMAX panel displays the numbers of the RFID or **RELOCATE**. The AMAX panel keeps on polling for the signal and updates the indication on a regular basis.

RF Repeater Diagnose

The AMAX panel supports diagnostic feature for RF repeaters. The keypad diagnose displays signal/noise ratio distance. In dependency of the rating, the AMAX panel displays the numbers of the RFID or **RELOCATE**. The AMAX panel keeps on polling for the signal and updates the indication on a regular basis.

Clear RF devices

The AMAX panel provides the option to clear all RF devices in a step.

6.8 Key programming

Programming with the ICP-EZPK Programming Key

The programming key allows you to save or copy programming information from your AMAX panel and to transfer it to other AMAX panels with the same applications. The programming key can also be used to back up existing information.

• If you have a new programming key, enter the programming mode, program the system as required, and connect the programming key to the AMAX panel.

To connect the programming key:

• Connect the programming key to the plug on top of the printed circuit board (PCB) of the AMAX panel.



Notice!

Please note that the direction of the programming key should be consistent with the direction marked on the PCB.

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L	!	7

Caution!

If you do not enter the programming mode first, which connects the blank ICP-EZPK Programming Key (blue) to the AMAX panel, no data can be uploaded / downloaded. An unknown error may be caused if the programming mode is not exited before removing the programming key.

How to copy parameters from the AMAX panel to the key

On a text keypad:

- 1. Connect the programming key to the plug on top of the printed circuit board (PCB) of the AMAX panel. The direction of the programming has to be consistent with the direction marked on the PCB.
- 2. If the key is write-protected, unlock the key by moving the switch on the inside of the key to "unlock".
- 3. Select text keypad installation menu **ADDRESS / KEY PROGR COPY DATA TO KEY** and press [#].

After successfully copying the programming data of the AMAX panel to the programming key, a confirmation tone occurs. Wrong prompt tone and display of **Failure of AMAX Panel Parameters to Key** indicate a damage of the programming key data. In this case, the data needs to be copied onto the programming key again.

- 4. Unplug the programming key from the AMAX panel.
- On a LED/LCD keypad:
- 1. Connect the programming key to the plug on top of the printed circuit board (PCB) of the AMAX panel. The direction of the programming has to be consistent with the direction marked on the PCB.
- 2. If the key is write-protected, unlock the key by moving the switch on the inside of the key to "unlock".
- 3. Enter your code + [958] + [#] + [962] + [#].

How to copy parameters from the key to the AMAX panel

On a text keypad:

- 1. Connect the programming key to the printed circuit board (PCB) plug of the AMAX panel. The direction of the programming has to be consistent with the direction marked on the PCB.
- 2. If the key is write-protected, unlock the key by moving the switch on the inside of the key to "unlock".
- 3. Select text keypad installation menu ADDRESS / KEY PROGRAM COPY DATA TO PANEL and press [#].

After successfully copying the programming data in the programming key to the AMAX panel, a confirmation tone occurs. Wrong prompt tone and display of **Failure of Key Parameters to AMAX Panel** indicate a damage of the programming key data. In this case, the data needs to be copied onto the AMAX panel again.

- 4. Unplug the programming key from the AMAX panel.
- On a LED/LCD keypad:
- 1. Connect the programming key to the printed circuit board (PCB) plug of the AMAX panel. The direction of the programming has to be consistent with the direction marked on the PCB.

- 2. If the key is write-protected, unlock the key by moving the switch on the inside of the key to "unlock".
- 3. Enter your code + [958] + [#] + [963] + [#].

7 Configuration

This chapter describes how to configure the settings of the AMAX panel. The settings can be configured either via a text keypad or via the remote programming software A-Link Plus.

• For detailed description of the settings, refer to *Settings, page 29*.

7.1 Service mode

During configuration and programming of the system, the service mode can be used. If the system is modified during service mode, there won't be any alarms triggered.

Service mode expiry time

The service mode expiry time defines the time for how long the service mode will be active. Possible values are 0 - 999.

If 000 is entered, the service mode won't be enabled.

If 999 is entered, the service mode will stay on until it is disabled.

Service mode configuration

The service mode configurations can be set via a text keypad or via A-Link Plus. Reports can be enabled or disabled for the service mode.

Triggering outputs can be enabled or disabled for the service mode.

The keypad buzzer can be enabled or disabled for the service mode.

How to enable the service mode on a text keypad

- 1. Enter the installer code + [73] and press [#].
- 2. Enter the service mode expiration time in minutes. Default: 999.
- 3. Enable or disable the service mode report.
- 4. Enable or disable the service mode output.
- 5. Enable or disable the service mode keypad buzzer.
- \checkmark The system is in service mode and the triangle LED is lit.

How to disable the service mode on a text keypad

The service mode only has to be disabled if it has been enabled before.

- 1. Enter the installer code + [73] and press [#].
- 2. The system is in normal mode and the triangle LED is off.

7.2 Programming with a keypad

7.2.1 Text keypad programming

Access to the Menus

Accessing the programming menu

- 1. Confirm that the system is disarmed and that no alarm occurred.
- 2. Enter the installer code. The default setting for the installer code is [1234]. The system displays **[958] PROGR. MODE [-EXIT]**.
- 3. Enter [958] + press [#].
- \checkmark You have now access to the programming menu for configuring the AMAX system.
- ✓ The **STAY** and **AWAY** indicators flash to indicate the programming mode.

Accessing the user menu

- Enter a user code. The default users are master user 1 (code: [2580]) and master user 2 (code: [2581]).
- ✓ The system displays [▼/▲] USER MENU *STAY #AWAY [-] INFO.
- \checkmark You have now access to the user menu for operating the AMAX system.

Navigation of the Menus

This section provides an overview of how to navigate the programming menu of a text keypad.

Selecting a Menu

- 1. Select the menu and operate according to the menu prompt.
- 2. Press [▼] or [▲] to navigate to the desired menu.
- 3. Press [#] to enter a menu.

Exiting a Menu

• Press [-] to get back to the previous menu.

Confirming the Input

• Press [#] to confirm the input.

Switching between Settings

• Press and hold [*] for 3 seconds to switch between settings.

Operating a Menu

- Operate according to the menu prompt. Select the menu and enter data for specific programming items according to the display on the keypad to complete the programming, step by step.
- 2. Press [#] to confirm each step.

Exiting the Programming Menu

- 1. Complete all programming input by repeating the programming steps above and press [-] to get back to the current main menu level by level.
- 2. Press [-] to get to the **EXIT PROG. +SAVE** menu.

It is optional to save or not to save the programming data.

- 1. Select **EXIT PROG. +SAVE** and press [#] to save the data and to exit the programming mode.
- 2. Select **EXIT PROG. UNSAVED** and press [#] to exit programming mode without saving the data.

Programming Menu Structure

The following graphics show an overview of the installer menu structure displayed on a text keypad.

ems	Parameters / Description	Certification	Defa
REPORT MANAG			
CEIVER SETTING			
UT RECEIVER No.			
RMAT			
- 1-Cid			
IEL.NO.(17 DIGIT)	Telephone No. $ Digits IP = 12 Dig. + Port = 5 Dig.$		0000
SUBSCRIBER ID NO.	0-9B-E		0000
- 2-sia dc03	Telephone No. 4 17 Divite ID - 12 Div + Devt - 5 Div		
SUBSCRIBER ID No	Telephone No. $ Digits IP = 12 Dig. + Port = 5 Dig.$		0000
			0000
SUBSCRIBER ID No.	0 - 9 B - F		0000
NETWORK ANTIREPLAY	0-disable 1-enable	EN=1	
NETW. POLLING: min			
ACK WAIT TIME: sec	05 - 99 seconds		
- 4-sia dc09			
PROTOCOL TYPE	1-Cid		
	2-sia dc03		
IP/PORT 17 DIGIT			
			0000
DC09 RRCVR ENABLE	0-disable 1-enable		0000
-RRCVR(6 DIGIT)			0000
TCP/UDP TRANSMIT	0-tcp		
	1-udp		
DC09 ENCRYPT. OPT.	U-disable		
	2-192 bits key		
	3-256 bits key		
DC09 ENCRYPT. KEY			
SET TIME ZONE	0=-12:00, 1=-11:00, 2=-10:00, 3=-9:00, 4=-8:00, 5=-7:00, 6=	-	
	6:00, 7=-5:00, 8=-4:30, 9=-4:00, 10=-3:30, 11=-3:00, 12=-		
	2:00, 13=-1:00, 14=+0:00, 15=+1:00, 16=+2:00, 17=+3:00,		
	18=+3:30, 19=+4:00, 20=+4:30, 21=+5:00, 22=+5:30,		
	23=+5:45, 24=+6:00, 25=+6:30, 26=+7:00, 27=+8:00,		
	28=+8:30, 29=+9:00, 30=+9:30, 31=+10:00, 32=+11:00,		
	33=+12:00, 34=+13:00, 35=+14:00		
LOCAL TIME SYNC EN	0-disable 1-enable		
NETW. POLLING: min			
ACK WAIT TIME: sec	05 - 99 seconds		
5-sia dc09(2xid)			
PROTOCOL TYPE	1-Cid		
ID/DODT 17 DIGIT	2-sia dc03		
DC09 ID No 1(3-16)			
DC09 ID No.2(3-16)			
LPREF(6 DIGIT)			0000
DC09 RRCVR ENABLE	0-disable 1-enable		
RRCVR(6 DIGIT)	0.1		0000
TCP/UDP TRANSMIT	U-top 1-udp		
	0-disable		
ERORT I. OF I.	1-128 bits key		
	2-192 bits key		
	3-256 bits key		
DC09 ENCRYPT. KEY			
SET TIME ZONE	U=-12:UU, 1=-11:UU, 2=-10:UU, 3=-9:UU, 4=-8:UU, 5=-7:00, 6=	-	
	0:00, 7=-5:00, 8=-4:30, 9=-4:00, 10=-3:30, 11=-3:00, 12=-0.00, 10=-1.00, 14=-0.00, 15=-0.00, 1		
	2:00, 13=-1:00, 14=+0:00, 15=+1:00, 16=+2:00, 17=+3:00,		
	18=+3:30, 19=+4:00, 20=+4:30, 21=+5:00, 22=+5:30,		
	23=+5:45, 24=+6:00, 25=+6:30, 26=+7:00, 27=+8:00,		
	28=+8:30, 29=+9:00, 30=+9:30, 31=+10:00, 32=+11:00,		
	33=+12:00, 34=+13:00, 35=+14:00		
LOCAL TIME SYNC EN	0-disable 1-enable		
NETW. POLLING: min	05 - 99 seconds		
AGR WAIT HIME: SEC	00 - 39 2600102		

Figure 7.1: Communications and Reporting Manager

, Ienu Items	Parameters / Description	Certification	Default
-REPORT SETTING			
ZONE RESTORE REP.	0-no report		6
AWAY ARM/DI REPORT	1-receiver 1	EN=1/5/6/7	6
STAY ARM/DI REPORT	2-receiver 2	EN=1/5/6/7	6
AC FAULT REP. REC.	3-receiver 3		6
AC FAULT REP. DOME	4-receiver 4		C
SYSTEM STATUS REP.	5-rec 1, 2, 3, 4	EN=1/5/6/7	6
SYS REP WITH DOME	6-rec 1 (2 3 4 b)		
	7 - rec = 1 + 3 + (2, 4, 4)		0
			0
MEDICAL AL. REPORT	9-rec 1 (2 b)		0
AUTOM. TEST REPORT	10-rec 3, 4	EN=1/5/6/7	6
	11-rec 3 (4 b)		
REPORT EXP. TIME:m	000 = No time limit 001 - 255 = 1 - 255 minutes	EN=0	C
RPT DEL. ENTRY T:s		SSI, EN=30	30
PANIC 2BUTTON AL	0-disabled		1
FIRE 2BUTTON AL	1-report		1
MEDICAL 2BUTTON AL	2-siren		1
	3-all		-
	5 all		
TEST REPORT DURAT.			
	0-disable	EN=1-8	8
	1-1 hour		
	2-2 hours		
	3-3 hours		
TEST DOT INTEDV. b			
IEST RETINIERV: II	E C hours		
	5-6 hours		
	6-8 hours		
	7-12 hours		
	8-24 hour		
TEST REPORT: hour	00 - 23 hours Others = Do not use real-time report		99
TEST REPORT: min	00 - 59 minutes Others = Do not use real-time report		99
DUAL IP	0-1 ip module 1-2 ip modules		1
	· · · · · · · · · · · · · · · · · · ·		
INPUT MODULE No	1 2		
	0-disable 1-enable		0
	O disable 1 enable		1
			1
IPV4 ADDRESS	0.0.0.0 - 200.200.200		
IPV4 SUBNET MASK	0.0.0.0 - 255.255.255.255		255.255.255.0
IPV4 DFLT GATEWAY	0.0.0.0 - 255.255.255.255		0
IPV4 DNS SERVER IP	0.0.0.0 - 255.255.255.255		0
	0000:0000:0000:0000:0000:0000:0000 -		
IPV6 DNS SERVER IP			0
	U-disable 1-enable		1
HTIP PORT NUMBER	1-65535		08000
ARP CA TIME(SEC)	1-600 (seconds)		600
WEB/USB ACCESS	0-disable 1-enable		0
WEB/USB PWD	4-10 ASCII printable characters in length		B42V2
FIRMWARE UPGRADE	0-disable 1-enable		0
MODULE HOSTNAME	Up to sixty-three characters (letters, numbers, and das)	nes)	
UNIT DESCRIP	Lin to twenty ASCII printable characters	100)	
	1.65535		07700
	0 6E (cocondo)		01100
			40
ALT IPV4 DNS SERVR	0.0.0.0 - 255.255.255.255		
	0000:0000:0000:0000:0000:0000:0000-		0
ALT IF VO DING SERVIN	FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF		
AES ENCRYPTION	0-disable 1-enable		0
AFS KEY SIZE	1-128 hits 2-192 hits 3-256 hits		1
	22 or 18 or 61 bevadecimals characters		LL
	SZ UI 40 UI 04 NEXAUECIMAIS CHARACTERS		
CLOUD CONNECTION	U-disable 1-enable		0
CONFIG B450 2	Only display for module 1, two options for this item:		
CONFIG D400 ("NO, RETURN", "YES, CONTINUE"		
SIM PIN	4-8 numbers		
	0-99 ASCII printable characters		
	0.99 ASCII printable characters		
NET. ALL. P PWD	U-35 ASUI printable characters		

Figure 7.2: Communications and Reporting Manager (continued)

Menu Items	Parameters / Description	Certification	Default
-REMOTE ACCESS			
REM. ACCESS ARMED	0-disable 1-enable		1
REMOTE PSTN ACCESS	0-disable 1-enable		1
REMOTE IP ACCESS	0-disable 1-enable		0
RPC ACCESS CODE			0000000000
RPC IP/ PORT/ POLL RPC IP ADDRESS RPC PORT 5 DIGIT! RPC POLL: 1-15h			15
-CALLBACK/ DOMESTIC			
- CALLBACK SETTING	0-disable 1-enable		0
CALLBACK/DOMEST No			
DOMESTIC CALL DOMESTIC No (1-4) CHANGE DOM PHO. No			
CALLBACK PHONE No			
- RING TIMES	 0 = The panel does not answer any incoming calls. 1 - 13 = Number of rings until the control panel answers. 14 = The control panel is called, the phone is allowed to ri only twice and hangs up. After 8 to 45 seconds the contro panel is called again and answers to the first ring. If the control panel is called before 8 seconds have passed, it does not answer the call. 15 = The control panel is called, the phone is allowed to ri only four times and hangs up. Within 45 seconds the contro panel is called again, it answers to the first ring and the connection is established. This prevents the answering machine or fax machine from answering the call. 	ng I ng rol	14
CLOUD STATUS MOD1 CLOUD STATUS MOD2 UID MOD1: UID MOD2:			

Figure 7.3: Communications and Reporting Manager (continued)

Menu Items	Parameters / Description	Certification	Default
2 CODE MANAGER			
USER CODE			
USER No.			
USER CODE PRIORITY	0-master 1 code		2580
	1-master 2 code		2581
	2-super code		
	3-basic code		
	4-arming code		
	5-duress code		
	6-not used		
USER CODE IN AREA			
USER MACRO AUTH.			
CHANGE USER CODE			
KEYFOB ID: MANUAL	press^ 3s for AUTO. 9 Digits	Deally has a second	
	press" 3s for MANUAL. Trigger device, RFIL	J will be entered	
KETFOB BUTTONS	0 pot used		
	2-stay arm		
INSTALLER CODE	2 Stay ann		1234
			1204
- <u>CODE LENGTH</u>			4
- TAMPER RESET USER	0-disable 1-enable		1
- ARM/DISARM INSTAL.	0-disable 1-enable		1
DATE/TIME MASTER U	0-disable 1-enable		1
FORCE CODE CHANGE	0-disable 1-enable	EN=0	0
			1
INPUT MACRO (1-3)			
LEVEL 1 ACCESS	0-disable 1-enable		0
REC T.OUT:1-80sec			60
PAUSE T:100ms 1-15			03
CODE INSIDE MACRO	0-disable 1-enable		1

Figure 7.4: Code Manager

enu Items	Parameters / Description	Certification	Default
ZONE MANAGER			
ADD/DELETE ZONES			
INPUT ZONE No.	0-on board zono		
ZONE MODULE SEL.	1-keynad zone		
	2-input mod. zone		
	3-RF all		
	4-RF RFGB glassb.		
	5-RF RFUN no magn		
ZONE FUNCTION	6-not used		
	00 = 7000 petused $01 = 16 = 4000$ 1 16		00
ZONE IN AREA	00 = 20 le not used $01 - 10 = Alea 1 - 10$		00
ZONE REID: MANUAL	press* 3s for AUTO, 9 Digits		
ZONE RFID: AUTO	press* 3s for MANUAL. Trigger device, RFID	will be entered	
ZONE TYPE	00-not used		
	01-instant		
	02-interior inst.		
	03-delay 1		
	04-interior del.1		
	05-delay 1 exit		
	Ub-Inter. del 1 e		
	07-delay 2 09 inter del 2		
	09-dolay 2 avit		
	10-inter del 2 e		
	11-follower		
	12-inter followe		
	13-24 hour		
	14-key away toggl		
	15-key away on/of		
	16-key stay toggl		
	17-key stay on/of		
	18-24 hour panic		
	19-24 hour fire		
	20-24 h fire veri		
	21-tamper		
	22-bolt contact		
	23-external fault		
	24-technical al.		
	25-reset		
FORCE ARM/BTPASS	1-force arm		
	2-hypass	EN=0/2	3
	3-all		
SILENT AL./CHIME	0-disabled		
	1-silent alarm	EN-0/2	0
	2-chime mode	LIN=0/2	0
	3-all		
ZONE PULSE COUNT	00 = disabled 01 - 09 Pulses	EN=0	0
ZONE LOCKOUT	u-uisabled 1-1 time al lock		
	2-2 time al. lock	EN-0	0
	2-5 time al lock	EINEU	0
	J-alarm duration		

Figure 7.5: Zone Manager

AMAX panel

Configuration | en 99

nu Items	Parameters / Description	Certification	Default
ZONE EOL	0-eol 2,2k		
	1-deol 2,2k/2,2k		
	2-reserve		1
	3-nc 4-no		
ZONE STATUS REPORT	0-no report		
	1-receiver 1		
	2-receiver 2		
	3-receiver 3		
	4-receiver 4		
	5-rec 1, 2, 3, 4		c
	6-rec 1 (2,3,4 b)	EIN=1/3/0/7	0
	7-rec 1,3 (2,4 b)		
	8-rec 1, 2		
	9-rec 1 (2 b)		
	10-rec 3. 4		
	11-rec 3 (4 b)		
UNVERE REP/CROS 7N	0-disabled		
	1-unverified alar	511.0	
	2-cross zone	EN=0	0
	3-all		
ZONE DOMESTIC CALL	0-no report		0
	1-destination 1		Ŭ
	2-destination 2		
	3-destination 3		
	4-destination 4		
	5-dest 1 2 3 4		
	6-dest 1 /2 3 4 h		
	7 - dest = 1 / 2 / 3 / 4 h		
	8-dest 1.2		
	9-dest 1 /2 h		
	10 -dest 3 1		
	11-dest 3 /4 h		
ZONE ALARM ON KP	0-disable 1-enable		0
TROUBLE DOM EN	0-disable 1-enable		1
DETECT. T. x100ms			3
PULSE COUNT DURAT.	000 = disabled 1 - 999 sec = Duration	EN=0	60
CROSS ZONE TIMER			60

Figure 7.6: Zone Manager (continued)

lenu Items	Parameters / Description	Certification	Default
KP/AREA MANAGER			
KEYPAD AREA			
INPUT KEYPAD No.			
KEYPAD IN AREA	01 - 16 00 = Master 99 = not used		
ENTRY/EXIT TIMING			
INPUT AREA No.			15
EXIL DELAY: Sec			45
ENTRY DELAY 1: Sec		EIN=45	30
	entry time(stay)		30
AUDIBLE: MUL SEL	exit time(stay)		yes ves
	ent time(sty) mst		Ves
	exit tim(sty) mst		Ves
	entry time(away)		ves
	exit time(away)		ves
	ent time(awy) mst		yes
	exit tim(awy) mst		yes
	00-pope		
	01-follow area 2		
	02-follow ar 2-3		
	03-follow at 2-4		
	04-follow at 2-5		
	05-follow ar 2-6		
	06-follow ar 2-7		
	07-follow ar 2-8		0
	08-follow ar 2-9		0
	09-follow ar 2-10		
	10-follow ar 2-11		
	11-follow ar 2-12		
	12-follow ar 2-13		
	13-follow ar 2-14		
	14-follow ar 2-15		
	15-follow ar 2-16		
- KEYPAD INDICATION			
KEYPAD ALARM TONE	0-disable 1-enable		1
ALARM INDIC ENABLE	0-disable		3
	1-stay arm	EN-0/1	-
	2-away arm	EIN-0/1	
	3-both arm		
BACKL. ON ENTRY T.	0-disable 1-enable		1
KP LED EXP.: sec	01-99 sec, 00=always on		0
MASTER KP LED ON	0-disable		
	1-1st area on		
	2-1st area flash		0
	3-all area on		2
	4-1St area on ex		
	6-all area on ov		
	Ordisable 1-epable		1
MASTER KP RESt sec	00-99 00=always		1 00
MAGIEN AF ALS. SEC	00 00, 00-aiwayo		00
-KEYPAD LOCKOUT		EN 40	
FOLLOW EN STANDARD	U-disable 1-enable	EN=1?	0
KEYPAD LOCK COUNT	U-15, ONLY VALID WHEN "FOLLOW EN STANDARD"	is disabled EN=10?	10

Figure 7.7: Keypad and Area Manager

Configuration | en 101

tems	Parameters / Description	Certification	Defaul
TEM MANAGER			
STEM SETTING 1			
CHANGE DATE / TIME			(
- 0-disable			
- 1-euro			
- 2-brazil			
- 3-mexico			
- 4-us nor mexico			
5-customize	permanent start/stop at 1 am		
START DST			
MONTH	1=January,2=February,3=March,4=April,5=May,6=June, uly 8=August 9=Sentember 10=October 11=November 12=D	7=J	
	mber		
ORDINAL	1=1st,2=2nd,3=3rd,4=4th,5=last		
WEEK DAY	1=Monday,2=Tuesday,3=Wednesday,4=Thursday,5=Fric	lay	
	6=Saturday,7=Sunday		
STOP DST			
	1=January,2=February,3=March,4=April,5=May,6=June,7	/=J	
MONTH	uly 8=August,9=September,10=October,11=November,12=D mber	ece	
ORDINAL	1=1st,2=2nd,3=3rd,4=4th,5=last		
WEEK DAY	1=Monday,2=Tuesday,3=Wednesday,4=Thursday,5=Fric 6=Saturday,7=Sunday	lay	
FAULT CONFIG			
FAULT SOUND REMIND	0-disable 1-enable 0-98 min 99=disable		1
DATE / TIME FAULT	0-disable 1-enable	EN=1	1
BATT. CHK INTERVAL	00 = disabled 01 - 15 minutes	EN=15	15
SIREN SUPERVISED	0-disabled	EN=1	0
	1-po-1 enabled 2-po-2 enabled 3-po-1+2 enabled	EN=3	C
QUICK ARM ONLY */#	0-disable 1-enable	EN=0	1
INSTALLER ACCESS	0-disable 1-enable		0
TEM SETTING 2			
	N-disable 1-enable	EN=0	1
	3 - 10 Record count of same event per armed period	EN=3-10	10
LANGUAGE VERSION	1-EN 6-PL 9TR 10HU 2-DE 4-FR 5-PT 7NL 1-EN 3-ES 6-PL 8SE 1-EN 3-ES 4-FR 5PT 11-IT 12-EL		
KP 2 BUTTON ALARM	0-disable 1-enable	EN=0	1
SYS TAMPER INDIC.			
SYS TAMP. ALL AR.	0 = area1 1 = all areas		
ENCL TAMP. BYPASS	0-015able 1-enable 1 - 9999 x100ms	EN=?	.9
AREA NAME			
INPUT AREA No. AREA NAME			
COMPANY NAME			
VOICE MEM. DEFAULT	DEFAULT VOICE YES DEFAULT VOICE NO		
STEM VIEW			
FAULT ANALYSIS			
FW VERSION			
TORY DEFAULT	DEFAULT PANEL YES		
	DEFAULT PANEL NO		
DEFAULT OPTION	0-disable 1-enable		1

Figure 7.8: System Manager

Menu Items	Parameters / Description	Certification	Default
6 OUTPUT MANAGER			
-OUTPUT SETTINGS			
ENTER OUTPUT No.			
	01-syst. disarmed 02-system armed 03-sys al audible 04-sys alarm all 05-ext.away siren 06-ext.stay siren 07-int. siren		
	09-entry/exit del 10-tel.line fault 11-mains fault 12-battery fault 13-tamper 14-ext. fault 15-all faults 16-fire alarm 17-fire reset 18-away armed		5
	10-stay armed 19-stay armed 20-reset 21-follow zn even 22-RF kf button 3 23-RF kf button 4 24-chime indic. 25-verified alarm 26-unverif. alarm 27-technic. alarm 27-technic. alarm 29-ready to arm 30-walk test 31-24 hour alarm 32-panic alarm 33-medical alarm 33-medical alarm 34-RF power fault 35-follow zone 36-schedule		5
OUTPUT AREA/ZONE 1	00 = all/any Area/s 01–16 Area 1-16		
OUTPUT MODE 1	0-continuous 1-pulse 2-continuous inv		
OUTPUT TIME 1: sec	Master Timer for Outputs		
OUTPUT EVENT TYPE2	see OUTPUT EVENT TYPE1		0
OUTPUT AREA/ZONE 2	00 = all/any Area/s 01–16 Area 1-16		0
OUTPUT MODE 2	0-continuous 1-pulse 2-continuous inv		0
OUTPUT TIME 2: sec	Master Timer for Outputs		0
OUTPUT EVENT TYPE3	see OUTPUT EVENT TYPE1		0
OUTPUT AREA/ZONE 3	00 = all/any Area/s 01-16 Area 1-16		0
OUTPUT MODE 3	0-continuous 1-pulse 2-continuous inv		0
OUTPUT TIME3: sec	Master Timer for Outputs		000
CIDEN TIME, min	Master Timer for Outputs		
SIREN HIME: MIN	Master Imerior Outputs		
	O-disable 1-enable		<u> </u>
	O-disable 1-enable		<u> </u>
JINEN UFF ANT NET			

Figure 7.9: Output Manager

Menu	Items	Parameters / Description	Certification	Default
7 RF	MANAGER			
-R	FSETTINGS			
	RF RECEIVER	0-disable 1-enable		0
	RF SUPERVISION	0-disable 1-20min 2-1h 2-2 Fb		4
		3-2,50 4-4h 5-12h 6-24h	EN=1	4
	RF JAM DETECT LEV.	00 - 15 00 = disable, 01 = most sensitive		12
	RF LOW BATT REPEAT	0-disabled 1-4h 2-24h		2
	SIREN BEEP ARM/DIS	0-disable 1-enable		1
	RF KEYFOB PANIC AL	0-no alarm 1-silent alarm 2-audible alarm		2
	RF ZN MISSING = AL	0-disable 1-enable	EN=0	1
L_R	F DEVICES / USER			
	RF REPEATER REPEATER No: 1-8 REPEATER ID: AUTO REPEATERID: MANUAL	press* 3s for AUTO. 9 Digits press* 3s for MANUAL. Trigger device, RFID will be entered		
	RF ZONE No:			
	RF REPEATER DIAGN. REPEATER No: 1-8			
	CLR ALL RF DEVICES	CLEAR CONFIRM CLEAR CANCEL		
Figur	e 7.10: RF Manager			
Menu	ltems	Parameters / Description	Certification	Default
8 ADI	DR./KEY PROGR.			
⊢A	ADDRESS PROGRAM For Addresses, refer to Installation Guide			

 COPY DATA TO PANEL
 copy data from blue programming key to Panel

 COPY DATA TO KEY
 copy data from Panel to blue programming key

Figure 7.11: Address and Key Programming

7.2.2 LED/LCD keypad programming

An LED/LCD keypad can be used to program the system but only works with address programming (please refer to *Address programming, page 108*) as the programming menu can not be displayed on the LED/LCD keypad. Therefore, it is recommended to use a text keypad or the PC software A-Link Plus for programming the system.

Accessing the programming menu

- 1. Confirm that the system is disarmed and that no alarm occurred.
- 2. Enter the installer code. The default setting for the installer code is 1234.
- 3. Enter [958] + press [#].
- ✓ The **STAY** and **AWAY** indicators flash to indicate the programming mode.

Navigation

Programming an option

- 1. Enter the required address and press [#].
- 2. Enter the desired data value and press [*] to confirm.
- 3. Press [#] to proceed to the next address or press [*] to get back to the previous address.
- 4. Repeat step 1 if you want to program multiple options.

Exiting the Programming Mode

It is optional to save or not to save the programming data.

1. Enter [960] and press [#] to save the data and to exit the programming mode.

2. Enter [959] and press [#] to exit programming mode without saving the data.

For LED/LCD keypads, the programming data is displayed by the number indicators, as described in the graphic below.

Programming Data Indicators

Data	Zone Inc	licators							
Value	1	2	3	4	5	6	7	8	Mains
0									
1	Х								
2		Х							
3			Х						
4				Х					
5					Х				
6						Х			
7							Х		
8								Х	
9	Х							Х	
10									Х
11	Х								Х
12		Х							Х
13			Х						Х
14				Х					Х
15					Х				Х



Notice!

When the programming data exceeds the display range of the LED/LCD number indicators, there will be no display on the keypad.

7.3 Communication with PC software

Communication with Bosch Software Packages

The AMAX system can communicate with the following software packages:

Remote programming software A-Link Plus

The AMAX system can be accessed and programmed via the remote programming software A-Link Plus. All control panel and status information are accessible and an operation of the AMAX panel from a remote location is possible.

A-Link Plus can connect to the AMAX panel via USB, IP or modem.

The AMAX panel supports remote programming via USB, telephone, or IP network using the remote programming software A-Link Plus. The following options can be performed:

- Setting the date and time
- Uploading / downloading programming parameters

- Remote arming / disarming of each area
- Enabling / disabling the alarm siren of each area
- Enabling / disabling each output
- Maintenance
- Domestic testing
- Communication testing
- Downloading voice files
- Viewing history events

A-Link Plus sensitive data protection

A-Link Plus has an export/import data function to export and import configuration data files.

Caution!

Sensitive data protection



Make sure that all exported configuration data files are handled with care and that no copies are made. While working with A-Link Plus, make sure that your computer is supervised or secured at all times. Give the exported configuration data files directly only to authorized persons. Make the authorized persons aware of the sensitivity of the exported configuration data files.

7.3.1 Prerequisites for connecting to A-Link Plus

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Notice!

This manual describes how to connect to A-Link Plus. Programming the AMAX panel via A-Link Plus is described in the A-Link Plus for AMAX Online Help.



Notice!

This manual describes the configuration with the A-Link Plus software in connection with the firmware version V 1.5 or higher. If you are using an older firmware version, refer to your local Bosch contact.

How to open A-Link Plus

- 1. Install A-Link Plus on your PC.
- Open A-Link Plus.
 The default values for both **Operator** and **Password** are "ADMIN".

How to prepare a connection

- Select Customer -> New Customer. The Customer Information tab opens.
- 2. Under Customer Number, enter a number.
- 3. Select the Control Panel Configuration tab.
- 4. Under Control Panel Series, select AMAX.
- 5. Under **Model**, select your panel model.
- Only for AMAX panels V1.4 and lower: Select Communication and Report manager -> Receiver setting.
- 7. Only for AMAX panels V1.4 and lower: In the column **Receiver 1** and the line **Subscriber Number**, enter the value that is currently programmed in your AMAX panel as receiver 1.
- 8. Select Communication and Report manager -> Remote Access -> Automation Pass code.
- 9. Enter the value that is currently programmed in your AMAX panel as RPS access code.
- 10. Select Code manager -> Installer code.
- 11. Enter the value that is currently programmed in your AMAX panel as installer code.

7.3.2 Direct connection

A direct connection is used to connect the AMAX panel to the PC via USB.

How to connect via USB

- 1. Plug one end of the USB cable into USB port of the AMAX panel mainboard and the other end into the USB port of your PC.
- 2. In A-Link Plus, select the **Link** tab.
- 3. Under Communication Model, select Direct Connect.
- 4. Click **Connect**.
- \checkmark The AMAX panel is now connected to the PC.

7.3.3 Modem connection

A modem connection is used to connect the AMAX panel to the PC through a telephone network.

The number of rings, the call back telephone number, and the telephone remote connection enabled function are set on the AMAX panel. For more information, refer to *Communication operations programming, page 117.*

How to connect via telephone network

Notice!

The first three steps are only necessary if you are not using the default modem string. Default modem string: "AT&CI&D2X0&Q0S7=255S9=0+MS=B103B17"

- 1. In A-Link Plus, select **File** -> **Communication Settings**.
- The **Communication Setting** dialog box opens.
- 2. Set the modem related parameters according to your telephone network.
- 3. Click Save.
- 4. Select the **Customer information** tab.
- 5. Under **Control Panel Phone Number**, enter the telephone number associated to the AMAX panel.
- 6. Select the **Link** tab.
- 7. Under Communication Model, select Modem Connect.
- 8. If you are using the default modem string, set a checkmark for **Using the default modem string.**
- For an automatic dialing connection, click Connect.
 For a manual dialing connection, click Wait for Incoming Call and on the AMAX panel keypad, enter the user code and press [5] [7] + [#].
- \checkmark The AMAX panel is now connected to the PC.

7.3.4 Network connection

A network connection is used to connect the AMAX panel to the PC through a IP network, either Cloud, TCP or UDP.

How to connect via IP network

- In A-Link Plus, select File -> Communication Settings. The Communication Setting dialog box opens.
- 2. Under Local IP Address, select your latest IP address.
- 3. Under Local Port, enter your correct port number.
- 4. Click Save.
- 5. Select the **Link** tab.

- 6. Under Communication Model, select Network Connect(Cloud), Network Connect(TCP/ IP SSL) or Network Connect(UDP).
- 7. Only for UDP and in case of a low transfer rate of the network, set a checkmark for **Specific network**.
- 8. Only for Cloud, select the **Customer Information** tab and enter the cloud ID. Select the **Link** tab.
- For an automatic network connection, click Connect.
 For a manual network connection, click Wait for Incoming Call and on the AMAX panel keypad, enter the user code and press [5] [7] + [#].
- \checkmark The AMAX panel is now connected to the PC.

8 Address programming

With a LED/LCD keypad it is mandatory to use address programming. With a text keypad both address programming and installer menu programming are possible. Programming with keypad is possible only when all of zones in the system are in disarmed status and no alarm is activated. The installer code is required for programming. The control panel programming options are stored in a non-volatile flash memory. This memory has all relevant configuration and user-specific data even after a total power loss. Because the data retention time is quite long without power, reprogramming is not required after powering up the control panel.

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Notice!

It is not recommended to use other keypads or methods simultaneously to program the system while programming with the current keypad.

The following chapters show an overview of all relevant programming options and their addresses according to the descriptions in the chapter *Settings, page 29*.

8.1 Service mode

Option	Address	Default	
Service mode expiration time (0 = disabled, 1 - 999 = enabled)	1702 - 1704	090	
Service mode report (0 = disabled, 1 = enabled)	1705	0	
Service mode alarm output (0 = disabled, 1 = enabled)	1706	0	
Service mode keypad buzzer (0 = disabled, 1 = enabled)	1707	0	

8.2 Communication and report programming

8.2.1 Receiver programming

The following table shows how to program the numbers, keys, and functions for a telephone number via address programming or via installer menu programming.

Digit required	Number to program via address programming	Button to press via installer menu programming
0 - 9	0 - 9	0 - 9
*	11	* 1
#	12	* 2
4 sec pause	13	* 3
Terminal	15	Not required

The following table shows how to program the numbers, keys, and functions for a subscriber ID number via address programming or via installer menu programming.

Digit required	Number to program via address programming	Button to press via installer menu programming
0 - 9	0 - 9	0 - 9
Digit required	Number to program via address programming	Button to press via installer menu programming
----------------	--	---
В	11	* 1
С	12	* 2
D	13	* 3
E	14	* 4
F	15	* 5

Receiver No.	Option	Address	Default
1	Transmission format for receiver (0 = not used, 1 = CID, 2= SIA, 3 = Conettix IP, 4 = SIA DC 09, 5 = SIA DC09 (2x ID))	0023	1
	Telephone number / IP address and port (0 - 9, 11 = *, 12 = #, 13 = pause, 15 = terminal)	0000 - 0016	15
	Subscriber ID number (0 - 9 = 0 - 9, 11=B, 12=C, 13=D, 14=E, 15=F)	0017 - 0022	000000
	Anti-replay for receiver (0 = disabled, 1 = enabled)	0024	1 ^{EN=1}
	Acknowledge wait time for receiver (05 - 99 seconds)	0025 - 0026	05
	Network polling time for receiver (001 - 999 minutes)	0027 - 0029	001
	DC09 data format (1 = ADM-CID, 2 = SIA- DCS)	0140	1
	DC09 acct1 length (3 - 16, all other input is treated as "3")	0141 - 0142	06
	DC09 acct1 (0 - 9 = 0 - 9, 10=A, 11=B, 12=C, 13=D, 14=E, 15=F)	0143 - 0158	000001 000000 0000
	DC09 acct2 length (3 - 16, all other input is treated as "3")	0159 - 0160	06
	DC09 acct2 (0 - 9 = 0 - 9, 10=A, 11=B, 12=C, 13=D, 14=E, 15=F)	0161 - 0176	000001 000000 0000
	DC09 Rrcvr enable (0 = disabled, other = enabled)	0177	0
	DC09 Rrcvr (0 - 9 = 0 - 9, 10=A, 11=B, 12=C, 13=D, 14=E, 15=F)	0178 - 183	000001
	DC09 Lpref (0 - 9 = 0 - 9, 10=A, 11=B, 12=C, 13=D, 14=E, 15=F)	0184 - 0189	000000

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-	DC09 encryption option (0=disable, 1=128 bits key, 2=192 bits key, 3=256 bits key)	0190	0	
	DC09 encryption key (0 - 9 = 0 - 9, 10=A, 11=B, 12=C, 13=D, 14=E, 15=F)	0191 - 0254	0	
	DC09 TCP/UDP selection (0=TCP, 1=UDP)	0255	0	
	Local time auto sync enable (0=disabled,1=enabled)	0256	0	
	Time zone offset Gmt index* (0=-12:00, 1=-11:00, 2=-10:00, 3=-9:00, 4=-8:00, 5=-7:00, 6=-6:00, 7=-5:00, 8=-4:30, 9=-4:00, 10=-3:30, 11=-3:00, 12=-2:00, 13=-1:00, 14=+0:00, 15= +1:00, 16=+2:00, 17=+3:00, 18=+3:30, 19= +4:00, 20=+4:30, 21=+5:00, 22=+5:30, 23= +5:45, 24=+6:00, 25=+6:30, 26=+7:00, 27= +8:00, 28=+8:30, 29=+9:00, 30=+9:30, 31= +10:00, 32=+11:00, 33=+12:00, 34=+13:00, 35=+14:00)	1708 - 1709	15	
	Transmission format for receiver	0053	1	
	Telephone number / IP address and port	0030 - 0046	15	
	Subscriber ID number	0047 - 0052	000000	
	Anti-replay for receiver	0054	1 ^{EN=1}	
	Acknowledge wait time for receiver	0055 - 0056	05	
	Network polling time for receiver	0057 - 0059	001	
	DC09 data format	0260	1	
	DC09 acct1 length	0261 - 0262	06	
	DC09 acct1	0263 - 0278	000002 000000 0000	
	DC09 acct2 length	0279 - 0280	06	
	DC09 acct2	0281 - 0296	000002 000000 0000	
	DC09 Rrcvr enable	0297	0	
	DC09 Rrcvr	0298 - 0303	000001	
	DC09 Lpref	0304 - 0309	000000	
	DC09 encryption option	0310	0	
	DC09 encryption key	0311 - 0374	0	
	DC09 TCP/UDP selection	0375	0	
	Local time auto sync enable	0376	0	

	Time zone offset Gmt index*	1708 - 1709	15
3	Transmission format for receiver	0083	1
	Telephone number / IP address and port	0060 - 0076	15
	Subscriber ID number	0077 - 0082	000000
	Anti-replay for receiver	0084	1 ^{EN=1}
	Acknowledge wait time for receiver	0085 - 086	05
	Network polling time for receiver	0087 - 089	001
	DC09 data format	0380	1
	DC09 acct1 length	0381 - 0383	06
	DC09 acct1	0383 - 0398	000003 000000 0000
	DC09 acct2 length	0399 - 0400	06
	DC09 acct2	0401 - 0416	000003 000000 0000
	DC09 Rrcvr enable	0417	0
	DC09 Rrcvr	0418 - 0423	000001
	DC09 Lpref	0424 - 0429	000000
	DC09 encryption option	0430	0
	DC09 encryption key	0431 - 0494	0
	DC09 TCP/UDP selection	0495	0
	Local time auto sync enable	0496	0
	Time zone offset Gmt index*	1708 - 1709	15
4	Transmission format for receiver	0113	1
	Telephone number / IP address and port	0090 - 0106	15
	Subscriber ID number	0107 - 0112	000000
	Anti-replay for receiver	0114	1 ^{EN=1}
	Acknowledge wait time for receiver	0115 - 0116	05
	Network polling time for receiver	0117 - 0119	001
	DC09 data format	0500	1
	DC09 acct1 length	0501 - 0502	06
	DC09 acct1	0503 - 0518	000004 000000 0000
	DC09 acct2 length	0519 - 0520	06

DC09 acct2	0521 - 0536	000004 000000 0000	
DC09 Rrcvr enable	0537	0	1
DC09 Rrcvr	0538 - 0543	000001	
DC09 Lpref	0544 - 0549	000000	
DC09 encryption option	0550	0	1
DC09 encryption key	0551 - 0614	0]
DC09 TCP/UDP selection	0615	0	
Local time auto sync enable	0616	0	
Time zone offset Gmt index*	1708 - 1709	15	1

* The address for setting the time zone is the same for all four receivers. Therefore, only one time zone can be set for all receivers.

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Notice!

Enter a telephone number when the Contact ID or SIA is selected. Enter an IP address and port number when the Conettix IP is selected. Anti-replay for receiver, acknowledge wait time for receiver, and network polling time for receiver are valid only when Conettix IP is used.

How to program an IP address and port

- 1. Program an IP address with 17 digits: digits 1 12 for the IP address and 13 17 for the port.
- 2. Use no punctuation in the IP address.
- 3. If any unit of the IP address has less than 3 digits, use 0 to fulfill the data in the higher bits.
- 4. The remaining 5 digits program the port. Port number ranges from 0-65535.
- 5. If a port number has less than 5 digits, use 0 to fulfill the data.

Example

To program the IP address "10.16.1.222:80", enter the following sequence into the correspondent address:
 [0 1 0 0 1 6 0 0 1 2 2 2 0 0 0 8 0]

8.2.2 Reports programming

System reports

Option	Address	Default
Zone status restore report	0120	6
AWAY arming / disarming report	0121	6 EN=1/5/6/7
STAY arming / disarming report	0122	6 EN=1/5/6/7
AC fault report by receiver	0138	6
AC fault report domestic	0137	0

System status report (zone fail, comm. fail, telephone line fail, AC fail, low battery and so on.)	0123	6 EN=1/5/6/7		
System status report with domestic	0139	0		
Keypad panic alarm report	0124	0		
Keypad fire alarm report	0125	0		
Keypad medical alarm report	0126	0		
Automatic test report	0127	6 EN=1/5/6/7		
0 = no report, 1 = receiver 1, 2 = receiver 2, 3 = receiver 3, 4 = receiver 4, 5 = receiver 1,2,3,4, 6 = receiver 1 (2,3,4 for backup), 7 = receiver 1 (2 for backup), receiver 3 (4 for backup), 8 = receiver 1,2, 9 = 1 (2 for backup), 10 = receiver 3,4, 11 = receiver 3 (4 for backup)				
Report delay entry time (00 - 99 = 0 - 99 sec.)	1669 - 1670	30		
Keypad 2 button alarm (0 = disabled, 1 = report, 2 = siren, 3 = both)	0992	1		



Notice!

When the transmission format for receiver in the receiver programming is set to 0 (not used), i.e. setting the report option as sending report to a receiver, then the AMAX panel will actually not send any report.

Automatic test report

Option	Address	Default	
Automatic test report time: interval (0 = disable, 1 = 1 hour, 2 = 2 hours, 3 = 3 hours, 4 = 4 hours, 5 = 6 hours, 6 = 8 hours, 7 = 12 hours, 8 = 24 hours)	0128	8 VDS-A, EN=1-8	
Automatic report time: hour (00 - 23 = 0 - 23 hours, others = do not use real-time report)	0130 - 0131	99	
Automatic report time: minute (00 - 59 = 0 - 59 minutes, others = do not use real-time report)	0132 - 0133	99	
Report expiry time (000 - 999 = 000 - 999 minutes)	0134 - 0136	000	

8.2.3 IP communicator programming

Module no.	Option	Address	Default
1	DHCP enable (0 = disabled, 1 = enabled)	50000	1
	IPv6 mode (0 = disabled, 1 = enabled)	50002	0

Module no.	Option	Address	Default
	IPv4 static address (0.0.0.0 - 255.255.255.255)	50004 - 50015	000000 000000
	IPv4 subnet mask (0.0.0.0 - 255.255.255.255)	50028 - 50039	255255 255000
	IPv4 default gateway (0.0.0.0 - 255.255.255.255)	50052 - 50063	000000 000000
	Primary DNS server IPv4 address (0.0.0.0 - 255.255.255.255)	50076 - 50087	000000
	Alternate DNS server IPv4 address (0.0.0.0 - 255.255.255.255)	50100 - 50111	000000 000000
	Primary DNS server IPv6 address (0000:0000:0000:0000:0000:0000:0000:0	50124 - 50155	000000 000000 00000
	FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF; Alternate DNS server IPv6 address(0000:0000:0000:0000:0000:0000:0000:0	50188 - 50219	000000 000000 00000
	Local port number (0 - 65535)	50252 - 50256	07700
	UPnP enable (0 = disabled, 1 = enabled)	50262	1
	Web port number (0 - 65535)	50264 - 50268	00080
	ARP cache timeout (1 – 600)	50274 - 50276	600
	Enable encryption (0 = disabled, 1 = enabled)	50284	0
	AES key size (1 = 128 bits, 2 = 192 bits, 3 = 256 bits)	50286	1
	AES key string (32 or 48 or 64 hexadecimals characters)	50292 - 50355	01-02-0 3-04-05- 06-07-0 8-09-10- 11-12-1 3-14-15- 16-01-0 2-03-04- 05-06-0 7-08-09- 10-11-1 2-13-14-

Module no.	Option	Address	Default
	Web/USB password (character range from 0x20 to 0x7f, if length is less than 20 it must end with 00)	50420 - 50439	423432 563200 00000
	Web/USB access enable (0 = disabled, 1 = enabled)	50460	0
	Firmware upgrade enable (0 = disabled, 1 = enabled)	50462	0
	Module hostname (A - Z, a - z, 0 - 9, it must end with 00)	50464 - 50591	000000 000000 00000
	Unit description (A - Z, a - z, 0 - 9, if length is less than 40 it must end with 00)	50720 - 50759	000000 000000 000000
	TCP keep alive time (0 - 65)	50800 - 50801	45
	Current SIM PIN (4-8 numbers, it must end with 00)	50804 - 50821	000000 000000 000000 000
	Primary network access point name (character range from 0x20 to 0x7f, it must end with 00)	50844 - 51043	000000 000000 000000 00000
	Primary network username (character range from 0x20 to 0x7f, it must end with 00)	51244 - 51305	000000 000000 000000
	Primary network password (character range from 0x20 to 0x7f, it must end with 00)	51500 - 51561	000000 000000 000000
	Cloud connection (0 = disabled, 1 = enabled)	51756	0
2	DHCP enable	50001	1
	IPv6 mode	50003	0
	IPv4 static address	50016 - 50027	000000
	IPv4 subnet mask	50040 - 50051	255255 255000

Module no.	Option	Address	Default
	IPv4 default gateway	50064 - 50075	000000 000000
	Primary DNS server IPv4 address	50088 – 50099	000000 000000
	Alternate DNS server IPv4 address	50112 - 50123	000000 000000
	Primary DNS server IPv6 address	50156 - 50187	000000 000000 00000
	Alternate DNS server IPv6 address	50220 - 50251	000000 000000 00000
	Local port number	50257 - 50261	07700
	UPnP enable	50263	1
	Web port number	50269 – 50273	00080
	ARP cache timeout	50279 – 50281	600
	Enable encryption	50285	0
	AES key size	50289	1
	AES key string	50356 – 50419	01-02-0 3-04-05- 06-07-0 8-09-10- 11-12-1 3-14-15- 16-01-0 2-03-04- 05-06-0 7-08-09- 10-11-1 2-13-14- 15-16
	Web/USB password	50440 – 50459	423432 563200 00000
	Web/USB access enable	50461	0
	Firmware upgrade enable	50463	0

Module no.	Option	Address	Default
	Module hostname	50592 - 50719	000000 000000 00000
	Unit description	50760 - 50799	000000 000000 000000
	TCP keep alive time	50802 - 50803	45
	Current SIM PIN	50824 – 50841	000000 000000 000000 000
	Primary network access point name	51044 – 51243	000000 000000 000000 00000
	Primary network username	51372 – 51436	000000 000000 000000
	Primary network password	51628 - 51692	000000 000000 000000
	Cloud connection (0 = disabled, 1 = enabled)	51757	0

8.2.4 Communication operations programming

Dual IP settings

Option	Address	Default	
Dual IP settings (0 = 1 IP module, 1 = 2 IP modules)	0990	0	

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Notice!

Dual IP settings are valid only when used in the Conettix IP format. This programming option is valid for B426-M modules.

Remote access to panel when panel Is armed

Option	Address	Default	
Remote access to panel when panel is armed (0 =	0929	1	
disabled, 1 = enabled)			Í

Remote PC setting

Option	Address	Default	
Remote PC IP address	0930 - 0941	15	
Remote PC port number	0942 - 0946	15	
AMAX panel DHCP update time (hours)	0947	15	
Remote programming (0 = disabled, 1 = enabled)	0970	1	

Call back setting

Option	Address	Default	
Call back setting (0 = disabled, 1 = enabled)	0972	0	
Call back telephone number (see <i>How to program a telephone number via address programming, page 29</i>)	0974 - 0989	15	

Domestic telephone number

Option	Address	Default			
Domestic telephone number 1	1496 - 1511	15			
Domestic telephone number 2	1512 - 1527	15			
Domestic telephone number 3	1528 - 1543	15			
Domestic telephone number 4	1544 - 1559	15			

See How to program a telephone number via address programming, page 29

Ring count

Option	Address	Default	
Ring count (0 = The panel does not answer any incoming calls. 1 - 13 = Number of rings until the control panel answers.	0973	14	
14 = The control panel is called, the phone is allowed to ring only twice and hangs up. After 8 seconds the control panel is called again and answers to the first ring.			
15 = The control panel is called and the phone is allowed to ring only four times.)			

8.3 User and code programming

8.3.1 User code programming

User no.	Option	Address	Default	
01 (master code 1)	Authority level (0 = master 1, 1 = master 2, 2 = super, 3 = general, 4 = arm only, 5 = duress, 6 - 15 = no authority)	5994	0	
Area selection (BIT mask: – Area 1 0000 0000 0000 0001 (0x0001) – Area 2 0000 0000 0000 0010 (0x0002)		5995 - 5998	0000	

	 Area 3 0000 0000 0000 0100 (0x0004) Area 4 0000 0000 0000 1000 (0x0008) Area 5 0000 0000 0001 0000 (0x0010) Area 6 0000 0000 010 0000 (0x0020) Area 7 0000 0000 1000 0000 (0x0040) Area 8 0000 0001 0000 0000 (0x0080) Area 9 0000 0010 0000 0000 (0x0100) Area 10 0000 0100 0000 0000 (0x0200) Area 11 0000 0100 0000 0000 (0x0400) Area 12 0000 1000 0000 0000 (0x0800) Area 13 0010 0000 0000 (0x1000) Area 14 0010 0000 0000 (0x4000) Area 15 0100 0000 0000 (0x4000) Area 16 1000 0000 0000 (0x800)) 			
	Macro play right (BIT mask: – Play macro 1 right 0001 (0x1) – Play macro 2 right 0010 (0x2) – Play macro 3 right 0100 (0x4))	5999	7	
	User code	6000 - 6005	258000	
	Keyfob RFID	6006 - 6014	15	
	Keyfob button 3 option (0 = not used, 1 = output control, 2 = STAY arm)	6015	0	
	reserved	6016		
02 (master	Authority level	6017	1	
code 2)	Area selection	6018 - 6021	0000	
	Macro play right	6022	7	
	User code	6023 - 6028	258100	
	Keyfob RFID	6029 - 6037	15	
	Keyfob button 3 option	6038	0	
	reserved	6039		
03 (as an	Authority level	6040	15	
example for	Area selection	6041 - 6044	0000	
the following	Macro play right	6045	0	
users 04 to	User code	6046 - 6051	15	
200)	Keyfob RFID	6052 - 6060	15	
	Keyfob button 3 option	6061	0	
	reserved	6062		

For the users 04 to 250 the same options as for user 03 can be programmed with the same number of addresses for each option:

_ Authority level: 1 address each

- Area selection: 4 addresses each
- Macro play right: 1 addresses each
- User code: 6 addresses each
- Keyfob RFID: 9 addresses each
- Keyfob button 3 option: 1 address each

The default values for user 04 to 250 are the same as the default values of user 03.

The following addresses are used for programming the users 04 to 250:

User no.	Address	User no.	Address	User no.	Address
04	6063 - 6085	37	6822 - 6844	70	7581 - 7603
05	6086 - 6108	38	6845 - 6867	71	7604 - 7626
06	6109 - 6131	39	6868 - 6889	72	7627 - 7649
07	6132 - 6154	40	6891 - 6913	73	7650 - 7672
08	6155 - 6177	41	6914 - 6936	74	7673 - 7695
09	6178 - 6200	42	6937 - 6959	75	7696 - 7718
10	6201 - 6223	43	6960 - 6982	76	7719 - 7741
11	6224 - 6246	44	6983 - 7005	77	7742 - 7764
12	6247 - 6269	45	7006 - 7028	78	7765 - 7787
13	6270 - 6292	46	7029 - 7051	79	7788 - 7810
14	6293 - 6315	47	7052 - 7074	80	7811 - 7833
15	6316 - 6338	48	7075 - 7097	81	7834 - 7856
16	6339 - 6361	49	7098 - 7120	82	7857 - 7879
17	6362 - 6384	50	7121 - 7143	83	7880 - 7902
18	6385 - 6407	51	7144 - 7166	84	7903 - 7925
19	6408 - 6430	52	7167 - 7189	85	7926 - 7948
20	6431 - 6453	53	7190 - 7212	86	7949 - 7971
21	6454 - 6476	54	7213 - 7235	87	7972 - 7994
22	6477 - 6499	55	7236 - 7258	88	7995 - 8017
23	6500 - 6522	56	7259 - 7281	89	8018 - 8040
24	6523 - 6545	57	7282 - 7304	90	8041 - 8063
25	6546 - 6568	58	7305 - 7327	91	8064 - 8086
26	6569 - 6591	59	7328 - 7350	92	8087 - 8109
27	6592 - 6614	60	7351 - 7373	93	8110 - 8132
28	6615 - 6637	61	7374 - 7396	94	8133 - 8155
29	6638 - 6660	62	7397 - 7419	95	8156 - 8178
30	6661 - 6683	63	7420 - 7442	96	8179 - 8201
31	6684 - 6706	64	7443 - 7465	97	8202 - 8224
32	6707 - 6729	65	7466 - 7488	98	8225 - 8247
33	6730 - 6752	66	7489 - 7511	99	8248 - 8270
34	6753 - 6775	67	7512 - 7534	100	8271 - 8293
35	6776 - 6798	68	7535 - 7557	101	8294 - 8316
36	6799 - 6821	69	7558 - 7580	102	8317 - 8339

User no.	Address	User no.	Address	User no.	Address
103	8340 - 8362	136	9099 - 9121	169	9858 - 9880
104	8363 - 8385	137	9122 - 9144	170	9881 - 9903
105	8386 - 8408	138	9145 - 9167	171	9904 - 9926
106	8409 - 8431	139	9168 - 9190	172	9927 - 9949
107	8432 - 8454	140	9191 - 9213	173	9950 - 9972
108	8455 - 8477	141	9214 - 9236	174	9973 - 9995
109	8478 - 8450	142	9237 - 9259	175	9996 - 10018
110	8501 - 8523	143	9260 - 9282	176	10019 - 10041
111	8524 - 8546	144	9283 - 9305	177	10042 - 10064
112	8547 - 8569	145	9306 - 9328	178	10065 - 10087
113	8570 - 8592	146	9329 - 9351	179	10088 - 10110
114	8593 - 8615	147	9352 - 9374	180	10111 - 10133
115	8616 - 8638	148	9375 - 9397	181	10134 - 10156
116	8639 - 8661	149	9398 - 9420	182	10157 - 10179
117	8662 - 8684	150	9421 - 9443	183	10180 - 10202
118	8685 - 8707	151	9444 - 9466	184	10203 - 10225
119	8708 - 8730	152	9467 - 9489	185	10226 - 10248
120	8731 - 8753	153	9490 - 9512	186	10249 - 10271
121	8754 - 8776	154	9513 - 9535	187	10272 - 10294
122	8777 - 8799	155	9536 - 9558	188	10295 - 10317
123	8800 - 8822	156	9559 - 9581	189	10318 - 10340
124	8823 - 8845	157	9582 - 9604	190	10341 - 10363
125	8846 - 8868	158	9605 - 9627	191	10364 - 10386
126	8869 - 8891	159	9628 - 9650	192	10387 - 10409
127	8892 - 8914	160	9651 - 9673	193	10410 - 10432
128	8915 - 8937	161	9674 - 9696	194	10433 - 10455
129	8938 - 8960	162	9697 - 9719	195	10456 - 10478
130	8961 - 8983	163	9720 - 9742	196	10479 - 10501
131	8984 - 9006	164	9743 - 9765	197	10502 - 10524
132	9007 - 9029	165	9766 - 9788	198	10525 - 10547
133	9030 - 9052	166	9789 - 9811	199	10548 - 10570
134	9053 - 9075	167	9812 - 9834	200	10571 - 10593
135	9076 - 9098	168	9835 - 9857	201	10594 - 10616

User no.	Address	User no.	Address	User no.	Address
202	10617 - 10639	219	11008 - 11030	236	11399 - 11421
203	10640 - 10662	220	11031 - 11053	237	11422 - 11444
204	10663 - 10685	221	11054 - 11076	238	11445 - 11467
205	10686 - 10708	222	11077 - 11099	239	11468 - 11490
206	10709 - 10731	223	11100 - 11122	240	11491 - 11513
207	10732 - 10754	224	11123 - 11145	241	11514 - 11536
208	10755 - 10777	225	11146 - 11168	242	11537 - 11559
209	10778 - 10780	226	11169 - 11191	243	11560 - 11582
210	10801 - 10823	227	11192 - 11214	244	11583 - 11605
211	10824 - 10846	228	11215 - 11237	245	11606 - 11628
212	10847 - 10869	229	11238 - 11260	246	11629 - 11651
213	10870 - 10892	230	11261 - 11283	247	11652 - 11674
214	10893 - 10915	231	11284 - 11306	248	11675 - 11697
215	10916 - 10938	232	11307 - 11329	249	11698 - 11720
216	10939 - 10961	233	11330 - 11352	250	11721 - 11743
217	10962 - 10984	234	11353 - 11375		
218	10985 - 11007	235	11376 - 11398		

8.3.2 Installer code programming

Option	Address	Default	
Installer code	1644 - 1649	123456	

8.3.3 Code length programming

Option	Address	Default	
Code length (4 - 6 = 4 - 6 digits, 15 = code is not used)	1643	4	

The code length is always the same for the user and for the installer code.

8.3.4 Code permission programming

Tamper reset by user

Option	Address	Default	
Tamper reset by User (0 = disabled, 1 = enabled)	1601	1	

Arm/disarm installer

Option	Address	Default	
Arm/disarm installer (0 = disabled, 1 = enabled)	1602	1	

Date / time master user

Option	Address	Default	
Date / time master user (0 = disabled, 1 = enabled)	1713	1	

8.3.5 Force code change

Option	Address	Default	
Force code change (0 = disabled, 1 = enabled)	1710	0	

8.3.6 Macro programming

Macro no.	Option	Address	Default
1	Level 1 access (quick play macro) (0 = disabled, 1 = enabled)	1616	0
	Macro recording timeout (seconds)	1617 - 1618	60
	Macro play pause time (unit: x100ms)	1619 - 1620	03
	Code inside macro* (0 = disabled, 1 = enabled)	1621	1
	Macro data length**	1622 - 1624	00
2	Level 1 access (quick play macro)	1625	0
	Macro recording timeout	1626 - 1627	60
	Macro play pause time	1628 - 1629	03
	Code inside macro*	1630	1
	Macro data length**	1631 - 1633	00
3	Level 1 access (quick play macro)	1634	0
	Macro recording timeout	1635 - 1636	60
	Macro play pause time	1637 - 1638	03
	Code inside macro*	1639	1
	Macro data length**	1640 - 1642	00

* This function is relevant only if the macro without code function is disabled.

** This function can not be changed via the programming menu, only via address programming or via A-Link Plus.

8.4 Zone programming

8.4.1 Add/delete zone programming

AMAX 4000 supports up to 64 zones, 16 keypads and 16 areas. AMAX 3000 / 3000 BE support up to 32 zones, 8 keypads and 8 areas. AMAX 2100 supports up to 8 zones, 4 keypads and 2 areas.

Zone Module Selection

Zone no. Ad	ddress Defau	t Zoi	ne no. Addres	s Default	
-------------	--------------	-------	---------------	-----------	--

01	1432	0	05	1436	0	
02	1433	0	06	1437	0	
03	1434	0	07	1438	0	
04	1435	0	08	1439	0	

Value range: 0 = onboard zone, 3 = RF all, 4 = RF RFGB glassbreak, 5 = RF RFUN no magnet, 15 = not used

Zone no.	Address	Default	Zone no.	Address	Default	
09	1440	0	13	1444	0	
10	1441	0	14	1445	0	
11	1442	0	15	1446	0	
12	1443	0	16	1447	0	

Value range: 0 = onboard zone (AMAX 4000), 2 = DX2010 zone, 3 = RF all, 4 = RF RFGB glassbreak, 5 = RF RFUN no magnet, 15 = not used

Zone no.	Address	Default	Zone no.	Address	Default	
17	1448	15	25	1456	15	
18	1449	15	26	1457	15	
19	1450	15	27	1458	15	
20	1451	15	28	1459	15	
21	1452	15	29	1460	15	
22	1453	15	30	1461	15	
23	1454	15	31	1462	15	
24	1455	15	32	1463	15	

Value range: 1 = Keypad zone (zones 17 to 32 are dedicated to keypad 1 to 16), 2 = DX2010 zone, 3 = RF all, 4 = RF RFGB glassbreak, 5 = RF RFUN no magnet, 15 = not used

Zone no.	Address	Default	Zone no.	Address	Default	
33	1464	0	49	1480	0	
34	1465	0	50	1481	0	
35	1466	0	51	1482	0	
36	1467	0	52	1483	0	
37	1468	0	53	1484	0	
38	1469	0	54	1485	0	
39	1470	0	55	1486	0	
40	1471	0	56	1487	0	
41	1472	0	57	1488	0	

42	1473	0	58	1489	0	
43	1474	0	59	1490	0	
44	1475	0	60	1491	0	
45	1476	0	61	1492	0	
46	1477	0	62	1493	0	
47	1478	0	63	1494	0	
48	1479	0	64	1495	0	
Value news		0 0		ala a a la 🖉		

Value range: 2 = DX2010 zone, 3 = RF all, 4 = RF RFGB glassbreak, 5 = RF RFUN no magnet, 15 = not used



Notice!

When a zone is assigned to an RF device (3), then the dedicated on-board zone is not available.

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Notice!

AMAX 2100 only: when keypad zones (1-4) are used, onboard zones (5-8) are disabled.



Notice!

Zones may be indicated on keypads with a number that differs from the zone number used for programming and hardware input: Zones are indicated on LED/LCD keypads according to the zone numbers. When one zone is disabled the indication number of all following (higher) zone numbers will shift to a value decreased by one.

Examples:

AMAX 3000 / 3000 BE / 4000:

In a one area or area 1 system keypad the zone number 17 is indicated on a 16 zone LED/LCD keypad. After disabling zone 16 (or another one in range 1 to 16), zone number 17 is indicated on the LED/LCD keypad as zone number 16.

AMAX 2100:

In a one area system keypad the zone number 17 is indicated on an 8 zone LED/LCD keypad. After disabling zone 5, zone number 17 is indicated on the LED/LCD keypad as zone number 5.

Zone no.	Address	Default	Zone no.	Address	Default	
01	1368	3	33	1400	0	
02	1369	1	34	1401	0	
03	1370	1	35	1402	0	
04	1371	1	36	1403	0	
05	1372	1	37	1404	0	

Zone function selection

06	1373	1	38	1405	0
07	1374	1	39	1406	0
08	1375	1	40	1407	0
09	1376	0	41	1408	0
10	1377	0	42	1409	0
11	1378	0	43	1410	0
12	1379	0	44	1411	0
13	1380	0	45	1412	0
14	1381	0	46	1413	0
15	1382	0	47	1414	0
16	1383	0	48	1415	0
17	1384	0	49	1416	0
18	1385	0	50	1417	0
19	1386	0	51	1418	0
20	1387	0	52	1419	0
21	1388	0	53	1420	0
22	1389	0	54	1421	0
23	1390	0	55	1422	0
24	1391	0	56	1423	0
25	1392	0	57	1424	0
26	1393	0	58	1425	0
27	1394	0	59	1426	0
28	1395	0	60	1427	0
29	1396	0	61	1428	0
30	1397	0	62	1429	0
31	1398	0	63	1430	0
32	1399	0	64	1431	0
Value range	e: 0 - 15				

For an explanation of the zone functions, refer to *Add / delete zone, page 55*.

Zone area selection

Zone no.	Address	Default	Zone no.	Address	Default	
01	1240 - 1241	01	33	1304 - 1305	0	
02	1242 - 1243	01	34	1306 - 1307	0	
03	1244 - 1245	01	35	1308 - 1309	0	

04	1246 - 1247	01	36	1310 - 1311	0	
05	1248 - 1249	01	37	1312 - 1313	0	
06	1250 - 1251	01	38	1314 - 1315	0	
07	1252 - 1253	01	39	1316 - 1317	0	
08	1254 - 1255	01	40	1318 - 1319	0	
09	1256 - 1257	01	41	1320 - 1321	0	
10	1258 - 1259	01	42	1322 - 1323	0	
11	1260 - 1261	01	43	1324 - 1325	0	
12	1262 - 1263	01	44	1326 - 1327	0	
13	1264 - 1265	01	45	1328 - 1329	0	
14	1266 - 1267	01	46	1330 - 1331	0	
15	1268 - 1269	01	47	1332 - 1333	0	
16	1270 - 1271	01	48	1334 - 1335	0	
17	1272 - 1273	0	49	1336 - 1337	0	
18	1274 - 1275	0	50	1338 - 1339	0	
19	1276 - 1277	0	51	1340 - 1341	0	
20	1278 - 1279	0	52	1342 - 1343	0	
21	1280 - 1281	0	53	1344 - 1345	0	
22	1282 - 1283	0	54	1346 - 1347	0	
23	1284 - 1285	0	55	1348 - 1349	0	
24	1286 - 1287	0	56	1350 - 1351	0	
25	1288 - 1289	0	57	1352 - 1353	0	
26	1290 - 1291	0	58	1354 - 1355	0	
27	1292 - 1293	0	59	1356 - 1357	0	
28	1294 - 1295	0	60	1358 - 1359	0	
29	1296 - 1297	0	61	1360 - 1361	0	
30	1298 - 1299	0	62	1362 - 1363	0	
31	1300 - 1301	0	63	1364 - 1365	0	
32	1302 - 1303	0	64	1366 - 1367	0	
Value range	e: 00 = zone not used	d, 1 - 16 = area	1 - 16			

Zone name programming

Zone no.	Address	Default	Zone no.	Address	Default	
1	2952 - 2987	0	33	4104 - 4139	0	

2	2988 - 3023	0	34	4140 - 4175	0	
3	3024 - 3059	0	35	4176 - 4211	0	
4	3060 - 3095	0	36	4212 - 4247	0	
5	3096 - 3131	0	37	4248 - 4283	0	
6	3132 - 3167	0	38	4284 - 4319	0	
7	3168 - 3203	0	39	4320 - 4355	0	
8	3204 - 3239	0	40	4356 - 4391	0	
9	3240 - 3275	0	41	4392 - 4427	0	
10	3276 - 3311	0	42	4428 - 4465	0	
11	3312 - 3347	0	43	4464 - 4499	0	
12	3348 - 3383	0	44	4500 - 4535	0	
13	3384 - 3419	0	45	4536 - 4571	0	
14	3420 - 3455	0	46	4572 - 4607	0	
15	3456 - 3491	0	47	4608 - 4643	0	
16	3492 - 3527	0	48	4644 - 4979	0	
17	3528 - 3563	0	49	4680 - 4715	0	
18	3564 - 3599	0	50	4716 - 4751	0	
19	3600 - 3635	0	51	4752 - 4787	0	
20	3636 - 3671	0	52	4788 - 4823	0	
21	3672 - 3707	0	53	4824 - 4859	0	
22	3708 - 3743	0	54	4860 - 4895	0	
23	3744 - 3779	0	55	4896 - 4931	0	
24	3780 - 3815	0	56	4932 - 4967	0	
25	3816 - 3851	0	57	4968 - 5003	0	
26	3852 - 3887	0	58	5004 - 5039	0	
27	3888 - 3923	0	59	5040 - 5075	0	
28	3924 - 3959	0	60	5076 - 5111	0	
29	3960 - 3995	0	61	5112 - 5147	0	
30	3996 - 4031	0	62	5148 - 5183	0	
31	4032 - 4067	0	63	5184 - 5219	0	
32	4068 - 4103	0	64	5220 - 5255	0	

How to insert alphabetical characters via address programming

- A character needs two values to provide input to two addresses.
- Determine these values using the matrix of table below.

- Every character in this table has a row index and also a column index.
- Row index is the first, and column index is the second value for each character.

Characters for Dutch, English, French, German, Hungarian, Italian, Polish, Portuguese, Spanish, Swedish, Turkish

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2		!	"	#	\$	%	&	T	()	*	+	-	,		/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	А	В	С	D	E	F	G	н	I	J	K	L	М	N	0
5	Р	Q	R	S	Т	U	V	W	Х	Y	Z	[١]	^	_
6	e	а	b	с	d	е	f	g	h	i	j	k	I	m	n	0
7	р	q	r	s	t	u	v	w	х	у	z	{		}	~	
8	đ	Ą	0	Ł	Ğ		Ć	Ś	Ű		Ş	i	Ź	Ę	ź	Ż
9	Ń	ń	Č	ł	ģ		ć	ś	ű	č	Ş	I	Ţ	ę	ţ	ż
10	á	0	¢	£	€	¥	Š	§	Š	©	а	«	-	-	8	-
11	o	±	2	3	Ž	μ	¶	•	ž	1	o	»	Œ	œ	Ÿ	ż
12	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	î	Ï
13	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
14	à	á	â	ã	ä	å	æ	Ç	è	é	ê	ë	ì	í	î	ï
15	ð	ñ	ò	ó	ô	ô	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ
Characters for Greek																
Chara	acters	TOP G	геек													
Chara	0	1	г еек 2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	0	1 !	2 "	3 #	4	5 %	6 &	7	8	9	10	11	12	13	. 14	15 /
2 3	0	1 ! 1	2 " 2	3 # 3	4 \$ 4	5 % 5	6 & 6	7''''''''''''''''''''''''''''''''''''''	8 (8	9) 9	10 * :	11 + ;	12 - <	13 , =	14 >	15 / ?
2 2 3 4	0 0 @	1 ! 1 A	2 " 2 B	3 # 3 C	4 \$ 4 D	5 % 5 E	6 & 6 F	7 ' 7 G	8 (8 H	9) 9 I	10 * : J	11 + ; K	12 - < L	13 , = M	14 > N	15 / ? O
2 3 4 5	0 0 0 @ P	1 ! 1 A Q	2 " 2 B R	3 # 3 C S	4 \$ 4 D T	5 % 5 E U	6 & 6 F V	7 ' 7 G W	8 (8 H X	9) 9 I Y	10 * : J Z	11 + ; K [12 - < L	13 , = M]	14 > N	15 / ? 0
2 3 4 5 6	0 0 @ P	1 ! 1 A Q a	2 " 2 B R b	3 # 3 C S c	4 \$ 4 D T d	5 % 5 E U	6 & 6 F V f	7 ' 7 G W g	8 (8 H X h	9) 9 I Y i	10 * J Z j	111 + ; K [k	12 - < L \ I	13 , = M] m	14 N ^ n	15 / ? O _ o
2 3 4 5 6 7	0 0 0 P r	1 ! 1 A Q a q	2 " 2 B R b r	3 # 3 C S c s	4 \$ 4 D T d t	5 % 5 U e u	6 & 6 F V f v	7 7 G W g w	8 (8 H X h x	9) 9 I Y i y	10 * J Z j z	11 + ; [k {	12 - < L \ I	13 , = M] m }	14 · > N ^ n ~	15 / ? O o
2 3 4 5 6 7 8	0 0 0 P r p	1 ! 1 A Q a q	2 " 2 B R b r	3 # 3 C S c s	4 \$ 4 D T d t	5 % 5 U e u	6 & 6 F V f v	7 7 G W g w	8 (8 H X h x	9) 9 I Y i y	10 * J Z j z	11 + ; K [k {	12 - - - - - - - - - - - - - - - - - - -	13 , = M] m }	14 · > N ^ n ~	15 / ? O - o
2 3 4 5 6 7 8 9	0 0 0 P r	1 ! 1 A Q a q	2 " 2 B R b r	3 # 3 C S C S s	4 \$ 4 D T d t	5 % 5 U e u	6 & 6 F V f v	7 7 G W g w	8 (8 H X h x	9) 9 I Y i y	10 * J Z j z	111 + ; K [k {	12 - - L \ 	13 , = M] m }	14 · N ^ N ^	15 / ? O - o
2 3 4 5 6 7 8 9 10	0 0 @ P , p	1 ! 1 A Q a q	2 " 2 B R b r	3 # 3 C S S c s	4 \$ 4 D T d t	5 % 5 U e u u	6 & F V f v	7 7 G W g w	8 (8 H X h x	9) 9 I Y i y ©	10 * J Z j z	111 + ; K [k { {	12 - - - - - - - - - - - - - - - - - - -	13 , = M] m }	14 N ^ n ~	15 / ? O - o
2 3 4 5 6 7 8 9 10 11	0 0 @ P 7 p	1 ! 1 A Q a q · ·	2 " 2 B R b r , ,	3 # 3 C S C S S S S S \$ \$	4 \$ 4 D T d t	5 % 5 U e u u	6 & F V f v	7 7 G W g w	8 (8 H X h x 	9) 9 I Y i y	10 * J Z j z	111 + ; K [k { { 	12 - - - - - - - - - - - - - - - - - - -	13 , = M] m }	14 · N ^ n ~ Y	15 / ? O - ο - Ο - Ο
Chara 2 3 4 5 6 7 8 9 10 11 12	0 0 0 P 7 p	1 ! 1 A Q a q	2 " 2 B R b r , , 2 B	3 # 3 C S C S S C S S & \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4 \$ 4 D T d t Δ	5 8 0 0 e u u 0 7 *	6 & F V f V :	7 7 G W g w w	8 (8 H X h x 	9) 9 I Y i y	10 * J Z j z	111 + ; K [k { { 	12 - - - - - - - - - - - - - - - - - - -	13 , = M] m }	14 · N ^ N ^ · · · · · ·	15 / ? Ο - ο - Ο - Ω Ο
Chara 2 3 4 5 6 7 8 9 10 11 12 13	о 0 0 Р , р Р , 1 П	1 1 A Q a q · · ± A P	2 " 2 B R b r , , 2 B	3 # 3 C S C S S C S S E 3 7 Γ Σ	4 \$ 4 D T d t Δ T	5 % 5 U e u u 	6 & F V f V	7 7 G W g w w	8 (8 Η X h x Ε Θ	9) 9 I Y i y	10 * J Z j z	111 + ; K [k { { 	12 - - - - - - - - - - - - - - - - - - -	13 , = M] m }	14 · N ^ N ^ · · · · · · · · ·	15 / ? O - ο Ω
2 3 4 5 6 7 8 9 10 11 12 13 14	о 0 0 0 Р , р 1 п ї П	1 ! 1 A Q a q q	2 " 2 B R b r , 2 B β	3 # 3 C S C S C S C S C S C S C T Σ Υ	4 \$ 4 D T d t Δ T δ	5 % 5 U e u U e U E Y e	6 & F V f V	7 7 G W g w g w 	8 (8 H X h x E O U	9) 9 I Y i y	10 * J Z j z К К	11 + ; K [k { { 	12 - - - - - - - - - - - - - - - - - - -	13 , = M] m }	14 · N ^ N ^ · · · · · · · · · · · · ·	15 / ? O - ο Ω Ο i ο

Example

A = 4 1, A = Address 3736 = 4, Address 3737 = 1 o = 6 15, k = 6 11

8.4.2 Zone function programming

Zone function	Option	Address	Default
00	Selection of a zone type (00 - 26)*	1000 - 1001	00
	Allow bypass/force arm (0 = disabled, 1 = allow force alarm, 2 = allow bypass, 3 = allow both)	1002	3 VDS-A EN=0/2
	Silent alarm/chime mode (0 = disabled, 1 = silent alarm, 2 = chime mode, 3 = both)	1003	O ^{VDS-A} EN=0/2
	Pulse count (0 = disabled, 1 - 9 = 1 - 9 times)	1004	0 VDS-A EN=0
	Zone lockout (0 = disabled, 1 = 1 time, 2 = 3 times, 3 = 6 times, 4 = alarm duration)	1005	3
	Zone DEOL (0 = EOL, 1 = DEOL, 2 = reserved, 3 = NC, 4 = NO) (3 and 4 are not applicable for wireless zones)	1006	1
	Report (1 = receiver 1, 2 = receiver 2, 3 = receiver 3, 4 = receiver 4, 5 = receiver 1, 2, 3, 4, 6 = receiver 1 (2, 3, 4 backup) 7 = receiver 1 (2 backup) and receiver 3 (4 backup) 8 = receiver 1, 2 9 = receiver 1, 2 9 = receiver 3, 4 11 = receiver 3 (4 backup))	1007	6 VDS-A EN=1/5/6/7
	Cross zone/unverified alarm (0 = disabled, 1 = unverified alarm, 2 = cross zone, 3 = both)	1008	0 VDS-A EN=0
	Zone domestic call (1 = dom. 1, 2 = dom. 2, 3 = dom. 3, 4 = dom. 4, 5 = dom. 1, 2, 3, 4, 6 = dom. 1 (2, 3, 4 backup) 7 = dom. 1 (2 backup) and dom. 3 (4 backup) 8 = dom. 1, 2 9 = dom. 1 (2 backup) 10 = dom. 3, 4 11 = dom. 3 (4 Backup))	1009	0
	Zone reaction time (unit: x100ms)	1010 - 1013	0003

	Trouble domestic (0 = disabled, 1 = enabled)	1014	1
	Zone alarm on keypad (0 = disabled, 1 = enabled)	1754	0
01 (as an	Selection of a zone type*	1015 - 1016	01
example for the following	Allow bypass/force arm	1017	3 VDS-A EN=0/2
02 to 15)	Silent alarm/chime mode	1018	O VDS-A EN=0/2
	Pulse count	1019	0 VDS-A EN=0
	Zone lockout	1020	3
	Zone DEOL	1021	1
	Report	1022	6 VDS-A EN=1/5/6/7
	Cross zone/unverified alarm	1023	0 VDS-A EN=0
	Zone domestic call	1024	0
	Zone reaction time	1025 - 1028	0003
	Trouble domestic	1029	1
	Zone alarm on keypad	1755	0

*For an explanation of the zone types, refer to Add / delete zone, page 55.

For the zone functions 02 to 15 the same options as for zone functions 01 can be programmed with the same number of addresses for each option:

- Selection of a zone type: 2 addresses each
- Allow bypass/force arm: 1 address each
- Silent alarm/chime mode: 1 address each
- Pulse count: 1 address each
- Zone lockout: 1 address each
- Zone DEOL: 1 address each
- Report: 1 address each
- Cross zone/unverified alarm: 1 address each
- Zone domestic call: 1 address each
- Zone reaction time: 4 addresses each
- Trouble domestic: 1 address each

The default values for zone functions 02 to 15 are the same as the default values of zone functions 01, except for the option "Selection of a zone type".

The following addresses are used for programming the zone functions 02 to 15:

Zone function	Option	Address	Default
02	Selection of a zone type*	1030 - 1031	02
	Allow bypass/force arm trouble domestic option as shown above	1031 - 104	3003160 00003
	Zone alarm on keypad	1756	0

03	Selection of a zone type*	1045 - 1046	03
	Allow bypass/force arm trouble domestic option as shown above	1047 - 1059	3003160 00003
	Zone alarm on keypad	1757	0
04	Selection of a zone type*	1060 - 1061	04
	Allow bypass/force arm trouble domestic option as shown above	1062 - 1074	3003160 00003
	Zone alarm on keypad	1758	0
05	Selection of a zone type*	1075 - 1076	05
	Allow bypass/force arm trouble domestic option as shown above	1077 - 1089	3003160 00003
	Zone alarm on keypad	1759	0
06	Selection of a zone type*	1090 - 1091	06
	Allow bypass/force arm trouble domestic option as shown above	1092 - 1104	3003160 00003
	Zone alarm on keypad	1760	0
07	Selection of a zone type*	1105 - 1106	07
	Allow bypass/force arm trouble domestic option as shown above	1107 - 1119	3003160 00003
	Zone alarm on keypad	1761	0
08	Selection of a zone type*	1120 - 1121	08
	Allow bypass/force arm trouble domestic option as shown above	1122 - 1134	3003160 00003
	Zone alarm on keypad	1762	0
09	Selection of a zone type*	1135 - 1136	09
	Allow bypass/force arm trouble domestic option as shown above	1137 - 1149	3003160 00003
	Zone alarm on keypad	1763	0
10	Selection of a zone type*	1150 - 1151	10
	Allow bypass/force arm trouble domestic option as shown above	1152 - 1164	3003160 00003
	Zone alarm on keypad	1764	0
11	Selection of a zone type*	1165 - 1166	11
	Allow bypass/force arm trouble domestic option as shown above	1167 - 1179	3003160 00003
	Zone alarm on keypad	1765	0
12	Selection of a zone type*	1180 - 1181	12

	Allow bypass/force arm trouble domestic option as shown above	1182 - 1194	3003160 00003
	Zone alarm on keypad	1766	0
13	Selection of a zone type*	1195 - 1196	13
	Allow bypass/force arm trouble domestic option as shown above	1197 - 1209	3003160 00003
	Zone alarm on keypad	1767	0
14	Selection of a zone type*	1210 - 1211	14
	Allow bypass/force arm trouble domestic option as shown above	1212 - 1224	3003160 00003
	Zone alarm on keypad	1768	0
15	Selection of a zone type*	1225 - 1226	15
	Allow bypass/force arm trouble domestic option as shown above	1227 - 1239	3003160 00003
	Zone alarm on keypad	1769	0

*For an explanation of the zone types, refer to *Add / delete zone, page 55*.

8.4.3 Pulse count duration programming

Option	Address	Default	
Pulse count duration (0 = disabled, 1 - 999 = 1 - 999	1606 - 1608	060 VDS-A	
seconds)		EN=000	

8.4.4 Zone cross timer programming

Option	Address	Default	
Zone cross timer (1 - 999 = 1 - 999 seconds)	1594 - 1596	060	

8.5 Keypad and area programming

8.5.1 Keypad area programming

Keypad no.	Address	Default	Keypad no.	Address	Default	
1	1560 - 1561	01	9	1576 - 1577	99	
2	1562 - 1563	99	10	1578 - 1579	99	
3	1564 - 1565	99	11	1580 - 1581	99	
4	1566 - 1567	99	12	1582 - 1583	99	
5	1568 - 1569	99	13	1584 - 1585	99	
6	1570 - 1571	99	14	1586 - 1587	99	
7	1572 - 1573	99	15	1588 - 1589	99	
8	1574 - 1575	99	16	1590 - 1591	99	

Value range: 00 = master keypad, 01 - 16 = area 01 - 16, 99 = not used

Notice!

The system supports up to 16 master keypads. When the master keypad is not switched to the corresponding area, no arming/disarming, bypass and alarm reset operations can be performed on the master keypad. Operations can only be performed in the area when the master keypad is switched to the corresponding area.

8.5.2 Area timing programming

Exit and entry delay time

Area	Exit Delay Address	Default	Entry Delay Address	Default	Entry Delay 2 Address	Default	
1	0785 - 0787	45	0788 - 0790	30	0791 - 0793	30	
2	0794 - 0796	45	0797 - 0799	30	0800 - 0802	30	
3 **	0803 - 0805	45	0806 - 0808	30	0809 - 0811	30	
4 **	0812 - 0814	45	0815 - 0817	30	0818 - 0820	30	
5 **	0821 - 0823	45	0824 - 0826	30	0827 - 0829	30	
6 **	0830 - 0832	45	0833 - 0835	30	0836 - 0838	30	
7 **	0839 - 0841	45	0842 - 0844	30	0845 - 0847	30	
8 **	0848 - 0850	45	0851 - 0853	30	0854 - 0856	30	
9 *	0857 - 0859	45	0860 - 0862	30	0863 - 0865	30	
10 *	0866 - 0868	45	0869 - 0871	30	0872 - 0874	30	
11 *	0875 - 0877	45	0878 - 0880	30	0881 - 0883	30	
12 *	0884 - 0886	45	0887 - 0889	30	0890 - 0892	30	
13 *	0893 - 0895	45	0896 - 0898	30	0899 - 0901	30	
14 *	0902 - 0904	45	0905 - 0907	30	0908 - 0910	30	
15 *	0911 - 0913	45	0914 - 0916	30	0917 - 0919	30	
16 *	0920 - 0922	45	0923 - 0925	30	0926 - 0928	30	
	000-999 secor	nds	000-999 seconds, EN=04 seconds		000-999 seco seconds	onds, EN=04	5

* AMAX 4000

** AMAX 3000 / 3000 BE / 4000

Entry and exit delay time audible

Option	Address	Default	
Area 1 (01 = entry time (STAY) for area keypad, 02 = exit time (STAY) for area keypad,	1714 - 1715	15	

 04 = entry time (STAY) for master keypad, 08 = exit time (STAY) for master keypad, 10 = entry time (AWAY) for area keypad, 20 = exit time (AWAY) for area keypad, 40 = entry time (AWAY) for master keypad, 80 = exit time (AWAY) for master keypad) 			
Area 2	1716 - 1717	15	
Area 3	1718 - 1719	15	
Area 4	1720 - 1721	15	
Area 5	1722 - 1723	15	
Area 6	1724 - 1725	15	
Area 7	1726 - 1727	15	
Area 8	1728 - 1729	15	
Area 9	1730 - 1731	15	
Area 10	1732 - 1733	15	
Area 11	1734 - 1735	15	
Area 12	1736 - 1737	15	
Area 13	1738 - 1739	15	
Area 14	1740 - 1741	15	
Area 15	1742 - 1743	15	
Area 16	1744 - 1745	15	

8.5.3

Common area programming

Option	Address	Default	
Common area	1593	0	
(00 = none,			
01 = follow area 2,			
02 = follow area 2 - 3,			
03 = follow area 2 - 4,			
04 = follow area 2 - 5,			
06 = follow area 2 - 7,			
07 = follow area 2 - 8,			
08 = follow area 2 - 9,			
09 = follow area 2 - 10,			
10 = follow area 2 - 11,			
11 = follow area 2 - 12,			
12 = follow area 2 - 13,			
13 = follow area 2 - 14,			
14 = follow area 2 - 15,			
15 = follow area 2 - 16)			



Notice!

In case of common area, area 1 will be the common area. When there is only one area in the system, the address for common area programming can only be programmed as 1.

8.5.4

Keypad indication programming

Option	Address	Default
Keypad alarm tone (0 = disabled, 1 = enabled)	0622	1
Alarm indication on keypads (0 = disabled, 1 = STAY armed enabled, 2 = AWAY armed enabled, 3 = both enabled)	1615	3
Backlight on entry time (0 = disabled, 1 = enabled)	1668	1
Keypad arm LED indication timeout (00 – 99, 00 = always on)	1682 - 1683	00
Master keypad LED on (0 = disabled, 1 = 1st area on, 2 = 1st area flash, 3 = all area on, 4 = 1st area on ex, 5 = 1st area flh ex, 6 = all area on ex)	1681	2
Master keypad alarm tone (0 = disabled, 1 = enabled)	1680	1
Master keypad back to master mode timeout (00 - 99, 00=never)	1700 - 1701	60

8.5.5 Keypad lockout programming

Option	Address	Default
Follow EN standard	1679	0
Keypad lockout (0 = disabled, 1 - 15 = 1 - 15 times)	1592	10 VDS-A EN=10

8.6 System programming

8.6.1 System setting programming

DST options programming

Option	Address	Default	
Auto daylight saving time option (00=disable auto DST, 01=Europe, 02=Brazil, 03=Mexico, 04=US and north Mexico, 05=customize DST settings)	1746 - 1747	00	
Customize start: month (1=January ,2=February, 3=March, 4=April, 5=May, 6=June, 7=July, 8=August, 9=September, 10=October, 11=November, 12=December)	1748	3	
Customize start: ordinal (week) (1=1st, 2=2nd, 3=3rd, 4=4th, 5=last)	1749	5	

Customize start: weekday (1=Monday, 2=Tuesday, 3=Wednesday, 4=Thursday, 5=Friday, 6=Saturday, 7=Sunday)	1750	7	
Customize stop: month (1=January ,2=February, 3=March, 4=April, 5=May, 6=June, 7=July, 8=August, 9=September, 10=October, 11=November, 12=December)	1751	10	
Customize stop: ordinal (week) (1=1st, 2=2nd, 3=3rd, 4=4th, 5=last)	1752	5	
Customize stop: weekday (1=Monday, 2=Tuesday, 3=Wednesday, 4=Thursday, 5=Friday, 6=Saturday, 7=Sunday)	1753	7	

Fault configuration programming

Option	Address	Default
AC fault report delay time (99 =disabled, 0 - 98 = 0 - 98 minutes)	1613 - 1614	60 ^{VDS-A} EN=00-60
Display and prompt tone of date and time fault (0 = disabled, 1= enabled)	0620	1
Fault prompt tone (0 = disabled, 1= enabled)	0621	1 VDS-A EN=1
Battery Check interval (0 =disabled, 1 - 15 = 1 - 15 minutes)	1612	15 ^{VDS-A} EN=15
Phone line monitor (0 = disabled, 1= enabled)	1599	0
Siren supervision (minutes)	0623 - 0624	00
Siren / PO1+2 Supervision (0 = disabled, 1 = OC1 monitor enabled, 2 = OC2 monitor enabled, 3 = enabled)	1598	0
AC fault auto reset (0 = disabled, 1= enabled)	1671	0
Communication fault auto reset (0 = disabled, 1= enabled)	1672	0
Phone fault auto reset (0 = disabled, 1= enabled)	1673	0
General fault auto reset (0 = disabled, 1= enabled)	1674	0

Quick arm programming

Option	Address	Default	
Quick arming (0 = disabled 1= enabled)	1597	1 VDS-A EN=0	

Installer access until next arming programming

Option	Address	Default	
--------	---------	---------	--

Installer access until next arming (0 = disabled, 1 =	1660	0	
enabled)			

Remote IP access programming

Option	Address	Default	
Remote IP access (0 = disabled, 1 = enabled)	0971	0	

Force arm when system is in trouble programming

Option	Address	Default	
Force arm when system is in trouble condition (0 = disabled, 1 = enabled)	1611	1	

Event record count per set/unset period programming

Option	Address	Default	
Event record count per set/unset period (3 - 10)	1609	10	

Language Version Programming

Option	Address	Default	
Language version of the keypad (0 = default, 1 = EN, 2 = DE, 3 = ES, 4 = FR, 5 = PT, 6 = PL, 7 = NL, 8 = SE, 9 = TR,	0996	0	
10 = HU, 11 = IT, 12 = EL)			

Keypad 2 button alarm

Option	Address	Default	
Keypad 2 button alarm (0 = disabled, 1 = enabled)	0992	1	
Keypad 2 button panic alarm (0 = disabled, 1 = report, 2 = siren, 3 = all)	0993	1	
Keypad 2 button fire alarm (0 = disabled, 1 = report, 2 = siren, 3 = all)	0994	1	
Keypad 2 button medical alarm (0 = disabled, 1 = report, 2 = siren, 3 = all)	0995	1	

System tamper indication

Option	Address	Default	
System tamper indication in area (0 = area 1, 1 = all areas)	1610	0	

Zone tamper bypass when DEOL zone is bypassed (0 = disabled, 1 = enabled)	1603	1	
Tamper debounce time (unit: x100s)	1675 - 1678	0003	

Area and company name programming

Option	Address	Default	
Area 1 name	2596 - 2615	0	
Area 2 name	2616 - 2635	0	
Area 3 name	2636 - 2655	0	
Area 4 name	2656 - 2675	0	
Area 5 name	2676 - 2695	0	
Area 6 name	2696 - 2715	0	
Area 7 name	2716 - 2735	0	
Area 8 name	2736 - 2755	0	
Area 9 name	2756 - 2775	0	
Area 10 name	2776 - 2795	0	
Area 11 name	2796 - 2815	0	
Area 12 name	2816 - 2835	0	
Area 13 name	2836 - 2855	0	
Area 14 name	2856 - 2875	0	
Area 15 name	2876 - 2895	0	
Area 16 name	2896 - 2915	0	
Company Name	2916 - 2951	0	

An area or company name may have up to 18 characters. Each character of the area or company name uses 2 addresses.

How to insert alphabetical characters via address programming

- A character needs two values to provide input to two addresses.
- Determine these values using the matrix of table below.
- Every character in this table has a row index and also a column index.
- Row index is the first, and column index is the second value for each character.

Characters for Dutch, English, French, German, Hungarian, Italian, Polish, Portuguese, Spanish, Swedish, Turkish

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2		!	"	#	\$	%	&	I	()	*	+	-	,		/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	А	В	С	D	E	F	G	Н	I	J	K	L	М	Ν	0

5	Р	Q	R	S	Т	U	V	W	Х	Y	Z	[\]	^	_
6	ę	а	b	с	d	е	f	g	h	i	j	k	I	m	n	о
7	р	q	r	s	t	u	v	w	х	у	z	{	I	}	~	
8	đ	Ą	0	Ł	Ğ		Ć	Ś	Ű		Ş	i	Ź	Ę	ź	Ż
9	Ń	ń	Č	ł	ģ		ć	ś	ű	č	Ş	I	Ţ	ę	ţ	ż
10	á	0	¢	£	€	¥	Š	§	Š	©	а	«	-	-	®	-
11	o	±	2	3	Ž	μ	۹	•	ž	1	o	»	Œ	œ	Ÿ	ż
12	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	ì	Í	Î	Ï
13	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
14	à	á	â	ã	ä	å	æ	Ç	è	é	ê	ë	ì	í	î	ï
15	ð	ñ	ò	ó	ô	ô	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ
Characters for Greek																
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2		!	п	#	\$	%	&	ı	()	*	+	-	,		/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	А	В	С	D	Е	F	G	Н	I	J	К	L	М	N	0
5	Ρ	Q	R	S	Т	U	V	W	Х	Y	Z	[١]	^	_
6	e	а	b	с	d	е	f	g	h	i	j	k	I	m	n	о
7	р	q	r	s	t	u	v	w	х	у	z	{		}	~	
8																
9																
10		•	,	£	€	0	ł	§		©	0	«	-	-		_
11	o	±	2	3	•	*1*	Ä	•	Έ	Ή	ï	»	0	1⁄2	'Y	Ω
12	ï	А	В	Г	Δ	E	Z	н	Θ	1	К	٨	М	N	Ξ	0
13	П	Р		Σ	Т	Y	Φ	Х	Ψ	Ω	Ï	Ÿ	à	ė	ή	i
14	ΰ	a	ß	γ	δ	e	ζ	η	θ	ι	к	λ	μ	v	ξ	o
15	Π	ρ	ς	σ	т	U	φ	Х	Ψ	ω	ï	Ü	ò	Ů	ம்	

Example

A = 4 1, A = Address 3736 = 4, Address 3737 = 1 o = 6 15, k = 6 11

8.6.2

System factory default programming

Factory default pads enable

Option	Address	Default	
Factory default pads (0 = disable, 1 = enabled)	1604	1	

8.7 Output and siren programming

8.7.1 Output programming

Output no.	Available for module	Available on panel
01 - 03	On-board output	AMAX 2100 / 3000 / 3000 BE / 4000
04	On-board output	AMAX 3000 BE / 4000
05 - 12	DX3010 module 1 output	AMAX 2100 / 3000 / 3000 BE / 4000
13 - 20	DX3010 module 2 output	AMAX 3000 / 3000 BE / 4000

Output no.	Option	Address	Default
01	Output event type 1 (00-36)*	0625 - 0626	05
	Output area/zone no. 1	0627 - 0628	00
	Output mode 1 (0 = continuous, 1 = pulse, 3 = continuous inverted)	0629	0
	Output time 1 (seconds)	0630 - 0632	180
	Output event type 2 (00-36)*	13164 - 13165	00
	Output area/zone no. 2	13166 - 13167	00
	Output mode 2 (0 = continuous, 1 = pulse, 3 = continuous inverted)	13168	0
	Output time 2 (seconds)	13169 - 13171	000
	Output event type 3 (00-36)*	13172 - 13173	00
	Output area/zone no. 3	13174 - 13175	00
	Output mode 3 (0 = continuous, 1 = pulse, 3 = continuous inverted)	13176	0
	Output time 3 (seconds)	13177 - 13179	000
02	Output event type 1	0633 - 0634	05
	Output area/zone no. 1	0635 - 0636	00
	Output mode 1	0637	0
	Output time 1	0638 - 0640	000
	Output event type 2	13180 - 13181	00
	Output area/zone no. 2	13182 - 13183	00
	Output mode 2	13184	0
	Output time 2	13185 - 13187	000
	Output event type 3	13188 - 13189	00
	Output area/zone no. 3	13190 - 13191	00
	Output mode 3	13192	0

	Output time 3	13193 - 13195	000
03	Output event type 1	0641 - 0642	05
	Output area/zone no. 1	0643 - 0644	00
	Output mode 1	0645	0
	Output time 1	0646 - 0648	180
	Output event type 2	13196 - 13197	00
	Output area/zone no. 2	13198 - 13199	00
	Output mode 2	13200	0
	Output time 2	13201 - 13203	000
	Output event type 3	13204 - 13205	00
	Output area/zone no. 3	13206 - 13207	00
	Output mode 3	13208	0
	Output time 3	13209 - 13211	000
04	Output event type 1	0649 - 0650	07
	Output area/zone no. 1	0651 - 0652	00
	Output mode 1	0653	0
	Output time 1	0654 - 0656	180
	Output event type 2	13212 - 13213	00
	Output area/zone no. 2	13214 - 13215	00
	Output mode 2	13216	0
	Output time 2	13217 - 13219	000
	Output event type 3	13220 - 13221	00
	Output area/zone no. 3	13222 - 13223	00
	Output mode 3	13224	0
	Output time 3	13225 - 13227	000
05 (as an	Output event type 1	0657 - 0658	00
example for the following	Output area/zone no. 1	0659 - 0660	00
outputs 06 to	Output mode 1	0661	0
20)	Output time 1	0662 - 0664	000
	Output event type 2	13228 - 13229	00
	Output area/zone no. 2	13230 - 13231	00
	Output mode 2	13232	0
	Output time 2	13233 - 13235	000
	Output event type 3	13236 - 13237	00

Output area/zone no. 3	13238 - 13239	00
Output mode 3	13240	0
Output time 3	13241 - 13243	000

* For an explanation of the output events, refer to , page 82 in chapter Outputs, page 81.

For the outputs 06 to 20 the same options as for output 05 can be programmed with the same number of addresses for each of the three output options.

- Output event: 2 addresses each
- Output area/zone no.: 2 addresses each
- Output mode: 1 address each
- Output time: 3 addresses each

The default values for outputs 06 to 20 are the same as the default values of output 05. The following addresses are used for programming the outputs 06 to 20 with three output event types each:

Output no.	Address	Output no.	Address	Output no.	Address
06	0665 - 0672	11	0705 - 0712	16	0745 - 0752
	13244 - 13251		13324 - 13331		13404 - 13411
	13252 - 13259		13332 - 13339		13412 - 13419
07	0673 - 0680	12	0713 - 0720	17	0753 - 0760
	13260 - 13267		13340 - 13347		13420 - 13427
	13268 - 13275		13348 - 13355		13428 - 13435
08	0681 - 0688	13	0721 - 0728	18	0761 - 0768
	13276 - 13283		13356 - 13363		13436 - 13443
	13284 - 13291		13364 - 13371		13444 - 13451
09	0689 - 0696	14	0729 - 0736	19	0769 - 0776
	13292 - 13299		13372 - 13379		13452 - 13459
	13300 - 13307		13380 - 13387		13460 - 13467
10	0697 - 0704	15	0737 - 0744	20	0777 - 0784
	13308 - 13315		13388 - 13395		13468 - 13475
	13316 - 13323		13396 - 13403		13476 - 13483

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Notice!

When the zone activating alarm is programmed as a silent alarm, keypad and audible alarm have no output.

8.7.2 Siren programming

Option

Address Default
Beep for warning devices (0 = disabled, 1 = enabled)	1600	1	
Internal siren beep as indication (0 = disabled, 1 = enabled)	1611	0	
Silence warning device when disarmed (0 = disabled, 1 = enabled)	1605	1	

8.8

RF device programming

RF Options

Option	Address	Default
Printer functionality (0 = disabled, 1= enabled)	0991	0
RF receiver functionality (0 = disabled, 1= enabled)	0948	0
RF supervision interval (0 = disabled, 1 = 20 min, 2 = 1h, 3 = 2h, 4 = 4h, 5 = 12 h, 6 = 24h)	0949	4 ^{EN=2}
RF jam detect level (00 - 15, 00 = disabled, 01 = most sensitive, 15 = least sensitive)	0950	12
RF device low level battery resound (0 = disabled, 1 = 4h, 2 = 24h)	0951	2
Siren beep arm/disarm (RF keyfob) (0 = disabled, 1= enabled)	0952	1
Keyfob panic option (0 = no alarm, 1 = silent alarm, 2 = sound alarm)	0953	0
RF missing as alarm (0 = disabled, 1= enabled)	0954	1

Wireless zone RFID

RFID for wireless zone no.	Address	Default (ten digits, 15 = not in use)	RFID for wireless zone no	Address	Default (ten digits, 15 = not in use)	
1	5256 - 5265	15	33	5576 - 5585	15	
2	5266 - 5275	15	34	5586 - 5595	15	
3	5276 - 5285	15	35	5596 - 5605	15	
4	5286 - 5295	15	36	5606 - 5615	15	
5	5296 - 5305	15	37	5616 - 5625	15	
6	5306 - 5315	15	38	5626 - 5635	15	
7	5316 - 5325	15	39	5636 - 5645	15	
8	5326 - 5335	15	40	5646 - 5655	15	
9	5336 - 5345	15	41	5656 - 5665	15	

10	5346 - 5355	15	42	5666 - 5675	15	
11	5356 - 5365	15	43	5676 - 5685	15	
12	5366 - 5375	15	44	5686 - 5695	15	
13	5376 - 5385	15	45	5696 - 5705	15	
14	5386 - 5395	15	46	5706 - 5715	15	
15	5396 - 5405	15	47	5716 - 5725	15	
16	5406 - 5415	15	48	5726 - 5735	15	
17	5416 - 5425	15	49	5736 - 5745	15	
18	5426 - 5435	15	50	5746 - 5755	15	
19	5436 - 5445	15	51	5756 - 5765	15	
20	5446 - 5455	15	52	5766 - 5775	15	
21	5456 - 5465	15	53	5776 - 5785	15	
22	5466 - 5475	15	54	5786 - 5795	15	
23	5476 - 5485	15	55	5796 - 5805	15	
24	5486 - 5495	15	56	5806 - 5815	15	
25	5496 - 5505	15	57	5816 - 5825	15	
26	5506 - 5515	15	58	5826 - 5835	15	
27	5516 - 5525	15	59	5836 - 5845	15	
28	5526 - 5535	15	60	5846 - 5855	15	
29	5536 - 5545	15	61	5856 - 5865	15	
30	5546 - 5555	15	62	5866 - 5875	15	
31	5556 - 5565	15	63	5876 - 5885	15	
32	5566 - 5575	15	64	5886 - 5895	15	

Wireless repeater RFID

RFID for wireless repeater no.	Address	Default (ten digits, 15 = not in use)	
1	5896 - 5905	15	
2	5906 - 5915	15	
3	5916 - 5925	15	
4	5926 - 5935	15	
5	5936 - 5945	15	
6	5946 - 5955	15	
7	5956 - 5965	15	

Address programming | en 147

8	5966 - 5975	15	

9

9.1

Troubleshooting

General trouble

Problem	Reason	Solution
No display on the keypad after power up	 AC power or battery fuse failure Abnormal RBGY wiring 	 Check if the AC power and battery fuses are properly connected and operate normally Reconnect RBGY
No response to the keypad operation (wrong tone sounds on pressing any key).	 Abnormal RBGY wiring The keypad is locked after many times of wrong passwords are entered Wrong jumper when multiple keypads are used 	 Reconnect RBGY Operate after 3 minutes Set the jumper again referring to the information on keypad address settings
Constant on of the zone indicator.	 Wrong zone wiring Abnormal detector function Zone EOL resistor is not correctly connected to the end of the detector 	 Enter zone wiring once again Reset the detector Correctly connect the zone EOL resistor to the end of the detector
Fault indicator constant on / flash	 Date and time fault displayed in programming although date and time are not set Backup battery is not connected or the voltage of the battery connected is lower than 12V Alarm siren is not connected The telephone number is incorrectly set Telephone network is not connected The tamper switch is not connected External module should be used for programming, but it not actually connected 	 Set date and time Connect the battery or resume the voltage of the battery to over 12V Connect the alarm siren (with the alarm siren substituted by a resistor of 1K) Correctly set the telephone number again Connect the telephone network Connect the tamper switch or the short circuit jumper Connect modules for programming such as DX2010, DX3010, B426- M
No response from the zone for a short time after power up	 To ensure normal operation, the system should be left alone for a minute after power up 	– Operate after 1 minute

AC power fault	– AC power fuse is burnt.	 Check if the 18V of the transformer is correctly wired and replace the fuse
Over current protection of the auxiliary power	 Abnormal wiring of the 12V auxiliary power The auxiliary power exceeds the power supply upper limit for the AMAX panel 	 Reconnect the auxiliary power Use external power supply for perimeter devices
The auxiliary power cannot be recovered after short circuit	 AC power and battery fail 	 Power up AC power and battery again
Failure of battery is still displayed after the battery is replaced	 The battery might be tested 4 hours after the system is armed each time The voltage of the battery is lower than 12V 	 The fault will be automatically cleared when the system is reset or the battery is re- tested Charge the new battery for a period of time until the voltage reaches 12V or above
Not entering programming mode after power up	 The system is in alarm state The system is in arming state 	 Reset the alarm Disarm the system and keep it in the disarming status
The red LED on the main board goes off	 Abnormal AC power and backup battery The main board fails 	 Check AC power and backup battery Replace the main board
The system does not dial when the alarm presents.	 Relevant receiver parameters are not set 	 Correctly set the telephone number, set transmission format to CID and set zone alarm to corresponding paths
Remote telephone arming fail	 The remote telephone arming is disabled (the address 0144 is set to 0) There are multiple areas in the system 	 Program the address 0144 to a number from 1 to 15 The telephone arming is available when the system has area 1 only
RPS cannot perform remote programming and control	 Both addresses 0144 and 0145 are set to 0 	 Program the address 0144 to a number from 1 to 15. Program the address 0145 to 1

Occasionally abnormal communication in use of Contact ID/personal telephone alarm	 Extension system is used in the telephone network The telephone network support ADSL as well 	 Add dial delay in programming Connect the system after the ADSL filter
No response from the keypad and the alarm siren (disabled) when an alarm is triggered by the zone	 The zone silent alarm is enabled 	 Disable the zone silent alarm
The AMAX panel cannot send any reports (programmed to send reports to receiver)	 The transmission format of the receiver is programmed to 0 = not used 	 Program the transmission format of the receiver to 1 or 3

9.2 Trouble fault inquiry

Fault Inquiry

Faults and tampers can be displayed via the fault analysis function. For more information refer to *System view, page 80.*

The following faults and tampers are possible:

Lit number indicators			Description of the fault or tamper
First	Second	Third	
1			Accessory module failure
1	1		Network/IP module 1 failure
1	1	1 - 2	Network/IP module 1 - 2 failure
1	2		Output expansion module failure
1	2	1 - 2	Output expansion module 1 – 2 fault
1	3		Input expansion module failure
1	3	1 - 6	Input expansion module 1 - 6 failure
1	4		Printer failure
1	4	2	Printer missing
1	4	3	Printer fault
1	5		RF receiver failure
1	5	1	RF receiver 1 fault
1	5	2	RF receiver 1 missing
1	5	3	RF receiver 1 jammed
1	6		RF sensor failure
1	6	1	RF sensor missing*
1	6	2	RF sensor fault*
1	7		RF repeater failure

1	7	1 - 8	RF repeater 1 – 8 missing
1	8		RF config failure
1	8	1	Configuration conflict sensors*
1	8	2	Configuration conflict repeaters*
1	8	3	Configuration conflict keyfobs*
2			Power failure
2	1		Panel AC failure
2	2		Panel low battery
2	3		Panel Aux power failure
2	3	1 - 2	Panel Aux power 1 – 2 fault
2	4		Bosch option bus power failure
2	4	1 - 2	Bosch option bus 1 – 2 power fault
2	5		RF repeater AC power failure
2	5	1 - 8	RF repeater 1 – 8 AC power fault
2	6		RF repeater battery failure
2	6	1 – 8	RF repeater 1 – 8 battery fault
2	7		RF sensor power failure*
2	8		RF keyfob battery failure*
3			Output failure
3	1		Onboard output 1 fault
3	2		Onboard output 2 fault
4			Keypad failure
4	1 - 16		Keypad 1 – 16 failure
5			System failure
5	1		Date time not set
6			Communication failure
6	1		Communication fault 1
6	2		Communication fault 2
6	3		Communication fault 3
6	4		Communication fault 4
6	5		Phone line fault
7			Tamper
7	1		System tamper
7	2		Keypad tamper

7	2	1 - 16	Keypad 1 - 16 tamper
7	3		Zone expansion module tamper
7	3	1-6	Zone expansion module 1 -6 tamper
7	4		Zone tamper DEOL
7	4	1 - 16	Sensor tamper DEOL
7	5		Zone type tamper
7	5	1 - 16	Zone type 1 – 16 tamper
7	6		Keypad Lock out
7	6	1	Keypad Lock out
7	7		RF receiver tamper
7	7	1	RF receiver tamper
7	8		RF repeater tamper
7	8	1 - 8	RF repeater tamper
8			External failure
8	1 - 16		External fault zone 1 - 16

Tab. 9.14: Types of fault or tamper conditions

* In case one or more faults occur in this category

Fault Description

- **1** Accessory Module Failure
- Output Expansion Module 1-2 Failure

Condition:

No communication with DX3010 if DX3010 is available. Restore:

• Restore the communication with DX3010 to a normal condition and reset the fault. For more information, refer to *DX3010, page 17*.

Supervise:

- 1. Report the DX3010 fault to configured destination on address 140 when the fault is detected.
 - Slow flash FAULT indicator (refer to Keypad indicators, page 8 for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off, when there is no other system fault.

Input Expansion Module 1-6 Failure

Condition:

No communication with DX2010 if DX2010 is available. Restore:

• Restore the communication with DX2010 to a normal condition and reset the fault. For more information, refer to *DX2010, page 15*.

Supervise:

1. Report the DX2010 fault to configured destination on address 140 when the fault is detected.

Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).

- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off, when there is no other system fault.

- Printer Failure

Printer Missing

Condition:

No communication with the printer available, if the printer is enabled. Restore:

• Restore the communication with the printer to a normal condition and reset the fault. Supervise:

- Report the printer missing fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off, when there is no other system fault.

Printer Fault

Condition:

The printer condition is abnormal (e.g. printer no paper/printer buffer is overflow/...) if printer is enabled.

Restore:

• Restore the printer to a normal condition and reset the fault.

Supervise:

- Report the printer error to configured destination when the fault is detected.
 Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off, when there is no other system fault.

- RF Receiver Failure

RF Receiver 1 Fault

Condition:

The receiver condition is abnormal (e.g. RF micro is removed/hold RF micro in reset/...) if a wireless module is enabled.

Restore:

• Restore the communication with the receiver to a normal condition and reset the fault. For more information, refer to *RF devices, page 89*.

Supervise:

- 1. Report the receiver fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- ✓ The FAULT indicator is turned off, when there is no other system fault.

RF Receiver 1 Missing

Condition:

- 1. No communication with receiver available if a wireless module is enabled.
- 2. A RF zone, repeater or keyfob is configured, but the wireless module is disabled. Restore:
- Restore the communication with the receiver to a normal condition, enable the wireless module and reset the fault. For more information, refer to *RF devices, page 89*.

Supervise:

- 1. Report the receiver missing fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

RF Receiver 1 Jammed

Condition:

A signal is disturbing the receiver if a wireless module is enabled. Restore:

• Remove the disturbing signal around the receiver, enable the wireless module and reset the fault. For more information, refer to *RF devices, page 89*.

Supervise:

- 1. Report the receiver jam fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

- RF Sensor Failure

RF Sensor Missing

Condition:

A wireless zone sends no status report to the receiver in the RF supervision interval if a wireless module is enabled.

Restore:

• Make sure that all wireless zones are sending status reports to the receiver in the RF supervision interval and reset the fault. For more information, refer to *RF devices, page 89*.

Supervise:

1. Report the wireless zone missing fault to configured destination when the fault is detected.

Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).

- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

RF Sensor Fault

Condition:

A wireless zone is in an abnormal condition (e.g. Remove the pyro from the smoke detector/...) and a wireless module is enabled.

Restore:

• Restore all wireless zones to a normal condition and reset the fault. For more information, refer to *RF devices, page 89.*

Supervise:

- 1. Report the wireless zone fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

- RF Repeater Failure

1-8 RF Repeater 1-8 Missing

Condition:

No status report is send to the receiver in the RF supervision interval if a wireless module is enabled.

Restore:

 Make sure that status reports are sent to the receiver in the RF supervision interval and reset the fault. For more information, refer to *RF devices, page 89*.

Supervise:

- Report the repeater missing fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

- RF Config Failure

Configuration Conflict Sensors

Condition:

A wireless zone configuration is in error condition.

Restore:

• Restore all wireless zones to a normal condition and reset the fault. For more information, refer to *RF devices, page 89*.

Supervise:

Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).

- Reset the fault.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

Configuration Conflict Repeaters

Condition:

A repeater configuration is in error condition.

Restore:

• Restore all repeaters to a normal condition and reset the fault. For more information, refer to *RF devices, page 89*.

Supervise:

Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).

- Reset the fault.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

Configuration Conflict Keyfobs

Condition:

A keyfob configuration is in error condition.

Restore:

• Restore all keyfobs to a normal condition and reset the fault. For more information, refer to *RF devices, page 89.*

Supervise:

Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).

- Reset the fault.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

2 - Power Failure

- Panel AC Failure

Condition:

- 1. AC supply deficiency caused by a transformer.
- 2. Power supply fuse is broken (230V).

3. Power supply is disconnected (230V).

Restore:

- 1. Reconnect the AC supply and reset the fault. For more information refer to *Installation, page 23.*
- 2. Monitor the voltage by MPU.

Supervise:

- If the AC supply is not restored one hour after the fault occurred, report the fault to configured destination on address 124.
 Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description). When the AC supply is reconnected, the MAINS indicator lights up (except in programming mode or in code functions mode).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

Battery Low Battery

Condition:

- 1. The battery voltage is lower than 11V+-1%.
- 2. No battery is connected.

Restore:

- 1. Connect a battery. For more information, refer to *Battery installation, page 24*.
- 2. Raise battery voltage to 12V+-1%, perform a dynamic battery test (time set in programming address 204) and reset the fault.

Supervise:

- 1. Set the system to perform a dynamic battery test on a regular basis (time set in programming address 204) and every time the system is armed or reset.
- 2. Report the low battery to the configured destination programmed on address 124. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 3. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

– Panel Aux Power 1-2 Failure

Condition:

The Aux power supply voltage is lower than 9V. Restore:

• Raise the voltage to 12V and reset the fault.

Supervise:

- 1. Monitor the voltage by MPU.
- 2. Report the AUX power fault to the configured destination programmed on address 124. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 3. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

- Bosch Option Bus Power 1-2 Failure

Condition:

Bosch option bus power supply voltage is lower than 9V+-5%. Restore:

• Raise the voltage to 12V and reset the fault. For more information refer to *Bosch option bus, page 13.*

Supervise:

- 1. Monitor the voltage by MPU.
- 2. Report the Bosch Option Bus Power Supply fault to the configured destination programmed on address 124.
 - Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 3. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

- RF Repeater 1-8 AC Power Failure

Condition:

- 1. AC power failure to the repeater.
- 2. The repeater is not wired correctly, if a wireless module is enabled.

Restore:

• Restore the repeater AC power and reset the fault.

Supervise:

- 1. Report the repeater AC power fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

- RF Repeater 1-8 Battery Failure

Condition:

The repeater is in a low battery condition if a wireless module is enabled. Restore:

• Restore the repeater battery and reset the fault. For more information refer to *RF devices, page 89.*

Supervise:

- 1. Report the repeater battery fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

- RF Sensor Power Failure

Condition:

The sensor is in a low battery condition if a wireless module is enabled. Restore:

• Restore the sensor battery and reset the fault. For more information refer to *RF devices, page 89.*

Supervise:

- 1. Report the sensor power fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

RF Keyfob Battery Failure

Condition:

The keyfob is in a low battery condition if a wireless module is enabled. Restore:

• Restore the keyfob battery and reset the fault. For more information refer to *RF devices, page 89.*

Supervise:

- 1. Report the keyfob battery fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

3-Output Failure

- Onboard Output 1-2 Fault

Condition:

An onboard output is in a short circuit or open circuit condition. Restore:

• Restore the onboard output to a normal condition and reset the fault. For more information refer to *Outputs, page 81*.

Supervise:

- 1. Report the onboard output 1-2 fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

4 -Keypad Failure

Keypad 1-16 failure

Condition:

No communication between the panel and a keypad. Restore:

• Restore the communication between the panel and the keypad and reset the fault. For more information refer to *Keypad area, page 72*.

Supervise:

- 1. Report the keypad fault to the configured destination programmed on address 124. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

5- System Failure

Date and Time not set

Condition:

Date and time is not set after the system is powered on. Restore:

• Program date and time and reset the fault. For more information refer to *System setting, page 76.*

Supervise:

- Report the date and time fault to the configured destination programmed on location 124.
- 2. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description)
- 3. No report to the AMAX panel system, when date and time setting is recorded in nonvolatile memory and AMAX Panel is reset. The FAULT indicator is turned off when there is no other system fault.

6 - Communication Failure

- Communication Fault 1 - 4

Condition:

The panel can not send the report to the destination 1 after four attempts. Restore:

Make sure that reports can be sent and reset the fault. For more information refer to *System setting, page 76.*

Supervise:

- Report the fault to configured destination on address 124 when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- ✓ The FAULT indicator is turned off when there is no other system fault.

7- Tamper

System Tamper

Condition:

Onboard panel tamper input is open.

Restore:

• Close the panel tamper input and reset the fault.

Supervise:

1. Report the tamper condition to configured destination on address 124 when the tamper condition is detected.

Slow flash FAULT indicator (refer to Keypad indicators, page 8 for a detailed description).

- 2. When the tamper condition is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

– Keypad 1-16 Tamper

Condition:

Keypad 1 is open and the tamper contact is triggered. Restore:

• Close the keypad and reset the tamper condition.

Supervise:

1. Report the tamper condition to configured destination on address 124 when the tamper condition is detected.

Slow flash FAULT indicator (refer to Keypad indicators, page 8 for a detailed description).

- 2. When the tamper condition is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

- Zone Expansion Module 1-6 Tamper

Condition:

A disassembly of DX2010 module 1, 2, 3, 4, 5, or 6 is detected and the occurrence of zone extension module 1, 2, 3, 4, 5 or 6 is considered as a tamper condition. Restore:

Restore the DX2010 module 1, 2, 3, 4, 5, or 6 to a normal condition and reset the fault.
 For more information, refer to *DX2010, page 15*.

Supervise:

- 1. Report the tamper condition to configured destination on address 0124 when the tamper condition is detected.
 - Slow flash FAULT indicator (refer to Keypad indicators, page 8 for a detailed description).
- 2. When the tamper condition is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

– Zone Tamper 1-16 DEOL

Condition:

Tamper contact is triggered (if the corresponding zone is programmed as DEOL). Restore:

• Restore the tamper contact and reset the tamper condition.

Supervise:

1. Report the sensor tamper to configured destination on address 124 when the sensor tamper is detected.

Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).

- 2. When the tamper condition is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

Zone type 1-16 Tamper

Condition:

Tamper contact (directly connected to the zone) is triggered (zone type = tamper). Restore:

• Restore the tamper contact and reset the tamper condition.

Supervise:

1. Report the tamper condition to configured destination on address 124 when the tamper condition is detected.

Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).

- 2. When the tamper condition is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

Keypad Lock out

Condition:

If the number of incorrect code entries reaches the specified limit (programmed in address 0499), the keypad locks.

Restore:

• Wait until the keypad lockout time (3min) expires and reset the fault. Supervise:

1. Report the keypad lock out to configured destination on address 124 when the keypad lock out is detected.

Slow flash FAULT indicator (refer to Keypad indicators, page 8 for a detailed description).

- 2. When the keypad lock out condition is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

- RF Receiver Tamper

Condition:

A receiver is in tamper condition (e.g. when someone removes the device from its base or pulls it out of the wall) if a wireless module is enabled. Restore:

• Restore the receiver and reset the tamper condition. For more information refer to *RF devices, page 89.*

Supervise:

- Report receiver tamper fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

- RF Repeater Tamper

Condition:

A repeater is in tamper condition (e.g. when someone removes the device from its base or pulls it out of the wall) if a wireless module is enabled. Restore:

• Restore the repeater and reset the tamper condition. For more information refer to *RF devices, page 89.*

Supervise:

- Report repeater tamper fault to configured destination when the fault is detected. Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).
- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

8 - External Failure

External Fault Zone 1-16

Condition:

A fault contact (direct connected to the zone) is triggered (zone type = external fault). Restore:

• Restore the fault contact and reset the fault.

Supervise:

1. Report the fault condition to configured destination on address 124 when the fault condition is detected.

Slow flash FAULT indicator (refer to *Keypad indicators, page 8* for a detailed description).

- 2. When the fault is reset, send the restored report to the configured destinations.
- \checkmark The FAULT indicator is turned off when there is no other system fault.

10 Maintenance



Caution! Maintenance

Damage or malfunction of the system is possible if it is not maintained on a regular basis.

- It is recommended to test the system once a week.
- Make sure to get the system maintained four times a year.
- Only qualified installers /service personnel are allowed to maintain this system.

10.1 Firmware upgrade with the ICP-EZRU2 upgrade key

Use the ICP-EZRU2 firmware upgrade key (green) to upgrade the firmware of the AMAX panel.

- 1. Power off the AMAX panel and remove the battery.
- 2. Unplug the USB cable, if plugged.
- 3. Connect the firmware upgrade key to the plug on top of the printed circuit board (PCB) of the AMAX panel. Make sure that the direction of the programming key is consistent with the direction marked on the PCB.
- Power up the AMAX panel.
 The LED of the firmware upgrade key flickers while the upgrade is sent to the AMAX panel. This takes about one minute. When upgrade is terminated, the LED blinks slowly.
- 5. Remove upgrade key.

11 Technical data

Electrical

	AMAX 2100	AMAX 3000	AMAX 3000 BE	AMAX 4000	
Power supply type	EN = A				
Panel PCB maximum quiescent current in mA	100				
Transformer	Transformer				
Transformer input in VAC	230				
Transformer output in VAC	18				
Transformer AC power in VA	20		50		
Transformer fuse in mA	500		1000		
AC input					
Minimum operating voltage in VDC	195				
Maximum operating voltage in VDC	253				
Line voltage frequency in Hz	50				
DC output	•				
DC output maximum current for all components in mA	1100		2000		
DC output maximum current for all components: dependency on battery	 Battery 7 550mA Battery 7 500mA (r 	Ah standby 12h Ah standby 36h echarge Batt 80	 (recharge Batt + 15min alarm 0% in 72h) = 15 Battery 1 12h (rech in 72h) = Battery 1 36h (rech in 24h) = Battery 1 36h + 15n current 1 (recharge 24h) = 40 	80% in 72h) = current 0mA 8 Ah standby arge Batt 80% 1500mA 8Ah standby arge Batt 80% 480mA 8Ah standby min alarm 000mA e Batt 80% in 00mA	
Aux 1 / 2 output					
Aux 1 / 2 output voltage	+12V / GND				
Aux 1 / 2 nominal output voltage under AC line input in VDC	13.8 (+3% / -5	5%)			

	AMAX 2100	AMAX 3000	AMAX 3000 BE	AMAX 4000	
Aux 1 / 2 output max. Vpp in mV	675				
Aux 1 / 2 output voltage range under AC line input in VDC	12.82 - 13.9		13.11 - 14.2		
Aux 1 / 2 output current in mA at 25°C	500		900		
Outputs	•				
PO -1 / PO -2 maximum supervised output current in mA	500				
PO -3 maximum current in mA	100				
PO +3 / PO +4 maximum current in mA (+12V)			750		
Watchdog PO -5 maximum current in mA			100		
Option bus	1				
Option bus nominal output voltage under AC line input in VDC	13.8 (+3% / -5%)				
Option bus output voltage range under AC line input in VDC	13.11 - 14.2				
Option bus 1 maximum current in mA at 25°C	500		900		
Option bus 2 maximum current in mA at 25°C			900		
Battery					
Battery type	12 V / 7 Ah Bosch D 126		12 V / 7Ah / 12 V / 18 Ah Bosch IPS-BAT12V-18AH		
Low battery condition in VDC	below 11.0				
Minimum battery condition in VDC	10.8				
Frequency bands of operation		Power level for radio equipment			
GSM900	Class 4 (2W)		GPRS Class 33		
GSM1800		Class 1 (1W) - GPRS Class 33			
UMTS2100		Class 3 (0.25W)			



Electrical: Keypads

	IUI-AMAX4- TEXT (LCD text keypad)	IUI-AMAX3- LED16 (16 zone LED keypad)	IUI-AMAX3- LED8 (8 zone LED keypad)	IUI-AMAX- LCD8 (8 zone LCD keypad)
Minimum operating voltage in VDC	10.8			
Maximum operating voltage in VDC	13.8 14.1			14.1
Standard current consumption in mA	31 7		75	
Maximum current consumption in mA	100 60		100	

Mechanical

	AMAX 2100	AMAX 3000	AMAX 3000 BE	AMAX 4000
Dimension in cm (H x W x D)	26.0 x 28.0 x 8.35		37.5 x 32.2 x 8.8	
Weight in g	1950		4700	
Panel features				
Number of zones	8	32		64
Number of on-board zones	8		16	
Number of users	64	128		250
Number of events	256 history events, stamped with time, and date 256 EN history events, stamped with time, and date 256 dialer history events, stamped with time, and date			
Pin code variations	1000000			
Number of devices				
Number of keypads	4 8 16		16	
Number of DX 2010 modules		3 6		6
Number of DX 3010 modules	1 2			
Number of GPRS modules: B450-M with B442 or B443	Up to 2 different GPRS modules, each GPRS module can only be connected once			
Number of IP modules: B426-M, B450-M	2 (1 if 1 of the GPRS modules above is connected, 0 if 2 of the GPRS modules above are connected)			
Number of RF receivers	- 1			
Number of RF repeaters	- DSRF = 0, RADION = 8			
Number of RF sensors	-	32		64
Number of RF keyfobs	-	DSRF = 24, RADION = 128		

	AMAX 2100	AMAX 3000	AMAX 3000 BE	AMAX 4000
Zones				
Zone 1	Single or dual end-of-line (EOL 2,2KΩ) NC, NO		2 wire fire zone, single, or dual end-of-line (EOL 2,2KΩ) NC, NO	
Zone 2 – 16 COM	7 single or dual end-of-line (EOL 2,2KΩ) NC, NO line (EOL 2,2KΩ) NC, NO		15 single or dual end-of- line (EOL 2,2KΩ) NC, NO	
Tamper	Enclosure tamper input (does not reduce point capacity)			
Option bus				
Dimensions in mm	4 wire, Ø 0.6 – 1.2			
Maximum cable length in m	200 (panel to last keypad)			
Maximum bus length in m	700 (maximum 14 devices, maximum 8 keypads)			

Environmental

	AMAX 2100	AMAX 3000	AMAX 3000 BE	AMAX 4000
Minimum operating temperature in °C	-10			
Maximum operating temperature in °C	55			
Minimum relative humidity in %	10			
Maximum relative humidity in %	95			
Protection class	IP 30, IK 06			

Certification

Europe	CE	EN 50130-4 (6/2011) EN 55022 (5/2008) EN 60950-1:2006 + A11:2009
	EN	EN 50131-3 grade 2 Environmental class II
Belgium	INCERT (only for AMAX 3000 BE)	B-509-0063
Germany	VDS	Home

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