



# AMAX panel 2000 / AMAX panel 2000 EN

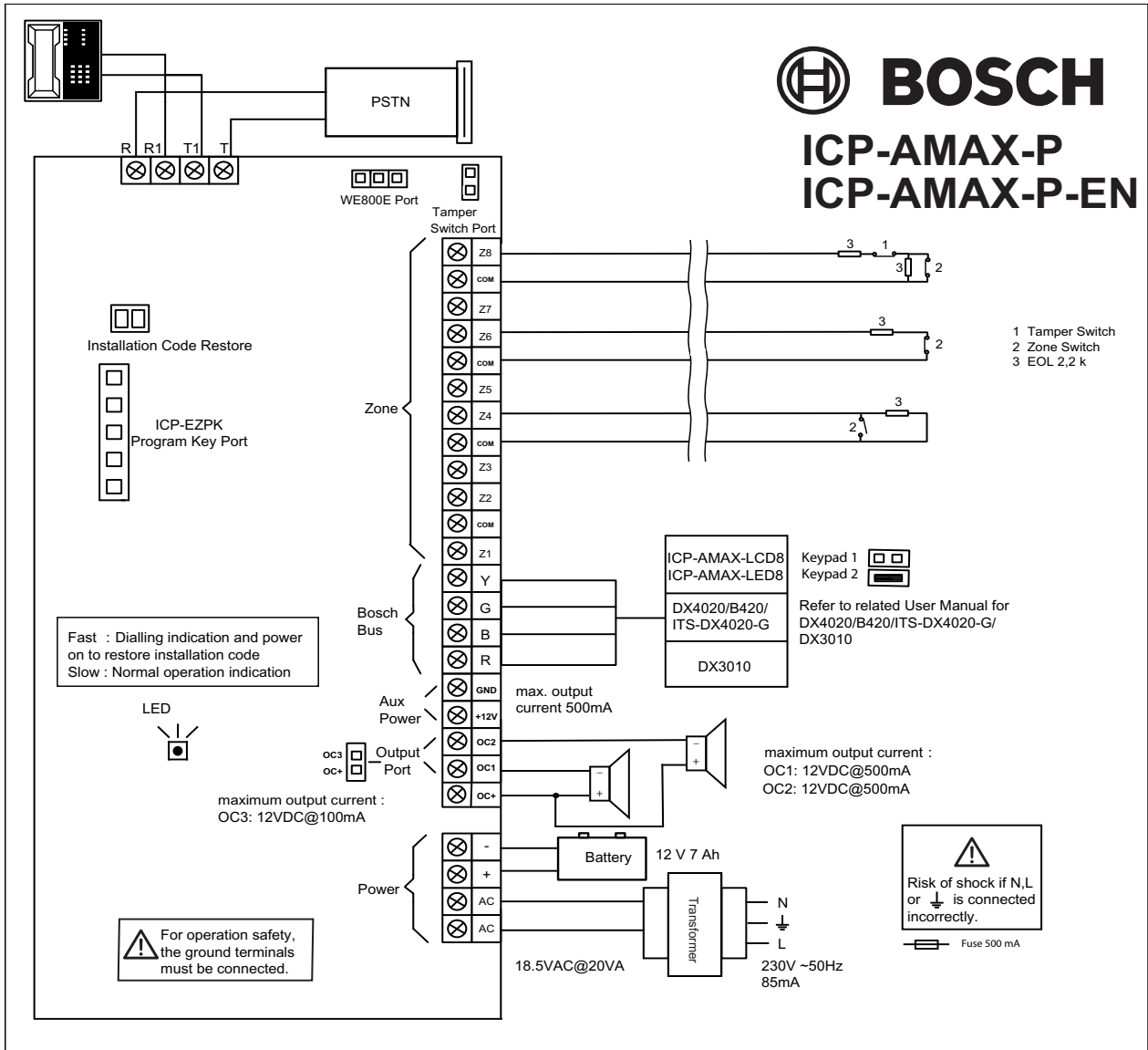
ICP-AMAX-P / ICP-AMAX-P-EN



**BOSCH**



# 1 Wiring Diagram



# Informations:

**Customer:**

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**Location:**

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**Account #:**

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**Installer:**

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**Date:**

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# Table of Contents

<b>1</b>	<b>Summary</b>	<b>7</b>
1.1	Short Information	7
1.2	Installation	7
1.3	Programming	7
1.4	Quick start	7
1.5	Programming with the AMAX Keypad 2000	8
1.6	Setting date and time	10
1.7	Default the control panel with the hardware	10
<b>2</b>	<b>User and Installer Code Functions</b>	<b>11</b>
<b>3</b>	<b>Fault and Tamper Description</b>	<b>12</b>
<b>4</b>	<b>Programming sheets</b>	<b>14</b>
4.1	Receiver programming	14
4.1.1	Receiver parameters	14
4.1.2	Domestic programming	15
4.2	System Report Options Programming	15
4.2.1	Report Options	15
4.2.2	Test Report Time Interval Setting	16
4.3	System Functions Programming	16
4.3.1	Ring Count	16
4.3.2	Remote Programming/Control	16
4.3.3	Call back Telephone Number	16
4.3.4	Exit Time	16
4.3.5	Entry Time	16
4.3.6	Keypad Lockout	17
4.3.7	Single Button STAY/AWAY ARM	17
4.3.8	Remote Arm by Software/Telephone	17
4.3.9	Arm by Keyfob	17
4.3.10	Force Arm as system is in trouble	17
4.3.11	Quick Emergency Alarm	17
4.3.12	Event Recall	17
4.3.13	OC1/Warning Device 1 Monitor	17
4.3.14	OC2/Warning Device 2 Monitor	17
4.3.15	Phone line Monitor	17
4.3.16	AC Fault Detect time	18
4.3.17	Battery Detect time	18
4.3.18	Event Record Count Per Set/Unset Period	18
4.3.19	Beep for Warning Devices	18
4.4	Zone Programming	18
4.5	Output Programming	21
4.5.1	Keypad Buzzer	21
4.5.2	Warning Device 1/ OC1 Output	21
4.5.3	Warning Device 2 / OC2 Output	21
4.5.4	Optional Relay Output / OC3	21

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4.5.5	DX3010 Output	21
4.6	Installer/User Code Programming	23
4.6.1	Installer code #0	23
4.6.2	User Codes	24
<hr/>		
<b>5</b>	<b>Specification</b>	<b>25</b>
<hr/>		
<b>6</b>	<b>Troubleshooting</b>	<b>27</b>

# 1 Summary

## 1.1 Short Information

Thank you for choosing the AMAX panel 2000 / AMAX panel 2000 EN control panel. This is a flexible, reliable, convenient, and easy-to-use alarm system. This Quick reference guide is provided with the system to give basic information about the basic system wiring, components, and programming. As the system includes a large number of programmable functions and options, we suggest reading the complete installation manual. The manual introduces the system options, functions, and programming methods in detail.

## 1.2 Installation

**This system must be installed by a qualified installer (please refer to installation manual).**

During installation and wiring, the control panel power source must be switched-off to prevent equipment damage. After the control panel wiring is completed, connect the AC power and backup batteries. The power light on the keyboard will flash to show that the AC power is connected.

## 1.3 Programming

The control panel programming options are stored in a non-volatile flash memory. This memory has all relevant configurations 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.

You can change data as many times as required without any additional specialized equipment. The memory is organized in locations, each of which holds the data for a specific function.



### **NOTICE!**

0 is the minimum value and 15 is the maximum value that can be programmed into any location.

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In general, the entire programming sequence consists of selecting the required location and entering or changing the current data. Repeat this procedure until you program all the required data.

The installer code turns active only when it's enabled by a user. You cannot enter installer's programming mode if the system is armed, or during siren run time.

You can program the AMAX panel 2000 / AMAX panel 2000 EN using any of these three devices:

- Keypads
- A - Link - Plus Upload/download software
- CP-EZPK Programming key

## 1.4 Quick start

The following steps allow you to use the AMAX panel 2000/AMAX panel 2000 EN with factory default values. To become familiar with programming AMAX panel 2000/AMAX panel 2000 EN, read the information in *Section 1.3 Programming, page 7*.

1. Connect auxiliary equipment.

2. After all wiring is complete, connect the AC plug pack and backup battery to the control panel. The **MAINS** indicator lights signify AC mains supply is connected.  
If any zone is unsealed when you power up the system, the corresponding zone indicator is lit constantly.  
Once you power up the panel, Date and Time has to be set.  
All Faults and Tamper conditions have to be reset.
3. Enter the default user code (2580) + (98) and press [#] to enable the installer's access.
4. Enter Date and Time. Refer to *Section 1.6 Setting date and time, page 10*.
5. Enter the default Installer Code (1234) + (958) and press [#]. Two beeps sound and the **STAY** and **AWAY** indicators flash simultaneously to indicate that you have entered into installer's programming mode. Once you enter the installer's programming mode, you are automatically positioned at location 000, the first digit of IP address / Primary telephone number for Receiver 1.
6. Enter the IP address/Primary telephone number for Receiver 1 and then the port.  
Programming a 15 in the telephone number indicates the end of the dialing sequence.
7. Program any other required changes. Otherwise, factory default settings are used.
8. Enter command [9 6 0] and press [#] to store the programming data and exit from installer's programming mode, a beep sounds and the **STAY** and **AWAY** indicators are deactivated. The system is returned to the disarmed state and is ready for use.
9. Enter the default user code (2580) and (6) and press [#] to reset the panel.

## 1.5

### Programming with the AMAX Keypad 2000

To program the control panel using the keypad, the system must be disarmed with no alarm memory present and installer access must be enabled.

**To access installer's programming mode:**

Enter the four-digit installer code (the factory default is 1234) + (958) and press [#] .

Two beeps sound and the **STAY** and the **AWAY** indicators flash simultaneously to indicate that you have entered into installer's programming mode.

Once you enter into installer's programming mode, you are automatically positioned at location 000, the first digit of the IP Address/ primary telephone number for receiver 1. The keypad indicators display the current data stored in this location.



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

**Table 1.1** Keypad Indicators

**To move to a different programming location:**

Enter the location number and press [#] .

For example, press [1 7][#] to automatically position you at the beginning of the subscriber ID number 17 for receiver 1. The data stored in the new location appears.

**To move to the next location:**

Press [#] .

For example, if you are currently positioned at location 017, press [#] to move to location 018.

**To move to the previous location:**

Press [\*] .

For example, if you are positioned at location 018, press [\*] to move back to Location 017.

**To change data in the current location:**

Enter the new value (0 - 15) and press [\*] .

The data is stored and you remain positioned at the same location. The keypad indicators display the new value (for example, if you enter [1 4] and press [\*] , the zone 4 and **MAINS** indicators are lit).

**To exit from installer's programming mode + save data:**

Enter command [9 6 0] and press [#].

Two beeps sound and the **STAY** and **AWAY** indicators are deactivated. The system returns to the disarmed state and is now ready for use.



**NOTICE!**

Enter command [9 5 9] [#] to exit if the setting does not need to be saved.

## 1.6 Setting date and time

This function allows the installer code holder to set or view the date and time

1. Enter your installer code +955 and press [#]. Two beeps sound, the **STAY** and **AWAY** indicators flash and date + time is shown in the format YYMMDD HHMM.
2. Enter the year, month, day, hour and minute in YY, MM, DD, HH, MM format and press [#]. Use 24:00 hour format when programming the hour of the day. Beep sound and the **STAY** and **AWAY** indicators are deactivated. If a long beep sounds, it indicates an erroneous entry of date and time.
3. If operation is not carried out within 240 seconds after entering the date and time setting interface, the system will automatically exit from the setting.

Example

To set the date and time for the 25th of December 2010 at 10:30PM, enter:

[Installer code + 955][#] break until time is shown [1 0 1 2 2 5 2 2 3 0][#]

## 1.7 Default the control panel with the hardware

If the installer code is lost, the default pads on PCB is used to default the control panel.

1. Disconnect the AC MAINS supply and the backup battery from the control panel.
2. Short the default pads. The default pads is located on the right top of the PCB next to the PROGRAMMING KEY socket.
3. Reconnect the power supply to the control panel.
4. If the LED on the control panel PCB fast flash, release the default pads at once.
5. The control panel is successfully defaulted to the factory settings.
6. If the LED on control panel PCB do not fast flash, the factory default is unsuccessful.



### CAUTION!

Only the installer code is defaulted, other parameters are not defaulted.

## 2 User and Installer Code Functions

User Code	Installer Code	Function		Description
•	•	0	#	Duress alarm
•	•	1	#	Siren test
•	•	2	#	Fault and Tamper analysis
•	•	3	#	View date and time
•	•	4	#	Walk test
•	•	5	#	Event memory recall
•	•	6	#	Reset panel/clear siren
•	•	7	#	Initiate a modem call
•	•	8	#	Send Test report
•	•	9	#	Bypass (inhibit)
•	•	96	#	Show Zone type
•		97	#	Override all faults
•		98	# *	Enable=# / Disable=* installer code user's access
•	•	99	#	Change individual code
	•	955	#	Change/View date and time
	•	956	#	Add/delete a level 2 user
	•	956	#	Add/delete Remote Radio User Codes
	•	957	#	Change domestic phone numbers
	•	958	#	Enter Programming Mode
	•	959	#	Exits from installer's programming mode without saving the programmed data.
	•	960	#	Exits from installer's programming mode with saving the programmed data.
	•	961	#	Resets the control panel to factory defaults.
	•	962	#	Copies the control panel memory to the programming key.
	•	963	#	Copies the programming key data to the control panel memory.
	•	999	#	Displays the software version number or control panel type.
Default Pads on PCB				Default the control panel with the hardware



**NOTICE!**

Installer code is only active when enabled from user.

### 3 Fault and Tamper Description

Whenever a system fault or a tamper condition occurs, the FAULT or MAINS indicator flashes and the keypad beeps.

To enter fault and tamper condition analysis mode to determine a system fault or tamper condition:

1. Enter your Code and [2] and press [#] two beeps sound. The FAULT indicator remains lit and the **STAY** and **AWAY** indicators flash. The lit zone indicators indicate the type of fault or tamper condition that occurred.
2. For multi-level menu, enter the corresponding number to enter the submenu, press [ 0 ] key to return to the main menu.
3. To exit from Fault and Tamper Analysis Mode, press [#] . The **STAY** and **AWAY** indicators are extinguished and the FAULT indicator remains lit, and the keypad stops the beep.

When a new fault or tamper occurs, the FAULT indicator flashes again and the keypad beeps. The FAULT indicator gets extinguished once all faults are restored.

**Zone Indicator**

<b>1</b>	<b>Accessory Modules Fail</b>	
	1	Keypad 1 fail
	2	Keypad 2 fail
	3	DX 3010 Fail
	4	B420/DX 4020 /-G Fail
<b>2</b>	<b>Power Faults</b>	
	1	AC Fault
	2	Fault Battery
	3	Aux Power Supply Fault
	4	Bosch Option Bus Power Fault
	5	RF Power Fault
<b>3</b>	<b>Warning Device Failure List</b>	
	1	Warning Device 1 Disconnected
	2	Warning Device 1 Short
	3	Warning Device 2 Disconnected
	4	Warning Device 2 Short
<b>4</b>	<b>Telephone Line Fail</b>	
<b>5</b>	<b>Date and Time Fail</b>	
<b>6</b>	<b>Communications failure</b>	
	1	Communication Failure 1
	2	Communication Failure 2
	3	Communication Failure 3
	4	Communication Failure 4
<b>7</b>	<b>Tamper (</b>	
	1	On board Tamper
	2	Keypad 1 Tamper
	3	Keypad 2 Tamper
	4	Keypad Lock out
	5	Sensor Tamper (Zone 1-8)
	6	Tamper Zone (Zone 1-8)
<b>8</b>	<b>External Fault</b>	

## 4 Programming sheets

### 4.1 Receiver programming

#### 4.1.1 Receiver parameters

Report Options	Location	Default	
<b>Telephone Number/IP Address and Port for Receiver 1</b>	000-016	15	
Subscriber ID Number for Receiver 1	017-022	000000	
Transmission Format for Receiver 1 (0=Not used, 1=Contact ID, 2=CFSK, 3=Bosch Network)	023	1 <sup>EN=1</sup>	
Anti-replay for Receiver 1 0=Disable,1=Enable	024	1	
Acknowledge Wait Time for Receiver 1 (05 – 99 seconds)	025-026	05	
Pulse Interval Time for Receiver 1 (001 – 999 Minutes)	027-029	001	
<b>Telephone Number/IP Address and Port for Receiver 2</b>	030-046	15	
Subscriber ID Number for Receiver 2	047-052	000000	
Transmission Format for Receiver 2 (0=Not used, 1=Contact ID, 2=CFSK, 3=Bosch Network)	053	1	
Anti-replay for Receiver 2 0=Disable, 1=Enable	054	1	
Acknowledge Wait Time for Receiver 2 (05 – 99 seconds)	055-056	05	
Pulse Interval Time for Receiver 2 (001 – 999 Minutes)	057-059	001	
<b>Telephone Number/IP Address and Port for Receiver 3</b>	060-076	15	
Subscriber ID Number for Receiver 3	077-082	000000	
Transmission Format for Receiver 3 (0=Not used, 1=Contact ID, 2=CFSK, 3=Bosch Network)	083	1	
Anti-replay for Receiver 3 0=Disable, 1=Enable	084	1	
Acknowledge Wait Time for Receiver 3 (05 – 99 seconds)	085-086	05	
Pulse Interval Time for Receiver 3 (001 – 999 Minutes)	087-089	001	
<b>Telephone Number/IP Address and Port for Receiver 4</b>	090-106	15	
Subscriber ID Number for Receiver 4	107-112	000000	
Transmission Format for Receiver 4 (0=Not used, 1=Contact ID, 2=CFSK, 3=Bosch Network)	113	1	
Anti-replay for Receiver 4 0=Disable, 1=Enable	114	1	
Acknowledge Wait Time for Receiver 4 (05 – 99 seconds)	115-116	05	
Pulse Interval Time for Receiver 4 (001 – 999 Minutes)	117-119	001	

- IP address is programmed as 17 digits data code. Digit 1-12 is for receiver IP address, digit 13~17 is for communication port.

The dot does not need to be programmed. The IP address is combined by 4 units, each unit has 3 digits. If any unit is less than 3 digits, use 0 to fulfill the data in the higher bits. If the port number is less than 5 digits, use 0 to fulfill the data in the higher bits.

Example: For IP Address for receiver 128.73.168.7, communication port 7700, program as:  
128 073 168 007 07700



**NOTICE!**

Programming option anti-replay, acknowledge wait time and pulse interval time are only used in Bosch network format.

**4.1.2**

**Domestic programming**

<b>Address</b>	120–135
<b>Preset values</b>	15 (if the first digit input is 15 this function is prohibited)

Digit	Program input keys	Digit	Program input keys
0	0	8	8
1	1	9	9
2	2	*	11
3	3	#	12
4	4	Wait 4 seconds	13
5	5	15	15
6	6		
7	7		

**4.2**

**System Report Options Programming**

System sends reports to Receiver 1-4 according to system status report options. The locations for the reports are 137-144.

**4.2.1**

**Report Options**

Location 137-144	Location	Default	
Zone Restore Report Options (Alarm restore, fault restore, bypass restore)	137	0	
Arm/Disarm report option in AWAY Mode	138	6	
Arm/Disarm report option in STAY Mode	139	6	
System Status Report Options (Zone fail, comm. fail, telephone line fail, AC fail, low battery...etc.)	140	6 EN=1/5/ 6/7	
Keypad panic report	141	0	
Keypad fire report	142	0	
Keypad medical report	143	0	
Test report options	144	6 EN=1/5/ 6/7	

Zone Status Reporting Options	
0	No zone status report allowed
1	Report to Receiver 1
2	Report to Receiver 2
3	Report to Receiver 3

Zone Status Reporting Options	
4	Report to Receiver 4
5	Report to Receiver 1,2,3,4
6	Report to destination 1 (2,3,4 backup)
7	Report to destination 1 (2 backup) and destination 3 (4 backup)

**NOTICE!**

The system sends no report when programmed to report to the receiver as Option 0.

## 4.2.2 Test Report Time Interval Setting

Location 145-150	
	Default
145-146=timer test report(1-99 hours)0=don't send timer test report	24 <sup>EN=1-24</sup>
147-148=Report time: Hours=0-23(else=don't send real time test report)	99
149-150=Report time: minutes=0~59(else=don't send real time test report)	99

## 4.3 System Functions Programming

### 4.3.1 Ring Count

Location 152	Location	Default	
0=Panel does not answer 1-15= Number of rings until panel answers	152	0	

### 4.3.2 Remote Programming/Control

Location 153	Location	Default	
0=Disable 1=Enable	153	1	

### 4.3.3 Call back Telephone Number

Location 154-169	Location	Default	
15 = telephone termination	154-169	15	

### 4.3.4 Exit Time

Location 170-172	Location	Default	
000-255 seconds	170-172	045	

### 4.3.5 Entry Time

Location 173-175	Location	Default	
000-255 seconds	173-175	045 EN=45	



### 4.3.6 Keypad Lockout

Location 179	Location	Default	
1 - 15= attempt times 0=no lockout	179	6 EN=10	

If an invalid code attempts more times than programmed, the keypad is locked out for 3 minutes.

### 4.3.7 Single Button STAY/AWAY ARM

Location 180	Location	Default	
0=Disable 1=Enable	180	1 EN=0	

### 4.3.8 Remote Arm by Software/Telephone

Location 181	Location	Default	
0=Disable 1=Enable	181	1 EN=0	

### 4.3.9 Arm by Keyfob

Location 182	Location	Default	
0=Disable 1=Enable	182	1 EN=0	

### 4.3.10 Force Arm as system is in trouble

Location 183	Location	Default	
0=Disable 1=Enable	183	1 EN=0	

### 4.3.11 Quick Emergency Alarm

Location 184	Location	Default	
0=Disable 1=Enable	184	1	

### 4.3.12 Event Recall

Location 182	Location	Default	
0=Disable 1=Enable	185	1	

### 4.3.13 OC1/Warning Device 1 Monitor

Location 186	Location	Default	
0=Disable 1=Enable	186	0 EN=1	

### 4.3.14 OC2/Warning Device 2 Monitor

Location 187	Location	Default	
0=Disable 1=Enable	187	0 EN=1	

### 4.3.15 Phone line Monitor

Location 188	Location	Default	
0=Disable 1=Enable	188	0 EN=1	

**4.3.16 AC Fault Detect time**

Location 189-190	Location	Default	
0-60 Minutes	189-190	10	

**4.3.17 Battery Detect time**

Location 191	Location	Default	
1-15 min	191	1 EN=15	

**4.3.18 Event Record Count Per Set/Unset Period**

Location 192	Location	Default	
3-10	192	3	

**4.3.19 Beep for Warning Devices**

Location 193	Location	Default	
0=Disable 1=Enable	193	0	

**4.4 Zone Programming**

Location 210-289			
Zone	Location	Default	
<b>Zone #01</b>			
Zone Type (Refer to zone type option)	210	3	
Zone Bypass (Disable=0, Enable=1)	211	1	
Forced Arming (Disable=0, Enable=1)	212	1 EN=0	
Silent Alarm (Enable=1, Disable=0)	213	0 EN=0	
Zone alarm lock out time (Disable=0, 1 times=1, 3 times=2, 6 times=3, alarm duration=4)	214	0	
Support Detector Tamper (Disable=0, Enable=1)	215	1	
Zone alarm report (Refer to zone report option)	216	6 EN=1/5/ 6/7	
Zone Chime Mode (Enable=1, Disable=0)	217	0	
Reserved	218-219	0	
<b>Zone #02</b>			
Zone Type (Refer to zone type option)	220	1	
Zone Bypass (Disable=0, Enable=1)	221	1	
Forced Arming (Disable=0, Enable=1)	222	1 EN=0	
Silent Alarm (Enable=1, Disable=0)	223	0 EN=0	
Zone alarm lock out time (disable=0, 1 times=1, 3 times=2, 6 times=3, alarm duration=3)	224	0	
Support Detector Tamper (Disable=0, Enable=1)	225	1	
Zone alarm report (Refer to zone report option)	226	6 EN=1/5/ 6/7	
Zone Chime Mode (Enable=1, Disable=0)	227	0	

Reserved	228-229	0	
<b>Zone #03</b>			
Zone Type (Refer to zone type option)	230	1	
Zone Bypass (Disable=0, Enable=1)	231	1	
Forced Arming (Disable=0, Enable=1)	232	1 EN=0	
Silent Alarm (Enable=1, Disable=0)	233	0 EN=0	
Zone alarm lock out time (disable=0, 1 times=1, 3 times=2, 6 times=3, alarm duration=4)	234	0 EN=4	
Support Detector Tamper (Disable=0, Enable=1)	235	1	
Zone alarm report (Refer to zone report option)	236	6 EN=1/5/ 6/7	
Zone Chime Mode (Enable=1, Disable=0)	237	0	
Reserved	238-239	0	
<b>Zone #04</b>			
Zone Type (Refer to zone type option)	240	1	
Zone Bypass (Disable=0, Enable=1)	241	1	
Forced Arming (Disable=0, Enable=1)	242	1 EN=0	
Silent Alarm (Enable=1, Disable=0)	243	0 EN=0	
Zone alarm lock out time (disable=0, 1 times=1, 3 times=2, 6 times=3, alarm duration=4)	244	0	
Support Detector Tamper (Disable=0, Enable=1)	245	1	
Zone alarm report (Refer to zone report option)	246	6 EN=1/5/ 6/7	
Zone Chime Mode (Enable=1, Disable=0)	247	0	
Reserved	248-249	0	
<b>Zone #05</b>			
Zone Type (Refer to zone type option)	250	1	
Zone Bypass (Disable=0, Enable=1)	251	1	
Forced Arming (Disable=0, Enable=1)	252	1 EN=0	
Silent Alarm (Enable=1, Disable=0)	253	0 EN=0	
Zone alarm lock out time (disable=0, 1 times=1, 3 times=2, 6 times=3, alarm duration=4)	254	0	
Support Detector Tamper (Disable=0, Enable=1)	255	1	
Zone alarm report (Refer to zone report option)	256	6 EN=1/5/ 6/7	
Zone Chime Mode (Enable=1, Disable=0)	257	0	
Reserved	258-259	0	
<b>Zone #06</b>			
Zone Type (Refer to zone type option)	260	1	
Zone Bypass (Disable=0, Enable=1))	261	1	
Forced Arming (Disable=0, Enable=1)	262	1 EN=0	

Silent Alarm (Enable=1, Disable=0)	263	0 EN=0	
Zone alarm lock out time (disable=0, 1 times=1, 3 times=2, 6 times=3, alarm duration=4)	264	0	
Support Detector Tamper (Disable=0, Enable=1)	265	1	
Zone alarm report (Refer to zone report option)	266	6 EN=1/5/ 6/7	
Zone Chime Mode (Enable=1, Disable=0)	267	0	
Reserved	268-269	0	
<b>Zone #07</b>			
Zone Type (Refer to zone type option)	270	1	
Zone Bypass (Disable=0, Enable=1)	271	1	
Forced Arming (Disable=0, Enable=1)	272	1 EN=0	
Silent Alarm (Enable=1, Disable=0)	273	0 EN=0	
Zone alarm lock out time (disable=0, 1 times=1, 3 times=2, 6 times=3, alarm duration=4)	274	0	
Support Detector Tamper (Disable=0, Enable=1)	275	1	
Zone alarm report(Refer to zone report option)	276	6 EN=1/5/ 6/7	
Zone Chime Mode (Enable=1, Disable=0)	277	0	
Reserved	278-279	0	
<b>Zone #08</b>			
Zone Type (Refer to zone type option)	280	1	
Zone Bypass (Disable=0, Enable=1)	281	1	
Forced Arming (Disable=0, Enable=1)	282	1 EN=0	
Silent Alarm (Enable=1, Disable=0)	283	0 EN=0	
Zone alarm lock out time (Disable=0, 1 times=1, 3 times=2, 6 times=3, alarm duration=4)	284	0	
Support Detector Tamper (Disable=0, Enable=1)	285	1	
Zone alarm report(Refer to zone report option)	286	6 EN=1/5/ 6/7	
Zone Chime Mode (Enable=1, Disable=0)	287	0	
Reserved	288-289	0	

### Zone Types

Zone Type	Description
0	Zone not used
1	Instant
2	Interior Instant
3	Delay
4	Interior Delay
5	Follower
6	Interior Follower

Zone Type	Description
7	24-Hour
8	Tamper
9	Fire
10	External Fault
11	Bolt Contact
12	Key Switch Toggle
13	Key Switch on/off

## 4.5 Output Programming

### 4.5.1 Keypad Buzzer

Location 370	Location	Default	
Keypad beeps when siren on 1=Disable, 1=Enable	370	0	

### 4.5.2 Warning Device 1/ OC1 Output

Output 1	Location	Default	
Event Type (fixed value)		3 EN	
Polarity Mode (0=Steady, 1=Pulse)	371	0 EN=0	
Output Duration (001-999sec/000=on)	372-374	000 EN=180	



**NOTICE!**

When the triggered zone is programmed as silent zone, keypad output and OC1 output do not response. Other outputs are as normal.

### 4.5.3 Warning Device 2 / OC2 Output

Output 2	Location	Default	
Event Type (Refer to output events option)	375	3 EN=3	
Polarity Mode (0=Steady, 1=Pulse)	376	0 EN=0	
Output Duration (001-999sec/000=on)	377-379	000 EN=180	

### 4.5.4 Optional Relay Output / OC3

Optional Relay Output			
Event Type (Refer to output events option)	380	0	
Polarity Mode (0=Steady, 1=Pulse)	381	0	
Output Duration (001-999sec/000=on)	382-384	030	

### 4.5.5 DX3010 Output

Location	Location	Default	
<b>Relay Output 1</b>			
Event Type (Refer to output events option)	385	0	

Polarity Mode (0=Steady, 1=Pulse)	386	0	
Output Duration (001-999sec/000=on)	387-389	030	
<b>Relay Output 2</b>			
Event Type (Refer to output events option)	390	0	
Polarity Mode (0=Steady, 1=Pulse)	391	0	
Output Duration (001-999sec/000=on)	392-394	030	
<b>Relay Output 3</b>			
Event Type (Refer to output events option)	395	0	
Polarity Mode (0=Steady, 1=Pulse)	396	0	
Output Duration (001-999sec/000=on)	397-399	030	
<b>Relay Output 4</b>			
Event Type (Refer to output events option)	400	0	
Polarity Mode (0=Steady, 1=Pulse)	401	0	
Output Duration (001-999sec/000=on)	402-404	030	
<b>Relay Output 5</b>			
Event Type (Refer to output events option)	405	0	
Polarity Mode (0=Steady, 1=Pulse)	406	0	
Output Duration (001-999sec/000=on)	407-409	030	
<b>Relay Output 6</b>			
Event Type (Refer to output events option)	410	0	
Polarity Mode (0=Steady, 1=Pulse)	411	0	
Output Duration (001-999sec/000=on)	412-414	030	
<b>Relay Output 7</b>			
Event Type (Refer to output events option)	415	0	
Polarity Mode (0=Steady, 1=Pulse)	416	0	
Output Duration (001-999sec/000=on)	417-419	030	
<b>Relay Output 8</b>			
<b>Event Type</b> (Refer to output events option)	420	0	
Polarity Mode (0=Steady, 1=Pulse)	421	0	
Output Duration (001-999sec/000=on)	422-424	030	

**Set all 8 event type options to 0 if you do not use DX3010 relay module.**

Event Type	Description
0	No output activate for the events
1	System Disarmed
2	System Armed
3	System Alarm
4	Entry/Exit Delay Warning
5	Telephone Line Fail
6	AC Lost
7	Battery Low
8	RF Power Fault
9	TAMPER
10	External Fault
11	All Faults
12	Away armed
13	Stay armed
14	Reset
15	24h Alarm

**Table 4.1** Output Events Option

## 4.6 Installer/User Code Programming

Each installer/user code unit contains up to 4 digits. Each digit range is 0-9. Default first digit as data 15 means Not Used. Other data are not permitted.

### 4.6.1 Installer code #0

Location 425-428	Location	Default	
	425	1	
	426	2	
	427	3	
	428	4	

Installer Code is used to program the system.

## 4.6.2

## User Codes

<b>Location 430-509</b>	<b>Location</b>	<b>Default</b>	
User Code #01	430	2	
	431	5	
	432	8	
	433	0	
User #02	435-438	15	
User #03	440-444	15	
User #04	445-449	15	
User #05	450-454	15	
User #06	455-459	15	
User #07	460-464	15	
User #08	465-469	15	
RF User #09	470-474	15 <sup>EN=15</sup>	
RF User #10	475-479	15 <sup>EN=15</sup>	
RF User #11	480-484	15 <sup>EN=15</sup>	
RF User #12	485-489	15 <sup>EN=15</sup>	
RF User #13	490-494	15 <sup>EN=15</sup>	
RF User #14	495-499	15 <sup>EN=15</sup>	
RF User #15	500-504	15 <sup>EN=15</sup>	
RF User #16	505-509	15 <sup>EN=15</sup>	



# 5 Specification

<b>Panel</b>	
<b>Enclosure :</b>	
Dimensions (HxWxD):	- 260mm x 280mm x 83,5mm
Weight:	- 1950g
<b>Environmental Considerations:</b>	
Relative Humidity:	- 10%-95%
Operating Temperature:	- -10°C - +55°C
<b>Supervised Zones:</b>	
Onboard:	
Z1 - Z8 COM	- 8 Single or dual end-of-line (EOL 2,2KΩ) tamper point support
P8 Tamper	- Enclosure tamper input (does not reduce point capacity)
<b>Programmable Outputs (PO):</b>	
Onboard:	
OC 1	- supervised output max 500mA
OC 2	- supervised output max 500mA
P7 Relay output	- max 100mA
Auxiliary module (DX3010):	
Relay 1-8	- Contacts rated 5A at 28VDC
Cable requirements:	- Unshielded and shielded 0,6-0,8mm
<b>Number of...</b>	
Users:	- 16 (8 + 8Keyfob)
Key Fobs:	- 8
Events:	- 254 history events, stamped with time and date
	- 254 EN history events, stamped with time and date
Pin Code variations	- 10000
DX 3010:	- 1
B 420 or DX 4020 or DX 40206	- 1
Keypads:	- 2
<b>Power:</b>	
Power Supply Type:	- A
Transformer:	- 230V Input/18VAC 20VA Fuse=500mA
AC Input:	- AC Input Voltage: 195 VAC to 253 VAC
	- Line Voltage Frequency: 50 Hz
DC Output:	- maximum current for all components 1100mA
	- maximum current for all components 550mA (recharge Batt 80% in 72h)
Aux (+12V/GND) Output:	- Nominal Output Voltage under AC line input: 13,5 VDC +3% / -5%

	- Output Voltage Range under AC line input: 12,82 VDC to 13,9 VDC
	- 500mA maximum
	- Vpp (max) 675mV
Option Bus:	- Nominal Output Voltage under AC line input: 13,5 VDC +3% / -5%
	- Output Voltage Range under AC line input: 12,82 VDC to 13,9 VDC
	- 500mA maximum
RF Power Output	- 5VDC / 100mA maximum
Panel PCB	- Quiescent current maximum 100mA
Battery:	- D126 (12V/7 Ah) sealed, lead acid rechargeable
	- Low battery condition is below 11,8 VDC
	- Minimum battery condition is 10,8VDC
	- Maximum auxiliary current to recharge standby battery to 80% within 72h:
	- 12 V/7 Ah Battery: 550 mA
Certification:	- EN 50131-3 GRADE 2 ENV-II = ENVIRONMENTAL GRADE II

<b>Keypads:</b>	
<b>IUI-AMAX-LED8 (8Zone LED Keypad)</b>	
Relative Humidity:	- 10%-95%
Operating Temperature:	- -10°C - +55°C
Input Voltage range:	- 10VDC - 14VDC
Current Consumption	- standby 24mA
	- maximum 50mA
Cable requirements:	- four wire, unshielded and shielded 0,6-0,8mm
	- maximum length 150m
EN type:	- B
<b>IUI-AMAX-LCD8 (8Zone LCD Keypad)</b>	
Relative Humidity:	- 10%-95%
Operating Temperature:	- -10°C - +55°C
Input Voltage range:	- 10VDC - 14VDC
Current Consumption	- standby 18mA
	- maximum 60mA
Cable requirements:	- four wire, unshielded and shielded 0,6-0,8mm
	- maximum length 150m
EN type:	- B

## 6 Troubleshooting

Trouble	Causes & Measures
No immediate response from zone testing right after powered up.	<ul style="list-style-type: none"> <li>- To work normally, operate the system one minute after powered up.</li> </ul>
No indication on keypad after powered up.	<ul style="list-style-type: none"> <li>- Check that the AC Mains power and battery fuse are correctly connected and work normally.</li> <li>- Check the Bosch Bus RBGY are correctly connected.</li> </ul>
No response from the keypad (Press any key sounds error).	<ul style="list-style-type: none"> <li>- Check the Bosch Bus RBGY are correctly connected.</li> <li>- Enter wrong code more than limit, the keypad is lockout for 3 minutes.</li> <li>- Wrong jumper in using two keypads at the same time.</li> <li>- When one keypad is used, the other one can be used only 30 seconds later.</li> </ul>
Can not enter into programming mode after powered up.	<ul style="list-style-type: none"> <li>- Control Panel is in alarm state. E.g. Switch tamper or 24-Hour zone is still not ready.</li> <li>- Control Panel is in arming state. Programming mode can only be operated in disarming state.</li> <li>- Installer is not enabled from User</li> </ul>
No indication on on-board LED .	<ul style="list-style-type: none"> <li>- AC Mains power or the battery is failed. Restore the power.</li> <li>- The board is damaged. Change a new one.</li> </ul>
Zone Leds are always on.	<ul style="list-style-type: none"> <li>- Check that the zones are correctly connected.</li> <li>- Check that the sensors work normally.</li> <li>- Check that the EOL resistor is correctly connected with the sensor.</li> </ul>
Fault Led is always on / flashing.	<ul style="list-style-type: none"> <li>- Time and date are not set.</li> <li>- No battery or the battery is lower than 12V.</li> <li>- No siren ( &gt;1,2 K resistor can replace the siren).</li> <li>- Telephone number is not correctly programmed.</li> <li>- Not connect with the telephone network.</li> <li>- Switch tamper is not connected. Otherwise the short jumper is connected.</li> <li>- Some plug-in module is not used in programming, such as DX3010, DX4020 or DX4020G. Refer to Installation Guide for detailed measures.</li> </ul>
AC Mains power fuse is broken.	<ul style="list-style-type: none"> <li>- Check the transformer 18V wire is correct.</li> </ul>
Over current protection in Aux power.	<ul style="list-style-type: none"> <li>- Check the 12V Aux power wiring is correct.</li> <li>- Check if the Aux power service is higher than 900mA ( top limit to control panel). If so, the peripheral is supplied by additional power supply.</li> </ul>
Aux power can not restore after short circuited.	<ul style="list-style-type: none"> <li>- Restart the AC Mains power and battery.</li> </ul>

Trouble	Causes & Measures
Battery fault still indicates after replaced with new battery.	<ul style="list-style-type: none"> <li>- System test the battery each time arming or every time set in location 191. Only after testing the battery fault can be cleared away.</li> <li>- Voltage of the new battery reaches the normal value after it is charged for some time.</li> </ul>
Control Panel does not dial.	<ul style="list-style-type: none"> <li>- Check if the dialing function is switched off in communication programming (Telephone number and transmission format need to be programmed).</li> </ul>
No remote arming function.	<ul style="list-style-type: none"> <li>- Check if the function is switched off (Do not set Location 152 and 153 as 0).</li> </ul>
No RPS software function.	<ul style="list-style-type: none"> <li>- Check if the function is switched off (Do not set Location 152 and 153 as 0).</li> </ul>
Abnormal in PSTN/ Domestic dialling communicaiton.	<ul style="list-style-type: none"> <li>- When extention system is used in telephone network, dialing delay needs to be added in programming.</li> <li>- Network supports the ADSL at the same time, the control panel needs to be connected through the ADSL filter .</li> </ul>



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