AMAX 2100 / 3000 / 4000

BOSCH

en Quick Start Guide

Table of contents

1 Graphics

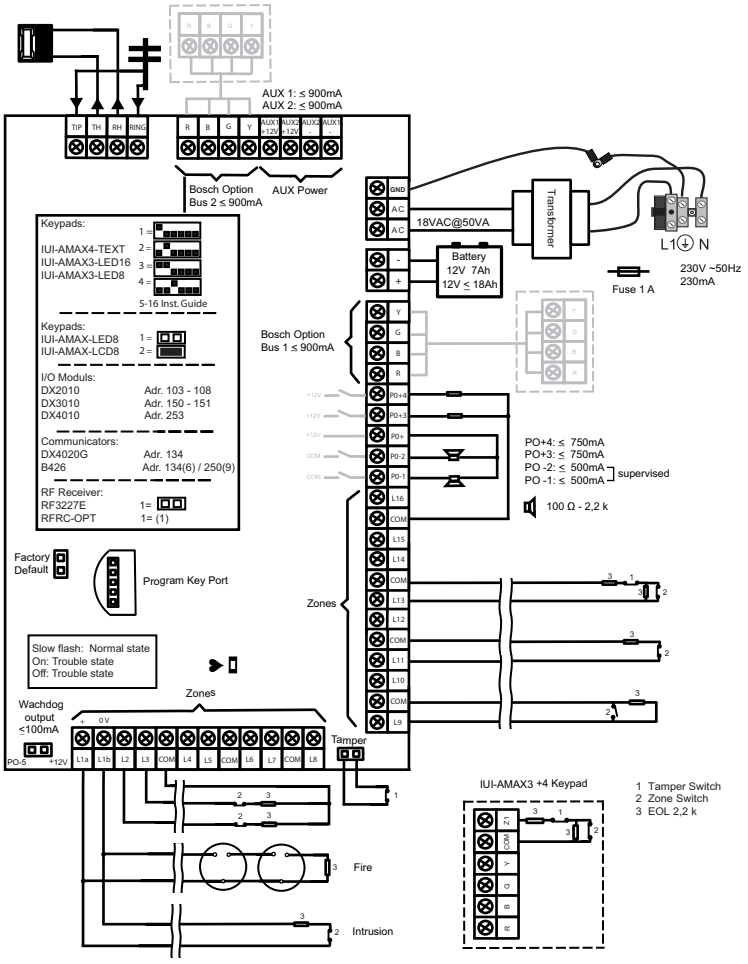

Figure 1.1: Wiring diagram for AMAX panel 4000

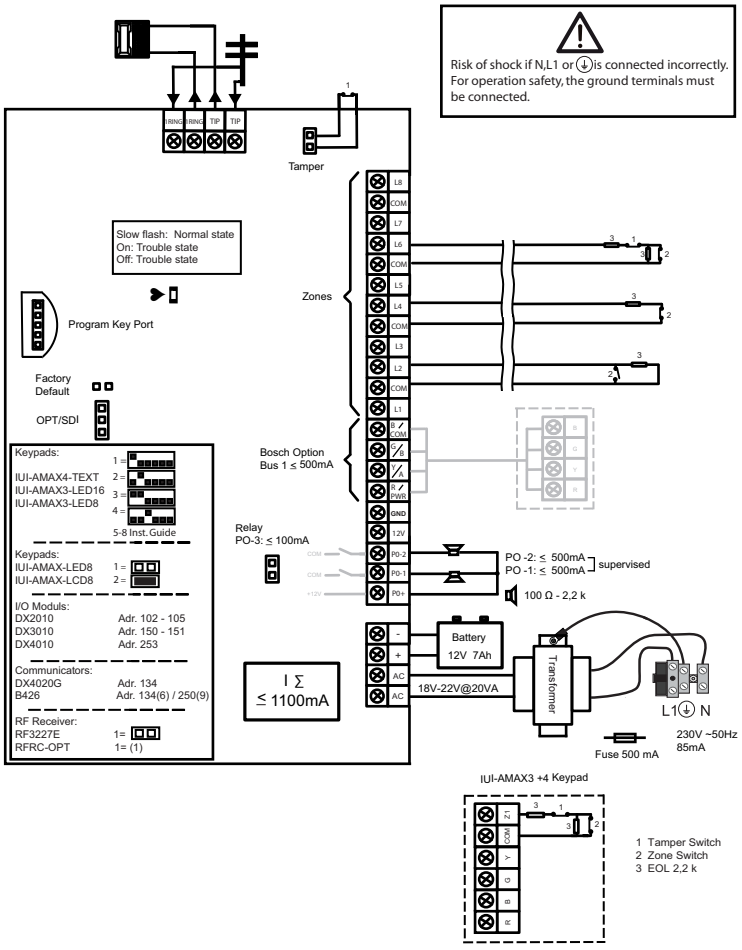

Figure 1.2: Wiring diagram for AMAX panel 2100/3000

2 Safety

Danger!
Battery
Consequences

– Risk of shock, if N, L1 or ⏚xx is connected incorrectly! For operation safety, the ground terminals must be connected.
1. Be careful when connecting the positive (red) wire and the "BATT +" port of the AMAX panel. If short-circuiting with the "BATT +" port of the AMAX panel or the housing, electric arc will occur!
2. To remove the battery from the AMAX panel, first disconnect the positive wire of the battery.
3. Be careful when replacing the battery. If the battery is not replaced correctly there is risk of fire explosion or burning.

Danger!
Electrostatic-Sensitive Components
Consequences

– As electrostatic-sensitive components (ESDs) are included in PCBs, anti-static steps should be followed and they should be carefully installed.
– Before installing the alarm AMAX panel, the static electricity possibly carried should be discharged by contacting the grounding terminal of the AMAX panel.

Notice!
Battery
Consequences

1. Only use a non-spillable battery.
2. The battery must be recycled.
3. Replace the battery every 3-5 years under normal conditions of use.
4. Place a label with change date on the battery.

Notice!
Total electric current
The total electric current for all connected modules and devices must be ≤ 2000mA.

- This system / product must be installed and maintained by a qualified installer / service person.
- Bosch recommends testing the whole alarm system at least once a week.
- Maintenance should be done by a qualified installer / service person four times a year.
- The system / product must be connected to a socket-outlet with a protective earth contact.

▸ Switch off the AMAX power supply during installation and wiring to prevent equipment damage.

- To switch off the power supply, an easy accessible circuit breaker must be available.

▸ Disconnect all Telecommunication Network Connectors before unplugging the power adapter.

3 Short information

This Installation Quick Guide is provided with the AMAX 4000 system and contains information on how to get the system into operation easily and quickly. The guide describes the main steps required for basic system installation and setup of the AMAX panel 4000 together with one IUI-AMAX4-TEXT keypad and one RFRC-OPT RADION receiver. The program tree structure is provided at the end of this guide.
Detailed information about installation of other modules and devices, advanced settings and programming can be found in the Installation Guide. For detailed operation information, please refer to the User Guide.

4 Installation

4.1 Connecting Modules and Devices

The AMAX panel 4000 provides Option Bus 1 and Option Bus 2 to connect modules and devices. Each module may be connected to each bus.
The maximum number of modules per Option Bus = 14, thereof 8 keypads.
The following overview displays the maximum number of modules that may be connected.

Module	**Maximum number**
Keypad	16
DX2010	6
DX3010	2
DX4010	1
Communicator	2 1 B426 + 1 B426 or 1 B426 + 1 DX4020G
Receiver	1

Perform the following steps in the described order:

1. Connect the keypad to the Bosch Option Bus on the AMAX panel according to the wiring diagram.
2. Connect the RFRC-OPT RADION receiver to the Bosch Option Bus on the AMAX panel according to the wiring diagram.
3. Connect the red and black wires supplied with the battery to the AMAX panel and the battery.
4. Connect the power adapter and battery to the mains.

5 Configuration

5.1 Programming and Operating the AMAX System

The AMAX system can be programmed and operated over menus by using keypads and/or the **A-Link Plus** remote programming software on a PC via the USB interface.
After all modules and devices have been installed, the AMAX panel indicates the system status by the LED status indicator on the system main board. A slow flashing in red (repeating on and off with an interval of 1 second) indicates normal system operation.
The AMAX panel begins charging the battery. The green **MAINS** indicator on the keypad indicates that the power supply is switched on and the keypad beeps.

- Press any key on the keypad.

The keypad stops beeping and you are prompted to enter a code.
The AMAX system provides two types of access codes:

– **Installer Code:** [1234]
– **User Code:** [2580]

5.1.1 Option: Changing Menu Language

If necessary, you may now change the menu language. If not, please go to section *Accessing the Menus, page 10*.

- Enter the **Installer Code** [1234] + [58] or the **User Code** [2580] + [58] and press the [#] key.

The available menu languages are displayed (e.g. **01-EN** for English).

1. Enter the digit for the desired language on the keypad (e.g. *1* for English).
2. Press the [#] key.

5.1.2 Accessing the Menus

Accessing the Installer Menu

- Enter the **Installer Code** [1234].

The system displays **[958] PROGR. MODE [-EXIT]**.

- Enter [958] + press the [#] key.

You have now access to the **PROGRAMMING MODE** for programming the AMAX system.
The **STAY** and **AWAY** indicators flash to indicate the programming mode.

Accessing the User Menu

- Enter the **User Code** [2580].

The system displays **[▼/▲] USER MENU *STAY #AWAY [-] INFO**.
You have now access to the **USER MENU** for operating the AMAX system.

5.1.3 Menu Navigation

This section gives an overview of how to navigate through the menu on the keypad.

Selecting a Menu

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

Exiting a Menu

- Press the [–] key to get back to the menu.

Or

- Press and hold the [–] key for 3 seconds to end the input state and get back to the previous menu.

Confirming the Input

- Press the [#] key to confirm the input.

Switching between Settings

- Press and hold the [*] key for 3 seconds to switch between settings.

Operating a Menu

1. 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 the [#] key to confirm each step.

Exiting the Programming Mode

1. Complete all programming input by repeating the programming steps above and press the [–] key to get back to the current main menu level by level.
2. Press and hold the [–] key for 3 seconds 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 the [#] key to save the data and exit the programming mode.
2. Select **EXIT PROG. UNSAVED** and press the [#] key to exit programming mode without saving the data.

5.1.4 Programming the AMAX System

If the keypad is in standby mode, it gets enabled as soon as you press the first digit of your code.

1. Make sure that the system is in a disarmed status (the **STAY** and **AWAY** indicators are disabled).
2. Enter the **Installer Code** [1234] + [51] and press the [#] key to get to **DATE/TIME.**

The **STAY** and **AWAY** indicators flash to indicate the programming mode.

Setting Date and Time

After the system is powered up, date and time must be set. Otherwise, the system displays an error.

1. Press the [#] key to get to the next menu item: **CHANGE DATE/TIME.**
2. Enter the current date and time by using the numeric keys and press the [#] key to confirm.
3. Press and hold the [–] key for 3 seconds to get to the **EXIT PROG. +SAVE** menu.
4. Press the [#] key to save the data end exit the programming mode.

Sample: Deleting a Zone

The Zones 1-8 are enabled by default. Zone 1 is set as *Delay*, Zones 2-8 as *Instant*.

1. Enter the **Installer Code** [1234] + [958] and press the [#] key.
2. Navigate to the **ZONE MANAGER** menu and press the (#] key.

The system guides you through the menu and displays the next menu item: **ADD/DELETE ZONES.**

1. Press the [#] key to get to the next menu item**: INPUT ZONE No.**
2. Enter the zone number that you will delete (here *1*) and press the [#] key.
3. Press the [#] key again.

The system displays the next menu item: **ZONE FUNCTION.**

1. Enter *0* for "Not Used" and press the [#] key.
2. Press and hold the [–] key for 3 seconds to get back to the **ADD/DELETE ZONES** menu item.
3. Press and hold the [–] key for 3 seconds to get to the **EXIT PROG. +SAVE** menu.
4. Press the [#] key to save the data end exit the programming mode.

Sample: Enabling the RF Device for Wireless Communication

1. Enter the **Installer Code** [1234] + [958] and press the [#] key.
2. Navigate to the **RF MANAGER** menu and press the [#] key.

The system guides you through the menu and displays the next menu item: **RF SETTING.**

1. Press the [#] key to get to the next menu item: **RF RECEIVER.**
2. Press the [#] key to get to the next menu item**: RF RECEIVER ENABLE.**
3. Enter *1* to enable the RF device and press the [#] key.
4. Press and hold the [–] key for 3 seconds to get to the **EXIT PROG. +SAVE** menu.
5. Press the [#] key to save the data end exit the programming mode.

Sample: Setting Up a Zone for an RF Device

1. Enter the **Installer Code** [1234] + [958] and press the [#] key.
2. Navigate to the **ZONE MANAGER** menu and press the (#] key.

The system guides you through the menu and displays the next menu item: **ADD/DELETE ZONES.**

1. Press the [#] key to get to the next menu item: **INPUT ZONE No.**
2. Enter the zone number that you will set up (here *2*) and press the [#] key.

The system displays the next menu item: **ZONE MODULE SEL.**

The following zone modules are available:

0 – on-board zone
1 – keypad zone
2 – dx2010 zone
3 – RF device – All, except RFGB / RF1100E and RFUN / RF3401E (Zone input only)
4 – RF device –RFGB / RF1100E (Glass Break Detector)
5 – RF device – RFUN / RF3401E (Zone input only)
15 – not used

Notice!

DEOL

DEOL is set as default for the wired zone. I.e., two resistances are used for wiring a line / an input for tamper detection.

- Enter the digit for the RF device (*3, 4* or *5* depending on the device) and press the [#] key.

The system displays the next menu item: **ZONE FUNCTION.**

- Enter *1* for "Instant" and press the [#] key.

The system displays the next menu item: **ZONE IN AREA.**

- Enter the area number that you will set up (here *1*) and press the [#] key.

The system displays the next menu item: **ZONE RFID: MANUAL.**

1. Enter the RF ID manually (9 digits) and press the [#] key to confirm.
   Or
   Press and hold the [*] key for 3 seconds to switch to the **ZONE RFID: AUTO** menu item.
   Trigger the RF device to give alarm once.
   The RF ID will then be entered automatically.
   Press the [#] key to confirm.
2. Press and hold the [–] key for 3 seconds to get back to the **ADD/DELETE ZONES** menu item.
3. Press and hold the [–] key for 3 seconds to get to the **EXIT PROG. +SAVE** menu.
4. Press the [#] key to save the data end exit the programming mode.
5. Test the zones after you have terminated programming.

5.1.5 PC Programming via USB Interface

By using the **A-Link Plus** remote programming software on a PC, the AMAX panel configuration can be remotely programmed or controlled. For direct communication, the PC and the AMAX panel have to be connected to each other by the USB cable.

Installing the Programming Software

- Double-click on **the A_Link_setup.exe** file to install the programming software on the PC.

An installation wizard guides you through the installation.

Connecting the PC and the AMAX Panel

1. Connect the USB cable to the USB port on the AMAX panel and to one of the USB ports on the PC.
2. Follow the operating system instructions to install the USB driver.
   You will find the device driver in the A-Link Plus program path for installation (example: *C:\Programme\Bosch Security System\A-Link Plus\USB_DRIVER*).
3. Open the **Device Manager** in the operating system control and check if the USB driver has been installed and which COM port has been assigned to it.
4. If the USB driver has not been installed automatically, install it manually.

The installation creates an additional COM device on the PC.

Starting the Programming Software

- Select **Start – All Programs – Bosch Security Systems – A-Link Plus – A-Link Plus v***n.n.n***.**
  n.n.n = current program version

Or

1. Double-click the **A-Link Plus v***n.n.n* shortcut on your computer desktop.
2. When the Login dialog opens, enter the **Operator** name and **Password.**
   The default entries are **ADMIN** for both the **Operator** and **Password** fields.
3. Click **OK** to log in to A-Link Plus.

Setting the COM Port

The COM port that has been assigned to the additional COM device has to be set in the **A-Link Plus** program.

- Select the **File – Communication Settings** from the menu bar of the **A-Link Plus** program.

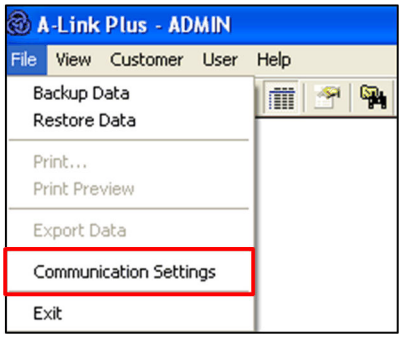

Figure 5.1: Selecting Communication Settings

The **Communication Settings** dialog opens.

- Set the COM port assigned to the additional COM device (here *COM4*) as **Direct Link Port.**

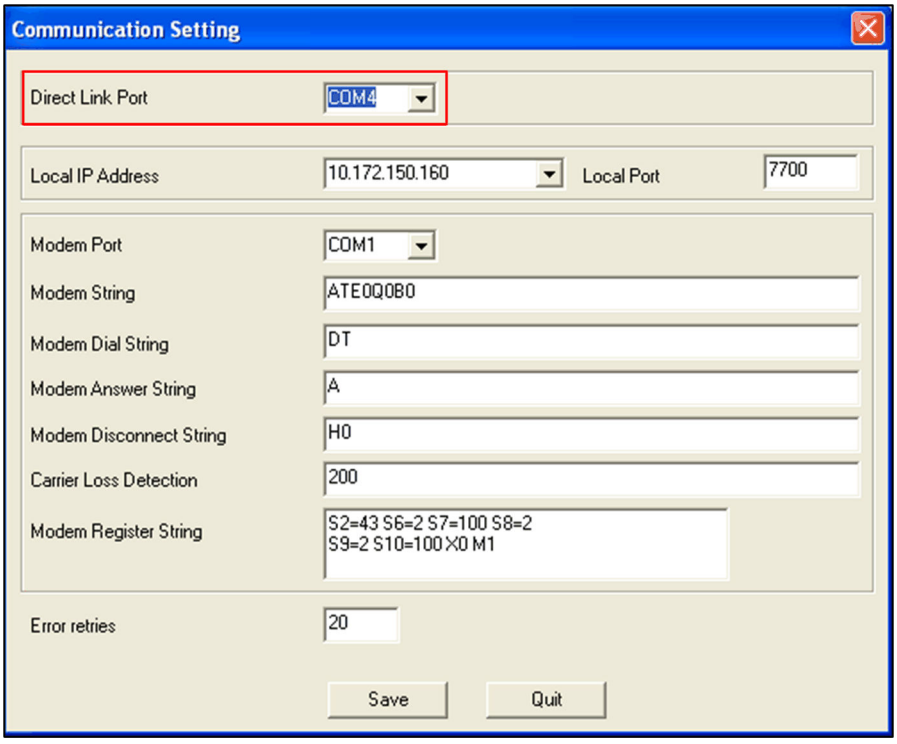

Figure 5.2: Setting Direct Link Port

Option: Creating a New Customer

If necessary, create a new customer.

- Select **Customer – New Customer** from the menu bar.

The **Customer Information** dialog opens.

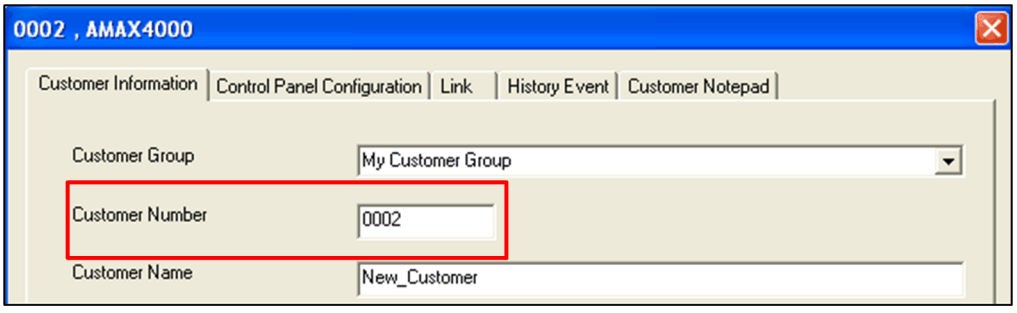

Figure 5.3: Entering Customer Information

1. Enter the customer name in the **Customer Name** entry field to create a new customer.
2. Enter other relevant customer information. The **Customer Number** must be entered.

Configuring the Control Panel

- Select **Customer – Open Customer** from the menu bar.

The **Customer Information** dialog opens.

1. Select the **Control Panel Configuration** tab.

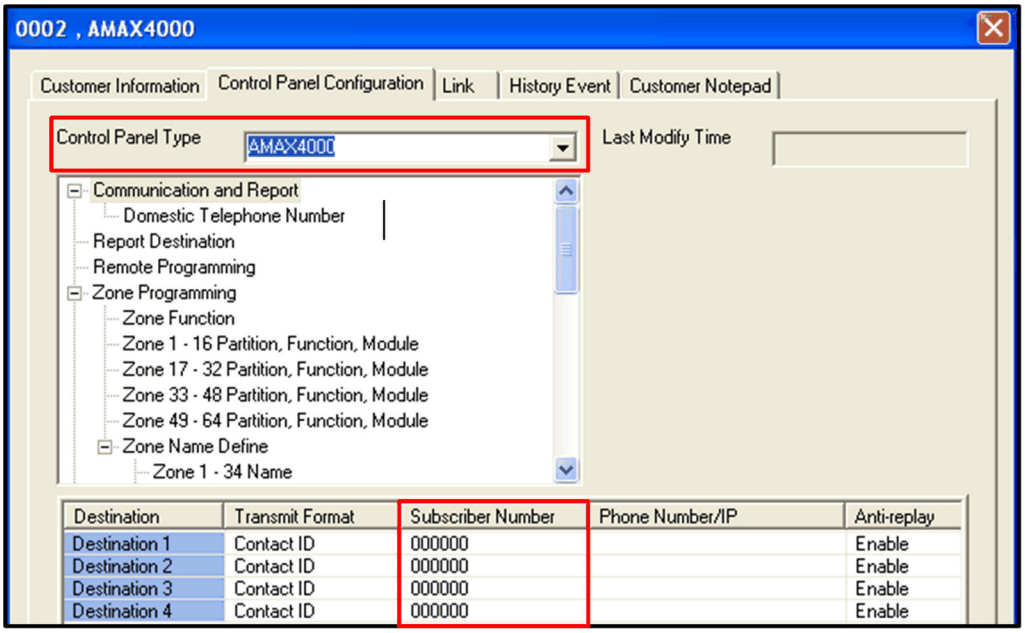

Figure 5.4: Configuring the Control Panel

2. Select *AMAX4000* as **Control Panel Type.**
3. Make sure that the value under **Subscribed Number** for **Destination 1** is the same as currently programmed in the AMAX panel as Receiver 1. The value is *000000*, if the firmware of the AMAX panel was upgraded or the AMAX panel has factory settings.
4. Select the **System Options** item in the same tab.

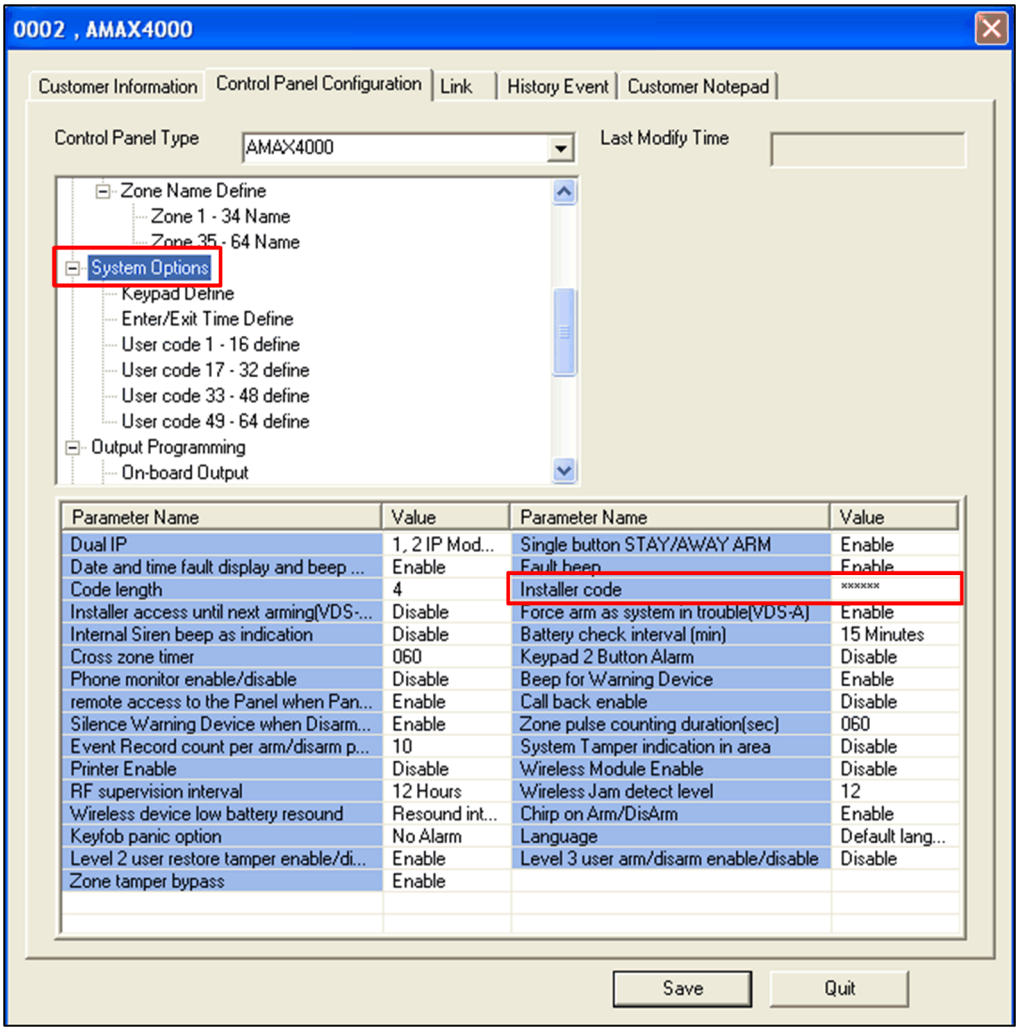

Figure 5.5: Checking the System Options

5. Make sure that the value for the **Installer code** parameter is the same as currently programmed in the AMAX panel. The value is *1234*, if the firmware of the AMAX panel was upgraded or the AMAX panel has factory settings.

Establishing a Direct Connection

1. Select the **Link** tab to establish a connection between the **A-Link Plus** program and the AMAX panel.

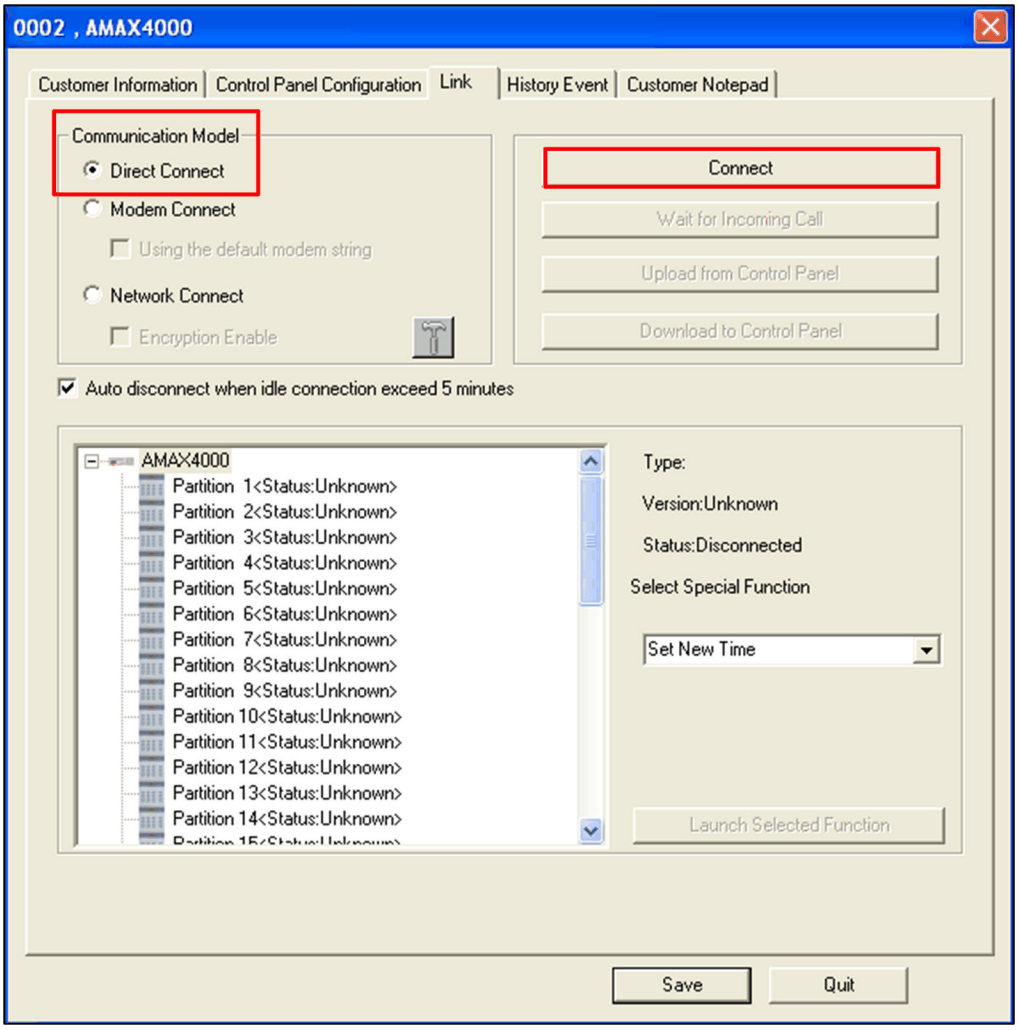

Figure 5.6: Establishing a Direct Connection

2. Select **Direct Connect** as communication model.
3. Click on the **Connect** button to connect to the AMAX panel.

6 Technical Data

Panel		
Enclosure:		
Dimensions (HxWxD):	–	375 x 322 x 88 mm(L x W x H)
Weight:	–	4700g
Environmental Considerations:		
Relative Humidity:	–	10%-95%
Operating Temperature:	–	-10°C - +55°C
Supervised Zones:		
Onboard:		
Z1:	–	2 wire fire zone or Single or dual end-of-line (EOL 2,2KΩ) tamper point support
Z2 - Z16 COM:	–	15 Single or dual end-of-line (EOL 2,2KΩ) tamper point support
Tamper:	–	Enclosure tamper input (does not reduce point capacity)
Outputs (PO):		
Programmable Onboard:		
PO -1:	–	supervised output max 500mA
PO -2:	–	supervised output max 500mA
PO +3:	–	+12V / max 750mA
PO +4:	–	+12V / max 750mA
Onboard:		
Watchdog PO -5:	–	/ max 100mA
Number of...		
Zones:	–	64
Users:	–	64
Key Fob Users:	–	DSRF = 24, Radion = 128
Events:	–	254 history events, stamped with time and date
	–	254 EN history events, stamped with time and date
	–	254 dialer history events, stamped with time and date
Pin Code variations:	–	1.000.000
Keypads:	–	16
DX 3010:	–	2

B 426 or DX 4020 or DX 4020G (only 1):	– 2
DX2010:	– 6
DX 4010:	– 1
RF Receiver:	– 1
RF Repeater:	– DSRF = 0, Radion = 8
RF Sensors:	– 64
RF Keyfobs:	– DSRF = 24, Radion = 128
– **Power:**	
Power Supply Type:	– EN = A
Transformer:	– 230V Input/18VAC 50VA Fuse=1A
AC Input:	– AC Input Voltage: 195 VAC to 253 VAC – Line Voltage Frequency: 50 Hz
DC Output:	– maximum current for all components 2000mA – max current for all components Battery 7Ah standby 12h (recharge Batt 80% in 72h) = 550mA – max current for all components Battery 17Ah standby 12h (recharge Batt 80% in 72h) = 1500mA – max current for all components Battery 17Ah standby 36h (recharge Batt 80% in 24h) = 480mA
Aux 1(+12V/GND) Output:	– Nominal Output Voltage under AC line input: 13,8 VDC +3% / -5% – Output Voltage Range under AC line input: 13.11 VDC to 14.2 VDC – 900mA maximum – Vpp (max) 675mV
Aux 1(+12V/GND) Output:	– Nominal Output Voltage under AC line input: 13,8 VDC +3% / -5% – Output Voltage Range under AC line input: 13.11 VDC to 14.2 VDC – 900mA maximum – Vpp (max) 675mV
Option Bus 1:	– Nominal Output Voltage under AC line input: 13,8 VDC +3% / -5% – Output Voltage Range under AC line input: 13.11 VDC to 14.2 VDC – 900mA maximum
Option Bus 2:	– Nominal Output Voltage under AC line input: 13,8 VDC +3% / -5% – Output Voltage Range under AC line input: 13.11 VDC to 14.2 VDC – 900mA maximum

Panel PCB:	– Quiescent current maximum 100mA
Battery:	– 12V/7 Ah, lead acid rechargeable – 12V/17Ah, lead acid rechargeable – Low battery condition is below 11,0 VDC – Minimum battery condition is 10,8VDC
Certification:	– EN 50131-3 Grade-3 Environmental Class-II
Keypads:	
IUI-AMAX4-TEXT (LCD Text Keypad)	
Relative Humidity:	– 10%-95%
Operating Temperature:	– -10°C - +55°C
Input Voltage range:	– 10.8VDC - 13.8VDC
Current Consumption:	– standby 31mA – maximum 100mA
Cable requirements:	– four wire, AWG18 or AWG22 – maximum length 200m (Panel to last KP) – maximum BUS 1 length 700m (max 14 devices, max 8 KPs) – maximum BUS 2 length 700m (max 14 devices, max 8 KPs)
EN type:	– EN = B, IK = 06, IP = 30
Certification:	– EN 50131-3 Grade-3 Environmental Class-II
IUI-AMAX3-LED16 (16 Zone LED Keypad)	
Relative Humidity:	– 10%-95%
Operating Temperature:	– -10°C - +55°C
Input Voltage range:	– 10.8VDC - 13.8VDC
Current Consumption:	– standby 31mA – maximum 60mA
Cable requirements:	– four wire, AWG18 or AWG22 – maximum length 200m (Panel to last KP) – maximum BUS 1 length 700m (max 14 devices, 8 KPs) – maximum BUS 2 length 700m (max 14 devices, 8 KPs)
EN type:	– EN = B, IK = 06, IP = 30
Certification:	– EN 50131-3 Grade-3 Environmental Class-II
IUI-AMAX3-LED8 (8 Zone LED Keypad)	
Relative Humidity:	– 10%-95%
Operating Temperature:	– -10°C - +55°C
Input Voltage range:	– 12V normal

Current Consumption:	– standby 31mA – maximum 60mA
Cable requirements:	– four wire, AWG18 or AWG22 – maximum length 200m (Panel to last KP) – maximum BUS 1 length 700m (max 14 devices, 8 KPs) – maximum BUS 2 length 700m (max 14 devices, 8 KPs)
EN type:	– EN = B, IK = 06, IP = 30
Certification:	– EN 50131-3 Grade-3 Environmental Class-II

Bosch Sicherheitssysteme GmbH
Robert-Bosch-Ring 5
85630 Grasbrunn
Germany
www.boschsecurity.com