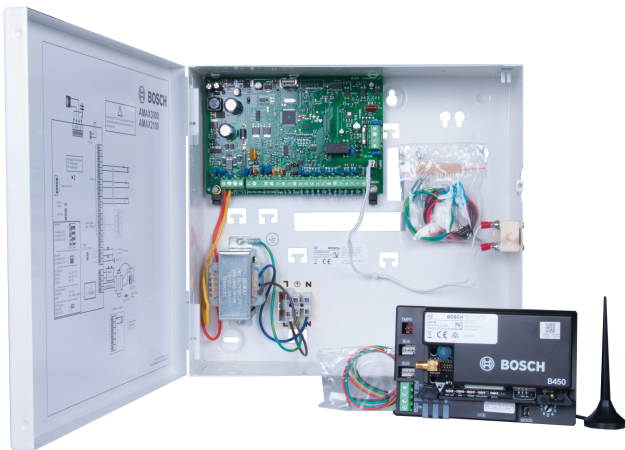


AMAX3-P1G Intrusion panel, en/pl/tr/hu, GPRS

www.boschsecurity.com



BOSCH
Invented for life



- ▶ 32 zones / 8 areas / 128 user codes
- ▶ On-board voice dialer
- ▶ Macro functionality
- ▶ USB direct connection
- ▶ Mobile app functionality

This kit includes the following:

- One AMAX panel with language package 1: English, Polish, Turkish, Hungarian
- One B450-M Plug-in communicator interface, mobile
- One B442 Plug-in cellular module, GPRS

AMAX panel 3000

This hybrid panel is designed for residential and small to medium-sized businesses. It offers 32 zones and 8 areas and comes with an enclosure and a transformer. An on-board PSTN dialer transmits an alarm via the common telephone network to a phone and / or a communication center while at the same time a voice message is sent to the owner's landline or mobile phone to inform him about an intruder's presence. Commissioning the system is simple and involves minimum programming: the default settings already cover 90 % of the available functionality. Programming can either be done via the AMAX TEXT, LCD and LED keypads or via the programming software (A-Link Plus).

The intrusion system can be used with both RADION wireless peripherals, operating at 433 Mhz and hardwired detectors from Bosch.

B450-M Plug-in communicator interface, mobile

The Conettix Plug-in Communicator Interface is a four-wire powered SDI2, SDI, or option bus device that provides two-way communication with compatible control panels over commercial cellular networks using a plug-in communicator (available separately).

B442 Plug-in cellular module, GPRS

The B442 provides IP communication over a (GPRS) cellular network by plugging into a compatible BOSCH control panel or B450 Conettix Plug-in Communicator Interface. Typical applications are:

- Alarm reporting to a central station
- Remote control panel programming through Remote Programming Software with supported control panels
- Remote monitoring and control through a mobile application with supported control panels
- Personal notification using SMS for compatible control panels

The B442 is built for a wide variety of secure commercial and industrial applications. Flexible end-to-end path supervision, 128-bit to 256-bit AES encryption, and anti-substitution features make B442 especially suited for use in high security and fire monitoring applications.

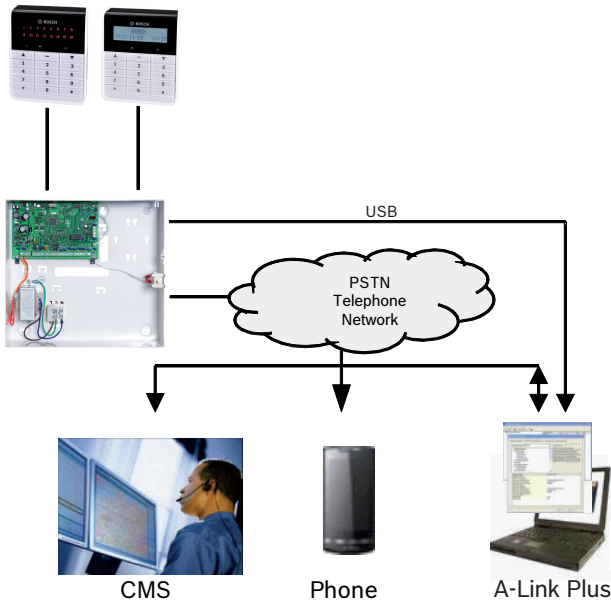


Notice

Cellular capability requires an Installer Services account and appropriate data plan.

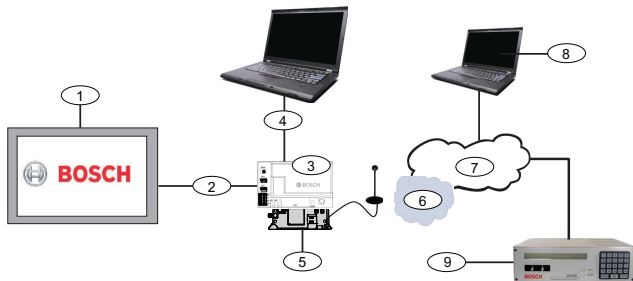
System overview

AMAX panel 3000



B450-M Plug-in communicator interface, mobile

Conetrix 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 Conetrix 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.

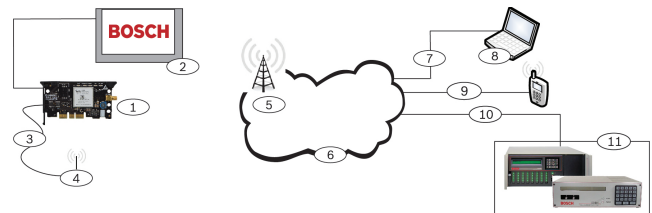


B450/B450-M system overview

Callout — Description	Callout — Description
1 — Compatible Bosch control panel	6 — Cellular carrier network

2 — Panel data bus (SDI2, SDI, or Option)	7 — Internet/LAN/WAN
3 — Plug-in Communicator Interface	8 — Remote Programming Workstation
4 — USB connection for plug-in communicator interface configuration	9 — Compatible IP receiver (Bosch D6100IPv6 shown)
5 — B44x Plug-in Cellular Communicator (available separately)	

B442 Plug-in cellular module, GPRS



Callout — Description	Callout — Description
1 — B442	7 — Remote PC's network connection
2 — Compatible control panel	8 — Remote PC running Remote Programming Software
3 — Antenna cable	9 — Personal SMS notification with supported control panels
4 — Magnetic base antenna	10 — Ethernet connection
5 — Base station on wireless carrier's network	11 — Central monitoring station
6 — IP network cloud	

Functions

AMAX panel 3000

Basic functions

- Keypad code STAY / AWAY arming
- One button STAY / AWAY arming
- On-board dialer with CID / SIA transmission format. Voice dialer transmits up to 4 recorded messages to landline/mobile phones in case of an alarm. Messages can be recorded with A-Link Plus and sent to the control panel with the remote programming software A-Link Plus
- 16 weekly schedules with the option to add exceptions in the calendar
- 3 programmable macros: several single functions from the keypad are combined to one customer macro function, can be executed by pressing one button
- Remote maintenance operations (e.g. walk test, bypassing)

- Installer can enable the service mode for comfortable programming without having alarms or outputs triggered
- In multi-area set-up (direct and multiple arming), “area status” is displayed
- Area name is displayed on the master or area text keypad
- 4 on-board outputs (two monitored)
- Up to three output event types can be configured for one physical output
- Every zone except zone 1 can be used with four-wire fire detectors
- Any zone can be used for chime mode (door bell)
- Any zone can be used to detect a sensor tamper (DEOL)
- Zones can be bypassed by name
- Test mode for outputs and zones

Optional functions

- Wireless devices (433 MHz) RADION from Bosch
- Zone inputs on extension modules (with DX2010)
- Relay outputs on extension modules (with DX3010)
- Connect outdoor sirens and IP cameras to an optional 8 relay module (DX3010)
- Programming key
- Arming, bypassing, isolating, operating outputs and inquiry with the RSC+ app on mobile devices (with the B426-M or the B450-M with B442 or B443 modules)

Optional alarm transmission

- IP communication with Bosch Conettix IP, SIA DC09 UDP and SIA DC 09 TCP protocols via B426-M and B450-M with B442 or B443 modules
- GPRS communication with Bosch Conettix IP, SIA DC09 UDP and SIA DC 09 TCP protocols via B450-M with B442 or B443 modules

Optional remote programming via A-Link Plus

- IP communication (B426-M and B450-M with B442 or B443 modules)
- GPRS communication (B450-M with B442 or B443 modules)

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.

Compatibility information

Basic

PSTN communicator (integrated)	Formats: Contact ID, SIA DC 03
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Magnetic contacts	All magnetic contacts, including recessed, terminal connection, miniature over-head door, and surface mount.
Intrusion detectors	All conventional intrusion detectors, including Blue Line, seismic, PIR, TriTech, photoelectric and TriTech PIR Microwave.
Four-wire smoke detectors	Conventional 12V smoke, heat and photoelectric smoke detectors.

Optional

Zone	DX2010 zone input module
Relays	DX3010 output module
IP communicator	B426-M and B450-M with B442 or B443 modules
GPRS/GSM communicator	B450-M with B442 or B443 modules
Wireless devices	All RADION devices

Assorted literature is available. Refer to the appropriate datasheet, brochure, and installation manuals for additional data.

Availability varies according to sales region.

B450-M Plug-in communicator interface, mobile

Conettix IP communication

The following features are supported with the plug-in communicator interface via BOSCH Conettix IP protocol and SIA DC-09 UDP, CSV-IP on supported control panels including:

- IP Alarm communication
- Remote programming
- Personal notification via text or email on supported panels

Addressing

Use the address switch to easily assign a bus address or setup for USB or SMS configuration where required.

LEDs

Three LEDs provide status and troubleshooting information.

LED	Indication
Heartbeat	Plug-in communicator and control panel connection status
RX	An inbound packet is received on the bus
TX	An outbound packet is transmitted on the bus

B442 Plug-in cellular module, GPRS

Conettix IP communication via Cellular

The B442 uses Conettix IP protocol, SIA DC-09 UDP, and CSV-IP on supported control panels that support:

- Flexible polling intervals
- Resistance to Denial of Service attacks
- Anti-replay/anti-substitution keys using Conettix

Easy installation, troubleshooting, and maintenance

- No networking expertise required at field site (no firewall or router settings)
- No computer or special tools required for installation and troubleshooting
- Diagnostic LEDs for on-site troubleshooting

LED	Function
Blue (STATUS)	System status Indicator
Red	Unacceptable signal strength
Yellow	Marginal signal strength
1 Green	Good signal strength
2 Green	Very good signal strength

Remote programming of Bosch control panels

The B442 supports secure, remote programming of compatible Bosch control panels.

RSC+ mobile app functionality

The RSC+ app provides remote access to the control panel with a mobile device. The following functions are possible:

- Arming
- Force arming
- Disarming
- Bypassing/unbypassing
- Isolating/unisolating
- Operating outputs
- Status inquiry
- Event/history inquiry

RSC+ compatibility

The RSC+ app can be used for Android v5.0 and higher.

The RSC+ app can be used for iOS v9.0 and higher.

RSC+ push notifications

Per default, push notifications for alarms are sent. Additionally, push notifications for system events and fault/trouble events can be switched on.

Certifications and approvals

Region	Regulatory compliance/quality marks	
Germany	VdS	H116003 [AMAX 2100/3000, RFRC-OPT, RFUN, RFDW-RM, RFDW-SM, RFPR-12, RFDL-11, RFKF-TB, RFKB-FB]
Europe	CE	AMAX panel 2100, AMAX panel 3000
	CE	EMC, LVD, RoHS
	CE	EMC, LVD, RoHS

Installation/configuration notes

B450-M Plug-in communicator interface, mobile

Mounting considerations

Install in a location with acceptable wireless network signal strength. Mount the module into the interior of a compatible enclosure. Use the 3-hole mounting pattern. Use the supplied mounting screws.

Wiring considerations

The interface connects to a control panel using a data bus connection via the module's terminal strip, or the module's interconnect wiring connectors.

For data bus powered installations outside the compatible control panel enclosure, follow the maximum wiring distances in the technical specifications.

B442 Plug-in cellular module, GPRS

Mounting considerations

The module plugs into any compatible control panel, available in a variety of enclosures.

Wiring considerations

The module connects to any compatible control panel without tools or physical wiring for power. When used with the B450, the B450 is wired to the control panel data bus. The cellular module has a screw on SMA antenna connection.

Parts included

Quantity	Component
1	AMAX panel 3000 with language package 1 (English, Polish, Turkish, Hungarian) including integrated PSTN communicator
1	Enclosure
1	Transformer
1	Tamper switch
1	Terminal block for power supply
1	Hardware accessory pack: EOL resistors
1	AMAX panel Operation Manual
1	B450-M Plug-in communicator interface, mobile
1	Hardware accessory pack
1	Interconnect cable wiring
1	B450-M literature
1	B442 Plug-in cellular module, GPRS
1	Antenna
1	B442 literature

Technical specifications**AMAX panel 3000****Electrical**

Power supply type	EN = A
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Transformer

Transformer input in VAC	230
Transformer output in VAC	18
Transformer AC power in VA	20
Transformer fuse in mA	500

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
DC output maximum current for all components: dependency on battery	<ul style="list-style-type: none"> Battery 7Ah standby 12h (recharge Batt 80% in 72h) = 550mA Battery 7Ah standby 36h + 15min alarm current 500mA (recharge Batt 80% in 72h) = 150mA

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%)
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
Aux 1 / 2 output current in mA at 25°C	500

Outputs

PO -1 / PO -2 maximum supervised output current in mA	500
PO -3 maximum current in mA	100

Option bus

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
Panel PCB maximum quiescent current in mA	100

Battery

Battery type	12 V / 7 Ah Bosch D 126
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)

Mechanical

Dimension in cm (H x W x D)	26.0 x 28.0 x 8.35
Weight in g	1950

Panel features

Number of zones	32
Number of on-board zones	8
Number of users	128
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	8
Number of DX 2010 modules	3
Number of DX 3010 modules	2
Number of GPRS modules: B450-M with B442 or B443	1
Number of IP modules: B426-M	2 (1 if 1 of the GPRS modules above is connected)
Number of RF receivers	1
Number of RADION RF repeaters	8
Number of RF sensors	32
Number of DSRF RF keyfobs	24

Number of RADION RF keyfobs	128
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Zones

Zone 1	Single or dual end-of-line (EOL 2,2K Ω) NC, NO
Zone 2 - 16 COM	7 Single or dual end-of-line (EOL 2,2K Ω) NC, NO
Tamper	Enclosure tamper input (does not reduce point capacity)

Option bus

Dimensions in mm	4 wire, \varnothing 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

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

B450-M Plug-in communicator interface, mobile Environmental

Relative humidity	Up to 93% at +32°C (+90°F) non-condensing
Operating temperature	0°C to +50°C (+32°F to +122°F)

Mechanical

Dimensions	79 mm x 128 mm x 38 mm (3.11 in x 5.03 in x 1.50 in)
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Electrical

Current (operating)	Standby: With cellular communicator = 60 mA Alarm: With cellular communicator = 180 mA
Voltage (operating)	(Bus operation): 12 VDC nominal

Wiring

Data bus wire gauge	12 AWG to 22 AWG (2.0 mm to .06 mm)
USB cable	USB cable (Type A to A male-to-male) – not supplied
Data bus wire length	Maximum Distance – wire size 22 AWG (0.6 mm) - 12 m (40 ft) 18 AWG (1.0 mm) - 30 m (100 ft)

16 AWG (1.3 mm) - 48 m (158 ft)
12 AWG (2.0 mm) - 122 m (400 ft)
You can extend the wire distances 300 m (1000 ft). Use a separate power supply, such as the B520 Auxiliary Power Supply Module.

B442 Plug-in cellular module, GPRS Electrical

Current (operating)	Standby: 35 mA Alarm: 150 mA
Voltage (operating)	12 VDC nominal

Mechanical

Board Dimensions	50 mm x 93.5 mm x 15.25 mm (2 in x 3.68 in x 0.60 in)
Antenna (included)	<ul style="list-style-type: none"> Magnetic base omni-directional 2.5 m (8.2 ft) cable with SMA connector
SIM card	<ul style="list-style-type: none"> 3V/1.8V SIM (compliant with GSM 11.12 recommendation)

Environmental

Operating temperature	-10°C to +55°C (+14°F to +131°F)
Relative humidity	5 - 93% at +32°C (+90°F) non-condensing
Environmental class	III
Usage	Indoor

Ordering information**AMAX3-P1G Intrusion panel, en/pl/tr/ru, GPRS**

Kit including one AMAX panel 3000, one B450-M Plug-in communicator interface, mobile, and one B442 Plug-in cellular module, GPRS

Language package 1: English, Polish, Turkish, Hungarian

Not certified according to European standards

Order number **AMAX3-P1G**

Accessories

IUI-AMAX-LCD8 LCD keypad, 8-zone

AMAX keypad 2000 D8, 8 zones LCD icon keypad
Order number **IUI-AMAX-LCD8**

IUI-AMAX3-LED8 LED keypad, 8-zone

AMAX keypad 3000 L8 is a 8 zone LED keypad
Certification: EN 50131-3 Grade 2
Order number **IUI-AMAX3-LED8**

IUI-AMAX3-LED16 LED keypad, 16-zone

AMAX keypad 3000 L16 is a 16 zone LED keypad
Certification: EN 50131-3 Grade 2
Order number **IUI-AMAX3-LED16**

IUI-AMAX4-TEXT Text keypad

AMAX keypad 4000 T, LCD text keypad, two lines with each 18 characters
Order number **IUI-AMAX4-TEXT**

DX2010 Input expander, 8-zone

Zone expansion module with 8 DEOL zone inputs
Order number **DX2010**

DX3010 Output expander, 8-relay

Package includes only the DX3010 board
Order number **DX3010**

AE20EN Enclosure for module w/tamper skirt, EN

AE20EN plastic enclosure for DX2010/DX3010
Order number **AE20EN**

ICP-EZPK Programming key

Blue key for transferring configurations to and from Easy Series and AMAX panels
Order number **ICP-EZPK**

ICP-EZRU-0106 ROM UPDATE KEY - EZ V1

Green key for upgrading the panel firmware
Order number **ICP-EZRU-0106**

RFRC-OPT Wireless option bus interface

A wireless receiver that connects RADION wireless peripherals such as the repeater, as well as detectors and transmitters, to supported Bosch control panels. For use in Europe.
Order number **RFRC-OPT**

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