

B4512 Control Panels

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BOSCH
Invented for life



- ▶ Supports up to 28 points using a combination of hardwired or wireless points for installation flexibility and 2 areas with perimeter and interior control
- ▶ On-board Ethernet port for Conettix IP alarm communication and remote programming, compatible with modern IP networks including IPv6/IPv4, Auto-IP and Universal Plug and Play
- ▶ Installer-friendly features including on-board USB for easy on-site RPS programming, plus plug-in PSTN and Cellular communication modules for simple installation and future proof upgrades
- ▶ Notifications with email and text messaging, and the Remote Security Control app for Android and iOS mobile devices
- ▶ Programmable keypad shortcuts, situation sensitive on-screen help, and a bilingual user interface make system operation simple and easy

The B4512 Control Panel integrates intrusion and residential fire, providing one simple user interface for both systems. The B4512 provides up to 28 individually identified points that can be split into 2 areas. The control panel includes a built-in Ethernet port for IP network communications, and is compatible with modules that send events to selected public switched telephone network (PSTN), IP network, or cellular network destinations through four programmable route groups. With the B4512, you can monitor doors, windows, and motion within areas like showrooms or those that hold inventory. Each user can have a personalized passcode, a wireless keyfob, and a credential to control the system.

Use programmable authority levels with restricted privileges to provide service, security, and cleaning personnel with full or limited access. Use the three programmable outputs (expandable up to 27) to turn on lights or open and lock doors. Users can:

- Turn on the system to secure the stock room while you conduct daily business.
- Perform tests to ensure your system is working properly.
- Set your system to alarm immediately if a door opens.
- Activate the Watch feature so a tone sounds whenever a customer enters.
- Set a schedule for your system to automatically turn on at closing time.
- Use wireless security options to customize your system.

Central monitoring stations provide 24-hour system monitoring with access to vital services. Professional security personnel can test the system, monitor system activity, and alert the police, fire department, or other emergency response teams if necessary.

Functions

Programmable outputs

- 500 mA not to exceed 1.3 A total current for a burglary system, or not to exceed 1.0 A total current for household fire applications
- 800 mA auxiliary power at 12 VDC
- Four alarm-output patterns
- Programmable bell test
- Three programmable outputs; one high current using a relay, and two trigger outputs
- Output A contact rating is 3 Amps

System response

- High-performance micro-controller provides industry leading system response
- 20 custom point indexes
- Selectable point response time
- Selectable EOL resistor configuration, single or dual
- Cross point capability
- Fire alarm verification
- Dangerous gas indicator includes carbon monoxide (NFPA 720)
- Watch mode
- Scheduled events (SKEDs) perform several functions, such as turn on (arm) the system, turn off (disarm) the system, bypass and unbypass points, and control relays

User interface

- Supervision of up to 8 keypads
- Custom keypad text is fully programmable through RPS
- Full function menu including custom functions
- Authority by area and 32 character name for each user
- 14 custom authority levels control user's authority to change, add, or delete passcodes to disarm or bypass areas; and to start system tests
- Programmable primary and secondary language by user and keypad; select from English, Spanish, French, and Portuguese

Area programming offers a wide selection of different system configurations. Make area arming conditional on other areas (master or associate), if desired. You can configure any area for perimeter and interior arming, not requiring a separate area for this function. For higher security applications, the Area Re-Arm feature guarantees that areas are always rearmed, and are disarmed for no longer than a specific, configurable, amount of time (for example, service time).

Custom functions

For added convenience, the installer can program custom functions that allow customers to complete complex tasks with one simple action. For example, a custom function can bypass a group of points and arm

the system, allowing the user to perform these functions with one easy command. Users can activate custom functions with a keypad, keyfob, token, or card, or the control panel can activate a function in reaction to a faulted point, or automatically through a scheduled event (SKED).

Passcode security

- Two-man rule. Requires two people with two unique passcodes to be present at the time of opening.
- Early ambush. Allows users to verify that the facility is safe by requiring two passcodes. The control panel sends a duress event if the user does not enter the passcode a second time after inspecting the premises.
- Dual authentication. Requires two forms of identification before processing certain system commands, including turning off the system and opening doors. A standard system user must have a passcode, a credential (token or card), and appropriate command authority permissions assigned in the door and keypad's assigned area.

Easy exit control

The control panel changes from one On (armed) state to another without turning off (disarming) the system. For example, if you change the state from Part On (Perimeter Arm) to All On (Master Arm), the control panel complies and reports the change. Easy Exit Control reduces the number of keystrokes, simplifying system operation.

Programmable passcode-controlled menu list

Passcode-controlled shortcuts provide users only with the options and information pertinent to them, simplifying system operation.

Flexible control

The system provides the flexibility to choose added convenience or high security. For example, you can restrict to a keypad's immediate local area turning on (arming) and turning off (disarming) the system with a passcode, even if the user has access to other areas. This is particularly useful for high security areas, where a user may have access to the area, but would prefer to only turn off (disarm) the area individually rather than with the rest of the system.

Monitor Delay/Delayed Response

Create a special point index that delays the reaction of a point for a specified time (up to 1 hour in minutes and seconds). This delay provides time for the specified condition to reset before activating any annunciation. The system can annunciate locally and send a report, if desired. When the system is armed, the point can respond like a normal point – providing dual functionality. Use this feature to ensure that perimeter doors have not been propped open, or to monitor critical areas such as computer rooms and safes, for example.

System users

The system supports up to 32 users. Each user can have a personalized passcode, a wireless keyfob, and a credential to control the system. You can assign passcodes to one of 14 customized authority levels in each area and can be restricted to operate only during certain times. Programmable primary and secondary language by user and keypad; select from English, Spanish, French, and Portuguese.

Communication formats

The control panel prioritizes and sends reports to four route groups. Network and phone communications can use either the Modem4 or the Contact ID communications formats. Each group has a programmable primary and backup destination. The control panel provides flexible communications for most central stations with reporting capabilities such as:

- Individual point numbers
- Opening or closing reports by user and area number
- Remote programming attempts
- Diagnostic reports

IP communication

The control panel can use on-board Ethernet (IP) connection (the on-board Ethernet port is excluded on “E” versions) to communicate with a Conetix D6600 or a Conetix D6100IPv6 Communications Receiver/Gateway.

The control panel can optionally use a B426 Conetix Ethernet Communication Module or a Conetix Plug-in Cellular Communicator (B440/B441/B442/B443). Using Conetix IP communication offers a secure path that includes anti-replay/anti-substitution features and provides enhanced security with AES 256-bit encryption (using Cipher Block Chaining (CBC)). The control panel supports Domain Name System (DNS) for both remote programming and central station communication. DNS provides ease of use, eliminating the need to use static IP addresses as your reporting destination, and accommodates a simple solution for central station disaster recovery. IP Setup is easy, eliminating the need to use complicated internet programming tools such as ARP and Telnet. The control panel supports both IPv6 and IPv4 networks.

Communication paths

The control panel accommodates up to four separate phone and four separate network paths to the central station receiver. When resetting alarms or turning a system on and off, the user is identified by name and number.

Personal notification

The control panel can send text messages and emails for personal notification over Ethernet or using a cellular communicator. You can configure up to 16 destinations using a combination of cellular phone

numbers and email addresses. The control panel sends notifications in the user’s programmed primary language.

Firmware updates

The system allows remote firmware updates through Remote Programming Software (RPS) using the RPS Firmware Update Wizard. The Firmware Update Wizard uses the on-board USB connection or the on-board Ethernet (IP) connection (the on-board Ethernet port is excluded on “E” versions) to transmit firmware updates.

The control panel can optionally receive firmware updates from RPS using a B426 Conetix Ethernet Communication Module or a Conetix Plug-in Cellular Communicator (B440/B441/B442/B443). **Notice!** Cellular firmware updates require more time than Ethernet updates and carrier data rates apply.

- Control panel updates. Remotely update the control panel firmware for easy feature enhancements without replacing ROM chips.
- Module update support. Remotely update the firmware on connected SDI2 modules for easy feature enhancements without visiting each individual module.

A wide variety of input options

Each point:

- Accommodates normally-open (NO) and normally-closed (NC) devices with end-of-line (EOL) resistor supervision.
- Accepts programming for fire, gas, fire supervisory, or intrusion applications.
- Supports hardwired and wireless devices.
- Supports IP cameras by Bosch as point sources.

Security and fire detection

The control panel provides eight on-board points, and up to 20 additional off-board points (depending on model and expansion interfaces). You can program individual points to monitor some types of burglar alarms, fire alarms, and supervision devices.

Event log

The event log stores local and reported events. The event log includes information such as time, date, event, area, point, and user. View the event log from a keypad or use RPS to remotely retrieve event information. When the event log reaches a programmed threshold of stored events, it can send an optional report to a receiver.

The log stores up to 127 local and reported events.

Scheduled events (SKEDs)

The internal clock and calendar start individually scheduled events (SKEDs). SKEDs perform functions such as turn on or off, relay control, or point bypassing.

The control panel offers:

The control panel offers:

- Five scheduled events with up to 25 different functions
- Two opening windows and two closing windows

- Two user windows
- Day-of-week, date-of-month, or holiday only schedules
- One holiday schedule of 366 days (leap year)

Programming

Installers can perform limited programming on-site with a keypad (critical parameters; such as account IDs, central station and RPS IP addresses and phone numbers, reporting formats, and more). They can also do full programming on-site or remotely (attended or unattended) with RPS. A programmable system passcode prevents unauthorized remote programming.

Diagnostics

Keypads and RPS offer diagnostic help for monitoring and troubleshooting. The diagnostics features allow you to view the status of the wired and wireless devices. The features provide the status of the control panel and its connected devices, such as firmware version, power, and missing conditions. View the status of each area.

Bosch Video Management System integration

With Bosch Video Management System (Bosch VMS) and an intrusion system, the VMS operator has a single user interface to monitor and control the intrusion system combined with video surveillance. With Bosch VMS and a control panel, the operator can, for example:

- View videos triggered by intrusion events, including all relevant information such as areas, point, and user show in the display with the event
- View areas, points, outputs, and doors – with their statuses – on the Bosch VMS map, providing the exact location in the system.
- Turn on (arm) and turn off (disarm) areas.
- Bypass and unbypass points.

Requirements to integrate Bosch VMS with a control panel:

- A licensed Bosch VMS system using Professional Editions v5.5 or higher or Bosch VMS Enterprise Edition v5.5 or higher.
- Expansion license to integrate the intrusion control panel. One license needed per control panel. Order number MBX-XINT-xx for the expansion license added to a Bosch VMS base license. Refer to the Bosch Video Management Software product page on the Bosch website, www.boschsecurity.com.
- Access to Remote Programming Software (RPS).

Certifications and approvals

| Region | Certification | |
|--------|---------------|--|
| USA | ANSI/SIA | CP-01-2010-Control Panel Standard - Features for False Alarm Reduction |
| Region | Certification | |
| USA | UL | |
| | UL | UL 365 - Police Station Connected Burglar Alarm Units |

| Region | Certification | |
|--------|---------------|---|
| | UL | UL 609 - Standard for Local Burglar Alarm Units and Systems |
| | UL | UL 636 - Holdup Alarm Units and Systems |
| | UL | UL 985 - Household Fire Warning System Units |
| | UL | UL 1023 - Household Burglar Alarm System Units |
| | UL | UL 1076 - Proprietary Burglar Alarm Units and Systems |
| | UL | UL 1610 - Central Station Burglar Alarm Units |
| | CSFM | see our website |
| | FCC | Part 15 Class B |
| Canada | ULC | |
| | ULC | CAN/ULC S303 - Local Burglar Alarm Units and Systems |
| | ULC | CAN/ULC S304 - Standard for Signal Receiving Center and Premise Burglar Alarm |
| | ULC | CAN/ULC S545 - Residential Fire Warning System Control Units |
| | ULC | ULC-ORD C1023 - Household Burglar Alarm System Units |
| | ULC | ULC-ORD C1076 - Proprietary Burglar Alarm Units and Systems |

Installation/configuration notes

Compatible products

Keypads

B942/B942W Touch Screen Keypad (SDI2)
 B930 ATM Style Alphanumeric Keypad (SDI2) (SDI2)
 B921C Two-line Capacitive Keypad (SDI2)
 B920 Two-line Alphanumeric Keypad (SDI2)
 B915/B915I Basic Keypad (SDI2)

Transformers

CX4010 Plug-in Transformer (18 VAC 22 VA 60 Hz)
 ICP-TR1822-CAN Plug-in Transformer (110 VAC primary, 18 VAC 22 VA secondary)

Enclosures

B10 Medium Control Panel Enclosure
 B11 Small Control Panel Enclosure
 B12 Mounting Plate for D8103 Enclosure
 D2203 Enclosure
 D8103 Universal Enclosure (requires a B12)

D8108A Attack Resistant Enclosure (requires a B12)

D8109 Fire Enclosure (requires a B12)

Accessories

B56 B56 Keypad Surface Mount Box

B96 Keypad Trim Bezel

B99 USB Direct Connect Cable

B501-10 Interconnect wiring cables (pack of 10)

Detectors

D285/TH Photoelectric Smoke Detector Heads

FCC-380 Carbon Monoxide Detector

Bosch conventional detectors, including Professional Series, Blue Line Gen2, Blue Line, Classic Line, Commercial Line, and Ceiling Mount motion detectors, as well as glass break, seismic, request-to-exit, photoelectric, heat, and smoke detectors.

Modules

B201 2-wire Powered Loop Module

B208 Octo-input Module

B308 Octo-output Module

B426 Conettix Ethernet Communication Module

B430 Plug-in Telephone Communicator

B440 Conettix Plug-in Cellular Communicator

B441 Conettix Plug-in Cellular Communicator

B442 Conettix Plug-in Cellular Communicator (Latin America)

B443 Conettix Plug-in Cellular Communicator (Canada)

B450 Conettix Plug-in Communicator Interface

B520 Auxiliary Power Supply Module

B810 wireless receiver (RADION)

B820 SDI2 Inovonics Interface Module

D113 Battery Lead Supervision Module

D125B Dual Class B Initiating Module

D129 Class A Initiating Module

D130 Auxiliary Relay Module

D132A Smoke Detector Reversing Relay Module

D133/D134 Relay Module

D185 Reverse Polarity Signaling Module

D192G Class "B", Style Y Bell Circuit Supervision

Applications

Remote Programming Software (RPS or RPS-LITE) v5.17 and higher

Bosch Video Management System v5.5 and higher

Conettix receivers

(Managed and configured with Conettix D6200 Programming/Administration Software v2.00)

Conettix D6600 Communications Receiver/Gateway (with only D6641 line cards installed) with CPU version 01.10.00

Conettix D6100IPv6 Communications Receiver/Gateway with CPU version 61.10.00

Conettix D6100i Communications Receiver/Gateway with CPU version 61.10.00

RADION wireless from Bosch

B810 wireless receiver (RADION)

RFBT-A bill trap

RFDL-11-A TriTech motion detector

RFDW-RM-A recessed mount door/window contact

RFDW-SM-A surface mount door/window contact

RFGB-A glass break detector

RFIN-A inertia detector

RFKF-A two-button keyfob

RFKF-FB-A four-button keyfob

RFKF-TB-A two-button keyfob

RFPB-SB-A single-button panic

RFPB-TB-A two-button panic

RFRP-A repeater

RFSM-A smoke detector

RFPR-12-A PIR motion detector

RFPR-C12-A PIR curtain motion detector

RFUN-A universal transmitter

Inovonics Wireless

B820 SDI2 Inovonics Interface Module

ENKIT-SDI2 SDI2 Inovonics Interface and Receiver Kit. Includes B820 and EN4200

EN1210 Universal Transmitter (Single-input)

EN1210EOL Universal Transmitter with EOL Resistor

EN1210W Door-Window Transmitter with Reed Switch

EN1215EOL Universal Transmitter with Wall Tamper, Reed Switch, and EOL Resistor

EN1223D Water-resistant Pendant Transmitter (Double-button)

EN1223S Water-resistant Pendant Transmitter (Single-button)
 EN1224-ON Multiple-Condition Pendant Transmitter
 EN1233D Necklace Pendant Transmitter (Double-button)
 EN1233S Necklace Pendant Transmitter (Single-button)
 EN1235D Beltclip Pendant Transmitter (Double-button)
 EN1235DF Fixed-location Transmitter (Double-button)
 EN1235S Beltclip Pendant Transmitter (Single-button)
 EN1235SF Fixed-location Transmitter (Single-button)
 EN1247 Glass-break Detector Transmitter
 EN1249 Bill Trap Transmitter
 EN1242 Smoke Detector Transmitter
 EN1260 Wall Mount Motion Detector
 EN1261HT High Traffic Motion Detector
 EN1262 Motion Detector with Pet Immunity
 EN1265 360° Ceiling Mount Motion Detector
 EN4200 Serial Receiver
 EN5040-T High Power Repeater with Transformer

Parts included

The B4512 includes the following:

| Quant. | Component |
|--------|--|
| 1 | B4512 |
| 1 | Literature pack <ul style="list-style-type: none"> • UL Installation Instructions • Owner's Manual • Release Notes • SIA Quick Reference Guide |
| 1 | Literature CD containing product literature |

Each B4512E control panel kit includes the following:

| Quant. | Component |
|--------|---|
| 1 | B4512E (without on-board Ethernet port) |
| 1 | Plug-in communicator (telephone or cellular, depending on the kit) |
| 1 | Plug-in Transformer (18 VAC 22 VA 60 Hz) |
| 1 | Control panel enclosure (kit dependent) |
| 1 | Literature pack <ul style="list-style-type: none"> • UL Installation Guide • Owner's Manual • Release Notes • SIA Quick Reference Guide |
| 1 | Literature CD containing product literature |

Technical specifications

Communications

| | |
|----------|----------------------------------|
| Ethernet | One on-board Ethernet connector* |
|----------|----------------------------------|

Environmental considerations

| | |
|-------------------------|--|
| Relative humidity | 5% to 93% at +90°F (+32°C), non-condensing |
| Temperature (operating) | +32°F to +122°F (0°C to +49°C) |

Number of...

| | |
|----------------------|-------------------------------------|
| Areas | 2 |
| Custom functions | 2 |
| Events | Up to 127 |
| Passcode users | 32, plus 1 Installer passcode |
| Points | 28 (8 on-board, up to 20 off-board) |
| Programmable outputs | 27 (3 on-board, up to 24 off-board) |
| RF points | 20 |
| SKEDs | 5 |

Power Requirements

| | |
|--|---|
| Current draw (maximum) | Idle 125 mA; Alarm 155 mA |
| Output (alarm) | 1.3 A at 12 VDC |
| Output (auxiliary, continuous power, and switched auxiliary combined): | 800 mA at 12 VDC nominal |
| Voltage (operating): | 12 VDC nominal |
| Voltage (AC): | CX4010 UL Listed Class 2 Transformer 18 VAC 22 VA 60 HZ |

*The "E" control panels do not include an on-board Ethernet connector.

Trademarks

All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

Ordering information

B4512 Control Panel

The B4512 is available individually or in kits. For kits, refer to *Quick Selection Guide (B Series Kits)* on the Documents tab of the control panel's Product Page at us.boschsecurity.com.
 Order number **B4512**

B4512E Control Panel

The B4512E is available only in kits. For kits, refer to *Quick Selection Guide (B Series Kits)* on the Documents tab of the control panel's Product Page at us.boschsecurity.com.
Order number **B4512E**

B520 Auxiliary Power Supply Module

Provides auxiliary power to 12VDC devices or to SDI2 modules.
Order number **B520**

B520 Kit, B10 Enclosure

B520 Auxiliary Power Supply kit. Includes a TR1850 transformer and a B10 White, steel enclosure.
Order number **B520-B**

B520 Kit, D8103 Enclosure

B520 Auxiliary Power Supply kit. Includes a TR1850 transformer, a B12 mounting plate, and a D8103 Gray, steel enclosure.
Order number **B520-C**

B201 2-wire Powered Loop Module

The module provides a single powered initiating device circuit. The module supports compatible 12 V 2-wire smoke detectors. It also supports connecting burglary devices to the control panel.
Order number **B201**

B208 Octo-input Module

Provides 8 programmable inputs.
Order number **B208**

B308 Octo-output Module

Provides 8 programmable relays.
Order number **B308**

D122 Dual Battery Harness

Harness with circuit breaker. Connects two batteries to a compatible control panel.
Order number **D122**

D122L Dual Battery Harness with Long Leads

Color-coded harness with circuit breaker and leads measuring 89 cm (35 in.). Connects 12 V batteries to compatible control panels.
Order number **D122L**

D126 Standby Battery (12 V, 7 Ah)

A rechargeable sealed lead-acid power supply used as a secondary power supply or in auxiliary or ancillary functions.
Order number **D126**

D1218 Battery (12 V, 18 Ah)

A 12 V sealed lead-acid battery for standby and auxiliary power with two bolt-fastened terminals. Includes hardware for attaching battery leads or spade connectors
Order number **D1218**

CX4010 Plug-in Transformer

For use in North America. 110 VAC primary voltage input. 18 VAC, 22 VA secondary input.
Order number **CX4010**

TR1850-CA Transformer

For use in Canada. Plug-in transformer with input: 120 VAC, 60 Hz, 0.50 A; output 18 VAC, 50 VA output.
Order number **TR1850-CA**

D8004 Transformer Enclosure

For applications such as fire alarm that might require a transformer enclosure.
Order number **D8004**

B8103 Enclosure

White steel enclosure measuring 41 cm x 41 cm x 9 cm (16 in. x 16 in. x 3.5 in.).
Order number **B8103**

D8103 Enclosure

Grey steel enclosure measuring 41 cm x 41 cm x 9 cm (16 in. x 16 in. x 3.5 in.).
Order number **D8103**

D8108A Attack Resistant Enclosure

Grey steel enclosure measuring 41 cm x 41 cm x 9 cm (16 in. x 16 in. x 3.5 in.). UL Listed. Includes lock and key set. B520, B4512, and B5512 require the B12 mounting plate.
Order number **D8108A**

D8109 Fire Enclosure

Red steel enclosure measuring 40.6 cm x 40.6 cm x 8.9 cm (16 in. x 16 in. x 3.5 in.). UL Listed. Includes a lock and key set.
Order number **D8109**

B10 Medium Control Panel Enclosure

White, steel enclosure. Accepts an optional lock and tamper switch. Measures 35.6 cm x 31.8 cm x 7.6 cm (14 in x 12.5 in x 3 in).
Order number **B10**

B11 Small Control Panel Enclosure

White, steel enclosure. Accepts an optional lock and tamper switch. Measures 27.8 cm x 25.9 cm x 8.32 cm (10.9 in x 10.2 in x 3.3 in).
Order number **B11**

B12 Mounting Plate for D8103 Enclosure

Required for mounting select control panels and other devices in D8103, D8108A, D8109, or BATB Battery Box enclosures.
Order number **B12**

D101 Lock and Key Set

Short-body lock set with one key supplied. Uses the D102 (#1358) replacement key.
Order number **D101**

D110 Tamper Switch

Screw-on tamper switch that fits all enclosures.
Shipped in packages of two.
Order number **D110**

ICP-EZTS Dual Tamper Switch

Combination tamper switch with a wire loop for additional tamper outputs.
Order number **ICP-EZTS**

RPS Kit (USB)

Account management and control panel programming software with USB security key (dongle).
Order number **D5500C-USB**

Accessories

SDI2 Inovonics Interface and Receiver Kit

Kit containing B820 and EN4200 for use on SDI2 bus panels.
Order number **ENKIT-SDI2**

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