

1 | Overview

The B465 Conettix Universal Dual Path Communicator links the digital dialer from an intrusion/fire control panel to an Ethernet connection on a local area network (LAN) or wide area network (WAN). The module uses its built-in Ethernet connection, and/or a Conettix plug-in cellular module (B440/B441/B442/B443) to send reports to the central station receiver.

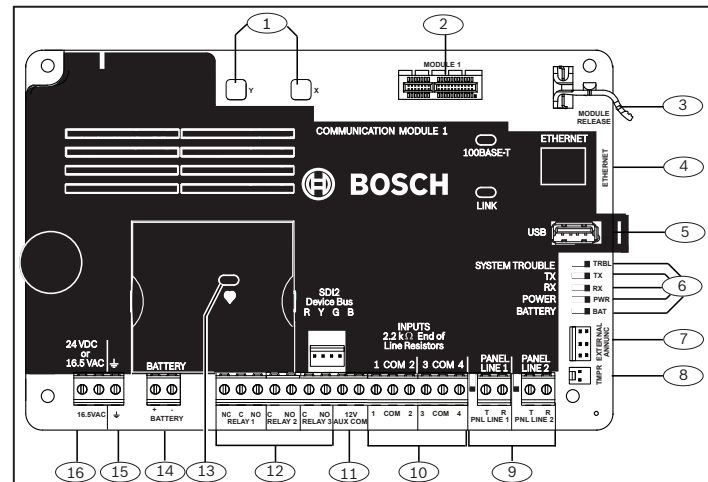


Figure 1.1: Board overview

Callout – Description	Callout – Description
1 – Holes to stabilize plug-in modules	9 – Control panel phone line connectors
2 – Plug-in module connector	10 – Input loop terminals (COM 1 to COM 4)
3 – Plug-in module retention clip	11 – 12V AUX/COM terminal
4 – Ethernet connector	12 – Programmable output relays to a control panel
5 – USB connector	13 – Heartbeat LED
6 – Status LEDs (SYSTEM TROUBLE, TX, RX, POWER, and BATTERY)	14 – 12 VDC sealed lead-acid rechargeable battery terminals
7 – External Annunciator connector (connected to a B46)	15 – Earth ground terminal
8 – Tamper switch	16 – 16.5 VAC or 24 VDC power supply input terminals



NOTICE!

The SDI2 Device Bus terminal connector located about callouts 11 and 12 is for future use.

2 | Installation

This section describes basic hardware installation procedures for installing the enclosure, B465 and B46 modules, and knockout locations for wire routing. For information on configuration, LED descriptions, and troubleshooting refer to the *B465 Installation and Operation Guide (P/N: F01U311207)*.



NOTICE!

Notify the central station and the local authority before installing the B465 in an existing system.



CAUTION!

Remove all power (AC and battery) before making any connections. Failure to do so might result in personal injury and/or equipment damage.

2.1 | Remove enclosure knockouts

Review knockout locations before installing onto any surface. Each enclosure is slightly different regarding knockout locations. Use a hammer and punch to remove the desired knockout locations. Use pliers to remove metal debris. Refer to *Figure 2.1*.

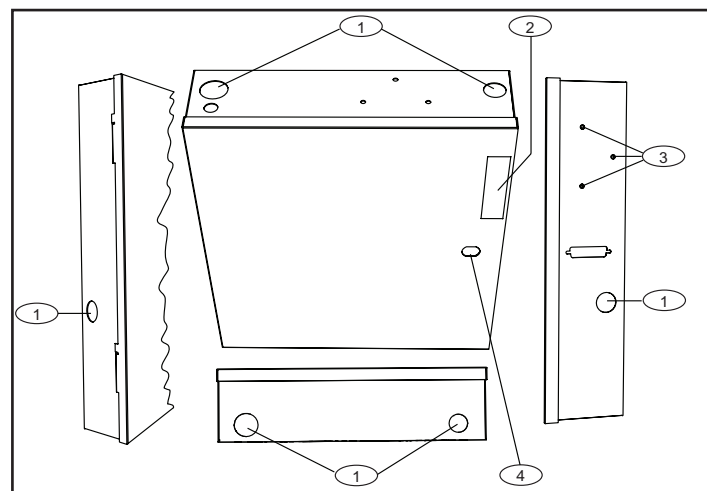


Figure 2.1: Enclosure knockout locations (B10 shown)

Callout – Description

- 1 – Suggested knockout locations for B465 wiring
- 2 – Knockouts for B46 LED cover and module (optional for non-fire applications)
- 3 – Lockset mounting knockout

2.3 | Mount the enclosure

Mount the UL Listed enclosure such as the B10/B10R, B11/B11R, or D8103 enclosure in the desired location. Refer to *Figure 2.3*.

2.4 | Apply the wiring label into the enclosure

Apply the supplied wiring label to the inside, enclosure door. Refer to *Figure 2.3* for wiring label location.

2.5 | Insert enclosure earth ground wiring

Insert the supplied earth ground wire onto the inside clip of a B10/B10R or B11/B11R the enclosure door. Refer to *Figure 2.3* for ground wire location.

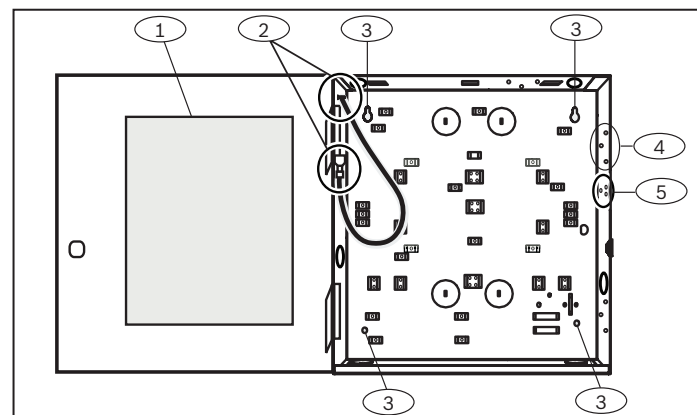


Figure 2.3: Mount the enclosure (B10/B10R shown)

Callout – Description

- 1 – B465 wiring label (label insertion location)
- 2 – Earth ground wiring enclosure location
- 3 – Enclosure mounting holes (4)
- 4 – B46 mounting locations*
- 5 – Tamper switch mounting locations (optional)

* Use the upper, right-hand 3-hole mounting location for installing the optional B46 module in a B10 enclosure.

2.6 | Insert plastic standoff

Snap the four supplied plastic standoffs onto four enclosure support posts. Refer to *Figure 2.4* and *Figure 2.5*.

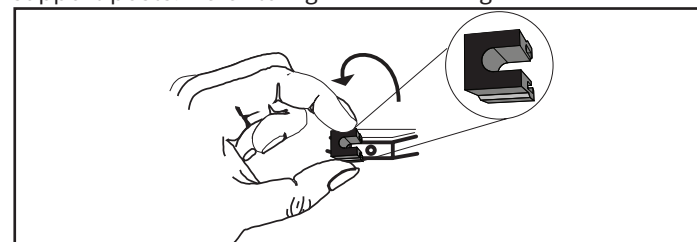


Figure 2.4: Mount the plastic standoff onto the enclosure

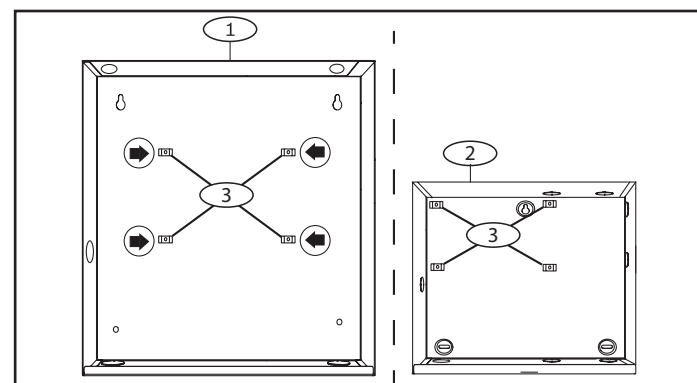


Figure 2.5: Mount the module

Callout – Description

- 1 – B10/B10R enclosure
- 2 – B11/B11R enclosure
- 3 – Mounting plastic standoff locations for B465

2.7 | Inserting the screws

Mount the B465 into the enclosure's 4-hole plastic standoffs using the supplied screws and a slotted screwdriver. Refer to *Figure 2.6*.

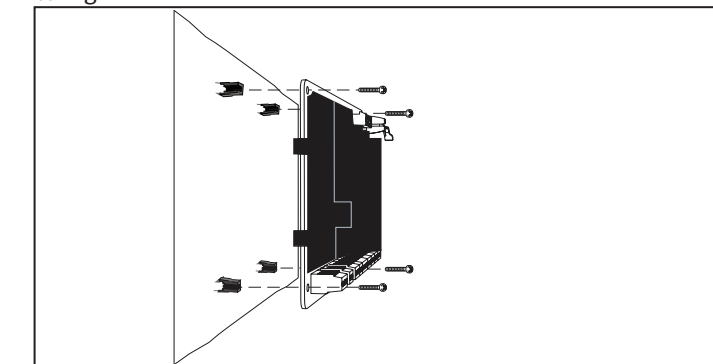


Figure 2.6: Mount the enclosure

2.8 | Mount the B46 module (optional)

Mount the B46 into the enclosure's side, 3-hole mounting pattern using the supplied mounting screws, and secure onto the enclosure. Refer to *Figure 2.7*. For more information on the B46 installation, refer to the *B46 Installation and Operation Guide (P/N: F01U312441)*.

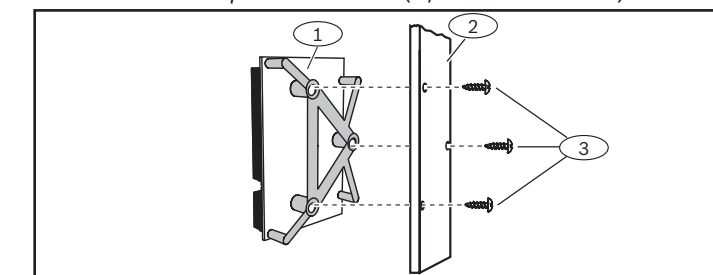


Figure 2.7: Mount the B46 module

Callout – Description

- 1 – Module with mounting bracket installed
- 2 – Enclosure (side wall)
- 3 – Mounting screws (3)

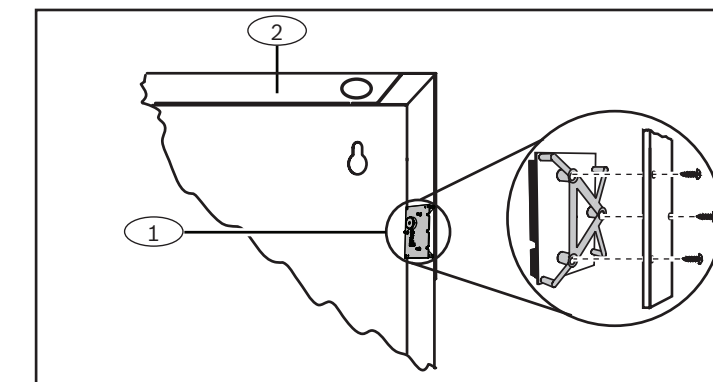


Figure 2.8: Installing into an enclosure

Callout – Description

- 1 – B46
- 2 – Enclosure

2.9 | Insert the cellular module (optional)

Insert the cellular module into the slot of the B465 until the module “clicks” into place. Refer to *Figure 2.9*.

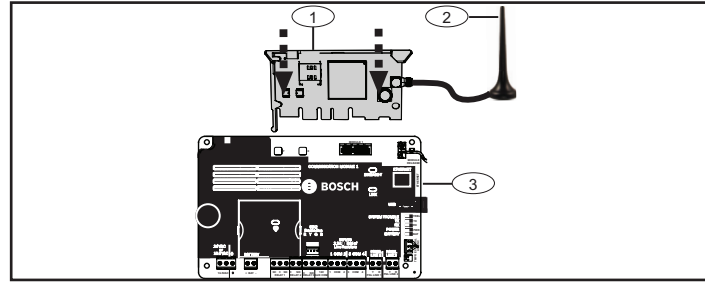


Figure 2.9: Insert the cellular communication module

Callout – Description	Callout – Description
1 – B44x cellular module	3 – B465
2 – Antenna	

2.10 | Wire to the control panel

Refer to the enclosure wiring label supplied with the B465, or the *B465 Installation and Operation Guide* for specific wire routing information. Refer to *Figure 2.10* for basic wiring routes.

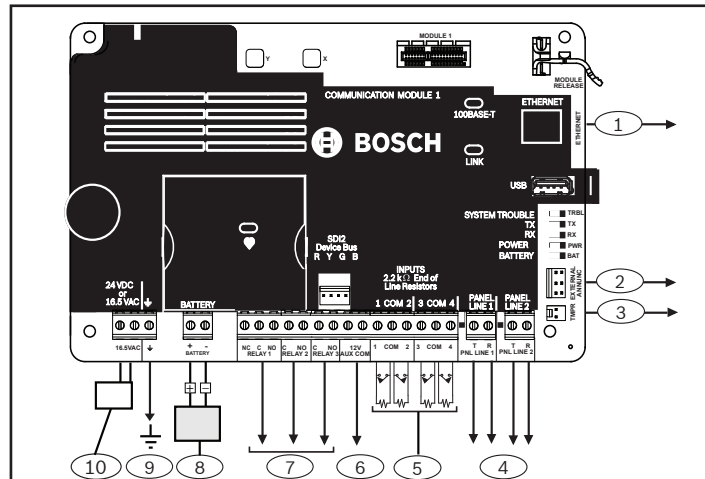


Figure 2.10: System wiring

Callout – Description	Callout – Description
1 – RJ 45 Ethernet connection to central station	6 – 12V AUX/COM terminals (optional output power source, Special Application 9.9 - 13.8 V)
2 – External Annunciator terminal (connected to B46)	7 – Programmable output relays (Relay 1, Relay 2, Relay 3)
3 – To tamper switch	8 – Battery (7-18 Ah)
4 – Phone Line 1/2 to control panel terminals	9 – To earth ground
5 – EOL input loop	10 – 16.5 VAC or 24 VDC power supply input terminals

2.11 | Earth ground wiring

Connect the system to earth ground before making other connections. Doing so prevents damage from electrostatic discharges or other transient electrical surges. Use a recommended earth ground reference such as a grounding rod, or a cold water pipe. Make the connection using 14 AWG (1.8 mm) to 16 AWG (1.5 mm) wire. Refer to the *B465 Installation and Operation Guide* (P/N: F01U311207).



NOTICE!

The D8004 is required for any Commercial Fire installations that use a plug-in transformer.

2.12 | Wire to the control panel

Use supporting wiring when connecting a B465 to a intrusion/fire control panel in order to establish communication. Refer to *Figure 2.11*.

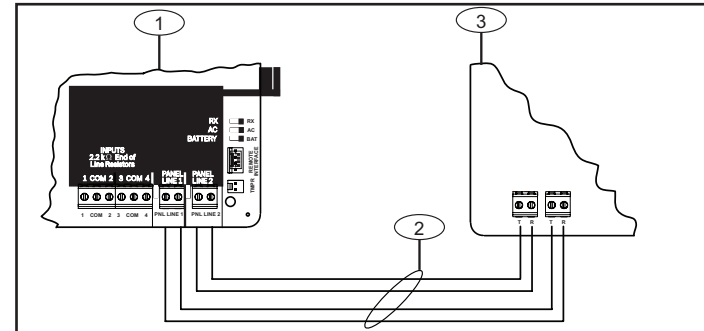


Figure 2.11: System wiring

Callout – Description	Callout – Description
1 – B465 module	3 – Intrusion/Fire control panel
2 – Phone wiring connection	

2.13 | Wire to B46 (optional)

Use supporting B46 cable to connect to the B465. Refer to *Figure 2.12*.

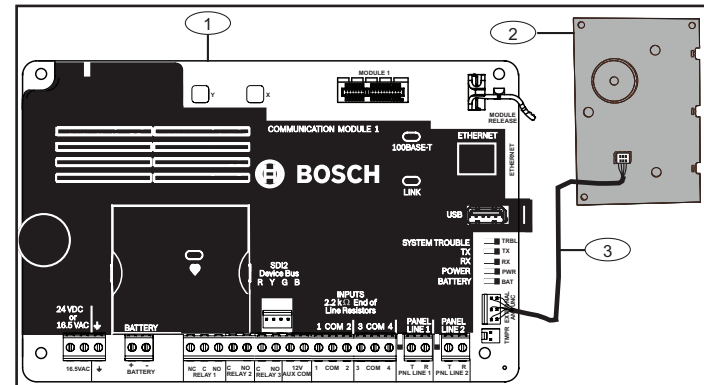


Figure 2.12: B46 wiring

Callout – Description	Callout – Description
1 – B465 module	3 – B46 wiring harness (P/N: F01U310747)
2 – B46 module	

3 | Configuration

You can configure the B465 using USB. For information on configuring the B465, refer to the *B465 Installation and Operation Guide* (P/N: F01U311207).

4 | LED descriptions

The B465 and B46 modules include on-board LEDs to assist with troubleshooting issues as well as communication status. For detailed information on all LED descriptions, refer to the *B465 Installation and Operation Guide* (P/N: F01U311207).

7 | Certifications

Region	Certification
US	FCC Part 15 Class B
	NIST FIPS 197 AES Certification (IP Communications)
	California State Fire Marshall (CSFM)
	UL 365 – Police Station Connected Burglar Alarm Units and Systems
	UL 609 – Local Burglar Alarm Units and Systems
	UL 864 – Control Units and Accessories for Fire Alarm Systems
	UL 985 – Household Fire Warning System Units
	UL 1023 – Household Burglar Alarm System Units
	UL 1076 – Proprietary Burglar Alarm Units and Systems
	UL 1610 – Central Station Burglar Alarm Units
Canada	CAN/ULC S303 – Local Burglar Alarm Units and Systems
	CAN/ULC S304 – Signal Receiving Centre and Premise Alarm Control Units
	ULC - S545 – Residential Fire Warning System Control Units
	ULC – ORD C1023 – Household Burglar Alarm System Units
	ULC – ORD C1076 – Proprietary Burglar Alarm Units and Systems
	ICES – 003 – Digital Apparatus

8 | Specifications

Dimensions	79 mm x 128 mm x 38 mm (3.11 in x 5.03 in x 1.50 in)
Voltage output (operating)	12 VDC nominal (Special application)
Standby battery current requirements	*Battery input: B465: Idle 150 mA; Alarm 230 mA Alarm: B465 with B440/B441/B442/B443 = 180 mA
24 VDC input current requirements	*24 VDC input: B465: Idle 120 mA; Alarm 160 mA
USB cable	USB cable (Type A to A male-to-male) - not supplied. Use a Bosch supported cable such as the B99 cable (F01U278853)
Compatible transformers	D1640, 120 VAC input, 16.5 VAC, 40 VA output Class 2 plug-in D1640-CA 120 VAC input, 16.5 VAC, 40 VA output Class 2 plug-in D1640-120WI, 120 VAC input, 16.5 VAC, 40 VA output Class 2 wire-in
Compatible digital dialer formats	Contact ID Pulse 3/1, Pulse 4/2 SIA (SIA8, SIA20)
Compatible receivers	D6600/D6100IPv6/D6100i
Compatible enclosures	B10/B10R Medium Control Panel Enclosure B11/B11R Small Control Panel Enclosure D8103 Enclosure
Compatible module	B46 module (must use supporting B46 cable to connect to the B465)
Relative humidity	Up to 93% non-condensing
Temperature (operating)	0° to +49° C (+32° to 120° F)
*Refer to the Standby battery requirements and calculations section in the B465 Installation and Operation Guide for the current draw requirements of other system components	

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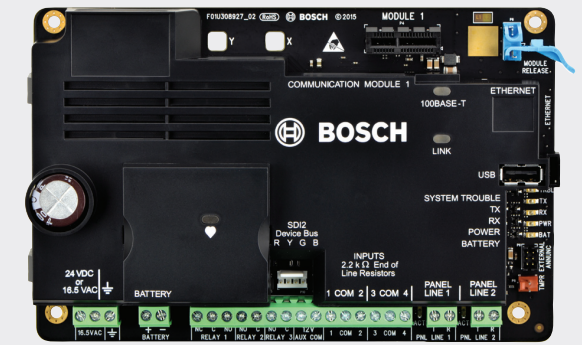
Use the serial number located on the product label and refer to the Bosch Security Systems, Inc. website at <http://www.boschsecurity.com/datecodes/>.

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Bosch Security Systems, Inc. product manufacturing dates

Use the serial number located on the product label and refer to the Bosch Security Systems, Inc. website at <http://www.boschsecurity.com/datecodes/>.



Conettix Universal Dual Path Communicator B465



en Quick Start Guide

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