

## 1 | Overview

The B441 provides IP communication over the Verizon cellular network by directly connecting the module to the control panel. The control panel can be configured for IP alarm reporting, remote access, or personal notification messages over the cellular network. The B441 module requires active cellular service to communicate. Bosch Cellular devices are shipped pre-activated with Bosch Cellular service.

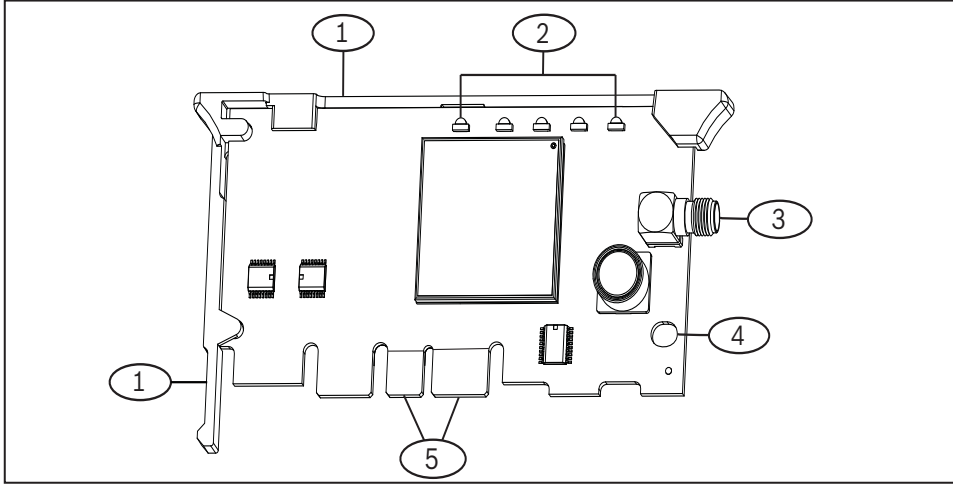


Figure 1.1: Module overview

### Callout – Description

- |   |
|---|
| 1 – Module handle and support leg         |
| 2 – LEDs                                  |
| 3 – Threaded female SMA antenna connector |
| 4 – Plug-in module retention clip opening |
| 5 – PCB metal contacts                    |

## 2 | Install or remove the module



### 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 | Install the antenna

Installing the antenna:

1. Place the magnetic antenna on top of the enclosure, or vertically on another metal surface.
2. Route the antenna cable through a knock-out.
3. Connect the antenna cable to the module.
4. Secure the antenna cable to the inside of the enclosure.

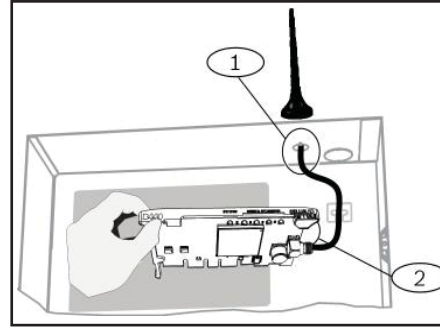


Figure 2.2: Wiring the antenna

### Callout – Description

- |   |
|---|
| 1 – Antenna routed through any knock-out  |
| 2 – Antenna cable connected to the module |

## 2.2 | Install the module

The control panel communicates with and provides power to the module through the plug-in connection. Proper installation results in the necessary electrical and mechanical connection.

Installing the module:

1. With the module facing the control panel as shown below, insert the support leg into the support hole labeled X.
2. Align the PCB metal contacts with the on-board connector.
3. Push the module into place. The retention clip snaps closed and secures the module in place.

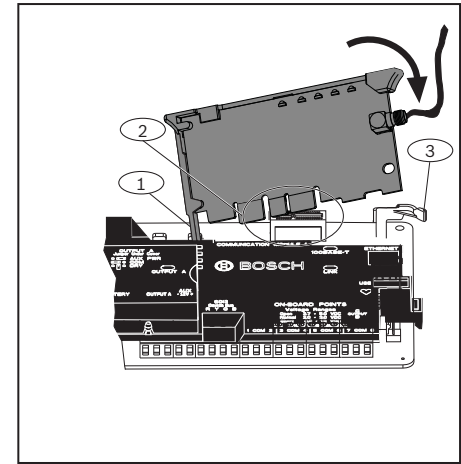


Figure 2.2: Module installation

### Callout – Description

- |  |
|--|
| 1 – Support leg inserted into the control panel support hole labeled X |
| 2 – PCB metal contacts resting on the on-board connector               |
| 3 – Plug-in module retention clip                                      |

## 2.3 | Remove the module

To remove an installed module, hold the plug-in module retention clip open with one hand while grasping the top corners of the module support handle with your other hand. Pull the module out.

## 3 | Diagnostic LED descriptions

At power up, all B441 LEDs activate for several seconds, indicating proper insertion. The Signal LEDs then turn off until the module registers on the cellular network. Registering a new module might take up to 2 minutes.

Check the LED display to ensure a good signal strength level, and adjust the antenna location as required. The signal strength LEDs momentarily turn off to indicate the module has measured and updated the signal strength status. Refer to *Table 3.1*.




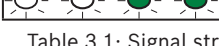
Flash pattern	Function
Red 	Indicates an unacceptable signal strength level.
Yellow 	Indicates a marginal signal strength level.
Green (1 light) 	Indicates a good signal strength level.
Green (2 lights) 	Indicates a very good signal strength level.

Table 3.1: Signal strength LEDs description




Flash pattern	Function
Flashes once every 1 sec (blue) 	Normal State: Indicates normal operation.
ON Steady (blue) 	Communication Error State: Indicates the module is unable to communicate on the cellular network.
OFF Steady 	LED Trouble State: Module is not powered, or some other trouble condition prohibits the module from controlling the STATUS LED. (Check for proper installation.)

Table 3.2: STATUS LED descriptions

## 4 | Configuration

Use Remote Programming Software (RPS) or an SDI2 keypad to program the control panel to use the module for communication.

For programming parameter descriptions, options, and defaults refer to *RPS Help* or the *Program Entry Guide* for your control panel. For Bosch Cellular account status and management, use RPS or the online service portal (go to <http://www.conettix.com/Cellular.aspx> and click on the **Cellular Portal Login** link).

## 5 | Certifications

Region	Agency	Certification	
US	FCC	FCC, Part 15 Class B Radiated/Conducted Emissions	
	Verizon	Open Development Certified	
	UL		UL 365 - Police Station Connected Burglar Alarm Units and Systems
			UL 636 - Holdup 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		

## 6 | Specifications

Dimensions	2 in x 3.68 in x 0.60 in (50 mm x 93.5 mm x 15.25 mm)
Voltage (operating)	12 V nominal
Standby current	35 mA
Alarm current	100 mA
Operating temperature	0°C to +49°C (+32°F to +120°F)
Relative humidity	Up to to 93% non-condensing
Cellular compatibility	CDMA2000 1xRTT
Included antenna	– Magnetic base omni-directional antenna – 2.5 m (8.2 ft) cable with SMA connector
Compatibility	Control Panels B9512G/B9512G-E/B8512G/B8512G-E B5512/B5512E, B4512/B4512E, B3512/B3512E  The B441 is compatible with most Bosch control panels when used with a B450 Conettix Plug-in Communicator Interface. Refer to the <i>Conettix Plug-in Communicator Interface (B450) Installation and Operation Guide</i> for complete control panel compatibility listings.

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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 Plug-in CDMA Cellular Communicator**  
B441



en Installation Guide

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