

1 | Overview

The B441/B441-C 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/B441-C module requires active cellular service to communicate. The B441 is shipped pre-activated.

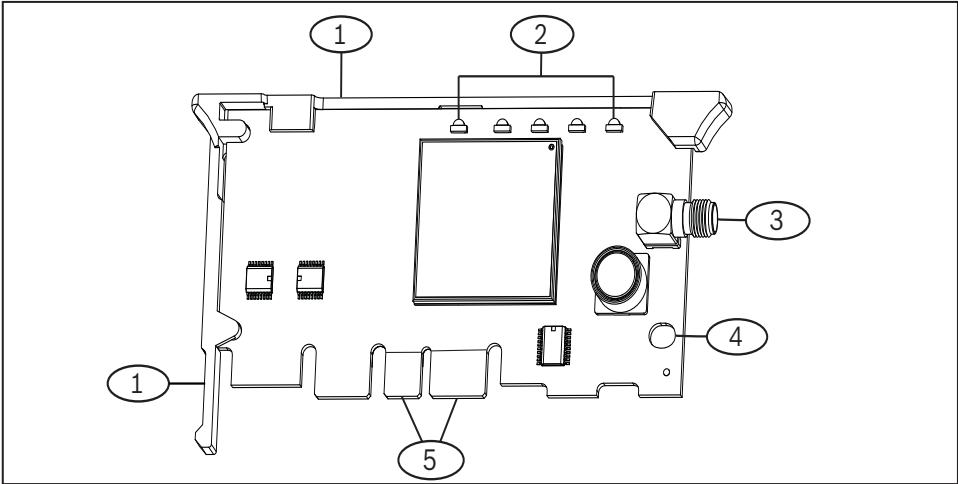


Figure 1.1: Module overview

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



NOTICE!
The B441-C communicator must be activated and have a valid cellular plan for proper usage. Refer to Section 4.1 *Activating the B441-C* for more details.

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.

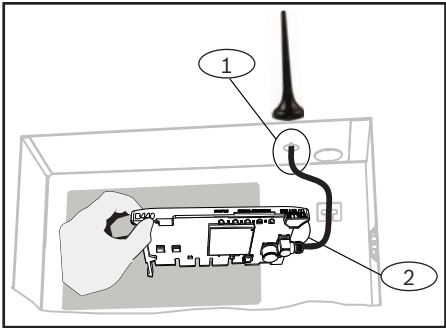


Figure 2.1: Wiring the antenna

Callout – Description
1 – Antenna routed though 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.

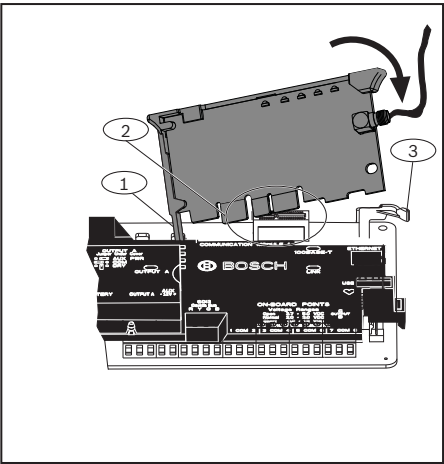


Figure 2.2: Module installation

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/B441-C 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: Indicates the 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

To program the control panel to use the module for communication, use Remote Programming Software (RPS) v6.0+ or an SD12 keypad.

For programming parameter descriptions, options, and defaults refer to *RPS Help* or the *Program Entry Guide* for your control panel.

4.1 | Activating the B441-C

The activation process assigns a phone number, IP address, and a data plan to the communicator. Activation occurs using one of three methods:

1. Using the cellular activation tool in RPS.
2. By submitting a support ticket in the Bosch Cellular Portal email at: installer.services@us.bosch.com.

3. Calling Bosch Installer Services (800-289-0096). Please provide the MEID number found on the box or on the communicator for activation.

****A valid Bosch Installer Services account is required for activation.**

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	B9512G/B9512G-E/B8512G/B8512G-E control panels B6512, B5512/B5512E, B4512/B4512E, B3512/B3512E control panels The B441/B441-C is compatible with most Bosch control panels when used with a B450 Conettix Plug-in Communicator Interface.

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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/B441-C



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