1 | Overview

The B442 provides IP communication over the GSM (GPRS) digital cellular network by directly connecting the module to the control panel. The control panel can be configured to use B442 for alarm reporting, remote access and personal notification messaging.

The B442 module requires a SIM card with active cellular service to communicate. Bosch Cellular service and SIM cards are available in some countries. Consult your Bosch representative for details.
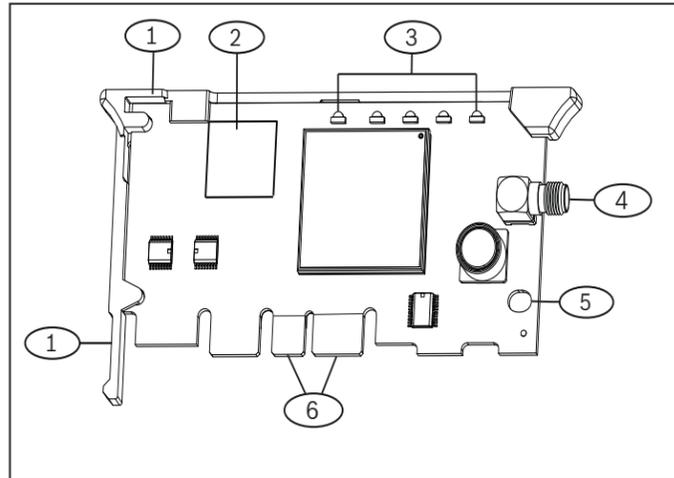
Figure 1.1: Board overview

Callout — Description
1 — Module handle and support leg
2 — SIM card holder
3 — LEDs
4 — Threaded female SMA antenna connector
5 — Plug-in module retention clip opening
6 — PCB metal contacts

2 | Installation and removal

If installing the communicator into a B450 module, refer to the *Conettix Plug-in Communicator Interface (B450) Installation and Operation Guide* for more information.

⚠ **CAUTION!**
Remove power to the control panel before installing or removing the module.

2.1 | Insert the SIM card

Inserting the SIM card:
1. Break away the SIM card from the plastic die-cut card.
2. Insert the SIM card into the SIM card holder on the module by sliding it into the card holder. Make sure that the gold contact side of the SIM card is against the module. Refer to *Figure 2.1*.
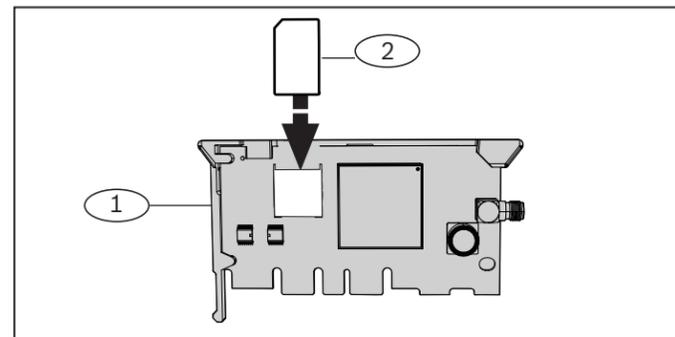
Figure 2.1: Inserting the SIM card

Callout — Description
1 — Module
2 — SIM card

2.2 | 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 knockout.
3. Connect the antenna cable to the module.
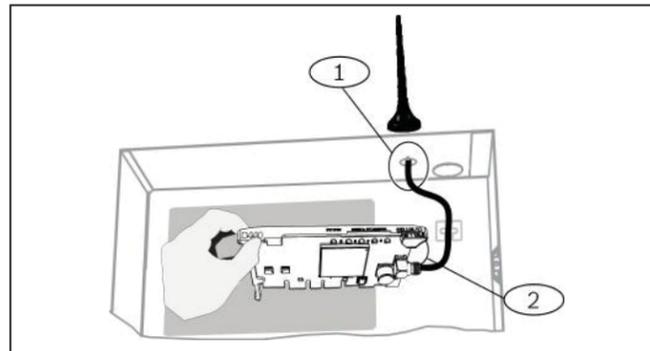4. Secure the antenna cable to the inside of the enclosure.

Figure 2.2: Installing the antenna

Callout — Description
1 — Antenna routed through any knockout
2 — Antenna cable connected to the module

2.3 | 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 in *Figure 2.3*, insert the support leg into the support hole labeled X.
2. Align the PCB metal contacts with the on-board connector.
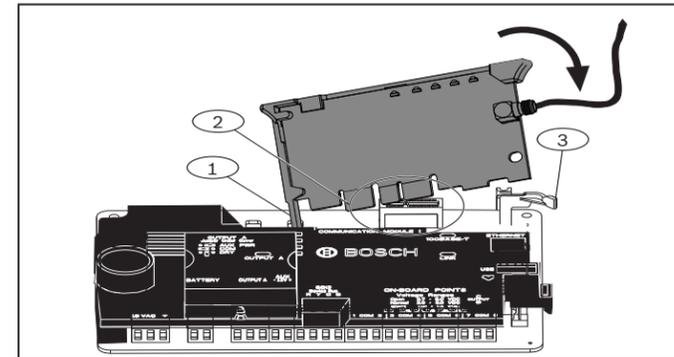3. Push the module into place. The retention clip snaps closed and secures the module in place.

Figure 2.3: Installing the module

Callout — Description
1 — Support leg
2 — PCB metal contacts
3 — Plug-in module retention clip

2.4 | Module removal

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 module 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 ⚪	LED Trouble State. Indicates 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 LEDs description

4 | Configuration

The programming of B442 Plug-in Communicators is done through the compatible control panel or the B450 Plug-in Communicator Interface. Refer to your control panel guide, remote programming software help, or the B450 IOG for parameter descriptions, options and defaults. 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).

Configure network alarm communication routes and settings in the control panel. Cellular carrier-specific settings (such as Access Point Name and SIM card security) can also be programmed through the control panel or Conettix Plug-in Communicator Interface (B450).

5 | Certifications

Region	Agency	Certification
US	FCC	FCC, Part 15 Class B Radiated/ Conducted Emissions
	UL	UL 365 - Police Station Connected Burglar Alarm Units and Systems
		UL 636 - Holdup Alarm Units and Systems
		UL 864 - Standard for Control Units and Accessories for Fire Alarm Systems
		UL 985 - Household Fire Warning System Units
		UL 1023 - Household Burglar-Alarm System Units
		UL 1610 - Central-Station Burglar-Alarm Units
		UL 1076 - Proprietary Burglar Alarm Units and Systems
Canada	ULC	ULC C1023 - Household Burglar Alarm System Units
		ULC C1076 - Proprietary Burglar Alarm Units and Systems
		ULC S303 - Local Burglar Alarm Units and System
		ULC S304 - Central and Monitoring Station Burglar Alarm Units
		ULC S545 - Residential Fire Warning System Control Units
	IC	ICES-003
Europe	CE	Hereby, Bosch, declares that this plug-in communicator is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC
Brazil	ANATEL	1338-14-1855

6 | Specifications

Dimensions	50 mm x 93.5 mm x 15.25 mm (2 in x 3.68 in x 0.60 in)
Voltage (operating)	12 V nominal
Standby current	60 mA
Maximum current	150 mA
Operating temperature	0°C to +49°C (+32°F to +120°F)
Relative humidity	Up to 93% non-condensing
Cellular compatibility	4 Bands GPRS: 850/900/1800/1900 MHz
SIM card	3V/1.8V SIM (compliant with GSM 11.12 recommendation)
Included antenna	– Magnetic base omni-directional antenna – 2.5 m (8.2 ft) cable with SMA connector
Environmental	Indoor usage only
Compatibility	Control panels B9512G/B9512G-E B8512G/B8512G-E B6512 B5512/B5512E firmware v2.03 and higher B4512/B4512E firmware v2.03 and higher B3512/B3512E firmware v2.03 and higher D9412GV4 firmware v2.03 and higher D7412GV4 firmware v2.03 and higher The B442 is compatible with most Bosch control panels when used with a B450 Conettix Plug-in Communicator Interface. Refer to the *Conettix Plug-in Communicator Interface (B450) Installation and Operation Guide* for complete control panel compatibility listings.

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

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 GPRS Cellular Communicator
B442

BOSCH

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