CONETTIX Cellular Communicators

B444-A2/B444-V2
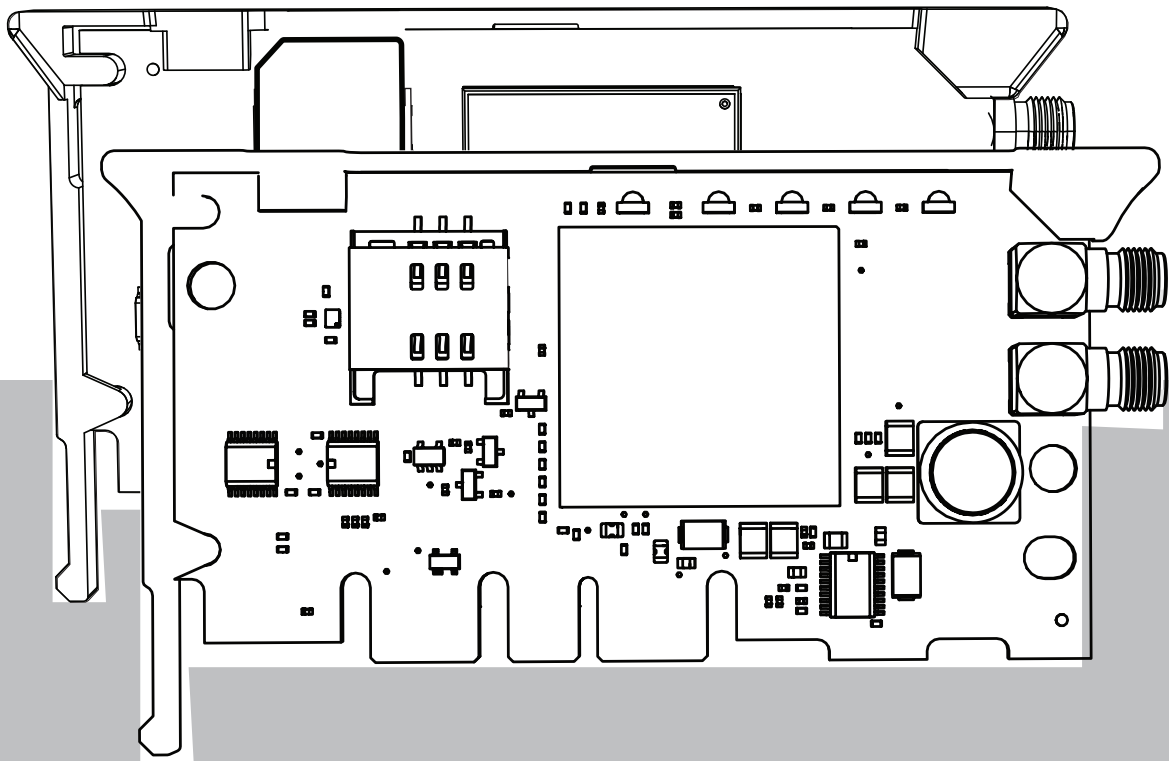
en Installation manual

Table of contents

1 Cellular module introduction

This document contains supplemental information needed to install the Conettix Plug-in Cellular communication modules.
This installation manual contains:
– Component location overview.
– Installation workflows.
– Diagnostic LED descriptions.
– Configuration.
– Specifications.

Federal Communications Commission
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
This equipment has been verified to comply with the limits for a class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

1.1 About documentation

Copyright
This document is the intellectual property of Bosch Security Systems B.V. and is protected by copyright. All rights reserved.

Trademarks
All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.
⌗ **Available Online Resources**: Instructional & Overview Videos

1.2 Bosch Security Systems B.V. product manufacturing dates

Use the serial number located on the product label and refer to the Bosch Security Systems website at http://www.boschsecurity.com/datecodes/.
The following image shows an example of a product label and highlights where to find the manufacturing date within the serial number.

BOSCH

Model Number
Mat/N: F01Uxxxxxx

7 ||||| 82695 || 11xxx ||| 9

8 ||||| 717332 || 311xxx |||
09216082027193xxxx
PRODUCT   QTY= 1

2   Component overview

Cellular plug-in communicators provide IP communications over supported cellular networks by directly connecting the communicator into a control panel or into an additional module such as the CONETTIX Plug-in Communicator Interface or the CONETTIX Universal Dual Path Communicator modules. All communicators come with a SIM card holder.
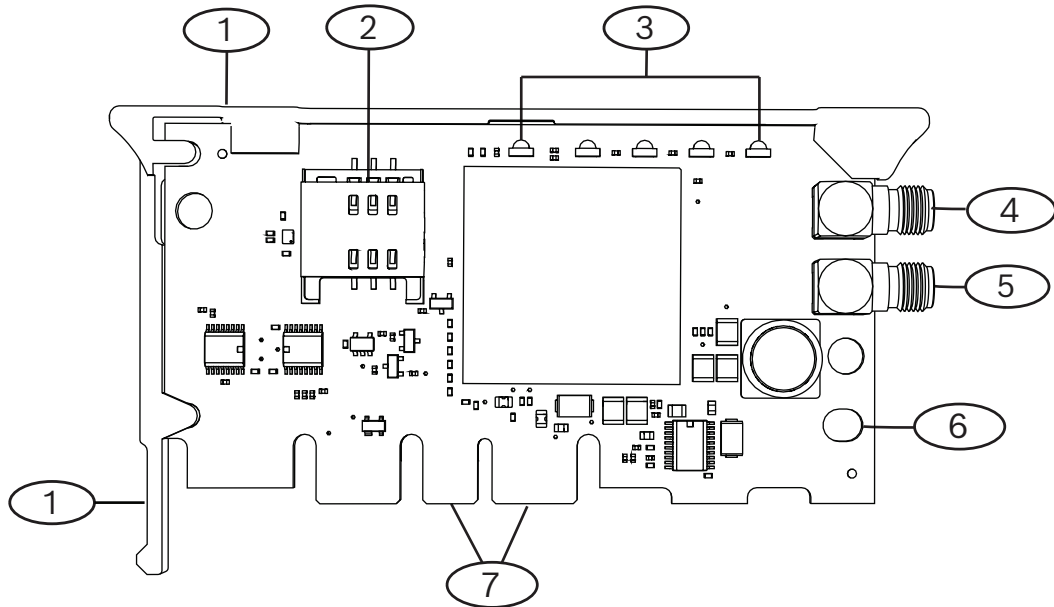
Callout - Description
1 - Module handle and support leg
2 - SIM card holder
3 - LEDs
4 - Threaded female SMA antenna connector (secondary)
5 - Threaded female SMA antenna connector (primary)
6 - Plug-in module retention clip opening
7 - PCM metal contacts

(i)

Notice!
Connections to both antenna connectors (secondary and primary) must be installed using the supplied antennas or an extended antenna (sold separately). Failure to do so might cause poor signal strength.

When using an external antenna such as the Bosch Multiband Antenna (B40-P, B40-MB25 or B40-MB50) connect the cable to the primary connector of the cellular module. You must also connect the supplied antenna to the secondary antenna connection. Failure to do so may result in poor service and dropped signals or connection.
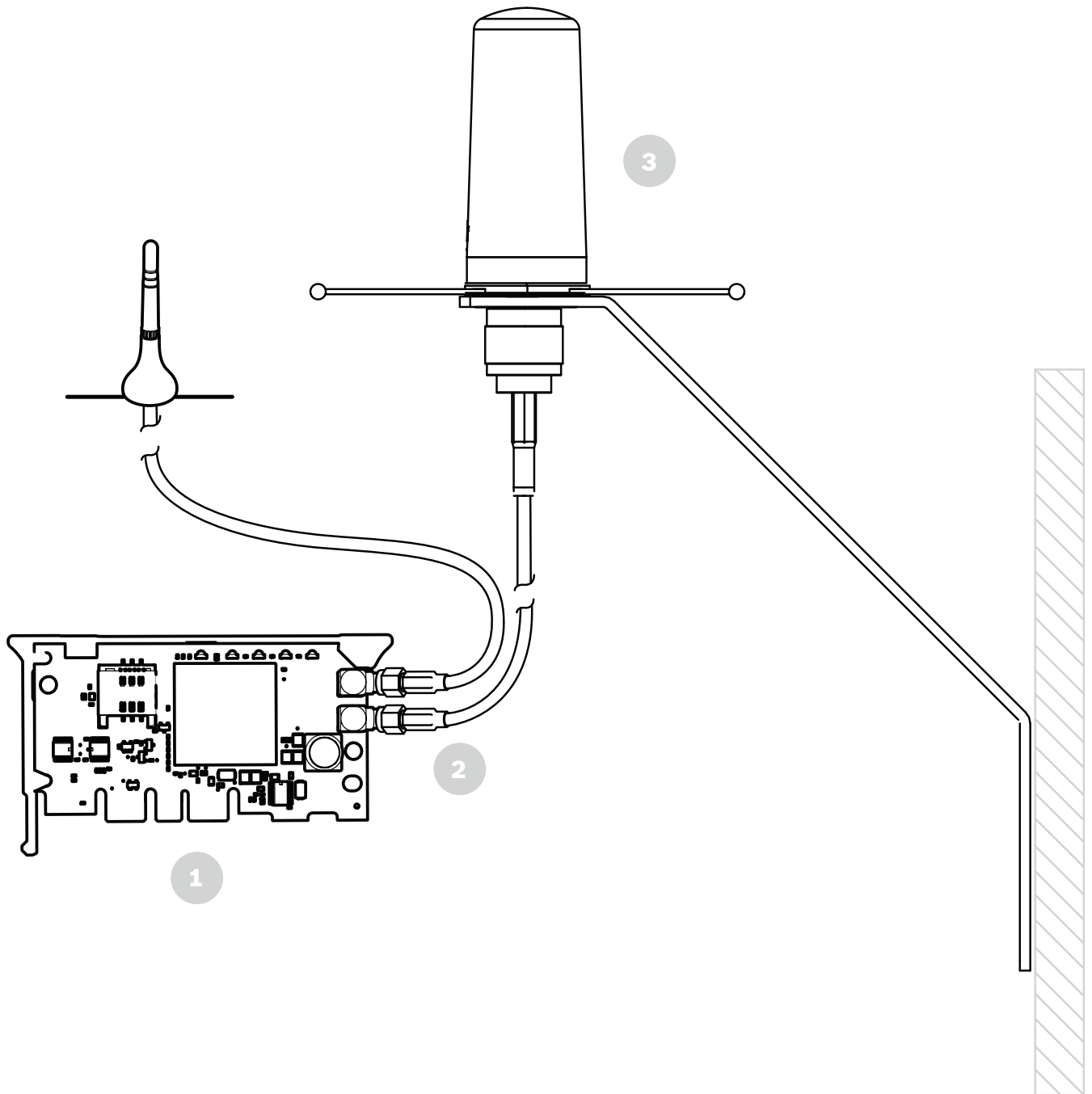
Figure 2.1:

1	Cellular communicator module
2	Primary antenna connection port
3	B40-P/MB25/MB50 external antenna

1. Connect antenna wire to the B40-P/MB25/MB50 antenna port (callout #3).
2. Connect other end of B40-P/MB25/MB50 antenna wire to primary antenna port on the cellular communicator module (callout #2).

3 Installation

When installing the communicator into a supporting module or control panel, refer to the compatible documentation for more information.

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

3.1 Install the antenna

1. Put the magnetic antenna on top of the enclosure, or vertically on another metal surface.
2. Put the antenna cable through a knockout.
3. Connect the antenna cable to the module.
4. Make sure the antenna cable is inside the enclosure.
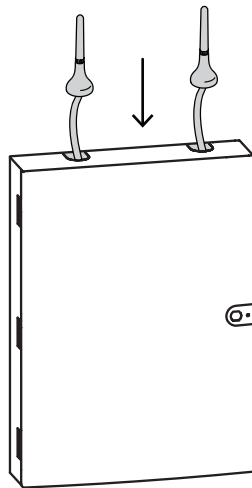
ⓘ	**Notice!** For proper spacing, the antennas should be placed at either corner of the enclosure.
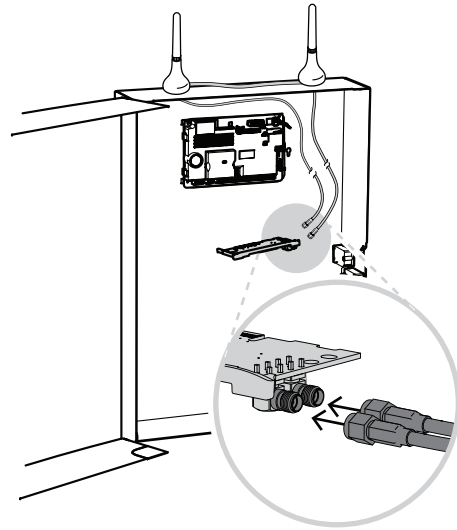
3.2 Install the communicator

Control panel/universal dual path communicator installation

1. Put 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.
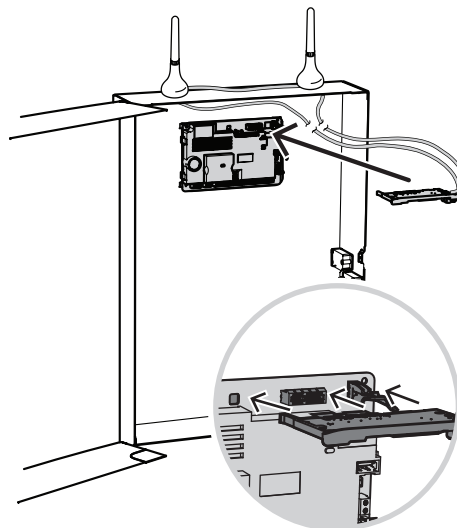
Plug-in communicator interface installation

1. Insert the communicator into the slot of the plug-in communicator interface.
2. Push in until you feel it "click" into place.
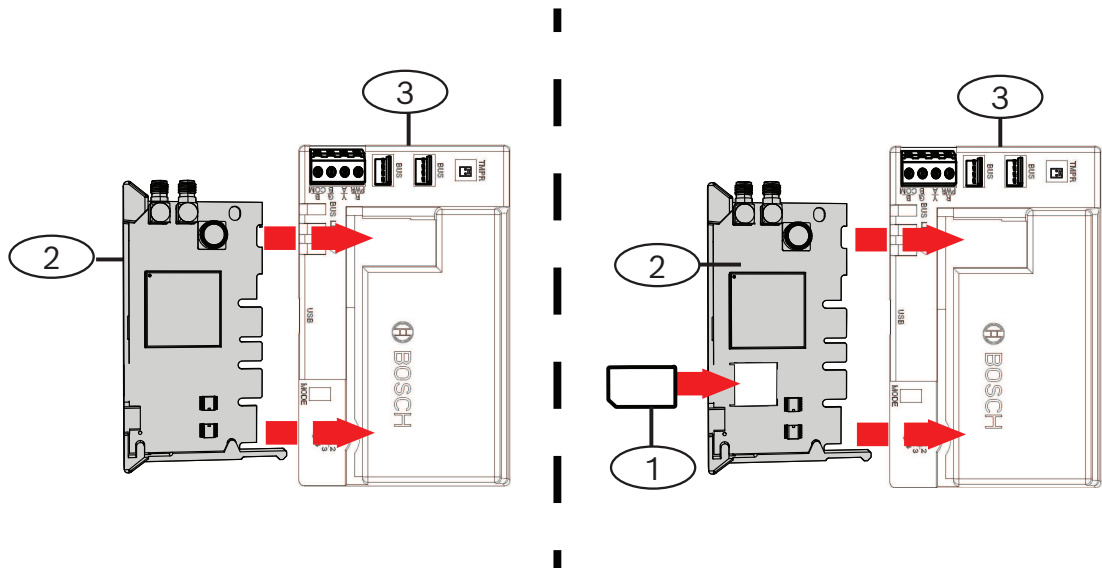
Figure 3.1: Communicator installation (B450 shown)

Callout - Description
1 - SIM card insertion (if applicable)
2 - Communicator
3 - Plug-in communicator interface

3.3   Remove the communicator

1. Hold the plug-in module retention clip open.
2. Hold the top corners of the module support handle with your other hand.
3. Pull the module out.

4   Diagnostic LED descriptions

At power up, all communicator 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 min.

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.

Signal strength

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.
No LED	Indicates that the module has not acquired a tower yet.

Table 4.1: Signal strength LED descriptions

STATUS

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

Table 4.2: STATUS LED descriptions

5   Configuration

Communicator programming is done through the compatible control panel, plug-in communicator interface, or universal dual path communicator. Refer to the documentation of these devices or remote programming software help for more information. For Bosch Cellular account status and management, use RPS or the online service portal (go to http://www.conettix.com/plansandrecommendedsettings 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.

5.1   Activating the cellular communicator

The cellular communicator requires a valid Bosch Installer Services account and must be activated with a valid cellular plan for proper usage. If your device requires activation:
–   contact Bosch Installer Services by submitting a support ticket via the Bosch Cellular Portal email at: installer.services@us.bosch.com, or
–   call Bosch Installer Services (800-289-0096).
Please provide the IMEI and ICCID numbers found on the box or on the communicator for proper activation.

6   Specifications

Refer to the communicator graphical installation manuals for communicator specification information.

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