

CONETTIX Universal Dual Path Communicator

B465

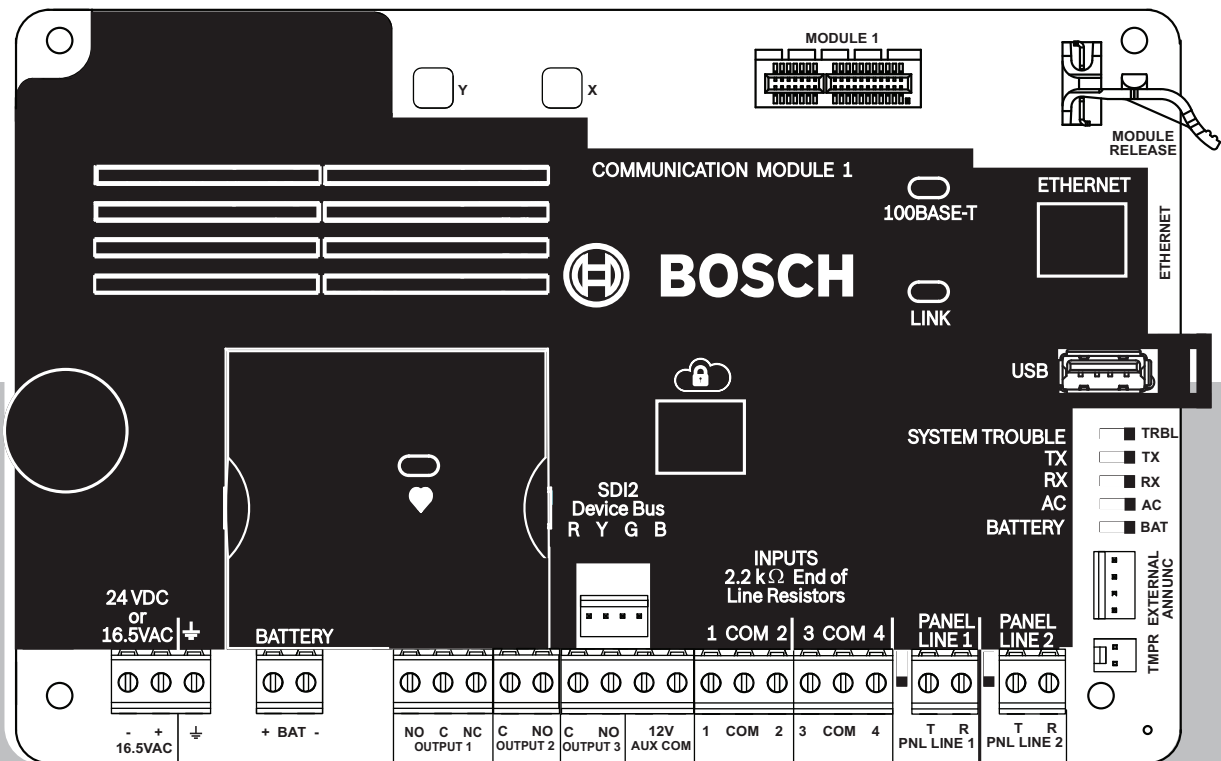


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1 Introduction

These *Release Notes* are for the B465 with firmware version 2.15.014.

1.1 Requirements

The B465 supports the following:

Compatible receivers

(Bosch) Conettix D6600 Communications Receiver/Gateway
(Bosch) Conettix D6100IPv6 Communications Receiver/Gateway
(Bosch) Conettix D6100i Communications Receiver/Gateway

Compatible PSTN input reporting formats

Modem II
Modem IIe
Modem IIIa ²
Ademco Contact ID (SIA DC-05) +10 digit account codes
Pulse 3/1, 3/1 Checksum (2300 Hz ACK Tone)
Pulse 3/1, 3/1 Checksum (1400 Hz ACK Tone)
Pulse 4/2 (2300 Hz ACK Tone)
Pulse 4/2 (1400 Hz ACK Tone)
SIA (SIA8, SIA20) 110 and 300 baud

Compatible cellular modules

(2G/3G CDMA)
(2G CDMA)
(3G GPRS GSM)
(SIM card required) (3G/4G HSPA+ GSM)
(4G VZW LTE)
B444-A Conettix Plug-in 4G AMEC LTE Cellular Communicator (AMEC LTE)
B444-V CONETTIX Plug-in 4G VZW LTE Cellular Communicator (4G VZW LTE)
B444-A2 CONETTIX Plug-in 4G AMEC LTE Cellular Communicator (AMEC LTE)
B444-V2 CONETTIX Plug-in 4G VZW LTE Cellular Communicator (4G VZW LTE)

2 Firmware version 2.15.014

What's new

- *Security improvements, page 6*

What's fixed

- *Expired TLS Certificate, page 6*

2.1 What's new

This section examines the new features of this firmware version.

2.1.1 Security improvements

- Disable non-FIPS compliant TLS ciphers.
- Updated TLS and network stack libraries.

2.2 What's fixed

This section examines the corrections made in this firmware version.

2.2.1 Expired TLS Certificate

This device might allow an expired TLS certificate. This has been corrected.

3 **Firmware version 2.14.002**

What's fixed

- *Improved recovery from Cellular Network Updates, page 7*

3.1 **What's fixed**

This section examines the corrections made in this firmware version.

3.1.1 **Improved recovery from Cellular Network Updates**

This device now handles when updates are released on the cellular network that could affect connectivity in a faster and better manner. There have been updates that could require manual intervention, this has been reduced or eliminated.

4 Firmware version 2.14.000

What's new

– *B444-A2 and B444-V2 support, page 8*

4.1 What's new

This section examines the new features of this firmware version.

4.1.1 B444-A2 and B444-V2 support

The system now supports B444-A2 (AT&T LTE) and B444-V2 (Verizon LTE) Plug-in cell modules.



Caution!

Activate the B444-A2/B444-V2 SIM card before inserting. Failure to do so might result in failed communications to the control panel/module. Upon first power-up of the B444-A2/B444-V2, it might take up to 20 minutes for the activation process to be completed.

5 Firmware version 2.11.510

What's new

- *B444-A Plug-in Cellular Communicator Module is not recognized, page 9*

What's fixed

- *DNS hostname lookups not working when using only a B444-A or B444-V, page 9*

5.1 What's new

This section examines the new features of this firmware version.

5.1.1 B444-A Plug-in Cellular Communicator Module is not recognized

A small number of B444-A cellular modules may report as 'invalid' during installation and will not be recognized by the B465. This version of firmware allows the cellular host device to properly recognize these B444-A modules. See Technical Bulletin *B444-A Plug-in Cellular Communicator Module Is Not Recognized* for more information.

5.2 What's fixed

This section examines the corrections made in this firmware version.

5.2.1 DNS hostname lookups not working when using only a B444-A or B444-V

When using only a B444-A or B444-V radio, and the DNS address is changed later, the DNS lookup is not performed properly. This version of firmware corrects this DNS lookup issue.

6 Firmware version 2.11.506

What's new?

- *Support for updated B465 certificates, page 10*
- *Improved connectivity to the Verizon network, page 10*
- *Update to the B444-A Cellular Communicator, page 10*

6.1 What's new

This section examines the new features of this firmware version.

6.1.1 Support for updated B465 certificates

B465 firmware v2.11 introduces a new security certificate in advance of the current certificate expiration in April, 2022. This certificate is used for most automation (integration) and RPS TLS connections to the panel. The B465 Cloud certificate is not affected. All Cloud connections will continue to function as they do today. RPS v6.11 has been updated to accommodate this new B465 security certificate automatically.

IMPORTANT:

Customers upgrading or installing firmware v2.11 must upgrade RPS to v6.11, and review other integrated applications (Bosch or 3rd Party) that need to use the new Bosch certificate, in order to maintain TCP connections to the B465 after March 2022. Customers using RPS with B465 firmware v2.10 or older will not be affected by the certificate expiration and operations will continue without interruption.

6.1.2 Improved connectivity to the Verizon network

FW V2.11 improves the management of the Verizon APN when using the B444-V or B444 Cellular Communicators, resulting in enhanced connection reliability.

6.1.3 Update to the B444-A Cellular Communicator

This firmware release configures the B444-A to insure that LTE connectivity is not disrupted when the AT&T 3G network is discontinued.

7 Firmware version 2.09

What's new

- *B444-A and B444-V support, page 11*
- *Security of Connected Devices, page 11*

7.1 What's new

This section examines the new features of this firmware version.

7.1.1 B444-A and B444-V support

The system now supports B444-A Plug-in cell module, AT&T LTE and B444-V Plug-in cell module, Verizon LTE.

B444-A/B444-V SIM card activation



Caution!

Activate the B444-A/B444-V SIM card before inserting. Failure to do so might result in failed communications to the control panel/module. Upon first power-up of the B444-A/ B444-V, it might take up to 15 minutes for the activation process to be completed.

7.1.2 Security of Connected Devices

In order to comply with the Security of Connected Devices Act (TITLE 1.81.26. Security of Connected Devices) and related legislation, this product uses a unique connection password.

The "RPS Passcode" for the initial connection to this product must match the unique Cloud ID of the product.

Ensure your RPS Operator uses the unique Cloud ID that is labeled on the product and included on the card in the box of the product.

8 Firmware version 2.08

What's fixed

- *Updates to the bootloader, page 12*
- *Updates to TCP keep alive, page 12*

8.1 What's fixed

This section examines the fixed issues of this firmware version.

8.1.1 Updates to the bootloader

This firmware release contains updates to improve the performance of the bootloader.

8.1.2 Updates to TCP keep alive

This firmware release contains performance improvements related to maintaining connections to the cloud.

9 Firmware version 2.01

What's new

- *Incoming RPS connections, page 13*
- *B444 signal strength indication, page 13*
- *B465 cloud default parameters changed, page 13*
- *APN usage for B442 and B443, page 13*

What's fixed

- *Stabilization of cell card performance, page 13*

9.1 What's new

This section examines the new features of this firmware version.

9.1.1 Incoming RPS connections

In addition to answering incoming calls from RPS using UDP (User Datagram Protocol), incoming calls from RPS using TCP (Transfer Control Protocol) are also supported. RPS version 6.07 is required for this modified connection method.

9.1.2 B444 signal strength indication

The B444 signal strength LED indication has been modified to more accurately represent performance. While LTE tower switching may still occur, their individual signal strength indications are more accurate.

9.1.3 B465 cloud default parameters changed

Cloud connections using Ethernet and/or cellular are now enabled as the default selection to allow for establishing communications.

9.1.4 APN usage for B442 and B443

The B442 and B443 plug-in cellular modules shall attempt connections using APNs in the following order:

1. Primary configured APN
2. gne
3. wyles.apn
4. wyles.com.attz

The plug-in cellular module will select and use the most appropriate APN.

If the APN is erroneous, the panel keypads may not display the details of this trouble condition.

9.2 What's fixed

This section examines the fixed issues of this firmware version.

9.2.1 Stabilization of cell card performance

Cell card stability enhancements are included within this firmware release.

10 Firmware version 2.00

What's new

- Updated digital dialer formats, page 14
- Remote Connect Service support
- Updated Account Setup options, page 15
- B444 support, page 15
- Remote Programming Support, page 15
- Override for Answer RPS over Network, page 15
- Local programming support on upgrade, page 15
- Periodic Test Report, page 15
- Operational improvements, page 15

Known issues

- Modem IIIa2 and GV3 and GV4 control panels, page 15
- Event transmissions, page 16
- Fast receiver supervision times, page 16
- Periodic Test Report Configuration, page 16
- B444 signal strength, page 16

10.1 Whats new

This section examines the new features of this firmware version.

10.1.1 Updated digital dialer formats

This firmware update supports the following digital dialer formats:

- Modem II
- Modem IIe
- Modem IIIa²

10.1.2 Remote Connect Service support

Remote Connect Service enables a secure control panel connection to remote programming software (RPS) using Bosch Cloud services. The service allows a secure TLS connection to a control panel without specific port and router settings and without a static IP or DNS.



Notice!

North America only

Remote Connect Services and Bosch Cloud services are currently available in North America only. Before you can utilize Remote connect service or cellular communication for reporting and RPS connections, you need to register for Bosch Installer Service at the Bosch Installer Services Portal, <https://installerservices.boschsecurity.com/>.

Refer to the descriptions below:

- Cloud Remote Connect (Ethernet). Use this option to enable or disable Cloud Remote connection through an Ethernet connection.
- Cloud Remote Connect (Cellular). Use this option to enable or disable Cloud Remote connection through a cellular connection.

Cloud connection not supported on upgrade

Current B465 modules with firmware version 1.00.005 that are upgraded to firmware version 2.00 do not connect to the cloud. Only factory produced modules with valid cloud certificates are able to connect using the cloud.

10.1.3 Updated Account Setup options

The B465 can optionally replace the account number in all received phone events from either phone line with the account number configured in Alternate Account Number. Refer to the descriptions below for new Account Setup prompts:

- Substitute Account Number. Use this option to enable or disable the feature.
- Alternate Account Number. Use this option to set up an alternate account number.

10.1.4 B444 support

This firmware update supports the . The use of this module is for the US market only.

10.1.5 Remote Programming Support

RPS Settings. Use this option for remote module configuration when using Remote Programming Software (RPS). The B465 v2.00 supports remote configuration through RPS using USB, Ethernet, and Cellular IP connections. Make sure you use RPS v6.05 or greater.

10.1.6 Override for Answer RPS over Network

When **RPS Settings >> Answer RPS over Network** is set to **Disabled**, RPS cannot establish a remote connection to the B465 over Ethernet or over Cellular IP. Local RPS connection through USB is not affected by this feature. A disabled remote RPS connection can be briefly overridden by opening and closing the on-board tamper input for more than 5 seconds and less than 2 minutes. The override will allow a remote connection from RPS for up to 2 minutes. The override is indicated on the B465 by activating the System Trouble LED.

10.1.7 Local programming support on upgrade

You must update the USB driver (RB_B465.INF v1.3.1000.0) when updating the B465 firmware version from v1.00.005 to v2.00.011 or higher.

The current USB driver is replaced by RBUS1CP.INF v1.2.9500 or newer.

The driver replacement is automatically performed when Remote Programming Software (RPS) v6.05 is installed or done manually. For more information on installing the driver manually, refer to the *Conettix Universal Dual Path Communicator Installation and Operation Manual - USB and TeraTerm* section.

10.1.8 Periodic Test Report

The B465 can send an optional test report containing a general system normal or off-normal status.

10.1.9 Operational improvements

This firmware release contains operational improvements related to the B444 plug-in cellular module.

10.2 Known issues

This section examines the known issues of this firmware version.

10.2.1 Modem IIIa2 and GV3 and GV4 control panels

The digital dialer format Modem IIIa² is not supported on the following control panels:

- D9412GV4/D7412GV4
- D9412GV3/D7412GV3
- D7212GV4/D7212GV3

10.2.2 Event transmissions

The sending of multiple, consecutive, identical events transmit once.

10.2.3 Fast receiver supervision times

Using a fast or high supervision time rate might result in momentary communication troubles from the B465.

10.2.4 Periodic Test Report Configuration

In B465 modules that have firmware version v2.00.002 and greater, the Test Report Interval option can only be configured from the USB Terminal menu. Configuring remotely through RPS is not available in version 6.05. RPS may show an unknown parameter change when the Test Report Interval is not at its default setting of **disabled**.

10.2.5 B444 signal strength

The signal strength LED indicators on the module may vary under normal conditions and should be used as a general guideline regarding signal strength and performance. This is due to various factors including:

- Switching frequency bands
- Switching cell towers
- Environmental conditions
- LTE technology factors such as:
 - Modulation scheme
 - Multipath effects
 - Interference

10.3 Firmware version 2.01

What's new

- *Incoming RPS connections, page 13*
- *B444 signal strength indication, page 13*
- *B465 cloud default parameters changed, page 13*
- *APN usage for B442 and B443, page 13*

What's fixed

- *Stabilization of cell card performance, page 13*

10.3.1 What's new

This section examines the new features of this firmware version.

10.3.1.1 Incoming RPS connections

In addition to answering incoming calls from RPS using UDP (User Datagram Protocol), incoming calls from RPS using TCP (Transfer Control Protocol) are also supported. RPS version 6.07 is required for this modified connection method.

10.3.1.2 B444 signal strength indication

The B444 signal strength LED indication has been modified to more accurately represent performance. While LTE tower switching may still occur, their individual signal strength indications are more accurate.

10.3.1.3 **B465 cloud default parameters changed**

Cloud connections using Ethernet and/or cellular are now enabled as the default selection to allow for establishing communications.

10.3.1.4 **APN usage for B442 and B443**

The B442 and B443 plug-in cellular modules shall attempt connections using APNs in the following order:

1. Primary configured APN
2. gne
3. wylless.apn
4. wylless.com.attz

The plug-in cellular module will select and use the most appropriate APN.

If the APN is erroneous, the panel keypads may not display the details of this trouble condition.

10.3.2 **What's fixed**

This section examines the fixed issues of this firmware version.

10.3.2.1 **Stabilization of cell card performance**

Cell card stability enhancements are included within this firmware release.

11 Firmware version 1.00.005

Notable features

- Updated B440/B441 support
- *Reporting Delay for Low Signal Strength default change, page 18*
- *No Towers Reporting Delay default, page 18*

Corrections

- *Cellular reliability, page 18*
- *Signal strength, page 18*

11.1 Notable features

This section examines the new features of this firmware version.

11.1.1 Updated B440/B441 support

B465 firmware v1.00.005 supports the latest versions of the B440 and B441 plug-in cellular modules (B440 v15.00.026 and B441 v18.02.022). The latest B440/B441 firmware includes updated libraries to maintain Verizon certification, and a correction to show the correct MEID on keypads in the Installer menu.

To use a B440 v15.00.026 or a B441 v18.02.022, the connected B465 must have firmware v1.00.005 or higher.

11.1.2 Reporting Delay for Low Signal Strength default change

The Reporting Delay for Low Signal Strength parameter default value was changed to a state of disabled. The original default value was 1800 seconds. The new default value is zero. When this value is set to zero seconds, this parameter is considered disabled.

11.1.3 No Towers Reporting Delay default

The Reporting Delay for No Towers parameter default value was changed to a state of being disabled. The original default value was 1800 seconds. The new default value is zero. When this value is set to zero seconds, this parameter is considered to be disabled.

11.2 Corrections

This section examines the corrections made in this firmware version.

11.2.1 Cellular reliability

Improved cellular reliability in unstable environments and in situations where other network errors might occur.

11.2.2 Signal strength

Improved cellular signal strength levels by changing the firmware to increase the acceptable levels detected.

12 Open source software

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Version 2.0, January 2004

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Bosch Security Systems B.V.

Torenallee 49

5617 BA Eindhoven

Netherlands

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