

Conettix Plug-in Communicator Interface

B450

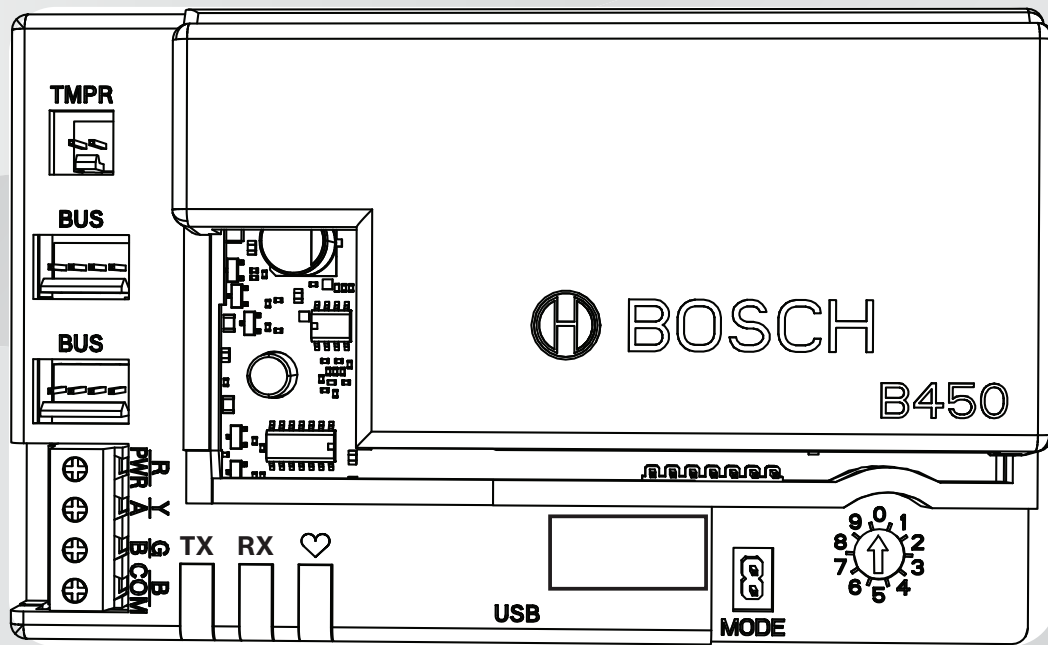


Table of contents

1	Introduction	4
1.1	Requirements	4
2	Firmware version 3.09	5
2.1	What's new	5
2.1.1	B444-A and B444-V support	5
3	Firmware version 3.08	6
3.1	What's fixed	6
3.1.1	Updates to the bootloader	6
3.1.2	Updates to TCP keep alive	6
4	Firmware version 3.06	7
4.1	What's new	7
4.1.1	Incoming RPS connections	7
4.1.2	B444 signal strength indication	7
4.1.3	APN usage for B442 and B443	7
4.2	What's fixed	7
4.2.1	Stabilization of cell card performance	7
5	Firmware version 3.05	8
5.1	What's new	8
5.1.1	Remote Connect Service support	8
5.1.2	B444 LTE modem support	8
5.1.3	Secure connections using TLS v1.1 and v1.2 now supported	8
5.1.4	New cell library	8
5.1.5	International character support	8
5.1.6	Operational improvements	9
5.2	Known issues	9
5.2.1	B444 signal strength	9
6	Firmware version 3.03	10
6.1	What's new	10
6.1.1	Option bus configuration programming	10
6.1.2	Updated B440/B441 support	10
6.1.3	Reporting Delay for Low Signal Strength default change	10
6.1.4	No Towers Reporting Delay default	10
6.1.5	SIA DC09 event reporting support for AMAX control panels	10
7	System considerations	11
7.1	Increased ACK wait times	11
7.2	RPS diagnostics not available	11
7.3	Using 2 B450 IP communicators in RPS and GV4 Series control panels	11
8	Open source software 3.09	12

1 Introduction

These *Release Notes* are for the B450 with **firmware version v3.09**.

1.1 Requirements

B450 (with inclusion of a B44x Cellular Communicator module) supports the following control panels:

Compatible control panels

B9512G/B8512G /B9512G-E/B8512G-E
B6512/B5512/B4512/B3512
B5512E/B4512E/B3512E
D9412GV4/D7412GV4 (v2.xx+)
D9412GV4/D7412GV4 (v1.xx+)
D9412GV3/D7412GV3/D7212GV3
D9412GV2/D7412GV2/D7212GV2 (v7.07+)
FPD-7024 (v1.03+)
AMAX 2000/2100/3000/4000 (v1.5+)
CMS 6/8, CMS 40
Easy Series v3+
Solution 2000/3000

2 Firmware version 3.09

What's new

- *B444-A and B444-V support, page 5*

2.1 What's new

2.1.1 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.

3 Firmware version 3.08

What's fixed

- *Updates to the bootloader, page 6*
- *Updates to TCP keep alive, page 6*

3.1 What's fixed

This section examines the fixed issues of this firmware version.

3.1.1 Updates to the bootloader

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

3.1.2 Updates to TCP keep alive

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

4 Firmware version 3.06

What's new

- Incoming RPS connections
- *B444 signal strength indication, page 7*
- *APN usage for B442 and B443, page 7*

What's fixed

- *Stabilization of cell card performance, page 7*

4.1 What's new

This section examines the new features of this firmware version.

4.1.1 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.



Notice!

Only applicable when connected to a Bosch B Series, or G Series control panel with firmware version 3.07 or higher.

4.1.2 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.

4.1.3 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. wyless.apn
4. wyless.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.

4.2 What's fixed

This section examines the fixed issues of this firmware version.

4.2.1 Stabilization of cell card performance

Cell card stability enhancements are included within this firmware release.

5 Firmware version 3.05

What's new

- *Remote Connect Service support, page 8*
- *B444 LTE modem support, page 8*
- *Secure connections using TLS v1.1 and v1.2 now supported, page 8*
- *New cell library, page 8*
- *International character support, page 8*
- *Operational improvements, page 9*

5.1 What's new

This section examines the new features of this firmware version.

5.1.1 Remote Connect Service support

Remote Connect Service enables a secure control panel connection to mobile apps and remote programming software 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.

5.1.2 B444 LTE modem support

B444 LTE modem support is now available on the Verizon network.

5.1.3 Secure connections using TLS v1.1 and v1.2 now supported

The firmware now supports secure connections, including personal notification email servers, using TLS v1.0 (strong ciphers only), v1.1, and v1.2. In previous versions of the firmware, control panel TLS connections required TLS v1.0 support.

5.1.4 New cell library

The new cell library improves the ability to send non-ASCII text characters. All Latin-1 characters available in the control panel are transmitted in text messages when using a B442/B443/B444. Additional character sets are supported but have not been tested.

Cellular modem compatibility table

Plug-in module	Firmware versions
B440/B440-C	15.00.021, 15.00.024, 15.00.026, and 15.00.027
B441/B441-C	18.01.022 and 18.02.022
B442	13.00.004, 13.00.006, 13.00.007, and 13.00.008
B443	12.00.024, 12.00.026, and 12.00.028
B444	4.3.3.0c

5.1.5 International character support

Support for sending international characters in SMS text format are now supported for B442, B443, and B444.

5.1.6 **Operational improvements**

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

5.2 **Known issues**

This section examines the known issues of this firmware version.

5.2.1 **B444 signal strength**

The signal strength LED indicators on the B444 Conettix Plug-in 4G VZW LTE Cellular Communicator 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

6 Firmware version 3.03

What's new

- *Option bus configuration programming, page 10*
- *Updated B440/B441 support, page 10*
- *SIA DC09 event reporting support for AMAX control panels, page 10*
- *Reporting Delay for Low Signal Strength default change, page 10*
- *No Towers Reporting Delay default, page 10*

Corrections

- Signal strength
- Cellular reliability

System considerations

- *Increased ACK wait times, page 11*
- *RPS diagnostics not available, page 11*
- *Using 2 B450 IP communicators in RPS and GV4 Series control panels, page 11*

6.1 What's new

This section examines the new features of this firmware version.

6.1.1 Option bus configuration programming

Configuration programming from an AMAX 2100/3000/4000 control panel to a B450 module is now available through A-Link Plus only if the AMAX 2100/3000/4000 control panel is at firmware version 1.5 or higher.

6.1.2 Updated B440/B441 support

B450 firmware v3.04 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 B450 must have firmware v3.04 or higher.

6.1.3 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.

6.1.4 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.

6.1.5 SIA DC09 event reporting support for AMAX control panels

AMAX control panels now support SIA DC09 event reporting.

7 System considerations

This section examines system considerations of this version of firmware.

7.1 Increased ACK wait times

It is recommended to increase control panel ACK wait times as much as possible (up to 5 minutes) while retaining the required supervision time with the receiver. Doing so reduces the risk of COMM Fail conditions related to intermittent cellular network outages.

The ACK wait time in RPS version 5.19.3 (with Service pack 1 installed) has been increased to a default value of 15 seconds to adjust for network delays, improving overall communication.

7.2 RPS diagnostics not available

RPS diagnostics is not currently available when the B450 is set to address switch 2, and connected to a GV4 series control panel. Diagnostic information can be obtained from the B450 when the address switch is set to address switch 1.

Diagnostic information is also available through the USB port connection when local USB programming is enabled.

7.3 Using 2 B450 IP communicators in RPS and GV4 Series control panels

The settings in the B450 Cellular sub-menu within RPS (SDI2 MODULES → IP Communicator → B450 Cellular) share the module between address 1 and address 2. This occurs when using multiple B450s on the SDI2 bus with a GV4 series control panel. To apply different settings to one of the modules, you must disable control panel programming and use the USB or SMS configuration method.

8 Open source software 3.09

Bosch includes the open source software modules listed below in the firmware for this control panel. The inclusion of these modules does not limit the Bosch warranty.

Digital Equipment Corporation

Portions Copyright (c) 1993 by Digital Equipment Corporation.

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies, and that the name of Digital Equipment Corporation not be used in advertising or publicity pertaining to distribution of the document or software without specific, written prior permission.

THE SOFTWARE IS PROVIDED "AS IS" AND DIGITAL EQUIPMENT CORP. DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL DIGITAL EQUIPMENT CORPORATION BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Digital historical

Copyright 1987 by Digital Equipment Corporation, Maynard, Massachusetts, and the Massachusetts Institute of Technology, Cambridge, Massachusetts.

All Rights Reserved

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the names of Digital or MIT not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

DIGITAL DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL DIGITAL BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

OpenSSL License

Copyright (c) 1998-2008 The OpenSSL Project. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. All advertising materials mentioning features or use of this software must display the following acknowledgment:

"This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (<http://www.openssl.org/>)"

4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.

5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.

6. Redistributions of any form whatsoever must retain the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>)"

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

For more information, refer to the OpenSSL License on www.boschsecurity.com, under Product Catalog.

Regents of the University of California

Copyright (c) 1985, 1993

The Regents of the University of California. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. All advertising materials mentioning features or use of this software must display the following acknowledgement: This product includes software developed by the University of California, Berkeley and its contributors.
4. Neither the name of the University nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE REGENTS AND CONTRIBUTORS ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

RSA data security

Copyright © 1991-2, RSA Data Security, Inc. Created 1991. All rights reserved.

The "RSA Data Security, Inc. MD5 Message-Digest Algorithm" is included in the control panel firmware.

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

Time routines

Copyright © 2002 Michael Ringgaard. All rights reserved.

This software [Time routines] is provided by the copyright holders and contributors "as is" and any express or implied warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose are disclaimed. In no event shall the copyright owner or contributors be liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement of substitute goods or services; loss of use, data, or profits; or business interruption) however caused and on any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the use of this software, even if advised of the possibility of such damage.



Bosch Security Systems B.V.

Torenallee 49

5617 BA Eindhoven

Netherlands

www.boschsecurity.com

© Bosch Security Systems B.V., 2019