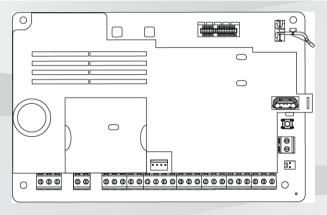


Control panels

B Series: B6512, B5512, B4512, B3512



Release notes

en

3

Table of contents

1	Introduction	4
1.1	About documentation	4
1.2	Requirements	5
2	Firmware version 3.08	8
2.1	What's new	8
2.2	Corrections	10
2.3	Known issues	10
3	Firmware revision history	11
3.1	Firmware version 3.07	11
3.2	Firmware version 3.06	12
3.3	Firmware version 3.05	14
3.4	Firmware version 3.03.014	18
3.5	Firmware version 3.02	21
4	Open source software 3.08	23

4 en | Introduction Control panels

1 Introduction

These Release Notes are for control panel firmware version 3.08.

1.1 About documentation

Copyright

This document is the intellectual property of Bosch Security Systems, Inc. and is protected by copyright. All rights reserved.

Trademarks

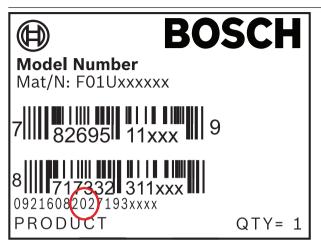
All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

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/.

The following image shows an example of a product label and highlights where to find the manufacturing date within the serial number.

Control panels Introduction | en 5



1.2 Requirements

This section shows requirements for RPS (Remote Programming Software) and Conettix Receiver/Gateways to support this control panel firmware version.

1.2.1 Remote Programming Software (RPS)

To use all new features of this firmware version, you must use RPS version 6.08 or higher.

6 en | Introduction Control panels

1.2.2 Conettix Receiver/Gateway

Modem4 format

When you configure the control panel to send reports in Modem4 format, the Conettix central station receiver/gateway and the D6200CD Receiver programming software might require an update.

Modem4 reporting format requirements

Receiver/Gateway	CPU version	D6200CD version
D6600 Central station receiver, 32-line (with D6641 Telephone line card installed only)	01.10.00	2.10
D6100IPV6-LT Central station receiver, 2-line, IP	01.10.00	2.10

ANSI-SIA ContactID format

When you configure the control panel to send reports in ANSI-SIA Contact ID format, the Conettix central station receiver/gateway and the D6200CD Receiver programming software might require an update.

Control panels Introduction | en 7

ULC-S304 and ULC-S559 compliant report format

Notice!

format



ULC-S304 and ULC-S559 compliant report

For ULC-S304 and ULC-S559 compliant report formats, the Conettix central station receiver/gateway and the D6200CD Receiver programming software need to use the version in the table.

2 Firmware version 3.08

What's new

- Language support, page 8
- Door shunt time, page 9
- Backup destination devices, page 9
- Custom test report, page 9

Corrections

- Incorrect output behavior, page 10

Known issues

- Personal notification email, page 10

2.1 What's new

This section examines the new features of this firmware version.

2.1.1 Language support

Adds support for Dutch, German, and Swedish.

When both the control panel first language and the second language are set to Dutch, English, French, German, Hungarian, Italian, Portuguese, Spanish, or Swedish, the system uses the Standard, Latin-1 character set.

When either the control panel first language or the second language is set to Chinese, Greek, or Polish, the system uses the Extended, UTF-8 Unicode character set

Notice!



Only B915/B915i and B942 keypads support Extended, UTF-8

Only B915/B915i keypads with firmware version 1.01.010 or higher, and B942 keypads with firmware version 1.02.022 or higher support the Extended, UTF-8 character set

2.1.2 Door shunt time

The longest possible selection for the door shunt time has been extended from 240 seconds to 8 hours.

This selection is available with the following firmware versions:

- Control panel firmware v3.08 or higher
- Remote Programming Software firmware v6.08 or higher
- B901 firmware version v1.05 or higher.

2.1.3 Backup destination devices

The control panel can send reports to four different route groups using one primary and up to three backup destination devices for each route group.

2.1.4 Custom test report

Either send a normal test report or a custom test report can be sent:

 Normal test report: Includes all route groups that have the test report function enabled, independent of which destination device is used to communicate. The test report is sent to the first successful destination device in a route group. Custom test report: You can select the route group and destination device you want to test. You can either test one destination device per route group or all configured destination devices for a route group.

2.2 Corrections

This section examines the corrections made in this firmware version.

2.2.1 Incorrect output behavior

In panel firmware v3.08.002, regardless of panel programming, output 3(C) activates any time an on-board point is faulted. This is resolved in panel firmware v3.08.004.

2.3 Known issues

This section examines the known issues of this firmware version.

2.3.1 Personal notification email

When using email personal notifications, some server configuration options (e.g. Gmail's 2-Step verification, Allow less secure apps: Off) may not work properly.

In order to ensure operation, disable additional email server options.

Firmware revision history 3

This section examines the notable features of previous revisions of this firmware.

3.1 Firmware version 3.07

Notable features

- Incoming RPS connections, page 11
- B444 signal strength indication, page 11
- Stabilization of cell card performance, page 11
- APN usage for B442 and B443, page 12

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.

312 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.

Stabilization of cell card performance 3.1.3

Cell card stability enhancements are included within this firmware release.

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. 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.

3.2 Firmware version 3.06

Notable features

- Language support, page 12
- Keypad programming, page 13
- PSTN, page 13
- Point Profile Circuit Style, page 13
- System Tamper Response, page 14
- Passcode [Esc], page 14
- Panel Event Log size, page 14
- New default for network Access Point Name (APN) parameter, page
 14

3.2.1 Language support

Adds support for Chinese, Greek, Hungarian, Italian, and Polish.

When both the control panel first language and the second language are set to English, French, Hungarian, Italian, Portuguese, or Spanish, the system uses the Standard, Latin-1 character set.

When either the control panel first language or the second language is set to Chinese, Greek, or Polish, the system uses the Extended, UTF-8 Unicode character set.

Notice!



Only B915/B915i and B942 keypads support Extended, UTF-8

Only B915/B915i keypads with firmware version 1.01.010 or higher, and B942 keypads with firmware version 1.02.022 or higher support the Extended, UTF-8 character set

3.2.2 Keypad programming

Added keypad programming options to the Installer Menu, such as a Device menu and a Miscellaneous menu. Detailed menu tree information can be found within the updated Installation Manual.

3.2.3 **PSTN**

Expanded PSTN compatibility parameter to support additional countries.

3.2.4 **Point Profile Circuit Style**

Expanded Point Profile Circuit Style options to include "Dual 1K EOL with Tamper", "Single 1K EOL with Tamper", and "Single 2K EOL with Tamper" selections. Selecting any of these styles enables sending the new Point Tamper Alarm and Point Tamper Alarm Restoral reports.

3.2.5 System Tamper Response

Added System Tamper Response parameter to configure system behavior and reporting during armed states.

3.2.6 Passcode [Esc]

Keypad *Passcode* [Esc] option now applies to both SDI and SDI2 keypads.

3.2.7 Panel Event Log size

Changed *Panel Event Log* size to: B3512=512, B4512=512, B5512=1024, B6512=1024.

3.2.8 New default for network Access Point Name (APN) parameter

Firmware version 3.06 and RPS version 6.05 changed the default network APN parameter to *eaaa.bosch.vzwentp*. The previous default - *wyless.apn* - is still valid. There is no need to change the APN for existing accounts.

3.3 Firmware version 3.05

Notable features

- 37 bit credentials with site code support, page 15
- B444 4G VZW LTE Cellular Support, page 15
- Brazil Daylight Saving Time scheme update, page 16
- Concurrent Mode 2 connections support, page 15
- Secure connections using TLS v1.1 and v1.2 now supported, page 16

Corrections

- "Ready to turn on" indication, page 16

- Custom function unbypass, page 16
- Force arming with faulted non-bypassable points, page 17
- Shared area reports, page 17
- Fire walk test for multiple latching smokes on one circuit, page 17
- Bypassed points incorrectly reviewed, page 17
- Open/Close personal notifications, page 18
- Automation Mode 2 and faulted points, page 18
- Aux power supply supervisory point silenced keypad display

3.3.1 **B444 4G VZW LTE Cellular Support**

This firmware update supports the B444 Conettix Plug-in 4G VZW LTE Cellular Communicator. This module is for the US market only. Note: Upon initial power-up of the B444 or B444-C, it can take up to 15 minutes for activation to complete. This will only occur during the first power application to the B444 and B444-C.

Concurrent Mode 2 connections support 3.3.2

The control panel now supports up to three automation Mode 2 connections concurrently. In previous versions of firmware, the control panel supported one automation Mode 2 connection at a time.

3.3.3 37 bit credentials with site code support

In addition to 26 bit and 37 bit (no site code) HID credentials, the control panel now supports 37 bit HID credentials with site codes. The control panel now supports the following:

- 37 bit HID H10304 (With Site Code)
- 37 bit HID H10302 (No Site Code)
- 26 bit HID H10301
- EM EM4200 (3-byte or 5-byte)

3.3.4 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.

3.3.5 Brazil Daylight Saving Time scheme update

Panels configured for "Brazil DST" will have the new Daylight Saving Time scheme now starting on the first Sunday of November, and in force since the beginning of 2018. The panels also support Carnival calendar variability.

3.3.6 "Ready to turn on" indication

In previous versions of the firmware, for systems with a B810 RADION or B820 Inovonics wireless receiver, keypads might not display the proper Ready to turn on indication. For example, showing "Ready to turn on" while points are faulted.

This is resolved in this version of the firmware.

3.3.7 Custom function unbypass

In previous versions of firmware, unbypassing points using a Custom Function did not correctly unbypass faulted, controlled points. This is resolved in this firmware version. Faulted points in disamerd areas are now unbypassed correctly when using the custom function. Faulted 24-hour points are not unbypassed.

3.3.8 Force arming with faulted non-bypassable points

In a previous version of the firmware, the control panels might have allowed you to force arm (turn on) the system if non-bypassable points were faulted during the force arming review.

This is resolved in this firmware version. The control panel does not allow you to force arm by bypassing unbypassable points.

3.3.9 Shared area reports

In previous versions of firmware, when a user turned on (armed) or turned off (disarmed) an associate area, causing the shared area to turn on or off, only the associate area status was sent to the central station receiver and stored in the event log.

Starting in this firmware version, the control panel sends and records the shared area status in addition to the associate area.

3.3.10 Fire walk test for multiple latching smokes on one circuit

In previous versions of this firmware, when performing a fire walk test, the smoke detector did not reset without ending the fire walk test. Therefore, if more than one smoke detector was connected to a circuit, you could not test all smoke detectors on the loop without ending the fire walk test and starting it again.

This is resolved in this firmware version.

3.3.11 Bypassed points incorrectly reviewed

In previous versions of the firmware, when force arming the control panel, the keypad would show additional points for force arming. For example, if you force armed the lobby, the keypad asked if you also wanted to force arm bypassed points on an upper floor.

This is resolved in this firmware version.

3.3.12 Open/Close personal notifications

In previous firmware versions, control panels control panels configured with authority levels that restrict sending open/close events and also configured to send Open/Close event personal notifications incorrectly sent the Open/Close events for the restricted user over personal notifications. The issue did not impact events sent to the central station receiver.

This is resolved in this firmware version.

3.3.13 Automation Mode 2 and faulted points

In firmware v3.03, the control panel let automation Mode 2 clients arm with faulted points. This is corrected in v3.05.

3.4 Firmware version **3.03.014**

Notable features

- B6512 control panels, page 19
- ULC-S559 listing, page 19
- ULC Canada Compliance affects keypad message during firmware updates, page 19
- Remote Connect Service support, page 19
- Date/time formats, page 20
- Input point End-of-line options, page 20
- Control panel disconnect no longer required, page 20
- Watch mode after power up, page 20
- Comm Trouble sound options, page 21
- Updated B440/B441 support, page 21

3.4.1 **B6512** control panels

The new B6512 control panel supports up to 100 users, 6 custom functions, up to 6 areas, up to 96 points, up to 91 outputs, up to 12 supervised keypads, and up to 4 door controllers.

ULC-S559 listing 3.4.2

The control panel now carries the ULC-S559 Fire Signal Receiving Centres and Systems listing for Canada, Refer to the ULC Installation Guide for listed modules, enclosures, and installation instructions. The control panel can be configured to meet the requirements of a ULC-S559 system or a ULC-S304 system.

3.4.3 **ULC Canada Compliance affects keypad message** during firmware updates

Setting the ULC Canada Compliance parameter in RPS to Yes adjusts the control panel operation for UL Canada compliance. Beginning in this version, this includes reducing the keypad settings to show a Call for Service message after 90 seconds of disconnect instead of 180 seconds. This might cause a keypad to show the Call for Service message during a firmware update, even when a call is not required. The keypad shows idle text when the firmware update completes.

Remote Connect Service support 3.4.4

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.



Noticel

North America only

Remote Connect Services and Bosch Cloud services are currently available in North America only.

Date/time formats 345

The keypad settings now provide users the option to select a format for both the date and time. For date, users can choose between MM/DD/ YY, DD/MM/YY, and YY/MM/DD formats. For the time, users choose between 12-hour AM/PM format and 24 hour formats.

3.4.6 Input point End-of-line options

The control panel now supports 1 k Ω , dual EOL (1 k Ω + 1 k Ω), and 2 k Ω end-of-line (EOL) resistors as well as a No EOL option for on-board and B208 input points. Prior to this version, control panel supported 1 k Ω EOL and dual EOL (1 $k\Omega + 1 k\Omega$).

Control panel disconnect no longer required 3.4.7

The control panel now responds to RPS programming changes without needing to disconnect. In RPS, simply send the changes. The control panel immediately applies the new configuration.

3.4.8 Watch mode after power up

If the control panel is set for Watch Mode, the Watch Mode condition (On or Off) now persists through a power cycle (battery and AC power removed and reapplied).

3.4.9 Comm Trouble sound options

RPS now includes a parameter to set the Comm Troubles to visible (shown at the keypad and follows the trouble tone settings of the keypad) or invisible (no indication shows at the keypad). This only affects communication troubles not route group failures.

3.4.10 Updated B440/B441 support

Control panel firmware v3.02 and v3.03 support 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.

Control panel firmware v3.03, combined with the latest B440/B441 firmware, correctly shows the MEID on the keypad through the Installer menu. With control panel firmware v3.02, the MEID was truncated. This required you to read the MEID off the label instead of through the keypad, but otherwise did not affect normal operation.

3.5 Firmware version 3.02

Notable features

Bosch VMS integration support, page 21

3.5.1 **Bosch VMS integration support**

Bosch Video Management System integration

With Bosch Video Management System (Bosch VMS) and an intrusion system, the VMS operator has a single user interface to monitor and control the intrusion system combined with video surveillance. With Bosch VMS and a control panel, the operator can, for example:

- View videos triggered by intrusion events, including all relevant information such as areas, point, and user show in the display with the event.
- View areas, points, outputs, and doors with their statuses on the Bosch VMS map, providing the exact location in the system.
- Turn on (arm) and turn off (disarm) areas.
- Bypass and unbypass points.

Requirements to integrate Bosch VMS with a control panel:

- A licensed Bosch VMS system using Professional Editions v5.5 or higher or Bosch VMS Enterprise.
- Edition v5.5 or higher.
- Expansion license to integrate the intrusion control panel. One
 license needed per control panel. Order number MBX-XINT-xx for
 the expansion license added to a Bosch VMS base license. Refer to
 the Bosch Video Management Software product page on the Bosch
 website, www.boschsecurity.com.
- Access to Remote Programming Software (RPS) and the Installer Services Portal programming tool (available in Europe, Middle East, Africa, and China).

Open source software 3.08 4

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