BALLUFF

sensors worldwide

Balluff BVS HS-QC
Handheld Barcode Reader

Quick Guide



english

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Handheld Barcode Reader

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1 END USER SOFTWARE LICENSE AGREEMENT (EULA)

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1 END USER SOFTWARE LICENSE AGREEMENT (EULA)

FOR THE BVS HS-Q Series

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2 Description

2 Description

The Balluff BVS HS-QC handheld barcode reader has been specifically created to meet the market demand for omni-directional reading performance on virtually all codes at an affordable price. Elegant design details are incorporated into a smaller, balanced lightweight enclosure without sacrificing durability.

Ideally suited for applications at the receiving/dispatching of goodsdepartments this handheld reader features a new illumination and aiming system developed with the unique intent to reduce visual stress of the operator during the daily reading activities. It consists of a soft, dark red illumination combined with two blue LED triangles pointing at the targeted barcode. The result is a precise aiming system which contributes to low eye fatigue, yet still allows top operator efficiency.

Constructed with a combination of design and performance-based ideals such as barcode reading snappiness, motion tolerance, perfect ergonomics and an attractive price, this 2D imager is the ideal solution for the customer who is looking to replace their linear only reading readers with image-based technology.

Omni-Directional Operating	To read a symbol simply aim the reader and pull the trigger. The BVS HS-Q reader is a powerful omni-directional reader, so the orientation of the symbol is not important. The 'Green Spot' for good-read feedback helps to improve productivity in noisy environments or in situations where silence is required. When using the product with the cradle at a 45° position, the aiming pattern can work as an aiming system to aid in positioning the barcode for quick and intuitive reading.
Decoding	Reliably decodes all standard 1D (linear) and 2D barcodes, including GS1 DataBar™ linear codes, Postal Codes (China Post), Stacked Codes (such as GS1 DataBar Expanded Stacked, GS1 DataBar Stacked, GS1 DataBar, Stacked Omnidirectional). The data stream — acquired from decoding a symbol — is rapidly sent to the host. The reader is immediately available to read another symbol.

3 Setting Up the Reader

3 Setting Up the Reader

Follow the steps below to connect and get your reader up and communicating with its host.

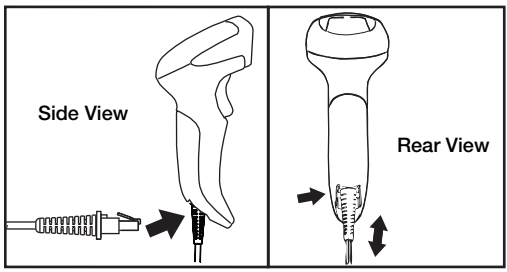
1 Connect the Cable to the reader and the Host.

2 Configure the Interface (see page 12).

3 Configure the Reader starting on page 18 (optional, depends on settings needed).

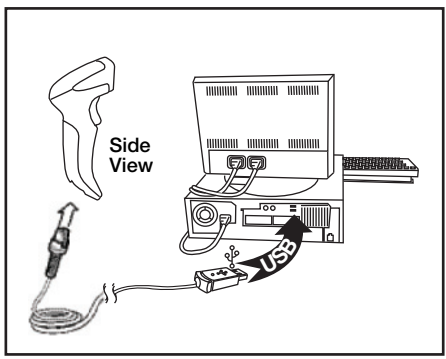
3.1 Connect/Disconnect Cable to Reader

Figure 1: Connecting to the Reader



Host Connection — The BVS HS-QC plugs directly into the host device as shown in Figure 2. The power can also be supplied through an external power supply via the Interface Cable supplied with a power jack.

Figure 2: Connecting to the Host

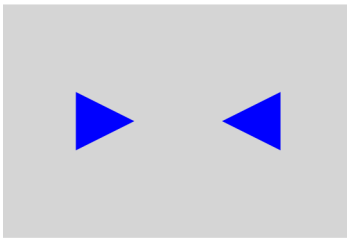


4 Using the Balluff BVS HS-Q reader

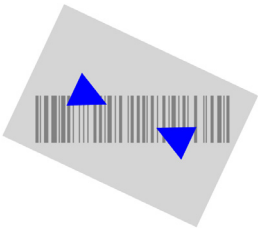
4 Using the Balluff BVS HS-Q reader

The Balluff BVS HS-Q reader normally functions by capturing and decoding codes. The aiming system is activated on trigger pull and indicates the center of the field of view which should be positioned over the barcode:

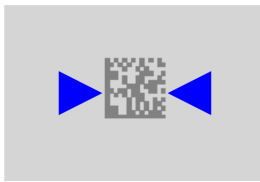
Aiming System



Relative Size and Location of Aiming System Pattern



Linear barcode



2D Matrix symbol

A beam illuminates the label. The projected pattern of the aiming system will be smaller when the reader is closer to the barcode and larger when it is farther from the code. Symbologies with smaller bars or elements (mil size) should be read closer to the unit. Symbologies with larger bars or elements (mil size) should be read farther from the unit.

If the aiming system is centered you will get a good read. Successful reading is signaled by an audible tone plus a good-read green spot LED indicator which is backprojected at the read code.

Reference the Balluff BVS HS-Q reader operation manual (OPM) on the Balluff website for more information about this feature and other programmable settings.

5 Selecting the Interface Type

Upon completing the physical connection between the reader and its host, proceed directly to Interface Selection below for information and programming for the interface type the reader is connected to (for example: RS-232, Keyboard Wedge, USB, etc.) and scan the appropriate barcode to select your system's correct interface type.

5.1 Interface Selection

The reader model will support one of the following sets of host interfaces:

RS-232, USB

Information and programming options for each interface type are provided in this section. For defaults and additional information associated with each interface, proceed to the corresponding chapter in the operation manual.

5 Selecting the Interface Type

5.1.1 Configuring the Interface

Scan the appropriate programming barcode to select the interface type for your system.



NOTE

Unlike some other programming features and options, interface selections require that you scan only one programming barcode label. DO NOT scan an ENTER/EXIT barcode prior to scanning an interface selection barcode.
Some interfaces require the reader to start in the disabled state when powered up. If additional reader configuration is desired while in this state, pull the trigger and hold for 5 seconds. The reader will change to a state that allows programming with barcodes.

RS-232
RS-232 standard interface  Select RS232-STD RS-232 Wincor-Nixdorf  Select RS232-WN
USB Com to simulate RS-232 standard interface  Select USB-COM-STD[a]

5 Selecting the Interface Type

USB-OEM
USB-OEM  Select USB-OEM a. Download the correct USB Com driver from www.balluff.com

5.1.2 Keyboard Interface

Use the programming barcodes to select options for USB Keyboard.

KEYBOARD
USB Keyboard with alternate key encoding  Select USB Alternate Keyboard USB Keyboard for Apple computers  Select USB-KBD-APPLE USB Keyboard with standard key encoding  Select USB Keyboard

5 Selecting the Interface Type

5.1.3 Scancode Tables

Reference the operation manual for information about control character emulation for keyboard interfaces.

5.1.4 Country Mode

This feature specifies the country/language supported by the keyboard. Only these interfaces support ALL Country Modes:

- USB Keyboard (without alternate key encoding)

All other interfaces support ONLY the following Country Modes: U.S., Belgium, Britain, France, Germany, Italy, Spain, Sweden.

COUNTRY MODE



ENTER/EXIT PROGRAMMING MODE



Country Mode = U.S.



Country Mode = Belgium



Country Mode = Croatia*



Country Mode = Czech Republic*

5 Selecting the Interface Type

COUNTRY MODE (continued)



Country Mode = Denmark*



Country Mode = France



Country Mode = French Canadian*



Country Mode = Germany



Country Mode = Hungary*



Country Mode = Italy

*Supports only the interfaces listed in the Country Mode feature description

5 Selecting the Interface Type

COUNTRY MODE (continued)



Country Mode = Japanese 106-key*



Country Mode = Lithuanian*



Country Mode = Norway*



Country Mode = Poland*



Country Mode = Portugal*



Country Mode = Romania*

*Supports only the interfaces listed in the Country Mode feature description

5 Selecting the Interface Type

COUNTRY MODE (continued)



Country Mode = Spain



Country Mode = Sweden



Country Mode = Slovakia*



Country Mode = Switzerland*

*Supports only the interfaces listed in the Country Mode feature description

6 Programming

The reader is factory-configured with a set of standard default features. After scanning the interface barcode from the Interfaces section, select other options and customize your reader through use of the programming barcodes available in the operation manual. Check the corresponding features section for your interface, and also the Data Editing and Symbologies chapters of the OPM.

6.1 Using Programming Barcodes

This manual contains barcodes which allow you to reconfigure your reader. Some programming barcode labels, like the , require only the scan of that single label to enact the change.

Other barcodes require the reader to be placed in Programming Mode prior to scanning them. Scan an ENTER/EXIT barcode once to enter Programming Mode; scan the desired parameter settings; scan the ENTER/EXIT barcode again to accept your changes, which exits Programming Mode and returns the reader to normal operation.

6.2 Configure Other Settings

Additional programming barcodes are available in the OPM to allow for customizing programming features. If your installation requires different programming than the standard factory default settings, refer to the OPM.

6.3 Resetting Product Defaults

If you aren't sure what programming options are in your reader, or you've changed some options and want your custom factory settings restored, scan the barcode below to reset the reader to its initial configuration. Reference the OPM for other options, and a listing of standard factory settings.



NOTE

Factory defaults are based on the interface type. Be sure your reader is configured for the correct interface before scanning this label. See 5 for more information.



Reset Default Settings

6 Programming

6.3.1 Caps Lock State

This option specifies the format in which the reader sends character data. This applies to keyboard wedge interfaces. This does not apply when an alternate key encoding keyboard is selected.

CAPS LOCK STATE



ENTER/EXIT PROGRAMMING MODE



Caps Lock State = Caps Lock OFF



Caps Lock State = Caps Lock ON



Caps Lock State = AUTO Caps Lock Enable

6 Programming

6.3.2 Numlock

This option specifies the setting of the Numbers Lock (Numlock) key while in keyboard wedge interface. This only applies to alternate key encoding interfaces. It does not apply to USB keyboard.

NUMLOCK
 ENTER/EXIT PROGRAMMING MODE
 Numlock = Numlock key unchanged  Numlock = Numlock key toggled

7 Reading Parameters

Move the reader toward the target and center the aiming pattern and illumination system to capture and decode the image. See "Using the Balluff BVS HS-Q reader" on page 10 for more information.

The aiming system will briefly switch off after the acquisition time, and if no code is decoded will switch on again before the next acquisition. The illuminator will remain on until the symbol is decoded.

As you read code symbols, adjust the distance at which you are holding the reader.

7.1 Aiming System

A number of options for customizing control of the Aiming System are available. See the operation manual for more information and programming barcodes.

7.2 Good Read Green Spot Duration

Successful reading can be signaled by a good read green spot. Use the barcodes that follow to specify the duration of the good read pointer beam after a good read.

GOOD READ GREEN SPOT DURATION



ENTER/EXIT PROGRAMMING MODE



Disabled



♦ Short (300 ms)



Medium (500 ms)



Long (800 ms)

8 Operating Modes

8.1 Scan Mode

The imager can be set to operate in one of several scanning modes. See the OPM for more information and settings for any of the options:

Trigger Single (Default) — This mode is associated with typical handheld reader operation. When the trigger is pulled, illumination is turned on and the reader attempts to read a label. Scanning is activated until one of the following occurs:

- the programmable "maximum scan on time"[1] has elapsed
- a label has been read
- the trigger is released

Trigger Pulse Multiple — Scanning begins when the trigger is pulled and continues after the trigger is released, until the trigger is pulled again or until the programmable "maximum scan on time"[1] has elapsed. Reading a label does not disable scanning. Double Read Timeout[1] prevents undesired multiple reads while in this mode.

Trigger Hold Multiple — When the trigger is pulled, scanning starts and the product scans until the trigger is released or "maximum scan on time"[1] has elapsed. Reading a label does not disable scanning. Double Read Timeout[1] prevents undesired multiple reads while in this mode.

Always On — The illuminator is always ON and the reader is always ready for code reading. Double Read Timeout[1] prevents undesired multiple reads.

Flashing — The reader illuminator flashes on and off regardless of the trigger status. Code reading takes place only during the Flash On[2] time. Double Read Timeout[1] prevents undesired multiple reads.

Object Detection — The reader looks for changes within its field-of-view. The Aiming Pattern is always on to show the optimum reading area. If a predefined amount of movement is detected, the red illumination switches on. Scanning continues until a label is read or "maximum scan on time" is reached.

1. See the operational manual (OPM) for these and other programmable features
2. Controlled by Flash On Time and Flash Off Time. Use the OPM to program these options.

8 Operating Modes

SCAN MODE



♦ Scan Mode = Trigger Single



Scan Mode = Trigger Pulse Multiple



Scan Mode = Trigger Hold Multiple



Scan Mode = Flashing



Scan Mode = Always On



Scan Mode = Object Detection

8 Operating Modes

8.2 Pick Mode

Specifies the ability of the reader to decode labels only when they are close to the center of the aiming pattern, which is the area indicated by the two blue arrows. Pick Mode is a Decoding and Transmission process where barcodes that are not within the configurable distance from the center of the aiming pattern are not acknowledged or transmitted to the host. It is active only while the reader is in Trigger Single mode. If the reader switches to a different Read Mode, Pick Mode is automatically disabled.



This feature is not compatible with Multiple Labels Reading in a Volume. See the OPM for more information.

NOTE

PICK MODE



ENTER/EXIT PROGRAMMING MODE



♦ PIck Mode = Disable



Pick Mode = Enable

8.3 Multiple Label Reading

The reader offers a number of options for multiple label reading. See the OPM or software configuration tool for descriptions of these features and programming labels.

9 Technical Specifications

9 Technical Specifications

The following table contains Physical and Performance Characteristics, User Environment and Regulatory information.

Item	Description
Physical Characteristics	
Dimensions	Height 163 mm Length 91 mm Width 41 mm
Weight (without cable)	Approximately 5.1 ounces/145 g
Electrical Characteristics	
Voltage & Current	Input Voltage: 4.5 - 14.0VDC Operating (typical): 140mA Operating (max): 380mA Idle/standby (typical): 50mA
Performance Characteristics	
Light Source	LEDs
Roll (Tilt) Tolerance	Up to ± 360°
Pitch Tolerance	± 65°
Skew (Yaw) Tolerance	± 60°
Print Contrast Minimum	25% minimum reflectance

9 Technical Specifications

Depth of Field (Typical)[a]	
Symbology	
Code 39	5mil: 0.5 - 15cm 10mil: 0 - 22cm 20mil: up to 40cm
EAN	7.5mil: 0 - 15cm 13mil: 0.5 - 35cm
PDF-417	6.6mil: 1.0 - 130cm 10mil:0 - 21cm 15mil: 0.5 - 24cm
DataMatrix	10mil: 1.0 - 13 cm 15mil:0 - 18cm
QR Code	10mil: 0.5 - 13cm 15mil: 0 - 18cm
Minimum Element Width	**Standard Range:** 1D Min Resolution = 4 mil PDF-417 Min Resolution = 5 mil Datamatrix Min Resolution = 7.5 mil

a. 13 mils DOF based on EAN. All other 1D codes are Code 39. All labels grade A, typical environmental light, 20°C, label inclination 10°

9 Technical Specifications

Decode Capability	
1D Barcodes UPC/EAN/JAN (A, E, 13, 8); UPC/EAN/JAN (including P2 /P5); UPC/EAN/JAN (including; ISBN / Bookland & ISSN); UPC/EAN Coupons; Code 39 (including full ASCII); Code 39 Trioptic; Code39 CIP (French Pharmaceutical); LOGMARS (Code 39 w/ standard check digit enabled); Danish PPT; Code 32 (Italian Pharmacode 39); Code 128; Code 128 ISBT; Interleaved 2 of 5 ; Standard 2 of 5; Interleaved 2 of 5 CIP (HR); Industrial 2 of 5; Discrete 2 of 5; Matrix 2 of 5; IATA 2of5 Air cargo code; Code 11; Codabar; Codabar (NW7); ABC Codabar; EAN 128; Code 93 ; MSI; PZN; Plessey; Anker Plessey; GS1 DataBar Omnidirectional; GS1 DataBar Limited; GS1 DataBar Expanded; GS1 DataBar Truncated; DATABAR Expanded Coupon.	
2D / Stacked Codes The BVS HS-QC is capable of decoding the following sybmologies using multiple frames (i.e. Multi-Frame Decoding): Datamatrix; Inverse Datamatrix; Datamatrix is configurable for the following parameters:; Normal or Inverted; Square or Rectangular Style; Data length (1 - 3600 characters); Maxicode; QR Codes (QR, Micro QR and Multiple QR Codes); Aztec; Postal Codes - (Australian Post; Japanese Post; KIX Post; Planet Code; Postnet; Royal Mail Code (RM45CC); Intelligent Mail Barcode (IMB); Sweden Post; Portugal Post); LaPoste A/R 39; PDF-417; MacroPDF; Micro PDF417; GS1 Composites (1 - 12); GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirectional; GS1 DataBar Expanded Stacked; GSI Databar Composites; Chinese Sensible Code; Inverted 2D codes. Note: The SW can apply the Normal/Reverse Decoding Control to the following symbologies: Datamatrix, QR, Micro QR, Aztec and Chinese Sensible Code.	
Interfaces Supported	RS-232, USB Com Std., USB Keyboard, USB OEM
User Environment	
Operating Temperature	0° to 50° C
Storage Temperature	-40° to 70 °C
Humidity	Operating: 0% to 95% relative humidity, non-condensing
Drop Specifications	Reader withstands 18 drops from 1.5 meters to concrete
Ambient Light Immunity	Up to 86,000 Lux
Contaminants Spray/ rain Dust/particulates	IEC 529-IP42
ESD Level	16 KV

9 Technical Specifications

Regulatory	
Electrical Safety	UL 60950, CSA C22.2 No. 60950, IEC 60950
EMI/RFI	North America (FCC) : Part 15 Class B; Canada (IC) : ICES-003 Class B; Russia (EAC); European Union EMC Directive; VCCI-Japan; Korean KCC; Taiwan EMC (BSMI); Australia (ACMA); Mexico (NOM)

10 LED and Beeper Indications

10 LED and Beeper Indications

The reader's beeper sounds and its top multi-colour LED illuminates to indicate various functions or errors on the reader. The green LED Spot backprojected on the code provides a reliable feedback to the user. The following tables list these indications. One exception to the behaviors listed in the tables is that the reader's functions are programmable, and so may or may not be turned on. For example, certain indications such as the power-up beep can be disabled using programming barcode labels.

Indicator	Description	LED	Beeper
Power-up Beep	The reader is in the process of powering-up.		Reader beeps four times at highest frequency and volume upon power-up.
Good Read Beep	A label has been successfully scanned by the reader.	LED behavior for this indication is configurable via the feature "Good Read: When to Indicate" (see the OPM for information.)	The reader will beep once at current frequency, volume, mono/bitonal setting and duration upon a successful label scan.
ROM Failure	There is an error in the reader's software/programming	Flashes	Reader sounds one error beep at highest volume.
Limited Scanning Label Read	Indicates that a host connection is not established.	N/A	Reader 'chirps' six times at the highest frequency and current volume.
Reader Active Mode	The reader is active and ready to scan.	The LED is lit steadily[a]	N/A
Reader Disabled	The reader has been disabled by the host.	The LED blinks continuously	N/A
Green LED Spot[a] flashes momentarily	Upon successful read of a label, the software shall turn the green spot on for the time specified by the configured value.	N/A	N/A

[a] Except when in sleep mode or when a Good Read LED Duration other than 00 is selected

10 LED and Beeper Indications

Programming Mode - The following indications ONLY occur when the reader is in Programming Mode.

INDICATION	DESCRIPTION	LED	BEEPER
Label Programming Mode Entry	A valid programming label has been scanned.	LED blinks continuously	Reader sounds four low frequency beeps.
Label Programming Mode Rejection of Label	A label has been rejected.	N/A	Reader sounds three times at lowest frequency and current volume.
Label Programming Mode Acceptance of Partial Label	In cases where multiple labels must be scanned to program one feature, this indication acknowledges each portion as it is successfully scanned.	N/A	Reader sounds one short beep at highest frequency and current volume.
Label Programming Mode Acceptance of Programming	Configuration option(s) have been successfully programmed via labels and the reader has exited Programming Mode.	N/A	Reader sounds one high frequency beep and 4 low frequency beeps followed by reset beeps.
Label Programming Mode Cancel Item Entry	Cancel label has been scanned.	N/A	Reader sounds two times at low frequency and current volume.

11 Error Codes

11 Error Codes

Upon startup, if the reader sounds a long tone, this means the reader has not passed its automatic Selftest and has entered FRU (Field Replaceable Unit) isolation mode. If the reader is reset, the sequence will be repeated. Press and release the trigger to hear the FRU indication code.

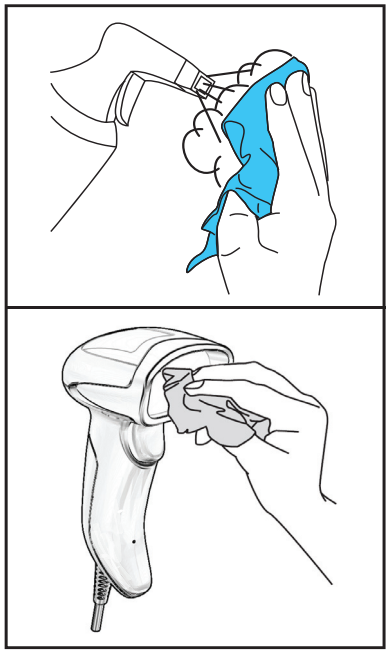
The following table describes the LED flashes/beep codes associated with an error found.

Number of LED Flashes/ Beeps	Error	Corrective Action
1	Configuration	Contact Helpdesk for assistance
2	Interface PCB	
6	Digital PCB	
11	Imager	

12 Cleaning

12 Cleaning

Exterior surfaces and scan windows exposed to spills, smudges or debris require periodic cleaning to ensure best performance during scanning.



Use a soft, dry cloth to clean the product. If the product is very soiled, clean it with a soft cloth moistened with a diluted non-aggressive cleaning solution or diluted ethyl alcohol.



CAUTION

Do not use abrasive or aggressive cleansing agents or abrasive pads to clean scan windows or plastics.
Do not spray or pour liquids directly onto the unit.

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Patents

See www.patents.datalogic.com for patent list.
This product is covered by one or more of the following patents:
Design patents: EP002158717, USD723563, ZL201330271434.1
Utility patents: EP0996284B1, EP0997760B1, EP0999514B1, EP1128315B1, EP1396811B1, EP1413971B1, EP1828957B1, JP4435343B2, US6478224, US6512218, US6513714, US6561427, US6808114, US6997385, US7053954, US7075663, US7234641, US7387246, US7721966, US8245926, US8561906

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13.1 Regulatory Information

All models are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.

Any changes or modifications to equipment, not expressly approved by Datalogic or Balluff void the user's authority to operate the equipment.

Statement of Agency Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Class B Compliance Statement

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 lim- its are designed to provide reasonable protection against harmful interfer- ence 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 communica- tions. 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 interfer- ence 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 or television technician for help

Canadian Notice

This equipment does not exceed the Class B limits for radio noise emissions as described in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la classe B prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.



CAUTION

Do not attempt to open or otherwise service any components in the optics cavity. Opening or servicing any part of the optics cavity by unauthorized personnel may violate safety regulations.

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Customs Union

The CU conformity certification has been achieved; this allows the Product to bear the Eurasian mark of conformity.

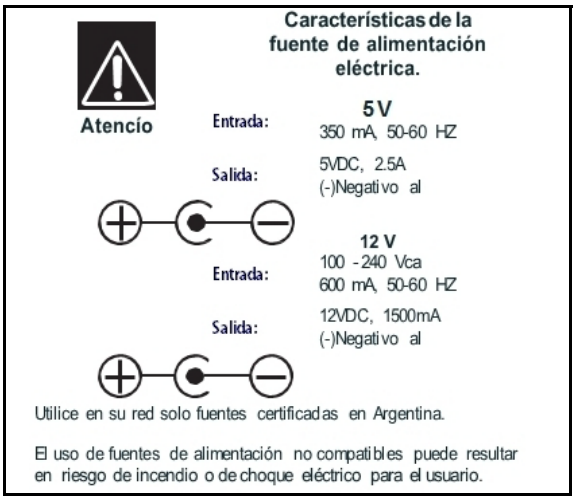
EAC

13.2 Power Supply

This device is intended to be connected to a UL Listed/CSA Certified computer which supplies power directly to the reader or else be supplied by UL Listed/CSA Certified Power Unit marked “Class 2” or LPS power source rated 5-14V minimum 900mA.

QD2430 can be powered by either a 5V or 12V power supply.

Argentina Power Supply Statement



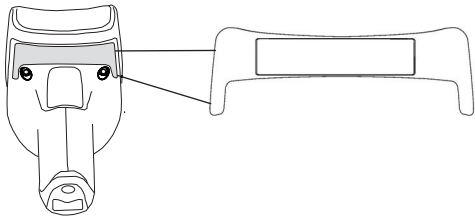
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13.3 Imager Labeling

Sample labels are shown here to illustrate their location only. Please view the labels on your product for actual details, as they may vary from those depicted.

Scanner Regulatory Label

Scanner Regulatory Label





CAUTION

The QD2430 Handheld Reader is not user-serviceable. Opening the case of the unit can cause internal damage and will void the warranty.

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13.4 WEEE Statement

	Waste Electrical and Electronic Equipment (WEEE) Statement

English

Our BVS HS-P and BVS HS-Q series handheld readers are only intended for commercial use as B2B devices as per the WEEE Directive. The WEEE Directive, valid across the EU, is a standard defining how waste electrical equipment has to be handled.
For you, this means that the handheld readers must not be disposed of in normal household waste or taken to a collection point of public waste disposal authorities.
In the event of disposal, you can return the handheld reader to us. We will then ensure it is recycled in accordance with the applicable legal requirements.
For your return shipment, please use our RMA process, which you will find on our website.
We are unable to reimburse costs for shipping/packaging.
If the handheld reader to be returned is type BVS HS-QB or BVS HS-PB, the internationally valid shipping regulations for lithium-ion batteries must be observed.

German

Unsere Handheld Reader der BVS HS-P bzw. BVS HS-Q Baureihe sind ausschließlich für den gewerblichen Gebrauch vorgesehen als sog. B2B-Geräte gemäß der WEEE-Richtlinie.
Die EU-weit gültige WEEE-Richtlinie definiert einheitlich wie Elektro-Altgeräten behandelt werden müssen.
Für Sie bedeutet das, dass die Handheld Reader weder über den normalen Hausmüll entsorgt, noch bei einer Sammelstelle eines öffentlich-rechtlichen Entsorgungsträger abgeben werden dürfen.
Im Falle einer Entsorgung können Sie die Handheld Reader an uns zurücksenden.
Wir stellen dann die Verwertung nach den jeweils geltenden gesetzlichen Vorschriften sicher.
Für die Rücksendung verwenden Sie bitte unseren RMA-Prozess, den Sie auf unserer Webseite finden.
Die Kosten für Versand/Verpackung können wir nicht erstatten.
Falls der zurückzusendende Handheld Reader vom Typ BVS HS-QB oder BVS HS-PB ist, sind die international gültigen Versandvorschriften für Lithium-Ionen-Batterien zu beachten.

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China RoHS Table of Restricted Elements

China RoHS

PART	部件名称	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CrtVI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
		有毒有害物质或元素					
		铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
Printed Circuit Board Assembly	电路板组件	X	O	O	O	O	O
Assy, Optics Block	光学组件	X	O	O	O	O	O
Assy, Module	光学组件	X	O	O	O	O	O

O: 代表此种部件的所有均质材料中所含的该种有毒有害物质均低于中华人民共和国信息产业部所颁布的《电子信息产品中有毒有害物质的限量要求》(SJ/T 11363-2006) 规定的限量。

X: 代表此种部件所用的均质材料中，至少有一类材料其所含的有毒有害物质高于中华人民共和国信息产业部所颁布的《电子信息产品中有毒有害物质的限量要求》(SJ/T 11363-2006) 规定的限量

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13.5 DECLARATION OF CONFORMITY

CE 13 **Datalogic ADC Srl, Via S. Vitalino, 13**
Lippo di Calderara di Reno (BO) 40012 Italy

EC-085
Rev.: 0
Pag.: 1 di 1

La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva di Datalogic ADC Srl per:
This Declaration of Conformity is issued under the sole responsibility of Datalogic ADC Srl for:
Cette déclaration de conformité est établie sous la seule responsabilité de Datalogic Srl pour:
Diese Konformitätserklärung wird unter der alleinigen Verantwortung des Datalogic ADC Srl erteilt für:
Esta declaración de conformidad se expide bajo la exclusiva responsabilidad de Datalogic ADC Srl para:

QUICKSCAN QD2430

e tutti i suoi modelli
and all its models
et tous ses modèles
und seine Modelle
y todos sus modelos

sono conformi alle Direttive del Consiglio Europeo sottoelencate:
are in conformity with the requirements of the European Council Directives listed below:
sont conformes aux spécifications des Directives de l'Union Européenne ci-dessous: den nachstehenden angeführten Direktiven des Europäischen Rats:
cumple con los requisitos de las Directivas del Consejo Europeo, según la lista siguiente:

2004/108/EC - EMC Directive
2011/65/EU – RoHS Directive

Basate sulle legislazioni degli Stati membri in relazione alla compatibilitÃ elettromagnetica ed alla sicurezza dei prodotti.
On the approximation of the laws of Member States relating to electromagnetic compatibility and product safety.
Basée sur la législation des Etats membres relative à la compatibilté électromagnétique et à la sécurité des produits.
Über die Annäherung der Gesetze der Mitgliedsstaaten in bezug auf elektromagnetische Verträglichkeit und Produktsicherheit entsprechen.
Basado en la aproximación de las leyes de los Países Miembros respecto a la compatibilidad electromagnética y las Medidas de seguridad relativas al producto.

Questa dichiarazione è basata sulla conformità dei prodotti alle norme seguenti:
This declaration is based upon compliance of the products to the following standards:
Cette déclaration repose sur la conformité des produits aux normes suivantes:
Diese Erklärung basiert darauf, daß das Produkt den folgenden Normen entspricht:
Esta declaración se basa en el cumplimiento de los productos con las siguientes normas:

EN 55022 (CLASS B ITE), DECEMBER 2010: *INFORMATION TECHNOLOGY EQUIPMENT - RADIO DISTURBANCE CHARACTERISTICS - LIMITS AND METHODS OF MEASUREMENT*

EN 55024, NOVEMBER 2010: *INFORMATION TECHNOLOGY EQUIPMENT - IMMUNITY CHARACTERISTICS - LIMITS AND METHODS OF MEASUREMENT*

EN 50581, SEPTEMBER 2012: *TECHNICAL DOCUMENTATION FOR THE ASSESSMENT OF ELECTRICAL AND ELECTRONIC PRODUCTS WITH RESPECT TO THE RESTRICTION OF HAZARDOUS SUBSTANCES*

LIPPO DI CALDERARA, NOVEMBER 25TH , 2013

Ruggero Cacioppo
Quality Assurance Manager

14 Ergonomic Recommendations

14 Ergonomic Recommendations



CAUTION

In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures.

14.1 Services and Support

Balluff provides several services as well as technical support through its website. Log on to **www.Balluff.com** and click on the links indicated for further information.

Products

Search through the links to arrive at your product page where you can download specific Manuals & Documentation, Data Sheets, Product Catalogues, etc..

Service & Support

- **Technical Support** - Return Material Authorization (RMA) Repairs.
- **Downloads** – download Brochures and Catalogues

Contact Us

- Information Request Form and Sales & Service Network

Notes

Notes

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