⊘DATALOGIC

Cobalto™ CO5300
On-Counter Omnidirectional Presentation Bar Code Scanner

Quick Reference Guide

Patents
See www.patents.datalogic.com for patent list.

> **See the Regulatory Addendum included with your product for additional regulatory, safety and legal information.**

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NOTES

Introduction

The Cobalto™ scanner (reader) delivers high performance in a small, fixed reader that can also be used as a targeted handheld scanner. Its innovative design maximizes productivity and minimizes operator stress, strain and fatigue.

Operational Modes

The scanner can easily adapt to either fixed/portable or targeted handheld scanning applications. The front scan window, with its multi-line scan pattern, is used for most retail items. By touching the top button, the reader emits a single targeted scan pattern for handheld scanning of hard to read or bulky items, or to read an individual bar code among many bar codes.

Fixed Mode

To use the scanner in Fixed Mode, seat it securely on the table. The reader can scan bar codes either in a Sweep or Presentation Mode to accommodate different user styles. To better adjust for your scanning needs, the scanner head can be tilted up or down.

Figure 1. Scan Volume
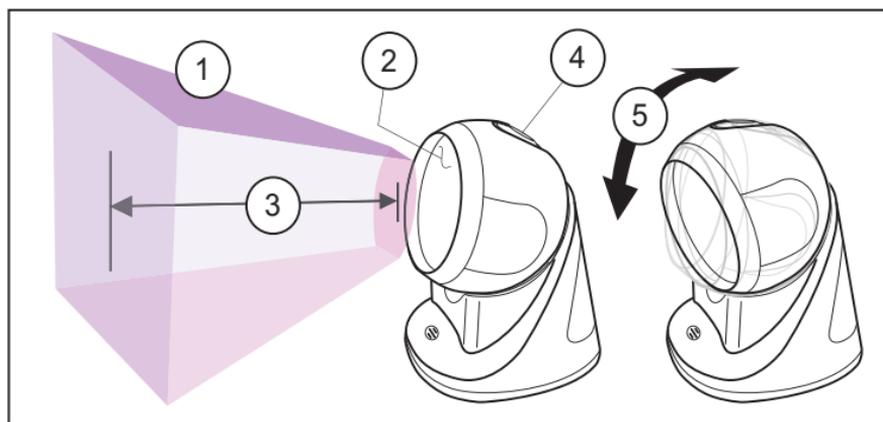
1	Scan Volume	4	Touch Button
2	Scan Window	5	Head tilts up or down
3	Scan Depth 5 to 55mm (5mil)		

Sweep Scanning

Move (sweep) the product, with the bar code facing the scan window. Optimal scanning distance is about 4.5 inches.

Figure 2. Sweep Motion
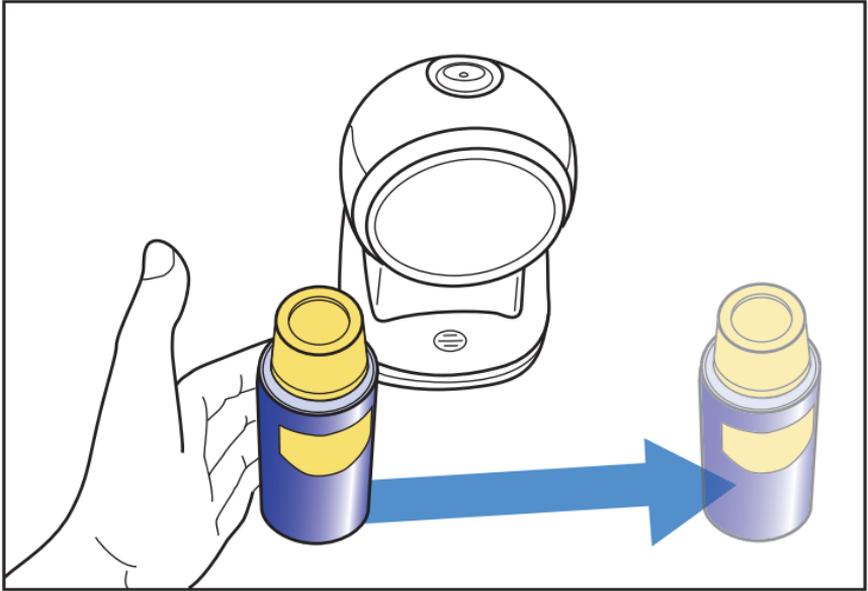
Presentation Scanning

Face the bar code toward the center of the front scan window. Move the product with the bar code towards the scanner.

Figure 3. Presentation Motion
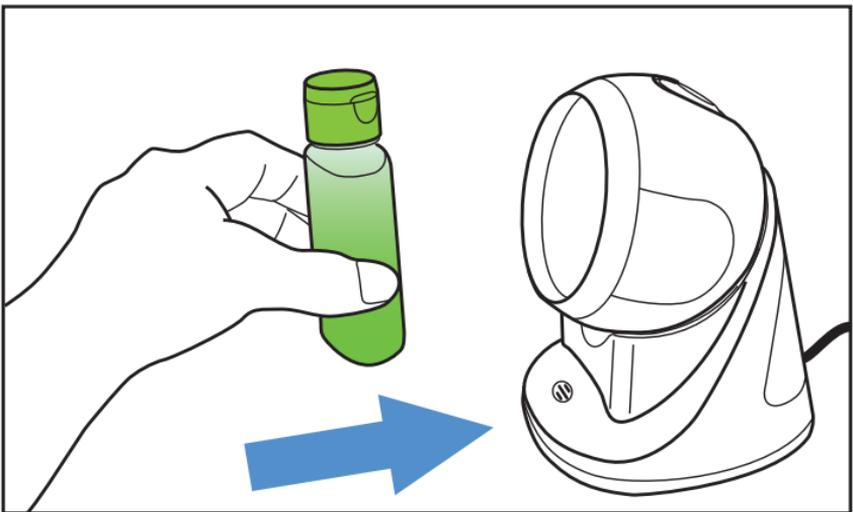
Portable Mode

Take the scanner in your hand. Present (or sweep) the scanner to the bar code using the front scan window.

Figure 4. Portable Mode Scanning

1	Sweep Motion
2	Presentation Motion
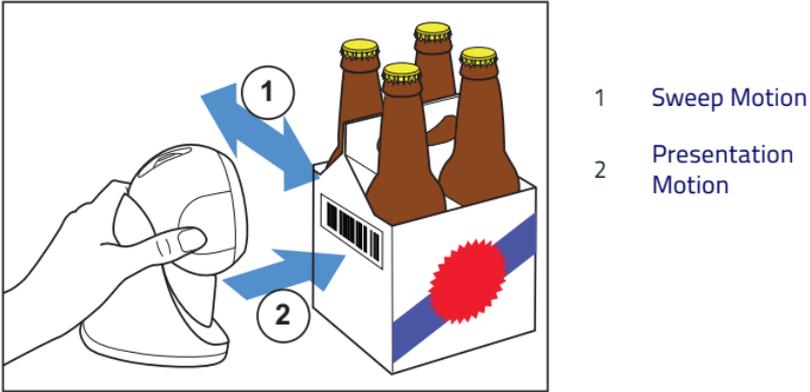
Targeted Handheld Scanning

1. Take the scanner in your hand and touch the top button with the index finger to operate the single line functionality

2. Lift the reader and position the scan window over the product to be scanned.

Figure 5. Targeted Handheld Scanning

1	Touch Button
2	Targeting Scan Line
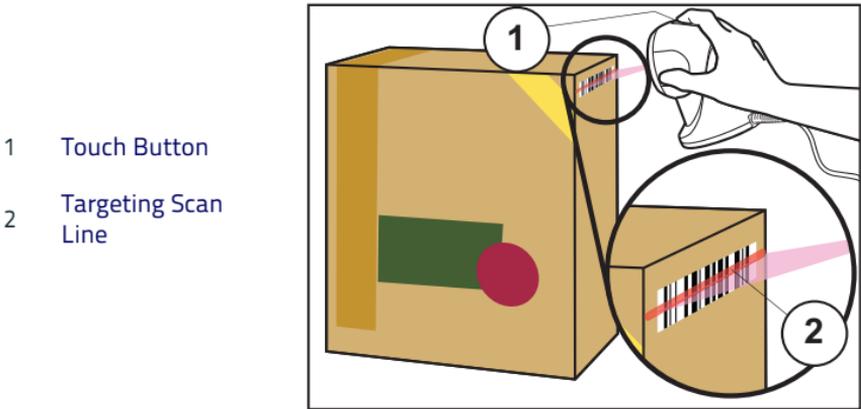
3. Center the single scan line on the bar code to maximize reading capability. Small bar code labels should be moved closer to the scan window, while larger labels need to be held at a further distance.

4. To continue scanning in Targeted Handheld Mode, just keep the top touch button pressed.

Controls & Indicators

Figure 6 illustrates the locations of the scanner's features. Labels are shown here to illustrate their location only. Please view the labels on your product for actual details.

Figure 6. Nomenclature and Labeling
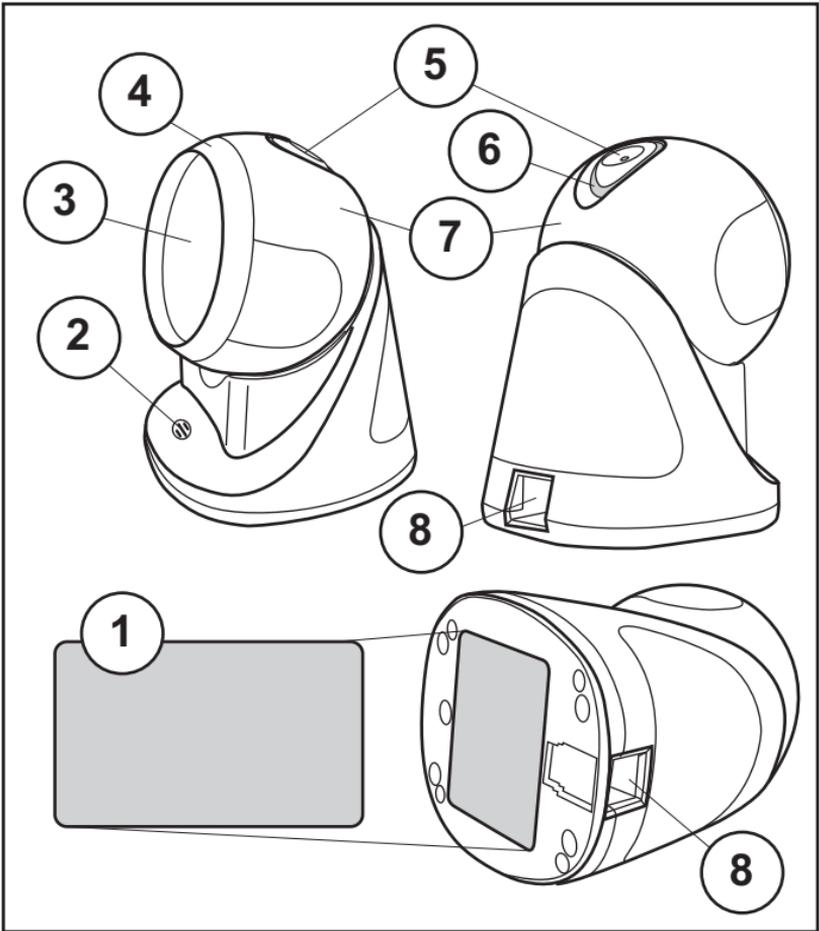
1	Serial Number/Regulatory Label	5	Touch Button
2	Speaker	6	Visual Indicator
3	Scan Window	7	Head
4	Ring of Light	8	Interface / Power Port

Touch Button

The touch button located on top of the head causes the scanner to enter Targeted Handheld Mode. In this mode, the reader scans bar codes with a single scan line. Releasing the touch button returns the scanner to the Fixed/ Portable Scanning Mode.

Pressing and releasing the touch button will also wake up the scanner, if it has entered Standby Mode, and return it to normal operation.

Visual Indicator

The LED region encircling the touch button performs several indications:

- On blue – Indicates that the scanner is operational and ready to scan.
- Flashes once green when the scanner has read a bar code to indicate a successful read. This is usually accompanied by a good read tone (or 'jingle") from the speaker.
- When illumination turns off and the top green LED turns off, this indicates the scanner is in Standby Mode due to an extended period of inactivity.
- Flashing green repeatedly, accompanied by a series of tones indicates a failure has occurred. Contact your service personnel.

Speaker

The speaker also indicates scanner functions:

- Normal Tone – A single tone when the scanner reads a bar code indicates a good read.
- Passed Selftest – A series of four tones are emitted when power is first applied to the scanner. This indicates the scanner passed the Selftest and is operating properly.
- Error Tone – The speaker sounds a series of tones alerting the operator of a possible system or component failure. If your scanner exhibits this behavior or behaves erratically, contact your service personnel.

Ring of Light

The ring of light is illuminated with an attractive blue color during normal operation. It flashes green when the scanner has read a bar code, indicating a good read.

Setting Up the Scanner

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

1. Connect the Cable to the scanner and the Host as shown in Figure 7.

2. Configure the Interface (see Selecting the Interface Type on page 8).

3. Program the scanner as needed using the configuration bar codes available in the PRG.

Connecting / Disconnecting the Cable

Connect the cable at the scanner as shown in Figure 7. To release the cable upon disconnection, insert a bent paperclip into the opening shown, and push in gently to disengage the latch.

Figure 7. Cable Connection at the Scanner
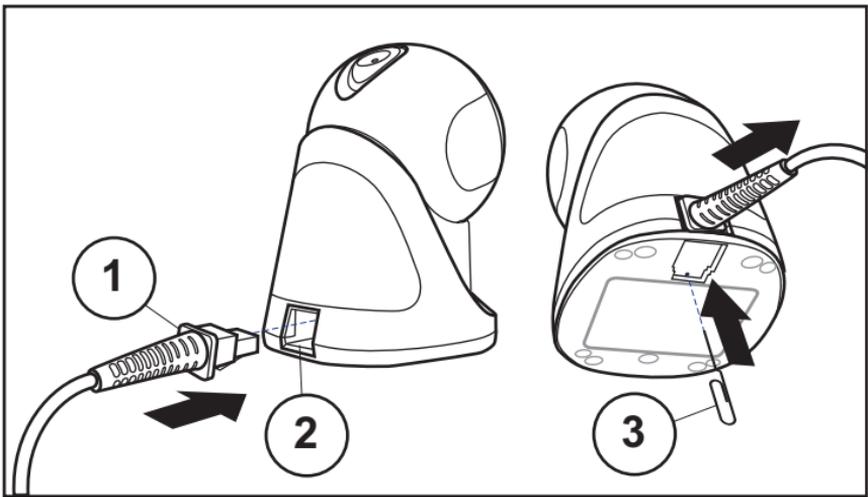
| 1 | Cable Connector | 3 | Paperclip |
| 2 | Interface / Power Port | | |

Connecting to the Host Interface

The scanner is connected to the host interface in one of the following ways:

USB

Keyboard Wedge

RS-232
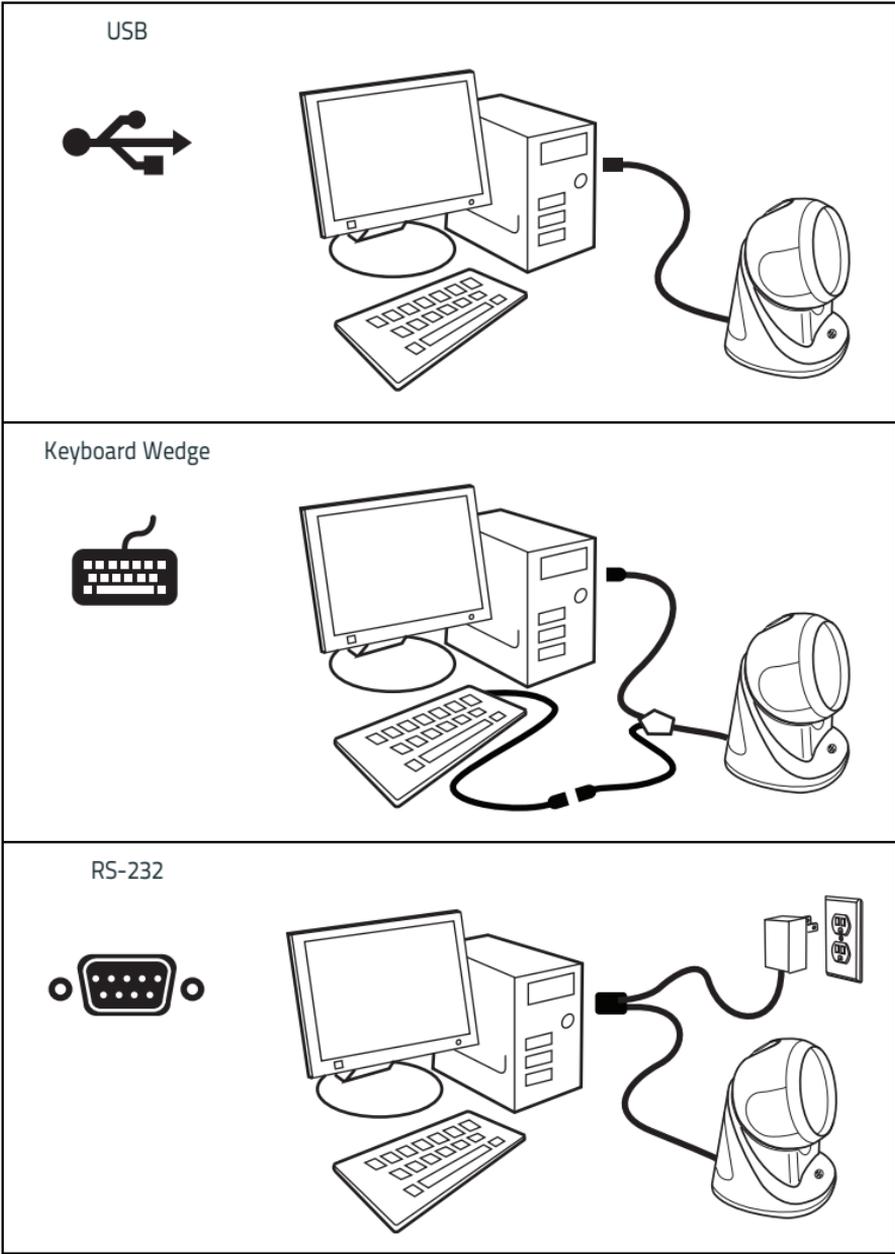
Selecting the Interface Type

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

For additional interfaces other than those listed in this manual, see the Product Reference Guide (PRG) for this product, available online at www.datalogic.com.

USB Interface

The scanner attaches directly to a USB host, or a powered USB hub, and is powered by it. No additional power supply is required. When using a USB interface, the scanner auto-detects the USB and defaults to the USB Keyboard interface.
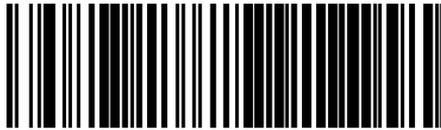
Select USB-COM-STD[1] (simulates RS-232 standard interface)

Select USB Keyboard (with standard key encoding)

Select USB Alternate Keyboard (with alternate key encoding)

Select USB OEM

1. Download the correct USB Com driver from www.datalogic.com.

USB Interface (continued)

Select USB Composite (KEYBOARD + COM)

RS-232 Interface

To use an RS-232 interface, scan the bar code for the desired RS-232 host type.

Select RS-232 Standard

Select RS-232 Wincor Nixdorf

Select RS-232 OPOS (for use with OPOS/UPOS/JavaPOS)

Keyboard Wedge Interface

To use a Keyboard Wedge interface, scan the bar code for the desired keyboard type.

Select KBD-AT
(AT, PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95
w/Standard Key Encoding)
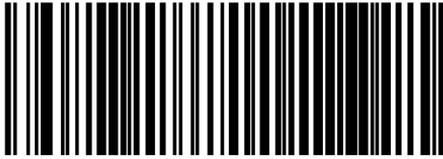
Select KBD-AT-NK
(IBM AT PS2 with standard key encoding but without external kbd.)
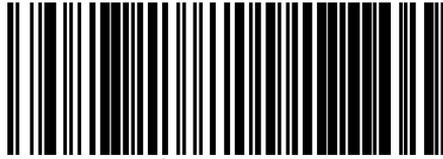
Select KBD-AT-ALT
(AT, PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95
w/Alternate Key)
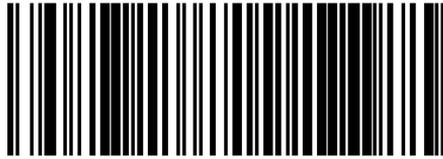
Select KBD-AT-ALT-NK (for IBM AT PS2 with alternate key
encoding but without external keyboard)

Keyboard Nationality

Country Mode

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

- USB Keyboard (without alternate key encoding)
- AT, PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95 w/ Std Key Encoding
- Keyboard Wedge for IBM AT PS2 with standard key encoding but without external keyboard
- AT, PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95 without Alternate Key
- Keyboard Wedge for IBM AT PS2 without alternate key encoding but without external keyboard

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 = Britain

COUNTRY MODE (continued)
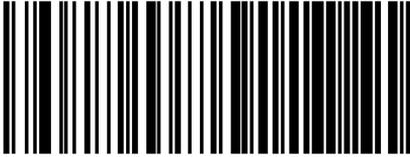
Country Mode = Croatia*
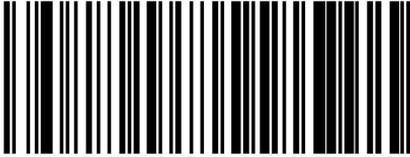
Country Mode = Czech Republic*
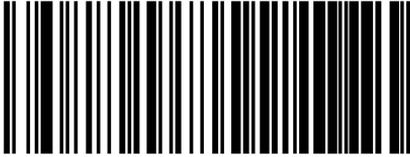
Country Mode = Denmark*
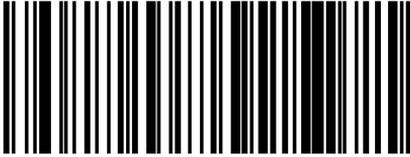
Country Mode = France
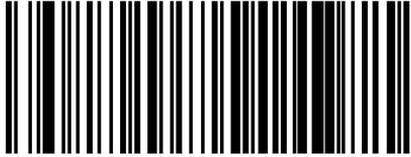
Country Mode = French Canadian
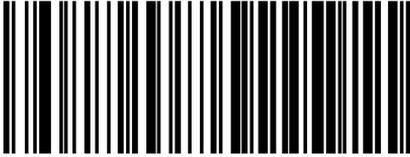
Country Mode = Germany

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

COUNTRY MODE (continued)

Country Mode = Hungary*
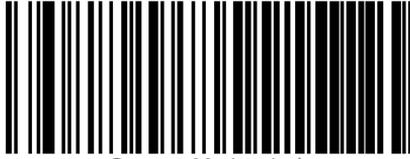
Country Mode = Italy
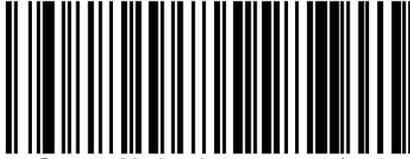
Country Mode = Japanese 106-key*

Country Mode = Lithuanian
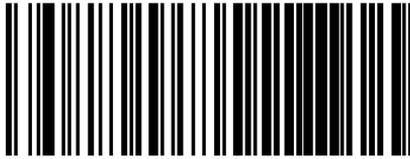
Country Mode = Norway*
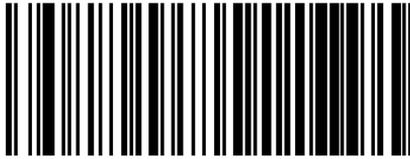
Country Mode = Poland*

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

COUNTRY MODE (continued)
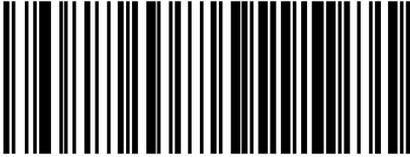
Country Mode = Portugal*
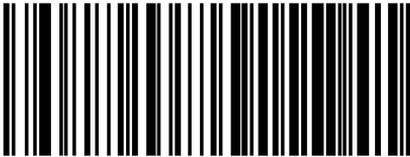
Country Mode = Romania*
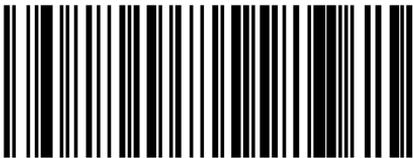
Country Mode = Slovakia*

Country Mode = Spain

Country Mode = Sweden

Country Mode = Switzerland*

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

Programming

The scanner is factory-configured with a set of standard default features. After scanning the interface bar code from the Interfaces section, select other options and customize your scanner through use of the programming bar codes available in the Product Reference Guide (PRG) for your model. Check the corresponding features section for your interface, and also the Data Editing and Symbologies chapters of the PRG.

Restore Defaults

Resetting the Standard Product Defaults

If you aren't sure what programming options are in your scanner, or you've changed some options and want the factory settings restored, scan the Factory Default Settings bar code below. This will copy the factory configuration for the currently active interface to the current configuration.

Factory Default Settings

To change the settings refer to the PRG.

Technical Features

Item	Description
Electrical Features	
Power Supply RS-232 interface	5 Vdc ± 5%
Consumption:	Max operating current @ 5V: <500 mA Typical operating (changing colors) current @ 5V < 430 mA
Max. Scan Rate	1500 lines/sec.
Reading Indicators	Ring of light and top indicator Illumination, Beep or jingle
Optical and Read Performance	
Ambient Light Immunity	Fluorescent, incandescent, mercury vapor and sodium vapor: 450 ft-candles (4,844 lux) Sunlight: 8,000 ft-candles (86,111 lux)
Motion Tolerance	On 100% EAN13 @ 10cm from nose: > 4 m/sec.
Scan Technology	Laser
Wavelength	650 nm
Laser Safety Class	Class 1 IEC 60825-1:2007
Reading Field	5 mils: 5 - 55 mm 100% EAN13: 0 to 275 mm
Max. Resolution	5 mils
PCS (Datalogic Test Chart)	35%
Environmental Features	
Working Temperature	0 °C to + 40 °C (+32° to +104°F)
Storage Temperature	-40 °C to +70 °C (-40° to +158°F)
Humidity	90% non-condensing
Drop Resistance	1.2 m
ESD Protection	16 KV
Protection Class	IP30
Mechanical Features	
Weight (without cable)	445 g (15.7 oz)

Item	Description
Cable Length	2 m (6 ft 6 in)
Decode Capability	UPC/EAN, P2 /P5 add-ons; ISBN; ISSN; GTIN, add on 2/5/8; Codabar; Interleaved 2/5; Code 93; Code 128; Code 39; Code 32; Code 11; Industrial 2/5; IATA Industrial 2/5; EAN 128; Code 4; Code 5; Datalogic 2 of 5; Standard 2 of 5; MSI; Concatenated ISBT 128
Interfaces Supported	USB Interface (see page 8) RS-232 Interface (see page 9) Keyboard Wedge Interface (see page 10)

Troubleshooting

Problem	Possible Cause	Possible Solutions
Nothing happens when the touch button is touched.	No power to the scanner.	Check system power. Ensure power supply is connected.
	Interface or power cables are loose.	Ensure all cable connections are secure.
Target beam comes on, but bar code does not decode.	Scanner not programmed for correct bar code type.	Ensure scanner is programmed to read the type of bar code scanned. Refer to the PRG for more information.
	Bar code label is unreadable.	Check the label to ensure it is not defaced. Try scanning another bar code type.
	Distance between reader and bar code is incorrect.	Move scanner closer to or further from the bar code.
Bar code is decoded but not transmitted to the host.	Reader not programmed for the correct host type.	Scan the appropriate host type bar code. Refer to the PRG for more information.

For detailed troubleshooting, refer to the PRG (Product Reference Guide)

NOTE

Scanner Labeling

See Figure 6 on page 4 for information about scanner labeling.

Warranty

Datalogic warrants to Customer that Datalogic's products will be free from defects in materials and workmanship for a period of three (3) years from product shipment.

Datalogic ADC Limited Factory Warranty

Warranty Coverage

Datalogic ADC ('Datalogic") hardware products are warranted against defects in material and workmanship under normal and proper use. The liability of Datalogic under this warranty is limited to furnishing the labor and parts necessary to remedy any defect covered by this warranty and restore the product to its normal operating condition. Repair or replacement of product during the warranty does not extend the original warranty term. Products are sold on the basis of specifications applicable at the time of manufacture and Datalogic has no obligation to modify or update products once sold.

If Datalogic determines that a product has defects in material or workmanship, Datalogic shall, at its sole option repair or replace the product without additional charge for parts and labor, or credit or refund the defective products duly returned to Datalogic. To perform repairs, Datalogic may use new or reconditioned parts, components, subassemblies or products that have been tested as meeting applicable specifications for equivalent new material and products. Customer will allow Datalogic to scrap all parts removed from the repaired product. The warranty period shall extend from the date of shipment from Datalogic for the duration published by Datalogic for the product at the time of purchase (Warranty period). Datalogic warrants repaired hardware devices against defects in workmanship and materials on the repaired assembly for a 90 day period starting from the date of shipment of the repaired product from Datalogic or until the expiration of the original warranty period, whichever is longer. Datalogic does not guarantee, and it is not responsible for, the maintenance of, damage to, or loss of configurations, data, and applications on the repaired units and at its sole discretion can return the units in the 'factory default" configuration or with any software or firmware update available at the time of the repair (other than the firmware or software installed during the manufacture of the product). Customer accepts responsibility to maintain a back up copy of its software and data.

Warranty Claims Process

In order to obtain service under the Factory Warranty, Customer must notify Datalogic of the claimed defect before the expiration of the applicable Warranty period and obtain from Datalogic a return authorization number (RMA) for return of the product to a designated Datalogic service center. If Datalogic determines Customer's claim is valid, Datalogic will repair or replace product without additional charge for parts and labor. Customer shall be responsible for packaging and shipping the product to the designated Datalogic service center, with shipping charges prepaid. Datalogic shall pay for the return of the product to Customer if the shipment is to a location within the country in which the Datalogic service center is located. Customer shall be responsible for paying all shipping charges, duties, taxes, and any other charges for products returned to any other locations. Failure to follow the applicable RMA policy, may result in a processing fee. Customer shall be respon-

sible for return shipment expenses for products which Datalogic, at its sole discretion, determines are not defective or eligible for warranty repair.

Warranty Exclusions

The Datalogic Factory Warranty shall not apply to:
  (i)   any product which has been damaged, modified, altered, repaired or upgraded by other than Datalogic service personnel or its authorized representatives;
  (ii)   any claimed defect, failure or damage which Datalogic determines was caused by faulty operations, improper use, abuse, misuse, wear and tear, negligence, improper storage or use of parts or accessories not approved or supplied by Datalogic;
  (iii) any claimed defect or damage caused by the use of product with any other instrument, equipment or apparatus;
  (iv)   any claimed defect or damage caused by the failure to provide proper maintenance, including but not limited to cleaning the upper window in accordance with product manual;
  (v)   any defect or damage caused by natural or man-made disaster such as but not limited to fire, water damage, floods, other natural disasters, vandalism or abusive events that would cause internal and external component damage or destruction of the whole unit, consumable items;
  (vi)   any damage or malfunctioning caused by non-restoring action as for example firmware or software upgrades, software or hardware reconfigurations etc.;
  (vii) the replacement of upper window/cartridge due to scratching, stains or other degradation and/or
  (viii) any consumable or equivalent (e.g., cables, power supply, batteries, keypads, touch screen, triggers etc.).

No Assignment

Customer may not assign or otherwise transfer its rights or obligations under this warranty except to a purchaser or transferee of product. No attempted assignment or transfer in violation of this provision shall be valid or binding upon Datalogic.

DATALOGIC'S LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ORAL OR WRITTEN, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. DATALOGIC SHALL NOT BE LIABLE FOR ANY DAMAGES SUSTAINED BY CUSTOMER ARISING FROM DELAYS IN THE REPLACEMENT OR REPAIR OF PRODUCTS UNDER THE ABOVE. THE REMEDY SET FORTH IN THIS WARRANTY STATEMENT IS THE CUSTOMER'S SOLE AND EXCLUSIVE REMEDY FOR WARRANTY CLAIMS. UNDER NO CIRCUMSTANCES WILL DATALOGIC BE LIABLE TO CUSTOMER OR ANY THIRD PARTY FOR ANY LOST PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL IN-DIRECT, SPECIAL OR CONTINGENT DAMAGES REGARDLESS OF WHETHER DATALOGIC HAD ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

Risk of Loss

Customer shall bear risk of loss or damage for product in transit to Datalogic. Datalogic shall assume risk of loss or damage for product in Datalogic's possession. In the absence of specific written instructions for the return of product to Customer, Datalogic will select the carrier, but Datalogic shall not thereby assume any liability in connection with the return shipment.

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.

Cleaning

Exterior surfaces and scan windows exposed to spills, smudges or debris accumulation require periodic cleaning to assure best performance during scanning. Use a clean, lint-free cloth or paper towel dampened with a nonabrasive, mild, water-based window cleaner to wipe away stains, smudges, fingerprints, spills, etc. from the scan window and exterior surfaces (Figure 8).

Figure 8. Cleaning
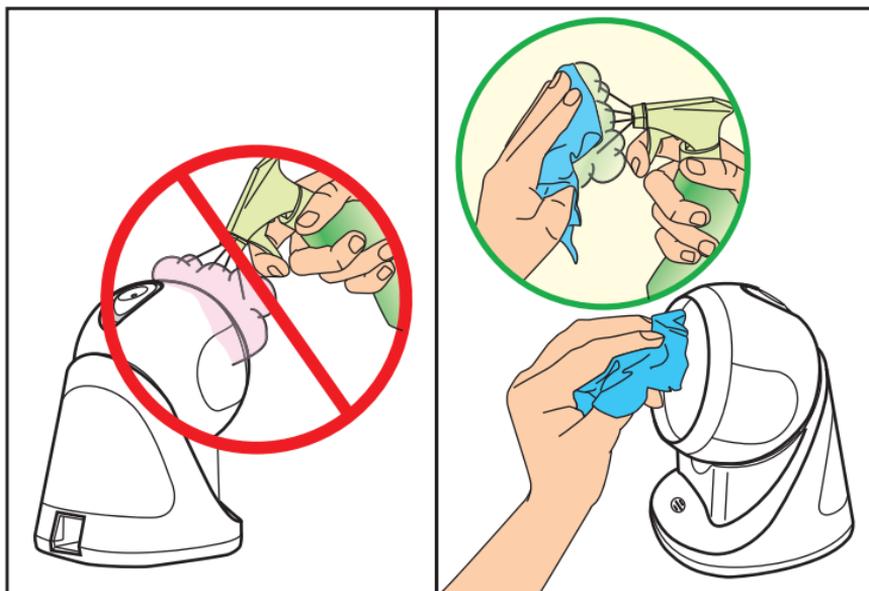
CAUTION

DO NOT use abrasive cleaning agents or abrasive pads to clean this product. Harsh chemicals, disinfectants, and cleansers can cause damage which will adversely affect scanning performance.

Services and Support

Datalogic provides several services as well as technical support through its website. Log on to www.datalogic.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 and Software & Utilities, including:

- Datalogic Aladdin™, a multi-platform utility program that allows device configuration using a PC. It provides RS-232 interface configuration as well as configuration bar code printing.

Service & Support

- Technical Support - Product documentation and programming guides and Technical Support Department in the world
- Service Programs - Warranty Extensions and Maintenance Agreements
- Repair Services - Flat Rate Repairs and Return Material Authorization (RMA) Repairs
- Downloads – Manuals & Documentation, Data Sheets, Product Catalogs, etc.

Contact Us

Information Request Form and Sales & Service Network.

NOTES

❖DATALOGIC

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