MAGELLAN™ 900i

QUICK REFERENCE GUIDE

Omnidirectional Imaging Scanner

⊕DATALOGIC

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Patents

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

ORIGINAL VERSION

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

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MAGELLAN™ 900i

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This guide is provided to help get your scanner up and running quickly and efficiently. For more details, including additional programming information, refer to the Product Reference Guide (PRG), which is available from the Datalogic website.

FEATURES

Figure 1. Scanner Features – Front View

Scanner Button

Good Read Light

Scan Window

Beeper Grille

Tilting Stand
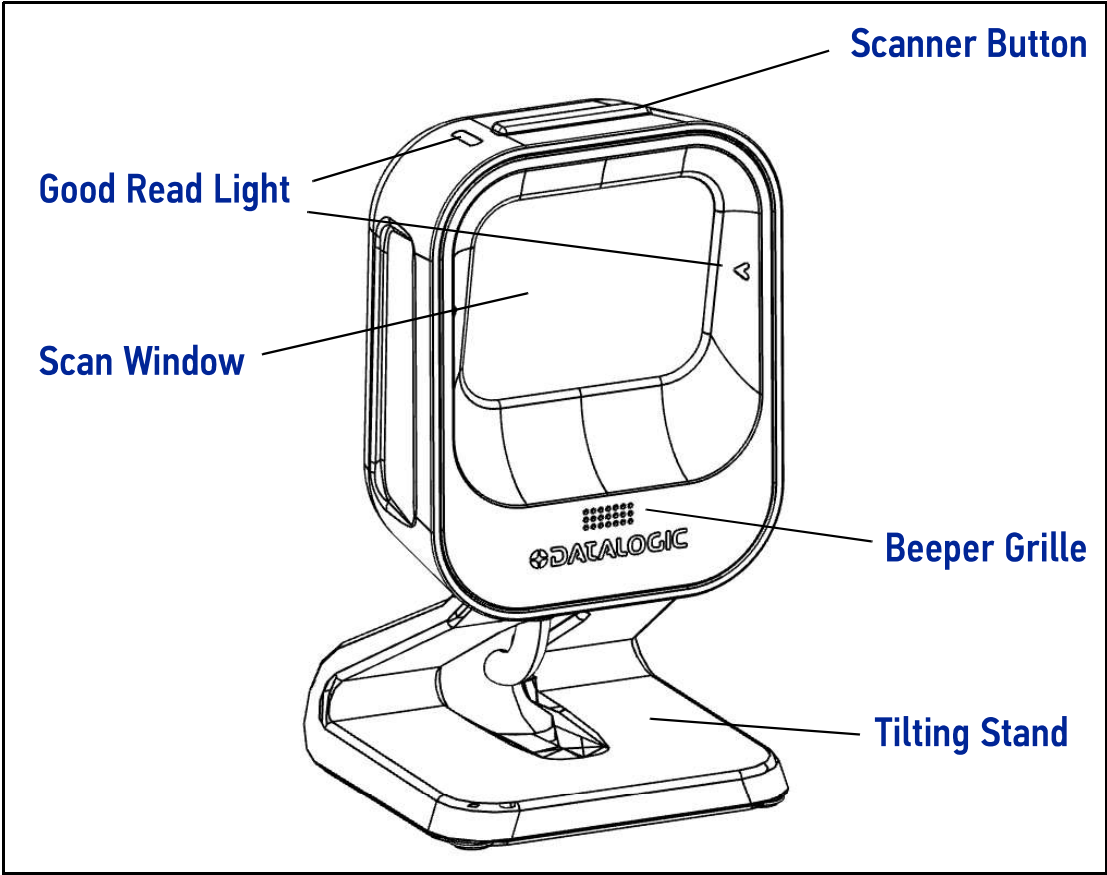
Figure 2. Scanner Features – Bottom View

Power/interface Cable
Latch Release Hole

Power/Interface
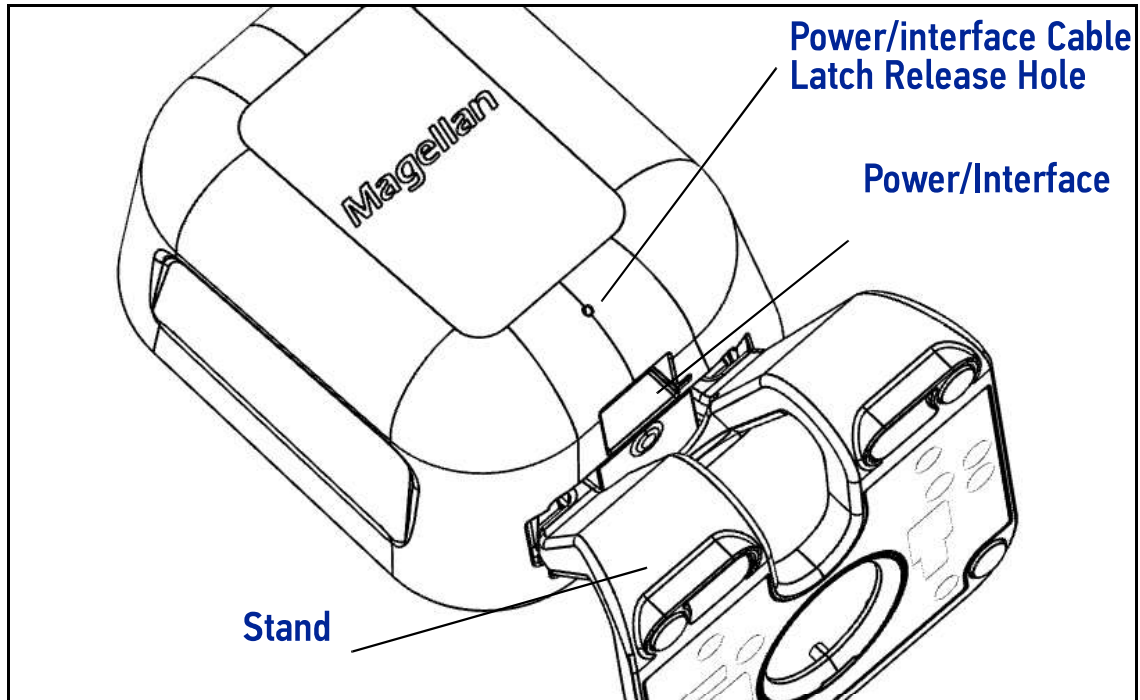
Stand

Figure 3. Labeling – Stand Model

Regulatory
Label
(Bottom
of the Stand)

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Figure 4. Labeling – Kiosk Model

Regulatory Label
(Back of the Scanner)

NOTE

Labels are shown to illustrate their location only. Please view the labels on your product for actual details.

INSTALLATION

Route the interface cable from the terminal or host. Plug the AC adapter (if one is used) into a wall outlet and the interface (I/F) cable, then route and attach the I/F cable to the scanner. Verify operation by presenting known-good bar codes to the scanner. The unit should beep$_1$ and/or flash its good read LED and send the bar code data to the host or terminal. If not, refer to the Troubleshooting section of this guide.

The Magellan 900i uses intelligent illumination technology to optimize light levels for a variety of bar code scanner fun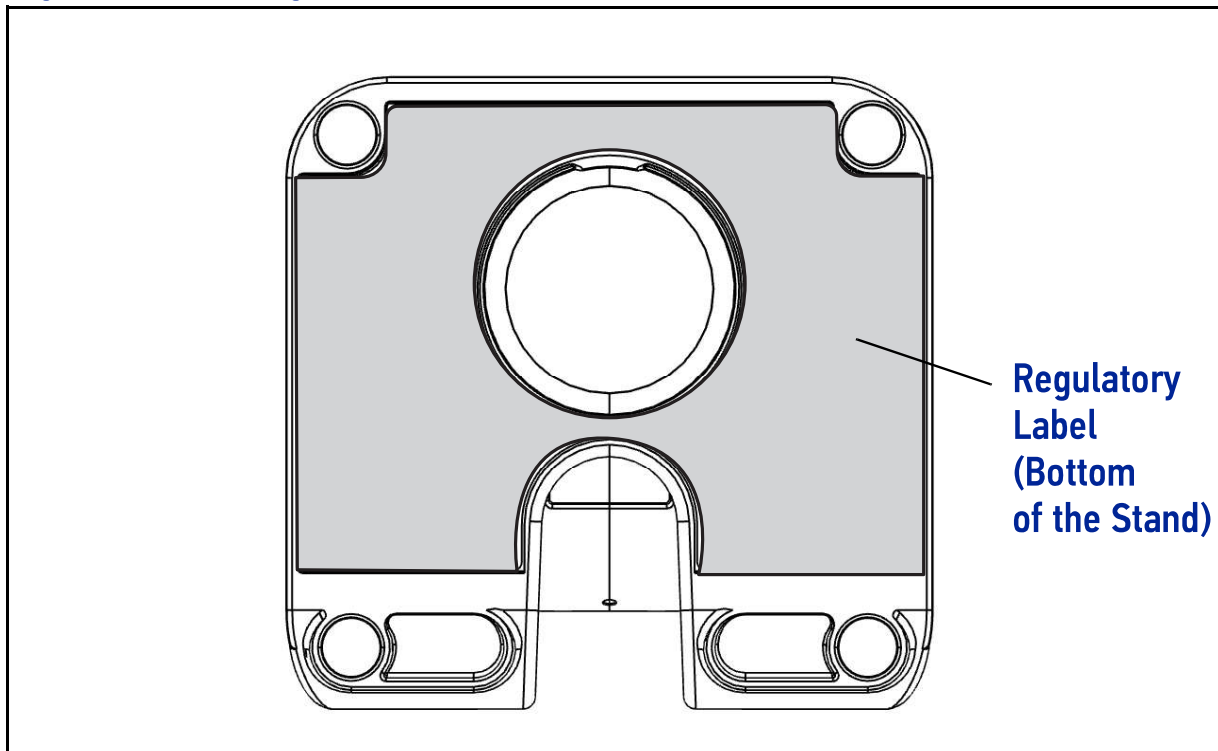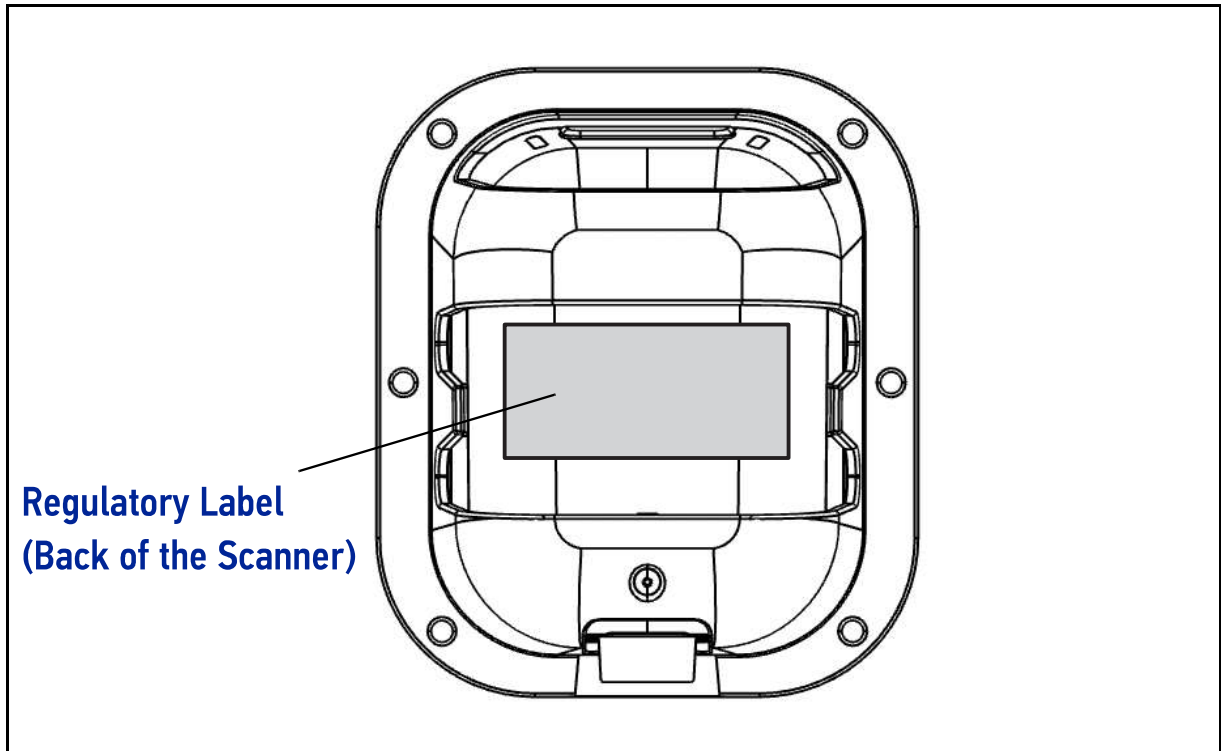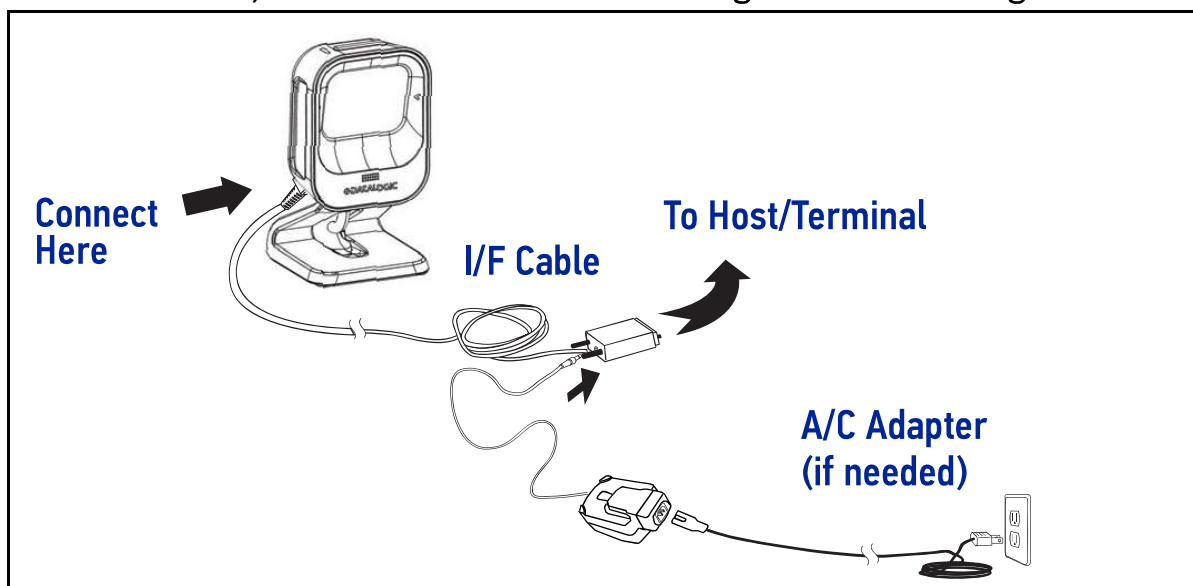ctions including automatic reading of bar codes from printed surfaces, mobile devices and image capture in variable contrast environments.

Optional Magnetic Base Mounting

An optional magnetic swivel base can be used to semi-permanently attach a stand scanner to a flat surface (vertical or horizontal), using the provided adhesive or screw. The scanner can easily be rotated to a desired orientation. The scanner can be detached for portable use by lifting the entire unit as shown in Figure 5 on page 5.

Optional Kiosk Mounting

The Magellan 900i can also be installed into a kiosk, self-checkout or other enclosure. See Integration Guide on the Datalogic website for more information about mounting and sealing considerations.

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1. Beeper and LED behavior is selectable and may have been disabled by a previous user.

HOW TO SCAN

Bar codes can be presented to the scanner while it is resting on the stand, or the scanner can be picked up for targeted scanning.

Figure 5. Scanning Methods
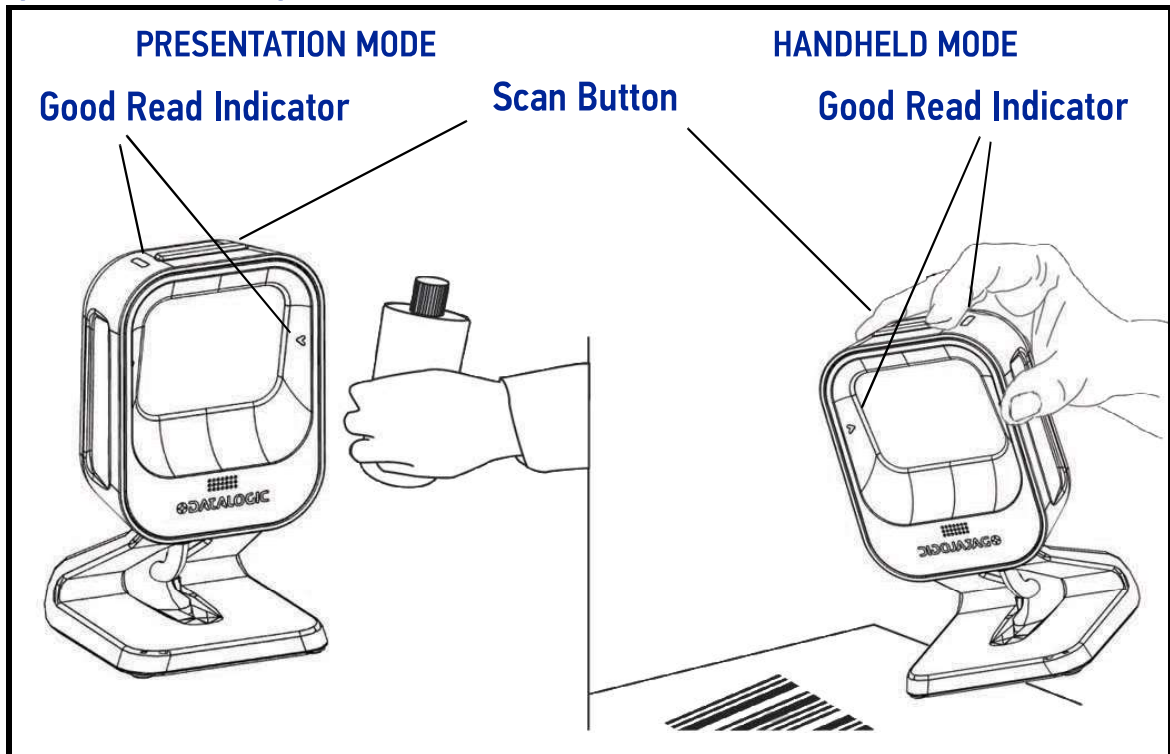
Handheld Scanning Mode

To read a barcode using Handheld Scanning Mode:

1. Pick up the scanner and click the button - the aimer LED will illuminate.

2. With the aimer over the barcode to be read, press the button.

Upon a successful read, the lights beside the button will blink bright green and the GreenSpot™ will illuminate, highlighting the decoded barcode.

Center Zone Qualification

The configurable Center Zone can be set to limit the scan area to allow Targeted Scanning of pick lists or other special items. Bar codes will read in any orientation. The scanner will return to full pattern Presentation Mode when set back down, after a configurable time has elapsed.

Scanner Button

The Scanner Button performs multiple functions, depending on how long it is pressed:

Scanner Button Functions

PRESS TYPE	FUNCTION	COMMENT
Momentary (when scanner is asleep)	Wakes scanner from Sleep Mode into Presentation Mode	Alternatively, the scanner can be awakened by moving an object through the scan zone.
Momentary (when scanner is awake)	Switches Scanner to Handheld Mode	Scanner will remain in Handheld mode for a configurable number of seconds
Press button for 2 seconds	Increments volume	Pressing the button for 2 seconds increases speaker volume. When the loudest volume is reached, another 2 second press of the button cycles volume back to the lowest setting, then volume increases on subsequent 2 second press(es). Five volume levels are available.
Press button for 4 seconds	Scanner Diagnostics Mode[a]	This mode allows system support personnel to troubleshoot problems with the scanner and is used to determine if it can read bar codes. Press the button for 8 seconds or cycle power to exit Scanner Diagnostics Mode and reset the scanner.

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PRESS TYPE	FUNCTION	COMMENT
Press button for 10 seconds	Resets Scanner^{b}	Only system support personnel should perform a reset.

a. By standard default, this function is normally disabled to prevent acciden-
tal activation by users.
b. Users should not perform scanner resets except under the direction of
trained systems support personnel.

NOTE

Volume changes made using the Scanner Button are lost when the scanner is powered down and are reset to the configured setting. If you wish to permanently change the volume, use the special programming labels in the Product Reference Guide.

NOTE

In Handheld Mode, the only function of the button is to scan labels. All other button operations are suspended.

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LED AND BEEPER INDICATORS

The scanner's beeper sounds and its green LED illuminates to indicate various functions or errors on the scanner. The tables that follow list these indications. An exception is that the scanner's functions are programmable, and may or may not be turned on. For example, some indications (such as the power-up beep) can be disabled using programming bar code labels.

LED INDI-CATION	INDICATION	COMMENT
Power-on indication	Bright green flash	Indicates the scanner has finished all its power-up tests and is now ready for operation.
Good Read Indication	Bright green flash	Indicates a bar code has been read and decoded.
Scanner Ready	Constant dim green	The scanner is ready for operation.
Sleep Mode	Green LED slowly and continuously changes from off to dim to off.	The scanner is in Sleep Mode. To wake the scanner up, move an object in front of its window or press the button atop the unit. This indication is optionally configurable, and may have been programmed to behave differently.
Host Disable	Constant green flash at 1 Hz (100mS on, 900mS off)	The scanner is disabled due to receiving a disable command from the POS terminal.
Diagnostics	Varies (see "Error Codes" on page 16 for more information)	The LED can provide diagnostic feedback if the scanner discovers a problem during SelfTest.
Label Programming Mode	Constant green flash at 1 Hz (500 ms on, 500 ms off).	The scanner is in Programming Mode.

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BEEPER INDICATION	INDICATION	COMMENT
Power On Beep	Single beep	The Power-On LED indication is a configurable feature which can be enabled or disabled. When enabled, this beep indicates the scanner has finished all its power-up tests and is now ready for operation.
Good Read Indication	Single beep	The good read beep indication is configurable. Options include: Enable/disable, frequency, duration and volume. See the Product Reference Guide (PRG) for more information.
Diagnostics	Varies (see "Error Codes" on page 16 for more information)	The Beeper can provide diagnostic feedback if the scanner discovers a problem during SelfTest.
Programming Mode Indications	Varies depending upon the feature(s) being configured.	The Beeper will sound as programming bar code labels are scanned, indicating progress during scanner configuration.

PROGRAMMING

On leaving the factory, units are generally programmed with the most common terminal and communications settings. If you need to change these settings, custom programming can be accomplished using one of several methods.
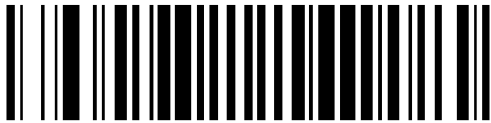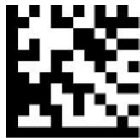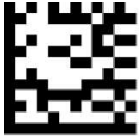
This manual offers programming barcodes for common functions. Additional programming barcodes are available in the PRG, or use Datalogic Aladdin software utility, available on the Datalogic website.

Using Barcodes

After completing the physical connection between the scanner and its host, go to the Programming Bar Codes table on the following pages to locate the interface type for your scanner (such as RS-232, USB, etc.).

Scan a START/END bar code once to enter Programming Mode. After scanning the programming label for the desired interface, scan the START/END barcode a second time to accept your changes, exit Programming Mode and return the scanner to normal operation.

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Interface Selection

START / END

PROGRAMMING BAR CODES	
RS-232 Standard	
	RS-232 Wincor-Nixdorf
USB-OEM	
	USB Keyboard
USB COM Interface	

NOTE

Reference the Product Reference Guide (PRG) or configuration software (such as Datalogic Aladdin) for additional options. All are available for download at no charge.
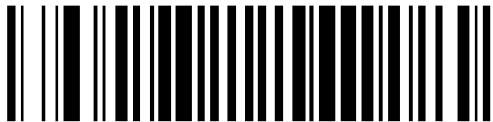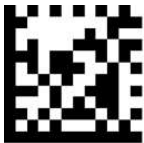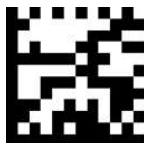
Good Read Beep Frequency

Adjusts the scanner's good read beep to sound at low, medium, or high frequency (controls the beeper's pitch/tone).

- Low
- Medium
- High

To set this feature:

1. Scan the Enter/Exit Programming Mode bar code.

2. Scan your selection from the bar codes below. You'll need to cover any unused bar codes on this and the facing page to ensure that the scanner reads only the bar code you intend to scan.

3. Complete the programming sequence by scanning the Enter/Exit Programming Mode bar code.
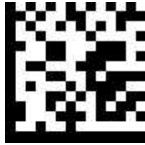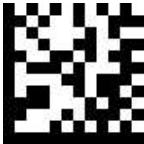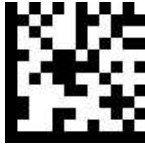
START / END

Low	
	♦ **Medium**
High	

♦ = default value

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Good Read Green Spot Duration

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

START / END

\n**Disabled**	
	\n♦ **Short (300 ms)**
\n**Medium (500 ms)**	
	\n**Long (800 ms)**

♦ = default value

Cell Phone Mode

Sets the level of cell phone mode reading.

NOTE

Higher cell phone settings will reduce time available for reading printed barcodes.

START / END

	 Cell Phone Mode = Low
 ♦ Cell Phone Mode = Medium	
	 Cell Phone Mode = High

♦ = default value

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TROUBLESHOOTING

If the scanner is not operating properly, the following checks should be performed:
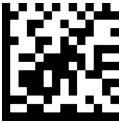
PROBLEM	SOLUTION
Scanner does not power on	Exchange the power supply with a known good power supply and retest operation.
No communication with the host	Verify the interface cable is securely attached to the host and the scanner.
	If an RS-232 cable is used on a scanner configured for USB, the scanner will power up but it will not be able to read labels more than once. You will still be able to read programming labels, which will allow you to change the interface configuration to RS-232 to match the cable.
	Consult your technical support personnel or refer to your host system manual to verify the proper interface type, cable and connection port(s) for the scanner.
The scanner will not read bar codes at all, or reads poorly	Check that the bar codes are of sufficient quality to be recognized by the scanner. Wrinkled, smudged, or torn labels can cause the scanner to not read at all. Scan known-good labels of an active symbology[a] to check the scanner's read operation.
	Make sure the window is clean.

a. Reading of the various bar code symbologies can be independently enabled or disabled in the scanner.

If the scanner still does not function properly, consult the Product Reference Guide (PRG) or contact your local supplier or Datalogic Customer Support Services.

Error Codes

If an error is detected, the scanner will sound a long low tone (for three seconds) and flash its LED, indicating a failure. When this occurs, press the Scanner button to hear the error code. If it is configured to do so, the scanner will sound a series of beeps corresponding to the error code and/or flash its LED simultaneous to the beeps. The table below describes what these codes mean and what action should be taken for each.

NUMBER OF LED FLASHES/ BEEPS	ERROR	CORRECTIVE ACTION
1	Configuration	
2	Host Interface	
6	Main PCB	
10	Button Error	**Contact Helpdesk for assistance**
11	USB Device	
12	Imager Module	
13	Software ID Failure	
14	Software Fatal Fault	

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 cleaner to wipe away stains, smudges, fingerprints, spills, etc. from the scan window and exterior surfaces.

CAUTION!
DO NOT spray cleaners directly on the scanner!
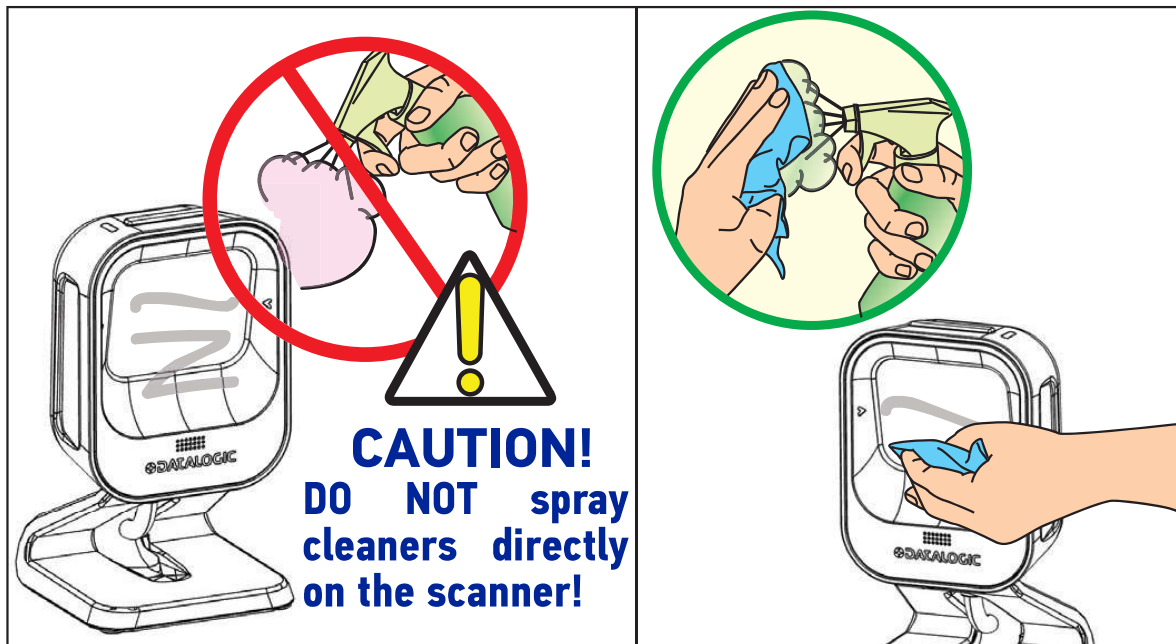
⚠ **CAUTION** **DO NOT use abrasive cleaning agents or abrasive pads to clean this product. Harsh chemicals, disinfectants, and cleansers can cause damage which will adversely affect scanning performance.**

See the next page for a list of Manufacturer Approved Cleaning Materials .

Manufacturer Approved Cleaning Materials

Datalogic recommends the use of the following cleaners on its products.

APPROVED CLEANERS

- Hydrogen Peroxide (not to exceed a 3% solution)
- Chlorine bleach (not to exceed a 0.25% solution)
- Mild detergent and water
- Isopropyl Alcohol (not to exceed a 70% solution)

CAUTION

Use of above cleaners *in combination with each other* **is not recommended and may constitute a health hazard. Follow all specified safety precautions when using any cleaning solution.**

Under no circumstances should abrasive cleansers, abrasive pads, caustic solutions or other harsh chemicals, including those listed below, be used on any part of the scanner as they can cause damage which will adversely affect scanning performance. Use of such materials, either alone or in combination with other cleaning agents, will void the manufacturer's warranty.

!!DO NOT USE!!

- Ammonia solutions
- Acetone
- Benzene
- Ethanolamine
- Ethers
- Ketones

- Trichloroethylene
- Toluene
- Carbolic acid
- Aromatic or chlorinated hydrocarbons
- Aqueous or alcoholic alkaline solutions

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WARRANTY

Datalogic warrants that the Products shall be free from defects in materials and workmanship under normal and proper use during the Warranty Period. 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. The Warranty Period shall be **three years** from the date of shipment by Datalogic, unless otherwise agreed in an applicable writing by Datalogic.

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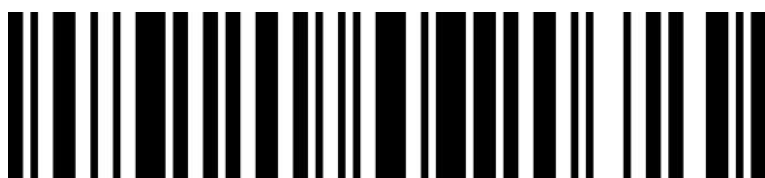
820128802   (Rev. C)   March 2024