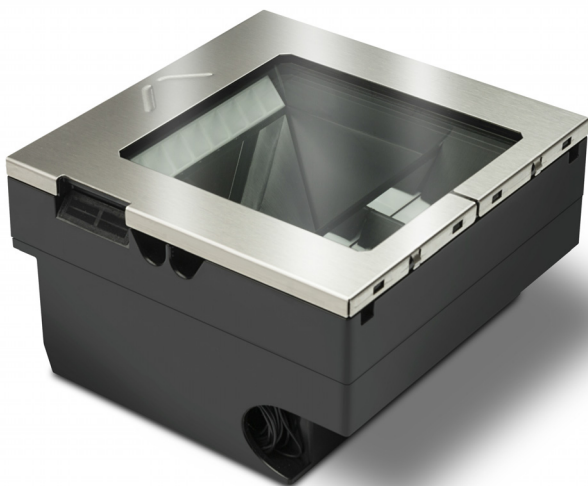




# Magellan™ 3500HSi

## Omni-Directional Imaging Scanner



Quick Reference Guide

**Datalogic S.r.l.**

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**Patents**

See [www.patents.datalogic.com](http://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

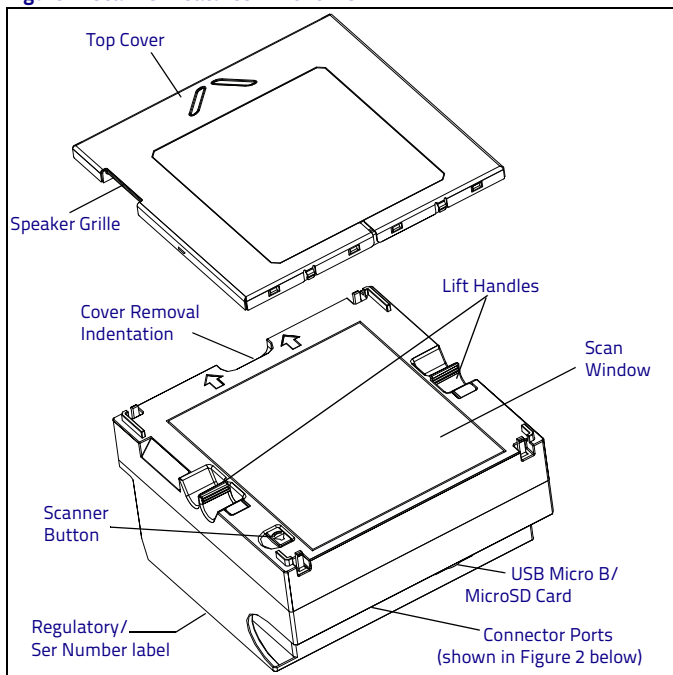


# Magellan™ 3500HSi

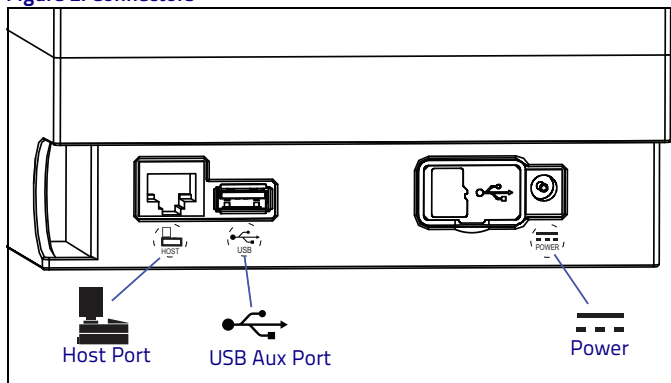
Use this guide to quickly complete installation of the Magellan 3500HSi series of bar code readers, and begin using your scanner. For more details and programming information, reference the Product Reference Guide (PRG), which is available for viewing and download from the Datalogic website listed on the back cover of this manual.

## Features

**Figure 1. Scanner Features - Front View**



**Figure 2. Connectors**



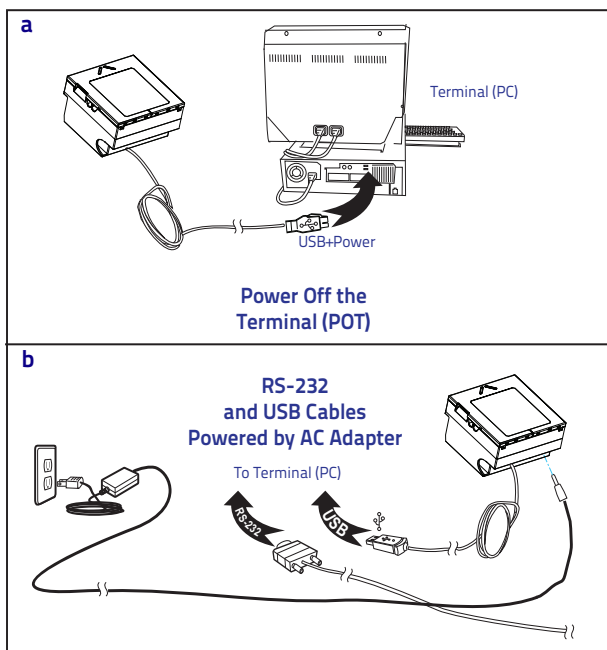
## Installation

Connect the scanner to the host (terminal) using the interface (I/F) cable as shown in Figure 3 on page 3. A cable from an older existing installation can be re-used only for RS-232 interfaces. If external power is used/needed, plug the AC Adapter into the AC wall outlet, then connect it to the unit as shown in 'b' of the illustration.

The scanner will go through its power-up routine, which may take longer than 10 seconds. After it is complete, scan some known-good bar code samples to verify correct operation. The scanner should beep and/or flash its good read LED<sup>1</sup> and send the bar code data to the host or terminal. If not, use the Troubleshooting section of this guide to identify any problems.

1. Beeper and LED behavior may have previously been configured as 'disabled' by another user.

**Figure 3. Scanner Cabling**

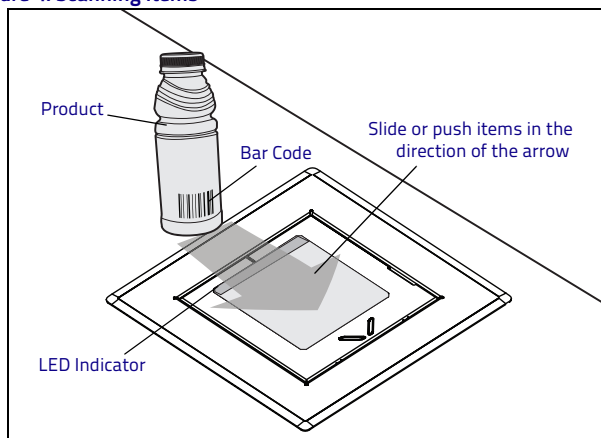


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## How to Scan

The scanner is mounted flush with the counter to allow items to be slid or pushed over its top in the direction of the arrow as shown in [Figure 4](#). Face the bar code toward the scanner or direction of scan to optimize the scan rate.

**Figure 4. Scanning Items**



## Scanner Button

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



### NOTE

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



PRESS DURATION	FUNCTION	COMMENT
Momentary (when scanner is asleep)	Wakes scanner from Sleep Mode	Alternatively, the scanner can be awakened by: - Moving an object through the scan zone. - Scanning with an attached auxiliary scanner.
Momentary (when scanner is awake)	Increments volume	Press the button momentarily to increase speaker volume. When the loudest volume is reached, a repeated press of the button cycles volume back to the lowest setting, then volume increases on subsequent press(es). Five volume levels are available.
Hold, then release when the beeper sounds	Increments tone	Press the button for approximately 2 seconds, then release. Each time this is done, the beeper will sound at one of three tones. Stop when the desired tone (high, medium or low) is sounded.
4 Seconds	Scanner Diagnostics Mode <sup>a</sup>	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.
8 Seconds	Resets Scanner <sup>b</sup>	Only system support personnel should perform a reset.

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

---

## 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 to the behaviors listed in the tables 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 INDICATION	INDICATION	COMMENT
Power-on indication	Constant dim green	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	The green LED alternates from brief blinks to longer dark periods, repeating at about 0.5 Hz.	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 <a href="#">Error Codes on page 9</a> for more information)	The LED can provide diagnostic feedback if the scanner discovers a problem during SelfTest.
Prog. Mode	Constant green flash at 1 Hz (500 ms on, 500 ms off)	The scanner is in Programming Mode.

BEEPER INDICATION	INDICATION	COMMENT
Power On Beep	Single beep <sup>a</sup>	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 <sup>a</sup>	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 9 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.

- a. The Power On and Good Read Indication "beep" can also be configured to use a WAV file. See the PRG for more information on programming this feature.

---

## Troubleshooting

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	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. Verify the interface cable is securely attached to the host and the scanner.
The scanner will not read bar codes at all, or reads poorly	Make sure the window is clean. 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 <sup>a</sup> to check the scanner's read operation.
If the scanner still does not function properly, consult the Product Reference Guide (PRG) or contact your local supplier or Datalogic Customer Support Services.	

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

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## 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.

NUMBER OF LED FLASHES/ BEEPS	ERROR	CORRECTIVE ACTION
1	Configuration	Contact Helpdesk for assistance
2	Host Interface	
6	Main PCB	
10	Button Error	
11	USB Device	
13	CPLD ID	

---

# Programming

Upon completing the physical connection between the scanner and its host, proceed directly to the Programming Bar Codes below to locate the interface type the scanner is connected to (for example: RS-232, Keyboard Wedge, USB, etc.).

Use the Bar Code Mask at the back of this manual to isolate the bar code you intend to scan. 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.

You can select other options and customize your scanner through use of the instructions and programming bar codes available in the PRG or use the On Screen Programming (OSP) utility available from the website listed on the back cover of this manual.

## Interface Selection

 START / END
PROGRAMMING BAR CODES
 RS-232 Standard
 RS-232 Wincor-Nixdorf



START / END



USB-OEM



USB Keyboard



USB COM Interface



## NOTE

Reference the Product Reference Guide (PRG) or On Screen Programming for additional options.

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## Cell Phone Mode

Enables/disables mobile phone barcode reading.



Cell Phone Mode = Disable



Cell Phone Mode = Enable  
(Always On)





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# Cell Mode Percent

Specifies the rate of frames dedicated to reading cell phones. Cell phone mode must be enabled for this to be active.



Settings above 10% will slow down read performance on printed barcodes.



Cell Mode Percent = 2.5%  
(Very Low)



Cell Mode Percent = 5% (Low)



Cell Mode Percent = 10% (Medium)



Cell Mode Percent = 20% (Med High)

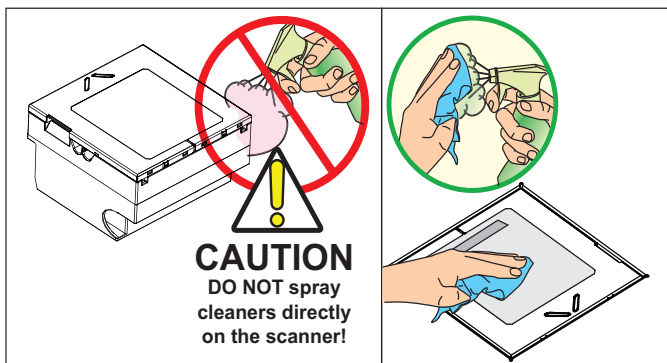


Cell Mode Percent = 50% (High)

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## 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.



**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 and weighing 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 | ▪ Trichloroethylene                       |
| ▪ Acetone           | ▪ Toluene                                 |
| ▪ Benzene           | ▪ Carboic acid                            |
| ▪ Ethanolamine      | ▪ Aromatic or chlorinated hydrocarbons    |
| ▪ Ethers            | ▪ Aqueous or alcoholic alkaline solutions |
| ▪ Ketones           |   |

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## Warranty

Datalogic warrants to Customer that this product will be free from defects in materials and workmanship for a period of 3 years from product shipment.

Datalogic warrants that the goods delivered under these General Terms for the Sale of Goods shall be free from defects in materials and workmanship under normal and proper use during the Warranty Period (as defined below). Datalogic's liability 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. 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").

If, during the Warranty Period, 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 give a credit for 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. Buyer will allow Datalogic to scrap all parts removed from the repaired product. Datalogic warrants repaired hardware devices only, 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 (may be newer than the firmware or software installed during the manufacture of the product). Buyer accepts responsibility to maintain a backup copy of its software and data.

## Warranty Exclusions

The Datalogic 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) defects or damages caused by any third parties' tort committed against the Buyer.
- (iii) 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;
- (iv) any claimed defect or damage caused by the use of product with any other instrument, equipment or apparatus;
- (v) 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 or the replacement of upper window/cartridge due to scratching, stain or other degradation;

- 
- (vi) 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;
  - (vii) any damage or malfunctioning caused by non-restoring action as for example firmware or software upgrades, software or hardware reconfigurations etc.;
  - (viii) any consumable or equivalent (e.g. cables, power supply, batteries, etc.).

Consumable items, such as batteries and cables, carry a 90 day warranty from time of purchase for DOA (dead on arrival) defects alone.

Datalogic specifically excludes all express warranties and makes no implied warranty that the products sold under this agreement are merchantable or are fit for any particular purpose, except such warranties expressly identified as warranties as are set forth in Datalogic's current operating manual, catalog, or written guarantee covering such product.

No affirmation of fact or promise made by Datalogic, whether in this contract or communicated otherwise, shall constitute a warranty that the goods will conform to the affirmation or promise.

## Warranty Claim Process

In order to obtain service under this Warranty, Buyer must notify Datalogic (which notice shall be in writing sent by registered courier or mail) of the claimed defect before the expiration of the Warranty period and obtain from Datalogic a return authorization number for return of the product to designated Datalogic service center. Buyer shall offer Datalogic the opportunity to investigate the claim and to inspect the allegedly defective products. Failure to offer Datalogic such opportunity shall constitute acceptance by Buyer and waiver of all claims for defects. The products must always be returned within ten (10) days from the date of authorization issued by Datalogic. If Datalogic determines Buyer's claim is valid, Datalogic will repair or replace product without additional charge for parts and labor. Buyer 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 Buyer if the shipment is to a location within the country in which the Datalogic service center is located. Buyer shall be responsible for paying all shipping charges, duties, taxes, and any other charges for products returned to any other locations.

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## Out of Warranty Services

For products no longer covered by warranty services, Datalogic may offer billable repair services on products, provided such products are serviceable. Buyer acknowledges and accepts that for some older products the repair may exceed the costs of manufacturing a new product and Datalogic may decline to perform repair services. Upon Buyer's request for out of warranty services, Datalogic will evaluate the request of repair and shall provide, to the extent applicable and feasible according to the above, a cost-estimate for repairs, which will be on a time and materials basis.

## Remedies

If Buyer fails, with or without cause, to furnish Datalogic with specifications and/or instructions for, or refuses to accept deliveries of, any of the products sold under this contract, or is otherwise in default under or in repudiation of this contract or any other contract with Datalogic or fails to pay when due any invoice under this contract, then in addition to any and all remedies allowed by law, Datalogic without notice may (1) bill and declare due and payable all undelivered products under this or any other contract between Datalogic and the Buyer; and/or (2) defer shipment under this or any other contract between the Buyer and Datalogic until such default, breach, or repudiation is removed; and/or (3) may cancel any undelivered portion of this and/or any other contract in whole or in part (with Buyer remaining liable for damages).

## Risk of Loss

Buyer 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 Buyer, Datalogic will select the carrier, but Datalogic shall not thereby assume any liability in connection with the return shipment.

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## Going Green

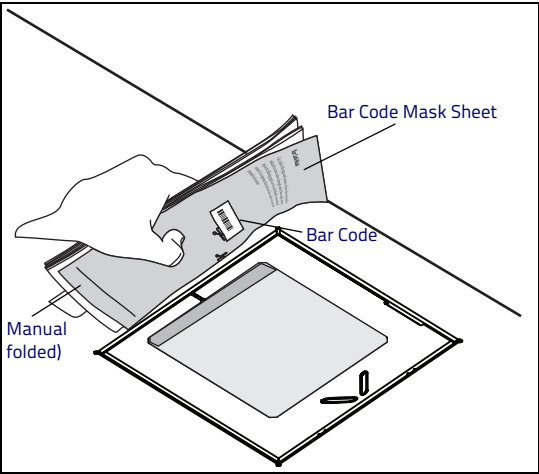
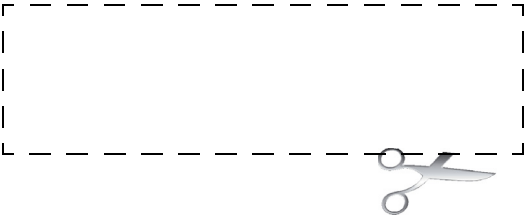
Thank you for using the bar code mask on the opposite side of this page. This manual has been formatted to minimize the quantity of pages needed to provide the programming bar codes available for this product.



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# Bar Code Mask

Cut a hole in this page and remove it from the manual as indicated to create a sleeve through which bar codes can be individually viewed and scanned. It is important that only one bar code at a time be presented to the scanner.






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# NOTES

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# NOTES





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