



QuickScan™ QM21X1

General Purpose Handheld
Linear Imager Bar Code Reader
with Datalogic's STAR Cordless System™



Quick Reference Guide

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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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The number of arbitrators will be three, with each side to the dispute being entitled to appoint one arbitrator. The two arbitrators appointed by the parties will appoint a third arbitrator who will act as chairman of the proceedings. Vacancies in the post of chairman will be filled by the president of the SIAC. Other vacancies will be filled by the respective nominating party. Proceedings will continue from the stage they were at when the vacancy occurred. If one of the parties refuses or otherwise fails to appoint an arbitrator within 30 days of the date the other party appoints its, the first appointed arbitrator will be the sole arbitrator, provided that the arbitrator was validly and properly appointed. All proceedings will be conducted, including all documents presented in such proceedings, in the English language. The English language version of these terms and conditions prevails over any other language version.

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QuickScan™ QM21X1

With rich feature sets and extensive options, the QuickScan™ product series from Datalogic represents the premium level of data collection equipment for general purpose applications. The QuickScan QM21X1 readers have enhanced optics with improved motion tolerance allowing codes placed on fast moving objects to be easily and quickly captured, creating the ideal reader for tasks requiring high throughput like those found in retail and light industrial environments.

Omni-Directional Operation	To read a symbol simply aim the reader and pull the trigger. The QuickScan™ QM21X1 reader is a powerful omni-directional reader, so the orientation of the symbol is not important. Datalogic's exclusive patented 'Green Spot' for good-read feedback helps to improve productivity in noisy environments or in situations where silence is required.
Decoding	Reliably decodes all standard 1D (linear) codes. The data stream — acquired from decoding a symbol — is rapidly sent to the host. The reader is immediately available to read another symbol.

Setting Up the Reader

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

1. Configure the Base Station starting on page 3.
2. Charge the Batteries (see page 7).
3. Link to the Base Station (see page 10).
4. Select the Interface Type (see page 12).
5. Configure the Reader starting on page 11 (optional, depends on settings needed).

Locking the Reader to the Base

The Base Station provides a locking mechanism to ensure electrical contact between Reader and Base, in case of inadvertent movements.



To Lock the Reader in the Base

1. Insert the Reader into the Base. The lock lever rests in its natural disengaged position toward the bottom of the Base.

Figure 1. Lock lever disengaged



- Engage the locking mechanism by pushing up the lever as far as it will go.

Figure 2. Lever in locked position



NOTE

it is good practice to put the scanner in the locked condition at the end of the working shift, or when not in use for an extended period of time. This will ensure that the scanner is fully seated for complete battery recharge.

Connecting the Base Station

Figure 3 shows how to connect the Base Station to a terminal, PC or other host device. Turn off the host before connection and consult the manual for that equipment (if necessary) before proceeding. Connect the interface cable before applying power to the Base Station.



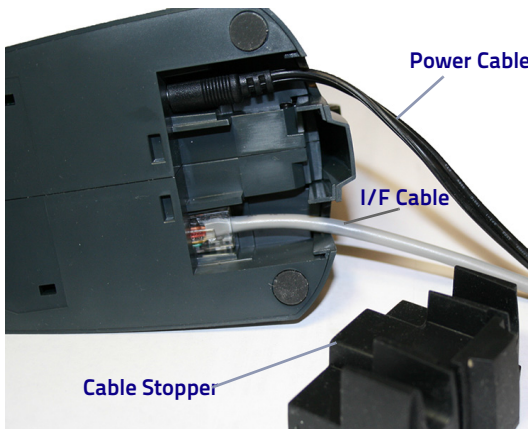
NOTE

The QuickScan QM21X1 reader can also be Powered by the Terminal. When powered by the Terminal, the battery charger is automatically set as Slow charge.

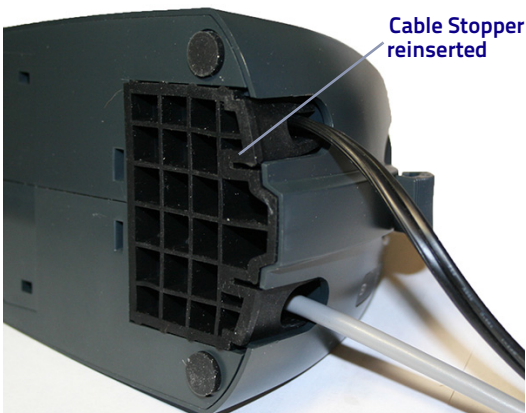
For some specific interfaces, hosts, or lengths of cable the use of an external power supply may be recommended for full recharging capability (see "Technical Specifications" on page 26 for more details).

Base Station Connection and Routing

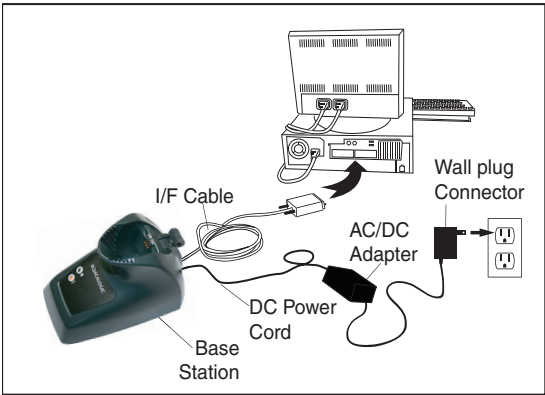
1. Remove the rubber Cable Stopper from the bottom of the Base Station.
2. Securely plug the Power Cable (if used) and Interface (I/F) Cable connectors into their respective ports in the underside of the Base Station.



3. After the cables are plugged in, reinsert the rubber Cable Stopper.

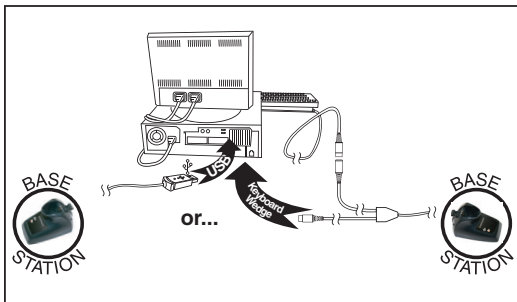


4. Connect the Base Station power adapter to an AC wall outlet.

Figure 3. Connecting the Base Station

Host Connection — Verify before connection that the reader's cable type is compatible with your host equipment.

Most connections plug directly into the host device as shown in Figure 4. Keyboard Wedge interface cables have a 'Y' connection where its female end mates with the male end of the cable from the keyboard and the remaining end at the keyboard port on the terminal/PC.

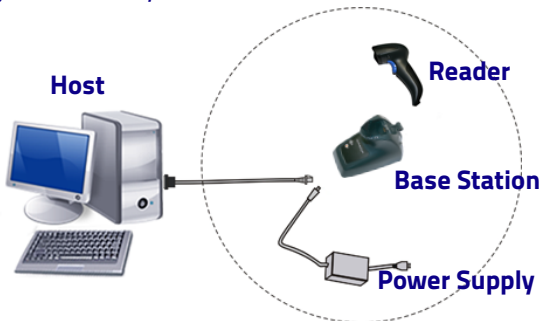
Figure 4. Connecting to the Host

Power Connection — Plug the AC Adapter into an approved AC socket. If plugged into the wall, ensure cable is facing downwards (as shown in Figure 3) to prevent undue strain on the socket.

System and Network Layout

Typical Setup with Cradle and Host

Figure 5. Reader Layout



Using the BC20XX™ Radio Base





Radio Base LEDs

LEDs on the QuickScan Base provide information about the Base as well as battery charging status, as shown in Figure 6.

Figure 6. QuickScan Base LEDs



Table 1. Radio Base LEDs

	LED	STATUS
	Power on / Data	Yellow On = Base is powered Yellow Blinking = Base receives data and commands from the Host or the Reader.
	Charging	Red On = the Battery is charging.
	Charge completed	Green On = the Battery is completely charged.
	Charging + Charge completed	Red and Green Blinking together = the Reader is not correctly placed onto the Base.

Charging the Battery Pack

To charge the battery, simply insert the QuickScan reader into the base. When the scanner is fully seated in the cradle, it will sound a 'chirp' to indicate that the cradle has detected the scanner connection.

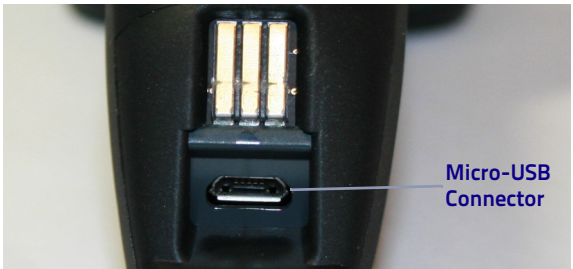
The LEDs on the base (shown in [Table 1 on page 7](#)) will indicate the status of the battery.



NOTE

Before using the Battery, read "Battery Safety" in the accompanying Regulatory Addendum. Data-logic recommends annual replacement of rechargeable battery packs to ensure maximum performance.

Alternatively, the battery can be charged by connecting the reader directly to a host through the micro-USB connector available in the bottom of the handle, as shown.



Replacing the Battery Pack

1. Using a coin or screwdriver, unscrew the captive screw located on the bottom of the scanner handle until the battery pack is disengaged.



The battery pack will rise slightly in the rear, pushed by the contact springs.

2. Extract the battery pack by slightly rotating the pack and pulling away from the reader.



To mount the new battery pack reverse the process:

1. Insert the top of the new pack inside the reader's handle.
2. Rotate the battery pack downward while pressing the bottom side of the battery pack (to seat securely into the contacts springs) so that the edges of the pack and the handle board are aligned, while re-tightening the screw in the bottom of the handle.

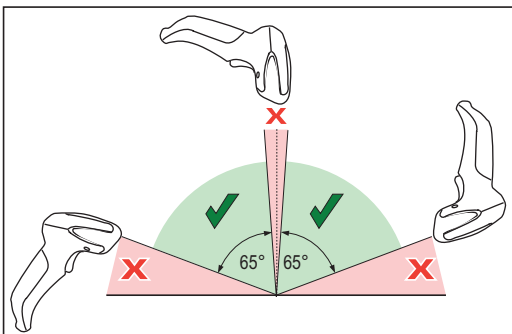
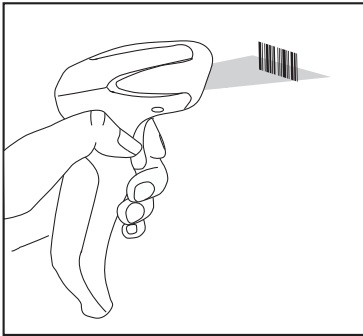
Using the Quickscan™ QM21X1

Bar Code Reading

Point the reader at the target and pull the trigger to enable the illuminator (red beam) to decode the bar code label. The illuminator will remain on until the symbol is decoded.

When scanning a bar code label, you can adjust the distance or angle to the label to help facilitate reading.

Aim and Scan



Linking the Reader

Link Datalogic RF Devices to Base

For RF devices, before configuring the interface it is necessary to link the handheld with the base.

To link the handheld and the base, either press the trigger to wake it, or simply mount into the base to wake up for operation. If the reader was previously linked to another base, you must first scan the **Unlink** bar code before re-linking to the new base.



Unlink

Power Off

Scan the bar code below to shut off power to the handheld until the next trigger pull.



PowerOff

Programming

The reader 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 reader through use of the programming bar codes available in the Product Reference Guide (PRG). Check the corresponding features section for your interface, and also the Data Editing and Symbologies chapters.

The reader can also be configured with Datalogic Aladdin™ software (available on the Datalogic website). Aladdin provides RS-232 interface configuration, as well as bar code printing.

Using Programming Bar Codes

This manual contains bar codes which allow you to reconfigure your reader. Some programming bar code labels, like the "Standard Product Default Settings" on page 11, require only the scan of that single label to enact the change.

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

Configure Other Settings

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

Resetting Standard Product Defaults

Reference the PRG for a listing of standard factory settings. If you aren't sure what programming options are in your reader, or you've changed some options and want the factory settings restored, scan the **Standard Product Default Settings** bar code below to copy the factory configuration for the currently active interface to the current configuration.



NOTE

Factory defaults are based on the interface type. Configure the reader for the correct interface before scanning this label.



Standard Product Default Settings

Selecting the Base Interface Type

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

Interface Selection

The base will support the following host interfaces:

- RS-232
- RS-232 OPOS
- USB
- Keyboard Wedge

For defaults and additional information associated with each interface, proceed to the corresponding chapter in the Quick-Scan Q21XX PRG.

Configuring the Interface

Scan the programming bar code which selects the appropriate interface type for the system the reader will be connected to.



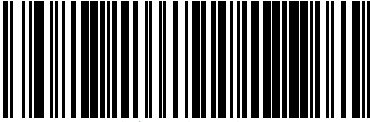
NOTE

Unlike some other programming features and options, interface selections require that you scan only one programming bar code label. DO NOT scan an ENTER/EXIT bar code prior to scanning an interface selection bar code.

Some interfaces require the scanner to start in the disabled state when powered up. If additional scanner configuration is desired while in this state, pull the trigger and hold for 5 seconds. The scanner will change to a state that allows programming with bar codes.

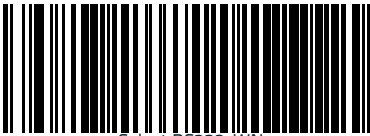
RS-232

RS-232 standard interface



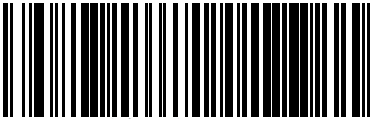
Select RS232-STD

RS-232 Wincor-Nixdorf



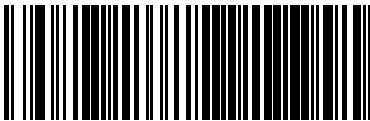
Select RS232-WN

RS-232 for use with OPOS/UPOS/JavaPOS



Select RS-232 OPOS

USB COM to simulate RS-232 standard interface



Select USB-COM-STD^a

a. Download the correct USB COM driver from www.datalogic.com

USB-OEM

USB-OEM

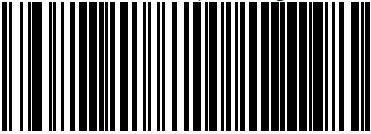
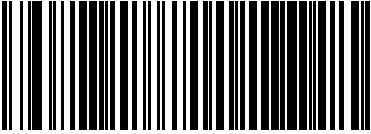


(can be used for OPOS/UPOS/JavaPOS)



Select USB-OEM

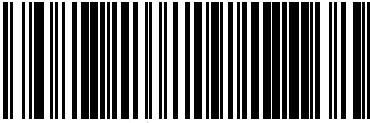
Keyboard Interface

Use the programming bar codes to select options for USB Keyboard and Wedge Interfaces.

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

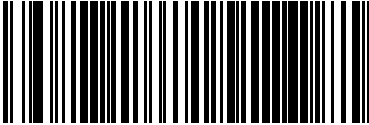
KEYBOARD (continued)

PC/XT w/Standard Key Encoding



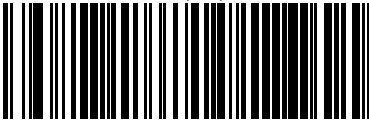
Select KBD-XT

Keyboard Wedge for IBM Terminal 3153



Select KBD-IBM-3153

Keyboard Wedge for IBM Terminals 31xx, 32xx, 34xx, 37xx
make only keyboard



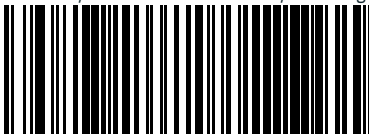
Select KBD-IBM-M

Keyboard Wedge for IBM Terminals 31xx, 32xx, 34xx, 37xx
make break keyboard



Select KBD-IBM-MB

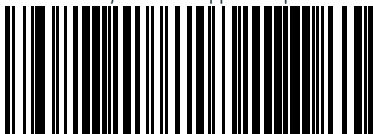
USB Keyboard with alternate key encoding



Select USB Alternate Keyboard

KEYBOARD (continued)

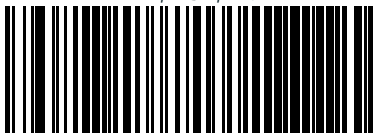
USB Keyboard for Apple computers



Select USB-KBD-APPLE

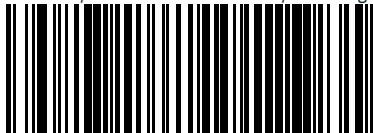
Keyboard Wedge for DIGITAL Terminals

VT2xx, VT3xx, VT4xx



Select KBD-DIG-VT

USB Keyboard with standard key encoding



Select USB Keyboard

Scancode Tables

Reference the QuickScan QM21X1™ PRG for information about control character emulation which applies to keyboard interfaces.

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)
- 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 = Croatia*
 Country Mode = Czech Republic*

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

COUNTRY MODE (continued)



Country Mode = Denmark*



Country Mode = France



Country Mode = French Canadian



Country Mode = Germany



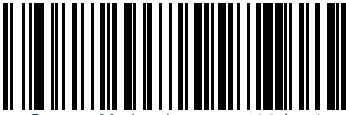
Country Mode = Hungary*



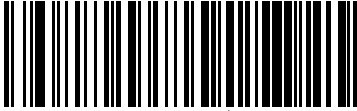
Country Mode = Italy

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

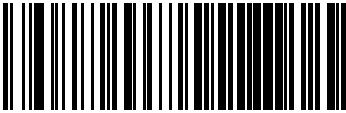
COUNTRY MODE (continued)



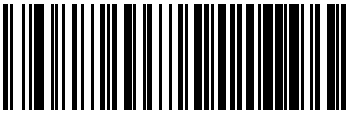
Country Mode = Japanese 106-key*



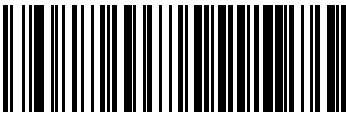
Country Mode = Lithuanian



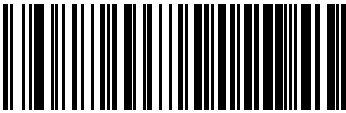
Country Mode = Norway*



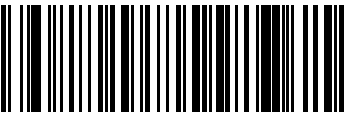
Country Mode = Poland*



Country Mode = Portugal*



Country Mode = Romania*



Country Mode = Slovakia*

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

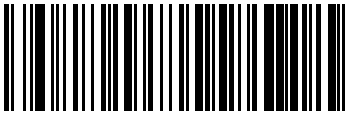
COUNTRY MODE (continued)



Country Mode = Spain



Country Mode = Sweden

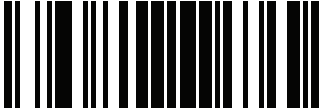
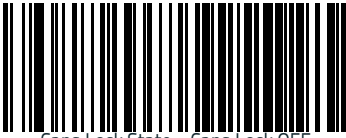
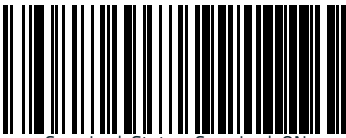
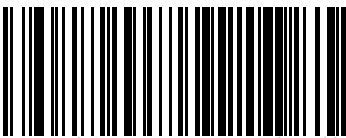


Country Mode = Switzerland*

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

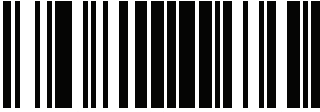
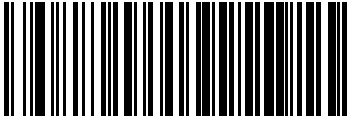
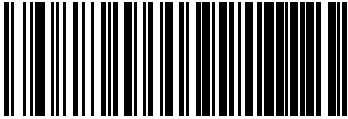
Caps Lock State

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

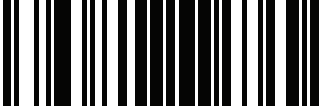
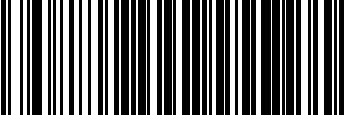
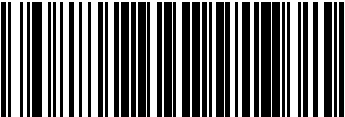
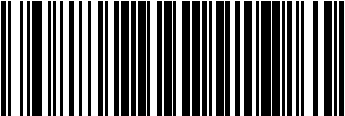
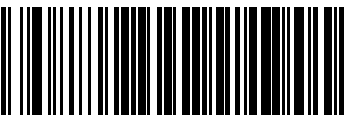
Numlock

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

Good Read Green Spot Duration

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

GOOD READ GREEN SPOT DURATION
 ENTER/EXIT PROGRAMMING MODE
 Green Spot Duration = Disable (Green Spot is Off)
 ♦ Green Spot Duration = Short (300 msec)
 Green Spot Duration = Medium (500 msec)
 Green Spot Duration = Long (800 msec)

Scan Modes

The imager can operate in one of several scanning modes.

Trigger Single — When the trigger is pulled, scanning is activated until one of the following occurs:

- a programmable duration¹ has elapsed
- a label has been read
- the trigger is released

This mode is associated with typical handheld reader operation.

Trigger Hold Multiple — When the trigger is pulled, scanning starts and the product scans until the trigger is released or a programmable duration¹ has elapsed. Reading a label does not disable scanning. Double Read Timeout¹ prevents undesired multiple reads while in this mode.

Trigger Pulse Multiple — When the trigger is pulled and released, scanning is activated until programmable duration¹ has elapsed or the trigger has been pulled again to transition to another state. Double Read Timeout¹ prevents undesired multiple reads while in this mode.

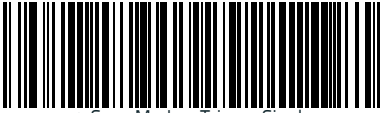
Flashing — The reader flashes¹ on and off regardless of the trigger status.

Always On — No trigger pull is required to read a bar code. Scanning is continually on. If the trigger is pulled, the reader acts as if it is in Trigger Single Mode. Double Read Timeout¹ prevents undesired multiple reads while in this mode.

Stand Mode — No trigger pull is required to read a bar code. Scanning is turned on automatically when an item is placed in reader's field of view. If the trigger is pulled, the reader acts as if it is in Single Read mode. Double Read Timeout¹ prevents undesired multiple reads while in this mode.

1. See the Product Reference Guide (PRG) for more information

SCAN MODE



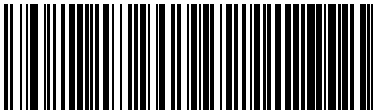
◆ Scan Mode = Trigger Single



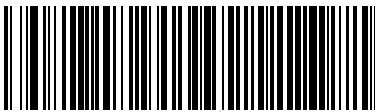
Scan Mode = Trigger Hold Multiple



Scan Mode = Trigger Pulse Multiple



Scan Mode = Flashing



Scan Mode = Always On



Scan Mode = Stand Mode

Technical Specifications

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

Physical Characteristics	
Color	Black or White
Dimensions	Height 6.4"/163 mm Length 3.6"/91 mm Width 1.6"/41 mm
Weight (approximate, without cable)	Reader - 6.7 ounces (190 g) Cradle - 7.6 ounces (215 g)
Electrical Characteristics	
Battery Type	Lithium-Ion 1400 mAh
Typical charge time for full charge from full discharge	6 hours with Host Power through the micro USB cable connection
	4 hours with Base and 12V external power supply adapter ^a
	Max 22 hours with Base and Host power (in this case no supply adapter is needed) ^a
Operating autonomy (continuous reading)	30,000 reads (typical)
Cradle consumption and DC input supply range	Volt 4.75-14 VDC; Power <8W ^b ; I _{max} 500mA when in host/bus powered mode ^b .

Performance Characteristics	
Light Source	LEDs
Roll (Tilt) Angle ^c	Up to $\pm 45^\circ$
Pitch Angle ^c	$\pm 65^\circ$
Skew (Yaw) Angle ^c	$\pm 70^\circ$
Field of View	$56^\circ \pm 2^\circ$

- a. Charge Times are much lower when battery is within daily typical operating condition.
- b. Typical input current measured under factory default configuration.
- c. Based on ISO 15423 specifications

Depth of Field (Typical)^a	
4 mils: 3.0 to 11.0 cm / 1.2 to 4.3 in 5 mils: 2.0 to 15.0 cm / 0.8 to 5.9 in 7.5 mils: 2.0 to 25.0 cm / 0.8 to 9.8 in 10 mils: 2.0 to 36.0 cm / 0.8 to 14.2 in 13 mils UPC: 1.0 to 45.0 cm / 0.4 to 17.7 in 20 mils: up to 70.0 cm / up to 27.5	
Minimum Element Width	4 mil
Print Contrast Minimum	25% minimum reflectance

- a. Minimum distance determined by symbol length and scan angle. Printing resolution, contrast, and ambient light dependent.

Decode Capability

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; Datalogic 2 of 5 (China Post Code/Chinese 2 of 5); IATA 2of5 Air cargo code; Code 11; Codabar; Codabar (NW7); ABC Codabar; Code 93; MSI; PZN; Plessey; Anker Plessey; Follet 2 of 5; GS1 DataBar Omnidirectional; GS1 DataBar Limited; GS1 DataBar Expanded; GS1 DataBar Truncated; DATABAR Expanded Coupon.

Interfaces Supported^a

RS-232 Std, RS-232 Wincor-Nixdorf, RS-232 OPOS, USB Com Std., USB Keyboard, USB Alternate Keyboard, USB OEM, Keyboard Wedge (AT with or w/o Alternate Key, IBM AT PS2 with or w/o Alternate Key, PC-XT, IBM 3153, IBM Terminals 31xx, 32xx,34xx, 37xx make only and make break keyboard, Digital Terminals VT2x, VT3xx, VT4xx, and Apple).

User Environment

Operating Temperature	32° to 122° F (0° to 50° C)
Charging Temperature	32° to 104° F (0° to 40° C)
Storage Temperature	-4° to 158° F (-20° to 70° C)
Humidity	Operating: 5% to 90% relative humidity, non-condensing
Drop Specifications	Scanner withstands 18 drops from 1.5 meters (4.9 feet) to concrete

Ambient Light Immunity	Up to 120,000 Lux
Contaminants Spray/rain Dust/ particulates	IEC 529-IP42 (scanner only)
ESD Level (Air Discharge)	16 kV

- a. See "Interface Selection" on page 12 for a listing of available interface sets by version type.

Regulatory

See regulatory addendum.

Radio Features

Frequency working center	433MHz
Range (in open air)	25 m

LED and Beeper Indications

The reader's beeper sounds and its LED illuminates to indicate various functions or errors on the reader. An optional 'Green Spot' also performs useful functions. 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 bar code labels.

Indication	Description	LED	Beeper
Power-up Beep	The reader is in the process of power-ing-up.	N/A	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 PRG for information.)	The reader will beep once at current frequency, volume, mono/bi-tonal 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 when the IBM or USB interface is enabled.	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

Indication	Description	LED	Beeper
Green 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

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.

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. 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	
12	Imager	

Base Station Indications

Indication	LEDs
Power-up Complete	Yellow LED on
Reader Disabled by the HOST or the communication with HOST is not established	Yellow LED blinking ~1Hz
Data/labels are transmitted to the HOST	Yellow LEDs turned off for 100mSec
Programming Mode	Yellow LED blinks quickly
Configuration alignment with the HH is in progress	Red LED blinks quickly
Battery charger in progress	Red LED on
Battery charger complete	Green LED on
Battery charger error	Green LED and Red LEDs blink alternatively ~1Hz
No HH is placed on the cradle	Red and Green LEDs off

Datalogic Limited Factory Warranty

Warranty Coverage

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

To avoid or minimize potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure 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 frequently used objects 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.

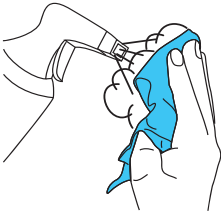
Cleaning

Exterior surfaces and scan windows exposed to spills, smudges or debris require periodic cleaning to ensure best performance during scanning. Contacts on the scanner and base should also be cleaned as needed to ensure a good connection.



Always be sure to unplug the reader and base from the wall plug before touching the contacts.

CAUTION



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.



Do not use abrasive or aggressive cleansing agents or abrasive pads to clean scan windows, contacts or plastics.

CAUTION

Do not spray or pour liquids directly onto the unit.

Support Through the Website

Datalogic provides several services as well as technical support through its website.

Log on to www.datalogic.com and click on the **SUPPORT > General Duty Handheld Scanners** category link. From this page you can select your product model from the drop-down list which gives you access to:

Downloads including Data Sheets, Manuals, Software & Utilities, and Drawings;

Repair Program for On-Line Return Material Authorizations (RMAs) plus Repair Center contact information;

Service Program containing details about Maintenance Agreements;

Technical Support through email or phone.

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