DATALOGIC™

PowerScan® M8300 Readers

Quick Reference Guide

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Should future revisions of this manual be published, you can acquire printed versions by contacting your Datalogic representative. Electronic versions may either be downloadable from the Datalogic website (www.scanning.datalogic.com) or provided on appropriate media. If you visit our website and would like to make comments or suggestions about this or other Datalogic publications, please let us know via the "Contact Datalogic" page.

Disclaimer

Datalogic has taken reasonable measures to provide information in this manual that is complete and accurate, however, Datalogic reserves the right to change any specification at any time without prior notice.

Patents

This product is covered by one or more of the following patents:

Design Pat. AU 310201; AU 310202; CN 693980; HK 0602013.5M001; HK 0602013.5M002; JP 1305693; KR 30-0460940; US D570,843 S.

US Pat. 5,992,740; 6,305,606 B1; 6,808,114 B1; 6,997,385 B2; 7,387,246 B2; 5,103,080; 5,262,627; 5,367,151; 5,449,893; 5,545,889; 5,917,173; 5,923,025; 5,945,659; 6,098,877; 6,220,514 B1; 6,607,132 B1; 6,817,529 B2; 6,834,805 B2.

European Pat. 789,315 B1; 895,175 B1; 1,128,315 B1; 1,396,811 B1.

Additional patents pending.

UPDATES AND LANGUAGE AVAILABILITY

UK/US

The latest drivers and documentation updates for this product are available on Internet.
Log on to : www.datalogic.com

I

Su Internet sono disponibili le versioni aggiornate di driver e documentazione di questo prodotto. Questo manuale è disponibile anche nella versione italiana.
Collegarsi a : www.datalogic.com

F

Les versions mises à jour de drivers et documentation de ce produit sont disponibles sur Internet. Ce manuel est aussi disponible en version française.
Cliquez sur : www.datalogic.com

D

Im Internet finden Sie die aktuellsten Versionen der Treiber und Dokumentation von diesem Produkt. Die deutschsprachige Version dieses Handbuches ist auch verfügbar.
Adresse : www.datalogic.com

E

En Internet están disponibles las versiones actualizadas de los drivers y documentación de este producto. También está disponible la versión en español de este manual.
Dirección Internet : www.datalogic.com

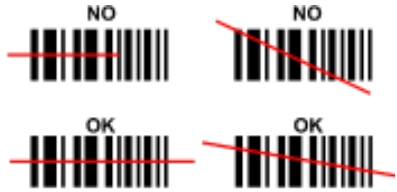
USING POWERSCAN® M8300

The PowerScan® M8300 series readers can be used with either an BC-80X0 cradle or Stargate™ radio base station to build a Cordless Reading System for the collection, decoding and transmission of barcoded data.

PowerScan® M8300 laser readers automatically scan barcodes **at a distance**. Simply aim and pull the trigger.

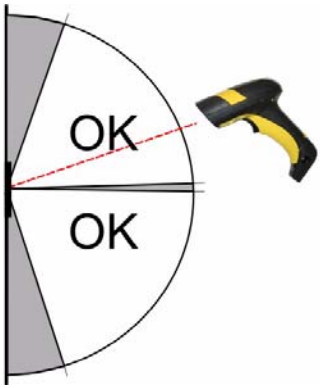
SCAN LINE POSITION

Code scanning is performed along the scan line emitted from the reading window. This line must cross the entire code. The best reading angles are indicated in the figure below:



READING ANGLE

Successful scanning is obtained by tilting the reader with respect to the barcode to avoid direct reflections that impair the reading performance, see the figure below.



AIMING SYSTEM

PowerScan® M8300 provides an aiming system. If enabled, a partial trigger press produces a red spot, which should be aimed over the code center to get the best reading performance, see figure (1) above. By completely pressing the trigger the scan line appears to start the code scanning (2).

After setting up the reader, you can enable or disable the aiming system by reading the codes below:

Disable Aiming System (Default)

Disable Aiming System (Default)

CHARGING THE BATTERIES

Once the BC-80X0/C-8000 is powered, you can charge the reader's batteries.

Place the PowerScan® M8300 into the BC-80X0 cradle or the C-8000 battery charger. The "Reader" LED on the cradle/battery charger turns red.

The battery is completely charged when the "Reader" LED on the cradle/battery charger turns green.

To change the batteries, unscrew the retaining screw and extract the battery pack from the reader handle. Then, insert the new battery pack into the reader handle and tighten the screw. (See the following figures).

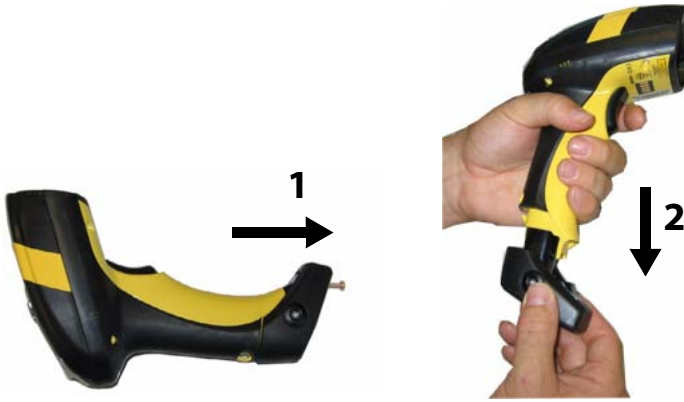


Figure 1 – Changing the Batteries

WARNING

Do not incinerate, disassemble, short terminals or expose to high temperature. Risk of fire, explosion. Use specified charger only. Risk of explosion if the battery is replaced by an incorrect type. Dispose of the batteries as required by the relevant laws in force.

SETUP

PowerScan® M8300/BC-80X0 Point-to Point Configuration

1. Connect an BC-80X0 cradle to the Host. For installation and connection information see the BC-80X0 Quick Reference Manual.
2. Charge the PowerScan® M8300 battery using an BC-80X0 or the C-8000 charger as described in this Quick Reference manual. A full charge takes 4 hours if using an external power supply; while it takes up to 10 hours if supplying power through the USB port.
3. Configure the reader as described in this Quick Reference - **PowerScan® M8300/BC-80X0 Point-to-Point Setup**.
4. Configure the BC-80X0 cradle. See BC-80X0 Configuration in the BC-80X0 Quick Reference.

or

PowerScan® M8300/BC-80X0 Stand Alone Configuration

1. Connect an BC-80X0 cradle to the Host. For installation and connection information see the BC-80X0 Quick Reference Manual.
2. Charge the PowerScan® M8300 battery using an BC-80X0 or the C-8000 charger as described in this Quick Reference manual. A full charge takes 4 hours if using an external power supply; while it takes up to 10 hours if supplying power through the USB port.
3. Configure the reader as described in this Quick Reference - **PowerScan® M8300/BC-80X0 Stand Alone Setup**.
4. Configure the BC-80X0 cradle. See BC-80X0 Configuration in the BC-80X0 Quick Reference.

or

PowerScan® M8300/STAR-System™ Configuration

1. Charge the PowerScan® M8300 battery using an BC-8000 or the C-8000 charger as described in this Quick Reference manual. A full charge takes 4 hours if using an external power supply; while it takes up to 10 hours if supplying power through the USB port.
2. Configure the reader as described in this Quick Reference **PowerScan® M8300/STAR-System™ Setup**.

POWERSCAN® M8300 CONFIGURATION

PowerScan® M8300/BC-80X0 Point-to-Point Setup

A rapid configuration procedure has been devised for point-to-point applications where a single reader is associated exclusively with its own BC-80X0 base station and where it is not necessary to set the Date and Time parameters.

A special pre-printed bind-address label provided in the BC-80X0 base station package can be used to bind the PowerScan® M8300 reader to the base station with the address coded on the label. The address is also written numerically on the label to be easily recognized. Valid addresses are in the range from 0000 to 1999. **Make sure that all cradles used in the same area have different addresses.**

To rapidly configure your point-to-point application:

1. Apply the bind-address label onto the BC-80X0 base station as indicated in the BC-80X0 Quick Reference Manual.

2. When the BC-80X0 cradle is connected and powered, read the **Bind-Address** label to pair the PowerScan® M8300 to the BC-80X0 cradle. The green LED on the PowerScan® M8300 will blink: the reader is ready to be positioned onto the cradle.

3. Firmly position the reader onto the cradle within 10 seconds, a beep will be emitted, signaling that the BC-80X0 cradle has been paired to the PowerScan® M8300, and the green LED on the reader will go off.

If it ever becomes necessary to change the reader, just read the bind-address label applied to the cradle and position the new reader onto the cradle.

Do not use multiple readers with this configuration method.

4. Configure the BC-80X0 cradle, refer to the “BC-80X0 Quick Reference”.

END of procedure. YOUR READER IS NOW READY TO READ CODES.

POWERSCAN® M8300/BC-80X0 STAND ALONE SETUP

When the BC-80X0 cradle is connected and powered, configure the PowerScan® M8300 by reading the following codes in the given sequence and follow the instructions.

Note: for the numeric code selection of steps 3, 4, and 5 use the table at the end of this Quick Reference.

1. Restore PowerScan® M8300 Default

2. Enter Configuration

3. Set Date

+

six digits for Day, Month and Year (DDMMYY).

4. Set Time

+

four digits for Hours and Minutes (HHMM).

5. Set Radio Address

+

four digits for the PowerScan® M8300 Address
(from 0000 to 1999).

All readers used in the same area must have different addresses.

6. Exit and Save Configuration

7. Read the **Bind** code to pair the PowerScan® M8300 to the BC-80X0 cradle.

   The reader is dedicated to the cradle. Any previously **bound** reader will be excluded.

   To connect several readers to the same cradle see the following section "Using Multiple Readers with Same Cradle".

   Bind

   The green LED on the PowerScan® M8300 will blink: the reader is ready to be positioned onto the cradle.

8. Firmly position the reader onto the cradle within 10 seconds, a beep will be emitted, signaling that the BC-80X0 cradle has been paired to the PowerScan® M8300, and the green LED on the reader will go off.

9. Configure the BC-80X0 cradle, refer to the “BC-80X0 Quick Reference”.

END of procedure. YOUR READER IS NOW READY TO READ CODES.

USING MULTIPLE READERS WITH SAME CRADLE

If you want to use several readers associated with the same cradle, you must first **Bind** the cradle with one of the readers (see previously described configuration procedure).

Successive readers can be associated with the same cradle by following the configuration procedure substituting the **Bind** command with **Join**.

7. Join

The green LED on the PowerScan® M8300 will blink: the reader is ready to be positioned onto the cradle. **Complete step 8.**

END of procedure.

All readers associated with the same cradle must have different addresses.

CAUTION

POWERSCAN® M8300/STAR-MODEM™ STAND ALONE SETUP

To configure a PowerScan® M8300 reader to communicate with STAR-Modem™ in Stand Alone Mode, follow the "PowerScan® M8300/BC-80X0 Stand Alone Setup" procedure substituting steps 6 and 7 with those below:

6. STAR-Modem™ Address

Read the code above and the four-digit address of the STAR-Modem™.

7. Exit and Save Configuration

END of procedure. YOUR READER IS NOW READY TO READ CODES.

POWERSCAN® M8300/STAR-SYSTEM™ SETUP

The following procedure allows configuring a PowerScan® M8300 reader to communicate with various STAR-System™ devices such as Stargate™ RF base stations:

1. Restore PowerScan® M8300 Default

2. Enter Configuration

3. Set Date

+

six digits for Day, Month and Year (DDMMYY).

4. Set Time

+

four digits for Hours and Minutes (HHMM).

5. Set the connection according to the length of the codes to be read:

Code Length ≤240 Characters

Code Length >240 Characters
(not for systems with BC-80X0 as Master)

6. Set Radio Address

+

four digits from the Numeric Table for the PowerScan® M8300 Address (from 0000 to 1999).

All readers used in the same area must have different addresses.

7. Set First STAR-System™ Address

+

four digits from the Numeric Table in the range 0000 to 1999

8. Set Last STAR-System™ Address

+

four digits from the Numeric Table in the range 0000 to 1999

Whenever the system is composed of a single base station, the first and last base station addresses (steps 7 and 8) must have the same value.

9. Exit and Save Configuration

END of procedure. YOUR READER IS NOW READY TO READ CODES.

POWERSCAN® M8300 DEFAULT CONFIGURATION

DATA FORMAT

code identifier disabled, field adjustment disabled, code length not transmitted, character replacement disabled

CODE SELECTION

enabled codes

- EAN 8/EAN 13 / UPC A/UPC E without ADD ON
  check digit transmitted, no conversions
- Interleaved 2/5
  check digit control and transmission, variable length code; 4-99 characters
- Standard Code 39
  no check digit control, variable length code; 1-99 characters
- Code 128
  variable length code; 1-99 characters

disabled codes

EAN 128, ISBT128, Code 93, Codabar, pharmaceutical codes, MSI, Code 11, Code 16K, Code 49, GS1 DataBar™ (GS1 DataBar™ includes the following symbologies: GS1 DataBar Omnidirectional, GS1 DataBar Stacked, GS1 DataBar Expanded and GS1 DataBar Limited).

RADIO PARAMETERS

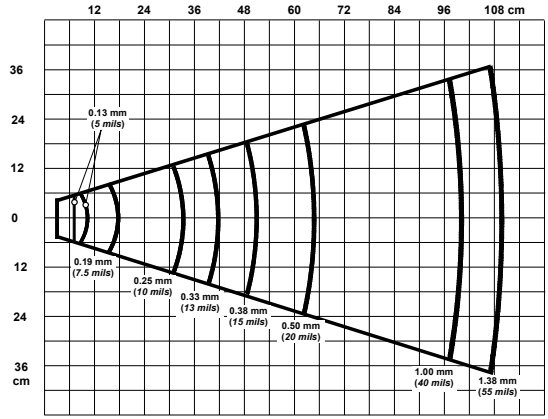
radio protocol timeout = 2 seconds, power-off timeout = 4 hours, transmission mode = one-way, beeper control for radio response = normal, single store disabled, batch mode disabled, find me enabled, radio RX timeout = disable

TECHNICAL FEATURES

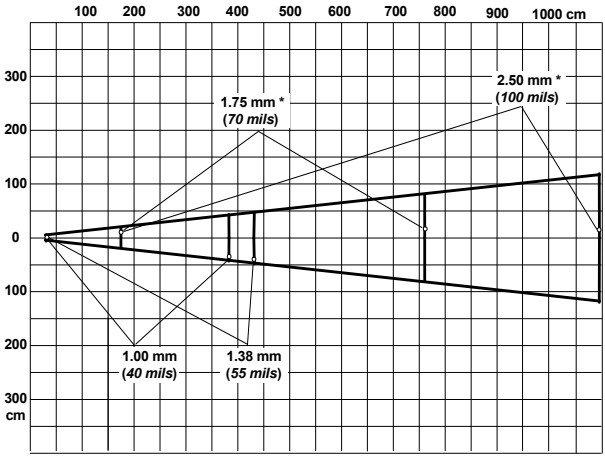
Electrical Features		
Battery Type	2150 Li-Ion battery pack	
Time of recharge	max. 4 hours with external power supply max. 10 hours with Host power	
Operating autonomy (continuous reading)	60,000 reads (typical)	
Display (Only available with some models)	LCD 4 lines x 16 chars Programmable font and backlight	
Indicators	Good Read LED **green** Good Read Spot **green** Beeper	
Laser Features	M8300	M8300-AR
Power (max) in mW	0.9 mW	1.3 mW
Light Source	VLD in the range between 630~680 nm	
Scan Rate	35 ± 5 scans/sec	
Reading Field Width (typical)	see reading diagram	
Max. Resolution	0.076 mm (3 mils)	0.19 mm (7.5 mils)
PCS minimum (Datalogic Test Chart)	15%	25%
Scan Angle	42°	13.5° ± 0.7
Laser Safety Class	2 (EN 60825-1 / CDRH)	
Radio Features	European Models	USA Models
Radio Frequency	433.92 MHz	910 MHz
Bit rate	19200 baud	36800 baud
Range (in open air)	50 m	30 m
System Configuration	BC-80X0	STARGATE™
Max. number of devices per base station	32	255
Max. number of devices in the same reading area	2000	
Environmental Features		
Working Temperature	-20° to +50 °C / -4 to +122 °F	
Storage Temperature	-20° to +70 °C / -4 to +158 °F	
Humidity	90% non condensing	
Drop resistance (on concrete)	2 m	
Protection Class	IP65 (IP64 for models with display)	
Mechanical Features		
Weight (with batteries)	about 400 g (14.10 oz)	
Dimensions	212 x 109 x 71 mm (8.34 x 4.29 x 2.79 in)	
Material	Polycarbonate molded with rubber	

READING DIAGRAMS

PowerScan® M8300



PowerScan® M8300 AR



**on reflective labels*

WARRANTY

Datalogic warranties this product against defects in workmanship and materials, for a period of 3 years from the date of shipment, provided that the product is operated under normal and proper conditions.

Datalogic has the faculty to repair or replace the product; these provisions do not prolong the original warranty term. The warranty does not apply to any product that has been subject to misuse, accidental damage, unauthorized repair or tampering.

SERVICE AND SUPPORT

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

- **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 barcode 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 Catalogues, etc.

- **CONTACT US**

  Information Request Form and Sales & Service Network

COMPLIANCE

This device must be opened by qualified personnel only.
The batteries must be removed before opening the device.

FCC COMPLIANCE

Modifications or changes to this equipment without the expressed written approval of Datalogic could void the authority to use the equipment.

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

FCC ID U4F0015.

RADIO COMPLIANCE

Contact the competent authority responsible for the management of radio frequency devices of your country to verify any possible restrictions or licenses required.

Refer to the web site http://europa.eu.int/comm/enterprise/rtte/spectr.htm for further information.

LASER SAFETY COMPLIANCE

The laser scanner conforms to the applicable requirements of both CDRH 21 CFR 1040 and EN60825-1 at the date of manufacture.

The laser light is visible to the human eye and is emitted from the output window (1).

Laser warning and classification label (2).

CAUTION

La utilización de procedimientos o regulaciones diferentes de aquellas describidas en la documentación puede causar una exposición peligrosa a la luz láser visible.

The laser scanner utilizes a low-power laser diode. Although staring directly at the laser beam momentarily causes no known biological damage, avoid staring at the beam as one would with any very strong light source, such as the sun. Avoid that the laser beam hits the eye of an observer, even through reflective surfaces such as mirrors, etc.

The following information is shown on the laser scanner device class label:

ITALIANO	LUCE LASER	DEUTSCH	LASERSTRAHLUNG
Classe 2:	NON FISSARE IL RAGGIO APPARECCHIO LASER DI CLASSE 2	Klasse 2:	NICHT IN DEN STRAHL PRODUKT DER LASERKLASSE 2
FRANÇAIS	RAYON LASER	ESPAÑOL	RAYO LÁSER
Classe 2:	EVITER DE REGARDER LE RAYON APPAREIL LASER DE CLASSE 2	Clase 2:	NO MIRAR FIJO EL RAYO APARATO LÁSERDE CLASE 2

LED CLASS

Class 1 LED product.

This product conforms to EN60825-1:2001.

IC (INDUSTRY CANADA)

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

WEEE COMPLIANCE

	**Waste Electrical and Electronic Equipment (WEEE) Statement**

English

For information about the disposal of Waste Electrical and Electronic Equipment (WEEE), please refer to the website at www.scanning.datalogic.com.

Italian

Per informazioni sullo smaltimento delle apparecchiature elettriche ed elettroniche consultare il sito Web www.scanning.datalogic.com.

French

Pour toute information relative à l'élimination des déchets électroniques (WEEE), veuillez consulter le site Internet www.scanning.datalogic.com.

German

Informationen zur Entsorgung von Elektro- und Elektronik- Altgeräten (WEEE) erhalten Sie auf der Webseite www.scanning.datalogic.com.

Spanish

Si desea información acerca de los procedimientos para el desecho de los residuos del equipo eléctrico y electrónico (WEEE), visite la página Web www.scanning.datalogic.com.

Portuguese

Para informações sobre a disposição de Sucatagem de Equipamentos Eléctricos e Eletrônicos (WEEE - Waste Electrical and Electronic Equipment), consultar o site web www.scanning.datalogic.com.

Chinese

有关处理废弃电气电子设备（WEEE）的信息， 请参考 Datalogic 公司的网站：http://www.scanning.datalogic.com/。

Japanese

廃電気電子機器（ＷＥＥＥ）の処理についての関連事項は Datalogic のサイト www.scanning.datalogic.com, をご参照下さい。

NUMERIC TABLE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NOTES

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declares that the
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bescheinigt, daß das Gerät
declare que el

PowerScan Mxxx; Cordless Barcode Reader

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

sono conformi alla Direttiva del Consiglio Europeo sottoelencata:
are in conformity with the requirements of the European Council Directive listed below:
sont conformes aux spécifications de la Directive de l'Union Européenne ci-dessous:
der nachstehenden angeführten Direktive des Europäischen Rats entsprechen:
cumple con los requisitos de la Directiva del Consejo Europeo, según la lista siguiente:

1999/5/EEC R&TTE

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

ETSI EN 301 489-3 v1.4.1, August 2002:	ElectroMagnetic Compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9 kHz and 40 GHz
ETSI EN 300 220-3 v1.1.1, September 2000:	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1000 MHz frequency range with power levels ranging up to 500 mW; Part 3: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
EN 60950-1, December 2001:	INFORMATION TECHNOLOGY EQUIPMENT – SAFETY – Part 1: General requirements

December 14th, 2007

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820001951 (Rev E) 10/08