

## Skorpio™ X3



## User's Manual

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Skorpio™ X3 with Windows Embedded Handheld 6.5 - User's Manual

Software Version: 1.72

Ed.: 07/2012

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# CONTENTS

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<b>REFERENCES .....</b>	<b>vi</b>
Conventions .....	vi
Reference Documentation .....	vi
Services and Support .....	vi
<b>GENERAL VIEW .....</b>	<b>vii</b>
<b>1 INTRODUCTION .....</b>	<b>1</b>
1.1 Skorpio X3 Description .....	1
1.2 Available Models .....	2
1.3 Package Contents .....	3
1.4 Inserting microSD card .....	5
1.4.1 Removing the MicroSD Card .....	7
1.5 Accessories .....	8
<b>2 BATTERIES AND MAINTENANCE .....</b>	<b>10</b>
2.1 Charging the Battery Pack .....	10
2.2 Replacing the Battery Pack .....	13
2.3 Cleaning the mobile computer .....	17
<b>3 CONNECTIONS .....</b>	<b>18</b>
3.1 USB Connection .....	18
3.2 Connection to USB peripherals .....	20
3.3 RS232 Connection .....	22
3.4 WLAN Connection .....	23
3.5 WPAN Connections .....	25
3.6 Wireless and Radio Frequencies Warnings .....	26
<b>4 USE AND FUNCTIONING .....</b>	<b>28</b>
4.1 Startup .....	28
4.1.1 Using the Stylus .....	29
4.2 Windows Embedded Handheld Welcome Wizard .....	30
4.3 Data Capture .....	31
4.3.1 Laser Data Capture .....	32
4.3.2 Imager Data Capture .....	33
4.4 Description of the Keyboards .....	35
4.4.1 Full-alphanumeric Keyboard (50 Keys) .....	35
4.4.2 Numeric Keyboard (28 Keys) .....	37
4.4.3 Inserting the Terminal Emulation Overlay .....	40
4.4.4 Resetting the Skorpio X3 .....	41
4.5 Status Indicators .....	43
4.5.1 LED Status .....	43
4.5.2 Title Bar .....	44
4.6 Control Panel .....	45
4.6.1 Data Capture Configuration .....	46

	Decoding configuration pages.....	46
4.6.2	Buttons.....	55
4.6.3	DL Buttons .....	56
4.6.4	Triggers.....	59
4.6.5	Application Switcher.....	60
4.6.6	Wireless Communications.....	61
4.6.7	Stylus Calibration .....	66
4.6.8	Audio Settings.....	68
4.7	Windows Connections .....	71
4.7.1	Windows Mobile® Device Center.....	71
4.7.2	Bluetooth Manager Device Setup .....	73
4.8	Datalogic Firmware Utility .....	81
4.8.1	Retrieving a Firmware Image Update .....	81
4.8.2	Installing DFU on the Host PC .....	82
4.8.3	Updating the Firmware.....	83
4.8.4	Repair Mode .....	84
4.9	Datalogic Configuration Utility.....	86
4.10	Datalogic Desktop Utility .....	87
4.10.1	Administrative Options (Admin tab).....	88
4.10.2	WebAppLock Options (WebAppLoc tab) .....	91
4.10.3	Status Icons Options (Status Tab) .....	93
4.10.4	Windows Controls .....	94
4.10.5	AppSelector Options (AppSelect tab) .....	96
4.11	AppSelector (Application Selector) .....	99
4.12	WebApplock (Locked Web Browser) .....	100
4.12.1	WebApplock Special Meta-tags .....	102
4.13	Autostart.....	107
4.13.1	Installing CAB files .....	107
4.13.2	How AutoStart Uses Wceload.....	108
4.13.3	Interactive CAB Install.....	109
4.13.4	Autostart.ini .....	109
<b>5</b>	<b>TECHNICAL FEATURES.....</b>	<b>115</b>
5.1	Technical Data .....	115
5.2	Reading Diagrams .....	118
<b>6</b>	<b>TEST CODES .....</b>	<b>120</b>
	<b>DECODING PARAMETERS.....</b>	<b>124</b>
	Programming Codes Without parameters.....	125
	Bar Code Parameters .....	126
	Programmable 2D Symbologies .....	146
	Postal Codes.....	153
	Imaging Controls.....	154
	Other Controls.....	155
	Datalogic Mobile Label IDs .....	158

**SAFETY REGULATIONS..... 159**  
General Safety Rules..... 159  
Power Supply..... 159  
Laser Safety..... 160  
LED Class..... 166  
Radio Compliance..... 167  
FCC Compliance..... 169  
RF Exposure Information (SAR)..... 170  
Industry Canada Compliance..... 171  
SAR Compliance..... 171  
Patents..... 172  
WEEE Compliance..... 173

**GLOSSARY..... 175**

**INDEX..... 179**

# REFERENCES

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## CONVENTIONS

This manual uses the following conventions:

“User” refers to anyone using a Skorpion X3 mobile computer.

“mobile computer” and “Skorpion X3” refer to Skorpion X3 mobile computer.

“You” refers to the System Administrator or Technical Support person using this manual to install, configure, operate, maintain or troubleshoot a Skorpion X3 mobile computer.

“Single Dock” refers to the Skorpion X3 Single Slot Dock.

## REFERENCE DOCUMENTATION

For further information regarding Skorpion X3 refer to the SDK Help on-Line.

## SERVICES AND SUPPORT

Datalogic provides several services as well as technical support through its website. Log on to [www.adc.datalogic.com](http://www.adc.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**

- **SERVICES**

- **Datalogic Services** Warranty Extensions and Maintenance Agreements

- **Authorised Repair Centres**

- **CONTACT US**

E-mail form and listing of Datalogic Subsidiaries

# GENERAL VIEW

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- A) Color Display\*
- B) ON/OFF Power Key
- C) LEDs
- D) Receiver speaker
- E) Front Scan Key
- F) Keyboard

- G) Laser Safety Label
- H) Loudspeaker
- I) Micro USB Charging Port (Power Only)
- J) Product Label
- K) Reset Key (under battery)
- L) MicroSD Card Slot (under battery)
- M) Trigger button (for use with the optional pistol trigger)

\* Remove protective film cover before use



- N) Data Capture/Laser Output Window    O) HandyLink™ Connector (host/device)



# 1 INTRODUCTION

---

## 1.1 SKORPIO X3 DESCRIPTION

The Skorpio X3 rugged mobile computer is particularly suitable for mobile commerce solutions in the retail environment both on store shelves and in the stock room. Thanks to one of the best ergonomics ever seen on the market, it reduces operator fatigue with no compromise in terms of reliability and robustness, resisting harsh environments, multiple drops, strong shocks and repetitive tumbles.

The Skorpio X3 pistol grip version takes advantage of the best handle and trigger in the warehouse industry. Compact size and light weight combine to offer excellent balance, and superior handling.

Skorpio X3's powerful processing efficiency derives from a dual processor architecture composed of microprocessor XScale PXA310 @ 624 MHz and a Cortex-M3, 32 bit @ 72 MHz. coprocessor Processing power combined with 256 MB RAM & 512 MB Flash running Windows Embedded Handheld 6.5 make for the best performance and flexibility in this market.

Skorpio X3™ offers the unique feature of integrated data capture technology combined with "green spot" feedback (Datalogic patent), providing a "good read" green dot directly on the code, where the operator usually tends to be looking. Many features work together to facilitate easier and faster reading, such as 1D laser and 2D imager bar code readers with Green Spot. An inclined scan engine to allows the display to be seen while scanning bar codes, with no need to turn the wrist awkwardly while scanning.

Skorpio X3 display is a TFT / Transflective color LCD, QVGA, with LED backlight and integrated touch screen, 81 mm (3.2 in) diagonal which means it is the largest standard resolution display (and the only one for the market today) in this class of products.

Skorpio X3 wireless communication capabilities (Bluetooth®, IEEE 802.11a/b/g) enable fast transactions and complete interaction with information systems including the newest RF security protocols such as WPA™ and WPA2™. Moreover, Cisco Compatible Extensions CCX V4 certification permits all the advantages offered by the Cisco WLAN infrastructure to be exploited.

Datalogic's software tools and strategic software alliances fit Skorpio X3 to business practice. Datalogic Desktop and Configuration utilities offer full and secure control over the device experience. Wavelink Avalanche enables rapid deployment and central management of Skorpio X3 installations. Finally, Datalogic's comprehensive service programs protect the Skorpio X3 investment.

## 1.2 AVAILABLE MODELS

The brand new Skorprio X3 is available in different models depending on the options it is equipped with. All options are listed below:

- communication options: 802.11 a/b/g radio, Bluetooth®
- data capture options: laser, 2D imager
- keyboard options: full-alphanumeric, alphanumeric, numeric.

For further details about the Skorprio X3 models refer to the web site:

[www.adc.datalogic.com](http://www.adc.datalogic.com).

For further information regarding Windows Embedded Handheld refer to the website:

<http://www.microsoft.com/windowsembedded>.

The currently available models are:

- 942350004 SKORPIOX3 00A0LS-2N0-MEN0  
Skorprio X3 with Bluetooth v2.0, 802.11 a/b/g CCX V4, Std Laser w/ Green Spot, Windows Embedded Handheld 6.5, 256MB RAM/512MB Flash, 28-Key Numeric
- 942350005 SKORPIOX3 00A0LS-2F0-MEN0  
Skorprio X3 with Bluetooth v2.0, 802.11 a/b/g CCX V4, Std Laser w/ Green Spot, Windows Embedded Handheld 6.5, 256MB RAM/512MB Flash, 50-Key Full-alphanumeric
- 942350008 SKORPIOX3 00A0WI-2N0-MEN0  
Skorprio X3 with Bluetooth v2.0, 802.11 a/b/g CCX V4, Std 2D Imager w/ Green Spot, Windows Embedded Handheld 6.5, 256MB RAM/512 MB Flash, 28-Key Numeric
- 942350009 SKORPIOX3 00A0WI-2F0-MEN0  
Skorprio X3 with Bluetooth v2.0, 802.11 a/b/g CCX V4, Std 2D Imager w/ Green Spot, Windows Embedded Handheld 6.5, 256MB RAM/512 MB Flash, 50-Key Full-alphanumeric

### 1.3 PACKAGE CONTENTS

The Skorpion X3 package contains:

- 1 Skorpion X3 mobile computer
- 1 Skorpion X3 Quick Start Guide
- 1 CD-ROM Getting Started Disk
- 1 rechargeable standard battery pack
- 1 Windows Embedded Handheld End User License Agreement
- 1 Wavelink Avalanche Insert
- 1 belt clip
- 1 belt clip pivot
- 1 terminal emulation overlay

The Skorpion X3 GUN package contains:

- 1 Skorpion X3 mobile computer
- 1 Skorpion X3 Quick Start Guide
- 1 CD-ROM Getting Started Disk
- 1 rechargeable standard battery pack
- 1 Windows Embedded Handheld End User License Agreement
- 1 Wavelink Avalanche Insert
- 1 terminal emulation overlay

Any other packages will contain the accessories necessary for the Skorpion X3 connection to the host computer and to the network: the cradle, one or more connection cables.

Remove all the components from their packaging; check their integrity and congruity with the packing documents.



**CAUTION**

*Keep the original packaging for use when sending products to the technical assistance center. Damage caused by improper packaging is not covered under the warranty.*

**NOTE**

*Rechargeable battery packs are not initially charged. Therefore the first operation to perform is to charge them. See section 2.1.*

## 1.4 INSERTING MICROSD CARD

The Skorpio X3 supports microSD memory cards. To access the microSD card slot and insert the card, proceed as follows:

1. Turn off the Skorpio X3.
2. Pull the battery latch down and remove the battery pack:



3. Shift the cardholder upwards and then pull it up:



4. Insert the microSD card with the written part upward:



5. Lock the card into place by pushing the cardholder down and then shifting it downwards:



6. Insert the battery's alignment lugs into the recesses, then press firmly until the battery latch clicks twice.



### 1.4.1 Removing the MicroSD Card

To remove the microSD card, follow the steps above to access the microSD card cage under the battery, and remove it from microSD slot.

**CAUTION**

*Follow proper ESD precautions to avoid damaging the microprocessors in the Skorpion X3 or the microSD card itself.*

*Proper ESD precautions include, but are not limited to, working on an ESD mat and ensuring that the operator is properly grounded.*

*Do not force the card. If you feel resistance, remove the card, check the orientation, and reinsert it.*

*Do not use the microSD card slot for any other accessories.*

*It is highly recommended that users latch the card cage's bale even when the card is not present.*

## 1.5 ACCESSORIES

### ❑ Cradles

- 94A150031 Dock, Single Slot, Skorpio X3
- 94A150032 Charger, 4 Slot Dock, Skorpio X3
- 94A150033 Dock, Ethernet 4 Slot, Skorpio X3
- 94A150034 Charger, 4 Slot Battery, Skorpio X3
- 94A150041 Vehicle Holder, Skorpio X3

### ❑ Batteries

- 94ACC0046 Battery, High Capacity, Skorpio X3
- 94ACC0048 Battery, Standard Capacity, Skorpio X3

### ❑ Power Supply

- 94ACC1380 Power Supply, Micro USB
- 94ACC1381 Power Supply, Dock, PWR Plug 2.1mm

### ❑ Cables

- 94A051020 Cable for dock-PC (RS232) communication
- 94A051968 Cable, Micro USB, Client
- 94A051969 Cable, Micro USB, Host
- 94A051970 Cable, USB HandyLink, Client
- 94A051971 Cable, USB HandyLink, Host
- 94A051972 Cable, RS232 HandyLink, Client

### ❑ Various

- 94ACC1230 Swivel for Functional Case (10pcs)
- 94ACC0044 Stylus Pen with Tether
- 94ACC1371 Module, Ethernet, Single Slot Dock
- 94ACC1372 Module, Modem, Single Slot Dock
- 94ACC0043 Handle Kit, Skorpio X3
- 94ACC0049 Handstrap, Skorpio X3
- 94ACC0050 Belt Holster, Skorpio X3
- 94ACC0051 Softcase, Skorpio X3
- 94ACC0052 Rubber Shell, Skorpio X3



**NOTE**

*Use only a Datalogic Mobile-approved power supply and cables. Use of an alternative power supply will invalidate any approval given to this device and may be dangerous.*

## 2 BATTERIES AND MAINTENANCE

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**NOTE**

*Rechargeable backup batteries and battery packs are not initially charged. Therefore the initial operation to perform is to charge them. See below.*

**CAUTION**

*By default, the battery pack is disconnected at the factory to avoid damage due to excessive draining.*

*Annual replacement of rechargeable battery pack avoids possible risks or abnormalities and ensures maximum performance.*

### 2.1 CHARGING THE BATTERY PACK

**NOTE**

*The battery pack autonomy varies according to many factors, such as the frequency of barcode scanning, RF usage, battery life, storage, environmental conditions, etc.*

The battery icon on the Taskbar indicates when the battery pack is low.

You may recharge your battery pack by connecting a standard Micro-USB wall charger directly to the Skorpio X3 Micro-USB charging port.

The Micro-USB port can also be used to charge the Skorpio X3 battery pack from any self-powered USB hub or USB port on a computer, but only when the Skorpio is suspended.

Alternatively, it is also possible to recharge the battery pack by inserting the Skorpio X3 into the single slot dock or the Ethernet four slot dock.

**CAUTION**

*Don't insert the wall charger into the micro-USB port when the Skorpio X3 is inserted into the dock.*

The charging LED glows red when the main battery is recharging. It will glow green when the battery reaches full charge. The charging LED will flash red when a charging error is detected (see par. 4.5.1).

The stand alone battery pack may be recharged outside a Skorpion X3 using the spare battery charging slot on the back of a single slot dock, an Ethernet four slot dock, or a four slot battery charger.

**NOTE**

*It's recommended to charge batteries before first use.*

**CAUTION**

*Risk of explosion if battery is replaced by an incorrect type.*

*Dispose of used batteries according to the instructions.*

**CAUTION**

*Il y a risque d'explosion si la batterie est remplacée par une batterie de type incorrect.*

*Mettre au rebut les batteries usagées conformément aux instructions.*

**CAUTION**

*Avoid storing batteries for long periods in a state of full charge or very low charge.*

*We recommend charging the battery pack every two to three months to keep its charge at a moderate level to maximize battery life.*

**NOTE**

*Even if the storage temperature range is wider, In order to achieve the longest battery life, store the terminal and the spare batteries between 20 to 30° C (68 to 86° F).*

*Skorpio X3 (including spare battery) should be charged at an ambient temperature between 0 - 35° C to achieve the maximum charging rate. Never charge the main device or spare batteries in a closed space where excessive heat can build up.*

**NOTE**

*The battery level may display incorrectly for several minutes after the Skorpio X3 is disconnected from its charger if the charging cycle is not completed.*

**NOTE**

*The Skorpio X3 may get warm during charging, this is normal and does not mean a malfunction.*

## 2.2 REPLACING THE BATTERY PACK

To correctly replace the battery pack, proceed as follows.

1. Turn off the Skorpion X3.
2. Pull the battery latch down as indicated in the figure below:



3. Remove the battery pack.



4. Insert the battery's alignment lugs into the recesses, then press firmly until the battery latch clicks twice:

**WARNING**

*Installing, charging and/or any other action should be done by authorized personnel and following this manual.*

*The battery pack may get hot, explode, ignite, and/or cause serious injury if exposed to abusive conditions.*

*If the battery pack is replaced with an improper type, there is risk of explosion.*

*Do not place the battery pack in or near a fire or heat; do not place the battery pack in direct sunlight, or use or store the battery pack inside unventilated areas in hot weather; do not place the battery pack in microwave ovens, driers, high pressure containers, on induction cooking surfaces, or any similar heat producing device. Doing so may cause the battery pack to generate heat, explode or ignite. Using the battery pack in this manner may also result in a loss of performance and a shortened life expectancy.*

*Use only a Datalogic Mobile approved power supply. The use of an alternative power supply will void the product warranty, may cause product damage and may cause heat, explode or ignite.*

*The area in which the units are charged should be clear of debris and combustible materials or chemicals.*

*Do not use the battery pack of this terminal to power devices other than this mobile computer.*

**WARNING**

*Immediately discontinue use of the battery pack if, while using, charging or storing the battery pack, the battery pack emits an unusual smell, feels hot, changes color or shape, or appears abnormal in any other way.*

*Do not short-circuit the battery pack contacts connecting the positive terminal and negative terminal. This might happen, for example, when you carry a spare battery pack in your pocket or purse; accidental short-circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the contacts of the battery pack (these look like metal strips on the battery pack). Short-circuiting the terminals may damage the battery pack or the connecting object.*

*Do not apply voltages to the battery pack contacts.*

*Do not pierce the battery pack with nails, strike it with a hammer, step on it or otherwise subject it to strong impacts or shocks.*

*Do not disassemble or modify (i.e. bend, crush or deform) the battery pack. The battery pack contains safety and protection devices, which, if damaged, may cause the battery pack to generate heat, explode or ignite.*

*In case of leakage of liquid from the battery, avoid contact with skin or eyes. If contact occurs, immediately flush the affected area with water and contact a doctor.*

*Do not solder directly onto the battery pack.*

*Do not expose the battery pack to liquids.*

*Avoid any knocks or excessive vibrations. If the device or the battery is dropped, especially on a hard surface, you should take it to the nearest Authorised Repair Centre for inspection before continuing to use it.*

*Do not replace the battery pack when the device is turned on.*

*Do not remove or damage the battery pack's label.*

*Do not use the battery pack if it is damaged in any part.*

*Battery pack usage by children should be supervised.*

*Collect and recycle waste batteries separately from the device in compliance with European Directive 2006/66/EC, 2002/95/EC, 2002/96/EC and subsequent modifications, US and China regulatory and others laws and environmental regulations.*

**NOTE**

*In order to maximize operating autonomy, the Skorpion X3 checks its battery level at all times. If the battery is not sufficiently charged, the Skorpion X3 will not turn on when the ON/OFF Power button is pressed.*

*In this case, either substitute a sufficiently charged battery, insert the Skorpion X3 into a powered cradle, or plug it into a wall charger.*

**NOTE**

*To maximize battery life, turn off radios when they are not needed.*



## **2.3 CLEANING THE MOBILE COMPUTER**

Periodically clean the Skorpion X3 with a slightly dampened cloth.

Do not use alcohol, corrosive products or solvents.

## 3 CONNECTIONS

---

### 3.1 USB CONNECTION

You can use the Datalogic HandyLink cable 94A051970 to directly connect the Skorpion X3 to a host computer to transfer data through the USB interface.



Key:

- |   |                                      |   |             |
|---|--------------------------------------|---|-------------|
| A | Host computer                        | C | Skorpion X3 |
| B | 94A051970 HandyLink USB Client Cable |   |             |

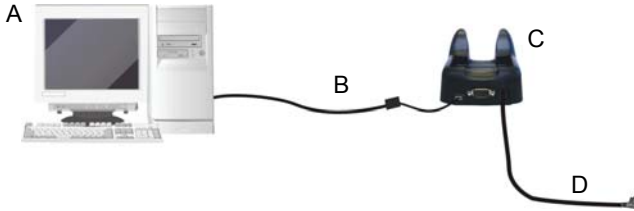


**NOTE**

*The HandyLink cable complies to the USB 1.1 standard.*

The Single Dock can be connected to the Host by means of the Micro-B USB cord 94A051968.

Once the host has been turned on, insert the Skorpio X3 mobile computer into the cradle.



Key:

- |   |                                  |   |                             |
|---|----------------------------------|---|-----------------------------|
| A | Host computer                    | C | Skorpio X3 Single Slot Dock |
| B | 94A051968 Micro USB Client Cable | D | 94ACC1381 Power Adapter     |



**NOTE**

*Connection through the cradle complies to 1.1 USB standard.*



**NOTE**

*The actual data transfer speed can be appreciably lower than the maximum theoretical speed.*



**CAUTION**

*Don't insert the wall charger into the Micro-USB port when the Skorpio X3 is inserted into the dock.*

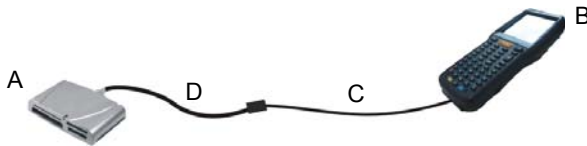
## 3.2 CONNECTION TO USB PERIPHERALS

You can connect the Skorpio X3 to a standard 101-key USB keyboard or to a standard USB flash memory device. Connect the terminal to the Datalogic 94A051971 HandyLink Micro-USB host cable. For all these devices maximum current withdrawal must be below 100mA.



Key:

- |   |                             |   |  |
|---|-----------------------------|---|--|
| A | Keyboard with USB interface | C | 94A051971 HandyLink Micro-USB Host Cable |
| B | Skorpio X3                  |   |  |



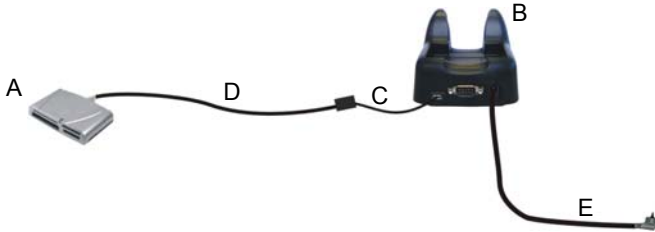
Key:

- |   |  |   |  |
|---|--|---|--|
| A | USB hard drive/ external memory source | C | 94A051971 HandyLink Micro USB Host Cable |
| B | Skorpio X3                             | D | Standard A to Micro A USB Cable*         |


---

\* A standard USB cable is needed only if the USB hard driver or flash memory device does not include its own cable with a "A" plug on it


Connect the Single Slot Dock to the peripheral by means of a Micro-A USB cord, or use a Micro-A to Std-A receptacle USB adapter such as Datalogic 94A051969 (together with a standard USB cable if needed).




- A USB Peripheral (memory)
- B Skorpio X3 Single Slot Dock
- C 94A051969 Micro-USB Host Cable
- D Standard A to Micro A USB Cable\*
- E 94ACC1381 Power Adapter

 *Skorpio X3 works with most of mentioned USB peripherals. Datalogic can not guarantee the operations of Skorpio X3 with all devices on the market.*

**NOTE**

 *Connection is compliant to 1.1 USB standard.*

**NOTE**

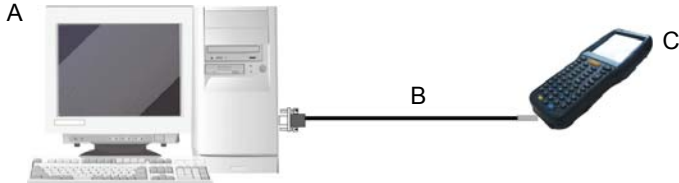
 *The actual data transfer speed can be appreciably lower than the maximum theoretical speed.*

**NOTE**

\* A standard USB cable is needed only if the USB hard driver or flash memory device does not include its own cable with a "A" plug on it

### 3.3 RS232 CONNECTION

You can use the Datalogic 94A051972 cable to directly connect the Skorpion X3 to a host computer to transfer data through the RS232 interface

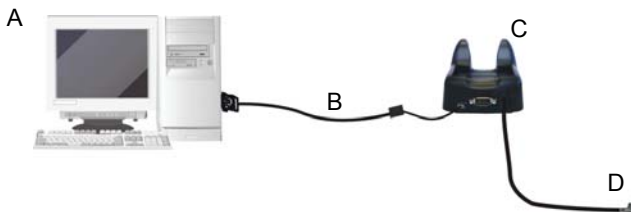


Key:

- |   |   |   |             |
|---|---|---|-------------|
| A | Host computer                                   | C | Skorpion X3 |
| B | 94A051972 HandyLink<br>Micro RS232 Client Cable |   |             |

The Single Slot Dock can be connected to the Host by means of a standard null modem cable such as Datalogic 94A051020 CAB-427 for 9-pin connections.

Once the Host has been turned on, insert the Skorpion X3 mobile computer into the cradle.



Key:

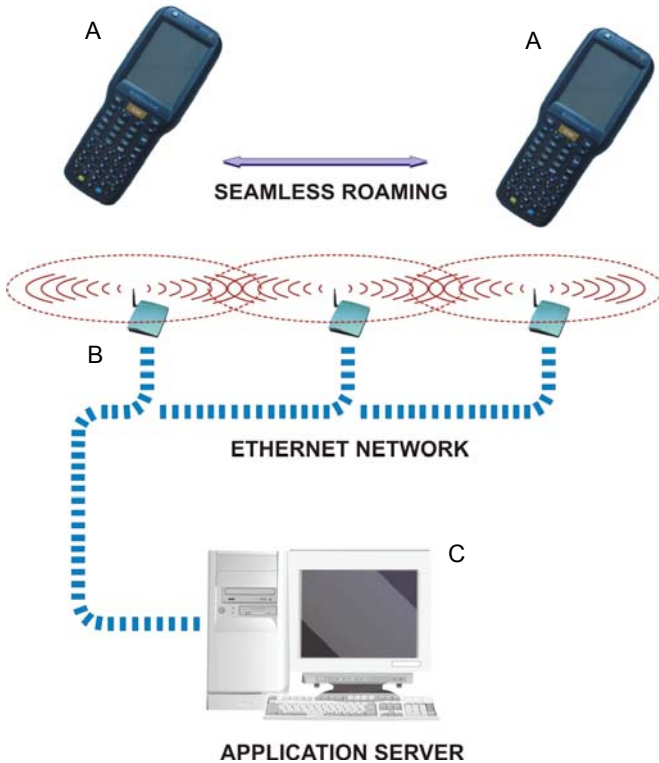
- |   |   |   |                              |
|---|---|---|------------------------------|
| A | Host Computer                               | C | Skorpion X3 Single Slot Dock |
| B | 94A051020 CAB-427<br>RS232 Null Modem Cable |   |                              |
| D | 94ACC1381 Power Adapter                     |   |                              |

### 3.4 WLAN CONNECTION

Skorpio X3 802.11 a/b/g radio models can communicate with the host using the on-board radio and an Access Point connected to a network.

For models using the 802.11 a/b/g radio, you can find information about the applet for radio configuration: <http://www.summitdata.com/SCU.htm>.

To launch this utility you can tap the specific icon if it's visible on the taskbar or you can select the menu item: Start->Programs->Summit and tap the "SCU" icon.



Key:

- A) Skorpio X3
- B) Access point
- C) Host – Application Server

**NOTE**

*802.11 a/b/g radio module is on by default. In order to avoid wasting energy, you can switch it off using the SCU.*

**NOTE**

*Suspending the terminal powers off the 802.11 a/b/g radio and drops the radio connection. When the terminal resumes, depending on the radio power mode and security protocol selected, it may take up to 30 seconds for the 802.11 a/b/g radio driver to re-associate the radio to the network.*

**NOTE**

*Area coverage and radio performance may vary, due to environmental conditions, access points types or interference caused by other devices (microwave ovens, radio transmitters, etc.).*

**NOTE**

*In case of heavy usage the Skorpion X3 could get warm. This is normal and does not mean a malfunction.*



### 3.5 WPAN CONNECTIONS

Datalogic Skorpio X3 Bluetooth® models can communicate with a Bluetooth® device, such as a printer, within a range of 10 m, using the on-board Bluetooth® module.



Key:

- A) Skorpio X3
- B) Bluetooth® printer



**NOTE**

*In order to extend battery life, the Bluetooth® module is off by default. If you need to have Bluetooth® working, the module must be powered on using the SCU (see par. 4.6.6), and perform the Discovery procedure (see par. 4.7.2).*



**NOTE**

*Suspending the terminal powers off the Bluetooth® radio and drops the piconet (Bluetooth® connection). When the terminal resumes, it takes approximately 10 seconds for the Bluetooth® radio driver to re-initialize the radio.*



**NOTE**

*Area coverage and Bluetooth® radio performance may vary, due to environmental conditions or interference caused by other devices (microwave ovens, radio transmitters, etc.).*

### 3.6 WIRELESS AND RADIO FREQUENCIES WARNINGS



**WARNING**

*Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications or attachments could damage the product and may violate laws and regulations.*



**WARNING**

*Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals generated by Skorpio X3.*



**WARNING**

*Datalogic recommends persons with pacemakers or other medical devices to follow the same recommendations provided by Health Industry Manufacturers Associations for mobile phones.*

*Persons with pacemakers:*

- *Should ALWAYS keep this device more than twenty five (25) cm from their pacemaker and/or any other medical device;*
- *Should not carry this device in a breast pocket;*
- *Should keep the device at the opposite side of the pacemaker and/or any other medical device;*
- *Should turn this device OFF or move it immediately AWAY if there is any reason to suspect that interference is taking place.*
- *Should ALWAYS read pacemaker or any other medical device guides or should consult the manufacturer of the medical device to determine if it is adequately shielded from external RF energy.*

*In case of doubt concerning the use of wireless devices with an implanted medical device, contact your doctor.*



**WARNING**

*Turn this device OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may use equipment that could be sensitive to external RF energy.*

**WARNING**

*RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.*

**WARNING**

*An air bag inflates with great force. DO NOT place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If vehicle's wireless equipment is improperly installed and the air bag inflates, serious injury could result.*

**WARNING**

*Turn off the device when in any area with a potentially explosive atmosphere. Observe restrictions and follow closely any laws, regulations, warnings and best practices on the use of radio equipment near fuel storage areas or distribution fuel areas, chemical plants or where some operation involves use of explosive materials.*

*Do not store or carry flammable liquids, explosive gases or materials with the device or its parts or accessories.*

*Areas with a potentially explosive atmosphere are often, but not always, clearly marked or showed.*

*Sparks in such areas could cause an explosion or fire, resulting in injury or even death.*

## 4 USE AND FUNCTIONING

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The use of the Skorpio X3 depends on the application software loaded. However there are several parameters that can be set and utilities that can be used to perform some basic functions such as data capture, communications, file management, etc

### 4.1 STARTUP

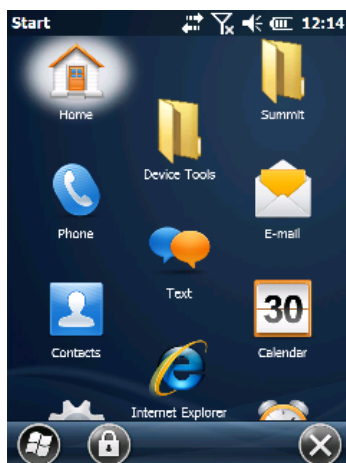
The Skorpio X3 turns on when the battery pack or the external supply is inserted and the ON/OFF Power button is pressed.

After the battery pack is installed, use the [ON/OFF] key to turn the mobile computer on and off.

As soon as the mobile computer is on, the Windows Embedded Handheld 6.5 desktop configuration will appear on the screen. Wait a few seconds before starting any activity so that the mobile computer completes its startup procedure.



Today Screen



Start Menu

Use the stylus (par. 4.1.1) as suggested to select icons and options.

The mobile computer goes into power-off (low power with display and keyboard backlight off), when it is no longer used for more than a programmable timeout, which is defined in the POWER applet of the Control Panel. In this mode it can be awakened (resuming operation) by the [ON/OFF] key.

**NOTE**

*The mobile computer can also be awakened or suspended programmatically.*

### 4.1.1 Using the Stylus

The stylus selects items and enters information. The stylus functions like a mouse.

<b>Tap:</b>	Touch the screen once with the stylus to open items and select options.
<b>Drag:</b>	Hold the stylus on the screen and drag across the screen to select text and images. Drag in a list to select multiple items.
<b>Tap-and-hold:</b>	Tap and hold the stylus on an item to see a list of actions available for that item. On the pop-up menu that appears, tap the action you want to perform.

To recalibrate the touch screen use the Stylus applet (see par. 4.6.7).

**CAUTION**

*Use only original Datalogic styluses supplied with the product itself.*

*In harsh applications, use of screen protectors should be taken into consideration, in order to extend the touch screen operating life.*

*To prevent damage to the screen, do not use sharp devices or any device other than the Datalogic Mobile-provided stylus.*

*Do not apply too much pressure when touching the screen.*

*For applications where an intensive use of the touch screen is foreseen, please consider that touch screen components are subject to progressive wear.*

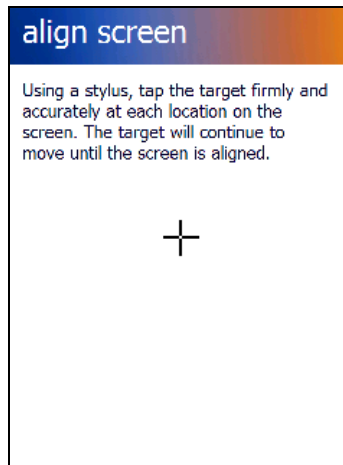
## 4.2 WINDOWS EMBEDDED HANDHELD WELCOME WIZARD

In Windows Embedded Handheld, at the very first Skorpio X3 startup, following a clean boot or following a registry restore to default values, the mobile computer startup (see par. 4.1) is preceded by the Welcome Wizard.



**Welcome Wizard Screen**

The Welcome Wizard allows the user to calibrate the touch screen (see par. 4.6.7) and to configure an email account and a password to protect the terminal.



**Touch Screen Calibration Screen**

### 4.3 DATA CAPTURE

To capture data first of all tap Start > Settings > System > Decoding:

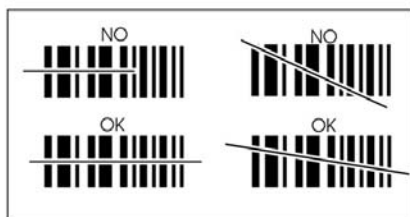
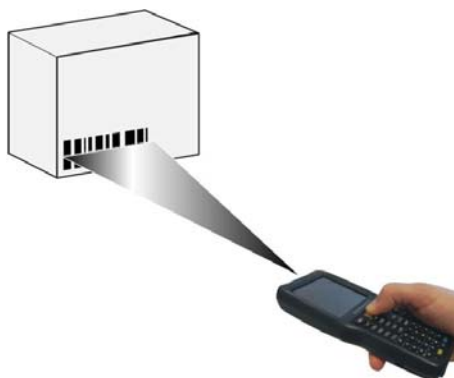


To configure and enable data capture parameters refer to par. 4.6.1.

### 4.3.1 Laser Data Capture

To scan barcodes, point the Skorpio X3 laser model onto the code from a distance within the reading range while pressing the SCAN key or the pistol trigger.

The lighted band emitted by the laser must completely cross the barcode as shown in the figure below.



If the scan has taken place correctly:

- the Good Read LED glows green as long as the user holds the trigger;
- the Good Read Beep\* emits an acoustic signal;
- the Green Spot\* projects a green spot onto the bar code image.

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\* It is enabled by default, but can be silenced



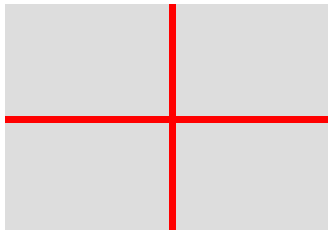
### 4.3.2 Imager Data Capture

The Skorpio X3 Imager captures a picture of the entire bar code. The omnidirectional scanning does not require that the operator orient the bar code to align with the scan pattern.

To read a 1D or 2D code, simply point the Skorpio X3 Imager model onto the code and press the SCAN Key or the pistol trigger.



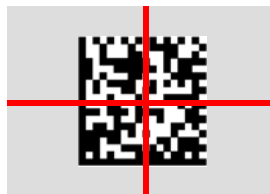
The Skorpio X3 Imager uses an intelligent aiming system pattern, similar to those on cameras, indicating the field of view, which should be positioned over the code:



**Aiming System**

If the aiming system pattern is centered over the entire symbology as shown in the following figure, either wait for the timeout or release the Scan key or the trigger to capture the image.

A red beam illuminates the code, which is captured and decoded. You will get a good read.

**Linear barcode****2D Matrix symbol****Relative Size and Location of Aiming System Pattern**

The field of view changes its size as you move the reader closer or farther away from the code. The field of view indicated by the aiming system pattern will be smaller when the Skorpio X3 Imager is closer to the code and larger when it is farther from the code.

Symbologies with smaller bars or elements (mil size) should be read closer to the unit. Symbologies with larger bars or elements (mil size) should be read farther from the unit. (See par. 5.1 for further details).

If the scan has taken place correctly:

- the Good Read LED glows green until the user releases the trigger;
- if enabled, the GoodReadSound emits an acoustic signal.







## 4.4 DESCRIPTION OF THE KEYBOARDS

The Skorpio X3 comes with three different keyboards: a full-alphanumeric keyboard, having 50 keys, an alphanumeric keyboard, having 38 keys and a numeric keyboard, having 28 keys.

### 4.4.1 Full-alphanumeric Keyboard (50 Keys)



## Main Keys Function

KEY	FUNCTION
	The SCAN key starts data capture. If enabled, it also wakes up the mobile computer from low-power (see par. 4.6.2).  For pistol grip models only, the trigger performs the same function as the SCAN key.
	Arrow keys let you move forwards, backwards, upwards or downwards within text fields, scroll through a Menu list or browse among folder files.
	Yellow modifier (toggle key): when pressed before a standard key, it enables the character or function printed in yellow above the key.
	Blue modifier (one shot key): when pressed before a standard key, it enables the character or function printed in blue above the key
	The ON/OFF Power button powers the Skorpio X3 ON or OFF. It is placed on the upper left side of the terminal.
	After a Blue modifier key press, the blue arrows allow moving forwards or backwards within the Internet Explorer browser pages.

## Special Function Icons

### ICON      FUNCTION



After a Blue modifier key press, the Start menu key opens the Start menu.



After a Blue modifier key press, the Backlight key turns the backlight on and off.











After a blue modifier key press, it locks and unlocks the keyboard.

### 4.4.2 Numeric Keyboard (28 Keys)



## Main Keys Function

KEY	FUNCTION
	The SCAN key starts data capture. If enabled, it also wakes up the mobile computer from low-power (see par. 4.6.2). For pistol grip models only, the trigger performs the same function as the SCAN key.
	Arrow keys let you move forwards, backwards, upwards or downwards within text fields, scroll through a Menu list or browse among folder files.
	Yellow modifier (toggle key): when pressed before a standard key, it enables the character or function printed in yellow above the key.
	Blue modifier (one shot key): when pressed before a standard key, it enables the character or function printed in blue above the key
	The ON/OFF Power button powers the Skorpio X3 ON or OFF. It is placed on the upper left side of the terminal.
	After a Blue modifier key press, the blue arrows allow moving forwards or backwards within the Internet Explorer browser pages.
	CTRL
	ALT

## Special Function Icons

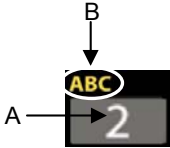
### ICON      FUNCTION



After a Blue modifier key press, the Backlight key turns the backlight on and off.

## Multitap Function

In the numeric keypad the number keys (key 0 excluded) and the ESC key share the following behavior scheme:



- A. Function of the key when directly pressed.
- B. Modified by the Yellow key, repeated presses cycle through the letters shown on the keyboard overlay for each key. The letter is entered if you wait for a short timeout.

### 4.4.3 Inserting the Terminal Emulation Overlay

#### Insertion

To insert the terminal emulation overlay, proceed as follows:

1. Remove the overlay using a screwdriver:



2. Insert the terminal emulation overlay (first the upper side):



3. Fix the overlay with the screwdriver:





#### 4.4.4 Resetting the Skorpion X3

There are several reset methods for the Skorpion X3.

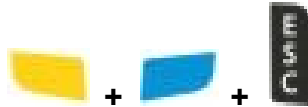
A warm boot terminates an unresponsive application and clears the working RAM, but preserves the file system. The Registry is restored from persistent memory if available or returned to factory default.

A cold boot forces all applications to close reinitializing completely the system. It clears the working RAM, but the file system is preserved. The Registry is restored from persistent memory.

A clean boot restores the Skorpion X3 to a clean configuration: both the Registry and the file system returns to a clean status that conforms to factory default.

##### Warm Boot

To perform a warm boot, press and hold the following keys simultaneously:



##### Cold Boot

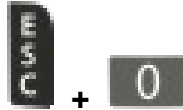
To perform a cold boot, do the following steps:

1. Turn off the Skorpion X3 by pressing the ON/OFF Power button.
2. Pull the battery latch down and remove the battery pack.
3. Simultaneously press the SCAN key and the Reset button in the battery compartment.
4. Insert the battery pack.
5. Turn on the Skorpion X3 by pressing the ON/OFF Power button.

## Clean Boot

To perform a clean boot, do the following steps:

1. Perform a Cold Boot (see Cold Boot)
2. Press and hold down the 'Esc' + '0' keys simultaneously, promptly after resetting:



A dialog box will appear asking for confirmation. Press the Enter Key.

	<b>Warm Boot</b>	<b>Cold Boot</b>	<b>Clean Boot</b>
<b>Registry</b>	Restored from flash	Restored from flash	Clean configuration (no user config)
<b>File System</b>	Preserved	Preserved	Clean Installation (no user files)

## 4.5 STATUS INDICATORS

### 4.5.1 LED Status

The Skorpio X3 provides three different LEDs signaling the mobile computer status.

LED	STATUS	
<b>Good Read*</b> (right side)	Red	Scanning LED is ON from the time the user hits the scan button (Trigger) until the bar code is decoded (laser models) Time-out (imager models).
	Green	Scanning LED is ON, showing a good decode.
<b>Charging Status</b> (left side)	Green	It is solid once the charging process has been completed (full charge).
	Red	It is solid while charging.
	Blinking Red	It blinks in case of charge fault.
	Blinking Amber	It blinks when the device raises a notification to the user.
<b>Keyboard Status</b> (center)	Off	Keyboard in primary.
	Solid Yellow	Yellow alternate key mode.
	Solid Blue	Blue alternate key mode
	Pink	CapsLock enabled.

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\*The Good Read LED has also a "Suspend LED" feature. The decode LED will glow red when the device begins to suspend, and will turn off when the suspend completes successfully

## 4.5.2 Title Bar

The title bar provides information about the time, the battery level, the keyboard function, and the decoding status.



**Windows Embedded Handheld Taskbar**

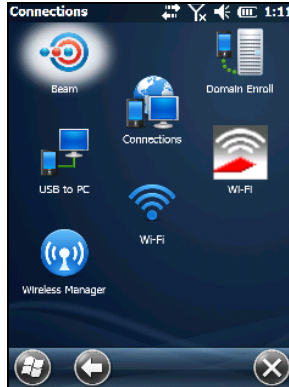
ICONS	DESCRIPTION
	Zooms the screen.
	Opens the Wireless Manager (see par.4.6.6).
	Displays the system battery status.
	Allows to set the volume of screen taps.
	Opens Clock & Alarms application. It allows to set date, time and alarms.

## 4.6 CONTROL PANEL

From the Start menu, tap Settings. The Control Panel is split into three sections: Personal, System, Connections.



Control panel applets are displayed as icons; each icon corresponds to one applet:



**Windows Embedded Handheld Control Panel**

### 4.6.1 Data Capture Configuration

You can configure the Skorpio X3's decoding options by tapping Start -> Settings -> System -> Decoding:



There are two sections in the Decoding control panel, each containing additional pages. There are seven General Configuration pages and multiple Barcode symbology pages.

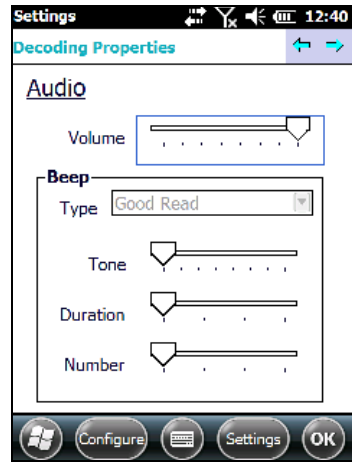
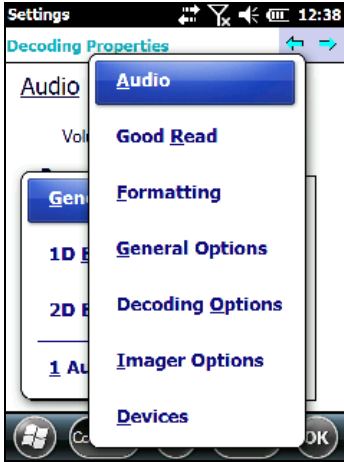
### DECODING CONFIGURATION PAGES

Select the desired configuration from the options shown in the figure below, and the other Decoding Properties figures on the following pages.

Select General, 1D Bar Code or 2D Bar Code, then use the menu or tap the left and right arrow keys to navigate the different pages of the Decoding utility. The menu options will change to reflect the items most recently selected.

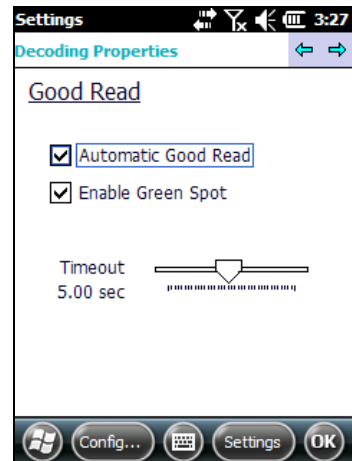
## Audio

From the Decoding menu, tap Configure > General > Audio. Use it to set volume, tone, duration, and number of various types of beeps.



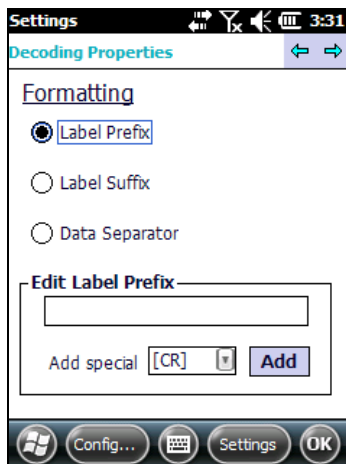
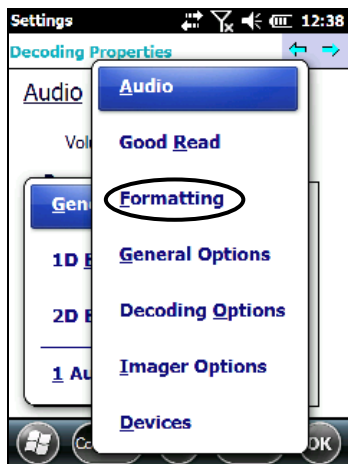
## Good Read

From the Decoding Properties page, tap Configure > General > Good Read. Use it to enable Good Read indications, the use of Green Spot and a to set the decoding timeout for decoding labels.



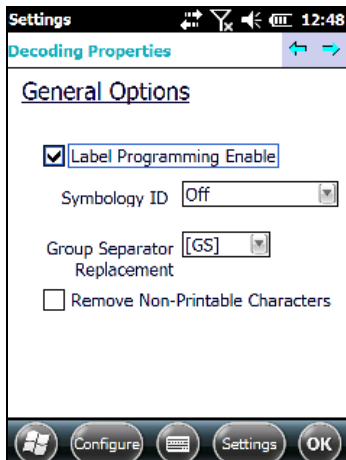
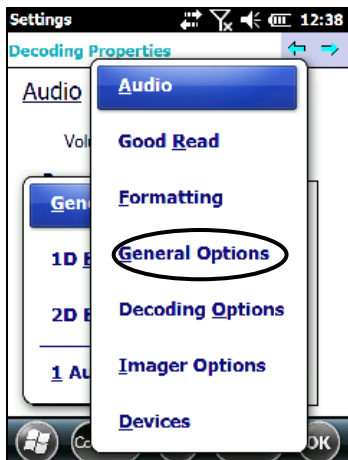
## Formatting

From the Decoding Properties page, tap Configure > General > Formatting. Use it to configure prefix, suffix and data separator character strings.



## General Options

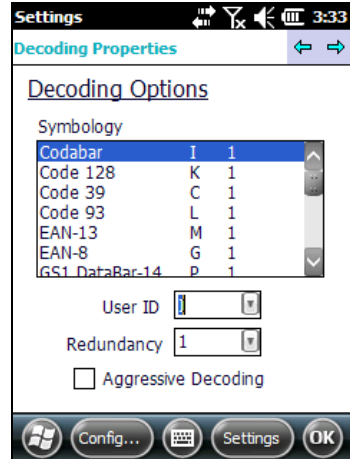
From the Decoding menu, tap Configure > General > General Options. Select from Label Programming Enable, Symbology IDs and Group Separator Replacement.





## Decoding Options

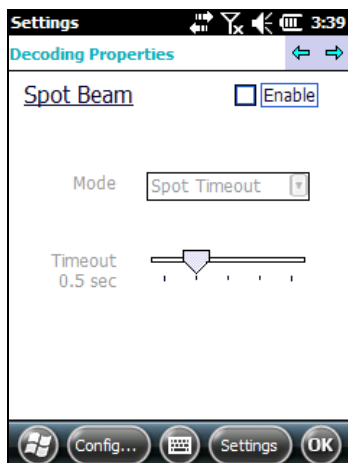
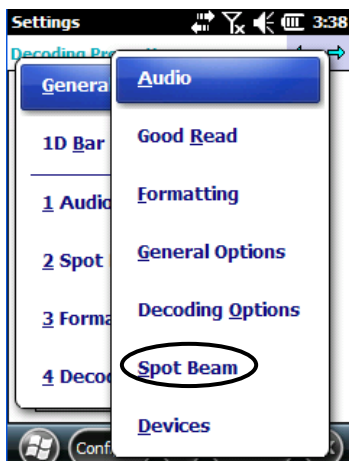
From the Decoding Properties page, tap Configure > General > Decoding Options. Use it to configure the User ID for symbologies, Redundancy and Aggressive Decoding (if supported by the decoding module). Select a symbology to view or change the available properties settings.



## Spot Beam

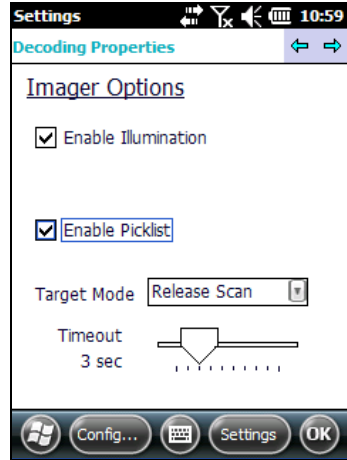
From the Decoding Properties page, tap Configure > General > Spot Beam. It allows enabling and configuration of Spot Beam and triggering modes.

It is only available on devices equipped with laser and advanced long range laser decoding modules that support the Spot Beam Feature.



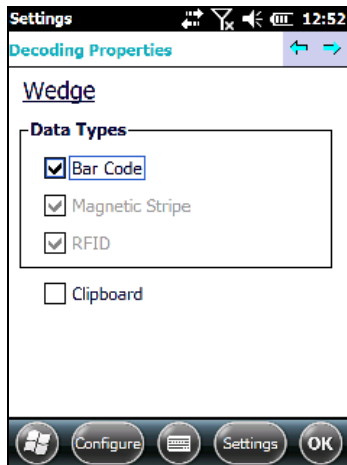
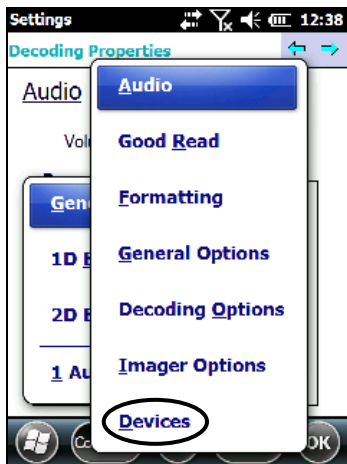
## Imager Options

From the Decoding Properties page, tap Configure > General > Imager Options. It configures illumination, target beam and Pick List mode, and triggering modes. It is only available on devices equipped with 2D decoding engines.



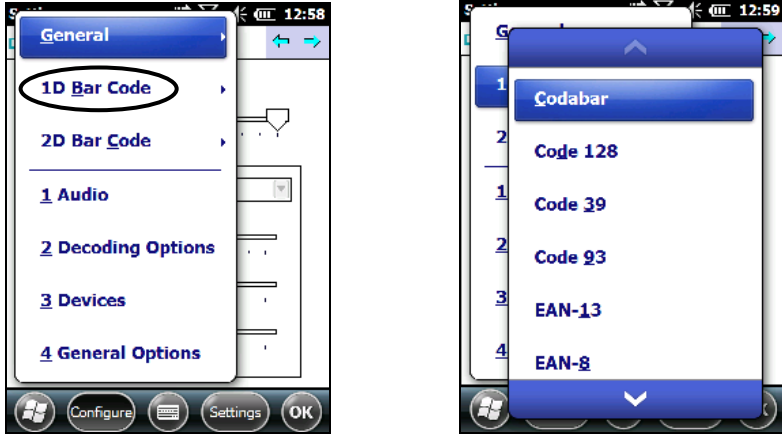
## Devices

From the Decoding Properties page, tap Configure > General > Devices. Use it to enable or disable the keyboard wedge for Barcode scanner.

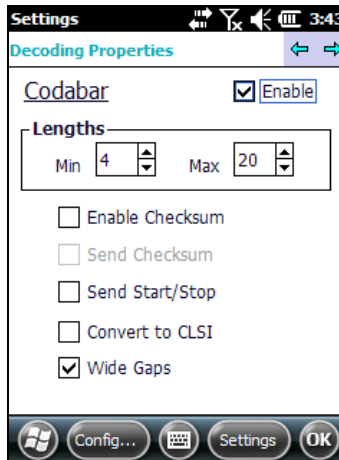


## 1D Barcode Symbology Pages

Use the drop-down menus from Configure > 1D Barcode, or tap the left and right arrow keys to navigate the different pages of the barcode symbology pages.



Each barcode symbology opens to its own page, as shown in the figure below. Refer to the sample symbology control panels for examples of the types of fields and options you can modify.

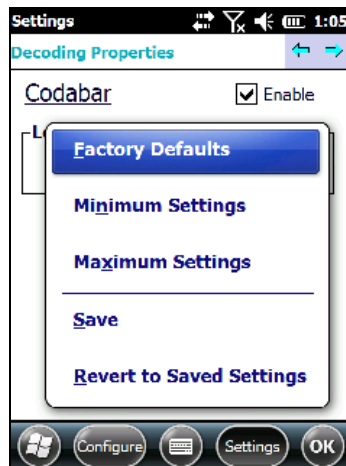


Codabar: Select Enable, Min/Max Lengths, Enable Checksum, Send Checksum, Send Start/Stop, Convert to CLSI and Wide Gaps.

## Decoding Settings

Select from the Decoding Properties Settings menu to restore previous configurations and/or other available default settings. Choose from:

- Factory Defaults
- Minimum Settings
- Maximum Settings
- Save (New Settings)
- Revert to Saved Settings



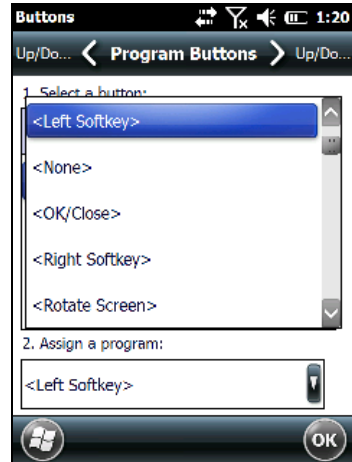
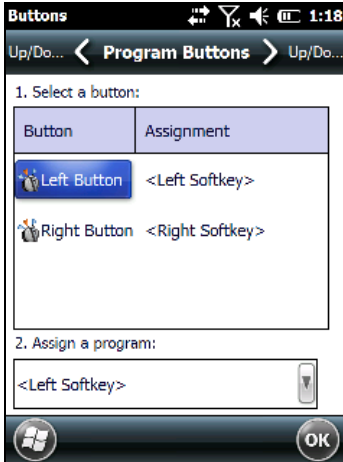
The settings are saved when you tap 'Yes'.

When open, Decoding Properties acts as a simple barcode test tool that provides the Data decoded and the Data Type of the barcode scanned.

## 4.6.2 Buttons

From the Start menu, tap Settings > Personal > Buttons.

On the Program Buttons tab, customize the program hardware buttons to launch your most used applications. Under 'Select a button', tap the button you want to assign a program to, and then select a program from 'Assign a program'.

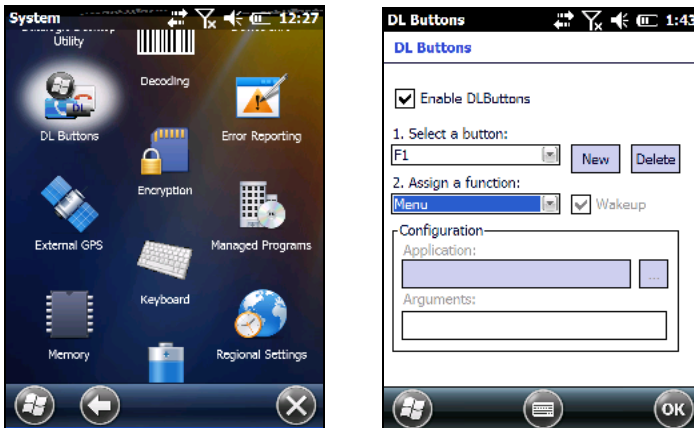


To configure the way the up/down control repeats, use the Up/Down Control applet (Start > Settings > Personal > Buttons > Up/Down Control).

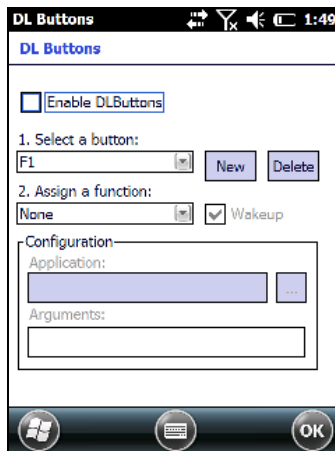
### 4.6.3 DL Buttons

In Windows Embedded Handheld devices, <F1>-<F10> buttons (excluding F5) are assigned by Windows to default applications.

To customize one of these buttons and assign it to a different application, you first need to disable it. Tap Start > Settings > System > DL Buttons to display the DL Buttons window:

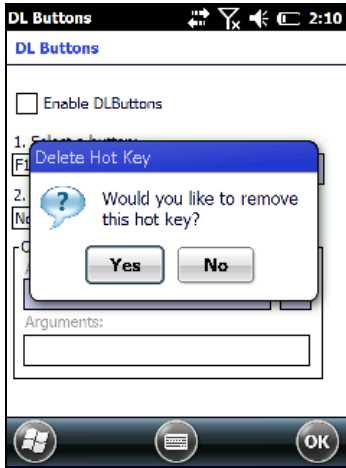


Select the button you want to disable. Select the function 'None' and the click OK. To remove the disabled button, select it and click 'Delete'.

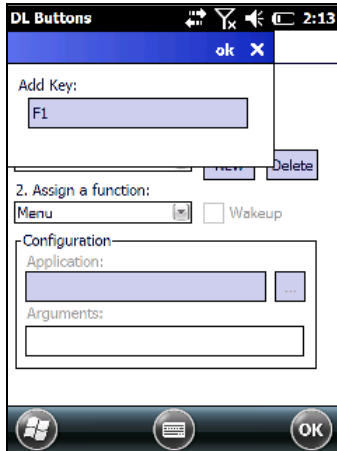




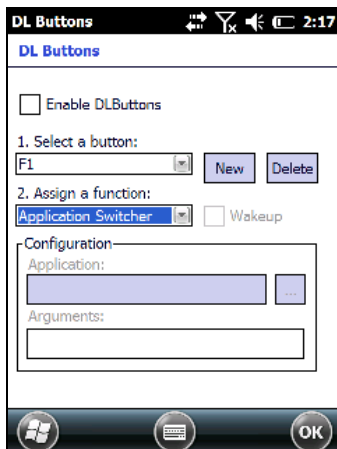
A dialogue box appears, asking for confirmation. Click 'Yes':



To add the button back, click 'New' and write the name of the button on the box that appears:



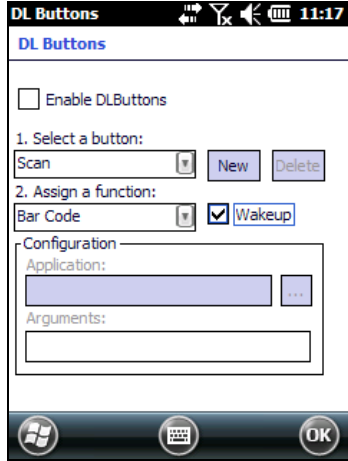
To assign a new application to the button, select the function and then click 'OK':



To restore the old settings , do a clean boot.

### 4.6.4 Triggers

Triggers are special customizable buttons that are mapped by default by DL Mobile. Also, they can be set as wakeup buttons:

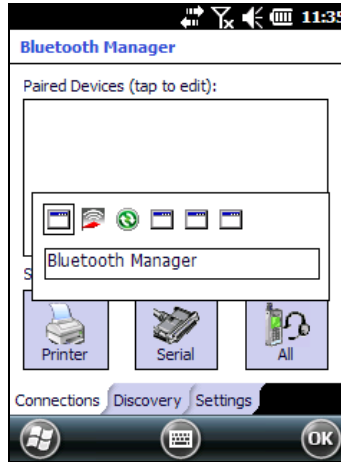


TRIGGER	APPLICATION
Scan	Bar Code
Pistol Trigger	Bar Code

## 4.6.5 Application Switcher

The application switcher provides the same functionality as the standard Windows® Alt+Tab function. This allows the user to switch between the various open applications.

The application switcher is activated via an assigned shortcut key specified in the “DL Buttons” tab (refer to par. 4.6.3). When the assigned button is pressed, the dialog shown below will be displayed:



### NOTE

The **<Esc>** key can be used to close the **Application Switcher**.

Press the assigned button to open the application switcher. Press the assigned button to cycle through the running applications when the dialog is open. Press **<Enter>** to switch to the selected application or **<Esc>** to close the application switcher.

## 4.6.6 Wireless Communications

The Wireless Manager application is a sort of 'Control Panel' for wireless connections. From here it's possible to turn on or off bluetooth® and radio modules.

Open the Wireless Manager by tapping Start > Settings > Connections > Wireless Manager, or by tapping the connectivity icon on the taskbar (see par. 4.5.2). The following window will appear:

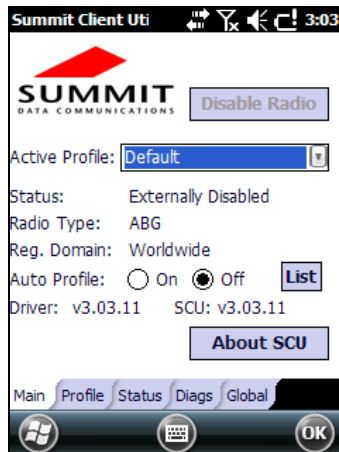


## Summit Client Utility (SCU)

Wireless networking has a customized control, Summit Client Utility (SCU), specific to the radio. From the Start menu, tap: Summit > SCU:

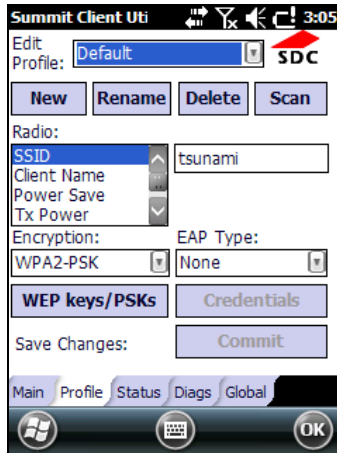


The SCU will open to the “Main” tab:



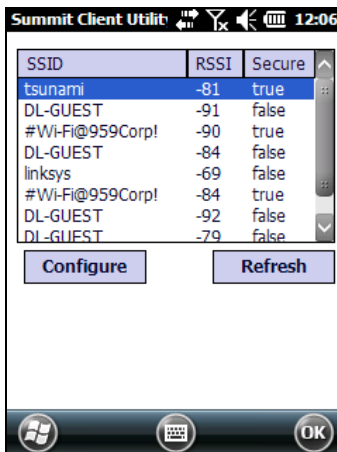
**Summit Client Utility**

1. To create a new profile, tap the "Profile" tab:



Information about the wireless network can be entered directly in the profile tab or by pressing "Scan" when the desired network ESSID is in range.

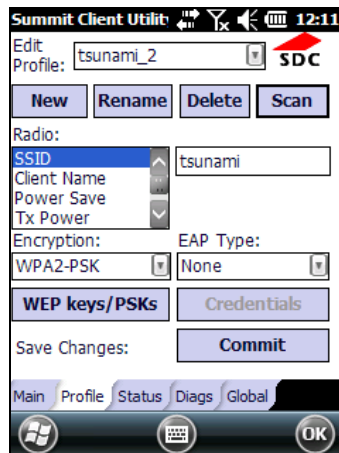
2. At the "Scan" screen, select the desired SSID:



- Click the "Configure" button



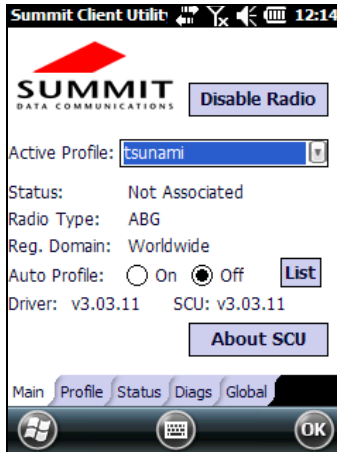
- Follow the on-screen instructions to setup security parameters for your network. For more detailed settings specific to your installation please contact your wireless network administrator.
- When finished, click "Commit" to save your settings.



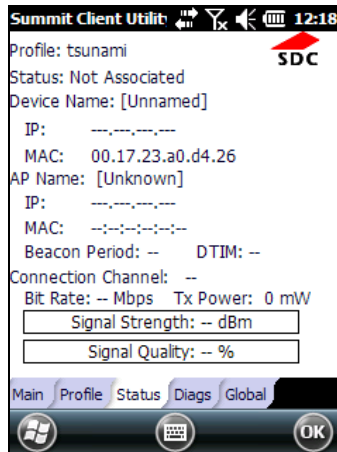
Return to the "Main" tab, if you have not previously selected "Commit" you will be prompted to save your changes.



At the “Main” tab select the profile you just created. If you used the “scan” button the desired profile will have the same name as the ESSID.



Use the “Status” tab to check connectivity to the network.



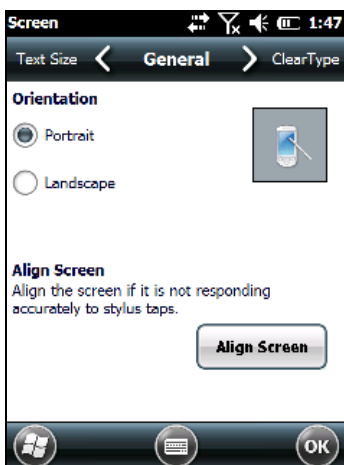
More detailed information about the applet for radio configuration can be found at <http://www.summitdata.com/SCU.htm>.

## 4.6.7 Stylus Calibration

You might need to recalibrate the touch screen (i.e. when you attempt to select one item with the stylus, another item is erroneously selected).

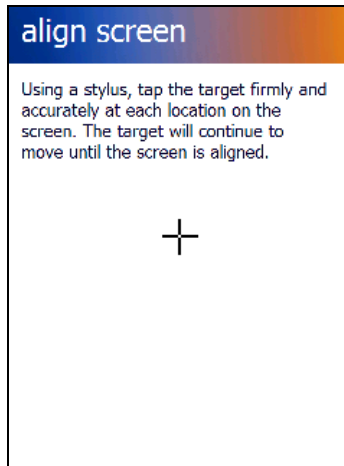
To recalibrate the touch screen, complete the following steps:

1. Select **Start > Settings > System > Screen** to open the **Screen Settings** dialog as shown in the figure below:



2. Tap **Align Screen** to open the Calibration screen shown in the figure below.
3. Carefully press and briefly hold stylus on the center of the target. Repeat as the target moves around the screen.
4. By completing the calibration procedure you implicitly accept the new calibration settings.

New calibration settings are persistently saved in registry.



## Startup Stylus Calibration

When starting the terminal, a Welcome Wizard (with Stylus Calibration) comes up if valid calibration settings are not available. This happens in the following circumstances:

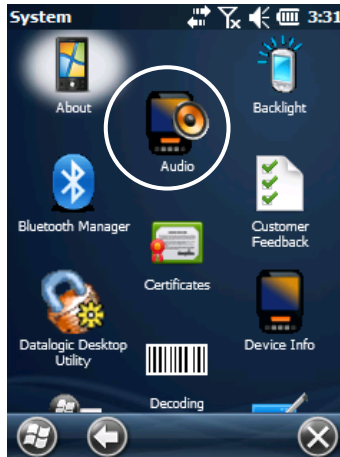
1. At the first startup of the terminal.
2. After any cold boot if the user skipped stylus calibration earlier.
3. After a Clean Boot.

## 4.6.8 Audio Settings

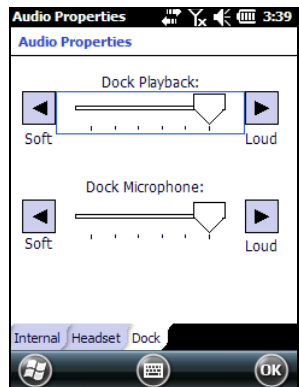
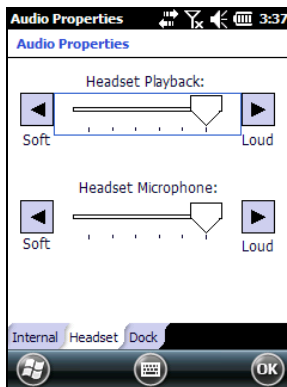
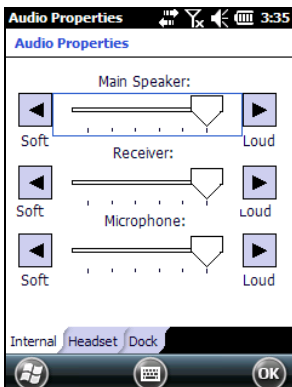
There are two applets that control volume: Audio and Volume & Sounds.

### Audio

From the Start Menu, tap Settings > System > Audio:



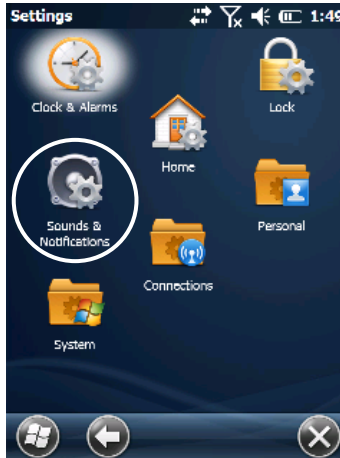
The audio control panel can be used to independently set the playback or recording volume for different types of audio inputs and outputs, such as a headset, powered mobile dock, or the internal speakers and microphone.



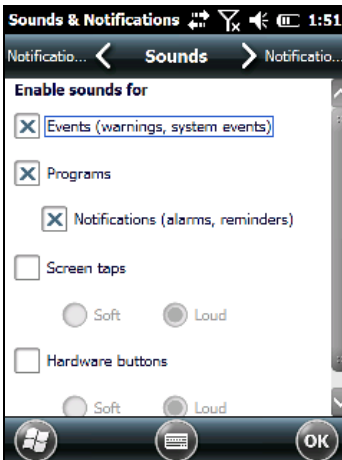
Audio Windows

## Sounds & Notifications

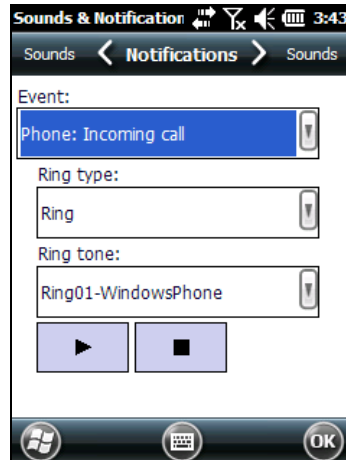
From the Start Menu, tap Settings > Sounds and Notifications:



The Volume & Sounds applet configures audio features of all speakers and headphones:



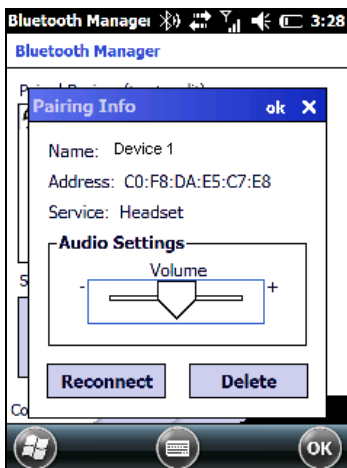
Sounds Tab



Notifications Tab

To set the Bluetooth® headset volume, you can also tap:

Start > Settings > System > Bluetooth Manager > Connections and select the headset. The following window will appear:



## 4.7 WINDOWS CONNECTIONS

To connect the Skorpio X3 to another device (i.e. Host PC) from Windows, several programs are available. These programs require specific electrical connections in order to function properly.

### 4.7.1 Windows Mobile® Device Center

The desktop application Windows Mobile® Device Center gives you the ability to synchronize information between a desktop computer and your Skorpio X3. Synchronization compares the data on the Skorpio X3 with that on the desktop computer and updates both with the most recent information.

Windows Mobile® Device Center is only compatible with Windows Vista and Windows

7; if you run Windows XP or earlier, you have to download Microsoft ActiveSync.

You can establish a connection to your Skorpio X3 through the following interfaces:

- USB either directly or through the Single Dock
- RS232 either directly or through the Single Dock
- Bluetooth® (see par. 4.7.2)

To establish a partnership between the Skorpio X3 and a host PC, start Windows Mobile® Device Center and follow the steps below:

1. Connect the Skorpio X3 to the host PC. Windows Mobile® Device Center configures itself and then opens.
2. On the license agreement screen, click Accept.
3. On the Windows Mobile® Device Center's Home screen, click Set up your device.
4. Select the information types that you want to synchronize, then click Next.
5. Enter a device name and click Set Up.

When you finish the setup wizard, Windows Mobile® Device Center synchronizes the mobile computer automatically. Microsoft® Office Outlook® emails and other information will appear on your device after synchronization.

**NOTE**

Visit the following Microsoft Web site for the latest in updates and technical information:

<http://www.microsoft.com/windowsphone/en-us/howto/wp6/sync/prepare-to-sync-windows-phone-6-5-with-my-computer.aspx>

**NOTE**

When a microSD card is inserted, Skorpio X3 allows a mass storage data connection to a host PC. This functionality can be enabled through the Control Panel. When doing so, the microSD card is not available to the Skorpio X3. An ActiveSync connection is not possible when this feature is enabled.



## 4.7.2 Bluetooth Manager Device Setup



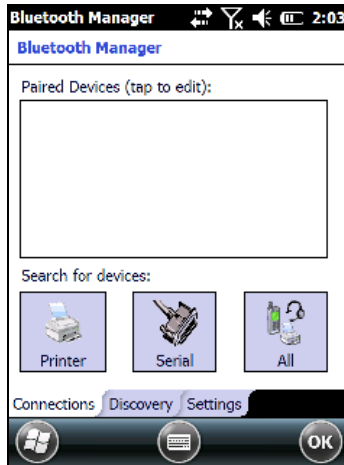
**NOTE**

*The Bluetooth® Manager icon will only be visible if Bluetooth® hardware has been installed on the unit.*

### Using the Skorpio X3 to connect to another device

To create a Bluetooth® pairing between your device and another device that has Bluetooth® capabilities, ensure that the two devices are turned on, discoverable, and within close range.

1. Open the Bluetooth® control panel by tapping Start > Settings > System > Bluetooth Manager:



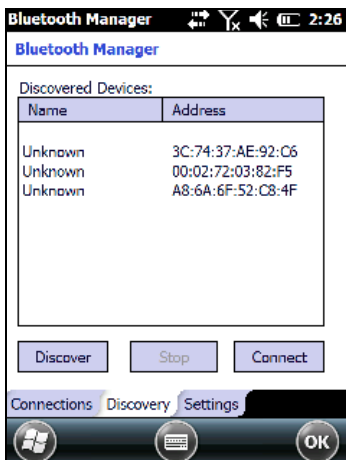
2. Search for available Bluetooth® devices by tapping the button for the type of device you want (Printer, Serial or All) or tap Discovery > Discover to skip this step. The Skorpio X3 will search for Bluetooth® devices within range.



**NOTE**

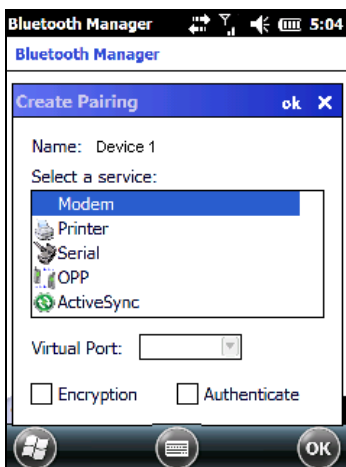
*If you attempt to set up a connection when the Bluetooth® radio is disabled, you will receive a message reminding you that the radio is turned off, and asking if you want to turn it on. Tap Yes if you need to enable the Bluetooth® radio.*

- Once searching is complete, Bluetooth® device Profiles will be displayed in the Discovery tab. You can set up a connection to a device in the list by selecting the device and then tapping the 'Connect' button:













To create a pairing:

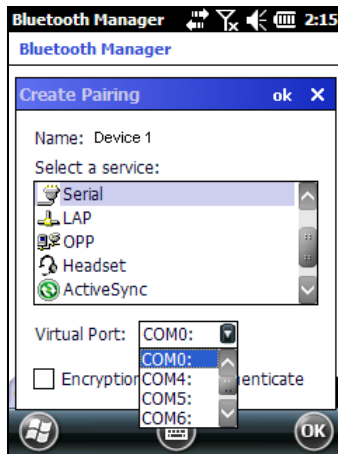
- Select a service:



- Configure any encryption, authentication, or virtual port options required by the service selected.

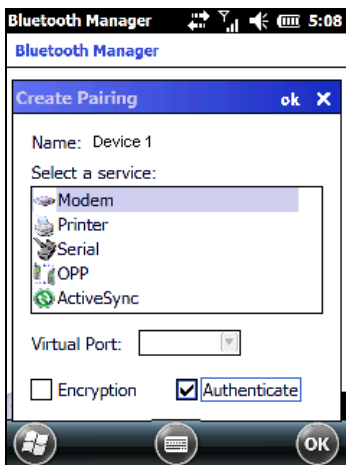
Icon	Service
	Dialup Networking
	Printer
	Object Push (OPP) Object Exchange (OBEX)
	ActiveSync
	Human Interface Device (HID) - Keyboard
	Serial
	Personal Area Network (PAN)
	Modem
	Headset
	Handsfree

Virtual Port allows you to specify the incoming port, which is used to communicate serially with an incoming device just as if it were a physical COM port. This option is available only if you have selected a Printer or Serial service.

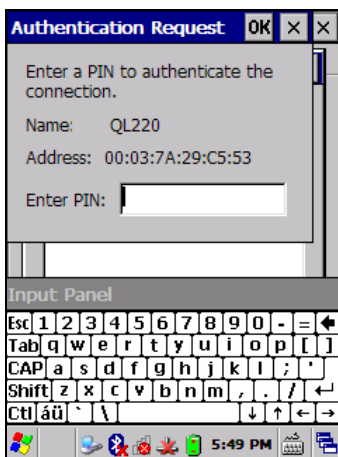


You can also select Encrypt or Authenticate from the Bluetooth® control panel to apply or modify those settings.

1. To require Authentication, check the checkbox, then tap OK.



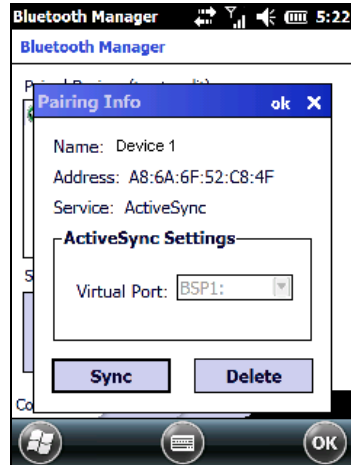
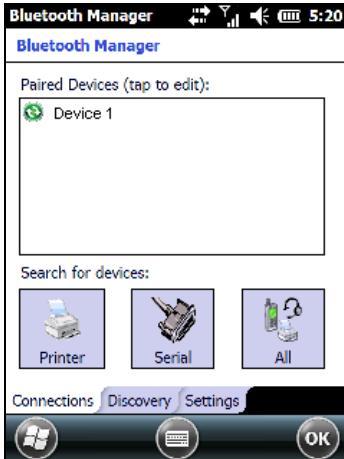
2. If required, the Authentication Request dialog will then open, requesting that you enter a PIN. Use the Input Panel or the keyboard to type the PIN.



3. Tap OK to complete.

The dialog will also appear when an Authentication request is received from another device.

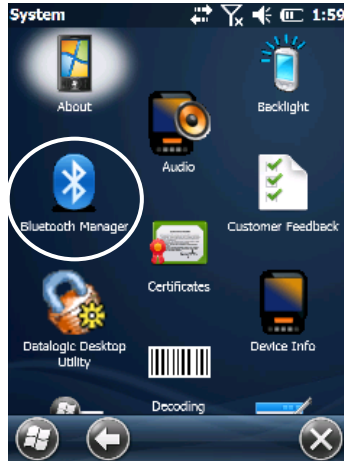
Once you have set up a Pairing, you can view the settings by double-tapping its name from the Connections tab. Tap the arrow to change the Virtual Port, or Delete to remove the device pairing. Tap Sync to initiate a Sync (available only if the service is an ActiveSync connection).



## Using your device to connect to the Skorpio X3

Before turning on Bluetooth®, ensure that the two devices are within close range and that both Bluetooth-enabled devices are discoverable.

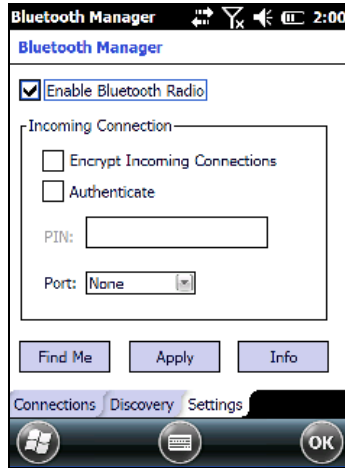
1. Tap Start > Settings > System > Bluetooth Manager to open the Bluetooth® control panel.



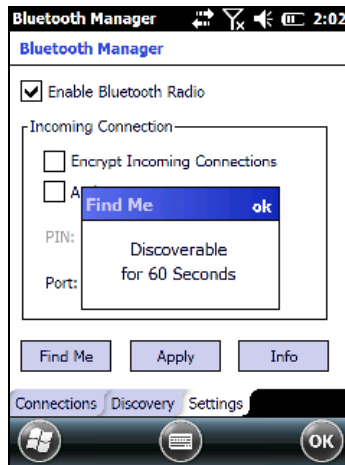
2. Tap Settings. The Settings tab allows you to enable or disable the Bluetooth® radio and specify settings for Incoming Connections.

3. Select or clear the “Enable Bluetooth Radio” check box.

If you're going to be attaching a serial device (i.e. a scanner) to the Skorpio X3, use the Port control to select a virtual COM port to use for the connection.



4. Tap 'Find Me' if you want to make the Skorpio X3 visible to other Bluetooth® devices for 60 seconds, allowing them to set up a connection.



**NOTE**

*By default, Bluetooth® is turned off. If you turn it on, and then turn off your device, Bluetooth® also turns off. When you turn on your device again, Bluetooth® turns on automatically.*



## 4.8 DATALOGIC FIRMWARE UTILITY

Datalogic devices are equipped with a field upgradeable firmware mechanism. Firmware updates are available on the Datalogic Mobile website (<http://www.adc.datalogic.com/>). After you have downloaded the desired update, there are several ways you can update the firmware on your device.

- Use Wavelink Avalanche™ if you have multiple Datalogic Mobile devices to update. Refer to the Product CD included with your device for more information.
- If Wavelink Avalanche™ is not available or you have only a few Datalogic Mobile devices to update, use the Datalogic Firmware Utility (DFU), described below, to install or update the firmware using an ActiveSync connection.

DFU can also be used to restore the firmware onto a device that has become corrupted (see par. 4.8.4).

The following sections provide procedures for the retrieval and installation of the most current firmware image onto a Datalogic device.

### 4.8.1 Retrieving a Firmware Image Update

The following instructions use Internet Explorer to retrieve the most current firmware image.

1. Launch Internet Explorer on your PC and navigate to the Datalogic Mobile website.
2. Navigate to the Downloads section of the website.
3. Select the file you want to download, then click Save to begin copying the files to your local machine (or local network location).

## 4.8.2 Installing DFU on the Host PC

Datalogic Firmware Utility (DFU) provides administrators with a field upgrade mechanism. You must have Microsoft® ActiveSync (for Windows XP devices) or Windows Mobile® Device Center (for Windows 7 and Vista devices) already loaded and running on the host PC to use DFU. Refer to par. 4.7.1 for more information about Windows Mobile® Device Center.

**NOTE**

*Prior to installing, you must remove any previous versions of DFU installed on the host PC.*

To install the Datalogic Firmware Utility, complete the following steps on the PC:

1. Insert the CD ROM shipped with your device into the PC and click on the link to install Datalogic Firmware Utility.  
OR  
  
Go to the Datalogic Mobile website and download the most current version of the Datalogic Firmware Utility. Unzip the file, then double-click to run `DFU_Setup.exe`.  
  
Click OK to continue once you have removed previous versions of DFU.
2. The Welcome to DFU Setup Program screen opens.
  - Please exit all Windows applications before running this installer.
  - Click Next to continue the Setup.
3. Follow the onscreen instructions to complete the installation.

### 4.8.3 Updating the Firmware

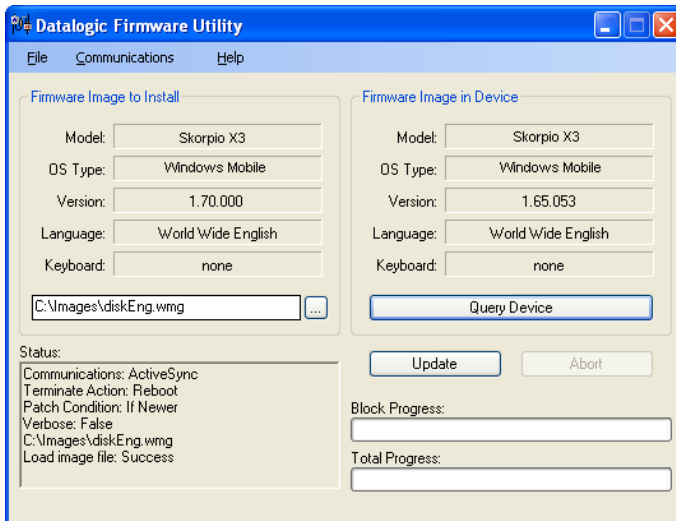
After copying the firmware image to the host PC (see par. 4.10.1) and installing DFU (see par. 4.8.2), you can upgrade the firmware on your Datalogic device.



**NOTE**

*The following steps require that you have already established an ActiveSync or Windows Mobile® Device Center connection between the host computer and the Datalogic device.*

1. Go to Start > Programs > DFU > Datalogic Firmware Utility.
2. Verify that ActiveSync is selected by clicking Communications > ActiveSync.
3. Click browse (...) and navigate to the location where you saved the firmware file for your terminal.



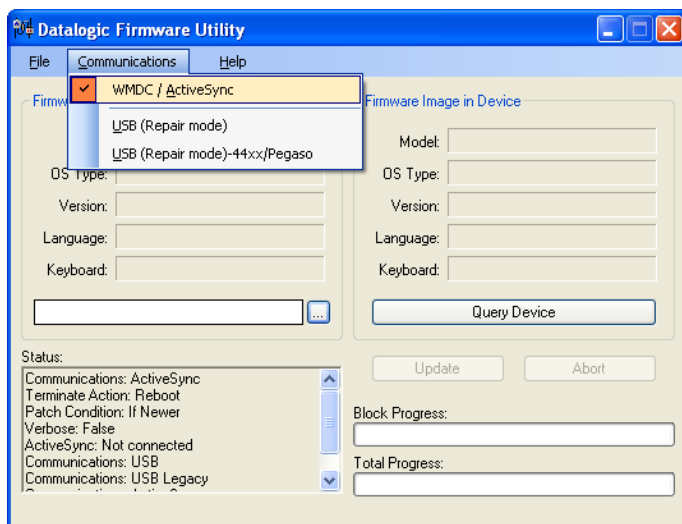
4. Select the current \*.wmg file and click Open.
5. Click Update.
6. DFU will compare the selected firmware image with the firmware already loaded on the device; if the images are different, DFU will proceed to update the firmware image on your device.
7. After the firmware of your device has been updated, DFU will automatically perform a warm reset of the device.

## 4.8.4 Repair Mode

If the firmware image on your device becomes corrupted, the device will beep twice and show a blank screen when powered on.

To reinstall the firmware, complete the following steps:

1. On the PC, click Start > Programs > DFU > Datalogic Firmware Utility.
2. From the Communications menu, select WMDC ActiveSync.



3. Click browse (...) and navigate to the file location.
4. Select the current \*.wmng file and click Open.
5. Verify that the device is turned on. Insert the device into a powered dock connected to the host computer.
6. Click Update.
7. DFU will restore the firmware on your device.

**NOTE**

*Please be patient and do not remove the device from the Dock during this procedure. The firmware image of the device can take as long as:*

- 12 minutes to download using a USB connection.*
- 22 minutes to download using a serial connection with 115K baud rate.*
- 130 minutes to download using a serial connection with 19.2K baud rate.*

8. After the firmware has been restored, your device will automatically reset.

## 4.9 DATALOGIC CONFIGURATION UTILITY

Datalogic Configuration Utility (DCU) is a Datalogic Windows-based utility tool allowing the uploading, modifying and downloading of a Datalogic brand Windows Embedded Handheld device. Configuration settings include Scanner, Control Panel, and Datalogic Desktop Utility (DDU). The DCU installer is available on the product CD which came with your device or from the Datalogic Mobile web page: (<http://www.adc.datalogic.com/>).

DCU functions in both direct (with an ActiveSync connection) and indirect (with Wavelink Avalanche™) modes.

In direct mode, connect a device through ActiveSync and then click on the Get from Device icon to receive the device's current configuration.

Once loaded, the Configuration tree (on the left side of the window) is used to navigate the device's configuration. The right side of the window is a work area where the values of different parameters may be set for each branch of the configuration tree. Click on the parameter group branch to open it and visualize the parameters you wish to modify.

After altering the device's configuration, the new configuration can be sent to the terminal by clicking on the Send to Device icon.

Reference the Wavelink Avalanche™ documentation on your Datalogic CD for a description of indirect mode for DCU, which will allow you to update the configuration of multiple devices simultaneously over Wi-Fi.

## 4.10 DATALOGIC DESKTOP UTILITY

Datalogic Desktop Utility (DDU) allows Datalogic Windows administrators to configure Windows CE and Embedded Handheld devices to control individual user access. This includes:

- Prevent users from changing your device OS settings.
- Use Application Selector to replace desktop with a selection of authorized applications.
- Internet Explorer access restriction, configuration and customized error recovery mechanisms.
- Create quick access hot keys and configure trigger actions.

To open the DDU for the first time, tap Start > Settings > System > Datalogic Desktop Utility or Start > Device tools > Datalogic Desktop Utility.

You can also get into DDU by pressing Alt-6.



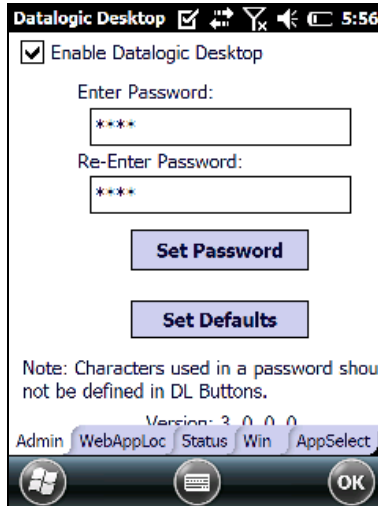
You can use DL Buttons to associate specific keys, such as <F1>-<F10>, with specific applications (see par. 4.6.3).

The “Alt + 6” is the button initially assigned to Datalogic Desktop Utility.

If you wish to assign this key to a different function, you must first select an unassigned Button and assign it to the function – “Datalogic Desktop Utility”. You can then go back and reassign the Button to something else.

## 4.10.1 Administrative Options (Admin tab)

When you open the DDU control panel, the “Admin” tab appears.



COMMAND	DESCRIPTION
Enable Datalogic Desktop	Select/tap this checkbox to activate the DDU functions such as Windows Access Restrictions and Application Selector.
Enter Password	Enter a password in the text box. This allows the user to specify a password when this utility is launched. By default the password is “1234”. A password can consist of all standard keyboard characters.
Re-Enter Password	Carefully re-enter the password in the second text box.
Set Password	Select/tap “Set Password” to enable the password. To change or remove the password, enter a new value, re-enter the new value, and select/tap “Set Password”.
Set Defaults	Select/tap “Set Defaults” to reset the default values of all the functions on all the tabs. After you select this option, you will receive a prompt to verify this selection.



## Setting a Password

To set a password:

1. Enter a password in the field. This allows the user to specify a password when this utility is launched. By default the password is "1234".



**NOTE**

*Be sure to record the Password for future reference.*

2. Re-enter the password in the second field.
3. Select/tap "Set Password" to enable the password.
4. Select/tap "OK" to close the "Set Password Confirmation" dialog.



**NOTE**

*You must select/tap "Set Password" prior to exiting DDU in order to store and activate your new password. It is not necessary to select "Enable Datalogic Desktop".*



**CAUTION**

*If you select/tap "Set Defaults" it will remove all custom settings and restore all the factory default settings, except a previously set password.*

## Changing a Password

To change to a new password:

1. Enter a new value in the "Enter Password field".
2. Re-enter the new value in the "Re-enter Password" field.
3. Select/tap "Set Password".

## Removing a Password

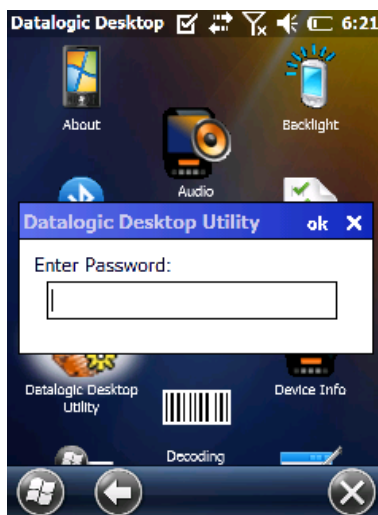
To remove a password:

1. Enter blanks in both “Password” fields.
2. Select/tap “Set Password”.

## Password Request Dialog Box

Once the password is set, the next time you open the “Datalogic Desktop Utility”, the DDU Password dialog box opens.

This dialog box will only open if a password was defined.



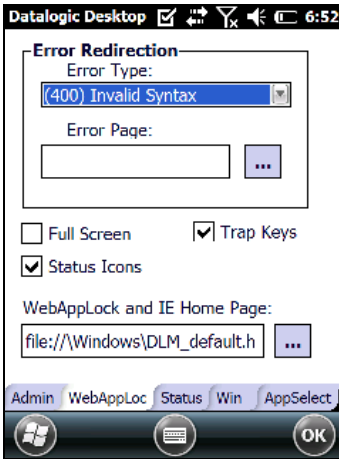
1. Type in your password using either the keypad on the unit, or using the stylus on the soft input panel (SIP).  
If you enter an incorrect password, the system will prompt you to input the correct one.
2. Select/tap “OK” to verify the password. Or tap “X” to cancel.

### 4.10.2 WebAppLock Options (WebAppLoc tab)

Tap the "WebAppLock" tab to access the WebAppLock Configuration options.

#### Error Page Redirection

Use the Error Redirection option to provide customized recovery from common errors. When an error occurs, the browser can redirect access to a specified error page with instructions on how to recover from the problem.



WebAppLock Configuration Tab



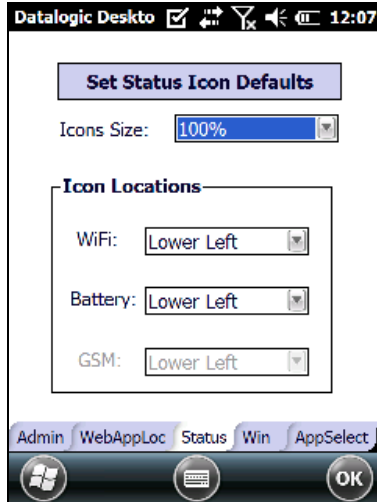
WebAppLock Window Features

Error Redirection options	
Error Type	The "Error Type" pull-down list displays available Error Types: (400) Invalid Syntax, (403) Request Forbidden, (404) Object Not Found, (406) No Response Format, (410) Page Doesn't Exist, (500) Internal Server Error, (501) Server Can't Do That, Generic Error, Network Disconnected
Error Page	Edit this textbox to associate a website or html file with the specified error.

<b>Other options</b>	
Full Screen	Set the web browser in full screen mode.
Status Icon	Enable or disable the status icons view (see par. 4.10.3).
Trap Keys	When checked, all key presses will be trapped by WebAppLock to prevent the user from accessing other parts of the system. DL Buttons keys will not work in WebAppLock when this box is checked. When unchecked, all system key presses, including DL Buttons keys, will work.

### 4.10.3 Status Icons Options (Status Tab)

Tap the “Status” tab to access the Status Icons option. You can configure the view of some status icons that are used in “WebAppLock” and in “Application Selector” to display the status of: wi-fi radio, battery and GSM.

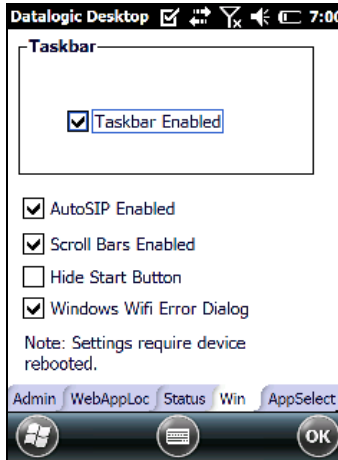


Status Icons Options	
Set Status Icon Defaults	Restores the status icons' factory settings.
Icon Size	Sets the status icons' size.
Icon Location	Selects the preferred location for each status icon.

#### 4.10.4 Windows Controls

Select/tap the “Win” (Windows Controls) tab to access the Windows Controls option. Use Windows controls to allow or restrict access to Windows system functions.

You can disable normal Windows functions such as the taskbar, leaving nothing but a blank workspace. This allows applications to be run on the full screen and prevents users from accidental or unauthorized use of the taskbar, Internet Explorer, and any other resident applications.



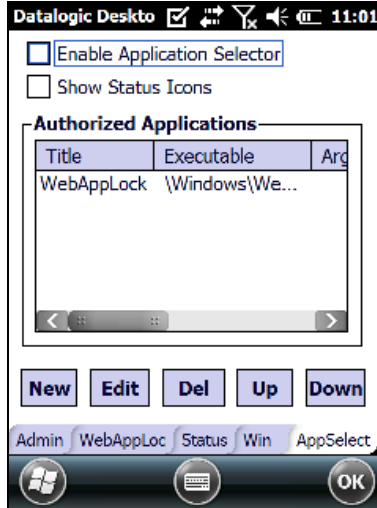
<b>WINDOWS CONTROLS</b>	
Taskbar Enabled	Select/tap “Taskbar Enabled” to specify whether the taskbar is accessible. This option is only available when the “Show Taskbar” is checked.
AutoSIP Enabled	Enables the AutoSIP Windows feature.
Scroll Bars Enabled	This control only take effects in WebAppLock. When checked, displays horizontal and vertical scroll bars to help view large web pages which do not fit the screen. When unchecked, those scrolls will not be present.
Hide Start Button	Select/tap “Hide Start Button” to specify whether the Start Button is displayed or not. This option works only when “Task Bar Enabled” is checked.
Windows Wifi Error Dialog	<p>This control only takes effects in WebAppLock and Internet Explorer.</p> <p>When checked, the device will display a warning dialog when the WiFi connected device moves out of range of an access point and the user attempts to navigate to a web page. This dialog box allows the user to reconfigure the wifi on the device.</p> <p>When unchecked, that dialog box will not appear and the “Network Disconnected” error page redirection is used to prevent users from reconfiguring the wifi on the device. Tap the “WebAppLock Configuration Tab” to configure the “Network Disconnected” error page redirection (see par 4.10.2).</p>

**NOTE**

*Settings require device rebooted*

### 4.10.5 AppSelector Options (AppSelect tab)

Tap the Application Selector (“AppSelect” Tab) to edit, add, or delete applications for the application selector.



Application Selector Options	
Enable Application Selector	Select/tap “Enable Application Selector” to enable/disable the application selector. When this is enabled, the Application Selector replaces the desktop and allows only authorized use of applications.
Authorized Applications	This is a list of applications that the user may access.

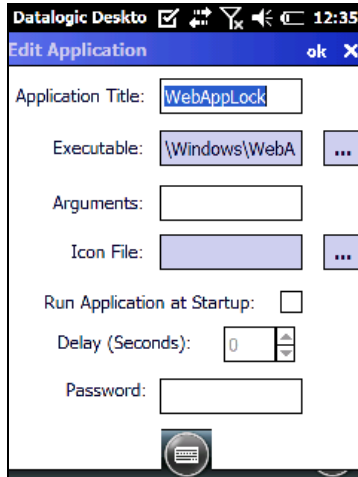
Application Selector Commands	
New	Select/tap “New” to create a new application entry.
Edit	Select/tap “Edit” to edit the selected entry.
Del	Select/tap “Del” to delete the selected entry.
Up/Down	Select/tap “Up/Down” to move an entry up or down in the ListView





## Add Applications

The “Add Application” dialog opens when you tap either “New” or “Edit”. From the “Add Application” dialog the administrator can configure and/or add/change an a new application entry in the list.

Applications with the “Run Application at Startup” option enabled will start automatically when the Application Selector starts up.



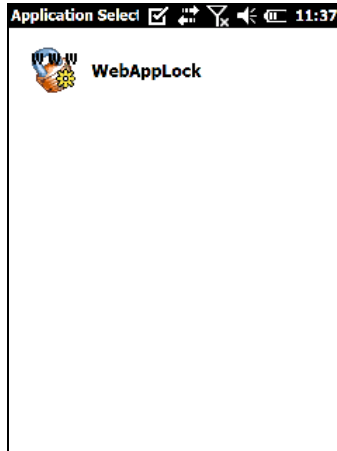
COMMAND	DESCRIPTION
Application Title	Type the name of the application in this textbox in the way you wish it to appear for the user.
Executable	Displays the path for the executable file which you want to run.
Browse	Select/tap  to browse for the desired executable file. The results of this search are placed in the “Executable” textbox.
Arguments	Type any command line arguments to be used when an application is executed.
Icon File	Displays the path/link to the desired icon file.

COMMAND	DESCRIPTION
Browse	Select/tap  to browse for the desired icon file. The results of this search are placed in the "Icon File" textbox.
Run Application at Startup	Select/tap this box to force this application to auto start when the Application Selector starts up. Applications will be started in the order listed in the authorized application list.
Delay	Enter a delay duration in seconds in the combo box. This option delays auto start of application(s) to allow drivers to load prior to starting applications.
OK	Select/tap "OK" to add/save changes.
X	Select/tap "X" to cancel the creation of this entry.

## 4.11 APPSELECTOR (APPLICATION SELECTOR)

The Application Selector is an application that allows a device to run in kiosk mode. The administrator can choose for the user to have access to the desktop or not. The Application Selector can replace the desktop and limit the user to the specified list of applications.

By default, the Application Selector comes with the WebAppLock preset.



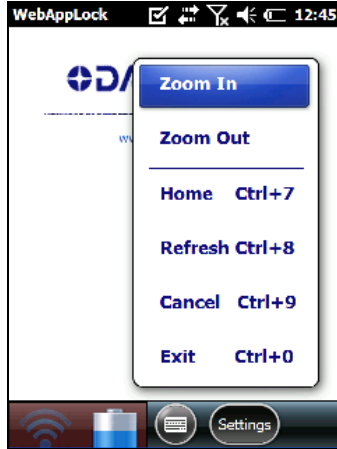
The administrator can customize this list as shown in chapter 4.10.5.

To run an application, tap on its name.

To exit from Application Selector, press ALT + 6, uncheck the 'Enable Application Selector' check box on the AppSelect Tab and press OK to exit DDU.

## 4.12 WEBAPPLock (LOCKED WEB BROWSER)

WebAppLock is a web browser that creates a restricted internet usage environment. It prevents the user from exiting the web application/ website set by the administrator.



### NOTE

Zoom In and Zoom Out will only affect screen text and not bitmaps.

If the taskbar has been disabled, the Settings menu is not displayed. However, the user can still navigate within the web application by using the following keyboard shortcuts:

Home	Ctrl + 7
Refresh	Ctrl + 8
Cancel	Ctrl + 9
Exit	Ctrl + 0

For firmware versions 1.60 and greater, the following command line arguments are supported:

- /E optional parameter which allows for Exit without entering a password
- @URL optional parameter which specifies a URL to use as a home page.
- /C optional parameter which disables the ctrl keys (including the one to exit).
- /W optional parameter which allows for a performance boost. When present, only WIFI error redirection will function.
- /T0 optional parameter which sets the initial text size to 0 on a scale of 0 to 4. (Default when not set is 1). The value can later be adjusted when not in full screen mode using the "Font Size +" and "Font Size -" menu options.
- /T1 optional parameter which sets the initial text size to 1 on a scale of 0 to 4. (Currently does nothing) The value can later be adjusted when not in full screen mode using the "Font Size +" and "Font Size -" menu options.
- /T2 optional parameter which sets the initial text size to 2 on a scale of 0 to 4. (Default when not set is 1). The value can later be adjusted when not in full screen mode using the "Font Size +" and "Font Size -" menu options.
- /T3 optional parameter which sets the initial text size to 3 on a scale of 0 to 4. (Default when not set is 1). The value can later be adjusted when not in full screen mode using the "Font Size +" and "Font Size -" menu options.
- /T4 optional parameter which sets the initial text size to 4 on a scale of 0 to 4. (Default when not set is 1). The value can later be adjusted when not in full screen mode using the "Font Size +" and "Font Size -" menu options.

## 4.12.1 WebApplock Special Meta-tags

### General Meta-Tag Comments

A meta-tag is a special HTML tag that is used to store information about a Web page but is not displayed in a Web browser. For example, meta tags provide information such as what program was used to create the page, a description of the page, and keywords that are relevant to the page.

As per the HTML specification, all meta-tags must be contained within a <head> ... </head> tag set.

Also, the head tag set must be complete within the first 15K of the web page.

The Datalogic WebAppLock defines some special meta-tags that allows the web application to interact with the device:

In particular, the special meta-tags allow to:

- enable/disable the scan engine triggers
- enable/disable specific codes groups in the scan engine
- easily handle the keys pressing

The trigger, decoding and DL\_Keys meta tags stay in scope beyond the page they are defined in until a later page changes them.

### Trigger Meta-tag

DL\_Triggers – “Enable” or “Disable” all triggers

If the page contains this tag, the triggers are enable or disable depending on the “content=” value.

Example:

```
<meta http-equiv="DL_Triggers" content="Disable">
```

## CGI Error Meta-tag

DL\_CGIErrror – Overrides DDU error page redirection and replaces it with a reference to a CGI script which is passed the error number as an argument.

Content – A CGI URL with variable name argument in place. The name of both the CGI function and the error number variable is completely configurable by the user. Do not put an '=' at end of the URL.

HTTP header error numbers are returned if they are greater than or equal to 300. For example, '404' is returned if object is not found on the server. In addition the following WebAppLock specific error numbers are returned:

Error Number	Error Condition
1000	WiFi is disconnected
2000	Failed to open internet connection with WiFi
3000	Failed to connect to server
4000	Failed to open page on server
5000	Failed to send query to page on server
6000	Failed to receive query from page on server
7000	Failed to find file on device

Warning: Error redirection from the WebAppLock tab in DDU will be ignored if a page has this meta-tag defined.

Example:

```
<meta http-equiv="DL_CGIErrror" content="http://www.SOMEWHERE.org/cgi-bin/errorpage.plx?errornum">
```

In the event of a 404 error (object not found on the server), WebAppLock will navigate to the following URL:

<http://www.SOMEWHERE.org/cgi-bin/errorpage.plx?errornum=404>

### GetSerialNumber Meta-tag

DL\_GetSerialNumber – Obtains the device serial number and sends it as an argument to a customer's javascript function.

Content – name of function to pass serial number to.

Example:

```
<meta http-equiv="DL_GetSerialNumber" content="Javascript:CustomerFunction">
```

When this page is loaded the specified javascript function with the device serial number as the only argument (such as CustomerFunction('D10P00031')).

### OnPowerResume Meta-tag

DL\_OnPowerResume – Invokes the specified javascript function upon power resumption on the device.

Content – The URL to the JavaScript function to be called upon resume.

Example:

```
<meta http-equiv="DL_OnPowerResume" content="Javascript:PowerUp()>
```

### Reboot – Warm boot device Meta-tag

DL\_Reboot – Warm boot device.

Content – "OnPageLoad" – Warm boot immediately upon page load. In future might have more content options.

Example:

```
<meta http-equiv="DL_Reboot" content=" OnPageLoad ">
```

### Exit Meta-tag

DL\_Exit – Exit WebAppLock.

Content – "OnPageLoad" – Exit immediately upon page load. In future might have more content options.

Example:

```
<meta http-equiv="DL_Exit " content=" OnPageLoad ">
```



**Decoding meta-tags:**

Each decoding meta-tag has a possible content of “Enable” or “Disable”. The settings are valid for the entire page (enable/disable each symbology).

DL\_Code\_39  
DL\_Code\_128  
DL\_Code\_I25  
DL\_Code\_S25  
DL\_Code\_M25  
DL\_Code\_CODABAR  
DL\_Code\_93  
DL\_Code\_UPCA  
DL\_Code\_UPCE  
DL\_Code\_EAN13  
DL\_Code\_EAN8  
DL\_Code\_MSI  
DL\_Code\_MSR  
DL\_Code\_GS1\_14  
DL\_Code\_GS1\_LIMIT  
DL\_Code\_GS1\_EXP  
DL\_Code\_16K  
DL\_Code\_49  
DL\_Code\_PDF417  
DL\_Code\_DATAMATRIX  
DL\_Code\_MAXICODE  
DL\_Code\_TRIOPTIC  
DL\_Code\_PHARMA39  
DL\_Code\_RFID  
DL\_Code\_MICROPDF417  
DL\_Code\_COMPOSITE  
DL\_Code\_QRCODE  
DL\_Code\_AZTEC  
DL\_Code\_POSTAL

Some examples:

```
<meta http-equiv="DL_Code_39" content="Disable">  
<meta http-equiv="DL_Code_I25" content="Enable">
```

## Key press Metatags

The key press meta-tags can be used to call JavaScript functions. They have the name structure: "DL\_Key\_xxx" where xxx is the VKey code.

Example:

```
<meta http-equiv="DL_Key_13" content="Javascript:CheckEnter();">
```

If one of this tag is present, the pressure of this key is handled at level of page, independently from the currently focused item.

Refer to the Microsoft website to find the list of all the possible Vkey codes:

<http://msdn.microsoft.com/en-us/library/bb431750.aspx>

[http://msdn.microsoft.com/en-us/library/aa243025\(VS.60\).aspx](http://msdn.microsoft.com/en-us/library/aa243025(VS.60).aspx)



**NOTE**

*The DL\_Keys meta tag can exist past the page they are defined in, hence the existence of the DL\_Clear meta-tag, that allows to clear all the settings and statuses.*

## Scanning Metatags

DL\_Scan – Captures scan results and sends barcode/tag value to a javascript function on the web page.

If the "content=" value is a javascript function the device will be taken out of keyboard wedge mode and start listening for scan events. A scanned barcode/tag result will be used as an argument to that javascript function which is then invoked.

If the "content=" value is "Wedge" then the device will stop listening for scanned event and enter keyboard wedge mode.

If the "content=" value is "Disable" then the device will stop listening for scanned events but not enter keyboard wedge mode.

Example:

```
<meta http-equiv="DL_Scan" content="Javascript:ValidateInput()">
```

## 4.13 AUTOSTART

The AutoStart program provides three functions:

- Allows you to create a list of applications (with optional command line arguments) to run automatically prior to loading CAB files.
- Automatically reinstalls specified CAB files when the Skorpio X3 10 is cold booted.
- Allows you to create a list of applications (with optional command line arguments) to run automatically after loading CAB files.

AutoStart launches each time the Skorpio X3 is rebooted executing each line with the specified command line arguments. It will take into account any AutoStart options at the beginning of the line.

Upon a Cold Boot, AutoStart installs all the CAB files located in the \FlashDisk\CAB folder. If the CAB folder does not exist, no CAB files will be installed.

AutoStart will then run the **Autostart.ini** from the \FlashDisk directory, executing each line with the specified command line arguments. It will take into account any AutoStart options at the beginning of the line.

### 4.13.1 Installing CAB files

Copy any CAB files you want to install into the \FlashDisk\CAB folder. These CAB files will then be automatically in-stalled in alphabetical order the next time you start the device.

### 4.13.2 How AutoStart Uses Wceload



#### NOTE

*If you intend to create highly interactive installers, you should either install the CABs manually or review the section on “Interactive CAB Install” in this chapter..*



#### CAUTION

*In certain environments, CAB files will be deleted after execution. To prevent the CAB file from being deleted, write protect the file before copying the file onto the device.*

CAB files are installed by AutoStart using the **Wceload.exe** application. The following table shows available command line option:

Option	Description
/noui	Specifies that you will not be prompted for any input during the installation. If the CAB file is signed, any responses will automatically be answered ‘Yes.’ If the CAB is unsigned, then any responses will be answered ‘No.’
/silent	Suppresses dialog boxes during the installation.

Please refer to the Microsoft documentation on your device for further details on **Wceload.exe**.

#### Sample:

```
\Windows\Wceload.exe /delete 1 /noui /silent
“\FlashDisk\CAB\”
```

### 4.13.3 Interactive CAB Install

- If the CAB installer requires user interaction that must be performed during the AutoStart CAB installation process, you can specify a special file name to disable the silent mode installation. If this mode is specified, the CAB file will be installed with `wceload` without any command line arguments specified.

An example of what AutoStart would execute is:

```
\Windows\Wceload.exe <cab file>
```

To force this mode of installation via AutoStart, rename the CAB file to include a '\_' character before the ".cab" extension of the file.

**Example:**

"**File.cab**" should be renamed "**File\_.cab**" to force AutoStart to not install the CAB in silent mode. This specially-named CAB file should be placed in the AutoStart folder with other CAB files intended for installation on the next reboot.

### 4.13.4 Autostart.ini



**NOTE**

*A file named 'PreAuto.ini' can also be created in addition to or instead of Autostart.ini. PreAuto.ini is executed before CAB files in the \FlashDisk\Cab folder are installed. Autostart.ini is executed after CAB files in the \FlashDisk\Cab folder are installed. The format for the PreAuto.ini is identical to that of Autostart.ini.."*

Autostart.ini is a text file that AutoStart will run upon startup of the Skorpion X3, and after any CAB files are installed. This file should be placed in the \FlashDisk folder. AutoStart will run the Autostart.ini file on each reboot of the device.

### Line Formatting

Each line of the **Autostart.ini** can consist of Autostart options, an executable, and any command line arguments.

```
< Autostart option(s)> <full path to executable>  
<command line arguments>
```

**Sample:**

```
- \windows\pword.exe \file.doc
```

The following table breaks down the sample Autostart.ini line:

Autostart option(s)	Full path to executable	Command line arguments
-	\windows\pword.exe	\file.doc

Spaces must be placed between each component of the line in the Autostart.ini.

If the executable path is in a folder that contains spaces in the name, quotes are required to distinguish what the actual executable name is. The following is an example of this:

```
"\Program Files\ScannerApp.exe" /run  
(valid)  
\Program Files\ScannerApp.exe /run  
(invalid)
```

The second line is an invalid line because there is no way to distinguish the executable from the argument.

## AutoStart Options

The table below shows options you can use when writing a line in the Autostart.ini file.

Description	Character	Comments
Comment: This line will not be executed.	# OR ' (space)	This may only be used as the first character of the line. If the comment option is specified in the options elsewhere, it is ignored.
Do not wait on line completion: This will cause the line to execute and immediately move onto the next line.	,	
Query: Request user confirmation when running the executable.	?	This will halt parsing the Autostart.ini until the confirmation is answered. This is intended for debugging the Autostart.ini file.
Execute only on Cold Reset	!	
Execute only after a warm boot	%	

**Cold Reset Only:** This will cause the line to execute only after a Cold Reset.



**NOTE**

*An empty line will be treated as a comment line.*

## Combining Options

Autostart options can be combined together as shown in the following sample:

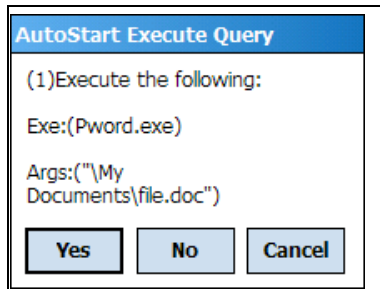
```
?- \Windows\Pword.exe
```

This line would:

- Request confirmation before executing the line. The next line would not be processed before the confirmation is answered.
- Run the next line without waiting on the current line to complete execution.

## Query Option

The query option is intended for use when debugging the autostart.ini. When a line with this option is executed, the following dialog will appear with the specified executable and command line arguments. The populated fields shown in the AutoStart Execute Query are described the next table:



Field	Description
Line Number	This is the line number in the script being executed.
Exe	The executable as parsed by AutoStart.
Args	The argument as parsed by AutoStart.



**NOTE**

*The fields may be broken up into multiple lines (as shown in the example) due to limited space in the dialog.*

**AutoStart Query Options**

Parentheses are used to surround the given field and make it very clear what the value of the field is.

The following table describes the results of each choice:

Button	Action
Yes	The current line will execute.
No	The current line will not execute. AutoStart will continue parsing the Autostart.ini.
Cancel	The current line will not execute and AutoStart will discontinue parsing the Autostart.ini.

## Autostart.ini Samples

The next table is a collection of sample Autostart.ini lines:

Line	Description
? \windows\wceload.exe "My Documents\Sample.cab"	This will confirm the execution of \Windows\wceload.exe with specified argument "My Documents\Sample.cab"
\Program Files\App.exe	(invalid) This will execute \Program with the argument Files\App.exe.
\Program Files\App.exe /run	(invalid) This will execute \Program with the argument Files\App.exe /run.
"\Program Files\App.exe" /run	This will execute the program \Program Files\App.exe with the argument /run.
?- \Windows\Pword.exe	This will confirm the execution of \Windows\Pword.exe. If the execution is confirmed, AutoStart will immediately process the next line.
!"\Program Files\App.exe" /run	This will execute the program \Program Files\App.exe with the argument /run ONLY after a Cold Reset.

## 5 TECHNICAL FEATURES

### 5.1 TECHNICAL DATA

PHYSICAL CHARACTERISTICS	
DIMENSIONS (LxWxH)	Handheld: 193 x 76 x 42 mm, 61 x 35 at keyboard / 7.6 x 3 x 1.6 in, 2.4 x 1.4 in Pistol Grip: 193 x 76 x 156 mm / 7.6 x 3 x 6.2 in
WEIGHT	Handheld: 392 g / 13.8 oz., including standard battery Pistol Grip: 482 g / 17 oz., including standard battery
AUDIO	Headset (not provided; it requires a HandyLink adapter) Main (rear) speaker Receiver (front) Speaker
LEDS	Three LEDs Decoding Status/ Keyboard Status/ Charging Status
DISPLAY	Reflective TFT daylight readable colour display, 320 x 240 pixels (3.2" diagonal), 65K colours, backlit, touch screen
KEYBOARD	numeric 28keys, full-alphanumeric 50keys, alpha-numeric 38keys; Dimmable backlight
OPERATING TEMPERATURE*	-10° +50°C (14° to 122°F)
STORAGE TEMPERATURE	-20° +70°C (-4° to 158°F)
HUMIDITY**	95% non condensing for temperatures < 40 °C
DROP RESISTANCE***	Withstands drops from 1.5 m (5 ft) onto concrete
ENVIROMENTAL SEALING	IP64 standard for water and dust resistance
ESD PROTECTION	4 KV contact discharge, 8 KV air discharge

\* Skorpio X3 (including spare battery) should be charged at an ambient temperature between 0 - 35° C to achieve the maximum charging rate. Never charge the main device or spare batteries in a closed space where excessive heat can build up  
Close to the limits of the working temperature, some display and/or battery performance degradation may occur.

\*\* Multiple rapid humidity and/or temperature variations may cause condensing.

\*\*\* Multiple drops can permanently damage the device.

<b>SYSTEM</b>	
OPERATING SYSTEM	Microsoft Windows Embedded Handheld 6.5 with Office Mobile 2010: Outlook, Word Mobile, Excel Mobile, PowerPoint Mobile, One Note Mobile and Internet Explorer Mobile 6.0
MICROPROCESSOR	XScale™ PXA310 @ 624 MHz
SYSTEM RAM MEMORY	512 MB
SYSTEM FLASH MEMORY	256 MB
POWER SUPPLY*	Removable battery pack with rechargeable Li-ion batteries; 3.7 V 3000/5200 mAh (11.10/19.24 Watt hours); micro USB power adapter for direct charge and power supply
<b>COMMUNICATIONS</b>	
INTERFACES	HandyLink connector: Integrated RS232 up to 115.2 Kbps, USB 1.1 Client, USB 1.1 Host
LOCAL AREA NETWORK (LAN)	Summit IEEE 802.11a/b/g Frequency range: Country dependent, typically 2.4 and 5.2 GHz CCX v4 Security
PERSONAL AREA NETWORK (PAN)	Bluetooth® Wireless Technology IEEE 802.15 Class 2 with EDR

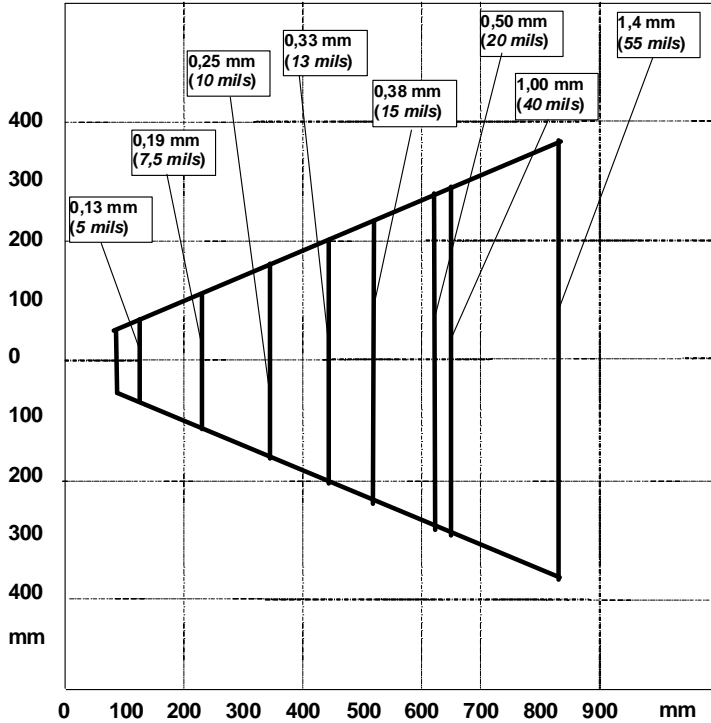
\* Use only DL approved battery packs power adapters.

<b>READING OPTIONS</b>	
<b>LASER CHARACTERISTICS</b>	
SCANNING RATE	104 ± 12 scan/sec
OPTICAL RESOLUTION	0.10 mm / 4 mils
DEPTH OF FIELD	See reading diagrams (5.2)
SKEW ANGLE	± 50°
PITCH ANGLE	± 65°
LASER READER	VLD, wavelength 630~670 nm
BAR CODES	GS1 DataBar family, EAN/UPC, Code 39, 2/5 Codes, MSI, Codabar, Code 128, GS1-128, Code 93, Code 11, Pharmacode 39, Trioptic
LASER CLASSIFICATION	VLD - Class 2 IEC/EN 60825-1. Compliant with 21 CFR 1040-10 except for deviations pursuant to laser notice n. 50, dated June 24, 2007
<b>IMAGER CHARACTERISTICS</b>	
SCANNING RATE	60 frames/sec maximum
OPTICAL RESOLUTION	Linear codes 4 mils; 2D codes 5 mils
AIMING LASER	VLD, wavelength 640~660 nm
BAR CODES	UPC/EAN, 2 of 5 family, Code 39, Codabar, Code 128, GS1-128, Code 93, MSI, PDF417, MicroPDF417, Data Matrix, QR Code, GS1 DataBar family, Aztec Code, MaxiCode, Pharmacode 39, Trioptic, Composite, US POSTNET, US PLANET, USPS Intelligent Mail, Royal Mail RM4SCC, UPU FICS, Australian Post, KIX Code, Japanese Post
LASER CLASSIFICATION	VLD - Class 2 IEC/EN 60825-1. Compliant with 21 CFR 1040-10 except for deviations pursuant to laser notice n. 50, dated June 24, 2007
LED CLASSIFICATION	Exempt risk group IEC/EN 62471
ILLUMINATION SYSTEM	LEDs 600~630 nm

## 5.2 READING DIAGRAMS

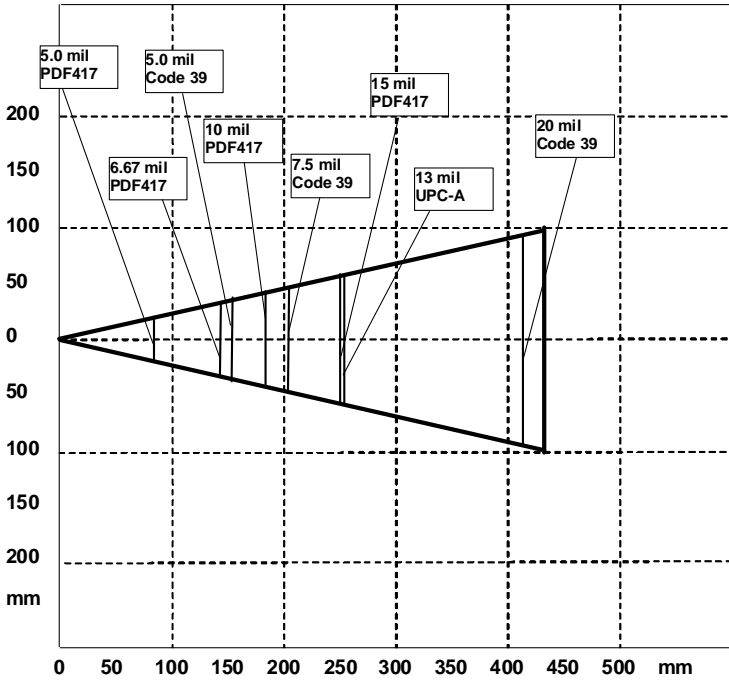
### Skorpio X3 SE950-DL

Guaranteed Reading Diagram – measured from the device nose ( $10^\circ$  skew angle)



### Skorpio X3 SE4500-DL

Guaranteed Reading Diagram – Measured from the device nose (10° skew angle)



## 6 TEST CODES

---

### High Density Codes

0.25 mm (10 mils)

Code 39



17162

2/5 Interleaved



0123456784

Code 128



test

---

EAN 13



8 012345 000012

EAN 8



6450 9723



### Medium Density Codes

0.38 mm (15 mils)

Code 39



17162

Interleaved 2/5



0123456784

Code 128



test

---

EAN 13



8 012345 000012

EAN 8



6450 9723

## Low Density Codes

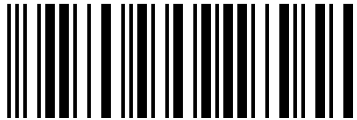
0.50 mm (20 mils)

Code 39



17162

Interleaved 2/5



0123456784

Code 128



test

---

EAN 13



8 012345 000012

EAN 8



6450 9723

### 2D Codes

Datamatrix ECC200



Example

Inverse  
Datamatrix ECC200



Example

## DECODING PARAMETERS

---

This section contains information about programmable settings for the Skorpio X3™. Use the Skorpio X3™ Management Utility (FMU), the Scanner Control Panel applet, the Imaging Control Panel applets to program the Skorpio X3™.

It provides the following information:

- **Code Parameter** is the “human” name for the programming option.
- **I.D. #** is the “decoder” name for the programming option. For example, to set a Code 39 minimum label length, use I.D. 0120. Programming I.D. numbers given in this appendix can be used with all programming methods. Note that the Programming I.D. numbers are provided in hexadecimal notation.
- **Type** tells what kind of setting to use for each code parameter.
- **On/Off** is a toggle. **1** turns the parameter on, and **0** turns it off.
- **Acceptable Input** gives the settings or range of settings for each code parameter.
- **Defaults** indicates how the parameter is set when the predefined default **FF39**, **FF3A**, or **FF3B** is selected.
- **Minimum (FF39)** turns every on/off parameter off and sets all minimum and Maximum Label Lengths to the lowest values.
- **Maximum (FF3A)** turns every on/off parameter on, sets all Minimum Label Lengths to the lowest values, and sets all Maximum Label Lengths to the highest values. Use this default for troubleshooting; it provides the best settings for reading an unknown code symbology and can identify the symbology of scanned bar codes.
- **Factory (FF3B)** is the factory setting installed on the Skorpio X3™. This default set will work for most applications. To reset the Skorpio X3™ the original defaults, scan the **Factory** bar code
- **Scanner Type** shows, with a checkmark, which modules support the specified parameter.

## PROGRAMMING CODES WITHOUT PARAMETERS

The following table describes the functions of special bar codes that take no parameters:

Code Parameter	I.D. #	Function
Defaults Minimum	FF39	Turns every On/Off parameter off and sets all minimum and Maximum Label Lengths to the lowest values.
Defaults Maximum	FF3A	Turns every On/Off parameter on and sets all minimum and Maximum Label Lengths to the highest values. This default set is normally used only for troubleshooting. It gives the best chance of reading an unknown bar code symbology and also identifies the symbology of each bar code scanned.
Defaults Factory	FF3B	This is the default parameter settings that was installed at the factory. This default set will work for most applications.
Defaults Registry	FF3C	This restores all parameter settings to the values that exist in the Registry. This is useful for restoring parameters to a known working set of values which have been saved using code parameter FF3F.
Exit and Restore	FF3D	Stops a label programming sequence and restores all parameter settings to the values that exist in the Registry.
Exit and Save	FF3E	Stops a label programming sequence. The last valid parameter settings are left intact.
Exit and Commit	FF3F	Stops a label programming sequence and writes all parameter settings into the Registry. This can be used to save a customized set of parameter settings for restoring later via parameter FF3C.

## BAR CODE PARAMETERS

The following table lists the standard customer programmable settings for the Skorpion X3™:

### Codabar

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
				<b>Enter 1 for On and 0 for Off</b>				
<b>Enable</b>	Enables/disables the Codabar symbology.	0300	On or Off	Off	On	On	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0301	On or Off	Off	On	Off	√	
<b>Enable Checksum</b>	Requires the use of checksum characters to verify a bar code.	0302	On or Off	Off	Off	Off	√	√
<b>Send Checksum</b>	Instructs the terminal to include the checksum in the label transmission.	0303	On or Off	Off	Off	Off	√	√
<b>Send Start/ Stop</b>	Instructs the decoder to transmit the decoded start and stop characters of Codabar labels. The start and stop characters will both be translated as A, B, C, or D.	0305	On or Off	Off	On	Off	√	√
<b>Convert to CLSI</b>	Restricts the Codabar decoder to only read labels that conforms to CLSI specifications. Label length must be 14, and the data is split into fields of 1, 4, 5, and 4 characters separated by spaces.	0306	On or Off	Off	Off	Off	√	√
<b>Allow Wide Intercharacter Gaps</b>	Allows wide gaps to appear between characters in a label.	0307	On or Off	Off	On	On	√	√
<b>Minimum Label Length</b>	Set the minimum label length to be less than or equal to maximum label length.	0320	01 - 50	01	01	04	√	√

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
<b>Maximum Label Length</b>	This feature specifies the maximum allowable length of a Codabar label. The length includes check and data characters. Maximum Label Length should be greater than or equal to Minimum Label Length.	0321	01 - 50	01	50	20	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0322	01 - 04	01	02	01	√	√
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0323	Any single ASCII character (00 = Off)	'1'	'1'	'1'	√	√

# Code 39

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/disables the Code 39 symbology.	0100	On or Off	Off	On	On	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0101	On or Off	Off	On	Off	√	
<b>Enable Checksum</b>	Requires the use of checksum characters to verify a bar code.	0102	On or Off	Off	Off	Off	√	√
<b>Send Checksum</b>	Instructs the terminal to include the checksum in the label transmission.	0103	On or Off	Off	Off	Off	√	√
<b>Full ASCII Mode</b>	Supports the entire ASCII character set by replacing various encoded ASCII characters with their corresponding.	0105	On or Off	Off	On	On	√	√
<b>Minimum Label Length</b>	Set the minimum label length to be less than or equal to maximum label length.	0120	01 - 50	01	01	01	√	√
<b>Maximum Label Length</b>	This feature specifies the maximum allowable length of a Code 39 label. The length includes check and data characters. Maximum Label Length should be greater than or equal to Minimum Label Length.	0121	01 - 50	01	50	20	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0122	01 - 04	01	02	01	√	√
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0123	Any single ASCII character (00 = Off)	'C'	'C'	'C'	√	√



## Pharmacode 39 (Code 32)

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/ disables the Pharmacode 39 (Code 32) symbology.	0110	On or Off	Off	On	Off	√	√
<b>Send Checksum</b>	Instructs the terminal to include the checksum in the label transmission.	0112	On or Off	Off	Off	Off	√	√
<b>Send Start/ Stop</b>	Instructs terminals to prefix a Pharmacode 39 label with an "A" prior to transmission.	0113	On or Off	Off	On	Off	√	√
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent by the decoder when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0127	Any single ASCII character (00 = Off)	‘Y’	‘Y’	‘Y’	√	√

# Trioptic

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/disables the Trioptic symbology.	0108	On or Off	Off	On	Off	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0109	On or Off	Off	On	Off	√	
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0124	01 - 04	01	02	01	√	√
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0125	Any single ASCII character (00 = Off)	'X'	'X'	'X'	√	√

# Code 93

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/disables the Code 93 symbology.	0400	On or Off	Off	On	Off	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0401	On or Off	Off	On	Off	√	
<b>Minimum Label Length</b>	Set the minimum label length to be less than or equal to maximum label length.	0420	01 - 50	01	01	02	√	√
<b>Maximum Label Length</b>	This feature specifies the maximum allowable length of a Code 93 label. The length includes check and data characters. Maximum Label Length should be greater than or equal to Minimum Label Length.	0421	01 - 50	01	50	20	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0422	01 - 04	01	02	01	√	√
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0423	Any single ASCII character (00 = Off)	'L'	'L'	'L'	√	√

# Code 128

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
				<b>Enter 1 for On and 0 for Off</b>				
<b>Enable</b>	Enables/disables the Code 128 symbology.	0408	On or Off	Off	On	On	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0409	On or Off	Off	On	Off	√	
<b>GS1-128 Enable</b>	Enable GS1-128 variant of Code 128 (independent of Code 128).	040C	On or Off	Off	On	Off	√	√
<b>Code 128 Extended ASCII Enable</b>	Enable Extended ASCII character conversion. This enables the ability of Code 128 labels to use the FNC4 character to encode Extended ASCII characters, as defined by the latest Code 128 symbology specification.	040F	On or Off	Off	On	On	√	
<b>Minimum Label Length</b>	Set the minimum label length to be less than or equal to maximum label length.	0424	01 - 80	01	01	02	√	√
<b>Maximum Label Length</b>	This feature specifies the maximum allowable length of a Code 128 label. The length includes check and data characters. Maximum Label Length should be greater than or equal to Minimum Label Length.	0425	01 - 80	01	80	40	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0426	01 - 04	01	02	01	√	√
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0427	Any single ASCII character (00 = Off)	'K'	'K'	'K'	√	√

## European Article Numbering-13 (EAN-13)

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/disables the EAN-13 symbology.	0510	On or Off	Off	On	On	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0511	On or Off	Off	On	Off	√	√
<b>Send Check Digit</b>	Includes a check digit in the label which is transmitted.	0512	On or Off	Off	On	Off	√	√
<b>Send System Digit</b>	This instructs the decoder to include the system digit in the label transmission. For UPC-E, the system digit is zero.	0513	On or Off	Off	On	On	√	√
<b>Convert EAN-13 to ISBN</b>	This instructs the decoder to identify ISBN labels and append the check digit (per ISBN guidelines) to the end of the label.	0514	On or Off	Off	Off	Off	√	√
<b>Convert EAN-13 to ISSN</b>	This instructs the decoder to identify ISSN labels and append the check digit (per ISSN guidelines) to the end of the label.	0515	On or Off	Off	Off	Off	√	√
<b>Enable EAN 4-Digit Price/Weight Check Digit</b>	Requires the use of a 4-digit price/ weight check digit to verify a bar code.	0516	On or Off	Off	Off	Off	√	
<b>Enable EAN 5-Digit Price/Weight Check Digit</b>	Requires the use of a 5-digit price/ weight check digit to verify a bar code.	0517	On or Off	Off	Off	Off	√	
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0524	01 - 04	01	02	01	√	
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent by the decoder when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0525	Any single ASCII character (00 = Off)	'M'	'M'	'M'	√	√

## European Article Numbering-8 (EAN-8)

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/disables the EAN-8 symbology.	0518	On or Off	Off	On	On	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0519	On or Off	Off	On	Off	√	√
<b>Send Check Digit</b>	Instructs the terminal to include the check digit in the label transmission.	051A	On or Off	Off	On	Off	√	√
<b>Convert EAN-8 to EAN-13</b>	Instructs the decoder to expand EAN-8 labels to their EAN-13 equivalents. Any EAN-13 parameters will then apply to the result.	051B	On or Off	Off	On	Off	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0526	01 - 04	01	02	01	√	
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent by the decoder when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0527	Any single ASCII character (00 = Off)	'G'	'G'	'G'	√	√

## Universal Product Code-A (UPC-A)

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/disables the UPC-A symbology.	0500	On or Off	Off	On	On	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0501	On or Off	Off	On	Off	√	√
<b>Send Check Digit</b>	Includes check digit in the label which is transmitted.	0502	On or Off	Off	On	Off	√	√
<b>Send System Digit</b>	Includes the system digit in the label transmission. For UPC-A, the system digit is always zero.	0503	On or Off	Off	On	On	√	√
<b>Convert UPC-A to EAN-13</b>	Instructs the decoder to expand UPC-A labels to their EAN-13 equivalents. Any EAN-13 parameters will then apply to the result.	0504	On or Off	Off	On	Off	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0520	01 - 04	01	02	01	√	
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0521	Any single ASCII character (00 = Off)	'A'	'A'	'A'	√	√

## Universal Product Code-E (UPC-E)

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable System Digit 0</b>	Enables/ disables UPC-E labels with a system digit of zero.	0508	On or Off	Off	On	On	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0509	On or Off	Off	On	Off	√	√
<b>Send Check Digit</b>	Includes the check digit in the label which is transmitted.	050A	On or Off	Off	On	Off	√	√
<b>Send System Digit</b>	This instructs the decoder to include the system digit in the label transmission. For UPC-E, the system digit is zero.	050B	On or Off	Off	On	Off	√	√
<b>Convert UPC-E to UPC-A</b>	Instructs the decoder to expand UPC-E labels to their UPC-A equivalents. Any UPC-A parameters will then apply to the result.	050C	On or Off	Off	On	Off	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0522	01 - 04	01	02	01	√	
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0523	Any single ASCII character (00 = Off)	'E'	'E'	'E'	√	√



## UPC / EAN Extensions

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable 2-Digit Extensions</b>	Requires a 2 digit extension (supplemental label) to be verified for a successful decode of a label.	051C	On or Off	Off	On	On	√	√
<b>Enable 5-Digit Extensions</b>	Requires a 5 digit extension (supplemental label) to be verified for a successful decode of a label.	051D	On or Off	Off	On	Off	√	√
<b>Require Extensions</b>	Instructs the decoder to require any enabled UPC/EAN extensions (supplemental labels) to be with a label in order for a scan to be successful.	051F	On or Off	Off	On	Off	√	√
<b>Read Verification</b>	Sets the number of times an extension (supplemental label) must be read before it is included in the transmission of the base UPC/EAN label.	0528	01 - 04	01	02	01	√	√

## Interleaved 2 of 5

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/ disables the Interleaved 2 of 5 symbology.	0210	On or Off	Off	On	On	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0211	On or Off	Off	On	Off	√	
<b>Enable Checksum</b>	Requires the use of checksum characters to verify a bar code.	0212	On or Off	Off	Off	Off	√	√
<b>Send Checksum</b>	Instructs the terminal to include the checksum in the label transmission.	0213	On or Off	Off	Off	Off	√	√
<b>Enable Case Code</b>	Restricts Interleaved 2 of 5 label lengths to only 6 and 14 data characters. Enabling this parameter overrides the minimum and maximum length values.	0214	On or Off	Off	Off	Off	√	√
<b>Minimum Label Length</b>	Set the minimum label length to be less than or equal to maximum label length.	0228	02 - 50	02	02	06	√	√
<b>Maximum Label Length</b>	This feature specifies the maximum allowable length of an Interleaved 2 of 5 label. The length includes check and data characters. Maximum Label Length should be greater than or equal to Minimum Label Length.	0229	02 - 50	02	50	10	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	022A	01 - 04	01	02	01	√	√

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
User ID	Specifies the symbology identifier (if any) that is sent by the decoder when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	022B	Any single ASCII character (00 = Off)	'B'	'B'	'B'	√	√

## Standard 2 of 5

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
				<b>Enter 1 for On and 0 for Off</b>				
<b>Enable</b>	Enables/disables the Standard 2 of 5 symbology.	0200	On or Off	Off	On	Off	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0201	On or Off	Off	On	Off	√	
<b>Enable Checksum</b>	Requires the use of checksum characters to verify a bar code.	0202	On or Off	Off	Off	Off	√	
<b>Send Checksum</b>	Instructs the terminal to include the checksum in the label transmission.	0203	On or Off	Off	Off	Off	√	
<b>Use 2-bar Start/Stop</b>	Allows the terminal to recognize labels that are printed using only two bars for start/stop characters.	0204	On or Off	Off	Off	Off	√	
<b>Minimum Label Length</b>	Set the minimum label length to be less than or equal to maximum label length.	0220	01 - 50	01	01	06	√	√
<b>Maximum Label Length</b>	This feature specifies the maximum allowable length of a Standard 2 of 5 label. The length includes check and data characters. Maximum Label Length should be greater than or equal to Minimum Label Length.	0221	01 - 50	01	50	10	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0222	01 - 04	01	02	01	√	√
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0223	Any single ASCII character (00 = Off)	'F'	'F'	'F'	√	√

## Matrix 2 of 5

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/ disables the Matrix 2 of 5 symbology.	0208	On or Off	Off	On	Off	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0209	On or Off	Off	On	Off	√	
<b>Enable Checksum</b>	Requires the use of checksum characters to verify a bar code.	020A	On or Off	Off	Off	Off	√	√
<b>Send Checksum</b>	Instructs the terminal to include the checksum in the label transmission.	020B	On or Off	Off	Off	Off	√	√
<b>Minimum Label Length</b>	Set the minimum label length to be less than or equal to maximum label length.	0224	01 - 50	01	01	06	√	√
<b>Maximum Label Length</b>	This feature specifies the maximum allowable length of a Matrix 2 of 5 label. The length includes check and data characters. Maximum Label Length should be greater than or equal to Minimum Label Length.	0225	01 - 50	01	50	10	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0226	01 - 04	01	02	01	√	√
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent by the decoder when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0227	Any single ASCII character (00 = Off)	'D'	'D'	'D'	√	√

# MSI

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/ disables the MSI symbology.	0608	On or Off	Off	On	Off	√	√
<b>Enable Aggressive Decoding</b>	Enables more aggressive decoding algorithms to be used in order to scan hard to read labels.	0609	On or Off	Off	On	Off	√	
<b>Require 2 Check Digits</b>	An MSI label must contain 2 check digits.	060A	On or Off	Off	Off	Off	√	√
<b>Send Check Digits</b>	This instructs the decoder to include any enabled check digit(s) in the label which is transmitted.	060B	On or Off	Off	On	Off	√	√
<b>2nd Check Digit Mod 11</b>	Instructs the decoder to interpret any second MSI check digit as modulo 11 instead of modulo 10	060C	On or Off	Off	Off	Off	√	√
<b>Minimum Label Length</b>	Set the minimum label length to be less than or equal to maximum label length.	0624	01 - 15	01	01	04	√	√
<b>Maximum Label Length</b>	This feature specifies the maximum allowable length of an MSI label. The length includes check and data characters. Maximum Label Length should be greater than or equal to Minimum Label Length.	0625	01 - 15	01	15	10	√	√
<b>Read Verification</b>	Sets the number of times a label must be read before it is transmitted.	0626	01 - 04	01	02	01	√	√
<b>User ID</b>	Specifies the symbology identifier (if any) that is sent by the decoder when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0627	Any single ASCII character (00 = Off)	'H'	'H'	'H'	√	√

# GS1 DataBar-14

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/ disables the GS1 DataBar -14 symbology.	0800	On or Off	Off	On	On	√	√
<b>Convert to GS1-128</b>	Instructs the decoder to transmit the label data as one or more GS1-128 labels.	0804	On or Off	Off	On	Off	√	√
<b>NOTE</b>	If GS1 DataBar-14, GS1 DataBar Expanded, GS1 DataBar Limited, or GS1 DataBar Composite symbologies are enabled for GS1-128, then that setting is also enabled for all other GS1 DataBar symbologies. For the 2D Imager, GS1 DataBar Expanded's User ID is used for GS1 DataBar-14.							

# GS1 DataBar Limited

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/disables the GS1 DataBar Limited symbology.	0808	On or Off	Off	On	On	√	√
<b>Convert to GS1-128</b>	Instructs the decoder to transmit the label data as one or more GS1-128 labels. The transmission will use the UCC-128 AIM identifier.	080C	On or Off	Off	On	Off	√	√
<b>NOTE</b>	<p>If GS1 DataBar-14, GS1 DataBar Expanded, GS1 DataBar Limited, or GS1 DataBar Composite symbologies are enabled for GS1-128, then that setting is also enabled for all other GS1 DataBar symbologies.</p> <p>For the 2D Imager, GS1 DataBar Expanded's User ID is used for GS1 DataBar-14.</p>							



# GS1 DataBar Expanded

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
			<b>Enter 1 for On and 0 for Off</b>					
<b>Enable</b>	Enables/disables the GS1 DataBar Expanded symbology.	0810	On or Off	Off	On	On	√	√
<b>Convert to GS1-128</b>	Instructs the decoder to transmit the label data as one or more GS1-128 labels.	0814	On or Off	Off	On	Off	√	√
<b>Minimum</b>	Sets the minimum bar code label length to be less than or equal to maximum label length.	0824	1 - 74	01	01	01	√	√
<b>Maximum</b>	This feature specifies the maximum allowable length of a label. The length includes check and data characters, if applicable. Maximum Label Length should be greater than or equal to Minimum Label Length.	0825	1 - 74	01	74	74	√	√
<b>User Code ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0827	Any single ASCII character (00 = Off)	'R'	'R'	'R'	√	√

# PROGRAMMABLE 2D SYMBOLOGIES

## Aztec Code

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type
				Min	Max	Factory	2D Imager
			<b>Enter 1 for On and 0 for Off</b>				
<b>Aztec Code Enable</b>	Enables/disables the Aztec symbology.	0B18	On or Off	Off	On	On	√
<b>Aztec Code Minimum</b>	Set the minimum bar code label length to be less than or equal to maximum label length.	0B2C	1-3750	1	1	1	√
<b>Aztec Code Maximum</b>	This feature specifies the maximum allowable length of a label. The length includes check and data characters, if applicable. Maximum Label Length should be greater than or equal to Minimum Label Length.	0B2D	1-3750	1	3750	3750	√
<b>Aztec Code User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0B2F	Any single ASCII character (00 = Off)	'd'	'd'	'd'	√

## Data Matrix

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type
				Min	Max	Factory	2D Imager
				<b>Enter 1 for On and 0 for Off</b>			
<b>Data Matrix Enable</b>	Enables/ disables the Data Matrix symbology.	0B00	On or Off	Off	On	On	√
<b>Data Matrix Minimum</b>	Set the minimum bar code label length to be less than or equal to maximum label length.	0B20	1-1500	1	1	1	√
<b>Data Matrix Maximum</b>	This feature specifies the maximum allowable length of a label. The length includes check and data characters, if applicable. Maximum Label Length should be greater than or equal to Minimum Label Length.	0B21	1-1500	1	1500	1500	√
<b>Data Matrix User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0B23	Any single ASCII character (00 = Off)	'V'	'V'	'V'	√

# Composite

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type
				Min	Max	Factory	2D Imager
				<b>Enter 1 for On and 0 for Off</b>			
<b>Composite Enable</b>	Enables/disables the Composite symbology.	0A10	On or Off	Off	On	Off	√
<b>Composite to GS1-128</b>	Instructs the decoder to transmit the label data as one or more GS1-128 labels.	0A14	On or Off	Off	Off	Off	√
<b>Composite Minimum</b>	Set the minimum bar code label length to be less than or equal to maximum label length.	0A28	1-2435	1	1	1	√
<b>Composite Maximum</b>	This feature specifies the maximum allowable length of a label. The length includes check and data characters, if applicable. Maximum Label Length should be greater than or equal to Minimum Label Length.	0A29	1-2435	1	2435	2435	√
<b>Composite User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0A2B	Any single ASCII character (00 = Off)	'b'	'b'	'b'	√
<b>NOTE:</b>	For the 2D Imager, GS1 DataBar Expanded's User ID is used for Composite when User ID is selected as the symbology ID.						

# MaxiCode

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type
				Min	Max	Factory	2D Imager
				<b>Enter 1 for On and 0 for Off</b>			
<b>MaxiCode Enable</b>	Enables/ disables the MaxiCode symbology.	0B08	On or Off	Off	On	On	√
<b>Minimum Label Length</b>	Set the minimum bar code label length to be less than or equal to maximum label length.	0B24	1-138	1	1	1	√
<b>MaxiCode Maximum</b>	This feature specifies the maximum allowable length of a label. The length includes check and data characters, if applicable. Maximum Label Length should be greater than or equal to Minimum Label Length.	0B25	1-138	1	138	138	√
<b>MaxiCode User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0B27	Any single ASCII character (00 = Off)	'W'	'W'	'W'	√

# PDF417

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type
				Min	Max	Factory	2D Imager
				<b>Enter 1 for On and 0 for Off</b>			
<b>PDF417 Enable</b>	Enables/disables the PDF417 symbology.	0A00	On or Off	Off	On	On	√
<b>PDF417 Minimum</b>	Set the minimum bar code label length to be less than or equal to maximum label length.	0A20	1 - 2710	1	1	1	√
<b>PDF417 Maximum</b>	This feature specifies the maximum allowable length of a label. The length includes check and data characters, if applicable. Maximum Label Length should be greater than or equal to Minimum Label Length.	0A21	1 - 2710	1	2710	2710	√
<b>PDF417 User Code ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0A23	Any single ASCII character (00 = Off)	'S'	'S'	'S'	√

# MicroPDF417

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type
				Min	Max	Factory	2D Imager
				<b>Enter 1 for On and 0 for Off</b>			
<b>MicroPDF417 Enable</b>	Enables/disables the MicroPDF417 symbology.	0A08	On or Off	Off	On	Off	√
<b>MicroPDF417 Minimum</b>	Set the minimum bar code label length to be less than or equal to maximum label length.	0A24	1 - 366	1	1	1	√
<b>MicroPDF417 Maximum</b>	This feature specifies the maximum allowable length of a label. The length includes check and data characters, if applicable. Maximum Label Length should be greater than or equal to Minimum Label Length.	0A25	1 - 366	1	366	366	√
<b>MicroPDF417 User Code ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0A27	Any single ASCII character (00 = Off)	'a'	'a'	'a'	√

## QR Code

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type
				Min	Max	Factory	2D Imager
				<b>Enter 1 for On and 0 for Off</b>			
<b>QR Code Enable</b>	Enables/disables QR Code symbology.	0B10	On or Off	Off	On	Off	√
<b>QR Code Minimum</b>	Set the minimum bar code label length to be less than or equal to maximum label length.	0B28	1 - 3500	1	1	1	√
<b>QR Code Maximum</b>	This feature specifies the maximum allowable length of a label. The length includes check and data characters, if applicable. Maximum Label Length should be greater than or equal to Minimum Label Length.	0B29	1 - 3500	1	3500	3500	√
<b>QR Code User ID</b>	Specifies the symbology identifier (if any) that is sent when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) is used to indicate that an identifier is not to be sent for the symbology.	0B2B	Any single ASCII character (00 = Off)	'c'	'c'	'c'	√
<b>Micro QR Code Enable</b>	Enables/disables Micro QR Code symbology.	0B14	On or Off	Off	On	Off	√



# POSTAL CODES

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	2D Imager	
			<b>Enter 1 for On and 0 for Off</b>					
<b>US POSTNET Enable</b>	Enables/ disables POSTNET symbology.	0910	On or Off	Off	On	On	√	
<b>US PLANET Enable</b>	Enables/ disables PLANET symbology.	0911	On or Off	Off	On	On	√	
<b>US Postal Send Chk</b>	Transmit US Postal Code check digit.	0912	On or Off	Off	On	On	√	
<b>USPS Intelligent Mail Enable</b>	Enables/ disables USPS Intelligent Mail symbology.	0913	On or Off	Off	On	On	√	
<b>UPU FICS Enable</b>	Enables/ disables UPU FICS symbology.	0914	On or Off	Off	On	Off	√	
<b>Royal Mail Enable</b>	Enables/ disables Royal Mail symbology.	0915	On or Off	Off	On	On	√	
<b>Royal Mail Send Chk</b>	Transmit Royal Mail symbology check digits.	0916	On or Off	Off	On	Off	√	
<b>Australian Postal Enable</b>	Enables/ disables Australian Postal symbology.	0917	On or Off	Off	On	Off	√	
<b>KIX Enable</b>	Enables/ disables KIX symbology.	0918	01 - 04	01	02	01	√	
<b>Postal Code Redundancy</b>	Required number of matching reads (more than differing reads).	0928	01 - 04	01	02	01	√	
<b>Postal Code User ID</b>	User defined symbology ID for Postal Codes.	0929	Any single ASCII character (00 = Off)	'f'	'f'	'f'	√	

## IMAGING CONTROLS

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	2D Imager	
			Enter 1 for On and 0 for Off					
<b>Imager Illuminate Enable</b>	Instructs the PDT to illuminate the scanning area (independent of any targeting beam) when using an imager.	0008	On or Off	On	On	On	√	
<b>Imager Aim Mode</b>	Toggles between two different operating modes for the targeting beam: Concurrent (Off): The targeting beam is turned on at the same time as an enabled illumination beam. "Release Scan" (On) turns off the targeting pattern after trigger release..	0009	On or Off	On	On	On	√	
<b>Enable Aiming Beam</b>	Enable the use of a target beam and enables Pick List Mode, which decodes only the bar code label immediately under the targeting cross.	000A	On or Off	On	On	On	√	

## OTHER CONTROLS

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
<b>Enter 1 for On and 0 for Off</b>								
<b>Enable Label Programming</b>	Enables/disables the ability to perform label programming.	FF00	On or Off	On	On	On	√	√
<b>Send Symbology Identifiers</b>	Specifies the symbology identifier (if any) that is sent by the decoder when parameter Send Code ID (Index 0025) is set to 3. ASCII code zero (null) used to indicate an identifier not to be sent for the symbology.	0025	Select symbology identifier to transmit immediately preceding scanned data: 0=None 1=DLM identifier before label: <ID> " " <data> 2=AIM identifier before label: "]" <ID> <modifier> <data> 3=User defined identifier before label: <ID> <data> 4=DLM identifier after label: <data> " " <ID> 5=AIM identifier after label: <data> "]" <ID> <modifier> 6=User defined identifier after label: <data> <ID>	00	01	00	√	√
<b>Label Prefix*</b>	Character string sent immediately prior to symbology identifier (0=None).	0026	A string of Unicode characters.	NUL	NUL	NUL	√	√
<b>Label Suffix*</b>	Character string sent immediately after final character in data (0=None).	0027	A string of Unicode characters.	CR+LF	CR+LF	CR+LF	√	√
<b>Label Separator</b>	Character string sent after each string in a sample where multiple strings exist.	0028	Any single ASCII character (00 = Off).	CR	CR	CR	√	√

\*Only a single character can be programmed with a programming label; strings can only be programmed in the Decoding control panel applet.

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
<b>Automatic Good Read</b>	Enable automatic Good Read on a successful read.	0010	On or Off	On	On	On	√	√
<b>Enable Green Spot</b>	Enable Green Spot with Good Read.	0011	On or Off	On	On	On	√	√
<b>Enable Good Read LED</b>	Enable LED with Good Read.	0013	On or Off	Off	On	On	√	√
<b>Enable Good Read Vibrate Enable</b>	Enable Vibration with Good Read.	0012	On or Off	Off	On	On	√	√
<b>Remove Non-Printables</b>	Removes all characters in the range 0x00 - 0x31 or 0x7F - 0x9F from the label data. The min/max length checks made for each symbology are made before any characters are removed. Characters in the code ID, prefix, suffix, or separator will not be removed.	0018	On or Off	Off	Off	Off	√	√
<b>Group Separator Substitution *</b>	Each occurrence of the GS character (ASCII code 0x1D) in the label data will be substituted for the character defined by this parameter. The value 0 (NUL) is considered a valid replacement character and cannot be used to remove GS characters.	002C	The maximum number of data characters is 127. All defined Unicode characters are valid.	GS	GS	GS	√	√

\*Only a single character can be programmed with a programming label; strings can only be programmed in the Decoding control panel applet.

Code Parameter	Description	I.D.#	Accept. Input	Defaults			Scanner Type	
				Min	Max	Factory	Laser	2D Imager
<b>Decode Timeout</b>	Defines the maximum time the scanner will remain on without reading a barcode. This value does not include time spent with a spot beam (1D scanner) or target pattern (2D scanner)	002D	2 to 40 (step=1) 2 = 500 ms 40 = 10000 ms	20	20	20	√	√
<b>Beeper Volume</b>	Defines the volume of decoding sounds.	FF20	0 to 7 = Soft to Loud 8 = lowers the volume by 1 9 = raises the volume by 1	7	7	7	√	√
<b>Long Range Spot Enable</b>	Enable the use of a spot beam, if detected.	0001	On or Off	Off	Off	Off	√	
<b>Long Range Release Time</b>	Maximum time laser is on after trigger release using Release Scan spot beam mode.	0024	1-5	2	2	2	√	
<b>Target Release Time</b>	Maximum time (in seconds) imager is on after trigger release using Release Scan target beam mode.	002A	1-5	2	2	2		√

## DATALOGIC MOBILE LABEL IDS

Datalogic Mobile Label IDs		
UPC-A = A	Matrix 2 of 5 = D	Data Matrix = v
UPC-E = E	Code 93 = L	Composite = s
EAN-8 = G	MSI = H	MaxiCode = w
EAN 13 = M	Trioptic = X	PDF417 = s
Code 39 = C	Pharmacode 39 = Y	MicroPDF417 = a
Codabar = I	GS1 DataBar-14 = P	QR Code = c
Code 128 = K	GS1 DataBar Limited = Q	Postal Codes = f
Interleaved 2 of 5 = B	GS1 DataBar Expanded = R	
Standard 2 of 5 = F	Aztec Code = d	

# SAFETY REGULATIONS

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**NOTE**

*Read this manual carefully before performing any type of connection to the Skorpion X3 mobile computer.  
The user is responsible for any damage caused by incorrect use of the equipment or by inobservance of the indication supplied in this manual.*

## GENERAL SAFETY RULES

- Use only the components supplied by the manufacturer for the specific Skorpion X3 being used.
- Do not attempt to disassemble the Skorpion X3 mobile computer, as it does not contain parts that can be repaired by the user. Any tampering will invalidate the warranty.
- When replacing the battery pack or at the end of the operative life of the Skorpion X3 mobile computer, disposal must be performed in compliance with the laws in force.
- Before using the devices and the battery packs, read chap. 2.
- Do not submerge the Skorpion X3 in liquid products.
- For further information, refer to this manual and to the Datalogic Mobile web site: <http://www.adc.datalogic.com/>.

## POWER SUPPLY

This device is intended to be supplied by a self-contained rechargeable lithium-ion battery pack (SELV, LPS) and/or by UL Listed/CSA Certified Power Unit marked “Class 2” or LPS power source which supplies power directly to the unit via the power connector of the cable.

# LASER SAFETY

The laser light is visible to the human eye and is emitted from the window indicated in the figure.

This information applies to both the Skorpio X3 models with laser and Imager Aiming System.





I	D	F	E
<p>La luce laser è visibile all'occhio umano e viene emessa dalla finestra indicata nella figura.</p>	<p>Die Laserstrahlung ist für das menschliche Auge sichtbar und wird am Strahlaustrittsfenster ausgesendet (siehe Bild).</p>	<p>Le rayon laser est visible à l'oeil nu et il est émis par la fenêtre désignée sur l'illustration dans la figure.</p>	<p>La luz láser es visible al ojo humano y es emitida por la ventana indicada en la figura.</p>
<p>LUCE LASER NON FISSARE IL FASCIO APPARECCHIO LASER DI CLASSE 2 MASSIMA POTENZA DI USCITA: 1 mW LUNGHEZZA D'ONDA EMESSA: 630~680 nm CONFORME A EN 60825-1 (2007)</p>	<p>LASERSTRAHLUNG NICHT IN DER STRAHL BLINKEN PRODUKT DER LASERKLASSE 2 MAXIMALE AUSGANGLEISTUNG: 1 mW WELLENLÄNGE: 630~680 nm ENTSPR. EN 60825-1 (2007)</p>	<p>RAYON LASER EVITER DE REGARDER LE RAYON APPAREIL LASER DE CLASSE 2 MAXIMUM PUISSANCE DE SORTIE: 1 mW LONGUER D'ONDE EMISE: 630~680 nm CONFORME A EN 60825-1 (2007)</p>	<p>RAYO LÁSER NO MIRAR FIJO EL RAYO APARATO LÁSER DE CLASE 2 MÁXIMA POTENCIA DE SALIDA: 1 mW LONGITUD DE ONDA EMITIDA: 630~680 nm CONFORME A EN 60825-1 (2007)</p>

## ENGLISH

The following information is provided to comply with the rules imposed by international authorities and refers to the correct use of your mobile computer.

### STANDARD LASER SAFETY REGULATIONS

This product conforms to the applicable requirements of both CDRH 21 CFR 1040 Subchapter J and EN 60825-1:2007 at the date of manufacture.

For installation, use and maintenance, it is not necessary to open the device.



**CAUTION**

*Do not attempt to open or otherwise service any components in the optics cavity. Opening or servicing any part of the optics cavity by unauthorized personnel may violate laser safety regulations. The optics system is a factory only repair item.*



**CAUTION**

*Use of controls or adjustments or performance of procedures other than those specified herein may result in exposure to hazardous visible laser light.*

The product 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 shining laser light into any person's eye, even through reflective surfaces such as mirrors, etc.



**CAUTION**

*Use of optical systems with the scanner will increase eye hazard. Optical instruments include binoculars, microscopes, eye glasses and magnifying glasses.*

## ITALIANO

Le seguenti informazioni vengono fornite dietro direttive delle autorità internazionali e si riferiscono all'uso corretto del terminale.

### NORMATIVE STANDARD PER LA SICUREZZA LASER

Questo prodotto risulta conforme alle normative vigenti sulla sicurezza laser alla data di produzione: CDRH 21 CFR 1040 sezione J e EN 60825-1:2007.

Non si rende mai necessario aprire l'apparecchio per motivi di installazione, utilizzo o manutenzione.



**ATTENZIONE**

*Non tentare di accedere allo scomparto contenete i componenti ottici o di farne la manutenzione.*

*L'apertura dello scomparto, o la manutenzione di qualsiasi parte ottica da parte di personale non autorizzato, potrebbe violare le norme della sicurezza. Il sistema ottico può essere riparato solamente alla fabbrica.*



**ATTENZIONE**

*L'utilizzo di procedure o regolazioni differenti da quelle descritte nella documentazione può provocare un'esposizione pericolosa a luce laser visibile.*

Il prodotto utilizza un diodo laser a bassa potenza. Sebbene non siano noti danni riportati dall'occhio umano in seguito ad una esposizione di breve durata, evitare di fissare il raggio laser così come si eviterebbe qualsiasi altra sorgente di luminosità intensa, ad esempio il sole. Evitare inoltre di dirigere il raggio laser negli occhi di un osservatore, anche attraverso superfici riflettenti come gli specchi.



**ATTENZIONE**

*L'uso di strumenti ottici assieme allo scanner può aumentare il pericolo di danno agli occhi. Tali strumenti ottici includono cannocchiali, microscopi, occhiali e lenti di ingrandimento.*

## DEUTSCH

Die folgenden Informationen stimmen mit den Sicherheitshinweisen überein, die von internationalen Behörden auferlegt wurden, und sie beziehen sich auf den korrekten Gebrauch vom Terminal.

### NORM FÜR DIE LASERSICHERHEIT

Dies Produkt entspricht am Tag der Herstellung den gültigen EN 60825-1:2007 und CDRH 21 CFR 1040 Subchapter J Normen für die Lasersicherheit.

Es ist nicht notwendig, das Gerät wegen Betrieb oder Installations-, und Wartungs-Arbeiten zu öffnen.



**ACHTUNG**

*Unter keinen Umständen darf versucht werden, die Komponenten im Optikhohlraum zu öffnen oder auf irgendwelche andere Weise zu warten. Das Öffnen bzw. Warten der Komponenten im Optikhohlraum durch unbefugtes Personal verstößt gegen die Laser-Sicherheitsbestimmungen. Das Optiksystm darf nur werkseitig repariert werden.*



**ACHTUNG**

*Jegliche Änderungen am Gerät sowie Vorgehensweisen, die nicht in dieser Betriebsanleitung beschrieben werden, können ein gefährliches Laserlicht verursachen.*

Der Produkt benutzt eine Laserdiode. Obwohl zur Zeit keine Augenschäden von kurzen Einstrahlungen bekannt sind, sollten Sie es vermeiden für längere Zeit in den Laserstrahl zu schauen, genauso wenig wie in starke Lichtquellen (z.B. die Sonne). Vermeiden Sie es, den Laserstrahl weder gegen die Augen eines Beobachters, noch gegen reflektierende Oberflächen zu richten.



**ACHTUNG**

*Die Verwendung von Optiksystmen mit diesem Scanner erhöht die Gefahr einer Augenbeschädigung. Zu optischen Instrumenten gehören unter anderem Ferngläser, Mikroskope, Brillen und Vergrößerungsgläser.*

## FRANÇAIS

Les informations suivantes sont fournies selon les règles fixées par les autorités internationales et se réfèrent à une correcte utilisation du terminal.

### NORMES DE SECURITE LASER

Ce produit est conforme aux normes de sécurité laser en vigueur à sa date de fabrication: CDRH 21 CFR 1040 sous-chapitre J et EN 60825-1:2007.

Il n'est pas nécessaire d'ouvrir l'appareil pour l'installation, l'utilisation ou l'entretien.



**ATTENTION**

*Ne pas essayer d'ouvrir ou de réparer les composants de la cavité optique. L'ouverture de la cavité optique ou la réparation de ses composants par une personne non qualifiée peut entraîner le nonrespect des règles de sécurité relatives au laser. Le système optique ne peut être réparé qu'en usine.*



**ATTENTION**

*L'utilisation de procédures ou réglages différents de ceux donnés ici peut entraîner une dangereuse exposition à lumière laser visible.*

Le produit utilise une diode laser. Aucun dommage aux yeux humains n'a été constaté à la suite d'une exposition au rayon laser. Eviter de regarder fixement le rayon, comme toute autre source lumineuse intense telle que le soleil. Eviter aussi de diriger le rayon vers les yeux d'un observateur, même à travers des surfaces réfléchissantes (miroirs, par exemple).



**ATTENTION**

*L'utilisation d'instruments optiques avec le scanneur augmente le danger pour les yeux. Les instruments optiques comprennent les jumelles, les microscopes, les lunettes et les verres grossissants.*

## ESPAÑOL

Las informaciones siguientes son presentadas en conformidad con las disposiciones de las autoridades internacionales y se refieren al uso correcto del terminal.

### NORMATIVAS ESTÁNDAR PARA LA SEGURIDAD LÁSER

Este aparato resulta conforme a las normativas vigentes de seguridad láser a la fecha de producción: CDRH 21 CFR 1040 Sección J y EN 60825-1:2007.

No es necesario abrir el aparato para la instalación, la utilización o la manutención.



**ATENCIÓN**

*No intente abrir o de ninguna manera dar servicio a ninguno de los componentes del receptáculo óptico. Abrir o dar servicio a las piezas del receptáculo óptico por parte del personal no autorizado podría ser una violación a los reglamentos de seguridad. El sistema óptico se puede reparar en la fábrica solamente.*



**ATENCIÓN**

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

El aparato utiliza un diodo láser a baja potencia. No son notorios daños a los ojos humanos a consecuencia de una exposición de corta duración. Eviten de mirar fijo el rayo láser así como evitarían cualquiera otra fuente de luminosidad intensa, por ejemplo el sol. Además, eviten de dirigir el rayo láser hacia los ojos de un observador, también a través de superficies reflectantes como los espejos.



**ATENCIÓN**

*El uso de sistemas ópticos con el escáner aumentará el riesgo de daños oculares. Los instrumentos ópticos incluyen binoculares, microscopios, lentes y lupas.*

## **LED CLASS**

LED illuminator integrated in the Skorpio X3 models with SE-4500 imager engine are compliant with exempt risk group requirements according to EN62471:2008 and IEC62471:2006.

## **RADIO COMPLIANCE**

In radio systems configured with mobile computers and access points, the frequencies to be used must be allowed by the spectrum authorities of the specific country in which the installation takes place. Be absolutely sure that the system frequencies are correctly set to be compliant with the spectrum requirements of the country.

The Radio modules used in this product automatically adapt to the frequencies set by the system and do not require any parameter settings.



## Information for the User

### ENGLISH

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://ec.europa.eu/> for further information.

### ITALIANO

Contatta l'autorità competente per la gestione degli apparati a radio frequenza del tuo paese, per verificare eventuali restrizioni o licenze. Ulteriori informazioni sono disponibili sul sito:  
<http://ec.europa.eu/>.

### FRANÇAIS

Contactez l'autorité compétente en la gestion des appareils à radio fréquence de votre pays pour vérifier d'éventuelles restrictions ou licences. Pour tout renseignement vous pouvez vous adresser au site web:  
<http://ec.europa.eu/>

### DEUTSCH

Wenden Sie sich an die für Radiofrequenzgeräte zuständige Behörde Ihres Landes, um zu prüfen ob es Einschränkungen gibt, oder eine Lizenz erforderlich ist. Weitere Informationen finden Sie auf der Web Seite:  
<http://ec.europa.eu/>.

### ESPAÑOL

Contacta la autoridad competente para la gestión de los dispositivos de radio frecuencia de tu país, para verificar cualesquiera restricciones o licencias posibles requerida. Además se puede encontrar mas información en el sitio web:  
<http://ec.europa.eu/>.



## FCC COMPLIANCE

### FCC Regulations

- 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 that may cause undesired operation.
- This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- This equipment has the capability to operate Wi-Fi in the 5 GHz Unlicensed National Information Infrastructure (U-NII) band. Because this band is shared with MSS (Mobile Satellite Service), the FCC has restricted such devices to indoor use only (see 47 CFR 15.407(e)). Since wireless hot spots operating in this band have the same restriction, outdoor services are not offered. Nevertheless, please do not operate this device in Wi-Fi mode when outdoors.

## **RF EXPOSURE INFORMATION (SAR)**

This model device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the device is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

While there may be differences between the SAR levels of various devices and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this model device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model device is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on the below FCC IDs:  
FCC ID: U4G0060.

This device is compliant with SAR for general population /uncontrolled exposure limits in ANSI/IEEE C95.1-1999 and had been tested in accordance with the measurement methods and procedures specified in OET Bulletin 65 Supplement C.

## INDUSTRY CANADA COMPLIANCE

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.

This Class B digital apparatus complies with Canadian ICES-003.  
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

The County Code Selection feature is disabled for products marketed in the US/Canada.

This EUT is compliant with SAR for general population/uncontrolled exposure limits in IC RSS-102 and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528. This equipment should be installed and operated with minimum distance 1,5cm between the radiator & your body.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

## SAR COMPLIANCE

This product has been tested and found to comply with the following standards:

- For the used worst case positions, the portable device Skorpion X3 from Datalogic (FCC ID: U4G0060; contains FCC ID: U4G004W) is in compliance with the IC RSS 102 Issue 4 [RSS 102] and Federal Communications Commission (FCC) Guidelines [OET 65] for uncontrolled exposure. SAR assessment in body worn was conducted with a distance of 15 mm between the housing of the handheld and the flat phantom.
- EN 62311:2008: assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz).

## **PATENTS**

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

Design Pat.: EP 1,942,723.

U.S. Pat.: 5,311,000; 5,440,110; 5,481,098; 5,493,108; 5,686,716; 5,992,740;  
6,412,698 B2; 6,415,978 B1; 6,454,168 B1; 6,478,224 B1; 6,513,714 B1; 6,561,427  
B2; 6,585,157 B2; 6,808,114 B1; 6,997,385 B2; 7,108,170 B2; 7,387,246 B2.

European Pat.: 681,257 B1; 789,315 B1; 1,128,315 B1; 1,396,811 B1; 1,413,971 B1

Additional patents pending.

## WEEE COMPLIANCE



### Informazione degli utenti ai sensi della Direttiva Europea 2002/96/EC

L'apparecchiatura che riporta il simbolo del bidone barrato deve essere smaltita, alla fine della sua vita utile, separatamente dai rifiuti urbani.

Smaltire l'apparecchiatura in conformità alla presente Direttiva consente di:

- evitare possibili conseguenze negative per l'ambiente e per la salute umana che potrebbero invece essere causati dall'errato smaltimento dello stesso;
- recuperare materiali di cui è composto al fine di ottenere un importante risparmio di energia e di risorse.

Per maggiori dettagli sulle modalità di smaltimento, contattare il Fornitore dal quale è stata acquistata l'apparecchiatura o consultare la sezione dedicata sul sito

<http://www.adc.datalogic.com/>.

### Information for the user in accordance with the European Commission Directive 2002/96/EC

At the end of its useful life, the product marked with the crossed out wheeled wastebin must be disposed of separately from urban waste.

Disposing of the product according to this Directive:

- avoids potentially negative consequences to the environment and human health which otherwise could be caused by incorrect disposal
- enables the recovery of materials to obtain a significant savings of energy and resources.

For more detailed information about disposal, contact the supplier that provided you with the product in question or consult the dedicated section at the website

<http://www.adc.datalogic.com/>.

## **Information aux utilisateurs concernant la Directive Européenne 2002/96/EC**

Au terme de sa vie utile, le produit qui porte le symbole d'un caisson à ordures barré ne doit pas être éliminé avec les déchets urbains.

Éliminer ce produit selon cette Directive permet de:

- éviter les retombées négatives pour l'environnement et la santé dérivant d'une élimination incorrecte
- récupérer les matériaux dans le but d'une économie importante en termes d'énergie et de ressources

Pour obtenir des informations complémentaires concernant l'élimination, veuillez contacter le fournisseur auprès duquel vous avez acheté le produit ou consulter la section consacrée au site Web <http://www.adc.datalogic.com/>.

## **Información para el usuario de acuerdo con la Directiva Europea 2002/96/CE**

Al final de su vida útil, el producto marcado con un símbolo de contenedor de basura móvil tachado no debe eliminarse junto a los desechos urbanos.

Eliminar este producto de acuerdo con la Directiva permite de:

- evitar posibles consecuencias negativas para el medio ambiente y la salud derivadas de una eliminación inadecuada
- recuperar los materiales obteniendo así un ahorro importante de energía y recursos

Para obtener una información más detallada sobre la eliminación, por favor, póngase en contacto con el proveedor donde lo compró o consultar la sección dedicada en el Web site <http://www.adc.datalogic.com/>.

## **Benutzerinformation bezüglich Richtlinie 2002/96/EC der europäischen Kommission**

Am Ende des Gerätelebenszyklus darf das Produkt nicht über den städtischen Hausmüll entsorgt werden. Eine entsprechende Mülltrennung ist erforderlich.

Beseitigung des Produkts entsprechend der Richtlinie:

- verhindert negative Auswirkungen für die Umwelt und die Gesundheit der Menschen
- ermöglicht die Wiederverwendung der Materialien und spart somit Energie und Ressourcen

Weitere Informationen zu dieser Richtlinie erhalten sie von ihrem Lieferanten über den sie das Produkt erworben haben, oder besuchen sie unsere Homepage unter <http://www.adc.datalogic.com/>.

# GLOSSARY

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## **Access Point**

A device that provides transparent access between Ethernet wired networks and IEEE 802.11 interoperable radio-equipped mobile units. Hand-held mobile computers, PDAs or other devices equipped with radio cards, communicate with wired networks using Access Points (AP). The mobile unit (mobile computer) may roam among the APs in the same subnet while maintaining a continuous, seamless connection to the wired network.

## **Applet**

Diminutive form of app (application), it refers to simple, single-function programs that often ship with a larger product. Programs such as Windows' Calculator, File Manager, Control Panel and Notepad are examples of applets.

## **Bar Code**

A pattern of variable-width bars and spaces which represents numeric or alphanumeric data in binary form. The general format of a barcode symbol consists of a leading margin, start character, data or message character, check character (if any), stop character, and trailing margin. Within this framework, each recognizable symbology uses its own unique format.

## **Baud Rate**

A measure for data transmission speed.

## **Bit**

Binary digit. One bit is the basic unit of binary information. Generally, eight consecutive bits compose one byte of data. The pattern of 0 and 1 values within the byte determines its meaning.

## **Bluetooth®**

A standard radio technology using a proprietary protocol. The onboard Bluetooth® module in the device is compatible with the 1.1 protocol.

## **Byte**

On an addressable boundary, eight adjacent binary digits (0 and 1) combined in a pattern to represent a specific character or numeric value. Bits are numbered from the right, 0 through 7, with bit 0 the low-order bit. One byte in memory can be used to store one ASCII character.

## **Decode**

To recognize a bar code symbology (e.g., Codabar, Code 128, Code 39, UPC/EAN, etc.) and analyze the content of the bar code scanned.

**Depth of Field (DOF)**

The portion of a scene that appears acceptably sharp in the image. Although a lens can precisely focus at only one distance, the decrease in sharpness is gradual on each side of the focused distance, so that within the DOF, the unsharpness is imperceptible under normal viewing conditions.

**EDGE**

Enhanced Data rates for GSM Evolution (EDGE) is a backward-compatible digital mobile phone technology that allows improved data transmission rates, as an extension on top of standard GSM. EDGE is considered a 3G radio technology and is part of ITU's 3G definition.

**EEPROM**

Electrically Erasable Programmable Read-Only memory. An on-board non-volatile memory chip.

**Ethernet**

The standard local area network (LAN) access method. A reference to "LAN," "LAN connection" or "network card" automatically implies Ethernet. Defined by the IEEE as the 802.3 standard, Ethernet is used to connect computers in a company or home network as well as to connect a single computer to a cable modem or DSL modem for Internet access.

**Firmware**

Firmware is a software program or set of instructions programmed on a hardware device. It provides the necessary instructions for how the device communicates with the other computer hardware. Firmware is typically stored in the flash ROM of a hardware device. While ROM is "read-only memory," flash ROM can be erased and rewritten because it is actually a type of flash memory.

**Flash Disk**

Non-volatile memory for storing application and configuration files.

**Host**

A computer that serves other mobile computers in a network, providing services such as network control, database access, special programs, supervisory programs, or programming languages.

**IEEE 802.11**

A set of standards carrying out wireless local area network (WLAN) computer communication in the 2.4, 3.6 and 5 GHz frequency bands. They are created and maintained by the IEEE LAN/MAN Standards Committee.



**Light Emitting Diode (LED)**

A low power electronic light source commonly used as an indicator light. It uses less power than an incandescent light bulb but more than a Liquid Crystal Display (LCD).

**Liquid Crystal Display (LCD)**

A display that uses liquid crystal sealed between two glass plates. The crystals are excited by precise electrical charges, causing them to reflect light outside according to their bias. They use little electricity and react relatively quickly. They require external light to reflect their information to the user.

**Null modem cable**

RS-232 serial cable where the transmit and receive lines are crosslinked. In some cables there are also handshake lines crosslinked. In many situations a straight through serial cable is used, together with a null modem adapter. The adapter contains the necessary crosslinks between the signals.

**One shot key**

Pressing a one shot key activates the state. The state remains active until any other key is pressed. If you hold down a one shot state key and you press another key the state will remain active until you release the one-shot key.

**Pairing**

A Bluetooth® pairing occurs when two Bluetooth® devices agree to communicate with each other and establish a connection.

**Piconet**

A piconet is a Bluetooth® PAN that links up to eight devices. Each piconet is controlled by one master device, and up to seven slave devices at any one time. Any device may be a member of more than one piconet, changing its membership as a user moves from one area to another.

**RAM**

Random Access Memory. Data in RAM can be accessed in random order, and quickly written and read.

**RF**

Radio Frequency.

**RTC**

Real Time Clock.

## **TDMA**

Time division multiple access (TDMA) is digital transmission technology that allows a number of users to access a single radio-frequency (RF) channel without interference by allocating unique time slots to each user within each channel. The TDMA digital transmission scheme multiplexes three signals over a single channel. The current TDMA standard for cellular divides a single channel into six time slots, with each signal using two slots, providing a 3 to 1 gain in capacity over advanced mobile-phone service (AMPS). Each caller is assigned a specific time slot for transmission.

## **Toggle key**

Pressing a toggle key activates the state. The state remains active until the toggle key is pressed again.

## **USB**

Universal Serial Bus. Type of serial bus that allows peripheral devices (disks, modems, printers, digitizers, data gloves, etc.) to be easily connected to a computer. A "plug-and-play" interface, it allows a device to be added without an adapter card and without rebooting the computer (the latter is known as hot-plugging). The USB standard, developed by several major computer and telecommunications companies, supports data-transfer speeds up to 12 megabits per second, multiple data streams, and up to 127 peripherals.

## **WLAN**

A Wireless Local Area Network links devices via a wireless distribution method (typically spread-spectrum or OFDM radio), and usually provides a connection through an access point to the wider internet. This gives users the mobility to move around within a local coverage area and still be connected to the network.

## **WPAN**

A Wireless Personal Area Network is a personal area network - a network for interconnecting devices centered around an individual person's workspace - in which the connections are wireless. Typically, a wireless personal area network uses some technology that permits communication within about 10 meters - in other words, a very short range.

## **WWAN**

Stands for "Wide Area Network." It is similar to a Local Area Network (LAN), but it is not limited to a single location and it uses Mobile telecommunication cellular network technologies such as UMTS, GPRS, CDMA2000, GSM, CDPD, Mobitex, HSDPA or 3G to transfer data. WWAN connectivity allows a user with a laptop and a WWAN card to surf the web, check email, or connect to a Virtual Private Network (VPN) from anywhere within the regional boundaries of cellular service.

# INDEX

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## A

Accessories; 8  
Audio Settings; 68  
Autostart; 107  
Available Models; 2

## B

Batteries and Maintenance; 10  
Bluetooth Manager Device Setup; 73  
Buttons; 55

## C

Charging the Batteries; 10  
Cleaning the mobile computer; 17  
Connections; 18  
    Connection to USB peripherals; 20  
    RS232 Connection; 22  
    USB Connection; 18  
    WLAN Connection; 23  
    WPAN Connections; 25  
Control Panel; 45

## D

Data Capture; 31  
    Imager Data Capture; 33  
    Laser Data Capture; 32  
Data Capture Configuration; 46  
Datalogic Configuration Utility; 86  
Datalogic Desktop Utility; 87  
Datalogic Firmware Utility; 81  
Decoding Parameters; 124  
Description of the Keyboards; 35

## F

FCC Compliance; 169

## G

General View; vii

Glossary; 175

## I

Industry Canada Compliance; 171

## L

Laser Safety; 160  
LED Class; 166  
LED Status; 43

## M

microSD Card Insertion; 5

## P

Package Contents; 3  
Patents; 172  
Power Supply; 159

## R

Radio Compliance; 167  
Reading Diagrams; 118  
References; vi  
Replacing the Batteries; 13  
Resetting the Skorpion X3; 41  
RF Exposure Information (SAR); 170

## S

Safety Regulations; 159  
SAR Compliance; 171  
Services and Support; vi  
Skorpion X3 Description; 1  
Startup; 28  
Status Indicators; 43  
Stylus Calibration; 66

## T

Technical Data; 115  
Technical Features; 115

Terminal Emulation Overlay Insertion;  
40  
Test Codes; 120  
Title Bar; 44

## **U**

Using the Stylus; 29

## **W**

WEEE Compliance; 173  
Windows Connections; 71  
Windows Embedded Handheld  
Welcome Wizard; 30  
Windows Mobile® Device Center; 71  
Wireless and Radio Frequencies  
Warnings; 26  
Wireless Communications; 61

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**SKORPIO X3**

*modelli con funzionalità radio 802.11a/b/g+BT  
models with 802.11a/b/g+BT radio feature  
modèles avec 802.11a/b/g+BT radio intégrés  
modelle mit 802.11a/b/g+BT radio-funktionalität  
modelos con funcionalidad radio 802.11a/b/g+BT*

sono conformi alle Direttive del Consiglio Europeo sottoelencate:  
are in conformity with the requirements of the European Council Directives listed below  
sont conformes aux spécifications des Directives de l'Union Européenne ci-dessous:  
der nachstehend angeführten Direktiven des Europäischen Rats:  
cumple con los requisitos de las Directivas del Consejo Europeo, según la lista siguiente:

**1999/5/EEC R&TTE**

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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 la siguientes normas:

<b>EN 55022: 2006 (CLASS B ITE) , SEPTEMBER 2006 AMENDMENT A1:2007</b>	<i>INFORMATION TECHNOLOGY EQUIPMENT RADIO DISTURBANCE CHARACTERISTICS LIMITS AND METHODS OF MEASUREMENTS</i>
<b>EN 55024: 1998 AMENDMENT A1:2001 AMENDMENT A2:2003</b>	<i>INFORMATION TECHNOLOGY EQUIPMENT IMMUNITY CHARACTERISTICS LIMITS AND METHODS OF MEASUREMENT</i>
<b>ETSI EN 301 489-1 V1.8.1, APRIL 2008:</b>	<i>ELECTROMAGNETIC COMPATIBILITY AND RADIO SPECTRUM MATTERS (ERM); ELECTROMAGNETIC COMPATIBILITY (EMC) STANDARD FOR RADIO EQUIPMENT AND SERVICES; PART1: COMMON TECHNICAL REQUIREMENTS</i>
<b>ETSI EN 301 489-17 V2.1.1 MAY 2009:</b>	<i>ELECTROMAGNETIC COMPATIBILITY AND RADIO SPECTRUM MATTERS (ERM); ELECTROMAGNETIC COMPATIBILITY (EMC) STANDARD FOR RADIO EQUIPMENT; PART 17: SPECIFIC CONDITIONS FOR 2,4 GHZ WIDEBAND TRANSMISSION SYSTEMS, 5 GHZ HIGH PERFORMANCE RLAN EQUIPMENT AND 5,8 GHZ BROADBAND DATA TRANSMITTING SYSTEMS</i>
<b>ETSI EN 300 328 V1.7.1, OCTOBER 2006:</b>	<i>ELECTROMAGNETIC COMPATIBILITY AND RADIO SPECTRUM MATTERS (ERM); WIDEBAND TRANSMISSION SYSTEMS; DATA TRANSMISSION EQUIPMENT OPERATING IN THE 2,4GHZ ISM BAND AND USING WIDE BAND MODULATION TECHNIQUES; HARMONIZED EN COVERING ESSENTIAL REQUIREMENTS UNDER ARTICLE 3.2 OF THE R&amp;TTE DIRECTIVE</i>

**ETSI EN 301 893 V1.5.1, DECEMBER 2008**

*BROADBAND RADIO ACCESS NETWORKS (BRAN); 5 GHZ  
HIGH PERFORMANCE RLAN; HARMONIZED EN COVERING  
THE ESSENTIAL REQUIREMENTS OF ARTICLE 3.2 OF THE  
R&TTE DIRECTIVE*

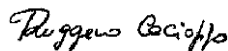
**EN 60950-1:2006  
AMENDMENT A1:2010**

*INFORMATION TECHNOLOGY EQUIPMENT - SAFETY -  
PART 1 : GENERAL REQUIREMENTS*

**EN 62311:2008**

*ASSESSMENT OF ELECTRONIC AND ELECTRICAL  
EQUIPMENT RELATED TO HUMAN EXPOSURE  
RESTRICTIONS FOR ELECTROMAGNETIC FIELDS (0 HZ -  
300 GHZ)*

Lippo di Calderara, May 25th 2012



Ruggero Cacioppo  
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