

MX8 User's Guide

(Microsoft® Windows® CE 5.0 Equipped)

**FOR REVIEW – DO NOT PUBLISH OR DISTRIBUTE -- LXE
CONFIDENTIAL - DRAFT 01 --**



Copyright © 2007 by LXE Inc.
All Rights Reserved
E-EQ-MX8OGWW-A



Notices

LXE Inc. reserves the right to make improvements or changes in the products described in this document at any time without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, LXE assumes no liability resulting from any errors or omissions in this document, or from the use of the information contained herein. Further, LXE Incorporated, reserves the right to revise this document and to make changes to it from time to time without any obligation to notify any person or organization of such revision or changes.

Copyright:

This document is copyrighted. All rights are reserved. This document may not, in whole or in part, be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form without prior consent, in writing, from LXE Inc.

Copyright © 2007 by LXE Inc. An EMS Technologies Company.
125 Technology Parkway, Norcross, GA 30092 U.S.A. (770) 447-4224

Trademarks:

LXE® and **Spire®** are registered trademarks of LXE Inc. **RFTerm®** is a registered trademark of EMS Technologies, Norcross, GA.

Microsoft®, **ActiveSync®**, **MSN**, **Outlook®**, **Windows®**, the Windows logo, and Windows Media are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Summit Data Communications, Inc. Summit Data Communications, the Summit logo, and “The Pinnacle of Performance” are trademarks of Summit Data Communications, Inc.

Java® and Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. or other countries, and are used under license.

The **Bluetooth®** word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by LXE, Inc. is under license.

Hand Held® is a registered trademark of Hand Held Products, Inc., located in Skaneateles Falls, NY.

Wavelink®, the Wavelink logo and tagline, Wavelink Studio™, Avalanche Management Console™, Mobile Manager™, and Mobile Manager Enterprise™ are trademarks of Wavelink Corporation, Kirkland.

RAM® and **RAM Mount™** are both trademarks of National Products Inc., 1205 S. Orr Street, Seattle, WA 98108.

All other brand or product names are trademarks or registered trademarks of their respective companies or organizations.

When this manual is in PDF format: “Acrobat® Reader® Copyright © 2007 Adobe Systems Incorporated. All rights reserved. Adobe®, the Adobe logo, Acrobat®, and the Acrobat logo are registered trademarks of Adobe Systems Incorporated.” applies.

The user is strongly encouraged to read Appendix B, Regulatory Notices and Safety Information. Important safety cautions, warnings and regulatory information is contained in Appendix B.



Important: This symbol is placed on the product to remind users to dispose of Waste Electrical and Electronic Equipment (WEEE) appropriately, per Directive 2002-96-EC. In most areas, this product can be recycled, reclaimed and re-used when properly discarded. Do not discard labeled units with trash. For information about proper disposal, contact LXE through your local sales representative, or visit www.lxe.com.

Table of Contents

INTRODUCTION	1
Overview	1
MX8 Features	2
Important Battery Information	3
Document Conventions	4
Environmental Specifications	4
Laser Warnings and Labels	5
Components	6
Front View	6
Back View	7
Scanner / Imager Aperture	8
Trigger Handle	8
Handstrap	9
I/O Port and Cables	10
MX8 AC Adapter	11
QUICK START	13
In Brief	13
Troubleshooting	14
Related Manuals for Startup	14
Inserting Fully Charged Battery	15
Checking Battery Status	15
About Lithium-Polymer Batteries	16
Tapping the Power Key	16
Tapping the Touchscreen with a Stylus	17
Keypad Shortcuts	17
Calibrating the Touchscreen	18
Set Time Zone (Optional)	18
Entering the AppLock Activation Key	19
Hotkey (Activation Hotkey)	19
Touch	19
Optional Accessory Installation	20
Attaching Handstrap (Optional)	20
Connecting an External Power Supply (Optional)	21
Putting it all together	21
Assembling the 5V AC Power Adapter	21
Connecting the Multipurpose USB / Power Cable	22
Connecting the Multipurpose RS-232 / Power Cable	22
Connecting the Audio Cable and a Headset	23
Adjust Microphone and Secure the Cable	23
Using the 32-Key Numeric-Alpha Keypad	24
Entering Data	25
Using the Keypad	25

Using the Input Panel or Virtual Keyboard	25
Using the Stylus.....	26
Using the Integrated Barcode Scanner or Imager	27
Barcode Scanner	27
2D Imager	27
Scan Status LED	28
Tethered Scanners.....	28
Bluetooth Scanners and Printers	28
Voice Data	28
Bluetooth Devices	29
Getting Help	30
Manuals	30
Accessories – please verify.....	30
 THE MX8 HAND HELD COMPUTER	 33
Reboot Sequence	33
Warm Reset	33
Cold Reset.....	33
Saving Changes to the Registry – process still true?.....	33
Touchscreen Display	34
Cleaning the Glass Display/Beam Aperture	34
Applying the Protective Film to the Display	34
Adjusting the Display Backlight.....	35
Set the Display Backlight Timer.....	35
Setting the Power Schemes Timers.....	36
Battery Power Scheme.....	36
AC Power Scheme.....	36
Setting The Audio Speaker Volume.....	37
Using the Keypad	37
Using the Touchscreen	37
The Keypad	38
LED Indicators.....	38
System Status	38
Scan Status	39
Alpha Mode.....	39
Standard Keys.....	39
Function Keys.....	40
Sticky Keys	40
Ctrl (Control key)	40
Alt (Alternate key).....	40
Shift (Shift key)	40
Orange and Blue Keys.....	40
CapsLock Mode Function	41
Batteries	42
Main Battery	42
Backup Battery	43
Battery Hotswapping	43
MX8 Battery Multi-Charger	44
Charge a Main Battery Pack	44
Passive Vehicle Mount Cradle.....	45

Cradle Assembly Components	46
U-Bracket	46
U-Bracket Footprint.....	46
RAM Ball and Cylinder	47
RAM Assembly Footprint	48
How to Install the Cradle U-Bracket	49
How To Install the RAM Bracket.....	51
 APPENDIX A KEY MAPS	55
 Introduction.....	55
32-Key Numeric-Alpha Keypad	55
 APPENDIX B REGULATORY NOTICES AND SAFETY INFORMATION	61
 MX8 Approvals/Standards	62
 INDEX	69

Illustrations

Figure 1 CDRH / IEC 825 Caution Label Location – MX8, Back	5
Figure 2 Caution Label – Class 2 Laser Scanner	5
Figure 3 Front of MX8.....	6
Figure 4 Back.....	7
Figure 5 Beam Aperture.....	8
Figure 6 Trigger Handle (Optional)	8
Figure 7 Handstrap (Optional)	9
Figure 8 I/O Port and Cables.....	10
Figure 9 5V AC Adapter - Assembled.....	11
Figure 10 MX8 Cabling Options.....	12
Figure 11 MX8 Desktop	13
Figure 12 Lithium Polymer Battery Pack	15
Figure 13 Power Key Location	16
Figure 14 Touchscreen Recalibration	18
Figure 15 Attaching the Handstrap	20
Figure 16 USB – MX8 – Power Assembly	21
Figure 17 AC/DC 5V External Power Supply	21
Figure 18 Connect the USB / Power Cable to the MX8 Port.....	22
Figure 19 Connect the RS-232 / Power Cable to the MX8 Port.....	22
Figure 20 Audio Cable and Headset	23
Figure 21 The 32-Key Keypad.....	24
Figure 22 Input Panel / Virtual Keyboard.....	25
Figure 23 Laser Scanner Beam on Linear Barcode.....	27
Figure 24 Imager Bracketed Crosshair Target on 2D Barcode	27
Figure 25 Scan Status LED	28
Figure 26 Touchscreen Display	34
Figure 27 Setting the Display Backlight Timer.....	35
Figure 28 Volume & Sounds Properties	37
Figure 29 The 32-key Keypad.....	38
Figure 30 Lithium Polymer Battery Pack	42
Figure 31 MX8 Multi-Charger / Analyzer	44
Figure 32 Insert Battery Pack in Charging Pocket.....	44
Figure 33 Passive Vehicle Mount Cradle and U-Bracket	46
Figure 34 Bracket Mounting Footprint	46
Figure 35 Passive Vehicle Mount Cradle / RAM Ball Assembly	47
Figure 36 RAM Bracket Components.....	47
Figure 37 RAM Assembly Footprint	48
Figure 38 Install Cradle U-Bracket.....	49
Figure 39 Install RAM Bracket Assembly.....	51

Introduction

Overview

The LXE® MX8 is a rugged, portable, hand-held Microsoft® Windows® CE 5.0 equipped mobile computer capable of wireless data communications. The mobile device can transmit information using an 802.11 network card and it can store information for later transmission through an RS-232 or USB port.

The mobile device is vertically oriented and features backlighting for the display. The touch-screen display supports graphic features and Windows icons that the Windows CE 5.0 operating system supports. Keypads are available in 32-key numeric-alpha versions.

This device is a Windows CE 5.0 compatible computer that can be scaled from a limited function batch computer to an integrated RF scanning computer. A trigger handle is available as an accessory.

The stylus attached to the handstrap is used to assist in entering data and configuring the mobile device. Protective film for the touchscreen is available as an accessory.

The MX8 is powered by a 3000 mAh Lithium-Polymer main battery pack and an internal Ni-MH backup battery.


Important

- If the mobile device has AppLock installed, please refer to the *MX8 Reference Guide, Chapter 6 – AppLock* for setup and processing.
- Wireless configuration and security parameters are described in detail in the MX8 Reference Guide, Chapter 5 – Wireless Network Configuration.

MX8 Features

The appropriate wireless utility for your device configuration has been pre-installed by LXE.

The desktop will display a Summit Client Utility icon for 802.11 wireless configuration and security.

	Summit 	Optional?
LXE 802.11 b/g Radio	x	No
Summit® Client Utility	x	No
LXE Bluetooth Printers and Scanners	x	Yes
520MHz	x	No
128MB RAM	x	No
128MB Flash	x	No
SE955 Laser Scanner	x	Yes
EV-15 Linear Imager	x	Yes
5380SF 2D Imager	x	Yes
CE 5.0	x	No
Voice	x	Yes
RFTerm®	x	Yes
JAVA®	x	Yes
AppLock	x	Yes



The MX8 does not have a Bluetooth managed LED.

Important Battery Information







Note: This mobile device's backup battery maintains its charge by drawing power from the main battery pack. Always store unused devices with a fully charged main battery pack installed. LXE recommends an in-use mobile device be frequently connected to an external power source to maintain optimum power levels in the main battery pack and the backup battery. When the backup battery and main battery pack are dead, the mobile device reverts to the last saved setup defaults when a fully charged main battery pack is installed and the device is powered On again.

Tap  | Settings | Control Panel | Battery tab.

- Until the main battery and backup battery are completely depleted, the MX8 is always drawing power from the batteries (On).
- New batteries must be fully charged prior to use.
- Whenever possible, use the AC power adapter with the MX8 to conserve the main battery and recharge the backup battery.
- Ni-MH backup battery replacement must be performed by qualified service personnel.

CAUTION 	RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.
ATTENTION 	Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

Document Conventions

ALL CAPS	All caps are used to represent disk directories, file names, and application names.
Menu Choice	Rather than use the phrase “choose the Save command from the File menu”, this guide uses the convention “choose File Save”.
“Quotes” or Italics	Indicates the title of a book, chapter or a section within a chapter (for example, “Document Conventions” and Document Conventions).
< >	Indicates a key on the keypad (for example, <Enter>).
	Indicates a reference to other documentation.
ATTENTION	Keyword that indicates vital or pivotal information to follow.
	Attention symbol that indicates vital or pivotal information to follow. Also, when marked on product, means to refer to the user’s guide.
	International fuse replacement symbol. When marked on the product, the label includes fuse ratings in volts (v) and amperes (a) for the product.
Note:	Keyword that indicates immediately relevant information.
CAUTION 	Keyword that indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
WARNING 	Keyword that indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
DANGER 	Keyword that indicates a imminent hazardous situation which, if not avoided, will result in death or serious injury.

Environmental Specifications

Operating Temperature	14°F to 122°F (-10°C to 50°C) [non-condensing]
Storage Temperature	-4°F to 158°F (-20°C to 70°C) [non-condensing]
Water and Dust	IEC 60529 compliant to IP54
Operating Humidity	5% to 90% non-condensing at 104°F (40°C)
Vibration	Based on MIL Std 810D
ESD	8 kV air, 4kV contact
Bluetooth Range	32.8 feet (10 meters) Direct line of sight only.

Laser Warnings and Labels

- Do not look into the laser's lens.
- Do not stare directly into the laser beam.
- Do not remove the laser caution labels from the MX8.
- Do not connect the laser barcode aperture to any other device. The laser barcode aperture is certified for use with the MX8 only.


Caution: 	Laser radiation when open. Please read the caution labels. Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
--	---



Figure 1 CDRH / IEC 825 Caution Label Location – MX8, Back

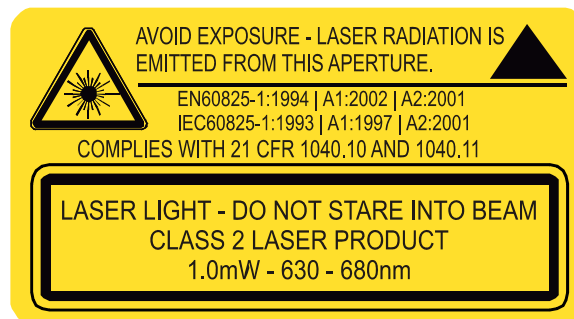



Figure 2 Caution Label – Class 2 Laser Scanner

Components

Front View



Figure 3 Front of MX8

- 1 Imager/Scanner Aperture
- 2 Speaker
- 3 System Status LED
- 4 Scan Button
- 5 Orange Key (Sticky Key)
- 6 Blue Key (Sticky Key)
- 7 Scan Status LED
- 8 Cable Port
- 9 On / Off Button
- 10 Alpha Mode LED
-  Diamond Number Keys

Back View

Figure 4 Back

- 1 Imager/Scanner Aperture
- 2 Trigger Handle Attach Points
and
Handstrap Retainer Bracket Attach Points
- 3 Main Battery
- 4 Battery Fastener
- 5 Cable Ports (I/O Port)

Note: The touch screen stylus is tethered to the handstrap or the trigger handle.

Scanner / Imager Aperture

CAUTION: *Never stare directly into the beam aperture. Read the previous section **Laser Warnings and Labels** before using the scanner/imager.*



Figure 5 Beam Aperture

Identify the type of integrated imager or laser scanner installed in the MX8 by looking at the type of plastic lens covering the Beam aperture.

- The No-Scanner option has an opaque lens protecting the MX8 internal components.
- The SE955 laser barcode scanner has a red lens protecting the laser engine.
- The EV-15 integrated imager has a clear lens protecting the imager engine.
- The 5380SF 2D imager has an opaque lens protecting the imager engine.

Trigger Handle



Figure 6 Trigger Handle (Optional)

- | | | | |
|---|---------------|---|---------------------|
| 1 | Scan Aperture | 3 | Handle |
| 2 | Trigger | 4 | Tether Attach Point |

Note: Either the trigger handle is attached to the MX8 or the handstrap is attached, not both. LXE recommends that, in the absence of a trigger handle, the handstrap be used at all times. The stylus is tethered to the handstrap or the trigger handle. **LXE pre-installs the trigger handle, if ordered.**

Refer to the MX8 Reference Guide for Trigger Handle installation instruction.

Handstrap



Figure 7 Handstrap (Optional)

- 1 Handstrap Retainer Bracket
- 2 Handstrap
- 3 Handstrap Clip

Note: Either the trigger handle is attached to the MX8 or the handstrap is attached, not both. LXE recommends that, in the absence of a trigger handle, the handstrap be used at all times. The stylus is tethered to the handstrap or the trigger handle. LXE pre-installs the handstrap when the MX8 is purchased without a trigger handle.

I/O Port and Cables

Note: There is no IR port on the MX8. Tethered scanners are not supported on the MX8.



Figure 8 I/O Port and Cables

Cable: Multipurpose RS-232 and Power

MX8A055MULTICBLDA9F



Cable: Multipurpose USB and Power

MX8A052MULTICBLUSB



Adapter/Cable : Audio

MX8A060ADPTCBLVOICE



MX8 AC Adapter

need pic  AC Adapter


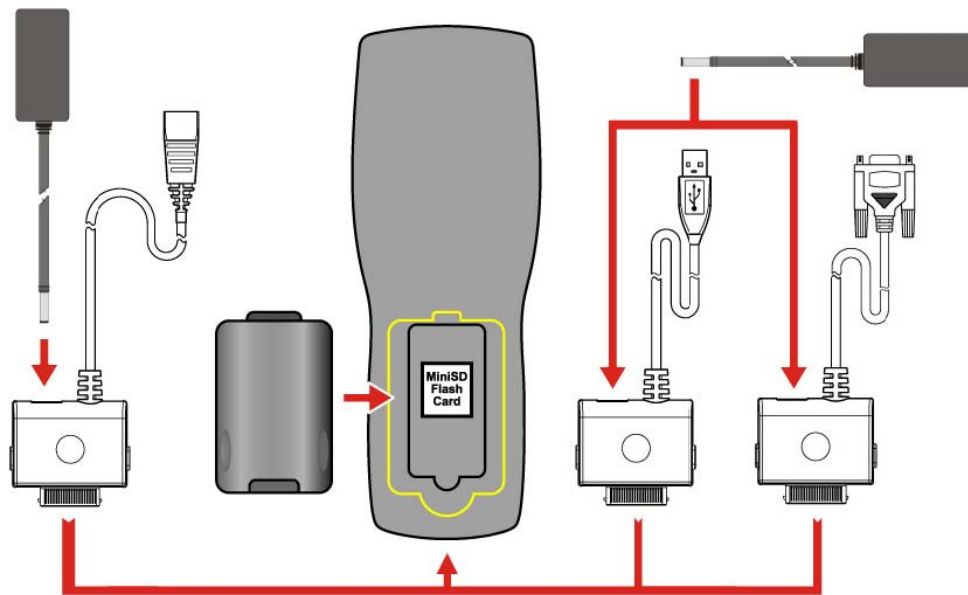
need pic  AC Power Cable



Figure 9 5V AC Adapter - Assembled

The LXE-approved AC Power Adapter is only intended for use in a 25°C (77°F) maximum ambient temperature environment.



Note: Tethered scanners connected to the MX8 I/O port are not supported by LXE.

Figure 10 MX8 Cabling Options

Quick Start

In Brief . . .

Note: When your mobile device is pre-configured, the client, keypad and scan aperture configurations are assembled by LXE to your specifications. The desktop will display a Summit Client Utility icon.

This section's instructions are based on the assumption that your new device is pre-configured and requires only accessory installation (e.g. stylus) and a power source. LXE recommends that installation or removal of accessories be performed on a clean, well-lit surface. When necessary, protect the work surface, the mobile device, and components from electrostatic discharge.

In general, the sequence of events is:

1. Insert a fully charged battery. (Always put a fully charged battery in the mobile device at the beginning of the shift or workday.)
2. Connect an external power source to the unit (if available).
3. If the screen does not automatically display, tap the Power key.
4. Calibrate the touchscreen.
5. A white screen will appear during the boot process until all CAB files and applications are loaded and installed. Radio setup screens may appear and disappear while files are loading.
6. After all files are loaded and the Microsoft Windows CE Desktop is displayed, adjust audio volume and other parameters if desired.


If needed, change the Time and Date from it's default value by tapping the  | Settings | Control Panel | Date/Time icon.



Figure 11 MX8 Desktop

Troubleshooting

Can't calibrate the touch screen, change the date/time or adjust the volume.	AppLock is installed and running on the mobile device. AppLock restricts User access to running programs. Changes or modifications require Administrator access. Refer to AppLock in the MX8 Reference Guide for setup and processing information.
RFterm opens and runs upon each cold reset and warm reset.	Tap File Exit to close the RFterm application. RFterm opens and runs by default after every reset.
The MX8 seems to lockup as soon as it is warm booted.	There may be small delays while the wireless client connects to the network, authorization for Voxware-enabled applications complete, Wavelink Avalanche management of the MX8 startup completes, and Bluetooth relationships establish or re-establish..

Related Manuals for Startup



Integrated Scanner Programming Guide – contains programming barcodes used when setting up integrated scan engines.

- [SE955 scanner barcode reading parameters, refer to Chapter 2 in the Integrated Scanner Programming Guide.](#)
- [Intermec EV-15 linear imager, refer to Chapter 3 in the Integrated Scanner Programming Guide.](#)
- [5380SF 2D imager, refer to Chapter 4 in the Integrated Scanner Programming Guide.](#)

MX8 Reference Guide – contains instruction, technical and troubleshooting information for software and hardware functions.

MX8 Multicharger User's Guide – contains user, technical and troubleshooting information for the MX8 battery multi-charger.

Inserting Fully Charged Battery

CAUTION 	RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.
ATTENTION 	Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

Press the Power key after the battery is inserted into the MX8.

Note: On first use the MX8 batteries should be charged with an external power source (i.e. AC Adapter) – 5 hours for the main battery and 7 hours for the backup battery. New main battery packs alone must be charged prior to first use – this process takes up to five hours in an LXE Multi-Charger.



Figure 12 Lithium Polymer Battery Pack

The MX8 Battery Compartment is located at the bottom of the back of the computer. The main battery functions as the battery well cover.

Place the battery in the battery well, making sure the tab on the bottom of the battery pack fits into the slot at the bottom end of the battery well. Push the battery down into the battery well until the tab clicks into place and the battery pack is secure in the battery well.


The backup battery is trickle-charged by the main battery. Whenever possible, use the AC power adapter with the MX8 to conserve the main battery and charge the backup battery.

The Status LED indicates battery condition. It is steady red when the main battery is Low. When the battery has sufficient energy the Status LED is unlit. The Battery control panel displays main and backup battery charging and power status (Windows | Settings | Control Panel | Battery).

Checking Battery Status

Tap the Windows | Settings | Control Panel | Battery icon. Main battery level, backup battery level, status and other details are displayed.

About Lithium-Polymer Batteries

Li-Polymer batteries (like all batteries) gradually lose their capacity over time (in a linear fashion) and never just stop working. This is important to remember – the MX8 is always ‘on’ even when in the Suspend state and draws power from the batteries at all times. Tap the  | **Settings** | **Control Panel** | **Power** tab to check the battery status and power reading.

The following chart is an approximation. Actual battery capacity varies based on usage, ambient temperature and peripherals drawing power from the MX8:

100% capacity	2800 mAh minimum
80% capacity	2280 mAh minimum

Deciding when to put a fully charged main battery pack in the MX8 is difficult to quantify because it is very application specific. 2000 mAh may be the cutoff for one customer who uses the mobile device frequently, while 1500 mAh may be perfectly fine for a customer who occasionally uses the mobile device. You need to determine the point at which battery life becomes unacceptable for your business practices and replace the main battery pack before that point.

Tapping the Power Key

Note: Refer to the section titled Power Modes in the MX8 Reference Guide for information relating to the power states of the MX8.

Important: **Until the main battery and backup battery are completely depleted, the MX8 is always drawing power from the batteries (On).**

The Power key is located at the bottom of the keypad. When a battery is inserted in the MX8 for the first time press the Power key.

Tapping the Power key places the MX8 immediately in Suspend mode.

Tapping the Power key again immediately returns the MX8 from Suspend.

or

Tap  | Suspend.



Figure 13 Power Key Location

See Also: *LED Indicators* and *System Status LED* later in this guide.

See Also: *Reboot Sequence* in *MX8 Hand Held Computer* for reboot options and instruction.

Tapping the Touchscreen with a Stylus

Note: Always use the point of the stylus for tapping or making strokes on the touchscreen. Never use an actual pen, pencil, sharp or abrasive object to write on the touchscreen.

Hold the stylus as if it were a pen or pencil. Touch an element on the screen with the tip of the stylus then remove the stylus from the screen. Place the stylus into the stylus holder when the stylus is not in use.

Like using a mouse to left-click icons on a desktop computer screen, using the stylus to tap icons on the touchscreen is the basic action that can:

- Open applications
- Choose menu commands
- Select options in dialog boxes or drop-down boxes
- Drag the slider in a scroll bar
- Select text by dragging the stylus across the text
- Place the cursor in a text box prior to typing in data or retrieving data using the Scan button or an input/output device connected to the serial port.
- A mouse right-click is performed by holding the stylus down on the touchscreen. A circle of dots appear and then the right-click operation can be performed. See note.

Note: A “right mouse click” function must be programmed by the customer to accept a Tap and Hold function. An application can choose to interpret this function as a right mouse click. LXE does not support non-LXE application programming.

Keypad Shortcuts

Use keyboard shortcuts instead of the stylus:


- Press <Tab> and an <Arrow> key to select a file.
- Once you’ve selected a file, press <Enter> to open the file or press <Alt> then press <Enter> to open its Properties dialog.
- Press to delete a file.
- To force the Start menu to display, press <Ctrl> and release, press <Blue> and release, then press <Esc> (the Alt key).

See the section titled Accessories for the stylus replacement kit part number.

Calibrating the Touchscreen

If the touchscreen is not responding properly to stylus taps, you may need to recalibrate the touchscreen. Recalibration involves tapping the center of a target. If you miss the center, keep the stylus on the screen, slide it over the target's center, and then lift the stylus.

If the touchscreen is not accepting taps or needs recalibration, press <Ctrl>+<Blue>+<Alt> to force the Start Menu to appear.

To recalibrate the screen, select  | Settings | Control Panel | Stylus | Calibration tab.

To begin, tap the Recalibrate button on the screen with the stylus.

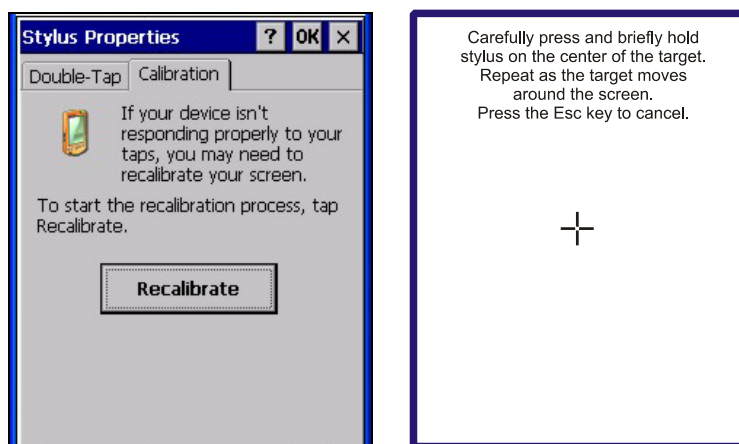


Figure 14 Touchscreen Recalibration

Follow the instructions on the screen and press the Enter key to save the new calibration settings or press Esc to cancel or quit.

Set Time Zone (Optional)

Note: The first time it is powered up, or the device returns from a Cold Reset, the MX8 resets the Time Zone to the factory default values (GMT-05:00 Eastern Time).

To set the Time Zone, tap the Start | Settings | Control Panel | Date/Time icon.

Select the physical time zone. Enable the checkbox next to “Automatically adjust clock for daylight saving” if applicable.

If required, adjust the time and calendar date and tap the Apply button. Tap the OK button when you are finished or the X button to ignore any changes.

Entering the AppLock Activation Key

Hotkey (Activation Hotkey)

If the mobile device uses LXE's AppLock to allow the user to switch between applications, the default Activation key is <Ctrl>+<Spc>. The key sequence switches the focus between one application and another. Data entry affects the application running in the foreground only. Note that the system administrator may have assigned a different key sequence to use when switching applications.

Touch

Note: The touch panel must be enabled.

Tap the Switchpad taskbar icon to place the popup menu on screen. Tap one of the application names in the popup menu. The selected application is brought to the foreground while the other application continues to run in the background. Stylus taps affect the application running in the foreground only.

Optional Accessory Installation

Attaching Handstrap (Optional)

Note: Either the trigger handle is attached to the MX8 or the handstrap is attached, not both. LXE recommends that, in the absence of a trigger handle, the handstrap be used at all times. LXE pre-installs the handstrap on devices that are purchased without a trigger handle. Refer to the MX8 Reference Guide for instructions on installing the Trigger Handle (a torque wrench will be required).

Once installed, the handstrap provides a means for the user to secure the computer to their hand. It is adjustable to fit practically any size hand and does not interfere with the multipurpose cable, if connected, when the mobile device is in a cradle.



Figure 15 Attaching the Handstrap

- 1 Handstrap Retainer Bracket
- 2 Handstrap
- 3 Handstrap Clip

Tool Required: #1 Phillips Screwdriver (not supplied by LXE)

Installation

1. Place the MX8, with the screen facing down, on a flat stable surface.
2. Attach the handstrap retainer bracket to the MX8 with the screws provided.
3. Slip the Handstrap Clip into the bracket at the base of the MX8.
4. Making sure the closed loop fastener surfaces on the handstrap are facing up, slide the strap through the pin in the retainer bracket and the clip.
5. Fold each end of the the strap over so that the closed loop fastener surfaces mate evenly.
6. Test the strap's connection making sure the MX8 is securely connected to each end of the strap connectors.

Check the closed loop fastener, retainer bracket and clip connections frequently. If they have loosened, they must be tightened before the MX8 is placed into service again. If the handstrap gets worn or damaged, it must be replaced.

Connecting an External Power Supply (Optional)

The MX8 receives AC/DC power from the AC/DC 5V Power Supply. The MX8 external power connection is part of the RS-232 cable assembly and the USB cable assembly.

Putting it all together ...



Figure 16 USB – MX8 – Power Assembly

To apply external power to the MX8 follow the steps below in sequence.

1. Plug the 2 prong adapter cable end of the external power module into an AC power source (e.g. wall outlet).
2. Squeeze the sides of the power connector and push the power cable connector into the MX8 I/O port until it clicks. The click means the connector is seated firmly.

The System LED above the Scan key illuminates when the MX8 is charging the main battery pack using external power through the power cable. The backup battery is always being trickle charged by the main battery pack.

Whenever possible, use the AC power adapter with the MX8 to conserve the main battery power and maintain a charge in the backup battery.

Assembling the 5V AC Power Adapter

The LXE-approved AC Power Adapter is only intended for use in a 25°C (77°F) maximum ambient temperature environment.

If the AC power cable is not included with the AC Adapter, please contact your LXE representative for assistance.



need new pic

Figure 17 AC/DC 5V External Power Supply

Plug the 2-prong cable into an AC wall outlet. Firmly press the female end of the power cable into the male connector on the power adapter. AC power is now being supplied to the power adapter. See Accessories for the LXE part number for the AC Power Adapter to use with the MX8.

Connecting the Multipurpose USB / Power Cable

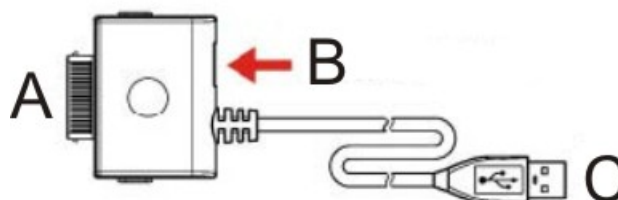


Figure 18 Connect the USB / Power Cable to the MX8 Port

- Connector A Squeeze the clips on the connector cable to open the catches in the connector assembly. Firmly press Connector A into the connector at the base of the MX8. Release the clips in the connector cable. Test the connection for stability before connecting to USB
- Connector B Firmly push the power cable connector pin into connector B. Plug the 2-prong cable into an AC wall outlet.
- Connector C Insert the USB Type A plug into an appropriate USB port on a desktop/laptop computer for ActiveSync communication.

Connecting the Multipurpose RS-232 / Power Cable

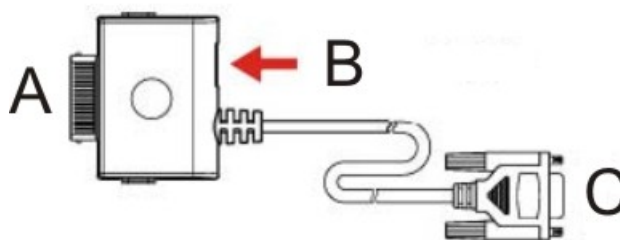


Figure 19 Connect the RS-232 / Power Cable to the MX8 Port

- Connector A Squeeze the clips on the connector cable to open the catches in the connector assembly. Firmly press Connector A into the connector at the base of the MX8. Release the clips in the connector cable. Test the connection for stability before connecting the B or C connector.
- Connector B Firmly push the power cable connector pin into connector. Plug the 2-prong cable into an AC wall outlet.
- Connector C Align the RS-232 serial cable end carefully to an appropriate serial port on a desktop/laptop computer for ActiveSync communication. Press the ends together and hand tighten the screws on either side of the serial cable until the MX8 is securely connected to the serial device.

Connecting the Audio Cable and a Headset

See section titled Set the Audio Speaker Volume. Use the Control Panel Mixer applet to set up the mono headphone. The Summit Client supports mono only.

Note: The audio option draws power from the main battery.

The headset consists of an earpiece, a microphone and an attached cable. The headset attaches to the audio cable which attaches to the MX8.

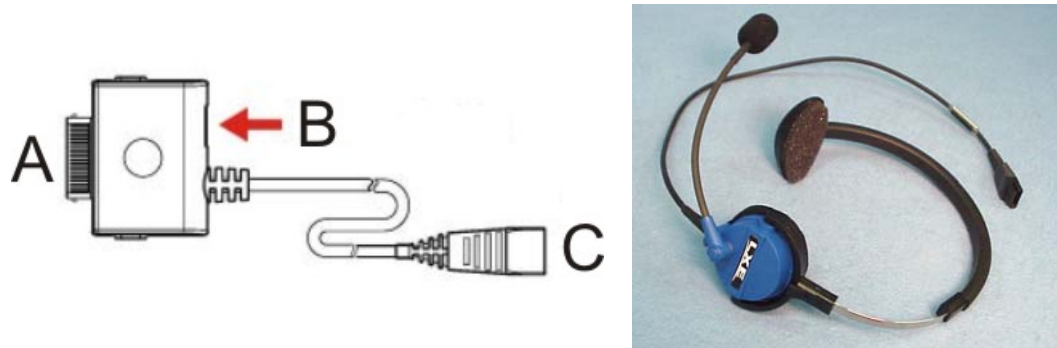


Figure 20 Audio Cable and Headset

- | | |
|-------------|--|
| Connector A | Squeeze the clips on the connector cable to open the catches in the connector assembly. Firmly press Connector A into the connector at the base of the MX8. Release the clips in the connector cable. Test the connection for stability before continuing. |
| Connector B | (Optional) Firmly push the power cable connector pin into the MX8 connector. Plug the 2-prong cable into an AC wall outlet. |
| Connector C | Align Connector C and the headset quick connect cable end. Firmly push the cable ends together until they click and lock in place. |

Adjust Microphone and Secure the Cable

Do not twist the microphone boom when adjusting the microphone.

The microphone should be adjusted to be about two finger widths from your mouth.

Make sure the microphone is pointed at your mouth. Note the small “Talk” label near the mouthpiece. Make sure the Talk label is in front of your mouth.

The microphone cable can be routed over or under clothing.

Under Clothing

- Leave the cable exposed only at the top of the collar.
- Be sure to leave a small loop of cable to allow movement of your head.

Over Clothing

- Use clothing clips to hold the cable close to your body.
- Tuck the cable under the belt, but leave a small loop where it goes under the belt.
- Do not wear the cable on the front of your body. It may get in your way or get caught on protruding objects.

Using the 32-Key Numeric-Alpha Keypad

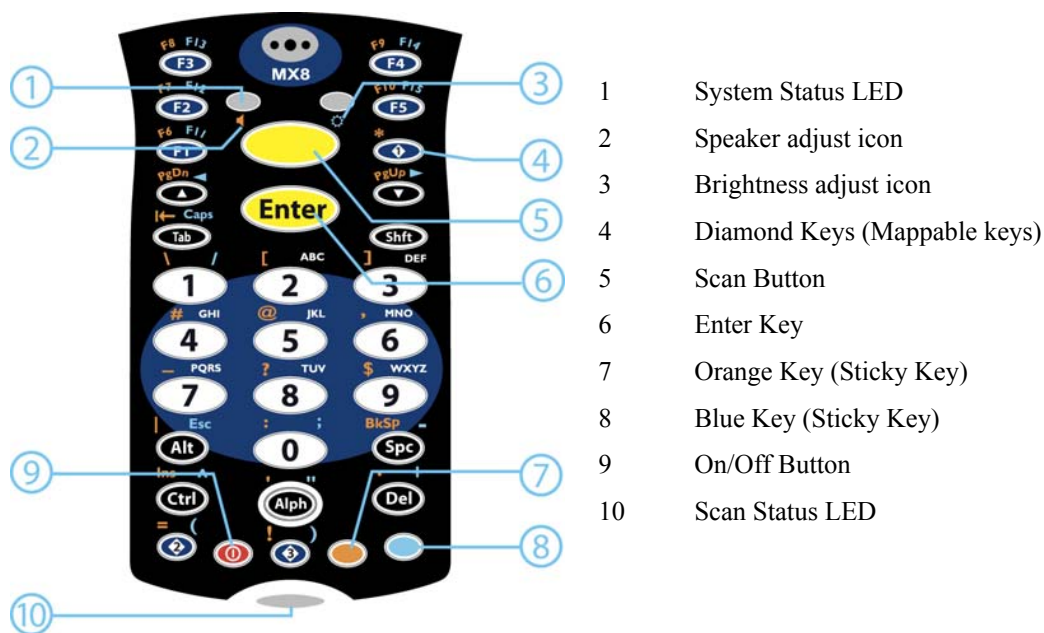


Figure 21 The 32-Key Keypad

- When using a sequence of keys that require an alpha key, first press the Alph key. Use the Shft sticky key or the Caps key sequence (Blue+Tab) for upper case alphabetic characters.
- Pressing the Alph key forces “Alpha” mode for the 2,3,4,5,6,7,8, and 9 keys. The 1 and 0 keys continue to place a 1 and 0 into the text field.
- To create a combination of numbers and letters before pressing Enter, remember to tap the Alph key to toggle between Alpha and Numeric mode.
- When using a sequence of keys that do not include the Alph key but does include a sticky key, press the sticky key first then the rest of the key sequence.

The keymaps (keypress sequences) are located in Appendix A – Key Maps.

Entering Data

You can enter data into the MX8 through several different methods. The scanner aperture provides barcode data entry, the I/O port is used to input/output data, and the keypad provides manual (or keyed) data entry.

Mobile devices with a touchscreen use a stylus to input data, the I/O port and/or the keypad. An input panel (virtual keyboard) is available in applications that expect keyed input.

Using the Keypad

The keypad is used to manually input data that is not collected otherwise. Almost any function that a full sized computer keyboard can provide is duplicated on the MX8 keypad but it may take a few more keystrokes to accomplish a keyed task. Please refer to Appendix A – Key Maps for instruction on the specific keypresses to access all keypad functions.

Almost every key has two or three different functions. The primary alpha or numeric character is printed on the key.

The Orange or Blue keys are pressed when you want to use a “sticky” key function. For example, when you press a Blue or Orange key (the sticky key), then press the key that has the desired second-function key, the second-function key is the “active” key. The specific sticky character is printed above the corresponding key in either Orange or Blue.

Using the Input Panel or Virtual Keyboard

The virtual keyboard is always available when needed e.g. text field input. Tap the keyboard icon at the bottom of the screen to put the virtual keyboard on the display. Using the stylus:

- Tap the Shift key to type one capital letter.
- Tap the CAPS key to type all capital letters.
- Tap the au key to access symbols.

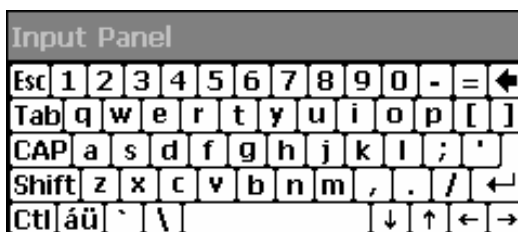


Figure 22 Input Panel / Virtual Keyboard

Some applications do not automatically display the Input Panel. In this case, do the following to use the Input Panel:

1. Tap the Input Panel/Virtual Keyboard icon in the taskbar.
2. Select Keyboard from the menu.
3. Tap the data entry area on the display when you want to enter data using the Input Panel.

Using the Stylus

Note: This section is directed to the MX8 daily user. The assumption is that the mobile device has been configured and the touch panel calibrated by the System Administrator prior to releasing the MX8 for daily use. The touch screen should be calibrated before initial use.

The stylus performs the same function as the mouse that is used to point to and click elements on a desktop computer. The stylus is used in the same manner as a mouse – single tap or double tap to select menu options, drag the stylus across text to select, hold the stylus down to activate slider bars, etcetera.

Hold the stylus as if it were a pen or pencil. Touch an element on the screen with the tip of the stylus then remove the stylus from the screen. Place the stylus into the stylus holder when the stylus is not in use.

The stylus can be used in conjunction with the keyboard and scanner and an input/output device connected to the serial port.

- Touch the stylus to the field of the data entry form to receive the next data feed.
- The cursor begins to flash in the field.
- The unit is ready to accept data from either the physical keypad, virtual keyboard, an input/output device connected to the serial port or the integrated scan aperture.

Note: Always use the point of the stylus for tapping or making strokes on the display. Never use an actual pen, pencil or sharp object to write on the touch screen.

Using the Integrated Barcode Scanner or Imager

Use the integrated laser scanner to scan linear barcodes.

Use the EV-15 integrated imager to scan 1D linear barcodes.

Use the 5380SF integrated imager to scan 2D barcodes.

- Read all cautions, warnings and labels before using the laser scanner.
- Do not look into the laser's lens.
- Do not stare directly into the laser beam.

Barcode Scanner

To scan with the integrated laser barcode reader, point the scan aperture towards a barcode and press the Scan button. You will see a red beam strike the barcode. Align the beam so that the barcode is centered within the beam. The laser beam must cross the entire barcode. Move the MX8 towards or away from the barcode so that the barcode takes up approximately two-thirds the width of the beam.

There may be a tactile response combined with the Scan functions.

Laser



Figure 23 Laser Scanner Beam on Linear Barcode

2D Imager



Figure 24 Imager Bracketed Crosshair Target on 2D Barcode

To scan with the integrated imager, point the scan aperture towards a 2D barcode and press the Scan button. You will see a bracketed crosshair strike the barcode. Align the brackets so that the center of the barcode is covered by the crosshair.

Move the MX8 towards or away from the barcode until a response is received by the MX8 (beep, tactile response, etc) or the bracketed crosshair times out and disappears.

Scan Status LED



Figure 25 Scan Status LED

The Scan Status LED (oval shaped LED below keypad) turns red when the laser beam is on. Following a barcode scan and read the Scan Status LED turns green for two seconds and the MX8 beeps or vibrates, indicating a successful scan. If the scan was unsuccessful, the Scan Status LED turns off and a different beep sequence is heard.

The laser engine and Scan Status LED automatically turn off after a successful read, or after the timer expires after an unsuccessful read. The scanner / imager is ready to scan again after the Scan key (or trigger on the handle if installed) is released, or after the Scan Status LED turns off following a successful scan.

The Scan Status LED turns amber when scanner/imager programming changes, if any, are being saved. When the LED is off, the MX8 is ready to scan again.

Tethered Scanners

Tethered scanners cabled to the MX8 I/O port are not supported by LXE.

Bluetooth Scanners and Printers

Bluetooth scanners are paired to the MX8 wirelessly using the MX8 Bluetooth wireless client.

Only LXE Bluetooth scanners and LXE Bluetooth printers are supported by LXE. See *Accessories*.



Voice Data

Data is entered into the MX8 by speaking into the headset's microphone when prompted. Please contact your System Administrator if assistance is needed with the voice software.

Bluetooth Devices

Assumption: The System Administrator has Discovered and Paired targeted Bluetooth devices for each MX8. The System Administrator has also enabled / disabled Bluetooth settings and assigned a Computer Friendly Name for each MX8. See the MX8 Reference Guide for information and instruction on the MX8, Bluetooth control panel applet and supported LXE Bluetooth printers and scanners.

The Bluetooth taskbar Icon state and Bluetooth scanner LED states change as Bluetooth devices are discovered, pair, connect and disconnect. There may be audible or visual signals as paired devices re-connect with the MX8. Non-LXE Bluetooth devices may be discovered but are inaccessible as they are filtered out on the Bluetooth Devices panel and are not displayed (see MX8 Reference Guide for details).

Taskbar Icon	Legend
	Bluetooth module is connected to one or more of the targeted Bluetooth device(s).
	<p>MX8 is not connected to any Bluetooth device.</p> <p>MX8 is ready to connect with any Bluetooth device.</p> <p>MX8 is out of range of all paired Bluetooth device(s). Connection is inactive.</p>

Note: When an active paired device, not the MX8, enters Suspend Mode, is turned Off or leaves the MX8 Bluetooth scan range, the Bluetooth connection between the linked device and the MX8 is lost. There may be audible or visual signals as paired devices disconnect from the MX8.

Notes:

- The MX8 does not have a Bluetooth managed LED.
- The LED on the Bluetooth scanner illuminates during a scanning operation; the Scan LED on the MX8 does not illuminate.
- Barcode data captured by the Bluetooth scanner is manipulated by the settings in the MX8 Scanner Properties control panel applet.
- Multiple beeps may be heard during a barcode scan using the Bluetooth scanner; beeps from the Bluetooth scanner as the barcode data is accepted/rejected, and other beeps from the MX8 during final barcode data manipulation.

See *Accessories* for supported Bluetooth printers and scanners.

AppLock, if installed, does not stop the end-user from using Bluetooth, nor does it stop authorized Bluetooth devices from pairing with the MX8 while AppLock is in control.

Getting Help

All LXE user guides are now available on one CD and they can also be viewed/downloaded from the LXE ServicePass website. Contact your LXE representative to obtain the LXE Manuals CD.

You can also get help from LXE by calling the telephone numbers listed on the LXE Manuals CD, in the file titled Contacting LXE. This information is also available on the LXE website.

Explanations of terms and acronyms used in this guide are located in the file titled LXE Technical Glossary on the LXE Manuals CD and the LXE ServicePass website.

Manuals

MX8 Reference Guide
 MX8 Multi-Charger / Analyzer User's Guide
 LXEbook – MX8 User's Guide (download to mobile device)
 RFTerm Reference Guide
 LXE Security Primer
 CE API Programmers Guide
 Integrated Scanner Programmers Guide

Accessories – please verify

Note: Items with a Green letter R in the second column are ROHS-compliant. Please contact your LXE representative when ordering ROHS-compliant items as the part number may have changed. Items without the letter R may have received ROHS-compliance after this guide was published.

MX8 Main Battery , Lithium Polymer	R	MX8A380BATT
4 Unit Main Battery Charger (US power cord)	R	MX8A385CHGR5US
4 Unit Main Battery Charger (no power cord)	R	MX8A386CHGR5WW
MX8 Passive vehicle cradle . Does not support charging or communication. U-Bracket included.	R	MX8A007VMCRADLE
RAM mount kit for MX8 Vehicle Bracket. This kit does NOT include the Cradle. Attaches to U-Bracket.	R	MX8A001RAMBRKT
Replacement MX8 Hand Strap	R	MX8A401HANDSTRAP
Carry case for MX8 with no handle, includes shoulder strap	R	MX8A402CASENHDL
Carry case for MX8 with handle, includes shoulder strap	R	MX8A403CASEHDL
MX8 Voice Application case with belt	R	MX8A404CASEVRNHDL
Holster for MX8 with handle, belt NOT included	R	MX8A405HOLSTERHDL
MX8 Padded handle with rubber overmold and two finger trigger, includes wrist strap	R	MX8A406HANDLE
Holster for MX8 with no handle, belt not included	R	MX8A407HOLSTERNHDL
Black rubber protective boot	R	MX8A488PROTBOOT
Yellow rubber protective boot	R	MX8A489PROTBOOTYEL
Carry case for MX8 with Gearkeeper retractor	R	MX8A408RETRACTORCASE

Non-handle holster that fits MX8 with boot	R	MX8A409HOLSTERWBOOT
Holster belt	R	9200L67
MX8 Charge/Comm Interface Cable , USB Client for ActiveSync	R	MX8A052MULTICBLUSB
MX8 Charge/Comm Interface Cable , RS-232 Serial ActiveSync, D9 Female	R	MX8A055MULTICBLDA9F
AC/DC power supply with US power cord for use with MX8 Charge/Comm cables	R	9000A319PSACUS
AC/DC power supply without power cord for use with MX8 Charge/Comm cables	R	9000A302PSACWW
RS-232 Serial Adapter cable , 6in, for use with printers that provide their own source of power.	R	MX8A058ADPTCBLPER
MX8 Headset coiled adapter cable , includes quick disconnect headset connector. A headset is still required.	R	MX8A060ADPTCBLVOICE
MX8 Replacement Stylus , 10-pack	R	MX8A584STYLUS
Large tethered stylus which fit the MX8 carry cases, 5 pack	R	9000A507STYLUS
CD with CE 5.0 API's and LXE API's with documentation for custom application development	R	MX8A504CE50SDK
Touch screen anti-glare anti-reflective protective film , 10 pack	R	MX8A584PROTFILM
VoxBrowser™ English & Americas		VOXBROWSER ENG
VoxBrowser™ Rest-of-the-World		VOXBROWSER ROW
Single ear, single headband, headset with noise canceling microphone, includes 5 replacement windscreens		HX1A501SNGBHEADSET
Single ear, dual headband, headset with noise canceling microphone, includes 5 replacement windscreens		HX1A502DUALBHEADSET
Dual ear, behind the head, headset with noise canceling microphone, includes 5 replacement windscreens		HX1A503BTHHEADSET
Replacement foam block for 502 dual band headsets, qty 1		HX1A504AHSBLOCKFOAM
Replacement head yoke for dual band 502 headset, qty 1		HX1A505DUALYOKE
Replacement head yoke for single band 501 headset, qty 1		HX1A506SINGLEYOKE
Replacement windscreen for all headset microphones, 10 Pack		HX1A508WINDSCREEN10
Replacement windscreen for all headset microphones, 50 Pack		HX1A509WINDSCREEN50
Replacement foam ear piece cover for 501 and 502 headsets, 10 pack		HX1A510FOAMEAR10
Replacement foam ear piece cover for 501 and 502 headsets, 50 pack		HX1A511FOAMEAR50


The MX8 Hand Held Computer

Reboot Sequence

When the Windows CE desktop is displayed or an application begins, the power up (or reboot) sequence is complete. If you have previously saved your settings, they will be restored on reboot. Application changes are saved when OK is clicked on an application applet.

Warm Reset

There are two methods for the Warm Reset.


1. Using the input panel, you can tap  | **Run** and type WARMBOOT. Tap the OK button.
2. Hold down the Power key and the Enter key until the screen blanks. Release the keys and the MX8 resets.

Data not saved is lost.


Cold Reset

Important:-- Because of the extreme nature of the Cold Reset, LXE recommends that the Cold Reset be used only as an emergency procedure and the Warm Reset be used whenever necessary.

There are two methods for the Cold Reset.


1. Tap  | **Run** and type COLDBOOT.EXE. Tap the OK button to coldboot the MX8. The default settings are restored when the device powers on again.
2. Hold down the Scan key, Blue function key and the Power key until the screen blanks. Release the keys and the default settings are restored when the device powers on again.

Calibrating the touchscreen will need to be performed when the cold boot process is complete.

If needed, change the MX8 Time and Date from it's factory default value by tapping the  | **Settings** | **Control Panel** | **Date/Time** icon.


Saving Changes to the Registry – process still true?

The MX8 saves the registry when you:

- Tap the  | **Run** | and type Warmboot.
- Perform a Suspend / Resume function (by pressing the Pwr key and then pressing it again).

The registry save process takes 5 – 10 seconds.

The registry is automatically saved every 20 minutes. It is also saved every tenth time the registry settings are changed. Registry settings are changed when control panel applet (e.g. Date/Time) parameters are changed by the user and a warm boot was not performed afterward.

When you tap  | **Run** | and type Coldboot, factory default registry settings are loaded. All user changes and settings are lost.

Touchscreen Display



Figure 26 Touchscreen Display

The touchscreen display is an active color LCD unit capable of supporting VGA graphics modes. Display size is 240 x 320 pixels or ¼ VGA in portrait orientation. The covering is designed to resist stains. The touchscreen allows signature capture and touch input. A pen stylus is included with the handstrap and the trigger handle. The touchscreen responds to an actuation force (touch) of 4 oz. of pressure (or greater).

The color display is optimized for indoor lighting. The display is black when the mobile device is in Suspend mode or when both batteries have expired and the unit is Off.

See section titled *Calibrating the Touchscreen* in the *Quick Start* section for touchscreen calibration instruction. See the MX8 Reference Guide for full instruction.

Cleaning the Glass Display/Beam Aperture

Note: These instructions are for components made of glass. If there is a removable protective film sheet on the display screen, remove the film sheet before cleaning the screen.

Keep fingers and rough or sharp objects away from the scan aperture and display. If the glass becomes soiled or smudged, clean only with a standard household cleaner such as Windex® without vinegar or use Isopropyl Alcohol. Do not use paper towels or harsh-chemical-based cleaning fluids since they may result in damage to the glass surface. Use a clean, damp, lint-free cloth. Do not scrub optical surfaces. If possible, clean only those areas which are soiled. Lint/particulates can be removed with clean, filtered canned air.

Applying the Protective Film to the Display

First, clean the display of fingerprints, lint particles, dust and smudges.

Remove the protective film from its container. Remove any protective backing from the film sheet by lifting the backing from a corner of the film. Discard the backing.

Apply the film to the screen starting at one side and smoothing it across the display. If air bubbles appear, raise the film slightly and continue smoothing the film across the display until it covers the glass surface of the display.

If dust, lint or smudges are trapped between the protective film and the glass display, remove the protective film, clean the display and apply the protective film again.

Adjusting the Display Backlight

Set the Display Backlight Timer


Select  | Settings | Control Panel | Display | Backlight tab. Change the parameter values and tap OK to save the changes.



Figure 27 Setting the Display Backlight Timer


The first option affects the mobile device when it is running on battery power only. The second option affects the device when it is running on external power (e.g. AC adapter).

The default value for the battery power timer is 3 seconds. The default value for the external power timer is 2 minutes. The backlight will remain on all the time when both checkboxes are blank.

The display backlight timer dims the backlight at the end of the specified time.

Setting the Power Schemes Timers

Note: Refer to the section titled *Power Modes in the MX8 Reference Guide* for information relating to the power states of the mobile device.

Select  | Settings | Control Panel | Power | Schemes tab. Change the parameter values and tap OK to save the changes.

Battery Power Scheme

Use this option when the device will be running on battery power only.

Switch state to User Idle:	Default is After 3 seconds
Switch state to System Idle:	Default is After 15 seconds
Switch state to Suspend:	Default is After 5 minutes

AC Power Scheme

Use this option when the device will be running on external power (e.g. AC adapter).

Switch state to User Idle:	Default is After 2 minute
Switch state to System Idle:	Default is After 2 minutes
Switch state to Suspend:	Default is After 5 minutes

These mode timers are cumulative. The System Idle timer begins the countdown after the User Idle timer has expired and the Suspend timer begins the countdown after the System Idle timer has expired. When the User Idle timer is set to “Never”, the power scheme timers never place the device in User Idle, System Idle or Suspend modes (even when the device is idle).

Because of the cumulative effect, and using the Battery Power Scheme Defaults listed above:

- The backlight turns off after 3 seconds of no activity,
- The display turns off after 18 seconds of no activity (15sec + 3sec),
- And the device enters Suspend after 5 minutes and 18 seconds of no activity.

Setting The Audio Speaker Volume

Note: An application may override the control of the speaker volume. Turning off sounds saves power and prolongs battery life.

The speaker is located on the front of the device above the MX8 logo. The audio volume can be adjusted to a comfortable level for the listener. The volume is increased or decreased one step each time the volume key sequence is pressed. The device has an internal speaker and a jack for an external headset. Operational “beeps” are emitted from the speaker.

Using the Keypad

Note: Volume & Sounds (in Settings|Control Panel) must be enabled before the following key sequences will adjust the volume.

To adjust speaker volume:

- Tap the Orange key then the Scan key to enter Volume change mode.
- Use the Up Arrow and Down Arrow keys to adjust volume until the speaker volume is satisfactory.
- Press the Enter key to exit this mode.

Using the Touchscreen

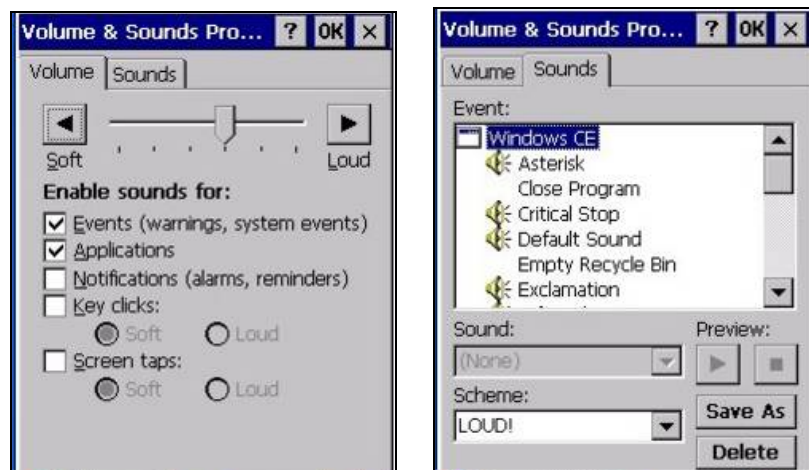



Figure 28 Volume & Sounds Properties

Tap  | Settings | Control Panel | Volume & Sounds | Volume tab. Change the volume setting and tap OK to save the change. You can also select / deselect sounds for key clicks and screen taps and whether each is loud or soft.

As the volume scrollbar is moved between Loud and Soft, the computer will emit a tone each time the volume increases or decreases in decibel range.

The Keypad

The keypad is installed and configured by LXE to your specifications.

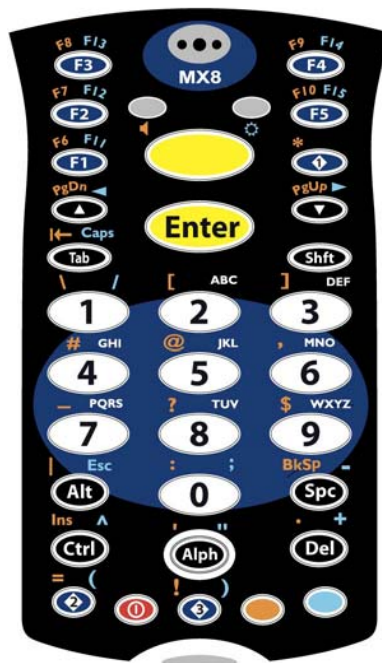


Figure 29 The 32-key Keypad

See Appendix A – Key Maps for instruction on the specific keypresses to access all keypad functions.

LED Indicators

System Status

The System Status LED is located at the top left of the keypad, above the Scan button.

When the LED is . . .	The Status is . . .	Comment
Blinking Red	Power Fail	Replace the main battery with a fully charged main battery. Or Connect the MX8 to external AC power.
Steady Red	Main Battery Low	Low Battery Warning. Replace the main battery with a fully charged main battery. Or Connect the MX8 to external AC power.

When the LED is . . .	The Status is . . .	Comment
Blinking Green	Display Off	No user intervention required.
No Color	Good	No user intervention required.

Scan Status

The Scan Status LED is located below the MX8 keypad.

When the Scan Status LED is . . .	The Status is . . .
Steady Green	Good Scan
Steady Red	Scan in Progress
Amber ??	Scanner/imager programming changes are being saved.
No Color	Scanner/Imager ready for use.

Alpha Mode

The Alpha Mode LED is located beside the <F5> key on the 32-key keypad.

When the Alph LED is . . .	The Status is . . .
Steady Green	Device is in “Alpha” character input mode.
No Color	Device is in “Numeric” key input mode.

Standard Keys

See Also: Appendix A – Key Maps

Scan	The integrated scanner/imager scans only when the Scan button is pressed (or when the scan trigger is pressed on the optional trigger handle).
Enter	The Enter key is used to confirm a forms entry or to transmit information. How it is used is determined by the application running on the mobile device.
Diamond	The Diamond key(s) can be programmed to duplicate a single keypress (as defined by Windows CE) with the exception of the Shift, Alt and Ctrl key.
Numeric	The number keys are used to add numbers to data entry fields.
Alpha	The alpha keys are used to add letters and characters to data entry fields.
Space	The Spc key adds a space to the line of data on the display. This function is similar to a regular keyboard’s Spacebar. Note that the Spc key only stays active for one keystroke.

Function Keys

Sticky Keys

The Sticky Key feature allows the user to activate multi-keypress combinations with one finger.

Ctrl (Control key)



A Control sticky keypress stays active until the Control key is pressed again. The Control key enables the control functions of the keypad. This function is similar to a regular keyboard's Control key. Each time you need to use a Control function, you need to press the Ctrl key before pressing the desired key.

Alt (Alternate key)



An Alt sticky keypress stays active until the Alt key is pressed again. The Alt key enables the alternate functions of the keypad. This function is similar to a regular keyboard's Alt key. Each time you need to use an alternate function, you need to press the Alt key before pressing the desired key.

Shift (Shift key)



A Shift keypress ends a sticky key function. The Shift key enables the shifted functions of the keypad. This function is similar to a regular keyboard's Shift key. Note that the Shift key only stays active for one keystroke. Each time you need to use a Shifted function, you need to press the Shift key before pressing the desired key.

When the Shift key is pressed the next key is determined by the major key legends, i.e., the alpha keys display lower case letters -- when CAPS is On alpha characters are capitalized. For example, when CAPS is On and the Shift key and the G key are pressed, a lower case g is displayed.

Orange and Blue Keys



The Orange and Blue keys are sticky keys that, when tapped, activate the second functions of the keypad. Printed above many keys are small characters, in either orange (on the left side of the key) or blue (on the right side of the key), that represent the second function of that key. Using the sticky key activates the second key function.

Note that the blue and orange sticky keys only stay active for one keystroke. Each time you need to activate a second function you must press the Orange or Blue key. To cancel a sticky key function before pressing another key, press the same sticky key again.

Orange Key

Tap the Orange key to enter "orange" mode. Tap it again to cancel "orange" mode. If you were in "blue" mode before you pressed the Orange key, blue mode is cancelled and you enter Orange mode.

Blue Key

Tap the Blue key to enter "blue" mode. Tap it again to cancel "blue" mode. If you were in "orange" mode before you pressed the Blue key, orange mode is cancelled and you enter Blue mode.

CapsLock Mode Function

The CapsLock key sequence is Blue key then the <Tab> key.

This function is similar to a regular keyboard's CapsLock key. Note that the CapsLock mode stays active until the CapsLock key sequence is pressed again. Each time you need to use a Caps function, you need to press the Caps key sequence first. To cancel a CapsLock function press the Caps key sequence again.

Example: 2 B or Not 2 B

To put the number 2 in a text entry field: Tap the <2> key once.

To put a lowercase "b" in a text field: Tap the <Alph> key, then tap the <2> key twice.

To put an uppercase "B" in a text field: Tap the <Alph> key, tap the <Shft> key or the <CapsLock> key, then tap the <2> key twice.

To enter a string of letters in a text field, tap the <Alph> key to toggle it On. It remains active until it is tapped again and toggled off.

To enter a string of numbers in a text field, make sure the <Alph> key is toggled off.

Batteries

Note: New batteries must be charged prior to use. If the main battery and backup battery are depleted, the mobile device reverts to factory default values. Wireless configuration parameters will need to be re-entered after reverting to factory default values. The backup battery is continually recharged by the main battery pack.



The mobile device is designed to work with a replaceable 3000 mAh Lithium-Polymer (Li-Poly) battery pack from LXE. Under normal conditions it should last approximately eight to ten hours before requiring a recharge. During very heavy scanning or RF transmitter use, the operating time of the battery may be less. The operating system keeps date and time valid for a minimum of four days using a fully charged backup battery and a main battery pack installed that has reached the Low Warning point. The status indicator is illuminated when the backup battery is being charged by the main battery pack.

Main Battery



Figure 30 Lithium Polymer Battery Pack


1. Contacts, Battery Charging
2. Tab

CAUTION 	RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.
ATTENTION 	Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

The main battery has a rugged plastic enclosure that is designed to withstand the ordinary rigors of an industrial environment. Exercise care when transporting the main battery making sure it does not come in contact with excessive heat or any power source other than an MX8 MultiCharger or the mobile device.

A new main battery pack can be fully charged in 5 hours when it is in an MX8 connected to AC power and 5 hours when it is in the MX8 multi charger.

Backup Battery


The internal 80mAh Nickel Metal Hydrate (NiMH) backup battery provides power to the device for a short amount of time when the main battery has been depleted, removed or has failed. The backup battery status and conditioning is available using  | Settings | Control Panel | Battery. The backup battery is charged by the main battery pack only.

Recharging maintains the battery near full charge at all times. If the backup battery is completely discharged, it may take up to 5 hours to recharge. The capability to discharge the backup battery is provided to allow the user to condition the battery in order to recover fully backup battery capacity.

Backup battery replacement must be performed by qualified service personnel. The backup battery has a minimum 2 years service life.

Note: An uninterrupted external power source (wall AC adapters) transfers power to the computer's internal charging circuitry which, in turn, recharges the main battery and backup battery. Frequent connection to an external power source, if feasible, is recommended to maintain backup battery charge status as the backup battery cannot be recharged by a dead or missing main battery.

Battery Hotswapping

Important: When the backup battery power is Low or Very Low ( | Settings | Control Panel | Power | Battery tab) connect the AC adapter to the MX8 before replacing the main battery pack.

Replace the main battery pack after first pressing the Power key and placing the MX8 in Suspend Mode. LXE recommends any work in progress be saved prior to replacing the main battery pack.

Simply replace the discharged main battery with a fully-charged main battery. A fully charged backup battery will retain data during a main battery hotswap for 5 minutes.

Warning: Never replace the main battery in a hazardous location.

MX8 Battery Multi-Charger

– need data (battery retaining clip described in instructions)

The MX8 Multi-Charger is not approved for use in a Hazardous Location.

Charge a Main Battery Pack

The main battery pack can be charged while it is in the MX8 (connected to an AC power supply) or while it is in the LXE MX8 Multi-Charger.

Please refer to the MX8 Multi-Charger User's Guide for instruction.

The multi-charger requires an external power source before battery pack charging/analyzing can commence.

The external Power Supply for the Multi-charger is shipped with the multi-charger.

MX8 Multi-Chargers are not approved for use in Hazardous Locations.

need pic

Figure 31 MX8 Multi-Charger / Analyzer

- | | | | |
|---|-------------------------|---|------------------|
| 1 | Front | 4 | Power Connection |
| 2 | Battery Charging Pocket | 5 | LCD Display |
| 3 | LED Indicators | | |

need pic

Figure 32 Insert Battery Pack in Charging Pocket

1. Battery Well
2. Retaining Clip
3. Battery Charging Contacts

Lower the battery pack straight into the battery charger pocket and push it down firmly. Do not "slam" the battery into the charging cup or drop it into the cup.

Failure to follow these instructions can result in damage to the main battery or the charger.



Please refer to the MX8 Multi-charger User's Guide for technical information and operating instructions.

Passive Vehicle Mount Cradle

A passive vehicle mount cradle is available for the MX8. The cradle restrains the MX8. The passive cradle does not have an external device connector e.g. power/RS-232 cable. Wireless client interaction is available as long as the mobile device has sufficient energy in the MX8 main battery pack and a clear signal path.

The cradle is lined with strips of hook-and-loop fabric to ensure a snug fit between the MX8 and the inside of the cradle.

The vehicle cradle should be mounted in an area in the vehicle where it:

- Does not obstruct the driver's vision or safe vehicle operation.
- Will be protected from rain or inclement weather.
- Will be protected from extremely high concentrations of dust or wind-blown debris.
- Can be easily accessed by a user seated in the driver's seat.

There are two mounting options for the cradle:

- U-bracket mounting
- RAM ball cylinder mounting

Before installation begins, verify you have the applicable vehicle mounting bracket assembly components necessary for your mount type, as shown in the section titled "Assembly Components".

Do not slide the MX8 into the passive cradle until the cradle is securely fastened to the vehicle.

Cradle Assembly Components

Note: Bolts, washers, and wrench needed when attaching the mobile device to the vehicle are not supplied by LXE.

U-Bracket



Figure 33 Passive Vehicle Mount Cradle and U-Bracket

U-Bracket Footprint

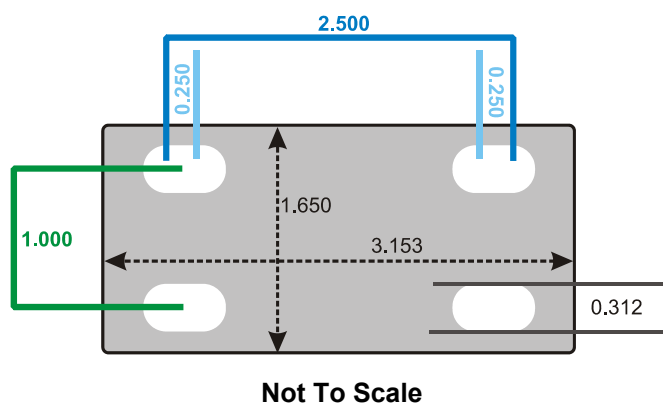


Figure 34 Bracket Mounting Footprint

Note: LXE does not supply the bolts or washers needed when mounting the cradle assembly to the vehicle chassis. LXE recommends using bolts with a maximum 10/32" (0.3125) diameter.

RAM Ball and Cylinder



Figure 35 Passive Vehicle Mount Cradle / RAM Ball Assembly



Figure 36 RAM Bracket Components

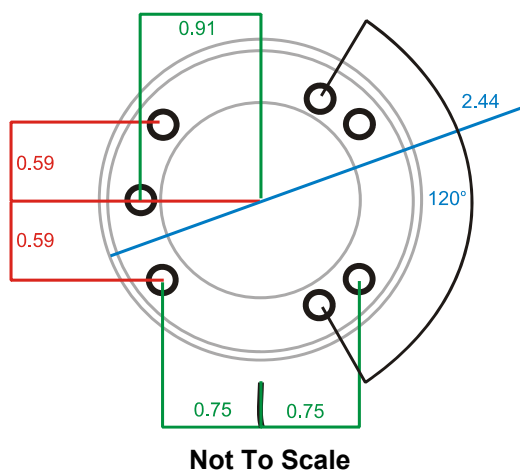


Mount the cradle U-bracket to the upper RAM ball assembly with the bolts, washers and nuts supplied by LXE.

Qty 4 – Hex Cap $\frac{1}{4}$ -20 x $\frac{3}{4}$ bolts

Qty 4 – $\frac{1}{4}$ flat washer

Qty 4 – $\frac{1}{4}$ -20 nylon insert lock nuts

RAM Assembly Footprint**Figure 37 RAM Assembly Footprint**

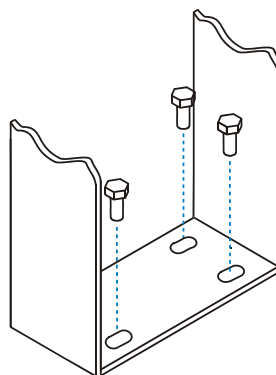
Note: LXE does not supply the bolts or washers needed when mounting the cradle assembly to the vehicle chassis. LXE recommends using bolts with a maximum 10/32" (0.3125) diameter.

How to Install the Cradle U-Bracket

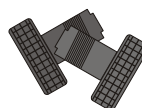


Figure 38 Install Cradle U-Bracket

1. Attach the U-Bracket to the vehicle, making sure it does not impede safe operation of the vehicle.



2. Attach the Passive Cradle to the U-Bracket using the Angle Adjust knobs.



Use both knobs to loosen and tighten the cradle to the U-bracket while determining the best viewing angle.

3. The passive vehicle mounted cradle is ready for use.



Periodically test the mounting device and retighten bolts and/or knob as needed. If the cradle becomes cracked or warped it must be replaced.

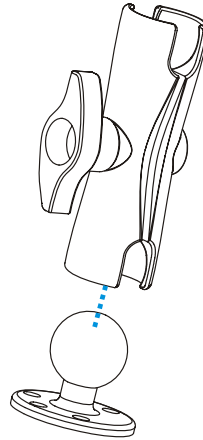
How To Install the RAM Bracket



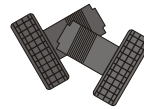
Figure 39 Install RAM Bracket Assembly

1. Attach the lower RAM ball assembly to the vehicle, making sure it does not impede safe operation of the vehicle.
2. Fasten the upper RAM ball assembly to the base of the U-bracket using the supplied bolts, washers and screws.

3. Loosen the turncrew on the RAM arm, place the lower socket over the vehicle mount RAM ball, then the other arm socket over the RAM ball on the U-bracket.



4. Tighten the arm turncrew until the U-bracket is secured to the RAM arm and the vehicle.
5. Attach the Passive Cradle to the U-Bracket using the Angle Adjust knobs.



Use both knobs to loosen and tighten the cradle to the U-bracket while determining the best viewing angle.

6. The passive vehicle mounted cradle is ready for use.



Periodically test the mounting device and retighten bolts and/or knob as needed. If the cradle or any cradle assembly component becomes cracked or warped it must be replaced before being placed into service.

Appendix A Key Maps

Introduction

Remember :

“Sticky” keys are also known as “second” function keys.

Ctl/Ctrl, Alt, Shft, Blue and Orange keys are “sticky keys”. Sticky keys do not need to be held down before pressing the next (or desired) key. It is valid to use combined modifiers on specific keys.

Note: The key mapping in this appendix relates to the physical keypad. See section titled Input Panel for the Virtual (or Soft) Keypad used with the stylus.

32-Key Numeric-Alpha Keypad

When using a sequence of keys that require an alpha key, first press the Alph key. Use the Shft sticky key or the Caps key sequence (Blue+Tab) for upper case alphabetic characters.

Pressing the Alph key forces “Alpha” mode for the 2,3,4,5,6,7,8, and 9 keys. The 1 and 0 keys continue to place a 1 and 0 into the text field.

To create a combination of numbers and letters before pressing Enter, remember to tap the Alph key to toggle between Alpha and Numeric mode.

When using a sequence of keys that do not include the Alph key but does include a sticky key, press the sticky key first then the rest of the key sequence.

To Get This MX8 Key / Function	Press These Keys and Then ...						Press This Key
	Blue	Orange	Ctl	Alt	Shft	Alpha	
Power / Suspend							Power ¹
Field Exit (default VK_PAUSE)	MAP				MAP		Diamond#1 MAP=Mappable
= or (x	x			MAP		Diamond#2 Default is MAP MAP=Mappable
! or)	x	x			MAP		Diamond#3 Default is MAP MAP=Mappable
Volume Adjust Mode		x					Scan Key ²

¹ Tapping the Power key when in any sticky mode (Blue, Orange, Shift, etc) either turns the device On (when Off) or places it in Suspend (when active).

² Orange+Scan enters Volume Adjust Mode. Use Up Arrow and Down Arrow to adjust volume. Press any other key but Up Arrow or Down Arrow to exit Adjust Mode.

To Get This MX8 Key / Function	Press These Keys and Then ...						Press This Key
	Blue	Orange	Ctl	Alt	Shft	Alpha	
Display Backlight Brightness Adjust Mode	x						Scan Key ³
Toggle Blue Mode							Blue
Toggle Orange Mode							Orange
Toggle Shift Mode							Shft
Toggle Alpha Mode							Alph
Alt Mode							Alt
Control Mode							Ctrl
Scan Mode							Scan Key
Esc	x						Alt
Space							Spc
Enter							Enter
CapsLock (Toggle)	x						Tab
Back Space		x					Spc
Tab							Tab
BackTab		x					Tab
Up Arrow							Up Arrow
Down Arrow							Down Arrow
Right Arrow	x						Up Arrow
Left Arrow	x						Down Arrow
Insert		x					Ctrl
Delete							Del
Home					x		Down Arrow
End					x		Up Arrow
Page Up		x					Up Arrow
Page Down		x					Down Arrow
F1							F1
F2							F2
F3							F3
F4							F4
F5							F5
F6		x					F1
F7		x					F2
F8		x					F3
F9		x					F4
F10		x					F5
F11	x						F1
F12	x						F2

³ Blue+Scan enters Backlight Brightness Adjust Mode. Use the Up Arrow and Down Arrow to adjust brightness. Press any other key but Up Arrow or Down Arrow to exit Adjust Mode.

To Get This MX8 Key / Function	Press These Keys and Then ...						Press This Key
	Blue	Orange	Ctl	Alt	Shft	Alpha	
F13	x						F3
F14	x						F4
F15	x						F5
F16					x		F1
F17					x		F2
F18					x		F3
F19					x		F4
F20					x		F5
F21		x			x		F1
F22		x			x		F2
F23		x			x		F3
F24		x			x		F4
a						x	2
b						x	22
c						x	222
d						x	3
e						x	33
f						x	333
g						x	4
h						x	44
i						x	444
j						x	5
k						x	55
l						x	555
m						x	6
n						x	66
o						x	666
p						x	7
q						x	77
r						x	777
s						x	7777
t						x	8
u						x	88
v						x	888
w						x	9
x						x	99
y						x	999
z						x	9999
A					x	x	2
B					x	x	22

To Get This MX8 Key / Function	Press These Keys and Then ...						Press This Key
	Blue	Orange	Ctl	Alt	Shft	Alpha	
C					x	x	222
D					x	x	3
E					x	x	33
F					x	x	333
G					x	x	4
H					x	x	44
I					x	x	444
J					x	x	5
K					x	x	55
L					x	x	555
M					x	x	6
N					x	x	66
O					x	x	666
P					x	x	7
Q					x	x	77
R					x	x	777
S					x	x	7777
T					x	x	8
U					x	x	88
V					x	x	888
W					x	x	9
X					x	x	99
Y					x	x	999
Z					x	x	9999
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
0							0
. (period)		x					DEL
<	x						7
[x					2
	x						or 2

To Get This MX8 Key / Function	Press These Keys and Then ...						Press This Key
	Blue	Orange	Ctl	Alt	Shft	Alpha	
]		x					3 or 3
>	x						8
=		x					Diamond#2
{	x						4
}	x						5
/	x						1
-	x						Spc
+	x						Del
* (asterisk)					x		8 or Diamond#1
: (colon)		x					0
; (semicolon)	x						0
. (period)		x					Del
?		x					8
` (accent)	x						6
_ (underscore)		x					7
, (comma)		x					6
' (apostrophe)		x					Alph
~ (tilde)	x						9
\		x					1
		x					Alt
“	x						Alph
!		x					Diamond#3 or 1
@					x		2 or 5
#		x					3 or 4
\$		x					9 or 4
%					x		5
^					x		6 or Ctrl
	x						

To Get This MX8 Key / Function	Press These Keys and Then ...						Press This Key
	Blue	Orange	Ctl	Alt	Shft	Alpha	
&					x		7
(x				x		Diamond#2 or 9
)	x				x		Diamond#3 or 0 (zero)

Appendix B Regulatory Notices and Safety Information

FCC Information:

This device complies with FCC Rules, part 15. 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.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning: Changes or modifications to this device not expressly approved by LXE, Inc., could void the user's authority to operate this equipment.

EMC Directive Requirements:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Industry Canada:

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. 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.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.


Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe A prescrites dans le Règlement sur le brouillage radioélectrique édictés par le ministère des Communications du Canada.

Notice:

The long term characteristics or the possible physiological effects of radio frequency electromagnetic fields have not been investigated by UL.

Li-Polymer Battery

When disposing of the MX8 main battery, the following precautions should be observed: The battery should be disposed of promptly. The battery should not be disassembled or crushed. The battery should not be heated above 212°F (100°C) or incinerated.

	Important: This symbol is placed on the product to remind users to dispose of Waste Electrical and Electronic Equipment (WEEE) appropriately, per Directive 2002-96-EC. In most areas, this product can be recycled, reclaimed and re-used when properly discarded. Do not discard labeled units with trash. For information about proper disposal, contact LXE through your local sales representative, or visit www.lxe.com .
---	--

This device contains transmitter Module FCC ID: KDZLXE4830P

RF Safety Notice (Summit Client - 4830)

Caution



This portable device with its antenna complies with FCC's and Industry Canada's RF exposure limits set for an uncontrolled environment. This equipment has shown compliance with FCC and Industry Canada Specific Absorption Rate (SAR) limits. Highest reported SAR for the MX8 is .758W/kg on body. Any accessories not provided by LXE should not be used with this device. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

R&TTE Directive Requirements (Applies only to equipment operated within the EU/EFTA)



Information to User

A label on the exterior of the device should resemble one of the labels shown below (the label contains the LXE part number of the installed radio card). The labels shown below and affixed to the device, identify where the device may be used and where its use is restricted. Use of a device is prohibited in countries not listed below or otherwise identified by the label. (May or may not include the 0560 Notified Body No. Substitute 4 digit Notified Body No. may also be applied.)



Complies with
IDA Standards
DA103458

Republic of Singapore - LXE Dealer
License Number DA103458 complies
with IDA Standards.


MX8 Approvals/Standards

Product	EMI / EMC Standards	Safety Standards
MX8	FCC Part 15 Subpart B, Class A EN 55022 Class A (CISPR 22) EN 55024:1998 AS/NZS 3548, Class A (CISPR 22)	UL 60950 / CSA C22.2 No. 60950 IEC/EN 60950-1 CDRH: 21 CFR 1040.10 IEC/EN 60825-1

Transceiver:

Transceiver	RF (2.4 GHz) standards	RF Safety Standards
MX8 with 802.11b/g [Summit Client - 4830]	FCC Part 15.247, Subpart C FCC Bulletin OET-65 EN 300 328 IC-RSS 210 IC-RSS 102	FCC O.E.T. Bulletin 65 Industry Canada RSS 102

LXE Transceiver LXE 4830 Declaration of Conformity

DECLARATION OF CONFORMITY	
according to Directives:	
1999/5/EC	Radio Equipment and Telecommunications Terminal Equipment and the mutual recognition of their conformity
93/68/EEC	CE Marking Directive
Type of Equipment:	Direct Sequence 2.4 GHz Wireless LAN Card
Brand Name or Trademark:	LXE
Type Designation:	LXE 4830
Manufacturer:	LXE Inc.
Address:	125 Technology Parkway Norcross, GA 30092-2993 USA
Year of Manufacturer:	2006
The following harmonized European Standards, technical specifications, or other normative documents have been applied:	
EMC:	
EN 301 489-1: 07-2000	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
EN 301 489-17 07-2000	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Wideband data and HIPERLAN equipment
Radio:	
EN 300 328-1 and -2: 2000-7	Radio Equipment and Systems (RES); Wideband transmission systems; Technical characteristics and test conditions for data transmission equipment operating in the 2.4 GHz ISM band and using spread spectrum modulation techniques
Safety:	
EN 60950-1: 2001	Safety of information technology equipment, including electrical business equipment
We, LXE Inc., declare that the equipment specified above complies with all Essential Health and Safety Requirements of the above Directives and Standards, as amended.	
Place	LXE Inc., Norcross GA USA
Date of issue	23 October 2006
	 C. Binnom Jr. RF Approvals Engineer

LXE Inc. 125 Technology Parkway Norcross, GA 30092-2993 USA

ph. 770/447-4224 fax 770/447-6928

Annex to DoC for LXE 4830

With regard to the use of external antennas

The LXE 4830 can be equipped with external antennas. The antennas listed have been evaluated with the LXE 4830 pursuant to EN 300 328, and therefore meet the definition of 'dedicated antenna' per ERC/REC 70-03 Appendix 1 Table 3; thus the requirement set forth in ERC/REC 70-03 , Annex 3 are met by the LXE model 4830 transceiver.

Dedicated Antennas for use with LXE 4830

LXE P/N	Antenna Gain	Radio Power Level	Antenna Description
153180-0001	2.2 dBi	15.8 dBm	Omni, for LXE VX-series computers
160952-0001	0 dBi	15.8 dBm	Omni, for LXE MX3-series computers
158399-0001	0 dBi	15.8 dBm	Omni, for LXE MX5-series computers
159900-0001	0 dBi	15.8 dBm	Omni, for LXE MX8-series computers
160019-0001	0 dBi	15.8 dBm	Omni, for LXE VX-series computers
160501-0001	0 dBi	15.8 dBm	Omni, for LXE HX1-series computers
161029-0001	0 dBi	15.8 dBm	Omni, for LXE RX2-series computers



C. Binnom Jr.
RF Approvals Engineer
23 October 2006

LXE Inc. 125 Technology Parkway Norcross, GA 30092-2993 USA
ph. 770/447-4224 fax 770/447-6928



A/C Power Supply Safety Statement – MX8

Output Rated 5 VDC, 1.25 A.



The LXE-approved AC Power Adapter is only intended for use in a 25°C (77°F) maximum ambient temperature environment.

need pic

Optional A/C Power Supply:

Outside North America, this unit is intended for use with an IEC certified ITE power supply with output rated as stated at the top of this page. (US)

Alimentation c.a. optionnelle:

Hors de l'Amérique du Nord, cette unité est conçue pour être utilisée avec une alimentation ITE certifiée CEI de sortie nominale indiquée au haut de cette page. (FR)

Valgfrit vekselstrømforsyning

Udenfor Nord Amerika er denne enhed udstattet med en IEC (international elektronisk Kommission) udfærdiget med en ITE strømforsyning med strømudgang som fastslået på denne sides begyndelse. (DK)

Vaihtoehdotoinen vaihtovirran syöttölaite:

Pohjois-Amerikan ulkopuolella tämä laite on tarkoitettu käytettäväksi sellaisen IEC:n sertifioiman ITE-tehonsyöttölaitteen kanssa, jonka antoteho on tämän sivun yläosassa esitetyn mukainen. (FI)

Optionales Netzteil (Wechselstrom)

Außerhalb Nordamerikas sollte diese Einheit über ein der IEC-Norm entsprechendes ITE-Netzteil gespeist werden, und zwar mit einer wie oben auf dieser Seite genannten Ausspeisung. (DE)

Προαιρετική Τροφοδοσία Συνεχούς Ρεύματος

Εκτός Β. Αμερικής, η μονάδα αυτή προορίζεται για χρήση με ένα τροφοδοτικό ITE πιστοποιημένο κατά IEC με ονομαστική ισχύ όπως δηλώνεται στην αρχή της σελίδας. (GR)

Alimentazione opzionale a corrente alternata:

Al di fuori dei paesi dell'America del nord, l'unità deve essere impiegata con un dispositivo d'alimentazione per attrezzature informatiche approvato dalla IEC la cui potenza nominale sia pari a quella indicata all'inizio della pagina. (IT)

Vekselstrømforsyning (ekstraustyr):

Utenfor Nord-Amerika skal dette produktet brukes med en IEC-sertifisert ITE-strømforsyning med klassifisert effekt som angitt øverst på denne siden. (NO)

Fornecimento opcional de CA:

Fora dos EUA, esta unidade destina-se a ser usada com dispositivos de fornecimento de corrente ITE com certificação IEC, com a capacidade indicada no topo desta página. (PT)

Suministro optativo de corriente alterna

Fuera de América del Norte, esta unidad se debe utilizar con un alimentador ITE homologado por la IEC (comisión electrotécnica internacional) con una salida que tenga la calificación que figura en la parte superior de esta página. (ES)

Valfri A/C Strömförsörjning

Utanför Nordamerika är det meningen att denna enheten används med en IEC-certifierad ITE-strömförsörjare med den uteffekt som anges längst uppe på den här sidan. (SE)

İsteğe Bağlı A/C Güç Kaynağı:

Kuzey Amerika dışında, bu ünite, çıkış sınıflandırması bu sayfanın başında belirtilen IEC sertifikalı bir ITE güç kaynağı ile birlikte kullanılmak üzere tasarlanmıştır. (TR)

Updated 10/01/2001

Legend: Danish – DK; English – US; Finnish – FI; French – FR; German – DE; Greek – GR; Italian – IT; Norwegian – NO; Portuguese – PT; Spanish – ES; Swedish – SE; Turkish – TR.



Laser Light Safety Statement



Warning:

This product uses laser light. One of the following labels is provided on the scanner. Please read the Caution statement. (US)

Mise en garde:

Ce produit utilise un rayon laser. L'une des étiquettes suivantes est apposée sur le scanner. Veuillez lire l'avertissement qu'elle contient. (FR)

Advertência:

Este produto usa luz de laser. O scanner contém um dos seguintes avisos. Favor ler o Aviso. (PT)

Varning:

Denna produkt använder laserljus. En av de nedanstående etiketterna sitter på scannern. Var god läs varningstexten. (SE)

Advarsel:

Dette produkt anvender laserlys. En af følgende mærkater anvendes på scanneren. Læs venligst sikkerhedsforanstaltningen. (DK)

Varoitus:

Tämä tuote käyttää laservaloa. Skannerissa on jokin seuraavista tarroista. Lue Huomio-kohta. (FI)

Warnung:

Dieses Produkt verwendet Laserlicht. Eines der folgenden Etiketten befindet sich auf dem Scanner. Bitte lesen Sie den Gefahrenhinweis. (DE)

Attenzione:

Questo prodotto utilizza luce laser. Una delle etichette seguenti c'è ubicata sullo scanner. Si raccomanda di leggere con attenzione le avvertenze riportate. (IT)

Advarsel:

Dette utstyret bruker laserlys. En av følgende etiketter er plassert på scanneren. Les advarselen på etiketten. (NO)

Advertencia:

Este producto usa luz de láser. Las etiquetas se proveen en la máquina exploradora. Por favor, lea detenidamente la explicación para las precauciones. (ES)

Waarschuwing:

Dit product gebruikt laserlicht. Een van de volgende labels is op de scanner aangebracht. Lees a.u.b. de waarschuwing onder Oppassen. (NL)



















Laser Light Safety Statement



<p>Uyarı: Bu ürün lazer ýbýdý kullanýr. Aþaðýdaki etiketlerden bir tanesi tarayýcýnýn üstünde saðlanýr. Lütfen Dikkat ifadesini okuyun. (TR)</p>	<p>Προειδοποίηση: Αυτό το προϊόν χρησιμοποιεί λέιζερ φως. Υπάρχει μία από τις ακόλουθες ετικέτες στο σαρωτή. Παρακαλούμε διαβάστε τη δήλωση με τίτλο Προσοχή. (GR)</p>
<p>경고: 본 제품은 레이저 광선을 사용합니다. 다음 라벨 중 하나가 스캐너에 제공됩니다. 주의 사항을 읽어 주십시오. (KR)</p>	<p>警告: この製品はレーザー光線を使用します。 次のラベルのうち1つがスキャナーに 貼られています。 注意事項をお読みください。 (JP)</p>
<p>警告: 本产品使用激光。 下列一个标签将随扫描仪一道提供。 请阅读“当心”一栏的内容。 (CN)</p>	<p>Legend: Chinese-CN; Danish-DK; Dutch-NL; English-US; Finnish-FI; French-FR; German-DE; Greek-GR; Italian-IT; Japanese-JP; Korean-KR; Norwegian-NO; Portuguese-PT; Spanish-ES; Swedish-SE; Turkish-TR</p>

Labels – MX8 Hand Held Computer [Summit Client]

ENGLISH	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001 COMPLIES WITH 21 CFR 1040.10 AND 1040.11</p> <p>LASER LIGHT - DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT 1.0mW - 630 - 680nm</p>	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>RAYONNEMENT LASER NE PAS REGARDER DANS LE FAISCEAU APPAREIL A RAYONNEMENT LASER DE CLASSE 2 1.0mW - 630 - 680nm</p>	FRENCH
DANISH	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>LASERLYS KIG IKKE IND I LYSSTRÅLEN KLASSE 2 LASER PRODUKT 1.0mW - 630 - 680nm</p>	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>LASERSTRAHLUNG NICHT IN DEN STRAHL BLICKEN. LASER KLASSE 2 1.0mW - 630 - 680nm</p>	GERMAN
GREEK	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>ΠΗΓΗ ΦΩΤΟΣ LASER ΜΗΝ ΚΟΙΤΑΤΕ ΤΗΝ ΔΕΞΜΗ ΠΟΡΘΟΝ LASER ΚΛΑΣΗΣ 2 1.0mW - 630 - 680nm</p>	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>RADIAZIONE LASER NON FISSARE IL FASCIO APPARECCHIO LASER DI CLASSE 2 1.0mW - 630 - 680nm</p>	ITALIAN
NORWEGIAN	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>LASER LYS IKKE SE INN I STRÅLEN KLASSE 2 LASER PRODUKT 1.0mW - 630 - 680nm</p>	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>LUZ DE LASER - NO MIRE DIRECTAMENTE AL HAZ DE LUZ PRODUCTO. LASER DE LA CLASE 2 1.0mW - 630 - 680nm</p>	SPANISH
TURKISH	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>LASER RADIASYON IŞINA DOĞRU BAKMAKAYIN. CLASS 2 LASER ÜRÜNÜ 1.0mW - 630 - 680nm</p>	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>LASERBESTRALING NIET IN DE LICHTSTRAAL STAREN. KLASSE 2 LASER PRODUCT 1.0mW - 630 - 680nm</p>	DUTCH
SIMPLIFIED CHINESE	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>激光辐射 - 勿直视光束 2类激光产品 1.0mW - 630 - 680nm</p>	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>LUZ DE LASER NÃO OLHE NO RAI PRODUTO DE LASER DE CLASSE 2 1.0mW - 630 - 680nm</p>	PORTUGUESE
JAPANESE	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>レーザー光線 - 光源を見つめると 危険です。クラス2レーザー製品 1.0mW - 630 - 680nm</p>	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>LASERSTRÅLNING STIRRA EJ IN ISTRÅLEN. LASERPRODUKT KLASSE 2 1.0mW - 630 - 680nm</p>	SWEDISH
KOREAN	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>레이저 라이트 - 빛을 바로 쳐다보지 마십시오. 2출 레이저 상품 1.0mW - 630 - 680nm</p>	 <p>AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.</p> <p>EN60825-1:1994+A1:2002+A2:2001 IEC60825-1:1993+A1:1997+A2:2001</p> <p>VAARA LASERSÄTEILYÄ ÄLÄ TUUJOTA SÄTEESEEN. LUOKAN 2 LASER 1.0mW - 630 - 680nm</p>	FINNISH

Index

2D Imager	27
2nd key function, described	40
32-key Keymap	55

A

AC External Power Supply, How to	21
AC Power	
and LEDs on multicharger	44
AC Power Adapter	
Assembly	21
AC Power Scheme	36
Accessories	
Electrostatic Discharge	13
Installing	13
Activation Key	
AppLock	19
Alpha key	
Enter a string of letters in a text field	41
Alpha Mode LED	39
Alt key function	40
Alt sticky keypress	40
Assemble	
RS232 connection	22, 23
USB connection	22
Audio Cable	
Install	23
Audio Volume settings	37

B

Backlight timer	35
battery	
trickle charging	15
Battery	42
charge before using	15
Check status	15
Check status and power reading	16
Compartment	15
Important	3
status LED	15
Battery Multi-Charger	44
Battery Power Scheme	36
Battery, Backup	
described	43
Battery, Main	
described	42

Bluetooth icons	29
Bluetooth printers and scanners	29

C

Cable	
Adapter, Audio	10
Multipurpose RS-232 and Power	10
Multipurpose USB and Power	10
CapsLock key sequence	41
CapsLock mode function	41
Change the Time and Date	13
Charger, battery	44
Cleaning	34
Cold Reset	33
Cold reset, How to	33
Color Display	34
Color displays and backlight timers	35
Components	6
Connect External PS	21
Contact LXE	30
Control sticky keypress	40
Ctrl key function	40

D

Data entry	
imager	27
keypad	25
laser scanner	27
stylus	26
virtual keyboard	25
Data entry	25
Display	34
Display and scanner aperture cleaning	34
Display backlight timer	35

E

Enter key function	39
Entering Data	25
Environmental Specifications	4
External PS	21

F

Features.....	2
Footprint	
passive vehicle cradle, RAM assembly.....	48
passive vehicle cradle, U-bracket.....	46
Forms entry.....	25
Function	
2nd Key.....	40
Alt Key.....	40
CapsLock Mode.....	41
Ctrl Key.....	40
Enter Key.....	39
Shift Key.....	40
Spc Key.....	39
Function keys.....	40

G

Getting Started.....	13
----------------------	----

H

Handstrap.....	9
Handstrap or Trigger Handle.....	9
Handstrap, installation.....	20
Headset, Install.....	23
Help.....	30
Hotswapping	
cautions.....	43

I

IEC IP54.....	4
Input panel	
virtual keyboard.....	25
Install	
Passive Mounting Bracket, Vehicle.....	45

K

Key	
Alpha.....	39
Diamond.....	39
Enter.....	39
Numeric.....	39
Scan.....	39
Space.....	39
Key functions.....	40
Keypad	
and entering data.....	25
Keypad Shortcuts.....	17

Keypad, 32 Key.....	24
---------------------	----

L

Li-Polymer battery life.....	16
Lithium-Polymer (Li-Poly).....	42

M

Microphone adjustment.....	23
Mode Key Functions.....	41
Mode timers.....	36

N

Nickel Metal Hydrate (NiMH).....	43
----------------------------------	----

O

Operating Temperature.....	4
Orange and Blue sticky keypresses.....	40
Overview.....	1

P

Passive vehicle cradle.....	45
Passive Vehicle Mounting Bracket	
Installation Procedure.....	45
Pen Stylus	
and data entry.....	26
Power key.....	16
Power Scheme.....	36
Protective Film.....	34

Q

Quick Start Instructions.....	13
-------------------------------	----

R

Reboot, How to.....	33
Recalibrate.....	18
Registry and save settings.....	33
Regulatory Notices.....	61

S

Safety Information.....	61
Save settings.....	33

Scan Status LED	39
Scanner Aperture identify type	8
Scanning and data entry	27
Scanning status, LED	28
Scheme	36
Screwdriver	
Phillips, for handstrap	20
Setting the Time Zone	18
Shift key function	40
Shift keypress and sticky keys	40
Sound Scheme	37
Space key function	39
Specifications	
Environmental	4
Sticky Key	40
Stylus	
and data entry	26
Suspend mode, How To	16
Suspend Timer	36
Switch applications	
AppLock	19
System Idle Timer	36
System Status LED	38

T

Technical Glossary	30
Tethered scanners	28
Timer	
User, System, Suspend	36
Touch Screen	34
Touch Screen and Keypad Shortcuts	17
Touch Screen and the Stylus	17

Touch screen calibration	18
Touchscreen	
and data entry	26
Trigger Handle	8
Troubleshooting	
Startup	14

U

User Idle Timer	36
-----------------------	----

V

Vehicle Cradle	
Assembly	45
Virtual keyboard	
Input panel	25
Voice data	28
Volume	
adjust audio volume	37

W

Warm Reset	33
WARMBOOT.EXE	33
Warnings and Labels	
Laser Scanner	5, 27
When the backup battery power is Low or Very	
Low	43
