

MX3X User's Guide

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LXE CONFIDENTIAL - DRAFT 04 --



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Initial Release June 2004

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.

Revision Notice

MX3X User’s Guide
Upgrade From Revision B to Revision C

| | | |
|---|--|--|
| B | Introduction | Added screen display figures for setting the Backlight Timer, Power Schemes Timer, and Audio Speaker Volume. Corrected Accessories section “Cables for Cradle and MX3X Serial Ports”. Added 8500 series tethered scanners to “Accessories”. |
| B | MX3X Hand Held Computer | Added cautions for cables with and without USB plugs / receptacles and the endcap serial ports. Added ActiveSync cable part number to section “Cradles”. |
| B | Appendix B – Regulatory Notices and Safety Information | Updated Cisco 6726 Declaration of Compliance. |
| C | Entire Guide | Added user information for the MX3-RFID module. |
| C | MX3X Hand Held Computer | Removed “Power Modes” explanation. |

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Introduction

Overview

The LXE MX3X is a rugged, portable, hand-held Microsoft® Windows® CE .NET equipped mobile computer capable of wireless data communications. The mobile device can transmit information using a 2.4 GHz radio (with an internally mounted antenna) and it can store information for later transmission through an RS-232, InfraRed, or USB port.

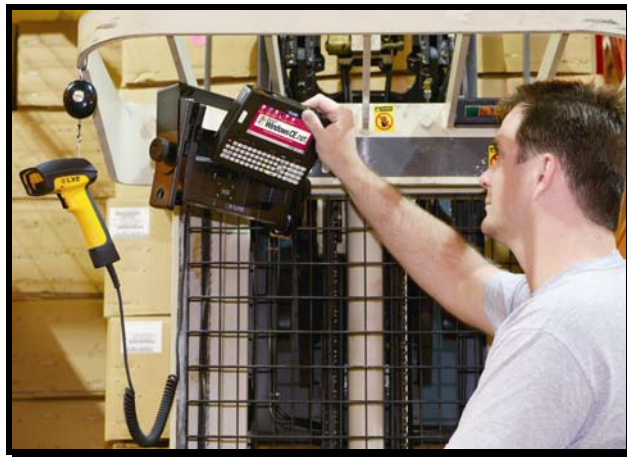
The mobile device is horizontally oriented and features backlighting for the display. The touch-screen display supports graphic features and Windows icons that the Windows CE .NET operating system supports. The keys on the keypad are constructed of a phosphorescent material that can easily be seen in dimly lighted areas.

Throughout this guide, an MX3X without an RFID Module is labeled “MX3X”. The MX3X with an RFID Module is labeled “MX3-RFID”. Information specific to one or the other is labeled appropriately. No distinction is made to information that is the same for both mobile devices.

The MX3-RFID version of the MX3X has an RFID module permanently attached to the back of the device. If there is no distinction between directions for the user with an MX3X and a user with a MX3-RFID mobile device, the instruction or information in this guide is the same for both versions unless noted.

This device is a Windows CE .NET compatible computer that can be scaled from a limited function batch computer to an integrated RF scanning computer.

The stylus in the Stylus Kit (shipped with unit) is used to assist in entering data and configuring the unit. Protective film for the touchscreen is available as an accessory.



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

Related Manuals







The “MX3X User's Guide” contains mobile device installation, user instruction and safety statements. An abbreviated user's guide is available for download to the MX3X device from the LXE Manuals CD or the LXE ServicePass website.

Please refer to the "MX3 Cradle Reference Guide" for technical information relating to the MX3X-compatible Desk Top and Vehicle Mount cradles.

If you need to set up the integrated SE923 scanner **barcode reading parameters**, please refer to the “Integrated Scanner Programming Guide” on the LXE Manuals CD or the LXE website www.lxe.com.

Note: Always store unused devices with a fully charged main battery installed. LXE recommends an in-use mobile device be frequently connected to an external power source to retain optimum power levels in the main battery and the backup battery. When the backup battery and main battery are dead, the mobile device reverts to it's default values when a fully charged main battery is installed and the device is powered On again.

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” | Indicates the title of a book, chapter or a section within a chapter (for example, “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. |
| <i>Note:</i> | 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. |

MX3X Environmental Specifications

| | |
|-----------------------|---|
| Operating Temperature | Monochrome display : -4°F to 122°F (-20°C to 50°C) [non-condensing] Color display : 32°F to 122°F (0°C to 50°C) [non-condensing] |
| Storage Temperature | -22°F to 158°F (-30°C to 70°C) [non-condensing] |
| Water and Dust | MX3X = IEC IP66 MX3-RFID = IEC IP55 |
| Operating Humidity | 5% to 95% non-condensing at 104°F (40°C) |
| Vibration | Based on MIL Std 810D |
| ESD | 8 kV air, 4kV contact |
| Shock | 75G, 5ms duration, 100 shock impacts |

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 MX3X or MX3-RFID.
- Do not connect the laser barcode window to any other device. The laser barcode window is certified for use with the MX3X or MX3-RFID only.

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

MX3X



Figure 1 CDRH / IEC 825 Caution Label Location – MX3X, Back Figure 2 Caution Label – Laser Scanner

MX3-RFID

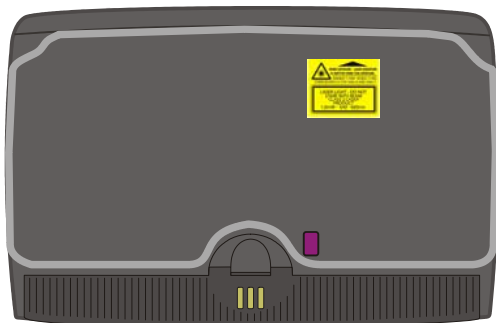


Figure 3 CDRH / IEC 825 Caution Label Location – MX3-RFID, Back Figure 4 Caution Label – Laser Scanner

Components

Front and Back Views

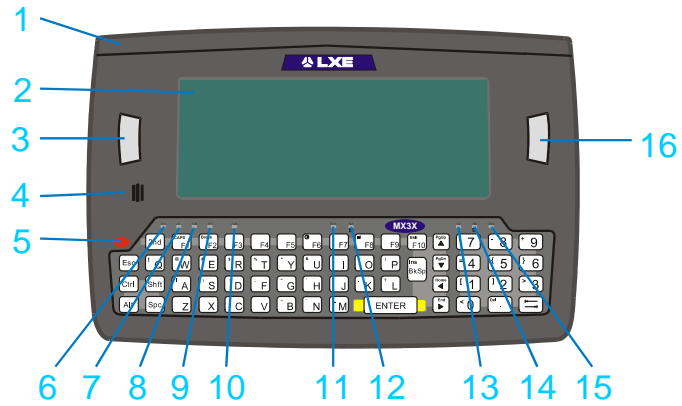


Figure 5 Front

- | | | | |
|---|--|----|------------------------------|
| 1 | Endcap | 9 | Shift LED |
| 2 | Display | 10 | Caps LED |
| 3 | Scan, Enter or Field Exit (programmable) | 11 | Scanner LED |
| 4 | Beeper | 12 | Backup Battery LED |
| 5 | On/Off Button | 13 | Status LED |
| 6 | 2 nd LED | 14 | Main Battery LED |
| 7 | Alt LED | 15 | Charger LED |
| 8 | Ctrl LED | 16 | Scan or Enter (programmable) |

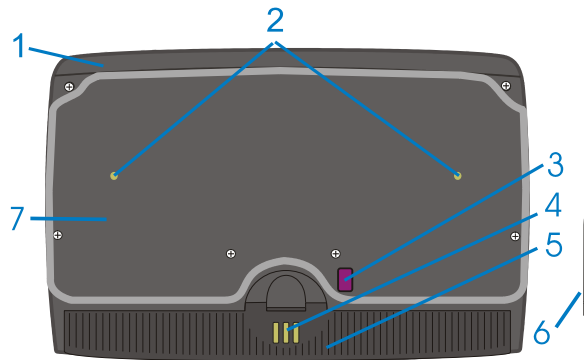


Figure 6 Back

- | | | | |
|---|---|---|------------------------------------|
| 1 | Endcap | 5 | Main Battery |
| 2 | Leather Handstrap Connector (N/A on RFID Module) | 6 | Stylus |
| 3 | IR Port (Com 2 Port) | 7 | RFID Module (MX3-RFID device only) |
| 4 | Cradle Input Contacts | | |

Endcap Options

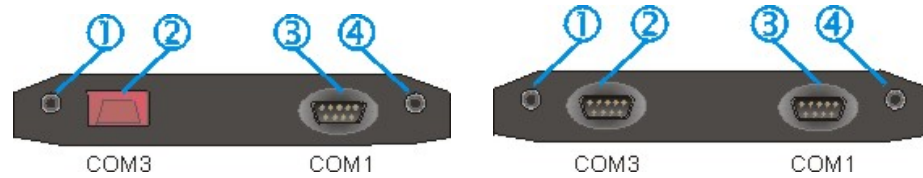


Figure 7 Endcaps

- | | | | |
|---|--|---|---------------------------------|
| 1 | DC Power Jack | 3 | Serial Com 1 or USB Client Port |
| 2 | Serial Com 3 or USB Host or Scanner Port | 4 | Audio Jack |

| MX3X | |
|-------------|-------------|
| Left Port | Right Port |
| Serial COM3 | Serial COM1 |
| Serial COM3 | USB Client |
| USB Host | Serial COM1 |
| USB Host | USB Client |
| Scanner | Serial COM1 |
| Scanner | USB Client |

| MX3-RFID | |
|-----------|------------|
| Left Port | Right Port |
| Scanner | USB Client |

MX3-RFID Module

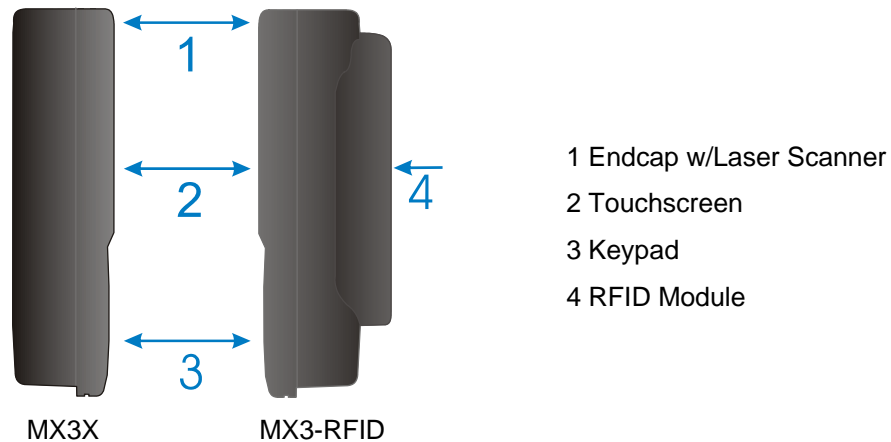


Figure 8 Side View

Quick Start

Important

If the mobile device has AppLock installed, please refer to “MX3X Reference Guide”, “AppLock” for setup and processing information before continuing.

Note: When your mobile device is pre-configured, the radio, PCMCIA card and endcaps are assembled by LXE to your specifications.

This section’s instructions are based on the assumption that your new system is pre-configured and requires only accessory installation (e.g. handstrap, 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.

This guide takes you through an introduction to and operation of the MX3X with and without the RFID module.

In general, the sequence of events is:

1. Insert a fully charged battery and press the Power button.
2. Connect an external power source to the unit (if required).
3. If the screen does not automatically display, press the Power button.
4. Adjust screen display, audio volume and other parameters if desired.

Note: Do **not** connect a tethered scanner cable to a USB-C or USB-H labeled endcap port. These ports cannot power a tethered scanner.

About Lithium-Ion Batteries

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

Always replace the used main battery with a fully charged main battery. The Battery Low Warning LED illuminates red at approximately 35% of power left in the main battery. You need to determine the point at which battery life becomes unacceptable for your business practices and replace the main battery before that point.

Note: Until the main battery and backup battery are completely depleted, the mobile device is always drawing power from the batteries (On).

RFID Introduction

Radio frequency identification, or RFID, is a generic term for technologies that use radio waves to automatically identify individual items. The individual items identified/read by a RFID reader contain a tag (also known as an electronic label or transponder). Unlike barcodes that must be read by a beam passing over the barcode, RFID tags do not have to be in the line of sight of the reader before the reader can collect the data from the tag but they do need to be within the established “read” distance from the RFID-module.

See the “MX3X Reference Guide” for further information and configuration.

RFID Reader Scan Range

| | | | |
|-----------|-----------------------|-------------|--------|
| Small Tag | 12 inches / 30 cm | Class 0 Tag | 2 feet |
| Large Tag | 2.5 feet / .76 meters | Class 1 Tag | 3 feet |

Unlike barcode scanners that require line-of-sight before successfully reading a barcode, the RFID reader does not require line-of-sight when searching for and reading tags. Pressing the RFID Read button on the MX3-RFID starts a 360 degree search “beam” that stops at the limits of the scan range of the RFID reader. The “beam” stops searching when the read timer expires.

Integrated Laser Scanner

The integrated laser barcode scanner can only read barcodes. Tethered laser barcode scanners can only read barcodes.

The RFID module can only read RFID tags.

- COM1 is the RFID module.
- COM3 is the integrated barcode scanner.

RFID Device and LXE Cradles

The MX3-RFID device is too bulky to fit in the standard MX3 powered cradles. There is a passive vehicle cradle available for the MX3-RFID device that secures the device to the cradle only. See section titled “Accessories”.

Main battery charging and host communication is not available directly through the passive vehicle cradle. The passive vehicle cradle does not have LEDs or indicators. It does not accept DC power connection. The mobile device can be directly connected to external power through the power jack located on the endcap. Host communication is available wirelessly while the mobile device is secured in the passive cradle.

The MX3-RFID can be connected to DC Power through the power jack located on the endcap while secured in the passive vehicle cradle. It can also communicate wirelessly with the host while in the passive vehicle cradle.

Insert Main Battery

Press the Power button after the battery is inserted into the battery compartment.

Note: New batteries must be charged prior to first use. This process takes up to four hours in an LXE Multi-Charger Plus and eight hours with an external power source attached to the mobile device.

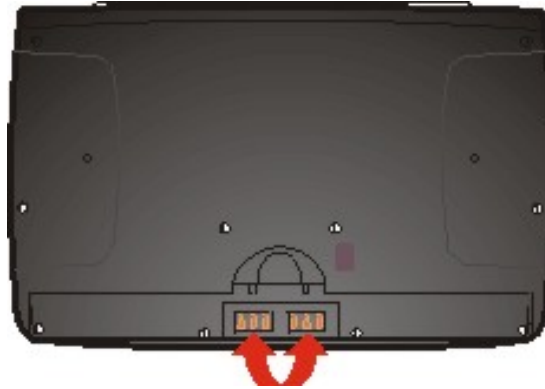


Figure 9 Battery Contacts

The Main Battery compartment is located at the bottom of the back of the computer. The arrows in the figure titled “Battery Contacts” point to the battery contacts in the computer. The figure titled “Main Battery” show the cradle and charger contacts on the back of the main battery.

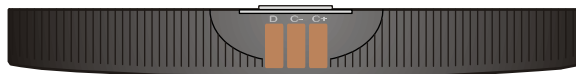


Figure 10 Main Battery

Place the battery in the compartment, making sure the side of the battery with six contacts matches up with the battery contacts in the computer battery compartment. Do not slide the battery sideways into the compartment.

Firmly press the battery into the compartment until the Retaining Clip on the battery clicks. The battery is now securely fastened to the computer. The computer draws power from the battery immediately upon successful connection.

Check Battery Status

Tap the **Start | Settings | Control Panel | Power** icon. Main and backup battery level, status and Power Scheme timeout setting options are displayed.

Attach Handstrap (Optional)

Note: These instructions are not to be used for the MX3-RFID.

Once installed, the elastic 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 battery charging when the MX3X is in a cradle.

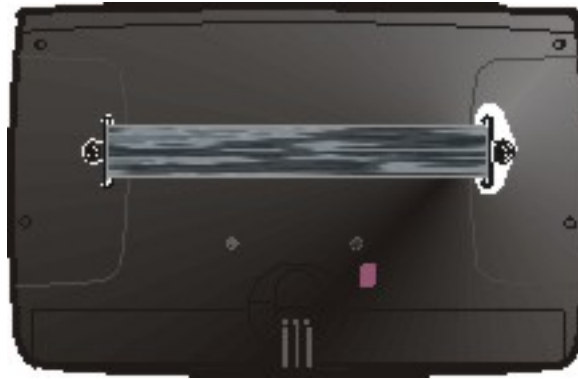


Figure 11 MX3X With Handstrap Installed

Tool Required: #1 Phillips Screwdriver

Installation

1. Place the MX3X, with the screen facing down, on a flat stable surface.
2. Attach the handstrap to the MX3X with the screws and washers provided.
3. Test the strap's connection making sure the MX3X is securely connected to each end of the strap connectors.

Attach the Stylus Clip (Optional)

Carefully remove the paper backing from the Stylus Clip sticky. Firmly press the sticky side of the clip onto the mobile device and hold in place for 15 seconds. Thread the tether through the end of the stylus and tie the ends firmly to the Stylus Clip so that the ends don't interfere with placing the stylus in the Stylus Clip. Place the stylus in the Stylus Clip when not in use.

An extra or replacement stylus can be ordered from LXE. See the section titled "Accessories" for the stylus part number.

Attach to Hip-Flip (Optional)

Note: The MX3-RFID does not fit the Hip-Flip accessory. The Hip-Flip is not to be used with the MX3-RFID device.

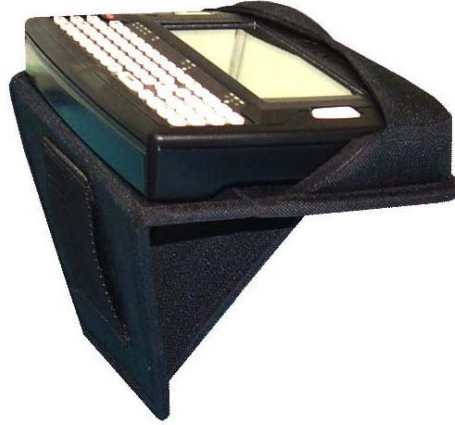


Figure 12 Hip-Flip Accessory

Note: #1 flat head screwdriver is not supplied by LXE. A waist belt accessory can be ordered from LXE.

Once the MX3X is attached to the hip-flip and the hip-flip securely fastened to the user by a belt around their waist, the MX3X can be operated at a convenient height, leaving the user's hands free.

The hip-flip adjusts downward to allow removing and replacing the main battery without removing the unit from the hip-flip or the user's body.

The MX3X must be removed from the hip-flip before being placed in a docking station.

Caution: *Never use the MX3X in the hip-flip without first securing the device to the hip-flip with the screws.*

Installation

1. If the MX3X has a handstrap, remove the handstrap and set it aside along with the handstrap screws and washers.
2. Slide the MX3X into the pocket in the hip-flip, making sure the keypad is up and the endcap ports are visible in the openings at the base of the hip-flip.
3. Place the MX3X (in the hip-flip) on a flat stable surface with the keypad down.
4. Tighten the assembly with the black screws provided, using the holes used for the handstrap (if used) on the back of the MX3X.
5. Test the hip-flip's connection making sure the MX3X is securely attached.
6. Slide the waist-belt through the loop in the hip-flip and secure the belt around your body.

Connect External Power Supply (Optional)

There are three external power supplies available for the mobile device and the MX3 desktop cradle:

- US AC/DC 12V Power Supply
- Cigarette Lighter Adapter
- International AC/DC 12V Power Supply

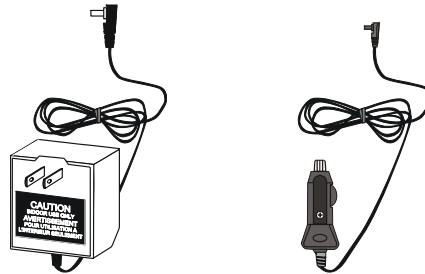


Figure 13 US AC/DC 12V Power Supply and Automotive Power Adapter



Figure 14 International AC/DC 12V Power Supply

The DC power jack is located on the endcap. The cradle power jack is located on the back of the cradle.



Figure 15 Connect External Power Supply

1. Insert the barrel connector into the power jack on the endcap and push in firmly.
2. The CHGR LED above the keypad illuminates when the computer is receiving external power through the power jack.

Note: When the mobile device is receiving external power through a powered cradle, the cradle's Status LED and the mobile device's CHGR LED are illuminated.

See section titled “LED Functions” for explanations of the LEDs for the BATT B and BATT M illuminations.

Connect Audio Jack (Optional)

The audio jack is located on the endcap.



Figure 16 Connect Audio Jack

Insert the 2.5mm barrel end of the connector into the audio jack on the endcap and push the connector in firmly. See section titled “Set the Audio Speaker Volume”.

Note: The audio option draws power from the battery.

Power Button

Note: Refer to the section titled “Power Modes” in the “MX3X Reference Guide” for information relating to the power states of the mobile device.



Figure 17 Power Button

The power button is located above the ESC key on the keypad. When a battery is inserted in the mobile device press the Power button.

Quickly tapping the Power button places the device immediately in Suspend mode. Quickly tapping the Power button again, or touching the screen, immediately returns the device from Suspend.

When the Windows desktop is displayed or an application begins, the power up (or reboot) sequence is complete.

Please refer to the section titled “Power Modes” in the MX3X Reference Guide for a list of the kinds of activities (Primary Events) that will return the device from Suspend Mode.

Restart Sequence

Tap the **Start** button then tap **Restart**. If the touchscreen is not accepting taps or needs recalibration, press <Ctrl>+<Esc> to force the Start Menu to appear.

When the Windows desktop is displayed or an application begins, the power on (or reboot) sequence is complete. If any changes to the settings had been saved previously, they are restored on reboot.

Any RFID tag data retrieved and not saved is lost during a reboot or reset.

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 or sharp 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. Firmly press 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 integrated barcode scanner or an input/output device connected to the serial port.

An extra or replacement stylus can be ordered from LXE. See the section titled "Accessories" for the stylus part number.

Keypad Shortcuts

Use keyboard shortcuts instead of the stylus:

- Press Tab and an Arrow key to select a file.
- Press Shift and an Arrow key to select several files.
- Once you've selected a file, press Alt then press Enter to open its Properties dialog.
- Press 2nd then press numeric dot to delete a file.
- To force the Start menu to display, press Ctrl then press Esc.

Touchscreen

Calibration

If the touchscreen is not responding properly to pen touch 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>+<Esc> to force the Start Menu to appear.

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

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

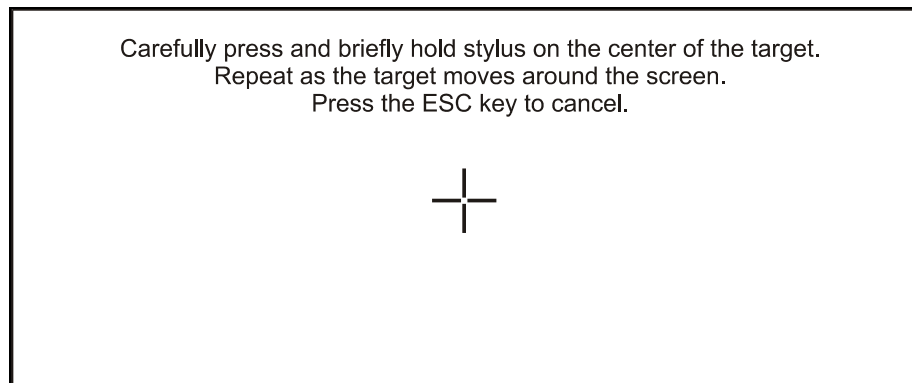


Figure 18 Touchscreen Recalibration

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 The Display Contrast

Adjusting screen contrast lightens or darkens the characters to make them visible at a comfortable level. The contrast is incremented or decremented one step each time the contrast key is pressed.

● To adjust screen contrast, locate the <F6> key at the top of the keypad. Adjust the display contrast by pressing the:

- 2nd key then the <F6> key
- Use the Up Arrow and Down Arrow keys to adjust contrast until the display lightens or darkens to your satisfaction.
- Press the Enter key to exit this mode.

The LED for the 2nd key blinks until the special editing mode (set contrast) is complete.

Set the Display Backlight Timer

Note: Refer to the section titled "Power Modes" in the MX3X Reference Guide for information relating to the power states of the mobile device.

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

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, cigarette adapter, powered cradle).

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 transmissive color display backlight timer *dims the backlight* at the end of the specified time. The transmissive monochrome display backlight timer *turns the backlight off* at the end of the specified time.

Set The Display Brightness

The brightness adjustment feature depends on the display type, color versus monochrome. Adjusting screen brightness lightens or darkens the background to make characters visible at a comfortable level. The brightness on a color display is incremented or decremented one step each time the arrow key is pressed until either the maximum or minimum brightness is achieved (8 steps). The brightness setting is recalled at power up.

Color -- To adjust screen brightness, locate the <F10> key at the top of the keypad. Adjust the display brightness by pressing the:

- 2nd key then the <F10> key
- Use the Up Arrow and Down Arrow keys to adjust brightness until the display lightens or darkens to your satisfaction.
- Press the Enter key to exit this mode.

Monochrome – The 2nd key + F10 key sequence toggles the backlight from it's brightest (On) to it's dimmest (Off) readable settings.

The LED for the 2nd key blinks until the special editing mode (set display brightness) is complete.

Set the Power Schemes Timers

Note: Refer to the section titled "Power Modes" in the MX3X Reference Guide for information relating to the power states of the mobile device.

Select **Start | 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, cigarette adapter, powered cradle).

| | |
|------------------------------|----------------------------|
| 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.

Set 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 Power button. The audio volume can be adjusted to a comfortable level for the user. The volume is increased or decreased one step each time the volume key 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 Control Panel) must be enabled before the following key sequences will adjust the volume.*

- ◀ To adjust speaker volume, locate the <F8> key at the top of the keypad. Adjust the speaker volume by pressing the:
 - 2nd key then the <F8> 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.

The LED for the 2nd key blinks until the special editing mode (set audio speaker volume) is complete.

Using the Touchscreen

Select **Start | 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.

Enter Data

You can enter data into the mobile device through several different methods. The Scanner window accepts barcode data entry, the RS-232 and the IR port are used to input/output data, and the keypad and stylus provide manual entry. The RFID module can either read or read and write data.

Keypad Entry

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 mobile device's keypad but it may take a few more keystrokes to accomplish a keyed task.

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

For example, when the 2nd key is pressed, the 2nd key LED illuminates. By then pressing the desired second-function key the device will then produce the 2nd character. The specific 2nd character is printed above the corresponding key. The 2nd key LED turns off when key sequence finishes (unless when setting volume or contrast – the 2nd key LED will flash at those times).

Please refer to “Appendix A - Key Maps” for instruction on the specific keypresses to access all keypad functions.

Stylus Entry

The stylus performs the same function as a 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. 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 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. The touchscreen responds to an actuation force (touch) of 4 oz. (or greater) of pressure.

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

- 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 keyboard, integrated scanner or a scanner connected to the serial port, if the scanner applet is configured correctly.

Input Panel

The Input Panel icon looks like a keyboard and is shown in the System tray. To show or hide the input panel, tap the Input Panel icon. Use the input panel to enter information in any program.

Integrated Laser Scanner Data Entry

Read all cautions, warnings and labels **before** using the laser scanner.

To scan with the integrated laser barcode reader, point the laser window towards a barcode and press the Scan button. You will see a red laser beam strike the barcode. The laser scanner has an SE923 scan engine.



Figure 19 Scan Beam

Align the red beam so that the barcode is centered within the beam. The laser beam must cross the entire barcode. Move the mobile device towards or away from the barcode so that the barcode takes up approximately two-thirds the width of the beam.

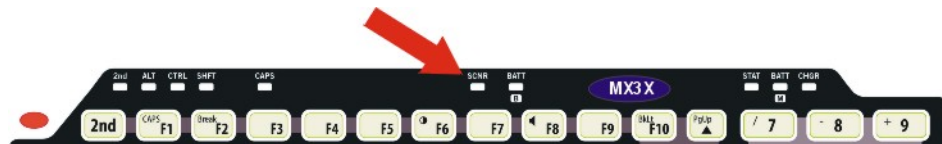


Figure 20 Scanner LED Location

The SCNR LED turns red when the laser beam is on. Following a barcode scan and read the SCNR LED turns green and the mobile device beeps, indicating a successful scan.

The laser and SCNR LED automatically turn off after a successful or unsuccessful read. The scanner is ready to scan again when the Scan key is pressed.

Large barcodes can be scanned at the maximum distance. Hold the scanner closer to small barcodes (or with bars that are very close together).

When the scan is successful, the Scan LED turns green, then switches off, and the mobile device emits a distinctive audible tone.

When the scan is unsuccessful, the SCNR LED remains red until the 3 second timeout (default) occurs or the Scan key is released. The mobile device emits distinctive audible tones. Check the following:

- Check the barcode for marks or physical damage e.g. ripped label, missing section, etc.
- Try scanning test symbols of the same code type at different distances and angles.
- Is the scan aperture unscratched and unsoiled?

See the “Integrated Scanner Programming Guide” for barcode samples, default scanning ranges, barcode reading instruction and troubleshooting.

Tethered Scanner

*Do **not** connect a tethered scanner cable to a USB-C or USB-H labeled endcap port. They are USB ports and cannot power a tethered scanner.*

Tethered scanners connect to RS232-labeled ports on the endcap and, *for the MX3X only*, can connect to the RS232 port on a powered cradle.

The Scan buttons have no effect on tethered barcode scanners (connected to the RS232 serial port). Tethered scanners read barcode scans only when the trigger on the tethered scanner is pressed. The tethered scanner requires power on pin 9 of the RS232 serial port.

To set the mobile device to use a tethered scanner, select **Start | Settings | Control Panel | Scanner | COM1 (or 2 or 3)**.

Tap the "**Power on Pin 9 (+5V)**" checkbox for the COM port selected. The COM port that accepts the scanner data can be configured for data rate, parity, stop bits and data bits.

See Also: Section titled "Tethered Scanner and Cradles" when using a tethered scanner with a cradle.

RFID Tag Data Collection

When the RFID Read button is pressed, the reader turns on and the MX3-RFID beeps once if the tag was located and read successfully. The reader turns off at a predetermined time limit after a good read or a failed read.

There may be a buzz sound during the time the reader is "searching and reading" if the RFID reader is configured to buzz during a read cycle.

Getting Help

All LXE user guides are now available on one CD and they can also be viewed/downloaded from the LXE 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 www.lxe.com.

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

Manuals

MX3X User's Guide
 MX3 Cradle Reference Guide
 MX3 Multi-Charger Plus Operator's Guide
 LXEbook – MX3X User's Guide (download to mobile device)

Accessories



- 1 Cable, USB Host D9F to USB, 6' (Endcap only)
MX3XA069CBL09USBCLNT
 - 2 Cable, D9F to D9F for ActiveSync only, 6' (Cradle use only)
MX3XA070CBLD9RS232AS / Cradle 2381A002DESKCRADLE
 - 3 Cable, USB Client D9F to USB, 6' (Endcap only)
MX3XA071CBLD9USBTYPB
- Cable, 12 in., D9F / USB Type A Receptacle
 MX3XA068CBLD9USBHOST



Tethered Scanners

| | |
|--|------------------------|
| Scanner, LS3203, Ext. Range, 8' Cbl, US. | 8011LS3203ERC08DUS |
| Scanner, LS3203, Ext. Range, 8' Cbl, EC. | 8011LS3203ERC08DEC |
| Scanner, LS3203, Ext. Range, 20' Cbl, US | 8011LS3203ERC20DUS |
| Scanner, 530092IP, 7' Cbl, WW. | 8110IP530092C07DWW |
| Scanner, 530092IP, 15' Cbl, US. | 8110IP530092C15DUS |
| Scanner, P302FZY, 8' Cbl, WW | 8200A326SCNRP3028DA9F |
| Scanner, P302FZY, 20' Cbl, US | 8200A327SCNRP30220DA9F |

| | |
|---|--------------------------|
| Scanner, P304PRO, 8' Cbl, WW | 8210A326SCNRP3048DA9F |
| Scanner, P304PRO, 20' Cbl, US | 8210A327SCNRP30420DA9F |
| Scanner, Powerscan SR, 8' Cbl, WW | 8300A326SCNRPWRSR8DA9F |
| Scanner, Powerscan SR, 12' Cbl, US | 8300A327SCNRPWRSR12DA9F |
| Scanner, Powerscan LR, 8' Cbl, WW | 8310A326SCNRPWRLR8DA9F |
| Scanner, Powerscan LR, 12' Cbl, US | 8310A327SCNRPWRLR12DA9F |
| Scanner, Powerscan XLR, 8' Cbl, WW | 8320A326SCNRPWRXLR8DA9F |
| Scanner, Powerscan XLR, 12' Cbl, US | 8320A327SCNRPWRXLR12DA9F |
| Scanner, LS3408ER, 9' Cbl, US See Note | 8520A326SCNRERDA9F |
| Scanner, LS3408FZ, Fuzzy Logic, 9' Cbl, US See Note | 8510A326SCNRFZYDA9F |

Holding Accessories

| | |
|---|-------------------|
| Strap, Hand, Nylon | 2381A497HANDSTRAP |
| MX3X Nylon Holster for use with Belt | 2381A401HOLSTER |
| MX3X Nylon Hip Flip | 9000A408HIPFLIP |
| Adjustable Belt for Hip Flip – Velcro ends | 9200L67 |
| MX3-RFID Nylon Case with Shoulder Strap | MX3XRFIDCASE |
| MX3X Nylon Case, Voice Recognition w/Belt | MX3XA410VOICECASE |
| MX3X Nylon Case with Shoulder Strap | 9000A409CASE |
| Stand, Scanner For 5300IP Series Scanner, Tethered | 8100A001STAND |
| Bracket, Mounting LS300 Scanner, Tethered | 8010A001BRKT |
| Holster, Hood, Nylon, 5300IP Series Scanner, Tethered | 8100A401HLSTRHOOD |

Miscellaneous

| | |
|---|----------------------|
| Stylus Kit / Pen, Stylus, Black | 9000A501PASSIVEPEN |
| MX3X SDK | MX3XA504CENET42SDK |
| Touchscreen Protective Film, Monochrome Display | MX3XA502PROTFILMMONO |
| Touchscreen Protective Film, Color Display | MX3XA503PROTFILMCOLR |

Battery Chargers and Battery

| | |
|------------------------------------|-----------------|
| Battery Charger/Analyzer, US V1.01 | 9000A377CHGR5US |
| Battery Charger/Analyzer, WW | 9000A377CHGR5WW |
| Battery, Li-Ion | MX3A378BATT |

Cradles and Power Supplies

| | |
|--|--------------------|
| MX3-RFID Passive Mounting Cradle | MX3XRFIDCRADLE |
| MX3-RFID RAM Mounting Kit for Passive Cradle | 9000A019RAMKIT |
| MX3X Desktop Cradle ¹ | 2381A002DESKCRADLE |
| MX3X Vehicle Mount Cradle ¹ | 2381A003VMCRADLE |

¹ Power Adapter Required.

| | |
|---|----------------------|
| MX3X Vehicle Mount Cradle, 19.2K baud rate | 9000A005VMCRADLE19KB |
| Power Supply, Vehicle Cradle, 9-30VDC | 2381A054CRDLDCPWR30V |
| Power Supply, Vehicle Cradle, 30-80VDC | 2381A055CRDLDCPWR80V |
| AC Power Supply, External, US | 9000A301PSACUS |
| AC Power Supply, External, AC, International | 9000A302PSACWW |
| Power Cord, AC, US | 9000A066CBLPWRAC |
| P/S, External, Cigarette Lighter Adapter | 9000A303PSCIGLTADPT |
| Power Adapter, Bare Wire 12 VDC | 1300A053CBL12ML3 |
| Power Adapter, 24-72 VDC, Bare Wire (Vehicle) | 9000A316PS24V72VMX13 |
| Power Adapter, 110-240 VAC | 1300A303PSACWW |

Cables for Cradle and Endcap Serial Ports

| | |
|--|----------------------|
| Cable, Null Modem, PC, D9F to D9F, 6' | 9000A054CBL6D9D9 |
| Cable, Null Modem, Printer/PC, D9F to D25F, 6' | 9000A053CBL6D9D25 |
| Cable, USB D9F to USB Type A Receptacle | MX3XA068CBLD9USBHOST |
| Cable, USB D9F to USB Type A Plug | MX3XA069CBLD9USBCLNT |
| Cable, USB D9F to USB Type B Plug | MX3XA071CBLD9USBTYPB |
| Cable, D9F to D9F for ActiveSync only, 6' See Note | MX3XA070CBLD9RS232AS |

Note: The MX3X Desktop Cradle supports RS-232 ActiveSync communication via the MX3XA070CBLD9RS232AS cable.

Note: When using the 8500 Series tethered scanners (LS3408), the tethered scanner Power Mode must be set to "Reduced Power Mode" to conserve the device's main battery life. The reduced power mode setting will not impact performance of the 8500 series scanner. The default mode is "Continuous On". Please refer to the tethered scanner manufacturer's user guide for instruction.

The MX3X Hand Held Computer

Touchscreen Display



Figure 21 Touchscreen Display

The Touchscreen Display is an LCD unit capable of supporting VGA graphics modes. Display size is 640 x 240 pixels. The touchscreen allows signature capture and touch input. A pen stylus is included. The touchscreen responds to an actuation force (touch) of 4 oz. of pressure (or greater).

There are two types of displays available: transmissive greyscale monochrome and transmissive color. The transmissive color display is optimized for indoor lighting. It cannot be used without the backlight. The transmissive monochrome display is optimized for outdoor use but may also be used indoors. The monochrome display has an electroluminescent backlight. The color display has a CCFL (Cold-Cathode Fluorescent Lighting) backlight.

The transmissive display appears to have a greenish hue when the display is off. The transmissive display appears black when the display is off.

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.

Display Backlight

The Display backlight is turned on when the unit returns from Suspend Mode. The display backlighting feature is programmable and activates based on power source and amount of idle time before entering the Suspend state.

See the section titled "Set the Display Backlight Timer " in the previous section "Quick Start."

Touchscreen Calibration

If the touchscreen is not responding properly to pen touch taps, the touchscreen may need to be recalibrated. Press <Ctrl>+<Esc> to force the Start Menu to appear, if needed. Contact your System Administrator for assistance.

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

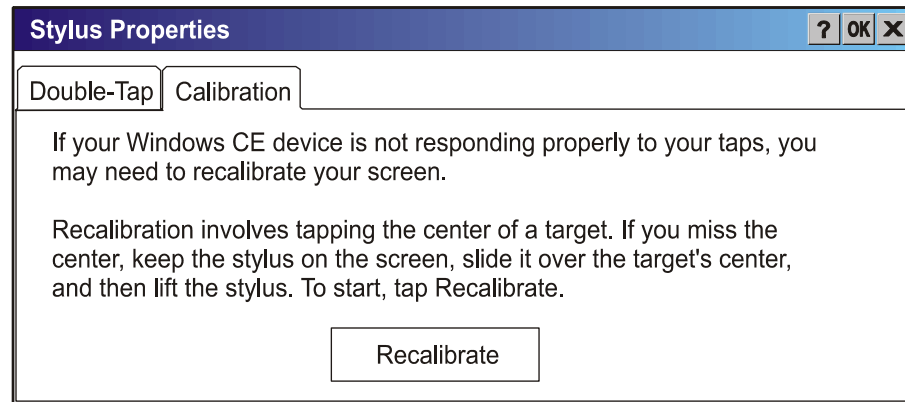


Figure 22 Touchscreen Recalibration

To start, tap Recalibrate. Follow the instructions on the screen and press the Enter key to save the new calibration settings or press <Esc> to cancel or quit.

See the "MX3X Reference Guide" for complete instructions.

Cleaning the Glass Display/Scanner 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(R) 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.

Scan Buttons



Figure 23 Programmable Buttons

There are two buttons, one on each side of the display. The buttons can be programmed to perform specific functions. The programmable keys have no effect on barcode scanners tethered to the device. When there is no integrated scanner installed, both buttons default to Enter buttons (with the exception of IBM 5250 terminal emulation devices – in this case, the left button is labelled and functions as “Field Exit”).

Note: The programmable Scan key is the Field Exit key when the MX3X is an IBM 5250 / TN5250 compatible device. It can also be programmed as the RFID Read key for an MX3-RFID device.

To edit the button parameters, select **Start | Settings | Control Panel | Scanner**. Change the parameter values and tap OK to save the changes.

The default setting for the right button is Enter. The default setting for the left button is Scan. When the device does *not* have an integrated scanner, both buttons default to Enter keys and the Scan selection is greyed out.

Each button can be setup as:

- Disabled – no response when pressed
- Scan – initiate a barcode scan sequence (integrated scanner only)
- Enter Key
- Tab Key
- Field Exit (IBM 5250 / TN5250 devices only)
- Virtual Key (default values F20 and F21)
- RFID Read

Field Exit Key Function (IBM 5250/TN5250 Only)



The Field Exit key is used to exit an input field. If the field is an Auto Enter field, the auto transmit function is activated. This key function is present on the IBM 5250/TN5250 specific keypad only.

Scan Buttons and the SCNR LED

The SCNR LED, located above the keypad, illuminates during an integrated barcode scanner function. It is affected by internal scanner algorithms.

- Red - scanning.
- Green - good scan.
- Unlit – laser scanner is inactive.

The Scan buttons have no effect on tethered barcode scanners connected to a serial port. Tethered scanners read barcode scans only when the trigger on the tethered scanner is pressed. Pressing the trigger on the tethered scanner has no effect on the device’s Scan buttons.

Note: Refer to the “MX3X Reference Guide” before programming the Scan / Enter buttons. The Reference Guide also contains instructions for the Key Map Utility for the keypad.

Endcaps and COM Ports

The computer supports three COM port options. Two external serial ports are dependent on the end cap chosen. A third serial port is used to support an infrared transceiver (barcode reader). An additional endcap configuration supports serial and USB “slave” input/output at 1.5 MBps.

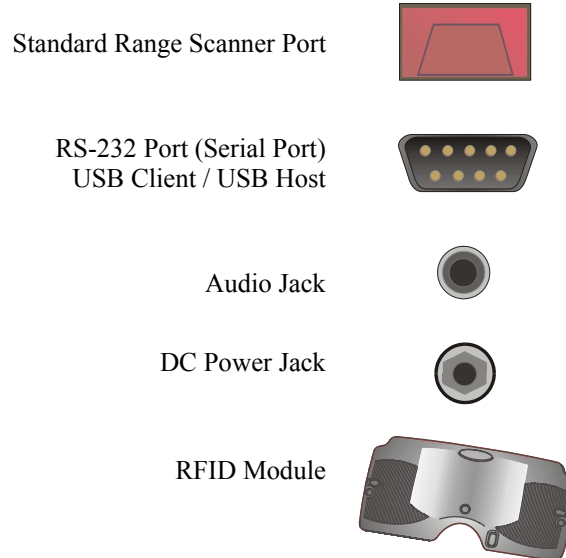


Figure 24 Endcap and COM Ports

The COM 2 port is always the IR port on the back of the mobile device, regardless of the type of endcap installed. COM 2 can only be accessed when a tethered scanner is connected to the RS-232 port on the cradle, and the MX3X is in the cradle. The cradle does not need to be powered by an alternate AC or DC power source. Tethered scanners receive power from the mobile device's main battery.

On the Standard Range Scanner / RS-232 labelled port endcap COM 3 is the Integrated Scanner port. The integrated barcode scanner scans only when the Scan button is pressed. To edit Scanner port parameters, select **Start | Settings | Control Panel | Scanner**. Change the parameter values and tap OK to save the changes.

On the Dual Serial Port endcap the COM1 port is the serial port on the right side of the endcap when the display is facing you.

Caution -- Do Not Use the RS-232 Labelled Port for Cables with USB Plugs/Receptacles:

Caution -- Do Not Use these USB Labelled Endcap Ports for Tethered Scanners:



Figure 25 Labelled Ports and Cables

Endcap Combinations

| Left Port | Right Port |
|--|-------------|
| Serial COM3 | Serial COM1 |
| Serial COM3 | USB Client |
| USB Host | Serial COM1 |
| USB Host | USB Client |
| Scanner | Serial COM1 |
| Scanner | USB Client |
| Rear IR Port is COM2 Barcode scanners, tethered to the serial port on a cradle, send ASCII data to the MX3X in the cradle through the COM2 Port. | |
| MX3X with RFID Module RFID Module – COM1 IR Port – COM2 Integrated Scanner on Endcap – COM3 USB Client on Endcap – USB-C | |

Tethered Scanners

Do not connect a tethered scanner cable to a mobile device's USB-C or USB-H labeled endcap port. These ports cannot power a tethered scanner. Tethered scanners connect to RS232-labeled ports on the endcap and can connect to the RS232 port on a powered cradle.

The Scan buttons have no effect on tethered barcode scanners (connected to a serial port). Tethered scanners read barcode scans only when the trigger on the tethered scanner is pressed. The tethered scanner requires power on pin 9 of the mobile device's serial port.

To set the MX3X to use a tethered scanner, select **Start | Settings | Control Panel | Scanner | COM1 (or 2 or 3)**.

Tap the "**Power on Pin 9 (+5V)**" checkbox for the COM port selected. The COM port that accepts the scanner data can be configured for data rate, parity, stop bits and data bits.

See Also: Section titled "Cradles" when using a tethered scanner with an powered cradle.

USB Port

The USB port requires a 9-pin to USB cable (available from LXE). The 9-pin port/USB port also supports serial data transfer (using a null modem cable) and non-host USB I/O at 1.5 Mbps. The operating system automatically detects the USB cable configuration. Refer to section titled "Accessories" in this guide for part numbers for the 9-pin USB cable and the null modem cable.

IR Port

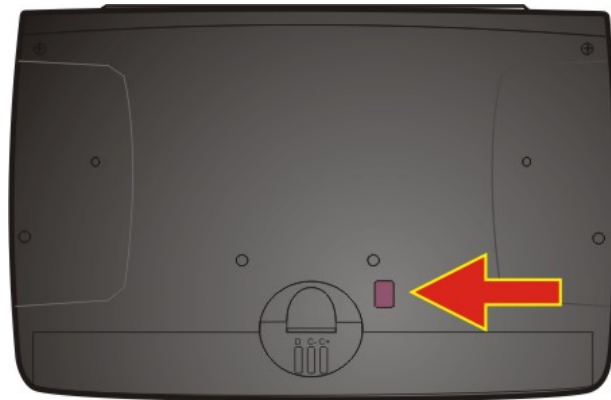


Figure 26 IR Port (COM 2)

The InfraRed (IR) port provides a means of transferring information to a device with a similar port and the proper software. The IR port can be used to communicate with printers or a host computer with the use of an adapter. The IR Port is specified as COM 2 and is a bi-directional half-duplex infrared port. It supports the Slow IrDA (Infrared Data Access) PHY Layer standard that allows communication speeds up to 115k baud.

When sending data through the IR port to another MX3X's IR port, make sure both units are in close proximity to each other. The IR operating envelope has a distance range of 2 cm (.79 inches) to 1 meter (3.2 feet) with a viewing angle of 30 degrees.

See the "MX3X Reference Guide" for complete instructions when sending data through the IR port.

Note: ActiveSync will transfer files over the RS-232 connector on the cradle. The cradle performs a "file pass through" to the IR port on the back of the MX3X.

The Keypad

The QWERTY keypad is phosphorescent. A phosphorescent keypad does not use a keypad backlight but glows in dim/dark areas after exposure to a light source. There is no difference in key function between the MX3X and the MX3-RFID devices.

The keypad is installed and configured by LXE.



Figure 27 The QWERTY Keypad

The keymaps (keypress sequences) are located in “Appendix A - Key Maps.”

Key Functions

| Key | Function |
|-----------------|---|
| Scan | <p>(Scanner integrated into endcaps only.) The Scan key activates the scanner when a scanner endcap is installed and the Scan button is pressed. The internal scanner scans only when the Scan button is pressed. A Scan button press has no effect on externally attached scanners.</p> <p>When there is no integrated scanner endcap, the Scan keys function as Enter keys. For IBM 5250 configurations, the left button is the “Field Exit” key.</p> |
| 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 computer. |
| 2 nd | <p>The 2nd key is used to activate the 2nd functions of the keypad. Printed on many keys at the upper left corner are small characters that represent the 2nd function of that key. Using the 2nd key activates the second key function. Note that the 2nd key only stays active for one keystroke. Each time you need to use the 2nd function you must press the 2nd key. To cancel a 2nd function before pressing another key, press the 2nd key again.</p> <p>When the 2nd function is active, the 2nd LED illuminates.</p> |
| Ctrl | <p>The Ctrl key enables the control functions of the keypad. This function is similar to a regular keyboard’s Control key. Note that the Ctrl key only stays active for one keystroke. Each time you need to use a Ctrl function, you need to press the Ctrl key before pressing the desired key.</p> <p>When the Ctrl function is active, the Ctrl LED illuminates.</p> |
| Alt | <p>The Alt key enables the alternate functions of the keypad. This function is similar to a regular keyboard’s Alt key. Note that the Alt key only stays active for one keystroke. Each time you need to use an alternate function, you need to press the Alt key before pressing the desired key.</p> <p>When the Alt function is active, the Alt LED illuminates.</p> |

| Key | Function |
|------|---|
| Shft | <p>The Shft 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 Shft key before pressing the desired key. When the Shft function is active, the Shft LED illuminates.</p> <p>When the Shft 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 Shft key and the G key are pressed, a lower case g is displayed.</p> |
| Spc | <p>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.</p> |

Field Exit Key Function (IBM 5250/TN5250 Only)



The Field Exit key is used to exit an input field. If the field is an Auto Enter field, the auto transmit function is activated. This key function is present on the IBM 5250/TN5250 specific keypad only.

Caps Key and CapsLock Mode

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. When the CapsLock mode is active, the Caps LED illuminates.

The CapsLock key sequence is <2nd>+ <F1>.

- No CapsLock AND No Shift keypress – result is a lowercase letter.
- CapsLock OR Shift – result is an uppercase letter.
- CapsLock AND Shift keypress – result is a lowercase letter.

Keypress Sequences

See Appendix A for all key press sequences.

Custom Key Maps

The System Administrator creates Custom Key Maps for the MX3X. To activate the Custom keymap, select **Start | Settings | Control Panel | Keyboard** icon. Select the Custom keymap from the keyboard popup menu, and close the control panel with the OK button.

To return to the default keymap, select **0409** from the keymap popup and tap OK.

LED Functions

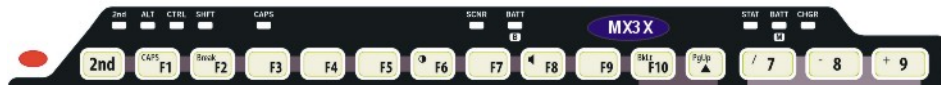


Figure 28 LED Functions

Across the top of the keypad are LEDs that provide visual cues to current computer operation. When the LED is not illuminated, the function is inactive.

| LED | When illuminated ... |
|---------------|---|
| 2nd | The next keypress is a 2 nd keypress. <ul style="list-style-type: none"> • Amber when on • Blinks amber during configuration key sequence. |
| ALT | The next keypress is an ALT keypress. <ul style="list-style-type: none"> • Amber when on and unlit when off. |
| CTRL | The next keypress is a CTRL keypress. <ul style="list-style-type: none"> • Amber when on and unlit when off. |
| SHFT | The next letter is the uppercase letter on alpha keys and the shifted character on the numeric keypad keys. <ul style="list-style-type: none"> • Amber when on and unlit when off. |
| CAPS | Uppercase letters are active until the CAPS key sequence is pressed again. <ul style="list-style-type: none"> • Amber when on and unlit when off. |
| SCNR | Barcode scanner function, affected by both tethered scanners and the scanner endcap. <ul style="list-style-type: none"> • Red - scanning. • Green - good scan. • Unlit - scanner is inactive. |
| BATT B | Backup Battery. When illuminated, the backup battery is charging. When unlit, the backup battery is not charging |
| STAT | Status Indicator. <ul style="list-style-type: none"> • Amber – device is booting up. • Blinking Green when display Suspend state begins. |
| BATT M | Main Battery. When illuminated, main battery capacity is low. <ul style="list-style-type: none"> • Red – low battery. • Blinking Red – power fail. • Unlit - Main battery is not low OR all charge is depleted in both batteries.. |
| CHGR | Charger. When on, the mobile device is receiving external power either from the DC power jack or the MX3X is seated in a powered cradle. <ul style="list-style-type: none"> • Red - Main battery is charging. • Amber – Fault or temporary standby (Contact LXE Customer Support). • Green - battery charge is complete and the mobile device is connected to external power through the power jack or a powered cradle. |

Batteries

*Note: **New batteries must be charged prior to use.** If the main battery and backup battery are depleted, the computer reverts to factory default values. RF configuration parameters will need to re-entered when the depleted main battery is replaced. The backup battery is eventually recharged by the main battery.*

The mobile device is designed to work with a Lithium-Ion (Li-ion) battery from LXE. Under normal conditions it should last approximately eight to ten hours before requiring a recharge. The more you use the scanner or the RF transmitter, the shorter the time required between battery recharges. The operating system keeps date and time valid for a minimum of four days using a fully charged backup battery and a main battery that has reached the Low Warning point.

Main Battery

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 LXE MultiCharger or the mobile device.

Backup Battery

The internal Nickel Cadmium (NiCd) 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 requires no user intervention. Replacement is performed by LXE.

Note: An uninterrupted external power source (wall AC adapters or DC/DC converters) 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 is recommended to maintain backup battery charge status.

Battery Hot-Swapping

When the battery power level is low, the BATT-M LED illuminates and remains on. You can replace the main battery without shutting the device off. Place the device in Suspend and simply replace the discharged battery with a fully-charged battery. The backup battery will retain data during a main battery hot-swap for at least five minutes.

Battery Chargers

Note: LXE recommends that the correct MX3 Multicharger Plus always be used to charge the MX3X main battery. The Multicharger plus label is located on the back of the device and the charger must have been upgraded to V1.01. Please contact your LXE representative for further information about the V1.01 upgrade kit, if needed.

LXE Multi-Charger Plus



Figure 29 MX3 Multi-Charger Plus

The main battery can be charged in the MX3 Multi-Charger Plus. The main battery charges the backup battery using the mobile device's internal charging circuitry.

External Power Supply (Optional)

The DC power jack is located on the endcap.

The cradle power jack is located on the back of the cradle. The mobile device (and the Desktop Cradle) connect to any of the following power supplies through their DC Power Jack.

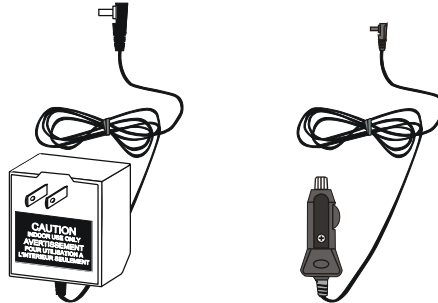


Figure 30 US AC/DC 12V Power Supply and Cigarette Lighter Adapter



Figure 31 International AC/DC 12V Power Supply

Note: When the mobile device is receiving power through a cradle connected to external power, the cradle's Status LED and the device's CHGR LED are illuminated. The MX3-RFID does not fit in a charging cradle. The MX3-RFID main battery must be re-charged using one of the LXE MX3 Multi-chargers.

Storage Cradles

Note: The “MX3 Cradle Reference Guide” contains cradle installation and technical information.



There are two types of cradles for the MX3X: a desktop cradle for table top charging/communication applications and a vehicle mount cradle for vehicle mounted charging/communication applications.

A passive vehicle cradle is available for the MX3-RFID device. See the following section “The MX3-RFID and Cradles”.

The powered cradles give the MX3X the ability to communicate with a host computer and other equipment. In addition, using wall AC adapters or DC/DC converters, the cradle transfers power to the internal charging circuitry of the MX3X and, in turn, the operating system recharges the main battery.

The MX3X can be either on or in Suspend mode while in the cradle. The MX3X can be inserted and removed from the cradle with one hand.

Cables are available from LXE for connecting the cradle to a printer, a personal computer or a barcode printer. Tethered scanners (for RS-232 cradle connection) are also available from LXE.

Status LED

An LED indicator on the front of the cradle shows the status of the cradle. When the indicator is not illuminated, there is no power applied to the cradle.

| | | |
|--------------|--------------|---|
| Cradle Power | Amber | External power applied to the cradle. |
| Docked | Green | Power applied to the cradle and charging connection made with the MX3X. |
| IR Active | Red | IR communication is active. |

Desktop Cradle

Note: LXE recommends the correct Desktop Cradle always be used to store / charge / communicate with the MX3X. The MX3X Desktop Cradle label is located on the bottom of the device. The MX3X Desktop cradle Product Number is **2381A002DESKCRADLE**.

Lower the mobile device straight into the cradle, tilt it forward and then let it rest backward in the cradle. Ensure that the mobile device is properly seated on the charging contacts. The CHGR LED will illuminate green when the MX3X is correctly seated in the cradle. The CHGR LED will illuminate red when the MX3X main battery is being charged (in a cradle connected to an external power source). To remove the MX3X, tilt the MX3X forward and lift it straight up out of the cradle.

Note: **Do not "slam" or slide the mobile device sideways into the cradle. Damage may result.**

Connectors

The Power connector is located on the back of the cradle in the top left hand corner. The cradle can be powered, if required, by an LXE US AC Adapter or an LXE International AC Adapter. When powered, the cradle transfers power to the internal charging circuitry of the MX3X allowing it to recharge the main battery. A powered cradle supports RS-232 and IR communications.

The RS-232 connector is located in the back center of the cradle. When the MX3X is properly docked, the bi-directional half-duplex transceivers in the MX3X and cradle are aligned through their IR windows. The half-duplex IR signals from the MX3X are converted to RS-232 signals in the cradle and available at this connector.

Vehicle Mount Cradle

This cradle is specifically designed for vehicle mount applications. The cradle restrains the MX3X and isolates the computer from shock and vibration. The MX3X is inserted into the cradle by placing the base of the unit in the pocket and then firmly pressing the unit backwards until the release mechanisms latch and hold the unit in the cradle. The MX3X is removed from the cradle by pressing the release mechanisms and pulling the MX3X up and away from the cradle.

Connectors

The Power connector is located on the back of the cradle below and to the left of the RS232 port. The cradle is powered by either a vehicle's 12V battery or from an approved accessory for vehicles with higher voltage (24 to 60 VDC) batteries. When powered, the cradle transfers external power to the MX3X, which in turn, recharges the main battery. A powered cradle allows RS-232 and IR communication.

The RS-232 connector is located on the back of the cradle below and to the right of the power connector. When the MX3X is properly docked, the bi-directional half-duplex transceivers in the MX3X and cradle are aligned through their IR windows. The half-duplex IR signals from the MX3X are converted to RS-232 signals in the cradle and available at this connector.

Note: ActiveSync will transfer files over the RS-232 connector on the vehicle cradle.

ActiveSync with a Cradle

To ActiveSync, the cradle must be powered off, the ActiveSync cradle cable attached to the desktop PC and the cradle, then the cradle powered up.

Note: ActiveSync transfers files to the MX3X over the RS-232 connector on the cradle using the MX3X070CBLD9RS232AS cable.



Figure 32 ActiveSync Cable Connected to Serial port on Cradle

Tethered Scanner and a Cradle

To use a tethered scanner connected to the RS232 port on the cradle, the cradle must be powered off, the cable removed and the cradle powered up. Then, the tethered scanner can be attached to the cradle's serial port.

The MX3-RFID and Cradles

The MX3X with an RFID module (MX3-RFID) cannot fit in the MX3 charging cradles. There is a passive vehicle cradle available for the MX3-RFID device that secures the MX3-RFID device to the cradle only. See "Accessories".

MX3-RFID battery charging and communication is not available in the MX3-RFID passive vehicle cradle unless the mobile device is connected to external power through the power jack in the endcap. The passive vehicle cradle does not have LEDs or indicators. It does not require DC power connection.

Appendix A Key Maps

Keypad

Throughout this guide, an MX3X without an RFID Module is labeled “MX3X”. The MX3X with an RFID Module is labeled “MX3-RFID”. Information specific to one or the other is labeled appropriately. No distinction is made to information that is the same for both mobile devices.

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.

Key Map 101-Key Equivalencies

Note: This key mapping is used on hand held computers that are NOT running an LXE Terminal Emulator.

When using a sequence of keys that includes the 2nd key, press the 2nd key first then the rest of the key sequence.

Note: When the computer boots, the default condition of NumLock is On and the default condition of Caps (or CapsLock) is Off. The Caps (or CapsLock) condition can be toggled with a 2nd+F1 key sequence. The CAPS LED is illuminated when CapsLock is On.

| To get this key | Press These Keys and Then | | | | | Press this key |
|-------------------|---------------------------|-------|------|-----|----------|-----------------|
| | 2 nd | Shift | Ctrl | Alt | CapsLock | |
| Contrast | x | | | | | F6 |
| Volume | x | | | | | F8 |
| Backlight | x | | | | | F10 |
| 2 nd | | | | | | 2 nd |
| Shift | | | | | | Shft |
| Alt | | | | | | Alt |
| Ctrl | | | | | | Ctrl |
| Esc | | | | | | Esc |
| Space | | | | | | Spc |
| Enter | | | | | | Enter |
| Scan ² | | | | | | Scan |
| CapsLock (Toggle) | x | | | | | F1 |
| Back Space | | | | | | BkSp |
| Tab | | | | | | Tab |
| BackTab | x | | | | | Tab |
| Break | x | | | | | F2 |
| Pause | x | x | | | | F3 |

² Left Scan key default value is Scan. Right Scan key default value is Enter. When RFID Module is installed, Right Scan key defaults to RFID Read and Left Scan key defaults to Scan or Enter or Field Exit (5250 only).

| To get this key | Press These Keys and Then | | | | | Press this key |
|-----------------|---------------------------|-------|------|-----|----------|----------------|
| | 2 nd | Shift | Ctrl | Alt | CapsLock | |
| Up Arrow | | | | | | Up Arrow |
| Down Arrow | | | | | | Down Arrow |
| Right Arrow | | | | | | Right Arrow |
| Left Arrow | | | | | | Left Arrow |
| Insert | x | | | | | BkSp |
| Delete | x | | | | | DOT |
| Home | x | | | | | Left Arrow |
| End | x | | | | | Right Arrow |
| Page Up | x | | | | | Up Arrow |
| Page Down | x | | | | | Down Arrow |
| ScrollLock | x | x | | | | F4 |
| F1 | | | | | | F1 |
| F2 | | | | | | F2 |
| F3 | | | | | | F3 |
| F4 | | | | | | F4 |
| F5 | | | | | | F5 |
| F6 | | | | | | F6 |
| F7 | | | | | | F7 |
| F8 | | | | | | F8 |
| F9 | | | | | | F9 |
| F10 | | | | | | F10 |
| F11 | x | x | | | | F1 |
| F12 | x | x | | | | F2 |
| a | | | | | Off | A |
| b | | | | | Off | B |
| c | | | | | Off | C |
| d | | | | | Off | D |
| e | | | | | Off | E |
| f | | | | | Off | F |
| g | | | | | Off | G |
| h | | | | | Off | H |
| i | | | | | Off | I |
| j | | | | | Off | J |
| k | | | | | Off | K |
| l | | | | | Off | L |

| To get this key | Press These Keys and Then | | | | | Press this key |
|-----------------|---------------------------|-------|------|-----|----------|----------------|
| | 2 nd | Shift | Ctrl | Alt | CapsLock | |
| m | | | | | Off | M |
| n | | | | | Off | N |
| o | | | | | Off | O |
| p | | | | | Off | P |
| q | | | | | Off | Q |
| r | | | | | Off | R |
| s | | | | | Off | S |
| t | | | | | Off | T |
| u | | | | | Off | U |
| v | | | | | Off | V |
| w | | | | | Off | W |
| x | | | | | Off | X |
| y | | | | | Off | Y |
| z | | | | | Off | Z |
| A | | x | | | | A |
| B | | x | | | | B |
| C | | x | | | | C |
| D | | x | | | | D |
| E | | x | | | | E |
| F | | x | | | | F |
| G | | x | | | | G |
| H | | x | | | | H |
| I | | x | | | | I |
| J | | x | | | | J |
| K | | x | | | | K |
| L | | x | | | | L |
| M | | x | | | | M |
| N | | x | | | | N |
| O | | x | | | | O |
| P | | x | | | | P |
| Q | | x | | | | Q |
| R | | x | | | | R |
| S | | x | | | | S |
| T | | x | | | | T |
| U | | x | | | | U |

| To get this key | Press These Keys and Then | | | | | Press this key |
|-----------------|---------------------------|-------|------|-----|----------|----------------|
| | 2 nd | Shift | Ctrl | Alt | CapsLock | |
| V | | x | | | | V |
| W | | x | | | | W |
| X | | x | | | | X |
| Y | | x | | | | Y |
| Z | | x | | | | Z |
| 1 | | | | | | 1 |
| 2 | | | | | | 2 |
| 3 | | | | | | 3 |
| 4 | | | | | | 4 |
| 5 | | | | | | 5 |
| 6 | | | | | | 6 |
| 7 | | | | | | 7 |
| 8 | | | | | | 8 |
| 9 | | | | | | 9 |
| 0 | | | | | | 0 |
| DOT | | | | | | DOT |
| < | x | | | | | 0 |
| [| x | | | | | 1 |
|] | x | | | | | 2 |
| > | x | | | | | 3 |
| = | x | | | | | 4 |
| { | x | | | | | 5 |
| } | x | | | | | 6 |
| / | x | | | | | 7 |
| - | x | | | | | 8 |
| + | x | | | | | 9 |
| * | x | | | | | I |
| : (colon) | x | | | | | D |
| ; (semicolon) | x | | | | | F |
| ? | x | | | | | L |
| ` | x | | | | | N |
| _ (underscore) | x | | | | | M |
| , (comma) | x | | | | | J |
| ' (apostrophe) | x | | | | | H |
| ~ (tilde) | x | | | | | B |

| To get this key | Press These Keys and Then | | | | | Press this key |
|-----------------|---------------------------|-------|------|-----|----------|----------------|
| | 2 nd | Shift | Ctrl | Alt | CapsLock | |
| \ | x | | | | | S |
| | x | | | | | A |
| " | x | | | | | G |
| ! | x | | | | | Q |
| @ | x | | | | | W |
| # | x | | | | | E |
| \$ | x | | | | | R |
| % | x | | | | | T |
| ^ | x | | | | | Y |
| & | x | | | | | U |
| (| x | | | | | O |
|) | x | | | | | P |



Appendix B Regulatory Notices and Safety Information

FCC Information:

This device complies with FCC Rules, part 15. Operation is subject to the following conditions:

1. This device may not cause harmful interference
and
2. This device must accept any interference that may be 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 brouiller du Canada. Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe A prescrites dans le Règlement sur le brouillage radioélectrique édictés par le ministère des Communications du Canada.

RF Safety Notice

Caution



This device is intended to transmit RF energy. In accordance with FCC and Industry Canada radio-frequency safety regulations, when operating this device it should be used in accordance with the user's instructions. Additionally, the user should take care to ensure that a minimum separation distance of 20cm (7.8 in.) is maintained from the antenna to nearby persons. Use of this device in a manner not consistent with these instructions can increase the risk of RF exposure. This device is not to be co-located with other transmitters.

Notice:

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

Li-Ion Battery

When disposing of the MX3X 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.

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.)



Permitted for use in: Austria, Belgium, Denmark, Finland, Germany, Greece, Iceland, Italy, Ireland, Liechtenstein, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom



Permitted for use in France.

MX3X Computer Approvals:

| Product | EMI / EMC Standards | Safety Standards |
|-------------------------------|--|---|
| MX3X MX3X with RFID Module | FCC Part 15 Subpart B, Class A EN 55022:1998 Class A EN 55024:1998 Industry Canada Class A | UL 60950; CSA C22.2 No. 60950 CDRH: 21 CFR 1040.10 and 1040.11 EN 60950 IEC 60825-1 IEC 60950 |

Cradle Approvals:


| Product | EMI / EMC Standards | Safety Standards |
|--|--|--|
| MX3 Table MX3 Vehicle Mount MX3-RFID Passive Vehicle Cradle | FCC Part 15 Subpart B, Class A EN 55022:1998 Class A EN 55024:1998 Industry Canada Class A | UL 60950; CSA C22.2 No. 60950 EN 60950 IEC 60950 |

Transceiver:

| Transceiver | RF Standards | Notes |
|--|--|--|
| 6726 (LXE Model No.) [Cisco] | FCC Part 15, Subpart C FCC Part 2 EN 300 328 EN 300 826 IC-RSS 139 IC-RSS 102 | Unlicensed Operation Unlicensed Operation Requires License for Outdoor Use |
| 6816 (LXE Model No.) [Symbol] 2.4GHz Type II PCMCIA Card | FCC Part 15, Subpart C FCC Part 2 EN 300 328 EN 300 826 IC-RSS 139 IC-RSS 102 | Unlicensed Operation Unlicensed Operation Requires License for Outdoor Use |

LXE Transceiver LXE 6726 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 6726 |
| Manufacturer: | LXE Inc. |
| Address: | 125 Technology Parkway Norcross, GA 30092-2993 USA |
| Year of Manufacturer: | 2001 |
| 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 60950-2: 1992 + A1..A4 | 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 | 24 June 2004 |
| |  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 6726

With regard to the use of external antennas

The LXE 6726 can be equipped with external antennas. The antennas listed have been evaluated with the LXE 6726 pursuant to ETSI 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 6726 transceiver.

Dedicated Antennas for use with LXE 6726

| <u>LXE P/N</u> | <u>Antenna Gain</u> | <u>Radio Power Level</u> | <u>Antenna Description</u> |
|--------------------------|---------------------|--------------------------|--|
| 153180-0001 | 0 dBi | 17 dBm | Omni, for LXE VX-series computers |
| 155522-0001 | 0 dBi | 17 dBm | Omni, for LXE MX1-series computers |
| 155814-0001 | 0 dBi | 17 dBm | Patch, for LXE MX1-series computers |
| 157368-0001 | 0 dBi | 17 dBm | Patch, for LXE MX3-series computers |
| 157399-0001 | 0 dBi | 17 dBm | Omni, for LXE MX5-series computers |
| 99004-0027 | 0 dBi | 17 dBm | 3 dB Omni, for LXE model 2325 computer |
| DAC2450CT1 (Toko P/N) | 2.15 dBi | 17 dBm | Omni, for LXE MX2-series computers |
| 153179-0001 | 0 dBi | 17 dBm | Omni, Access Point Antenna |
| 153325-0001 | 0 dBi | 17 dBm | Omni, Access Point Antenna |
| 480424-0400 | 0 dBi | 17 dBm | Omni, Access Point Antenna |
| 153599-0001 | 3 dBi | 17 dBm | Omni, Access Point Antenna |
| 153600-0001 | 3 dBi | 17 dBm | Omni, Access Point Antenna |
| 480424-3404 | 3 dBi | 17 dBm | Omni, Access Point Antenna |
| 155846-0001 | 3 dBi | 17 dBm | Spire® Access Point Antenna |
| 155845-0001 | 6 dBi | 13 dBm | Spire® Access Point Antenna |
| 155311-0001 | 6 dBi | 13 dBm | Patch, Access Point Antenna |
| 480424-3411 | 6 dBi | 13 dBm | Patch, Access Point Antenna |
| 480424-3402 | 6 dBi | 13 dBm | Patch, Access Point Antenna |
| 481246-2400 | 6 dBi | 13 dBm | Patch, Access Point Antenna |
| 480424-1702 | 6 dBi | 13 dBm | 180° Directional, Access Point Antenna |
| 480424-0411 | 9 dBi | 7 dBm | Omni, Access Point Antenna |
| 480429-2703 | 12 dBi | 7 dBm | 90° Directional, Access Point Antenna |
| 480429-0411 | 12 dBi | 7 dBm | Omni, Access Point Antenna |
| 460601-3020 | 15 dBi | 3 dBm | YAGI, Access Point Antenna |
| 460602-3020 | 15 dBi | 3 dBm | YAGI, Access Point Antenna |
| 480429-0415 | 15 dBi | 3 dBm | Omni, Access Point Antenna |

C. Binnom Jr.
RF Approvals Engineer
24 June 2004

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

LXE Transceiver LXE 6816 Declaration of Conformity



| | |
|--|---|
| DECLARATION OF CONFORMITY | |
| according to: | |
| the R&TTE Directive; | 99/5/EEC |
| The EMC Directive; | 89/336/EEC |
| The Low Voltage Directive; | 73/23/EEC |
| and the Marking Directive; | 93/68/EEC |
| Type of Equipment: | DSSS 2.4GHz WLAN Radio Card |
| Brand Name or Trademark: | LXE |
| Type Designation: | 6816 |
| Manufacturer: | LXE Inc. |
| Address: | 125 Technology Parkway Norcross, GA 30092 USA |
| The following harmonized European Norms have been applied: | |
| EMC Standards: | |
| 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 |
| EN 55022: 1998 | Limits and methods of measurement of radio disturbance characteristics of information technology equipment |
| Radio Standards: | |
| 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 Standard: | |
| EN60950-1: 2001 | Safety of information technology equipment, including electrical business equipment |
| The product carries the CE Mark: | |
| | |
| 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. | |
| Date of issue: June 18, 2003 | Cyril A. Binnom Jr. Regulatory Engineer |

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

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

Annex to DoC for LXE 6816

With regard to the use of external antennas

The LXE 6816 can be equipped with external antennas. The antennas listed have been assessed with the LXE 6816 pursuant to EN 300 328, and therefore meet the definition of 'dedicated antenna'. The table below lists the maximum output power setting for the radio module in order to result in a total EIRP of 100mW or less. Any combination of output power and a specific type of antenna resulting in an EIRP greater than 100mW is illegal for use throughout the Community and is outside the scope of this DoC. Antennas not listed below are also outside the scope of this DoC.

Dedicated Antennas for use with LXE 6816

| LXE Antenna Part Number | LXE Model Number | Antenna Gain | Max Radio Power Level | Antenna Description |
|-------------------------|--|--------------|-----------------------|--------------------------|
| 153180-0001 | N/A | 2.2 dBi | 17 dBm | Cushcraft Omni Antenna |
| 155846-0001 | 6000A279ANT3SPIREL 6000A280ANT3SPIRER 6000A283ANT3INDSPR | 3 dBi | 17 dBm | Spire® Omni Antenna |
| 155845-0001 | 6000A277ANT6SPIREL 6000A278ANT6SPIRER 6000A282ANT3INDSPR | 6 dBi | 13 dBm | Spire® Omni Antenna |
| 480424-0411 | N/A | 9 dBi | 11 dbm | Mobile Mark Omni Antenna |
| 155104-0001 | N/A | 0 dbi | 20 dbm | LXE Omni |
| 154591-0001 | N/A | 0 dbi | 20 dbm | LXE Patch |
| Toko DAC2450CT1 | N/A | 0 dbi | 20 dbm | LXE Omni |
| 157368-0001 | N/A | 0 dbi | 20 dbm | LXE Omni |
| 158586-0001 | N/A | 0 dbi | 20 dbm | LXE Omni |
| 158399-0001 | N/A | 0 dbi | 20 dbm | LXE Omni |



Cyril A. Binnom Jr.
Regulatory Engineer
18 June 2003

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



A/C Power Supply Safety Statement – MX3X Output Rated 12 VDC, 1 A.



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)

Valfrit vekselstrømforsyning

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

Vaihtohtoinen vaihtovirran syöttölaite:

Pohjois-Amerikan ulkopuolella tämä laite on tarkoitettu käytettäväksi sellaisen IEC:n sertifioiman ITE-tehonsyöttölaiteen 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>Uyarý: 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 - MX3X Hand Held Computer

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