

VX1 User's Guide

IMPORTANT NOTICE

LXE's VX1 is obsolete.

This electronic manual has been made available as a courtesy to LXE's VX1 customers. Please contact your LXE customer support representative for assistance and mobile device replacement.



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E-EQ-VX10GWW-K-ARC

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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.

Revision Notice

Entire Manual	Obsolete/Archived. Available on LXE ServicePass website only. Product’s replacement device is the LXE VX6. Added Hungary to “R&TTE Directive Requirements.” Updated document presentation to reflect LXE’s 2006 documentation standards. Updated “Accessories”. Updated “Manuals”. Added section titled “Revision History”.
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The VX1 Vehicle Mount Computer

Introduction

The VX1 Vehicle Mount Computer (VMT or VMC) is a rugged, vehicle-mounted, DOS based PC (Personal Computer) capable of wireless data communications from a fork-lift truck or any properly configured vehicle. The unit uses a PCMCIA radio (spread spectrum 900MHz or 2.4GHz) for wireless data communications.

The VX1 is a DOS compatible tablet-style computer providing the power and functionality of a desktop computer in a vehicle mounted unit. The unit has a 486 25MHz CPU and 8MB of Flash memory. It is designed to run applications such as LXE's Terminal Emulator applications (ANSI Plus, LDS Plus, IBM DOS 3270, IBM DOS 5250, TN3270 and TN5250).








Note: The "VX1 Reference Guide" contains VX1 technical information and advanced functions.



Note: The 900MHz radio is obsolete. Companion terminal emulation software is obsolete (3250 DOS TE, 5250 DOS TE, ANSI for 900MHz and LDS for 900MHz systems).

Document Conventions

This reference guide uses the following 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 manual 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 keyboard (for example, <Enter>).
	Indicates a reference to other documentation.
	Differences in operation or commands due to radio type.
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 an imminent hazardous situation which, if not avoided, will result in death or serious injury.

Environmental Specifications

Feature	Specification
Operating Temperature	-4°F to 122°F (-20°C to 50°C) [non-condensing]
OpTemp: Heater Option	-22°F to 122°F (-30°C to 50°C)
Storage Temperature	-22°F to 160°F (-30°C to 70°C) [non-condensing]
Water, Sand Dust	IEC IP56
Operating Humidity	Up to 90% non-condensing at 104°F (40°C)
Vibration	Based on MIL Std 810D
ESD	15 kV
Shock	75G, 5ms duration, 100 shock impacts

Quick Start

This section's instructions are based on the assumption that your new system is pre-configured and requires only accessory installation (e.g. antenna, external barcode scanner) and a power source.

Use this guide as you would any other source book -- reading portions to learn about the VX1, and then referring to it when you need more information about a particular subject. This guide takes you through installation and operation of the LXE VX1.

In general, the sequence of events is:

1. Install Mounting Bracket on vehicle.
2. Secure VX1 in Mounting Bracket Assembly.
3. Connect vehicle power source to VX1 power cable.
4. Connect power cable to the VX1.
5. Install accessories on VX1, e.g. scanner, antenna.
6. Secure cables to the VX1 with strain relief cable clamps.
7. Turn VX1 on.

The VX1 should be mounted in an area in the vehicle where it:

- Does not obstruct the vehicle operator'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.

Components

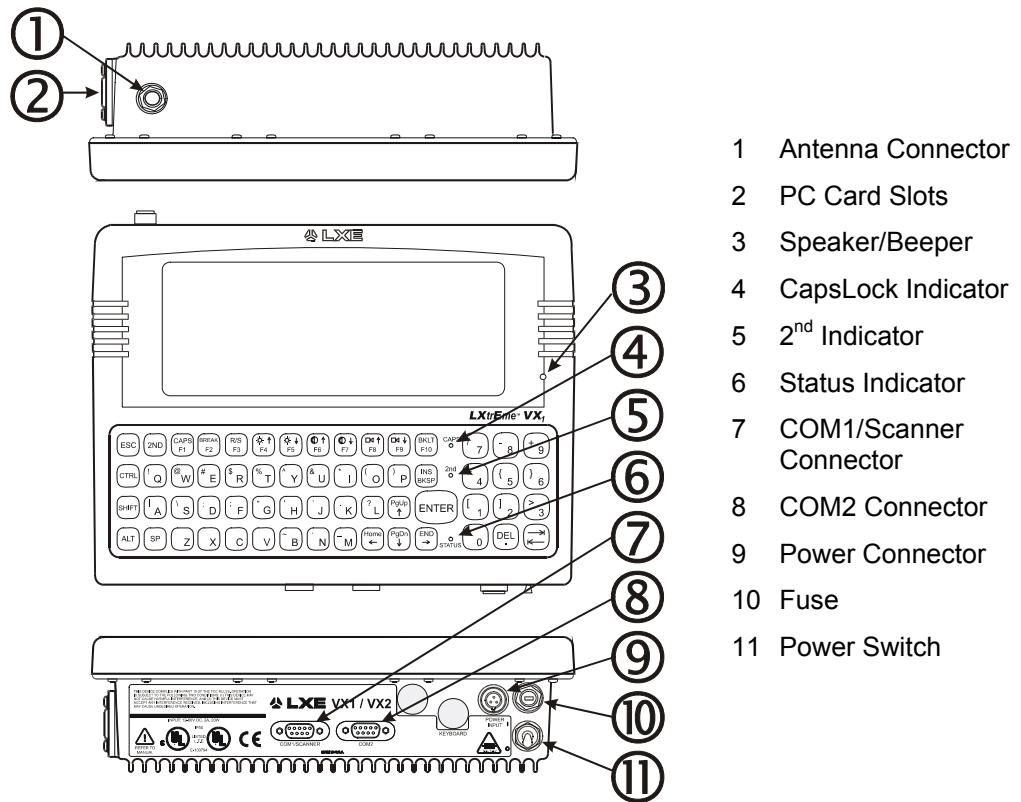


Figure 1 VX1 Components

The Half-Screen Display

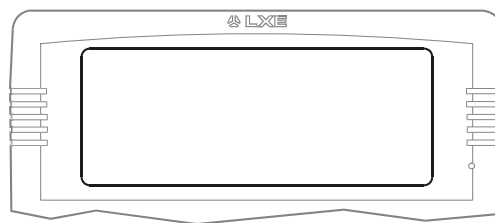


Figure 2 The Half-Screen Display

The VX1 Display is a monochrome Electroluminescent (EL) unit capable of supporting VGA graphics modes. The display size is 640 x 200 pixels. Refer to the section titled "Operation" in this guide for instructions on display panning and adjusting the display's brightness.

Controls and Connectors

Most external connectors for the VX1 are located on the bottom of the unit.

COM 1 connects to a serial barcode scanner cable¹.

COM 2 connects to a serial printer or PC with the appropriate cables.

The antenna connector is located on the top of the unit.

Note: The Keyboard port is not supported.

¹ The COM port must be set up to accept input from a barcode scanner using CMOS Setup. Refer to the VX1 Reference Guide, Chapter 4: "System Configuration" section titled "CMOS Setup" for instruction.

The Keyboards

The VX1 has an internal, custom keyboard in one of four versions:

- QWERTY layout, with Standard overlay
- QWERTY layout, with IBM 3270 overlay
- QWERTY layout, with IBM 5250 overlay
- ABCD layout with Standard overlay

Each keyboard features a 60 key keyboard. The keyboard backlight is toggled with the key sequence 2nd + F10.

Both keyboards have 101 keyboard functions, including a numeric keyboard pad. Please refer to the Appendix "Key Maps" for keypress combinations.

The ABCD Keyboard

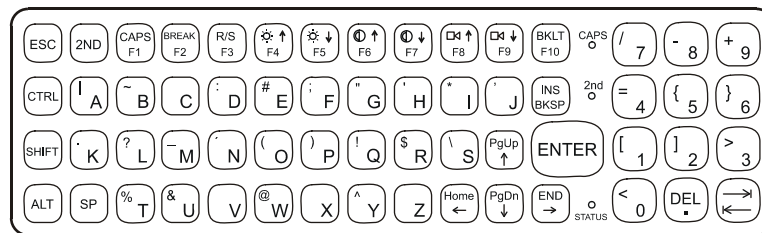


Figure 3 The ABCD Keyboard Standard

The QWERTY Keyboard

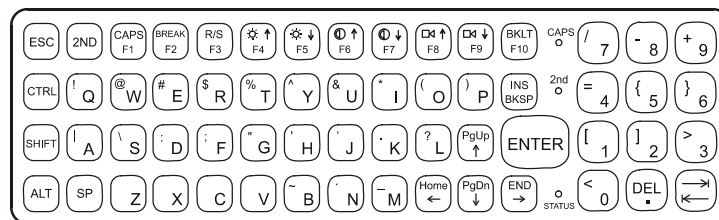


Figure 4 The QWERTY Keyboard Standard

IBM 3270 Overlay

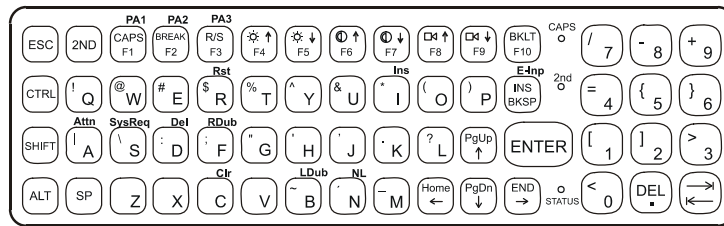


Figure 5 QWERTY Keyboard with IBM 3270 Overlay

IBM 5250 Overlay

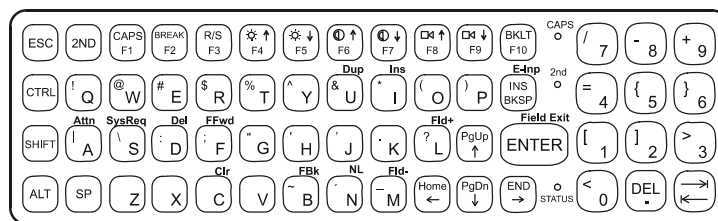


Figure 6 QWERTY Keyboard with IBM 5250 Overlay

Note: Press the <CTRL> + <Enter> keys to initiate the IBM 5250 Field Exit function.

Key Maps

The VX1 keyboard supports all 101 keyboard functions. However, because the keyboards only have 60 keys, all functions are not visible (or printed on the keyboard). Therefore the VX1 keyboards support what are called hidden keys -- keys that are accessible but not visible on the keyboard.

On standard keyboards many keys are found in the Alphanumeric section as well as on the Numeric keypad (i.e. the 1 key is found on the numeric keypad and above the alpha characters on standard keyboards). However these keys send distinctly different scan codes when the keys are pressed. The default codes for the VX1 keyboard correspond to the numeric keypad on standard keyboards. In order to duplicate the codes sent when the alphanumeric key is pressed, the hidden keystroke must be used.

The hidden keys supported by the VX1 are listed in the Appendix titled "Key Maps". The Key Maps appendix contains the key press sequences for the QWERTY keyboard and the ABCD keyboard.

The VX1 keyboard does not have a NUM LOCK indicator or key, however NumLock is always On. Although NumLock can be turned on or off via the computers CMOS Setup program, the VX1 ignores the Off setting. Refer to the "VX1 Reference Guide" for more information on NUM LOCK.

DOS Key Functions Not Available on the VX1

- Prnt Scrn** A function that is available at the DOS prompt on a desktop PC. The Prnt Scrn as a system function requires a parallel port and the VX1 has only serial ports.
- Sys Req** A function that is available at the DOS prompt on a desktop PC. Sys Req is for use in a multi-tasking environment to switch between various running applications. The VX1 is not a multi-tasking computer, nor is DOS in general considered a multi-tasking environment.

Keyboard LEDs

The VX1 keyboard has three (3) LED indicators.

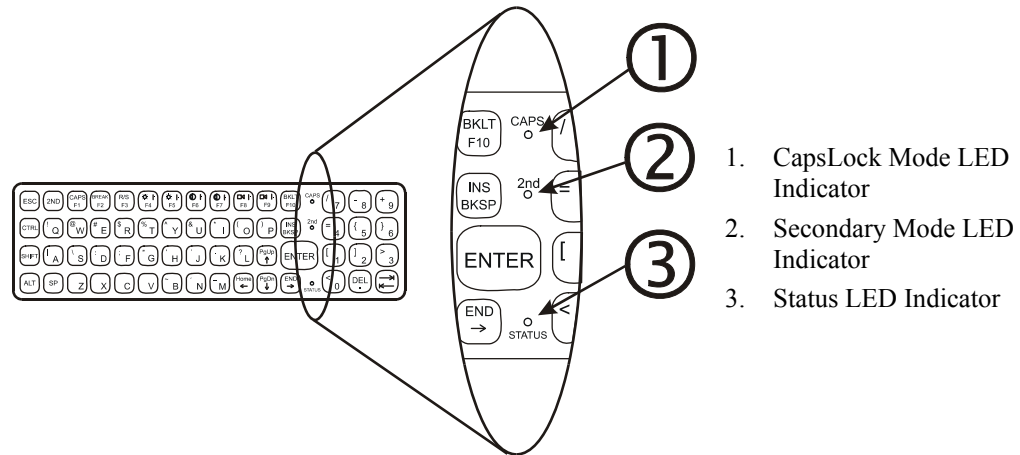


Figure 7 Keyboard LEDs

CAPS LED

This LED indicates the state of the keyboard Caps-Lock mode. If Caps-Lock is enabled this LED is illuminated green. When Caps-Lock is off, the LED is dark.

Press 2nd then <F1> to toggle Caps-Lock On and Off.

Caps-Lock can also be set On or Off using CMOS Setup. Refer to the "VX1 Reference Guide."

The default value of Caps-Lock is "Off".

Secondary Keys LED

The VX1 keyboard is equipped with several secondary keys. These keys are identified by the superscripted text found on the keyboard keys. The secondary keys are accessible by using two (2) keystrokes: the 2nd key followed by the superscripted key.

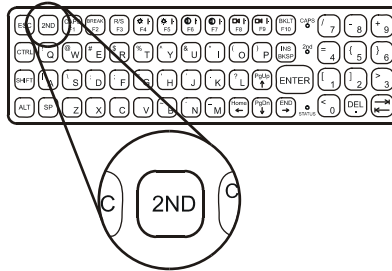


Figure 8 The Secondary Key

Once the 2nd state is enabled (by pressing the 2nd key) the Secondary Mode LED is illuminated and the 2nd state is enabled until another key is pressed. The 2nd key is toggled on with a 2nd keypress and then immediately off with another 2nd keypress.

For example:

Press 2nd and <F10> to toggle the keyboard backlight on and off.

Press 2nd and <F1> to turn Caps-Lock on and off.

Press 2nd and <F2> to initiate the DOS Break command.

Press 2nd and <F3> to toggle the Resume/Suspend Mode on and off.

Status LED

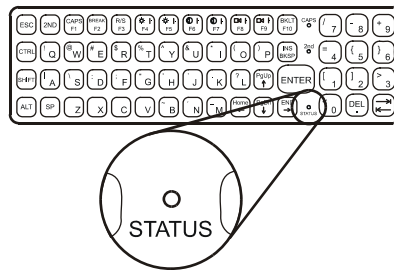


Figure 9 The Status LED

The Status LED, located on the front of the unit, is illuminated green when the unit is powered on and the display is off. The Status LED is dark when power is disconnected (or the power is on and the display is on).

Note: This LED should not be lit when power is disconnected from the VX1.

Entering and exiting the Suspend Mode is performed by pressing the Resume/Suspend key sequence -- **2nd key then <F3>**.

The status LED is green when the VX1 is in Suspend Mode. Suspend Mode is the lowest power-consumption state possible, while still retaining the system's status.

When the VX1 enters Suspend Mode, the display and keyboard backlight are turned off and the status LED stays green. The beeper is active.

When the VX1 is in Suspend Mode and the Resume/Suspend key is pressed, the display and keyboard backlight are turned on and the status LED turns off.

Control Keys

The VX1 has several control keys. One key controls the keyboard backlight, a pair of keys controls the volume and another pair of keys controls the display brightness. The VX1 must be placed in Secondary Mode to access these functions.

Note: The <F6> and <F7> keys (Contrast Up and Contrast Down) have no function as the VX1 has an electroluminescent screen. Contact your LXE representative for future enhancements using these keys.

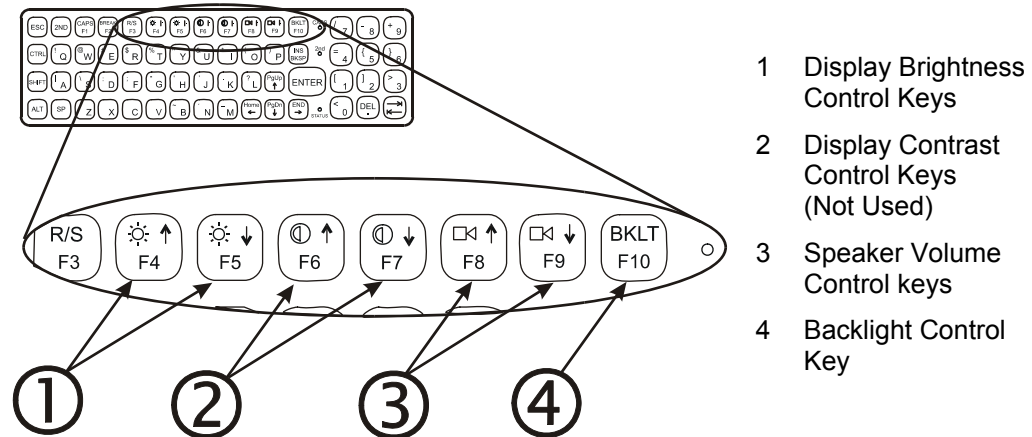


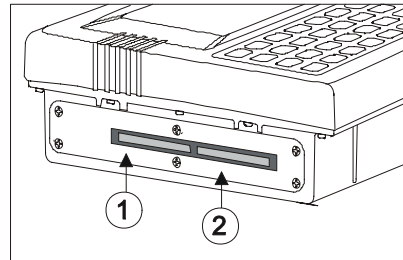
Figure 10 The VX1 Display Controls

PCMCIA Slots

The VX1 has one active PCMCIA slot – the right slot, slot 0. It supports the Personal Computer Memory Card International Association (PCMCIA) 2.1 standards.

Slot 0 (the right slot, usually configured as Drive D:) accepts Type I, II or III PCMCIA SRAM cards. LXE supports only Type II 2.4GHz Spread Spectrum and Type III 900MHz Spread Spectrum radios.

Slot 1 (the left slot) is not used.



- 1 Slot 1 (Left) Unused
- 2 Slot 0 (Right)

Figure 11 The VX1 PCMCIA Slots

Radio Cards

Common use of the PC slot is to insert a radio PCMCIA card or a memory/ SRAM card. Not all units require radio cards or memory cards. Possible radio configurations are:

LXE TE Software	2.4GHz	900MHz
ANSI Plus	x	x
LDS Plus	x	x
IBM 3270/IBM 5250		x
IBM TN3270/TN5250	x	

Note: The 900MHz radio is obsolete. Companion terminal emulation software is obsolete (3250 DOS TE, 5250 DOS TE, ANSI for 900MHz and LDS for 900MHz systems).

Power Supply

Vehicle power input for the VX1 is 12V to 80V DC and is accepted without the need to perform any manual adjustments within the VX1. See the section titled “Installation”, sub-section titled “Vehicle 12-80VDC Direct Connection.”

If 12V to 80V DC power is not available – for example, in an office environment – an optional external Universal Input Power Supply can be used to convert AC wall power to an appropriate DC level. See the section titled “Installation”, sub-section titled “External Power Supply.”

Power input is fused for protection and the fuse is externally accessible. See section titled “Installation”, sub-section titled “Fuse Replacement for the VX1.”

Backup Battery

The internal 50mAh Nickel Cadmium (NiCd) backup battery provides power to the unit for a short amount of time when the primary power supply has been depleted, removed or has failed. The backup battery requires no user intervention other than periodic conditioning (see Appendix D "Utilities" in the VX1 Reference Guide). Replacement is performed by LXE.

Note: When there is no external power supplied to the VX1, the unit is powered by the backup battery. When the backup battery is depleted, the BIOS parameters are reset to their factory default settings.

Getting Help

LXE user guides are now available on CD and they can also be viewed/downloaded from the LXE ServicePass website. Contact your LXE representative to obtain the LXE Manuals CD or access to the LXE ServicePass website. You can also check the LXE ServicePass website for the latest manual releases.

Note: Obsolete/archived manuals are not available on the LXE Manuals CD. They are available for download from the ServicePass website only.

You can 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 manual are located in the file titled "LXE Technical Glossary" on the LXE Manuals CD and on the LXE website.

Manuals and Accessories

Manuals

The following manuals used for the VX1 are available from LXE:

User Guides (for the daily user)

- VX1 User's Guide – English (Obsolete)
- VX1 User's Guide – German (Obsolete)

Reference Guides (for the SysAdmin)

- ANSI Plus Reference Guide
- DOS API Programming Guide
- DOS Autoconfigurator Installation Instruction (Obsolete)
- LDS Plus Reference Guide
- VX1 Reference Guide (ROM-DOS) (Obsolete)
- SNMP Agent Reference Guide
- TN3270 Terminal Reference Guide
- TN5250 Terminal Reference Guide

Networking

- Telnet Manager Reference Guide
- WaveLink Avalanche for DOS Reference Guide

Peripherals

- Getting the Most from Your Batteries
- LXE Technical Glossary
- PCMCIA Card Management and LXE DOS Computers

Archived/Obsolete (Available on the LXE ServicePass website)

- ANSI Plus Reference Guide (900MHz) Rev H
- LDS Plus Reference Guide (900MHz) Rev E
- 3270 DOS TE Reference Guide
- 3270 Programmer's Reference Guide
- 5250 DOS TE Reference Guide
- 5250 Programmer's Reference Guide
- 6200 Network Management Guide

Accessories

10-80VDC 12ft Input Power Cable	1380A053CBL12ML3
120 – 240 VAC Power Supply	9000A304PSACWW
1280/90 to VXX Adapter kit (See note A)	9000A016BRKTADPTKIT
2.4GHz Replacement Antenna	153180-0001
900 MHz Replacement Antenna, 3”	148693-0001
900 MHz Replacement Antenna, 8”	148694-0001
900MHz Right Angle Antenna	7160L21
Mounting bracket for VX1/VX2	VXXA003BRACKET
Power Filter only, filters power spikes (See note B)	9000A308PSFILTERWW
Printer Cable, 8ft, VX1/VX2 to Zebra QL420 printer	9000A062CBLD9COMTEC
Remote Antenna Assembly Kit, 6ft	9000A278ANTREMOTE6
Remote Antenna Assembly Kit, 8 ft. (900MHz or 2.4GHz)	9000A279ANTREMOTE8
Replacement rubber isolator (each)	158293-0001
Rt. Angle Remote Antenna Assembly Kit, 15ft	9000A281ANTREMOT15RT
Rt. Angle Remote Antenna Assembly Kit, 6ft	9000A280ANTREMOTE6RT
Scanner, LS3408ER, 9’ Cbl, WW	8520A326SCNRERDA9F
Scanner, LS3408FZ, 9’ Cbl, WW	8510A326SCNRFZYDA9F
Scanner, Powerscan LR 12’ Cbl, US	8310A327SCNRPWRLR12DA9F
Scanner, Powerscan SR, 11’ Cbl, PS/2, US	8300A330SCNRPWRSR11PS2
Scanner, Powerscan XLR, 12’ Cbl, PS/2, US	8320A330SCNRPWRXLR11PS2
Scanner, Powerscan XLR, 12’ Cbl, US	8320A327SCNRPWRXLR12DA9F
Scanner, Powerscan, LR, 12’ Cbl, PS/2, US	8310A330SCNRPWRLR11PS2
Scanner, Powerscan, LR, 8’ Cbl, WW	8310A326SCNRPWRLR8DA9F
Scanner, Powerscan, SR, 12’ Cbl, US	8300A327SCNRPWRSR12DA9F
Scanner, Powerscan, SR, 8’ Cbl, WW	8300A326SCNRPWRSR8DA9F
Scanner, Powerscan, XLR, 8’ Cbl, WW	8320A326SCNRPWRXLR8DA9F

When using the 8500 series tethered scanners (LS3408), the tethered scanner Power Mode must be set to “Reduced Power Mode”. The default is “Continuous On”. Setting the scanner to reduced power mode will not impact performance of the 8500 series tethered scanners. Refer to the manufacturers user guide for instruction.

Note A: Adapter Kit Includes Hardware and Adapter Power Cord to mount a VX1/2 Computer utilizing the existing 1280 mounting bracket. Integrated keyboard bracket can not be used in conjunction with the adapter bracket.

Note B: This power filter may be required when customers have unclean forklift power in which power spikes cause problems with the vehicle computer.

Revision History

Revision J – October 2005

Entire Manual : Updated document presentation to reflect LXE's 2005 documentation standards. Added 2005 LXE logo. Added WEEE statement to "Notices" and Appendix B. Marked obsolete tethered scanners in "Accessories". Noted obsolescence of 900MHz radios (and companion TE software) and the Symbol 2Meg radio. Added up-to-date "Getting Help" including Manuals and Accessories.

Revision H – August 2004

Introduction : Added 8500 Series Tethered Scanners to Accessories. Added Power Settings recommendation for 8500 Scanners. Updated Accessories listing effective July 2004.
Appendix B – Regulatory Notices and Safety Information : Updated the 6726 Declaration of Conformity.

Revision G – May 2004

Entire Manual : Renamed to "VX1 User's Guide" from "VX1 Installation and Operator's Guide".
Installation : Added section titled "Vehicle Remote Antenna Mount". From the Vehicle Power Supply Installation procedure, removed "*The green wire is not used. Do not connect this wire. If the green wire has a bare end, use electrical tape (or otherwise insulated) to cover the bare end and ensure the bare wire does not contact anything.*" The VX1 must be grounded when installed in a vehicle.

Revision F – July 2003

Appendix B – Regulatory Notices and Safety Information : Revised "Approvals" table. Added 6816 Declaration of Compliance.

Revision E – September 2002

Installation : Added 12-60VDC Direct Connection Instruction. Added information for negative and floating ground vehicles. Added non-conducting strap information. Added Ground Wire Not Used note.
Operation : Added new phrasing for "Cleaning the Display/Scanner Aperture".

Revision D – June 2002

Appendix B – Regulatory Notices and Safety Information : Revise "Approvals" table. Revise "A/C Power Supply Safety Statement".

Revision A – April 2001, Initial Release

Installation

Install Mounting Brackets



Caution: This device is intended to transmit RF energy. For protection against RF exposure to humans and in accordance with FCC rules and Industry Canada rules, this transmitter should be installed such that a minimum separation distance of at least 20 cm (7.8 in.) is maintained between the antenna and the general population. This device is not to be co-located with other transmitters.

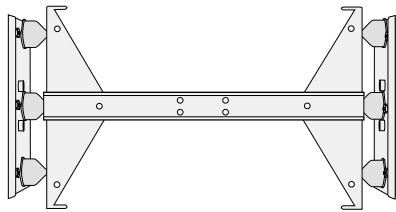
Equipment Needed: Phillips No. 1 screwdriver and a Torque wrench capable of measuring to 50 inch pounds (5.64±.56 N/m).

Note: Torquing tool is not supplied by LXE.

Note: Bolts, washers, and wrench needed when attaching the bottom mounting bracket to the vehicle are not supplied by LXE.

Before installation begins, verify you have the following vehicle mounting bracket assembly components:

Components

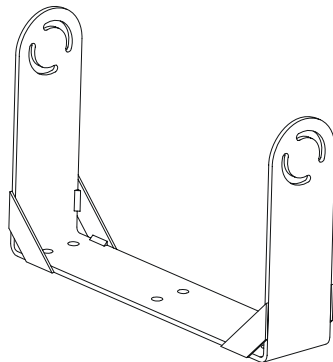


Back Mounting Bracket Assembly

This bracket is attached to the VX1. It is pre-assembled at LXE.

6 each 8-32 x 7/16 Pan Head Screw (connects to the back of the computer)

6 each 8-32 x 3/8 Flat Screw (connects to the side of the computer)



Bottom Mounting Bracket

This bracket is mounted to the vehicle. Then it is connected to the Back Mounting Bracket and VX1 assembly.

6 each 1/4 Flat Washer

6 each 1/4 Lock Washer

6 each 1/4-20 Bolt

Mounting Dimensions

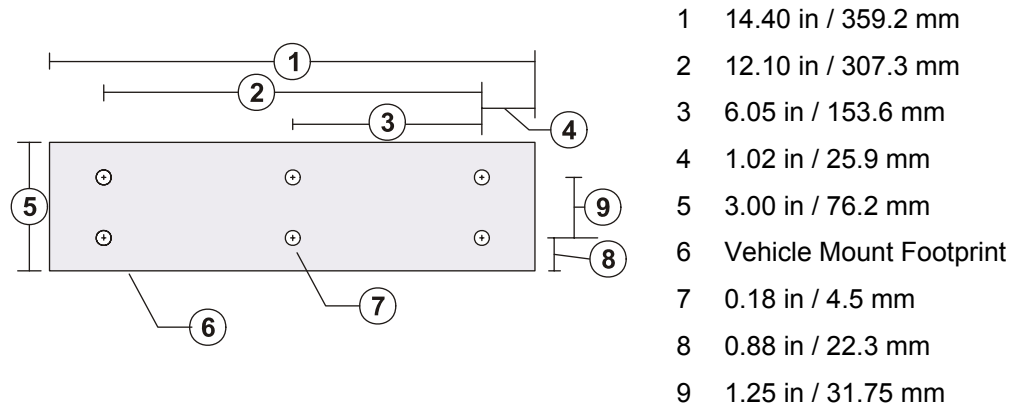


Figure 12 VX1 Bracket - Mounting Dimensions (Not To Scale)

Mounting Positions

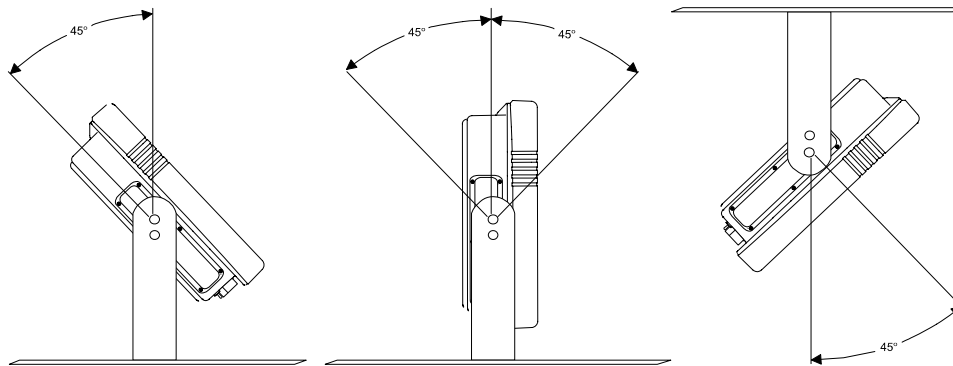


Figure 13 Suggested Mounting Positions

Viewing angle is 45° to both sides of the bottom mounting bracket.

Torque Measurements

You will need a torquing tool capable of torquing to 50 inch pounds (5.64±.56 N/m).

Torque pan head screws to 16.0 ± 1 in/lb ($1.8 \pm .11$ N/m) when assembling the **back mounting bracket** to the **VX1**.

Torque $\frac{1}{4}$ bolts to 50.0 ± 5 in/lb ($5.64 \pm .56$ N/m) when assembling the **bottom mounting bracket** to the **back mounting bracket**.

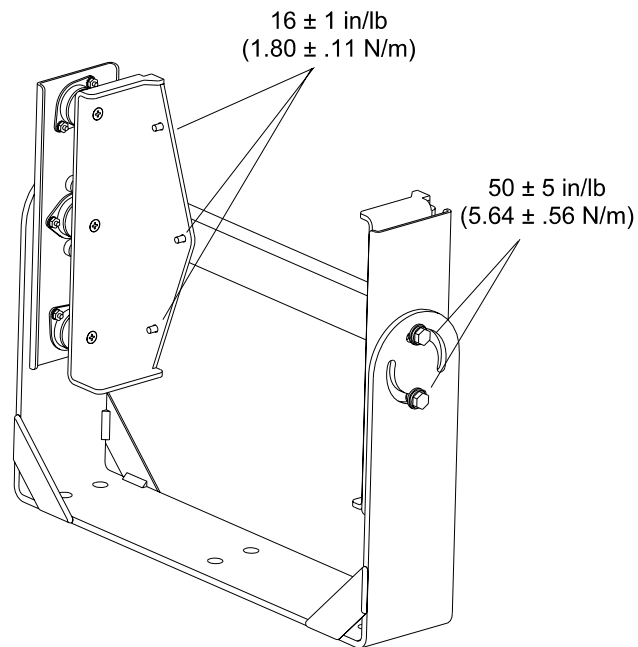
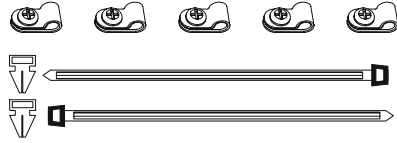


Figure 14 Torque Measurements

Cable Retention Assembly

Before beginning the vehicle mounting bracket assembly, attach the cable ties to the VX1 and the back mounting bracket as shown in the following figures.

Use the cable ties to secure the power cable and RS-232 cables to the VX1 after it has been mounted to the vehicle.



(5) Strain Relief Cable Clamps and (2) Cable Ties

Connect Strain Relief Cable Clamps to the back of the VX1. Connect Cable Ties to the VX1 and the back mounting bracket.

7 each 8-32 x 7/16 Pan Head
Screw

1. Turn the VX1 off before attaching the accessories.
2. Install accessories and the strain relief cable clamps.
3. Mount the accessories cable to the VX1 with the strain relief cable clamps, ensuring a slack loop remains between the cable clamp and the accessories connectors.

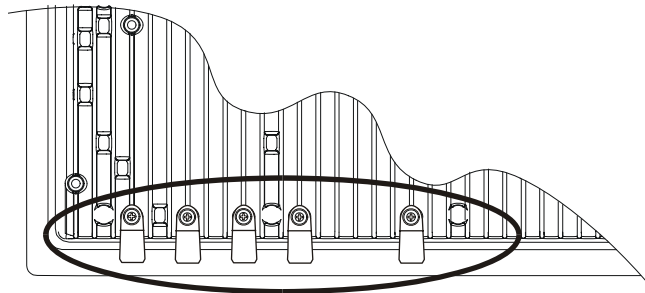


Figure 15 Strain Relief Cable Clamp Locations

4. Insert a pan head screw into the screw holes and fasten securely.

Connect Cable Ties to Back Mounting Bracket

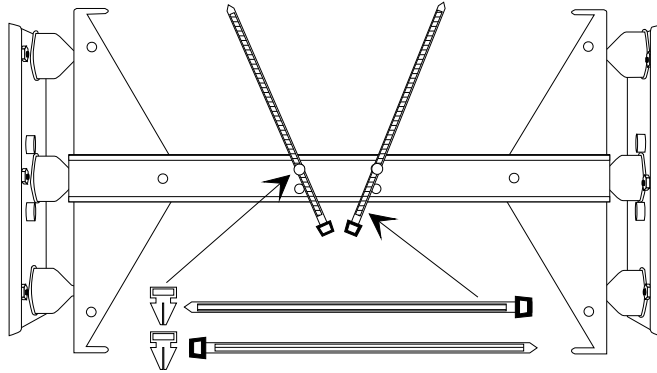


Figure 16 Cable Ties on Back Mounting Bracket Assembly

1. Slide the pointed end of the cable tie through the top opening in the push mount.
2. Snap the push mount through the top hole and toward the VX1 as shown in the above figure.
3. Place the cable (power, COM port) over the tie and lift up the pointed end of the tie. Slide it through the narrow opening at the top of the cable tie, keeping the serrated sides together.
4. Slide the tail of the cable tie closed until cables are snug.

Procedure

Step 1 - Mount Bottom Mounting Bracket To Vehicle.

1. Position the bracket to allow access to the switches and ports on the bottom of the VX1.
2. Attach the bottom mounting bracket to the vehicle mounting surface using six 1/4 bolts (or equivalent) fasteners.

Note: 1/4 Bolts not included.

IMPORTANT: Mount to the most rigid surface available.

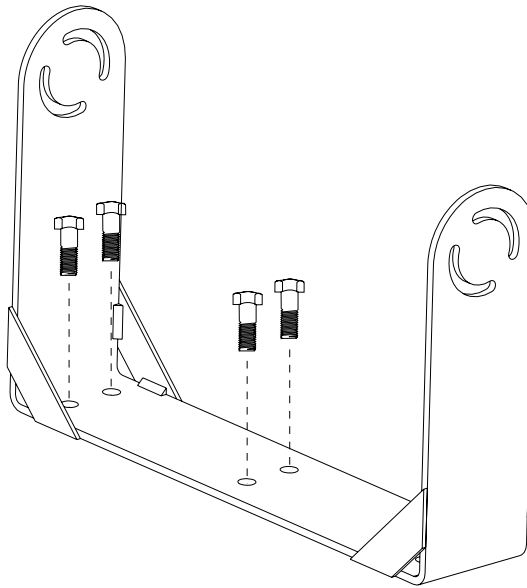


Figure 17 Connect Bottom Bracket to Vehicle

After the bottom bracket has been attached to a rigid, horizontal surface, you are ready to assemble the VX1 bracket configuration.

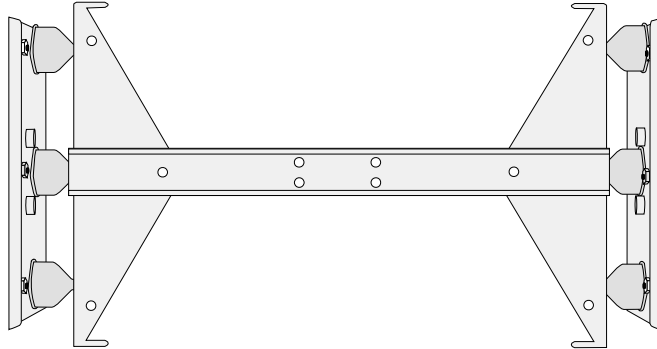
Step 2 - Connect VX1 To Back Mounting Bracket.

Figure 18 Back Mounting Bracket Assembly

1. Turn the VX1 off before attaching it to the back mounting bracket.
2. Place the VX1 face down on a stable surface.
3. Position the back mounting bracket on the VX1, matching the screw holes in the bracket to the screw holes on the back of the VX1.
4. Insert a pan head screw into each of six holes. Torque the screws to 16 ± 1 in/lb ($1.8\pm .11$ N/m).

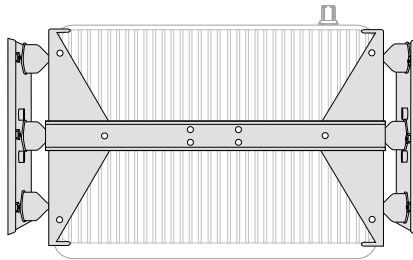


Figure 19 VX1 Connected to Back Bracket

Now you are ready to attach the VX1 in the bracket assembly to the vehicle.

Step 3 - Attach VX1 In Bracket Assembly To Bottom Mounting Bracket.

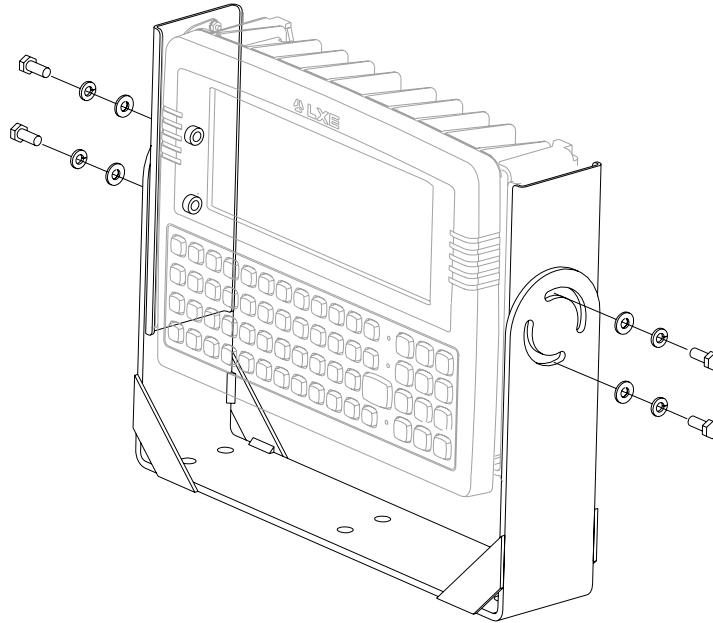


Figure 20 Connect to Bottom Mounting Bracket

1. Insert mounting bolts (place washer first, then the lock washer) through the curved apertures in the bottom mounting bracket and into the screw holes in the side bracket.
2. Loosely tighten each bolt as it is inserted.

Important: Do not torque bolts until all bolts are in place and viewing angle is adjusted.

3. Loosen the hex bolts on both sides to adjust the viewing angle of the mounted VX1.
4. Torque the hex bolts to 50 ± 5 in/lb ($5.64 \pm .56$ N/m).

Note: Test the torque on the bolts frequently during operation and re-tighten if necessary to 50 ± 5 in/lb ($5.64 \pm .56$ N/m).

5. Connect all cables to the VX1. Secure the cables with the strain relief cable clamps, ensuring a slack loop remains between the cable clamp and the accessory connector.
6. The vehicle mounted bracket and the VX1 are now ready to use.

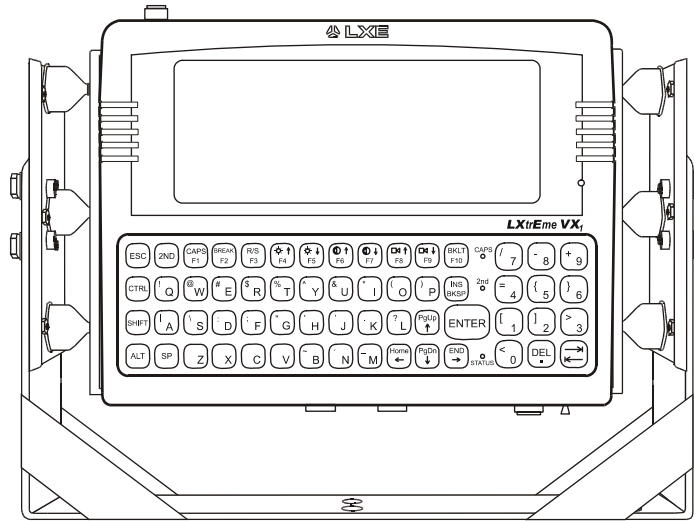


Figure 21 VX1 in Vehicle Bracket

Connect Antenna

Note: VXI's equipped with a radio require an external antenna. See "Accessories". A VXI without a radio does not use an antenna.

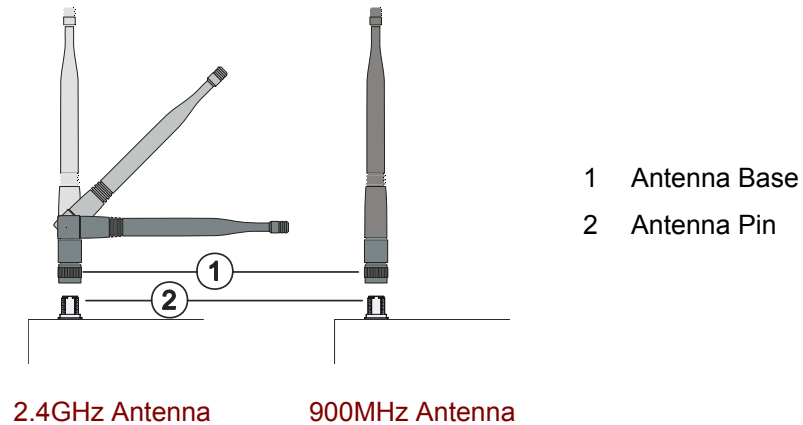


Figure 22 Connect Antenna

The antenna pin is the same for 900MHz and 2.4GHz spread spectrum radios.

Place the antenna base over the antenna pin. Push down and twist clockwise until the antenna is secure.

Adjust the antenna angle to improve RF communications with the computer network.

Note: Substitution of antennas is not permitted unless authorized by LXE. Use of unauthorized antennas will void the FCC emissions certification of the VXI.

Vehicle Remote Antenna Mount

The external antenna (or antennas) can be remotely mounted on the vehicle. Please refer to the "Vehicle Remote Mount Antenna Installation Sheet" on the LXE Manuals CD for details.

Connect Serial Barcode Scanner



Refer to the documentation received with the barcode scanner for complete instructions. Read all warnings and caution labels.



Before using the scanner, read section titled “Operation”, sub-section titled “Laser Barcode Scanner Warnings.”

The COM port must be set up to accept input from a barcode scanner using the CMOS Setup. Refer to the "VX1 Reference Guide", Chapter 4: “System Configuration” section titled “CMOS Setup” for instruction.

The scanner cable is attached to the connector marked “COM1/SCANNER”. The scanner receives power from the VX1.

The cable requires a nine-pin D-shell female connector for the VX1.

Note: Use of a shielded cable is required to maintain FCC and CISPR22 emissions compliance.

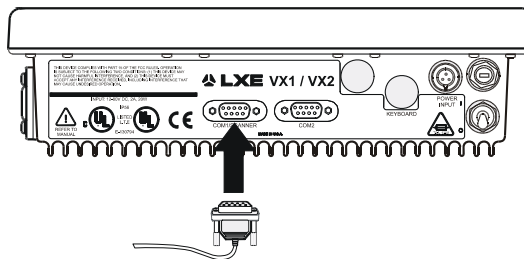


Figure 23 Connect Serial Scanner Cable

1. Turn the VX1 off before attaching the serial cable.
2. Seat the connector firmly over the pins and turn the thumbscrews in a clockwise direction. Do not overtighten.
3. Use the strain relief cable clamps to secure the cable to the VX1.
4. Turn the VX1 on.

When you have finished using the scanner, remove it from the VX1 and store the scanner in a closed container or bag.

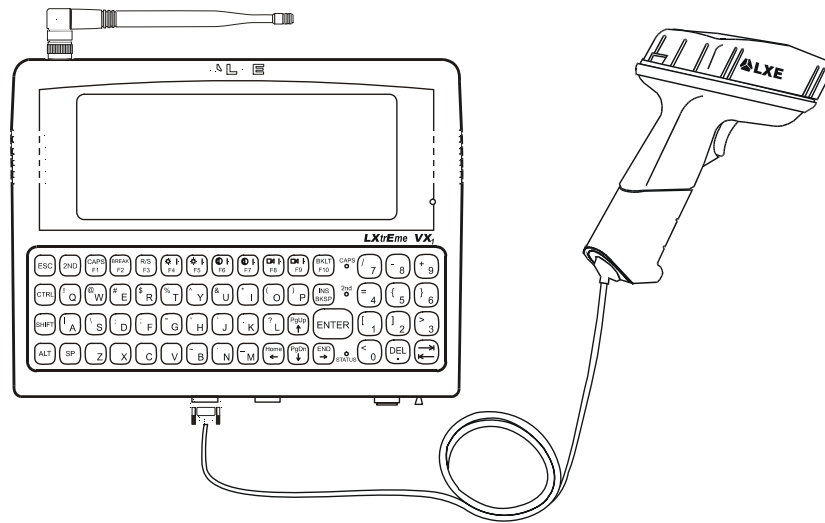
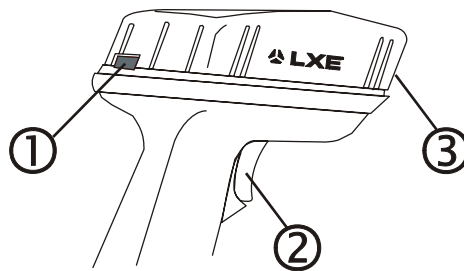


Figure 24 VX1 with Generic Barcode Scanner Attached



- 1 Good Scan LED (or equivalent)
- 2 Trigger
- 3 Laser Aperture at Front

Figure 25 Generic Barcode Scanner



Refer to the documentation received with the barcode scanner for setup and programming instructions.

Connect Serial Printer or PC



Refer to the documentation received with the printer or PC for setup, troubleshooting and maintenance instructions.

The printer or PC cable requires a nine-pin D-shell female connector for the VX1.

The printer or PC cable is attached to the connector marked “COM2”.

Note: Use of a shielded cable is required to maintain FCC and CISPR22 emissions compliance.

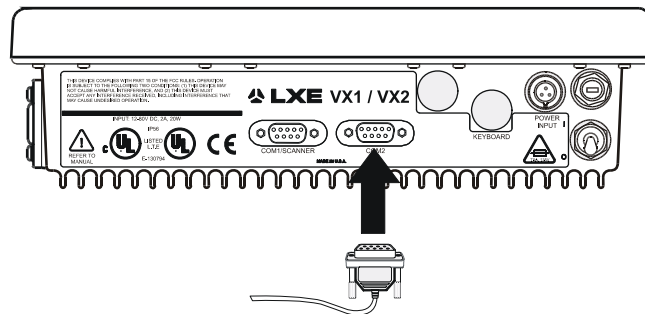


Figure 26 Connect Serial Cable to COM2

1. Turn the VX1 off before attaching the serial cable.
2. Seat the connector firmly over the pins and turn the thumbscrews in a clockwise direction. Do not overtighten.
3. Use the strain relief cable clamps to secure the cable to the VX1.
4. Turn the VX1 on.

Connect Power Cable

1. Turn the VX1 off before attaching the power plug.
2. Connect the power cable to vehicle power (See the following section titled “Vehicle 12-80VDC Direct Connection.”)

- or -
to an AC adapter. (See the following section titled “External Power Supply.”)
3. Connect power by inserting the power plug into the power connector on the bottom of the VX1.
4. Both the plug and receptacle are keyed and care must be used when connecting the power cable. Twist the nut of the power plug clockwise until tight.

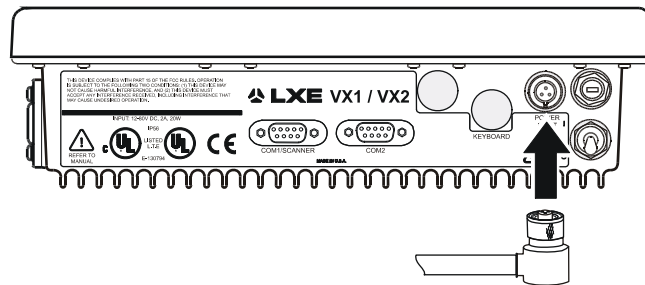


Figure 27 Connect Power Cable to VX1

5. Turn the VX1 on.

External Power Supply, Optional

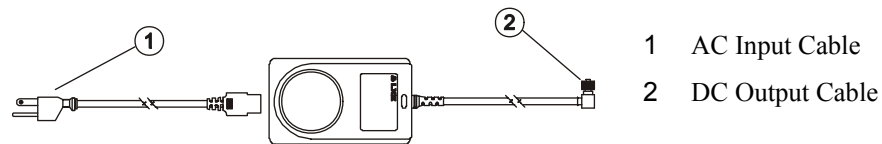


Figure 28 Optional Power Configuration

In North America, this unit is intended for use with a UL Listed ITE power supply with output rated 12-80 V DC, minimum 3.5 A. Outside North America, this unit is intended for use with an IEC certified ITE power supply with output rated 12-80 V DC, minimum 3.5 A.

The external power supply may be connected to either a 120V, 60Hz supply or, outside North America, to a 230V, 50Hz supply, using the appropriate detachable cordset. In all cases, connect to a properly grounded source of supply provided with maximum 15 Amp overcurrent protection (10 Amp for 230V circuits).




How To: Connect External Power Supply

1. Turn the VX1 off.
2. Connect the detachable cordset provided by LXE to the external power supply (IEC 320 connector).
3. Plug cordset into appropriate, grounded, electrical supply receptacle (AC mains).
4. Connect the 4 pin water tight connector end to the VX1's Power Connector by aligning the connector pins to the power connector; push down on the water tight connector and twist it to fasten securely.
5. Turn the VX1 on.

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

Vehicle 12-60VDC Direct Connection

To be installed on **NEGATIVE** and **FLOATING GROUND VEHICLES ONLY**.

<p>Caution:</p> 	<p>For proper and safe installation, the input power cable must be connected to a fused circuit on the vehicle. This fused circuit requires a 5 Amp maximum time delay (slow blow) high interrupting rating fuse. If the supply connection is made directly to the battery, the fuse should be installed in the positive lead within 5 inches of the battery positive (+) terminal. For installation by trained service personnel only.</p>
<p>Warning:</p> 	<p>Risk of ignition or explosion. Explosive gas mixture may be vented from battery. Work only in well ventilated area. Avoid creating arcs and sparks at battery terminals.</p>
<p>Warning:</p> 	<p>Do not install metal safety straps to keep the computer from falling if the isolators fail. Only non-conducting straps must be used.</p>

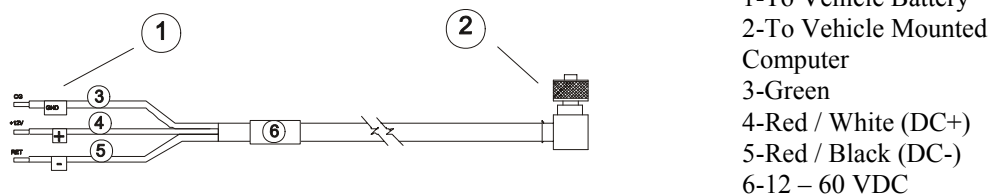


Figure 29 12-60VDC Direct Vehicle Power Connection Cable (Fuse Not Shown)

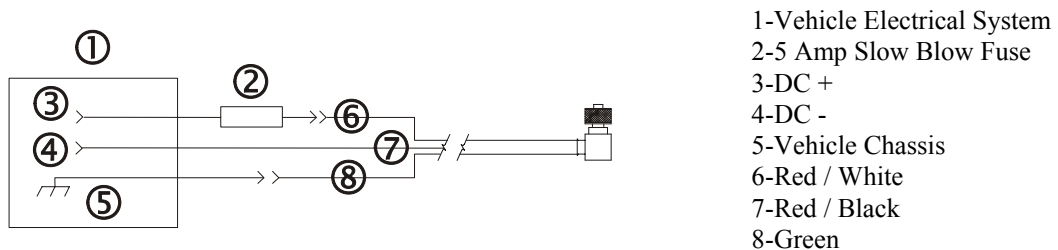


Figure 30 12-60VDC Connecting the Power Cable to the Vehicle

Note: Correct electrical polarity is required for safe and proper installation. Connecting the cable to the computer with the polarity reversed will cause the computer's fuse to be blown. See the following figure titled "Vehicle Connection Wiring Color Codes" for additional wire color-coding specifics.

How To: Connect Vehicle 12-60VDC Direct Connection

1. The computer must be turned off.
2. While observing the fuse requirements specified on the previous page, connect the power cable as close as possible to the actual battery terminals of the vehicle. When available, always connect to unswitched terminals in vehicle fuse panel, after providing proper fusing.

IMPORTANT:

For uninterrupted power, electrical supply connections should not be made at any point after the ignition switch of the vehicle.

3. Route the cable the shortest way possible. The input cable from the connection to the battery is rated for a maximum temperature of 105°C (221°F). When routing this cable it should be protected from physical damage and from surfaces which might exceed this temperature.

Do not expose the cable to chemicals or oil that may cause the wiring insulation to deteriorate.

Note: If the vehicle is equipped with a panel containing Silicon Controlled Rectifiers (SCR's), avoid routing the power cable in close proximity to these devices.

Always route the cable so that it does not interfere with safe operation and maintenance of the vehicle.

Use proper electrical and mechanical fastening means for terminating the cable. Properly sized "crimp" type electrical terminals are an accepted method of termination. Please select electrical connectors sized for use with 18AWG (1mm²) conductors.

Wiring color codes for LXE supplied DC input power cabling:




Vehicle Supply	Wire Color
+12 - 60VDC (DC +)	Red with White Stripe
Return (DC -)	Red with Black Stripe
Vehicle Chassis (GND)	Green

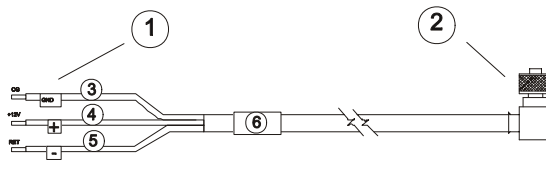
Figure 31 12-60VDC Vehicle Connection Wiring Color Codes

Note: This computer accepts a wide DC input voltage range. Do not connect the input power cable to any other LXE computer or damage to that computer may occur.

4. Provide mechanical support for the cable by securing it to the vehicle structure at approximately one foot intervals, taking care not to overtighten and pinch conductors or penetrate outer cable jacket.
5. Connect the cable to the computer by aligning the connector pins to the power connector; push down on the connector housing and twist it to fasten securely.
6. Turn the computer on.

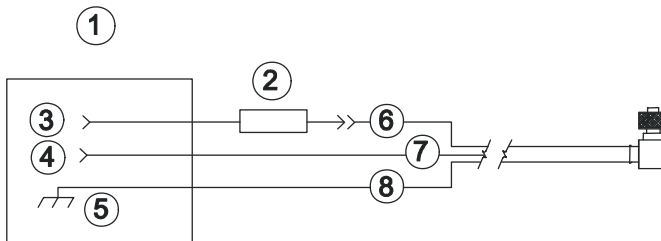
Vehicle 12-80VDC Direct Connection

Caution: 	<p>For proper and safe installation, the input power cable must be connected to a fused circuit on the vehicle. This fused circuit requires a 5 Amp maximum time delay (slow blow) high interrupting rating fuse. If the supply connection is made directly to the battery, the fuse should be installed in the positive lead within 5 inches of the battery positive (+) terminal. For installation by trained service personnel only.</p>
Warning: 	<p>Risk of ignition or explosion. Explosive gas mixture may be vented from battery. Work only in well ventilated area. Avoid creating arcs and sparks at battery terminals.</p>
Warning: 	<p>Do not install metal safety straps to keep the computer from falling if the isolators fail. Only non-conducting straps must be used.</p>



- 1 To Vehicle Battery
- 2 To Vehicle Mounted Device
- 3 Green (Ground)
- 4 Red / White (DC+)
- 5 Red / Black (DC-)
- 6 12 – 80 VDC

Figure 32 12-80VDC Direct Vehicle Power Connection Cable (Fuse Not Shown)



- 1 Vehicle Electrical System
- 2 5 Amp Slow Blow Fuse
- 3 DC +
- 4 DC -
- 5 Vehicle Chassis
- 6 Red / White
- 7 Red / Black
- 8 Green (Ground)

Figure 33 12-80VDC Connecting the Power Cable to the Vehicle

Note: Correct electrical polarity is required for safe and proper installation. Connecting the cable to the computer with the polarity reversed will cause the computer's fuse to be blown. See the following figure titled "Vehicle Connection Wiring Color Codes" for additional wire color-coding specifics.

How To: Connect Vehicle 12-80VDC Direct Connection

1. The computer must be turned off.
2. While observing the fuse requirements specified above, connect the power cable as close as possible to the actual battery terminals of the vehicle. When available, always connect to unswitched terminals in vehicle fuse panel, after providing proper fusing.

IMPORTANT: For uninterrupted power, electrical supply connections should not be made at any point after the ignition switch of the vehicle.

3. Route the cable the shortest way possible. The input cable from the connection to the battery is rated for a maximum temperature of 105°C (221°F). When routing this cable it should be protected from physical damage and from surfaces which might exceed this temperature.

Do not expose the cable to chemicals or oil that may cause the wiring insulation to deteriorate.

Note: If the vehicle is equipped with a panel containing Silicon Controller Rectifiers (SCR's), avoid routing the power cable in close proximity to these devices.

Always route the cable so that it does not interfere with safe operation and maintenance of the vehicle.

Use proper electrical and mechanical fastening means for terminating the cable. Properly sized "crimp" type electrical terminals are an accepted method of termination. Please select electrical connectors sized for use with 18AWG (1mm²) conductors.

Wiring color codes for LXE supplied DC input power cabling:

Vehicle Supply		Wire Color
+12 - 80VDC	(DC +)	Red with White Stripe
Return	(DC -)	Red with Black Stripe
Chassis	(GND)	Green

Figure 34 12-80VDC Vehicle Connection Wiring Color Codes

Note: This computer accepts a wide DC input voltage range. Do not connect the computer's input power cable to any other LXE computer or damage to that computer may occur.

4. Provide mechanical support for the cable by securing it to the vehicle structure at approximately one foot intervals, taking care not to overtighten and pinch conductors or penetrate outer cable jacket.
5. Connect the cable to the computer by aligning the water tight connector pins to the power connector; push down on the connector and twist it to fasten securely.
6. Turn the computer on.

Fuse Replacement for the VX1

The VX1 uses a 125V, 5A time delay (slow blow), high current interrupting rating fuse that is externally accessible and user replaceable. Should it need replacement, replace with same size, rating and type of fuse -- Bussman Type GMC-5 (5x20mm).

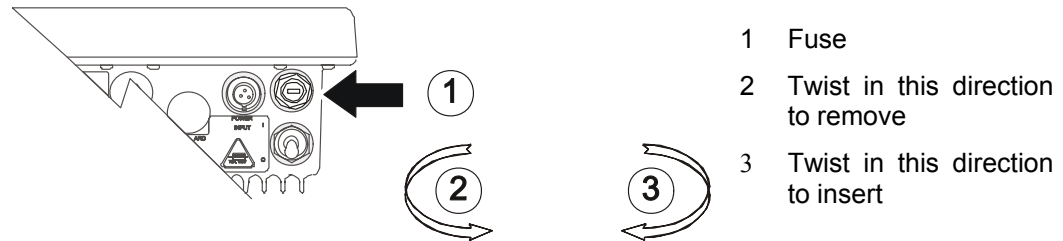


Figure 35 Fuse Replacement

1. **Turn the VX1 off and disconnect the power cable from the VX1.**
2. While holding the VX1 over a level surface, push the fuse cover in and twist it one quarter turn counterclockwise. A flat head screwdriver may be used to twist the fuse cover.
3. Remove the fuse.
4. Discard the fuse and place a new fuse in the holder.
5. Push the fuse in and twist it clockwise one quarter turn.
6. Reconnect the power cable to the VX1.

Operation

Powering On/Off

Connect the VX1 to a power source, either AC or Vehicle.

The power (on/off) switch is a toggle switch located on the bottom of the VX1. The switch is sealed by a rubber boot seal. The Status LED or the display, located on the front of the VX1, is lit when the power is on.

Note: Always turn the computer off prior to connecting or disconnecting any power source.

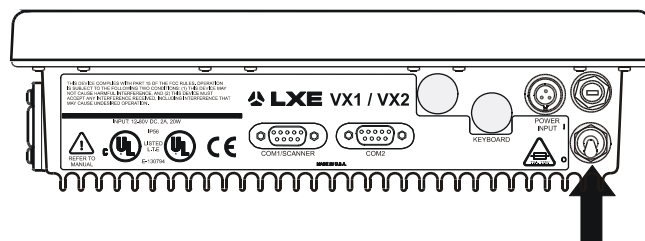


Figure 36 The VX1 Power Switch

Powering off the VX1 before a write (to disk) function has completed, may result in the corruption of the flash drive.

When the system is turned off, the current contents of RAM are lost. Save any needed data and exit in an orderly fashion from any running programs before turning the system off.

You are now ready to use the computer.

Enter data using the keyboard or a Serial Barcode Scanner.

Reset Key Sequence (Reboot)

To reboot the VX1 without turning the computer off, press

<CTRL> + <ALT> + or <CTRL> + <ALT> + <numeric .>

ATTENTION: *Rebooting the VX1, before a write (to disk) function has completed, may result in the corruption of data on the hard drive.*

When the system is rebooted, the current contents of RAM are lost. Save any needed data and exit in an orderly fashion from any running programs before rebooting.

When the VX1 is turned on or rebooted, the following settings are restored from flash memory and are configured using CMOS Setup.

Factory Default Settings

Boot Sequence	A: then C:
Show Setup Prompt	Disabled
Display POST Msgs	Disabled
Show Summary Screen	Disabled
Power Management	Enabled
CPU Timer	Aggressive (1 sec)
Keyboard Backlight	Timed
Keyboard Backlight Timer	1 min.
Display Timer	1 min.
Suspend Timer	0 min.
Off Timer	1 min.
Caps Lock at boot	Off
NumLock at boot	On
Repeat Delay	0.5 seconds
Repeat Rate	10 chars/sec
CTRL+ALT+DEL	Reboot
DOS Font	8x16
COM1 Pin 9	5V
COM2 Pin 9	RI
EL Op Mode	4-Bit

Power On Default Settings

Keyboard Backlight	uses CMOS setting
Beeper	Restored to prior setting
EL Brightness	100%

Cleaning the Glass Display/Scanner Aperture

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.



Adjust Screen Display

Note: The <F6> and <F7> keys (Contrast Up and Contrast Down) have no function as the VX1 has an electroluminescent screen. Contact your LXE representative for future enhancements using these keys.

Set Display Brightness

First, press the 2nd key to place the VX1 in Secondary Mode.

The VX1 brightness keys control the electroluminescent display in the following way:

Icon	Key	Description
	<F4>	Pressing and holding this key increases the brightness of the display
	<F5>	Pressing and holding this key decreases the brightness of the display

Keyboard Backlight Control Key

The electroluminescent display remains on when the Backlight Control key turns the keyboard backlight off. (Power Management may be configured so they both time out simultaneously.)



First, press the 2nd key to place the VX1 in Secondary Mode. Then press the <F10> or Backlight Control key.

When the keyboard backlight is on, pressing the Backlight Control key sequence (2nd and <F10>) turns the keyboard backlight off.

Set Speaker Volume

First, press the 2nd key to place the VX1 in Secondary Mode.

The VX1 volume keys control the speaker volume in the following way:

Icon	Key	Description
	<F8>	Pressing and holding this key increases the speaker volume of the VX1.
	<F9>	Pressing and holding this key decreases the speaker volume of the VX1.

Panning the Display

The VX1 display can be panned up and down in order to view the entire virtual screen. Display panning can also be controlled by an application running on the VX1.

When at the DOS prompt:

- | | |
|--------------|---|
| Display Up | Press 2 nd key then <Ctrl> then <UpArrow> to move the screen display up. |
| Display Down | Press 2 nd key then <Ctrl> then <DownArrow> to move the screen display down. |

When running an LXE Terminal Emulation (TE) program, refer to the Window Manager section of the TE Reference Guide for instruction on panning the display.

The default screen display begins at line 1 and displays 12 lines:

INVENTORY/ORDER STATUS				
PART NUMBER: 147265-0026		CODE: 13	STD. REORDER LEVEL: 150	
QUANTITY: 416			STD. ORDER QUANTITY: 500	
UNALLOCATED: 48				
CUST. ORDER #	QUANTITY	SHIP DATE	PROJECTED INVENTORY	
152876	23	09/17	393	
153390	45	09/23	348	
158723	122	10/07	226	
159316	76	10/08	150	
159736	55	10/22	95	
160345	47	10/25	48	
09/15		PAGE 1/1		

Figure 37 Panning, Upper Display Window

The first pan down command moves the pointer to line 11 and displays 12 lines (lines 11 through 22):

INVENTORY/ORDER STATUS				
PART NUMBER: 147265-0026		CODE: 13	STD. REORDER LEVEL: 150	
QUANTITY: 416		STD. ORDER QUANTITY: 500		
UNALLOCATED: 48				
CUST. ORDER #	QUANTITY	SHIP DATE	PROJECTED INVENTORY	
152876	23	09/17	393	
153390	45	09/23	348	
158723	122	10/07	226	
159316	76	10/08	150	
159736	55	10/22	95	
160345	47	10/25	48	
PAGE 1/1				

Figure 38 Panning, Center Display Window

The second pan down command moves the pointer to line 14 and displays 12 lines (lines 14 through 25):

INVENTORY/ORDER STATUS				
PART NUMBER: 147265-0026		CODE: 13	STD. REORDER LEVEL: 150	
QUANTITY: 416		STD. ORDER QUANTITY: 500		
UNALLOCATED: 48				
CUST. ORDER #	QUANTITY	SHIP DATE	PROJECTED INVENTORY	
152876	23	09/17	393	
153390	45	09/23	348	
158723	122	10/07	226	
159316	76	10/08	150	
159736	55	10/22	95	
160345	47	10/25	48	
PAGE 1/1				

Figure 39 Panning, Lower Display Window

At this point, a pan up command moves the pointer to line 4. The next pan up command moves the pointer to line 1. A pan up command at line 1 does not wrap the display.

Power Status and the Status LED

The VX1 has a Status LED, located on the front of the unit, that is illuminated green when the unit is powered on. The Status LED and the display are dark when power is disconnected.

Note: This LED should not be lit when power is disconnected from the VX1.

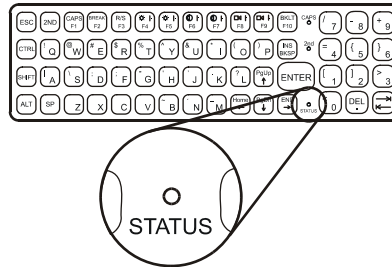


Figure 40 Status LED Indicator

The LED changes color and state depending on power status.

Status LED	Condition
Off	VX1 is Off. - or - The VX1 is powered On and the display is On.
Steady Green	The VX1 is powered On and the display is Off. Press any key to turn the display On. - or - The VX1 is in the Suspend state. The VX1 is placed in Suspend state by pressing the 2 nd key then <F>. This key sequence can be used at any time. Press the Resume key sequence (2 nd + <F3>) to exit the Suspend state. When the VX1 enters the Suspend state, the display and keyboard backlights are turned off. The beeper is active.
Blinking Green	Main Power Failure. The VX1 is in Critical Suspend mode. The VX1 is drawing power from the backup battery. Restore main power. The VX1 will turn off after entering Critical Suspend.

Normal Mode

When the display and backlight are on, PCMCIA sockets are powered, video timer is active, COM1 and COM2 have power, speaker is enabled and, upon initial startup, the keyboard buffer is empty.

The Status LED is off.

Video Timeout State

The Video Timer value is set using CMOS Setup (see the “VX1 Reference Guide”). When the video timer times out and there has been no keyboard input, access to video memory or COM port activity, the screen display is turned off. The Status LED on the keyboard is illuminated and steady during Video timeout state.

Any keyboard input or COM port activity will bring the VX1 out of Video Timeout and the video timer begins the countdown again. Pressing the 2nd key has no effect when the VX1 is in Video Timeout. Either a Shift, Ctrl or an Alt keypress will wake the VX1. The keypress buffer (including sticky key settings) is cleared when the VX1 returns from Video Timeout state. Host messages that update the display wake the system from the Video Timeout state.

Suspend Mode

The VX1 is placed in Suspend Mode by pressing the 2nd key then <F3>. This key sequence can be used at any time.

The VX1 is brought out of Suspend Mode by pressing the 2nd key then <F3>.

The Status LED illuminates green when the VX1 is in Suspend Mode.

Note: If the Power button is pressed when the VX1 is in Suspend Mode, the unit is placed in suspend state (for a minimum of four seconds) for the amount of time specified in the Off Timer, plus the time specified in the Suspend parameters, prior to the unit powering completely off.

The LED remains illuminated until:

- Resume key sequence (2nd then <F3>) is pressed or
- Vehicle power is removed from the VX1 or
- The VX1 power switch is turned off.

When the VX1 enters Suspend Mode, the display and keyboard backlights are turned off and the Status LED illuminates green. The beeper is active.

When the VX1 is in Suspend Mode and the Resume/Suspend key sequence is pressed:

- The display and keyboard backlight are turned on.
- The Status LED turns off.
- Sticky key settings and keypresses are cleared and ignored during Suspend.

Powering the VX1 off when it is in the suspend state causes all unsaved work to be discarded e.g. TE forms, barcode reads, etc.

Critical Suspend State

The Critical Suspend state occurs when the power switch is turned off (or power is disconnected) and the backup battery is supplying power to the VX1. Backup Battery Power Failure can occur because the backup battery's energy has been depleted or the backup battery has been removed.

When the unit is in the Critical Suspend state the Status LED blinks green, all peripherals are shut down, the CPU clock is stopped, power is removed from the PCMCIA card(s) and the VX1 may beep. The VX1 is saving the state prior to shut down and cannot be used.


If the power supply is re-connected before the Off Timer expires the unit transitions to the On state.

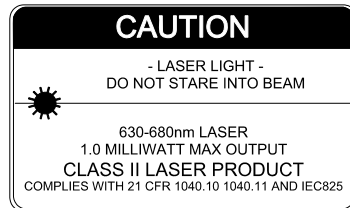
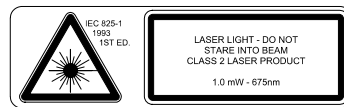
When the Off Timer expires the unit turns itself off and all unsaved information is lost. Connect the main power source and toggle the On/Off switch to On to turn the unit back on.

Note: The Off Timer is configured in the BIOS Setup (see the "VX1 Reference Guide.")

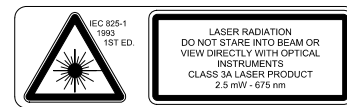
Laser Barcode Scanner Warnings

- 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 scanner.
- Do not connect the tethered laser barcode scanner to any other device.

<p>Caution:</p> 	<p><i>Please read the caution labels.</i></p> <p><i>Avoid exposure. Laser light is emitted from the scanner's aperture.</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> <p><i>The scanner uses laser light. The following labels are representations of caution and warning labels placed on laser scanners.</i></p>
--	---



**Figure 41 Caution Labels
Class II Scanner**



**Figure 42 Caution Labels
Class IIIA Scanner**

Do not pour, spray, or spill any liquid on the scanner. The Barcode Scanner contains the circuitry, scanning motor and laser. Handle with appropriate care.

Enter Data

You can enter data into the VX1 through several different methods. A tethered barcode scanner connected to a serial port provides barcode data entry, the serial ports are used to input/output data, and the keyboard provides manual entry.

Keyboard Entry



Refer to “Appendix A - Key Maps” for terminal emulation specific keypresses.

The keyboard 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 VX1 keyboard 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 first pressed, press the desired second-function key to produce the 2nd character i.e. <2nd+F1> toggles the CAPS lock function. The specific 2nd character is printed on the corresponding key.

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

Scanner Entry

The following section is directed toward a tethered scanner connected to a serial port on the VX1.

Aiming the Barcode Scanner

Aim the scanner *away* from you, direct it at the barcode and press the trigger to scan.

The Scan On LED (or equivalent) turns red to indicate the scanner is on.

Adjust the aim so that the thin, red laser beam covers the entire length of the barcode.

Some scanners use a laser aiming beam which then spreads into a wide beam when the scanner's Aiming Beam Timer expires. Place the aiming beam in the center of the barcode and hold the scanner steady until the beam spreads and the barcode is decoded. Beeps may be heard as the barcode is decoded. Refer to the barcode scanner user's guide for information on the Aiming Beam Timer and beep sequences, and the TE reference guide for host generated beep sequences.

The scan beam must cross every bar and space on the barcode.



Correct Scan

Incorrect Scan

Incorrect Scan

Figure 43 Scan Beam

Distance from Label

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

Note: Do not position the scanner exactly perpendicular to the barcode being scanned. In this position, light can bounce back into the scanner's exit window, and possibly prevent a successful decode.

Successful Scan

When the scan is successful, the scanner's good scan indicator illuminates, the scan on indicator is off, and the currently running application may produce a distinctive audible tone.

Unsuccessful Scan

When the scan is unsuccessful, the scan on indicator remains illuminated and the currently running application may produce distinctive audible tones. Check the following:

- Is the scanner programmed for the barcode being read?
- 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.

Cleaning the Scanner Aperture

Keep fingers and rough or sharp objects away from the scan aperture.

Wipe the scanner window periodically with a damp, soft cloth. Remove lint or foreign material with clean, filtered canned air.

Do not scrub optical surfaces, clean only those areas which are soiled.

Appendix A Key Maps

Keypads



Figure 44 QWERTY Keypad and ABCD Keypad

The key maps that follow represent the commands used when running LXE's ANSI Plus (with either 900MHz or 2.4GHz radios) or LDS Plus (with 900MHz radios) Terminal Emulation (TE) programs. When running these programs on the VX1, please refer to the following terminal emulation reference guides for equivalent keys and keypress sequences:

- [ANSI Plus Reference Guide](#)
- [LDS Plus Reference Guide](#)

Note: 900MHz radios are obsolete.

Key Map 101-Key Equivalencies

Note: Key equivalencies may change based on the requirements of the LXE Terminal Emulator running on the VX unit. The terminal emulation reference manuals contain TE-specific key mapping for the VX unit.

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

Note: NumLock is always On. When the computer boots, the default condition of Caps (or CapsLock) is Off. The Caps (or CapsLock) condition can be set using CMOS Setup or 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	
Increase Brightness	x					F4
Decrease Brightness	x					F5
Increase Contrast ²	x					F6
Decrease Contrast ²	x					F7
Increase Volume	x					F8
Decrease Volume	x					F9
Keyboard Backlight	x					F10
Suspend/Resume	x					F3
2 nd						2 nd
Shift						Shift
Alt						Alt
Ctrl						Ctrl
Esc						Esc
Space						Sp
Enter						Enter
Enter (numeric)	x					Enter
CapsLock (Toggle)	x					F1
Back Space						Ins/BkSp
Tab						Tab
BackTab	x					Tab
Break	x					F2
Pause	x	x				F3
Up Arrow						Up Arrow
Down Arrow						Down Arrow
Right Arrow						Right Arrow
Left Arrow						Left Arrow
Insert	x					Ins/BkSp
Delete (numeric)	x					DEL
Home	x					Left Arrow

² The Contrast Adjustment keys have no function because the VX1 is equipped with an Electroluminescent display.

To get this key	Press These Keys and Then					Press this key
	2 nd	Shift	Ctrl	Alt	CapsLock	
End	x					Right Arrow
Page Up	x					Up Arrow
Page Down	x					Down Arrow
Right Shift	x	x				F7
Right Alt	x	x				F8
Right Ctrl	x	x				F9
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						A
b						B
c						C
d						D
e						E
f						F
g						G
h						H
i						I
j						J
k						K
l						L
m						M
n						N
o						O
p						P
q						Q
r						R
s						S
t						T
u						U

To get this key	Press These Keys and Then					Press this key
	2 nd	Shift	Ctrl	Alt	CapsLock	
v						V
w						W
x						X
y						Y
z						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
V					x	V
W					x	W
X					x	X
Y					x	Y
Z					x	Z
1 (alpha)	x	x				1
2 (alpha)	x	x				2
3 (alpha)	x	x				3
4 (alpha)	x	x				4
5 (alpha)	x	x				5
6 (alpha)	x	x				6
7 (alpha)	x	x				7
8 (alpha)	x	x				8
9 (alpha)	x	x				9

To get this key	Press These Keys and Then					Press this key
	2 nd	Shift	Ctrl	Alt	CapsLock	
0 (alpha)	x	x				0
DOT (alpha)	x					K
1 (numeric)						1
2 (numeric)						2
3 (numeric)						3
4 (numeric)						4
5 (numeric)						5
6 (numeric)						6
7 (numeric)						7
8 (numeric)						8
9 (numeric)						9
0 (numeric)						0
DOT (numeric)						DOT
<	x					0
[x					1
]	x					2
>	x					3
=	x					4
{	x					5
}	x					6
/ (numeric)	x		x			7
/ (alpha)	x					7
- (numeric)	x		x			8
- (alpha)	x					8
+ (numeric)	x		x			9
+ (alpha)	x					9
* (numeric)	x					I
* (alpha)	x		x			I
: (colon)	x					D
; (semicolon)	x					F
?	x					L
`	x					N
_ (underscore)	x					M
, (comma)	x					J
' (apostrophe)	x					H
~ (tilde)	x					B
\	x					S
	x					A
“	x					G
!	x					Q

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

IBM 3270 and TN3270 Terminal Emulator Keypad

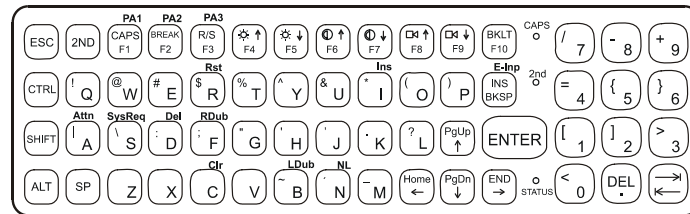


Figure 45 IBM 3270 Specific Keypad

This keypad is designed to allow the user to enter terminal emulator commands when running LXE's IBM 3270 and TN3270 Terminal Emulation (TE) programs. When running these programs please refer to the following terminal emulation reference guides for equivalent keys and keypress sequences:

- [3270 DOS TE Reference Guide \(Obsolete\)](#)
- [3270 Programmer's Reference Guide \(Obsolete\)](#)
- [TN3270 Terminal Reference Guide](#)

IBM 5250 and TN5250 Terminal Emulator Keypad

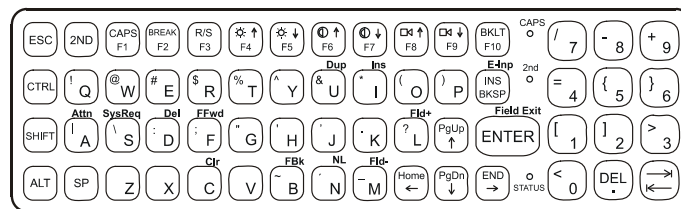


Figure 46 IBM 5250 Specific Keypad

This keypad is designed to allow the user to enter terminal emulator commands when running LXE's IBM 5250 and TN5250 Terminal Emulation (TE) programs. When running these programs please refer to the following terminal emulation reference guides for equivalent keys and keypress sequences:

- [5250 DOS TE Reference Guide \(Obsolete\)](#)
- [5250 Programmer's Reference Guide \(Obsolete\)](#)
- [TN5250 Terminal Reference Guide](#)



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 manual, 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.

Notice:

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

RF Safety Notice:

Caution:



This device is intended to transmit RF energy. For protection against RF exposure to humans and in accordance with FCC rules and Industry Canada rules, this transmitter should be installed such that a minimum separation distance of at least 20 cm (7.8 in.) is maintained between the antenna and the general population. This device is not to be co-located with other transmitters.



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.

R&TTE Directive Requirements



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.



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



Permitted for use in France

Approvals

Product	EMI / EMC Standards	Safety Standards
VX1	EMI / EMC Standards: FCC Part 15 Subpart B, Class A EN 55022 : 1998 Class A EN 55024 : 1998	EN 60950-1 : 1992 + Amendments A1..A4 UL 1950 CSA C22.2 No. 950 IEC950 CB Scheme

Transceiver	RF Standards	Notes
480824-3300 (LXE Part No.) LXE 6400 System 2.4GHz Type II PCMCIA Card (Obsolete)	FCC Part 15, Subpart C FCC Part 2 ETS 300 328 ETS 300 826 IC-RSS 210 IC-RSS 102	Unlicensed Operation Unlicensed Operation Requires License for Outdoor Use
480628-4096 (LXE Part No.) LXE 6500 System 2.4GHz Type II PCMCIA Card (Obsolete)	FCC Part 15, Subpart C FCC Part 2 ETS 300 328 ETS 300 826 IC-RSS 139 IC-RSS 102	Unlicensed Operation Unlicensed Operation Requires License for Outdoor Use
4810P3S01 (LXE Part No.) [Obsolete] LXE 6200 System 900MHz Type III PCMCIA Card	FCC Part 15, Subpart C IC-RSS 210	Unlicensed Operation Unlicensed Operation
6526 (LXE Model No.) 6726 (LXE Model No.) (Obsolete)	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.) 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 480628-4096 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: 480628-4096
 Manufacturer: LXE Inc.
 Address: 125 Technology Parkway
 Norcross, GA 30092-2993 USA
 Year of Manufacturer: 2000

The following harmonized European Standards, technical specifications, or other normative documents have been applied:

EMI / EMC Standards:

EN 55022 : 1995 Limits and methods of measurement of radio disturbance characteristics of information technology equipment

ETS 300 826 : 1997 Electromagnetic compatibility - Generic immunity standard, Part 1: Residential, commercial and light industrial

EN 61000-4-2 : 1995 Electrostatic discharge immunity test

EN 61000-4-3 : 1997 Radiated radio frequency electromagnetic field immunity test

EN 61000-4-6 : 1996 RF conducted immunity test

Radio Frequency Standards:

ETS 300 328 : 1996 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 Standards:

IEC 950-2: 1991 Safety of information technology equipment, including electrical business equipment
 + Amendments
 A1..A4

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: 1 March, 2000

Signed:

R. Sam Wismer,
RF Approvals Engineer

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

LXE Transceiver 480824-3300 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: Frequency Hopping 2.4 GHz Wireless LAN Card
 Brand Name or Trademark: LXE
 Type Designation: 480824-3300
 Manufacturer: LXE Inc.
 Address: 125 Technology Parkway
 Norcross, GA 30092-2993 USA
 Year of Manufacturer: 2000

The following harmonized European Standards, technical specifications, or other normative documents have been applied:

EMI / EMC Standards:

EN 55022 : 1995 Limits and methods of measurement of radio disturbance characteristics of information technology equipment
 ETS 300 826 : 1997 Electromagnetic compatibility - Generic immunity standard, Part 1: Residential, commercial and light industrial
 EN 61000-4-2 : 1995 Electrostatic discharge immunity test
 EN 61000-4-3 : 1997 Radiated radio frequency electromagnetic field immunity test
 EN 61000-4-6 : 1996 RF conducted immunity test

Radio Frequency Standards:

ETS 300 328 : 1996 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 Standards:

IEC 950-2: 1991 Safety of information technology equipment, including electrical business equipment
 + Amendments
 A1..A4

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

Signed: 

R. Sam Wismer,
Lead Approvals Engineer

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

LXE Transceiver LXE 6526 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 6526
 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:

EMI / EMC Standards:

EN 55022 : 1995 Limits and methods of measurement of radio disturbance characteristics of information technology equipment

EN 300 826 : 1997 Electromagnetic compatibility - Generic immunity standard, Part 1: Residential, commercial and light industrial

EN 61000-4-2 : 1995 Electrostatic discharge immunity test

EN 61000-4-3 : 1997 Radiated radio frequency electromagnetic field immunity test

EN 61000-4-6 : 1996 RF conducted immunity test

Radio Frequency Standards:


EN 300 328 : 1996 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 Standards:

EN 60950-2: 1991 Safety of information technology equipment, including electrical business equipment
 + Amendments
 A1..A4

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: 30 March, 2001

Signed: 
 R. Sam Wismer,
 RF Approvals Engineer

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

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



<p>DECLARATION OF CONFORMITY according to:</p> <p>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</p>	
<p>Type of Equipment:</p> <p>Brand Name or Trademark:</p> <p>Type Designation:</p> <p>Manufacturer:</p> <p>Address:</p>	<p>DSSS 2.4GHz WLAN Radio Card</p> <p>LXE</p> <p>6816</p> <p>LXE Inc.</p> <p>125 Technology Parkway Norcross, GA 30092 USA</p>
<p>The following harmonized European Norms have been applied:</p> <p>EMC Standards:</p> <p>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</p> <p>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</p> <p>EN 55022: 1998 Limits and methods of measurement of radio disturbance characteristics of information technology equipment</p> <p>Radio Standards:</p> <p>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</p> <p>Safety Standard:</p> <p>EN60950-1: 2001 Safety of information technology equipment, including electrical business equipment</p>	
<p>The product carries the CE Mark:</p> <div style="text-align: center;">  </div> <p>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.</p>	
<p>Date of issue: June 18, 2003</p>	 <p>Cyril A. Binnom Jr. Regulatory Engineer</p>

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 – VX1 Output Rated 12 – 80 VDC, 3.5 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)

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)

Vaihtoehtoinen 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 (ekstrautstyr):

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.



Vehicle Power Supply Connection Safety Statement



Vehicle Power Supply Connection:

If the supply connection is made directly to the battery, a 5A slow-blow fuse should be installed in the positive lead within 5 inches (12.7 cm.) of the battery positive (+) terminal. (US)

Raccordement de l'alimentation du véhicule

Si l'alimentation est raccordée directement à la batterie, un fusible à action retardée de 5A doit être installé sur le câble positif à moins de 12,7 cm de la borne positive (+) de la batterie. (FR)

EL forsyning af køretøjet.

Er forsyningsforbindelsen direkte tilknyttet til batteriet og og tilsluttet til den positive part indenfor 12,7 cm (+ delen), vil der være en langsom tændelse af 5 ampere. (DK)

Kytkenä ajoneuvon virtalähteeseen

Jos virtaa otetaan suoraan akusta, 5 ampeerin hidias sulake on asennettava positiiviseen johtoon enintään 12 cm:n etäisyydelle akun positiivisesta (+) navasta. (FI)

Anschluss an Fahrzeugbatterie

Bei direktem Anschluss an die Fahrzeugbatterie sollte eine träge 5A-Sicherung in die positive Leitung zwischengeschaltet werden, und zwar nicht weiter als ca. 13 cm von der positiven (+) Batterieklemme entfernt. (DE)

Σύνδεση Τροφοδοτικού Ισχύος Οχήματος

Αν η σύνδεση του τροφοδοτικού γίνει κατευθείαν στη μπαταρία, μια ασφάλεια βραδείας τήξης των 5Α θα πρέπει να τοποθετηθεί στο θετικό καλώδιο εντός 5 ιντσών (12,7 εκ.) του θετικού (+) ακροδέκτη της μπαταρίας. (GR)

Collegamento dell'alimentazione del veicolo

Se il collegamento dell'alimentazione viene stabilito direttamente con la batteria, è necessario installare un fusibile ad azione lenta da 5 A nel conduttore positivo a meno di 5 in. (12,7 cm) dal terminale positivo (+) della batteria. (IT)

Tilkøple strømforsyningen til kjøretøyet

Hvis strømforsyningen koples direkte til batteriet, skal det installeres en 5 A treg sikring i den positive ledningen innen 12,7 cm fra plusspolen (+) på batteriet. (NO)

Ligação do fornecimento de corrente do veículo

Se a ligação de fornecimento de corrente for ligada directamente à bateria, deve instalar-se um fusível de 5A no terminal positivo, a 12,7 cm. do terminal positivo (+) da bateria. (PT)

Conexión de suministro eléctrico para el vehículo

Si el suministro eléctrico se proporciona directamente a la batería, se debe instalar un fusible de retardo de 5 A en el conductor positivo, como máximo a 12,7 cm (5 pulgadas) del terminal positivo (+). (ES)

Fordonets strömförsörjningskoppling

Om strömkopplingen görs direkt till batteriet, måste en 5A-säkring installeras i den positivt laddade ledningen inom 12.7 cm från batteriets pluspol (+). (SE)

Taşıt Güç Kaynağı Bağlantısı

Kaynak bağlantısı doğrudan aküye yapılırsa, pozitif bağlantı kablosu üzerinde akünün pozitif (+) kutbuna 12.7 cm mesafede 5A'lık yavaş atan bir sigorta monte edilmelidir. (TR)

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.

Updated 10/01/2001

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