

Touchcomputer User Guide

1520 15-inch LCD Multifunction Touchcomputer





Elo TouchSystems Touchcomputer User Guide

15" LCD Multifunction Touchcomputer

1520

Revision A

P/N E439739

Elo TouchSystems

1-800-ELOTOUCH (1-800-356-8682)

www.elotouch.com

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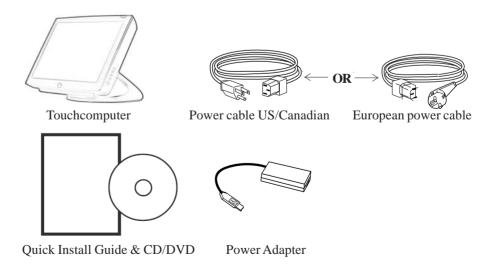
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Setup

This chapter discusses how to set up and test your Touchcomputer and any included peripheral options.

Unpacking Your Touchcomputer

Check that the following items are present and in good condition:



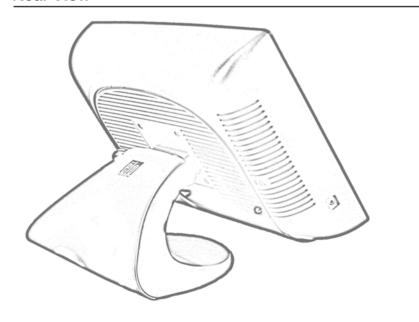
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Product Overview

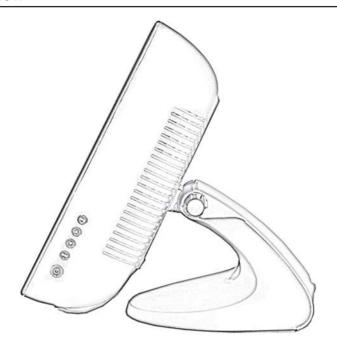
Front View



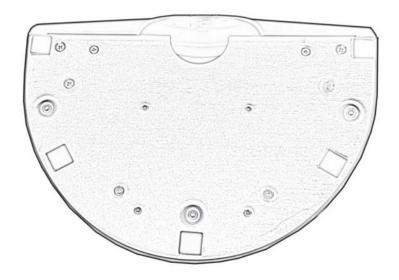
Rear View



Side View



Base Bottom View



Display Orientation







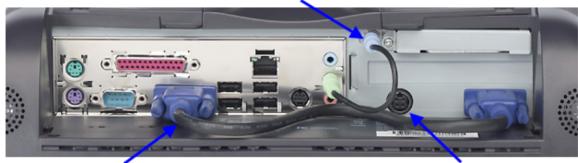
Initial Connections

Prior to turning on your Touchcomputer you must take the power adapter and appropriate power cable from the accessories box. Plug the small round plug with four pins into the 12Vdc power input on the Touchcomputer. Plug the power cable into the power adapter and the other end into a suitable power outlet (mains). Make sure the audio jumper cable and video jumper cable are in place as shown below.

Standard Unit:

Intel: Integrated Dual-core Intel® Atom $^{\rm TM}$ 1.6 GHz processor & 533 MHz system bus

AUDIO JUMPER CABLE



VIDEO JUMPÉR CABLE

12V POWER INPUT

Advanced Unit:

Intel Core 2 Duo E8400 3.0 GHz, 1,333 MHz FSB, 6 MB L2 Cache

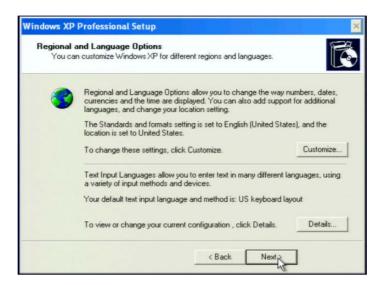
AUDIO JUMPER CABLE



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Initial Power-On

The initial setup of the operating system takes approximately 5-10 minutes. Additional time may be needed depending on touchcomputer hardware configuration and connected devices. To setup the Windows Operating System (OS) for the touchcomputer, turn on the touchcomputer and follow the instructions on the screen.



Language Selection

When the following window appears, you have the option of changing the language used in menus and dialogs.

Click Customize. The Regional and Language window shown below will appear.

Select the **Language** tab. The window shown below will appear.

Select the desired language in the drop-down list labeled Language used in menus and dialogs.

Time-zone selection

When the following window appears, you may change the time-zone, date, and/or time of the touchcomputer.



After making any changes, click Next to finish. Windows Setup will complete the initialization of the touchcomputer.

Test Devices

Testing the Touchscreen

The touchscreen is pre-calibrated for accurate touch response.

Calibration*

If for any reason the touchscreen needs to be re-calibrated, go to the control panel and double-click the **Elo Touchscreen** icon. The window shown below will open.



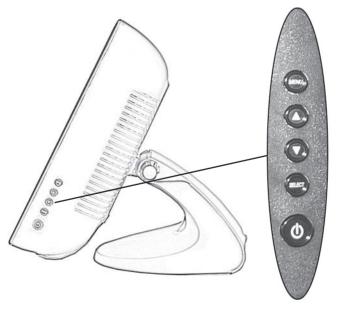
Click on the Align button. This launches the align/calibration program. A window similar to the one shown below will open. Follow the instructions to align/calibrate the touchscreen.

*The alignment/calibration procedure may vary between touch technologies.



Operation

This chapter shows the user how to: control the On-Screen Display (OSD) and Power buttons, use the I/O panel, securely mount the Touchcomputer and adjust the display head.



MENU

UP/INCREASE

DOWN/DECREASE

SELECT

POWER

Side Panel Controls

All adjustments made to the display via OSD and Power controls are automatically saved. User settings will remain unchanged after powering off/on or in the case of a power failure.

Control	Function
1 Menu/Exit	Opens On Screen Display (OSD) / Exits the OSD menu.
2 Up	 Enter contrast adjustment. Increase value of the selected item. Move OSD selection clockwise.
3 Down	 Enter brightness adjustment. Decrease value of the adjustment item. Move OSD selection counter-clockwise.
4 Select	 Auto-Adjust. Selects the adjustment item from the OSD menu.
5 Power	 Press to turn on the computer. To turn off the computer use the operating system to shut down the computer. If unable to use the operating system for shutdown, press and hold the POWER button for 4-5 seconds.

OSD Control

OSD Menu

To display the OSD Menu, press the Menu button.

- 1. Press the UP button or DOWN button to toggle and the SELECT button to select among the different OSD sub-menus and functions.
- 2. When the function you want to change is shown, press the **SELECT** button. To adjust the value of the function:
 - 1. Pressing the **UP** button increases the value of the selected OSD control option.
 - 2. Pressing the **DOWN** button decreases the value of the selected OSD control option.

The OSD provides the following adjustments:

Brightness

Adjusts the background luminance of the LCD panel.

Contrast

Adjusts the contrast or the values of color gain (RED, GREEN or BLUE).

Color Temperature

- sRGB mode can be selected.
- Sets color temperature values of 5500, 6500, 7500,9300 and user defined.

OSD Time-out

Adjusts the time the OSD remains on the screen after no activity

OSD Vertical Position

Adjusts the OSD position up or down.

OSD Horizontal Position

Adjusts the OSD position left or right.

OSD Orientation

Adjusts the rotational orientation of the OSD.

OSD Language

Adjusts the language selection of the OSD among English, French, Italian, German, or Spanish.

Factory Reset

Changes all OSD settings to factory default.

Color Reset

Changes all OSD color settings to factory default.

Position Reset

Changes all OSD position settings to factory default.

Sharpness

Adjusts the sharpness of the display.

Volume

Adjusts the audio signal level of the internal speakers, speaker bar and audio. output

Information

The current OSD version is displayed in the exit tab of the main menu.

The current resolution and refresh rates are displayed at the bottom of every OSD menu.

Shortcut keys

There are three shortcut buttons allowing the user to make quick adjustments. These shortcuts are available only when the OSD menu is NOT displayed.

- To adjust contrast, press the UP button.
- To adjust brightness, press the **DOWN** button.
- To automatically adjust the display, press the **SELECT** button.

OSD Lockout

The On Screen Display (OSD) feature can be locked out (disabled) if desired. To enable this feature, when the OSD is not present, simultaneously press the UP and Down buttons until OSD LOCKED appears on the screen (approximately five seconds). To reenable the OSD function again, simultaneously press the UP and Down buttons until OSD UNLOCKED appears on the screen (approximately five seconds).

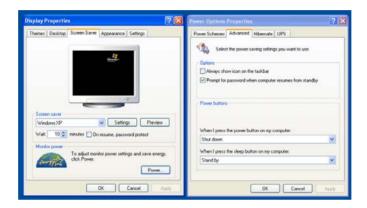
Headphone Jack



Power Control

Power Button

The power button function can be set by the operating system under: Control Panel->Display Properties->Screen Saver->Power->Advanced->Power Buttons.



To override all Operating System settings and shut down the Touchcomputer, press and hold the power button for 4-5 seconds.

Note: On select models the delay to override the operating system is extended to 15 seconds.

Using the I/O panel

The Touchcomputer provides the following I/O interfaces for connecting a wide variety of compliant devices.

Standard Unit: Intel® Desktop Board D945GCLF2

VGA

There is one VGA (HD-15) port (normally connected with supplied jumper cable to display VGA input).

USB

There are four USB 2.0 type A ports.

Ethernet

There is one RJ45 Ethernet port providing LAN capabilities.

Serial

There is one RS232 serial port.

Microphone Input

There is one 3.5 mm microphone input jack for connecting an external microphone.

Audio Output

There is one 3.5 mm stereo audio output jack for connecting headphones, normally connected with the supplied jumper cable to the audio input of the display.

PS/2 Keyboard

A PS/2 keyboard is functional when connected directly to the PS/2 keyboard port.

PS/2 Mouse

A PS/2 mouse may be connected to the PS/2 mouse port.



Intel® Desktop Board D945GCLF2

Advanced Unit: Intel® Desktop Board DQ45EK

USB and Powered USB

There are six USB 2.0 type A ports.

eSATA

One external SATA (eSATA) channel is provided.

Ethernet

There is one RJ45 Ethernet port providing LAN capabilities.

There is one RS232 serial port.

Microphone Input

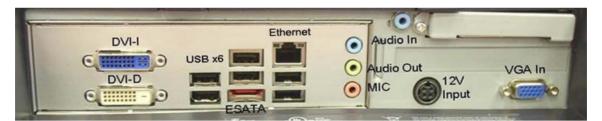
There is one 3.5 mm microphone input jack for connecting an external microphone.

Audio Output

There is one 3.5 mm stereo audio output jack for connecting headphones, typically connected with the supplied jumper cable to the audio input of the display.

DVI

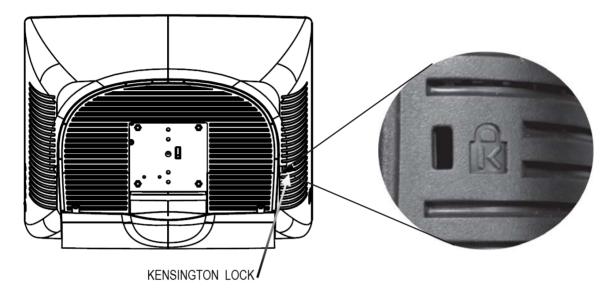
There is one DVI-I output which is normally connected with the supplied jumper cable to the VGA input of the display. Also provided is one DVI-D output.



Intel® Desktop Board DQ45EK

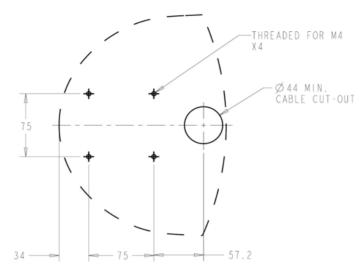
Kensington Lock

The Kensington lock is a security device that prevents theft. To find out more about this security device, look for Computer Locks on the Kensington website at: http:// www.kensington.com.



Securing the Touchcomputer Base

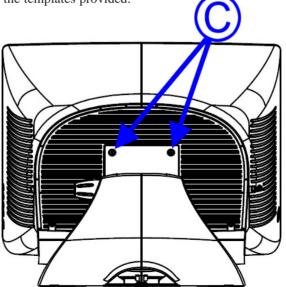
Short Base Mounting



Dimensions are in millimeters.

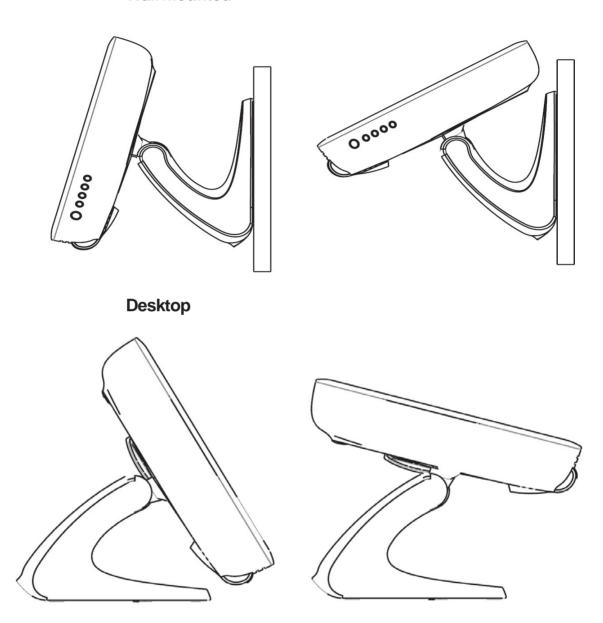
Mounting To A Wall

- 1. Remove the four screws (C), two are under the base assembly, in order to separate the stand from the computer.
- 2. Rotate the monitor 180° (so the monitor will not be upside down when mounted in the position shown).
- 3. Reinstall the four screws (C).
- 4. Route the cables through the cutout (if applicable) and mount the monitor to the wall using the templates provided.



Display Angle

Wall Mounted



For viewing clarity, you can tilt the desktop LCD from 30 to 75 degrees from vertical.

CAUTION In order to protect the LCD if no touchscreen is installed, be sure to hold the base when adjusting the LCD, and take care not to touch the LCD screen.

Maintenance

Care and Handling

The following tips will help keep your Elo Touchcomputer functioning at the optimal level.

- · To avoid risk of electric shock, do not disassemble the power adapter or Touchcomputer cabinet. The unit is not user serviceable. Remember to unplug the computer from the power outlet before cleaning.
- Do not use alcohol (methyl, ethyl or isopropyl) or any strong solvent. Do not use thinner or benzene, abrasive cleaners or compressed air.
- To clean the computer cabinet, use a cloth lightly dampened with a mild detergent.
- · Avoid getting liquids inside your Touchcomputer. If liquid does get inside, have a qualified service technician check it before you power it on again.
- Do not wipe the screen with a cloth or sponge that could scratch the surface.
- To clean the touchscreen, use window or glass cleaner, apply the cleaner on a soft cloth, then wipe the touchscreen clean. Never apply the cleaner directly to the touchscreen.







Warning

This product consists of devices that may contain mercury, which must be recycled or disposed of in accordance with local, state, or federal laws (within this system, the backlight lamps in the monitor display contain mercury).



Waste Electrical and Electronic Equipment (WEEE) Directive

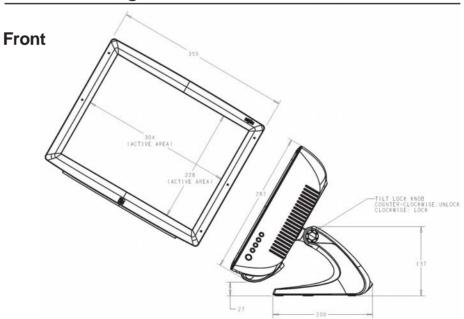
In the European Union, this label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

Technical Specifications

Touchcomputer Specifications

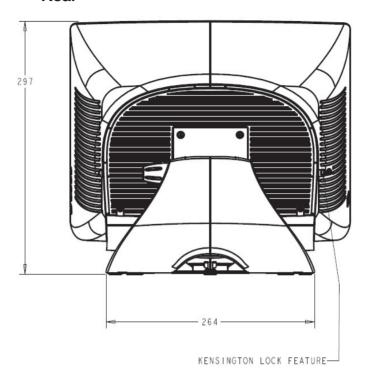
Note: Not all operating systems or options are supported in all regions. Please contact your local Elo TouchSystems representative for details.

Dimensional Diagrams

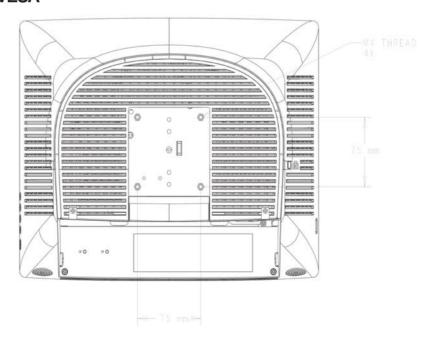


NOTE: Technical specifications are subject to change without notice.

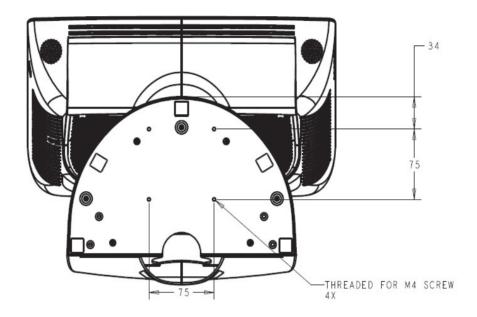
Rear



VESA



Base Mounting



General Information

441 mm x 368 mm x 346 mm (17.4 x 14.5 x 13.5 inches) Shipping box dimensions

Backlight lamp life Min 40,000 hours to half brightness

UL/cUL (*recognized component), FCC, C-Tick, CE Agency approvals

(EN60950)

Speakers (internal) Two-watt/channel speakers in display head

User controls Right side: Power and user display controls: turn on

the Touchcomputer and adjust the display brightness,

contrast and other features

Mounting options 100 mm VESA mount, removable base

Other features Adjustable Base

> Energy save mode (less than 2 watts) Touchscreen sealed to bezel and LCD

Security lock receptacle

Standard Unit: Intel® Desktop Board D945GCLF2

Integrated dual-core Intel® AtomTM 1.6GHz proces-Processor

sor with a 533 MHz system bus

RAM 1 GB DDR2 533/667 SDRAM, One 240-pin DIMM

socket expandable to 2 GB max (not user serviceable)

Intel 82945GC Express Chipset Graphics and Memory Chipset

Controller Hub (GMCH)

Intel 82801GB I/O Controller Hub (ICH7)

Video Integrated graphics via the Intel® Graphics Media

Accelerator 950 (Intel® GMA 950) & S-video output

support

BIOS Intel BIOS

Operating system (optional) Windows XP Embedded, Microsoft Windows Embed-

ded for Point of Service (WEPOS)

Rear I/O VGA:1

S-Video: 1 (may not be present on some part numbers)

Ethernet: 1 (10/100/1000Base-T)

USB: 4 USB 2.0

Audio: Mic in, Line in, Line out

(Realtek ALC662 supports 5.1 CH HD Audio)

Parallel: 1

Serial: 1 (RS-232)

PS/2: 2 (1 x K/B and 1 x Mouse)

Additional Internal I/O Ports USB: 2 (USB 2.0) S/PDIF: 1, IDE: 1 (44 Pin), SATA: 2

(connectors on motherboard - not user serviceable)

Real Time clock Replaceable Lithium battery backed up real time clock

Hard Drive 1 x 2.5" SATA hard drive, 80GB

Power supply Type: External

> Input (line) voltage: 100-240 VAC, 50-60 Hz, 2.0 Amp. Output voltage/current: 12 V at 8.33 Amp. min.

100 watts minimum

Power dissipation 100 W Typical

Weight Actual: 17 lbs (7.7 kg)

Actual without stand: 15 lbs (6.8 kg)

Shipping: 23 lbs (10.5 kg)

Advanced Unit: Intel® Desktop Board DQ45EK

Processor Intel Core 2 Duo E8400 3.0 GHz, 1,333 MHz FSB, 6 MB

L2 Cache

RAM Two 240-pin, DDR2 1.8 V SDRAM Dual Inline Memory

Module (DIMM) sockets

800/667 MHz single or dual channel DDR2 SDRAM

interface

Support for up to 4 GB of system memory (not user

serviceable)

Chipset Intel 82Q45 Express Chipset Graphics and Memory

Controller Hub (GMCH)

Intel® 82801JDO I/O Controller Hub (ICH10DO)

Graphics/Video Intel® Graphics Media Accelerator 4500 onboard

graphics subsystem with integrated DVI-I and DVI-D

graphics output

BIOS Intel BIOS

Operating system (optional) Microsoft Windows XP Embedded, Microsoft Win-

dows Embedded for Point of Service (WEPOS)

Rear I/O DVI: 2 (DVI-I, DVI-D)

Ethernet: 1 (10/100/1000Base-T)

USB: 10 USB 2.0 ports: Six back panel ports, (three dual stack) Four additional ports (via two headers -

not user serviceable)

Audio: Mic in 1, Line in 1, Line out 1 (Realtek ALC662

supports 5.1 CH HD Audio)

Parallel: 1

Serial ATA (SATA): 5 (3.0 Gb/s)

PS/2: 2 (1 x K/B and 1 x Mouse)

eSATA: 1 (3 Gb/s)

Additional Internal I/O Ports USB: 4 USB 2.0 via two headers (connectors on Moth-

erboard - some restrictions may apply - not user ser-

viceable)

PCI Express 1.1: 1 (connectors on Motherboard - some

restrictions may apply - not user serviceable)

Serial: 1 serial port header (not user serviceable)

Real Time clock Replaceable Lithium battery backed up real time clock

Hard Drive 1 x 2.5" SATA hard drive, 160 GB

Power supply Type: External

Input (line) voltage: 100-240 VAC, 50-60 Hz, 2.0 Amp.

Output voltage/current: 12 V at 10 Amp. min.

120 watts min.

Power dissipation 120 W Typical

Weight Actual: 18 lbs (7.3 kg)

Actual without stand: 16 lbs (6.8 kg)

Shipping: 24 lbs (10.9 kg)

RJ45 connector Pin Definition



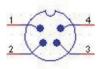
Pin #	T568A Wiring	T568B Wiring
1	Pair 3 - white/green	Pair 2 - white/orange
2	Pair 3 - green	Pair 2 - orange
3	Pair 2 - white/orange	Pair 3 - white/green
4	Pair 1 - blue	Pair 1 - blue
5	Pair 1 - white/blue	Pair 1 - white/blue
6	Pair 2 - orange	Pair 3 - green
7	Pair 4 - white/brown	Pair 4 - white/brown
8	Pair 4 - brown	Pair 4 - brown

DB9 connector Pin Definition



Pin#	Signal Name
1	
2	Receive Data (RD)
3	Transmit Data (TD)
4	
5	Signal Ground
6	
7	Request to send (RTS)
8	Clear to Send (CTS)
9	

Power Input Pin Definition



Pin#	Signal Name
1	+12V
2	Ground
3	Ground
4	+12V

Display Specifications

Model	1520
LCD Display	15.0" TFT Active Matrix Panel
Display Size	304.1 (H) x 228.1 (V)
Pixel Pitch	0.297 (H) x 0.297 (W)
Display Mode	VGA 640 x 350 (70 Hz)
	VGA 640 x 350 70 Hz
	VGA 720 x 400 (70 Hz)
	VGA640x480(60/72/75Hz)
	$SVGA 800 \times 600 (56/60/72/75 Hz)$
	$XGA 1024 \times 768 (60/70/75 Hz)$
Native	XGA 1024 x 768
Contrast Ratio	500:1 (typical)
Brightness	
LCD	250 cd/m ² (Typical)
AccuTouch	200 cd/m ² (Typical)
IntelliTouch	225 cd/m ² (Typical)
Acoustic Pulse Recognition	225 cd/m ² (Typical)
Response Time	Tr = 8 ms, Tf = 6 ms typical
Display Color	16.2 million colors (RGB 6-bit + FRC data)
Viewing Angle	$(L/R) = -70^{\circ} / +70^{\circ} (typical), (U/D) -65^{\circ} / +55^{\circ} (typical)$
Plug & Play	DDC1/2B
Touch Panel	AccuTouch, IntelliTouch, Acoustic Pulse Recognition

Power Supply Specifications

The Touchcomputer shall be powered by 12 VDC from the power adapter supplied with the unit.

Standard unit: 12Vdc at 8.33 amps (Part number: E987739) Advanced unit: 12Vdc at 12.5 amps (Part number: E114692)

Touchscreen Specifications

Available with AccuTouch five-wire resistive (AT), Acoustic Pulse Recognition (APR), and IntelliTouch surface-wave technology. For detailed specifications, please visit our website at www.elotouch.com. Note: Touch options may vary depending on region.

Environmental Specifications

Temperature

Operating Temperature (Independent of altitude) 0° C to 35° C Non-Operating Temperature (Independent of altitude) -20° C to 60° C

Humidity

Operating (noncondensing) 20% to 80% Non-Operating (38.7 °C maximum wet bulb temperature) 5% to 95%

Altitude

Operating 0 to + 9,800 feet [3,000 m]

Equivalent to 14.7 to 10.1 psia

Non-Operating 0 to + 40,000 feet [12,192 m]

Equivalent to 14.7 to 4.4 psia

5

Hard Disk Recovery

Note: Back up all data. This procedure will erase all data from the hard drive. You will lose all previous work not backed up.

Materials required

- USB CD/DVD drive device
- USB cable
- Keyboard (PS2 or USB)
- Mouse
- Elo Recovery CD-ROM or DVD disc supplied with this computer

Note: The Elo Recovery CD supplied with the Elo Touchcomputer is specific to the 1520 Touchcomputer. Do not attempt recovery with a Recovery CD from another computer version. If do not have the correct recovery CD or you have questions about this process, contact Elo.

General overview:

- 1. User boots off the CD.
- 2. Select the option to recover operating system.
- 3. The system restarts into mini setup.
- 4. Follow the on screen instructions to enter required information by Windows setup.
- 5. The system restarts and either touchscreen calibration/alignment is performed, or touchscreen drivers are installed and the calibration file is downloaded, and the computer restarts (Final restart).
- 6. After the computer starts again it boots to a Windows desktop and is ready for the user to personalize.

Begin:

1. Boot off the Elo supplied recovery CD.

Turn the computer off.

Install the external USB CD/DVD drive as directed by the manufacturer.

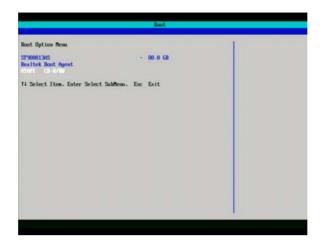
Insert the Elo Recovery CD into the USB CD/DVD drive.

Turn on the Elo Touchcomputer.

When the screen below appears press the **F10** key on the keyboard.



Wait until the screen below appears.



Using the Arrow **UP** or **DOWN** key(s) on the keyboard to select the CD/ DVD drive you are using. When selected press **ENTER**.

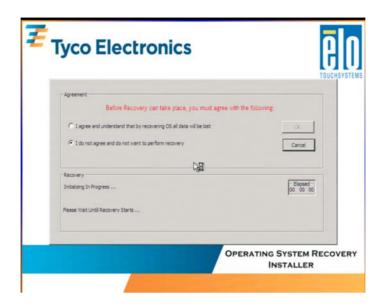


When prompted, press any key to boot from the CD.

The following two screens should appear.



2. Select the option to recover operating system.



Note: By clicking, "I agree and understand..." and clicking OK on this screen, you are acknowledging this recovery process will erase all previous data from the hard drive. You will lose all previous work not backed up.

Click "I agree..." and then OK.



Unplug the USB device which contains the recovery software when directed to do so on the screen (see screen shot #4.)

3. The system restarts into mini setup.



4. Follow the on screen instructions.

Click **NEXT.**



Read and accept the End User License Agreement.

XP License Agreement







Follow the instructions on the screen.

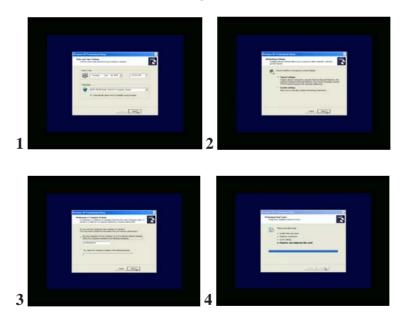


For Windows XP you will be required to enter the 25 digit product ID from the license on the back of the computer. You may have to remove the cable cover to see the license.

Note: This step not required for WEPOS.

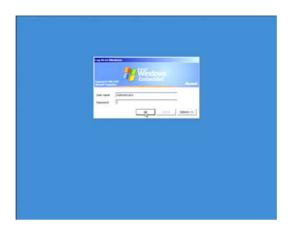


Enter information as required.



5. The system will restart.

WEPOS will require you to log on to the administrator account. If you chose a password during Mini Setup you will be required to enter it now.



6. Touchscreen calibration or alignment begins.

6a. For AccuTouch (resistive) and IntelliTouch (Surface Acoustic Wave) touch technology.



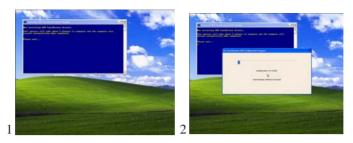
Touch the targets and follow the on-screen instructions.



5b. For APR (Acoustic Pulse Recognition) touch technology. If the "Found New Hardware Window" pops up on the screen (see below) **<u>DO NOT</u>** interact with this window. It will close itself as the APR drivers load automatically.



The APR drivers will load automatically. You will see the following two screens appear as the drivers load. Please wait until the computer reboots.



6. Congratulations - your operating system has been restored to the original factory configuration and is ready for use.

Technical Support

Technical Assistance

There are three methods to obtain contact information for technical assistance on the Touchcomputer:

- The Touchcomputer.
- The web.
- The phone.

Using the Touchcomputer

You can access the support information by going to the System Properties and clicking on the Support Information button. You can get to System Properties by either of the following methods:

- Right click "My Computer" and choose "Properties"
- Click on the "Start Button" and select "Control Panel" and Double click on the "System" icon .

Using the Web

www.elotouch.com/go/contactsupport.

Using the Phone

Call toll-free 1-800-557-1458

Regulatory Information

I. Electrical Safety Information:

- A) Compliance is required with respect to the voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified herein will likely result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
- B) There are no operator serviceable parts inside this equipment. There are hazardous voltages generated by this equipment which constitute a safety hazard. Service should be provided only by a qualified service technician.
- C) This equipment is provided with a detachable power cord which has an integral safety ground wire intended for connection to a grounded safety outlet.
- 1) Do not substitute the cord with other than the provided approved type. Under no circumstances use an adapter plug to connect to a 2-wire outlet as this will defeat the continuity of the grounding wire.
- 2) The equipment requires the use of the ground wire as a part of the safety certification, modification or misuse can provide a shock hazard that can result in serious injury or death.
- 3) Contact a qualified electrician or the manufacturer if there are questions about the installation prior to connecting the equipment to mains power.

II. Emissions and Immunity Information

- A) Notice to Users in the United States: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
- B) Notice to Users in Canada: This equipment complies with the Class A limits for radio noise emissions from digital apparatus as established by the Radio Interference Regulations of Industry Canada.
- C) Notice to Users in the European Union: Use only the provided power cords and interconnecting cabling provided with the equipment. Substitution of provided cords and cabling may compromise electrical safety or CE Mark Certification for emissions or immunity as required by the following standards:

This Information Technology Equipment (ITE) is required to have a CE Mark on the manufacturer's label which means that the equipment has been tested to the following Directives and Standards:

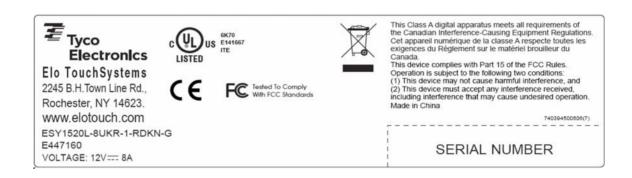
This equipment has been tested to the requirements for the CE Mark as required by

EMC Directive 2004/108/EC indicated in European Standard EN 55 022 Class A and the Low Voltage Directive 2006/95/EC as indicated in European Standard EN 60 950.

- D) General Information to all Users: This equipment generates, uses and can radiate radio frequency energy. If not installed and used according to this manual the equipment may cause interference with radio and television communications. There is, however, no guarantee that interference will not occur in any particular installation due to site-specific factors.
 - 1) In order to meet emission and immunity requirements, the user must observe the following:
 - a) Use only the provided I/O cables to connect this digital device with any computer.
 - b) To ensure compliance, use only the provided manufacturer's approved line
 - c) The user is cautioned that changes or modifications to the equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
 - 2) If this equipment appears to cause interference with radio or television reception, or any other device:
 - a) Verify as an emission source by turning the equipment off and on.
 - b) If you determine that this equipment is causing the interference, try to correct the interference by using one or more of the following measures:
 - i) Move the digital device away from the affected receiver.
 - ii) Reposition (turn) the digital device with respect to the affected receiver.
 - iii) Reorient the affected receiver's antenna.
 - iv) Plug the digital device into a different AC outlet so the digital device and the receiver are on different branch circuits.
 - v) Disconnect and remove any I/O cables that the digital device does not use. (Unterminated I/O cables are a potential source of high RF emission levels.)
 - vi) Plug the digital device into only a grounded outlet receptacle. Do not use AC adapter plugs. (Removing or cutting the line cord ground may increase RF emission levels and may also present a lethal shock hazard to the user.)
 - vii) If you need additional help, consult your dealer, manufacturer, or an experienced radio or television technician.

III. Safety Label

Agency marks and electrical ratings may vary by model. See the safety label on the back of your unit for this information. The following is an example of a safety label:



Warranty

Except as otherwise stated herein or in an order acknowledgment delivered to Buyer, Seller warrants to Buyer that the Product shall be free of defects in materials and workmanship. The warranty for the touchcomputer and components of the product is regional; please contact your regional office. For contact information, see page 64 or go to www.elotouch.com.

Seller makes no warranty regarding the model life of components. Seller suppliers may at any time and from time to time make changes in the components delivered as Products or components.

Buyer shall notify Seller in writing promptly (and in no case later than thirty (30) days after discovery) of the failure of any Product to conform to the warranty set forth above; shall describe in commercially reasonable detail in such notice the symptoms associated with such failure; and shall provide to Seller the opportunity to inspect such Products as installed, if possible. The notice must be received by Seller during the Warranty Period for such product, unless otherwise directed in writing by the Seller. Within thirty (30) days after submitting such notice, Buyer shall package the allegedly defective Product in its original shipping carton(s) or a functional equivalent and shall ship to Seller at Buyer's expense and risk.

Within a reasonable time after receipt of the allegedly defective Product and verification by Seller that the Product fails to meet the warranty set forth above, Seller shall correct such failure by, at Seller's options, either (i) modifying or repairing the Product or (ii) replacing the Product. Such modification, repair, or replacement and the return shipment of the Product with minimum insurance to Buyer shall be at Seller's expense. Buyer shall bear the risk of loss or damage in transit, and may insure the Product. Buyer shall reimburse Seller for transportation cost incurred for Product returned but not found by Seller to be defective. Modification or repair, of Products may, at Seller's option, take place either at Seller's facilities or at Buyer's premises. If Seller is unable to modify, repair, or replace a Product to conform to the warranty set forth above, then Seller shall, at Seller's option, either refund to Buyer or credit to Buyer's account the purchase price of the Product less depreciation calculated on a straight-line basis over Seller's stated Warranty Period.

THESE REMEDIES SHALL BE THE BUYER'S EXCLUSIVE REMEDIES FOR BREACH OF WARRANTY. EXCEPT FOR THE EXPRESS WARRANTY SET FORTH ABOVE, SELLER GRANTS NO OTHER WARRANTIES, EXPRESS OR IMPLIED BY STATUTE OR OTHERWISE, REGARDING THE PRODUCTS, THEIR FITNESS FOR ANY PUR-

POSE, THEIR QUALITY, THEIR MERCHANTABILITY, THEIR NONINFRINGEMENT, OR OTHERWISE. NO EMPLOYEE OF SELLER OR ANY OTHER PARTY IS AUTHO-RIZED TO MAKE ANY WARRANTY FOR THE GOODS OTHER THAN THE WAR-RANTY SET FORTH HEREIN. SELLER'S LIABILITY UNDER THE WARRANTY SHALL BE LIMITED TO A REFUND OF THE PURCHASE PRICE OF THE PRODUCT. IN NO EVENT SHALL SELLER BE LIABLE FOR THE COST OF PROCUREMENT OR IN-STALLATION OF SUBSTITUTE GOODS BY BUYER OR FOR ANY SPECIAL, CONSE-QUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES.

Buyer assumes the risk and agrees to indemnify Seller against and hold Seller harmless from all liability relating to (i) assessing the suitability for Buyer's intended use of the Products and of any system design or drawing and (ii) determining the compliance of Buyer's use of the Products with applicable laws, regulations, codes, and standards. Buyer retains and accepts full responsibility for all warranty and other claims relating to or arising from Buyer's products, which include or incorporate Products or components manufactured or supplied by Seller. Buyer is solely responsible for any and all representations and warranties regarding the Products made or authorized by Buyer. Buyer will indemnify Seller and hold Seller harmless from any liability, claims, loss, cost, or expenses (including reasonable attorney's fees) attributable to Buyer's products or representations or warranties concerning same.

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- Product information
- Specifications
- News on upcoming events
- Press release
- Software drivers
- Touchmonitor Newsletter

Getting in Touch with Elo

To find out more about Elo's extensive range of touch solutions, visit our Website at www.elotouch.com or simply call the office nearest you:

North America	Germany	Belgium	Asia-Pacific
Elo TouchSystems	Tyco Electronics Raychem GmbH	Tyco Electronics Raychem N.V.	. Sun Hamada Bldg. 2F
301 Constitution Drive	(Elo TouchSystems Division)	(Elo TouchSystems Division)	1-19-20 ShinYokohama
Menlo Park, CA 94025	Finsinger Feld 1	Diestsesteenweg 692	Kanagawa 222-0033
USA	D-85521 Ottobrunn	B-3010 Kessel-Lo	Japan
	Germany	Belgium	
(800) ELO-TOUCH	Tel +49 (0)(89) 60822-0	Tel +32(0)(16)35 21 00	Tel +81(45)478-2161
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