



USER MANUAL

**Elo Touch Solutions
ET1002L, ET1502L and ET2002L
Touchmonitors**

UM600012 Rev D

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, including, but not limited to, electronic, magnetic, optical, chemical, manual, or otherwise without prior written permission of Elo Touch Solutions, Inc.

Disclaimer

The information in this document is subject to change without notice. Elo Touch Solutions, Inc. and its Affiliates (collectively "Elo") makes no representations or warranties with respect to the contents herein, and specifically disclaims any implied warranties of merchantability or fitness for a particular purpose. Elo reserves the right to revise this publication and to make changes from time to time in the content hereof without obligation of Elo to notify any person of such revisions or changes.

Trademark Acknowledgments

Elo (logo), Elo Touch Solutions, IntelliTouch, iTouch, are trademarks of Elo and its Affiliates. Windows is a trademark of Microsoft Corporation.

Table of Contents

Chapter 1: Introduction.....4

Chapter 2: Installation5

Chapter 3: Mounting9

Chapter 4: Operation 11

Chapter 5: Technical Support.....16

Chapter 6: Safety & Maintenance18

Chapter 7: Regulatory Information20

Chapter 8: Warranty Information23

Chapter 1: Introduction

Product Description

Your new touchmonitor combines the reliable performance of Elo Touch Solutions touch products with the latest developments in touch technology and display design. This combination of features creates a natural flow of information between the user and the touchmonitor.

This touchmonitor incorporates a 16.2M color, active matrix thin film transistor LCD panel to provide high quality display performance. Its LED backlight significantly reduces power consumption and eliminates mercury (compared to CCFL-backlit panels). Other features that enhance this LCD monitor's performance are Plug & Play compatibility, on-screen display (OSD) controls, and a family of optional peripherals including magnetic stripe reader (MSR) and near field communication reader (NFC)

Precautions

Follow all warnings, precautions and maintenance as recommended in this user manual to maximize the life of your unit, to ensure user safety, and to prevent risks. See the Safety & Maintenance chapter for more information.

This manual contains information that is important for the proper setup and maintenance of the unit. Before setting up and powering on your new touchmonitor, read through this manual, especially the Installation, Mounting, and Operation chapters.

Chapter 2: Installation

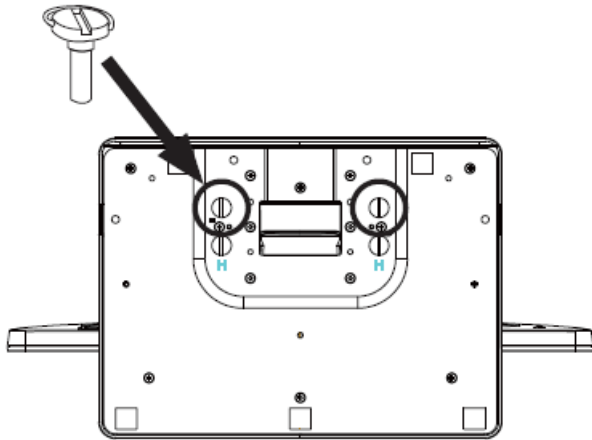
Unpacking the Touchmonitor

Open the carton and verify that the following items are present:

- Touchmonitor with Stand (Stand is not included with 1002L monitor)
- User Manuals CD
- Japanese language regulatory information pamphlet
- Quick Install Guide
- Mini-VGA to VGA cable
- HDMI cable
- USB cable
- Audio cable
- Power adaptor with North America, Europe, China and United Kingdom clipped-in plugs
- 2 x Cable clamps

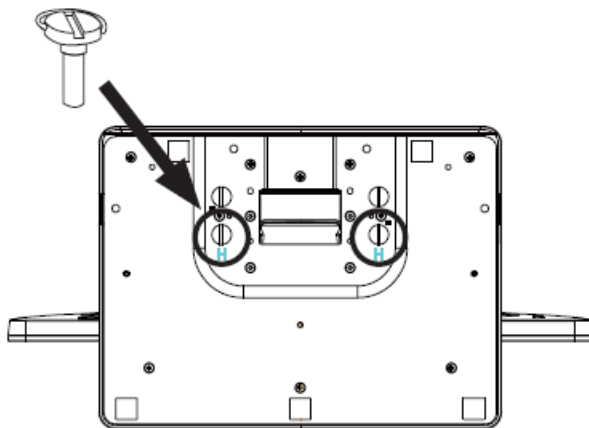
Stand Positions (1502L)

The stand of the touchmonitor can be converted between two positions: the low profile “hostess” position and the high profile “upright” position. The touchmonitor ships in the low profile “hostess” position. (1002L monitor does not ship with a stand)



Low profile (“hostess”) position

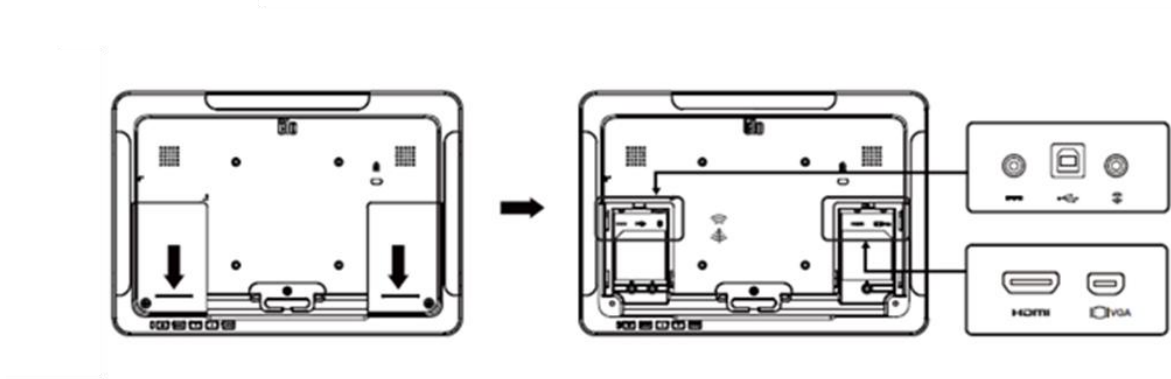
To convert the stand into the high profile “upright” position, secure the thumbscrews into the high or “H” screw-holes in the bottom of the base.



Upright position

To convert the stand into the low profile “hostess” position, secure the thumbscrews into the low or “L” screw-holes in the bottom of the base.

Connector Panel & Interfaces



Touchmonitor Connections

1. Connect the HDMI or Mini-VGA video cables between the monitor's HDMI/Mini-VGA input connectors and your HDMI/VGA video source, respectively. Tighten the video cable's screws for best performance.
2. Connect the USB touch cable between the monitor's USB connector and your PC's USB port.
3. Connect the audio cable between the monitor's Audio In jack and your audio source.
4. Select the correct power clip for your region and clip to the power adapter. Connect the power adaptor's input connector to the power source. Connect the power adaptor's DC output connector to the monitor's input power jack.
5. The touchmonitor ships in an OFF state. Press the power button to turn it on.

Installing the Touch Technology Software Drivers

No additional drivers are required for your projected-capacitive touchmonitor with Windows 7 and 8 operating systems, it uses Windows HID drivers. If the monitor is used with Windows XP operating system, follow below steps to install Windows XP touch driver.

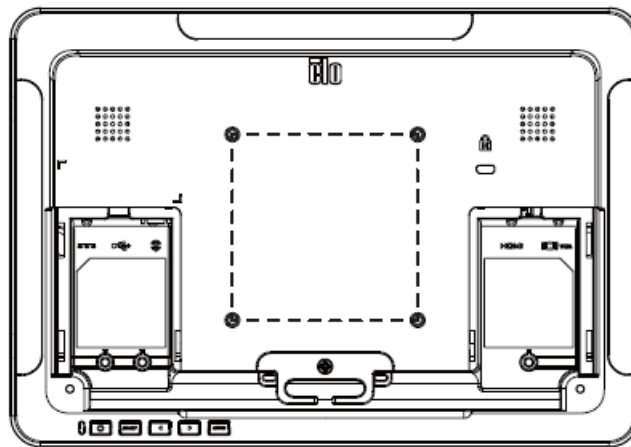
To download latest touch drivers

1. Visit www.elotouch.com/Support/Downloads/Driver/DriverDownload/Default.aspx
2. Select the operating system from “Operating System” dropdown menu.
3. Select the technology from “Technologies” dropdown menu.
4. Click on the driver version required for your touchmonitor.
5. Click “Accept” once you are directed to the “Driver License Agreement” page.
6. Enter you email address, Click on “Next Step”. Your driver download will start automatically.
7. If you are a new user, fill in the required information and Click on “Register”. Your driver download will start automatically.

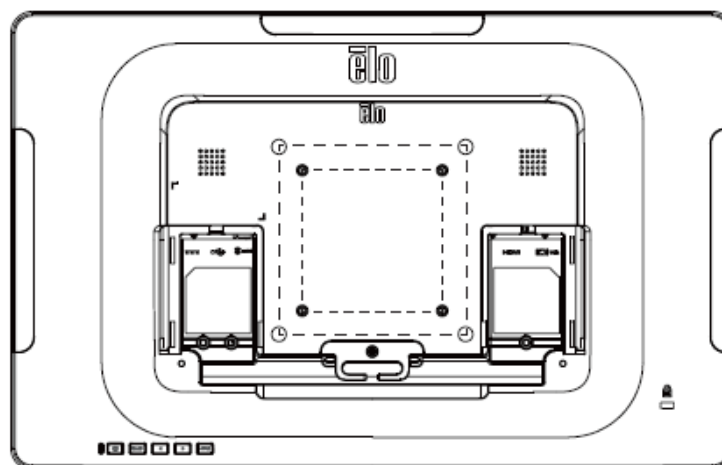
Chapter 3: Mounting

Rear VESA Mount

For the 1002L touchmonitor, a four-hole 75x75mm and 100x100mm mounting pattern available. The VESA FDMI-compliant counting is coded: VESA MIS-B, 75, C and VESA MIS-B, 100, C.

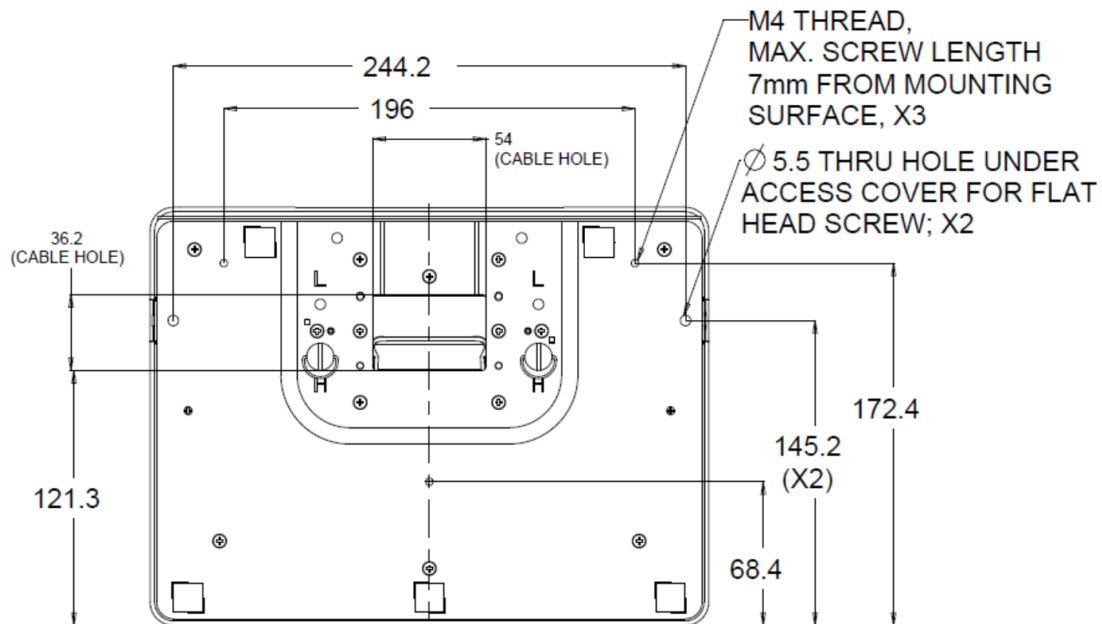


For the 1502L and 2002L touchmonitors, a four-hole 75x75mm and 100x100mm mounting pattern for M4 screws is provided on the rear of the monitor. Remove the stand using a Phillips screwdriver to access this mounting interface. The VESA FDMI-compliant counting is coded: VESA MIS-B, 75, C and VESA MIS-B, 100, C.

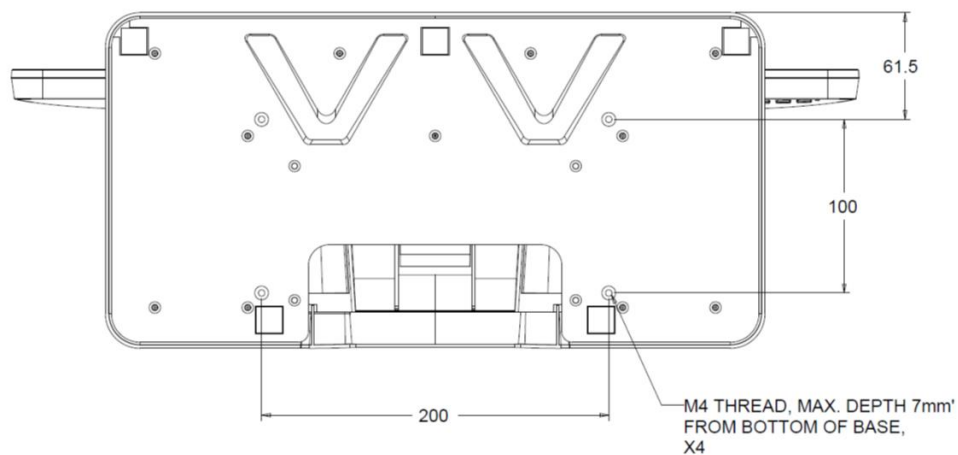


Base Mount

For the 1502L touchmonitor, a threaded three-hole mounting pattern for M4 screws is provided on the bottom of stand base for mounting or securing.



For the 2002L touchmonitor, threaded through-holes are provided on the bottom of the stand base for mounting or securing.



Chapter 4: Operation

Power

To turn the touchmonitor on or off, press the touchmonitor power button once.

The Power Status LED on the bottom of the touchmonitor functions according to the following table:

TouchMonitor/Computer Module status	LED status
OFF	OFF
SLEEP	PULSING
ON	ON

The system consumes low power when in SLEEP and OFF modes. For detailed power consumption specifications, refer to technical specifications on the Elo website <http://www.elotouch.com>

Touching the screen will bring the attached host PC out of SLEEP mode (similar to moving the mouse or pressing a keyboard key).

To improve reliability and reduce wasteful power consumption, disconnect the power adapter when long periods of disuse are planned.

Note: 1002L can be powered using touch USB as well as power adapter. With power over USB feature 1002L will run at half the brightness.

Touch

No calibration is required for projected capacitive touch technology.

Projected Capacitive Touch Technology

When connected to Windows 7 or 8 computers, the touchmonitor can report 10 simultaneous touches. When connected to Windows XP computers, the touchmonitor reports single touches.

No additional drivers are required for this technology to work with Windows 7 and 8, it uses Windows HID drivers.

Refer to Chapter 2, Section “Installing the Touch Technology Software Drivers” to find instructions to download touch drivers for Windows XP.

Gesture Support

Projected Capacitive touch technologies enable several gestures that support single and multiple contacts. Refer to the Microsoft Website <http://msdn.microsoft.com/en-us/library/dd940543> on the various gestures that are supported in Windows 7 and 8.

Video

A display's native resolution is its width and height measured in number of pixels. Generally, for best performance, an image displayed on this monitor will look best when your computer's output resolution matches this monitor's native resolution, which is 1280 x 800 for the 1002L, 1920 x 1080 for the 1502 and 2002L FHD, and 1366 x 768 for the 1502 HD monitor.

For computer output resolutions at non-native resolutions, the monitor will scale the video to its panel's native resolution. This involves stretching or compressing the input image as needed in the X- and Y-dimensions to fit the display's native resolution. An unavoidable byproduct of the scaling algorithms is a loss of fidelity when the computer's output video image is scaled by the monitor to fit the display. This loss of fidelity is most apparent when viewing feature-rich images at close distances (for example images containing small-font text).

Your touchmonitor will likely not require video adjustments. However, for analog VGA video, variations in video graphic card outputs may require user adjustments through the OSD to optimize the quality of the touchmonitor's displayed image. These adjustments are "remembered" by the touchmonitor. Also, to reduce the need for adjustments for different video mode timings, the monitor correctly scales and displays some of the video industry's most common video timing modes. Refer to the technical specifications for this monitor at <http://www.elotouch.com> for a list of these Preset Video Modes.

On-Screen Display (OSD)

Four OSD buttons are on the bottom of the monitor. These can be used to adjust various display parameters.



The buttons and their functionality are:

Button	Function when OSD is not displayed:	Function when OSD is displayed:
Menu	Display OSD main menu	Return to previous OSD menu
◀	Display OSD audio submenu	Move up on menu item
▶	Display OSD luminance submenu	Move down on menu items
Select	Video input select submenu	Exit video input menu


The OSD buttons control an on-screen graphical user interface, which displays on top of your input video. This allows for intuitive adjustment of the following display parameters:


Parameter	Available Adjustment
Brightness	Increase/decrease monitor brightness Default: Maximum
Contrast	Increase/decrease monitor contrast Default: Best gray-shade performance
Clock	Allows fine adjustments of the panel's pixel dot clock <i>Only applicable for VGA input video</i>
Phase	Allows fine adjustments of the panel's pixel dot clock phase <i>Only applicable for VGA input video</i>
Auto Adjust	Automatically adjusts the system clock to the input analog VGA video signal, affecting the H-position, V-position, Clock, and Phase menu items <i>Only applicable for VGA input video</i>
H-position	Moves the image horizontally on the display in single-pixel increments Default: Centered <i>Only applicable for VGA input video</i>
V-position	Moves the image vertically on the display in single-pixel increments Default: Centered <i>Only applicable for VGA input video</i>

Aspect Ratio	<p>Switches the scaling method between Full Scaling and Maintain Aspect Ratio Default: Full Scaling</p> <p>Full Scaling – scales the X- and Y-dimensions of the input video (up or down as needed) to the display's native resolution.</p> <p>Fill To Aspect Ratio – Assuming a landscape orientation and an input video with aspect ratio smaller than 1024 x 768 for the 15-inch or 1280 x 1024 for the 17-inch, scales the Y-dimension of the input video (up or down as needed) to the display's Y-resolution, and scales the X-dimension to maintain the input video's aspect ratio (and fills the rest of the display with equal black bars on the left and right).</p> <p><i>The touchscreen may need recalibration when switching between Aspect Ratio options.</i></p>
Sharpness	<p>Adjusts sharpness of the displayed images Default: No sharpness adjustment <i>Only applicable at non-native input video resolutions</i></p>
Color Temperature	<p>Selects the display's color temperature. The available color temperatures are 9300K, 7500K, 6500K, 5500K, and User Defined. If the User Defined option is selected, the user can change the color temperature by changing individual R, G, and B gains on a scale from 0 to 100. Default: User Defined with R, G, and B all set to 100</p>
OSD Timeout	<p>Adjusts how long a period of OSD button inactivity the touchmonitor will wait before closing the OSD. The adjustable range is between 5 and 60 seconds. Default: 15 seconds</p>
OSD Language	<p>Selects which language the OSD information is displayed in. The available languages are: English, French, Italian, German, Spanish, Simplified Chinese, Traditional Chinese, and Japanese Default: English</p>
Volume	Adjusts the volume of the internal speakers and headphone output
Mute	<p>Toggles the audio output between Muted and Not Muted Default: Not Muted</p>
Recall Defaults	Selecting "Recall Defaults" restores all factory default settings for OSD-adjustable parameters (except OSD Language) and for Preset Video Mode timings.
Video Source	<p>The monitor continually scans for active video on the VGA and HDMI connectors. This adjustment selects which of those input ports should be given priority to be displayed. The options are: VGA Priority, HDMI Priority</p>

All touchmonitor adjustments made through the OSD are automatically memorized as soon as they are entered. This feature saves you from having to reset your choices every time the touchmonitor is unplugged or powered off and on. If there is a power failure, the touchmonitor settings will not default to the factory specifications.

OSD and Power Lockouts

Press and hold the “Menu” and  buttons for two seconds to enable/disable the OSD Locking feature. When the OSD Locking is enabled, pressing any of the Menu, Up, Down, or Select keys will have no effect on the system.

Press and hold the “Menu” and  buttons for two seconds to enable/disable the Power Locking feature. When the Power Locking is enabled, pressing the power switch will have no effect on the system.

Chapter 5: Technical Support

If you are experiencing trouble with your touchmonitor, refer to the following suggestions.

If the problem persists, please contact your local dealer or contact Elo Touch Solutions Customer Service.

Solutions to Common Problems

Problem	Suggested Troubleshooting
The touchmonitor does not respond when turning on the system	Check that the DC power adaptor is properly connected Verify the DC power adaptor is functioning
Monitor display is dim	Use the OSD to increase the brightness Use the OSD to increase the contrast
Monitor display is blank	If the Power Status LED is blinking, the monitor or Computer Module may be in SLEEP mode. Press any key / move the mouse / touch the Touchscreen to see if the image reappears Check that the signal source device is turned on Check that there are no loose cable connections
Monitor displays an “Out Of Range” message	Adjust your computer’s resolution/timing mode to be within the allowable timing ranges specified for your touchmonitor (see website for specifications)
Monitor display image looks abnormal	Adjust your computer’s resolution/timing mode to be within the allowable timing ranges specified for your touchmonitor (see website for specifications) Use the Auto Adjust function in the OSD
Touch functionality doesn’t work	Verify your PC has the latest Elo drivers installed Perform the calibration routine provided with the latest Elo drivers
The OSD buttons or power button does not respond when pressed	Check to see if the OSD lock or power lock functions are on

NOTE: To keep the product operating at an optimum level please limit the product usage cycle to 18 hours for every 24 hours

Technical Assistance

Visit www.elotouch.com/products for technical specifications for this device

Visit www.elotouch.com/go/websupport for online self-help.

Visit www.elotouch.com/go/contactsupport for technical support.

See this user manual's last page for worldwide technical support phone numbers.

Chapter 6: Safety & Maintenance

Safety

To avoid risk of electric shock, follow all safety notices and do not disassemble the touchmonitor. They are not user-serviceable.

Ensure that your installation is equipped to maintain the specified environmental conditions listed in the Technical Specifications chapter.

Care and Handling

The following tips will help keep your touchmonitor functioning at an optimal level:

Disconnect the AC power cable before cleaning.

To clean the display unit cabinet, use a clean cloth lightly dampened with a mild detergent.

It is important that your unit remains dry. Do not get liquids on or inside the unit. 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 applied to a clean cloth or sponge. Never apply the cleaner directly to the touchscreen. Do not use alcohol (methyl, ethyl or isopropyl), thinner, benzene, or other abrasive cleaners.



Waste Electrical & Electronic Equipment Directive (WEEE)



This product should not be disposed of with household waste. It should be deposited at a facility that enables recovery and recycling.

Chapter 7: Regulatory Information

I. Electrical Safety Information:

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.

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.

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

Notice to Users in the United States: This equipment has been tested and found to comply with the limits for a Class B 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.

Notice to Users in Canada: This equipment complies with the Class B limits for radio noise emissions from digital apparatus as established by the Radio Interference Regulations of Industrial Canada.

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 2014/30/EU as indicated in European Standard EN 55032 Class B and the Low Voltage Directive 2014/35/EU as indicated in European Standard EN 60950-1.

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 cord.
- 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.

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.)

If you need additional help, consult your dealer, manufacturer, or an experienced radio or television technician.

III. Agency Certifications

The following certifications and marks have been issued or declared for this monitor:

Canada CUL, IC

Japan VCCI

Europe CE

United States FCC,UL

China CCC

Korea KC

Australia RCM

IV. Power Adapter Specifications

Electrical Ratings:

Input: 100-240VAC, 50-60Hz

Output: 12VDC, minimum 3.33A, LPS

V. Monitor Specifications

Electrical Ratings:

1002L Input: 12VDC, 2A

1502L Input: 12VDC, 3A

2002L Input: 12VDC, 3A

Operating Conditions:

Temperature: 0°C - 40°C

Humidity: 20% to 80% (non-condensing)

Altitude: 0 to 3,048m

Storage Conditions:

Temperature: -20°C - 60°C

Humidity: 10% to 90% (non-condensing)

Altitude: 0 to 12,192m

Chapter 8: Warranty Information

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 Touchmonitors and their components is 3 (three) years.

Seller makes no warranty regarding the model life of components. Seller's 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 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 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 purpose, their quality, their merchantability, their non-infringement, or otherwise. No employee of Seller or any other party is authorized to make any warranty for the goods other than the warranty 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 installation of substitute goods by Buyer or for any special, consequential, 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.

Check out Our Website!

www.elotouch.com

Get the latest...

- Product Information
- Specifications
- News on upcoming events
- Press releases
- Software drivers
- TouchMonitor Newsletter

Getting in Touch with us

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

North America

Elo Touch Solutions
1033 McCarthy Blvd
Milpitas, CA 95035

Tel 800-ELO-TOUCH

Tel 1-408-597-8000

Fax 1-408-597-8050

customerservice@elotouch.com

Europe

Tel +32 (0) 16 70 45 00

Fax +32 (0) 16 70 45 49

elosales@elotouch.com

Asia-Pacific

Tel +86 (21) 3329 1385

Fax +86 (21) 3329 1400

www.elotouch.com.cn

Latin America

Tel 786-923-0251

Fax 305-931-0124

www.elotouch.com

Copyright 2016 Elo Touch Solutions, Inc. All rights reserved.