elo

USER MANUAL

Elo Touch Solutions IDS ET3203L/ET4303L/ET5053 Display



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Section 1: Introduction

Product Description

Your new Interactive Digital Signage (IDS) Display combines Elo Touch Solutions reliable performance with the latest developments in touchscreen technology and display design. This combination of features creates a natural flow of information between a user and the IDS Display.

This IDS Display incorporates 8-bit color (ET3203L and ET4303L) and 8-bit+FRC (5053L), active matrix thin-filmtransistor, and digital signage LCD panel to provide superior display performance. ET3203L and ET4303L output FHD resolution (1920 x1080) and 5053L outputs 4K resolution (3840 x2160) are suitable for displaying graphics and images. Other features that enhance this LCD monitor's performance are Plug & Play compatibility, built-in speakers and headphone output capability, Touch On-Screen Display (OSD) controls, and a family of IDS computer modules.

Elo Computer modules can be installed to the back of the IDS Display to convert it into an IDS All-in-One touchcomputer.

Precautions

Follow all warnings, precautions and maintenance as recommended in this user manual to maximize the life of your unit and prevent risks to user safety.

For your health and safety, it is strongly recommended that at least two people handle, lift, and/or move these IDS Displays.

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

CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.

Section 2: Unpacking

Unpacking the Interactive Digital Signage (IDS) Display

To unpack the IDS, follow these steps:

- 1. The carton should be oriented in the manner according to its labeling. The hinged plastic locks should be at the 'bottom'.
- 2. Unlock and remove all 4 hinged plastic locks.



3. Once the locks are removed, lift the cartons top lid off the bottom frame.



4. With the top lid removed, you now have access to the IDS Display and the included accessories. Verify that the box contains:

- IDS ET3203L/ET4303L/ET5053L IDS Display:
- HDMI 2.0 cable
- USB-C cable (Type A plug to Type C plug)
- power cable, IEC 60320-C13 to NA plug
- power cable, IEC 60320-C13 to EU/KR plug
- power cable, IEC 60320-C13 to UK plug
- Serial 3.5mm male to Serial DB9 female cable
- Energy label according to EU Regulation 1062/2010
- Quick Install Guide

Section 3: IDS Display Installation

IDS Display: Connecting to an External Computer

Source from HDMI or DisplayPort

- 1. Connect the included HDMI cable (or your own or DisplayPort cable) between the monitor and the video source.
- 2. Connect the USB-C (Type A plug to Type C plug) touch cable between the monitor and your host PC.
- 3. Select the correct power cable for your region. Connect the cable from the IDS Display POWER IN connector to the AC power source.
- 4. As soon as power is detected, the monitor will turn on.
- 5. The Power, OSD menu, and Video Select button is located on the bottom right side on the back of the monitor.

Source from USB-C

- 1. Connect the USC-C cable (Type C plug to Type C plug) between the monitor and your host PC.
- 2. Select the correct power cable for your region. Connect the cable from the IDS Display POWER IN connector to the AC power source.
- 3. As soon as power is detected, the monitor will turn on.
- 4. The Power, OSD menu, and Video Select button is located on the bottom right side on the back of the monitor.

Note: USB-C port only supports USB2.0 and video input. Power delivery and USB3.0 are not available.



IDS Display: Connecting to the Elo Computer Module (ECM)

- 1. Remove the cover in order to expose the computer module docking area.
- 2. Slide the Elo Computer Module into the bay and secure the ECM with the locking screws.
 - a. Note: The ECM can be plugged in while there is power to the monitor.
- 3. As soon as video is detected, the monitor will begin to display the content.

Visit the Elo Touch Solutions website <u>www.elotouch.com</u> for:

- Updates to the monitor firmware
- Detailed driver installation guides
- Touch drivers for other operating systems

TouchPro and Infrared units are HID compatible and do not require an Elo touch driver. If an Elo touch driver has previously been installed on the host computer, remove this driver by opening Control Panel and selecting the option to remove the driver completely.

Section 4: Mounting Information

Note: It is strongly recommended that at least two people handle, lift, or move the IDS Display.

Note: Do not leave the IDS Display facing down for long periods of time as this will cause permanent damage to the LCD panel.

Mounting Orientations

The following mounting orientations are supported: landscape, portrait, tabletop and tilt.

Landscape Orientation

When mounting the IDS Display in landscape orientation, ensure that the Elo logo appears in the same location as the pictures below.



Portrait Orientation

When rotating the IDS Display to portrait orientation, ensure that the Elo logo appears in the same location as the pictures below. The IO ports will be located at the bottom.



Tabletop

When the IDS Display is used in tabletop application, support the IDS Display using the VESA mounting pattern on the rear to support the weight of the IDS Display. Additional support around the edge may also be added if desired to maintain flatness of the touch screen.



Cooling methods must be put in place to ensure that the air temperature beneath the monitor does not exceed the operating specifications. Refer to the Operating & Storage Conditions section for tabletop mode requirements.

<u>**Tilt Mode**</u> The IDS Display can support a tilt of 15°.

15 degrees max

Rear VESA Mount

A four-hole, 400x400mm mounting pattern is provided on the rear of the IDS Display. The VESA FDMI-compliant mounting is coded

- VESA MOUNT PER MIS-F, 400 x 400mm, M6

Refer to <u>www.elotouch.com</u> for dimensional drawings.

Optional Mounting Methods

An optional low profile stand kit and wall-mount kit are available for the IDS ET3203L/ET4303L/ET5053L Displays. Detailed information is available on the marketing specification drawing at <u>www.elotouch.com</u>.

Elo Low Profile Stand kit:

Elo Part Number: E722153

Drawing Numbers: MS602351/ MS602352/ MS602353 for IDS ET3203L/ET4303L/ET5053L

Consult the stand user guide for detailed installation information.

Elo Low Profile Wall Mount kit:

Elo Part Number: E721949

Drawing Numbers: MS602351/ MS602352/ MS602353 for IDS ET3203L/ET4303L/ET5053L

Consult the wall mount user guide for detailed installation information.

Section 5: Operation

Power

To turn the IDS Display on or off, press the power button once. If a computer module is installed, then the computer module will also turn on with the monitor.

For proper shut down of the computer module, follow the computer modules operating systems normal power off procedure.

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

Touching the screen will bring the system out of MONITOR SLEEP mode.

If long periods of disuse are planned, unplug the AC power cable to save power.

The maximum voltage, frequency and current for the IDS Display are provided in the power ratings table below:

Operating Voltage	Operating Frequency
Range	Range
100 - 240Vac	50/60 Hz

Usage Duty Cycle

In order to save energy and extend life of the display, Elo recommends shutting off the display when not in use. A number of tools, such as Content Management System (CMS) player applications, Operating System settings and the Real Time Clock feature on the On-Screen Display Menu (OSD) within the IDS display can be used for this task.

Touch Technology

When connected to Windows 10 computer, the IDS Display will report the corresponding simultaneous touches: TouchPro supports up to 40 touch Infrared support up to 20 touch The IDS Display product specification can be found by visiting <u>https://www.elotouch.com/</u>

Video Information

An LCD panels native resolution is its width and height measured in number of pixels.

In almost all cases, an image displayed on an LCD monitor will look best when your computers output resolution matches the LCD panels native resolution. See the display specifications on the Elo website www.elotouch.com to find your IDS Displays native resolution. Operating in other resolutions will degrade video performance and is not recommended.

For computer output resolutions at non-native resolutions, the monitor will scale the video to panel's native resolution. For smaller input video resolutions, this involves "stretching" the input image in the X- and Y-dimensions to fit the panel. For larger input video resolutions, this involves "compressing" the input image in the X- and Y-dimensions to fit the panel. An unavoidable byproduct of the scaling algorithms is a loss of fidelity when the computers 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 IDS Display will likely not require any video adjustments.

Touch On-Screen Display (OSD)

This monitor uses an easy-to-navigate Touch OSD interface. Use the settings menu in the sidebar to adjust the IDS Display settings



Example of the Popup OSD Menu:

All IDS Display adjustments made through the OSD are automatically stored as soon as they are entered. This feature saves you from having to reset your choices every time the IDS Display is unplugged or powered off and on or if there is a power failure.

	Parameter	Available Adjustment		
On Boot Up	Let's Get Started	On first boot up, the Language, Time and Time Zone must be selected		
	Video Port Discovery	When enabled, the monitor will automatically switch if a new video port is connected. Default: Enabled		
	Brightness	Adjust the brightness of the display. Default: 80		
	Brightness Sensor	The light sensor can be toggled on or off. When the light sensor is enabled, the brightness cannot be changed manually. Table for light sensor is in Section 10: Appendix A		
	Contrast	Adjust the contrast of the display. Default: 50		
	Black Level	The user can choose between Standard, 5%, 10% or 15% black level offset. The saturation level of the colors change according to the chosen black level offset.		
Video	Sharpness	Adjusts sharpness of the displayed images. Default: no sharpness adjustment Sharpness function is disabled when the input source ratio is the same as the panels native ratio		
Aspec	Aspect Ratio	 Adjusts aspect ratio of the display. Default: Fill Screen Fill Screen – scales the X- and Y-dimensions of the input video (up or down as needed) to the display's native resolution. Fill Aspect Ratio – Assuming a landscape orientation and an input video with aspect ratio smaller than 16:9, 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 aspect ratio (and fills the rest of the display with equal black bars on the left and right). Direct Output – 1:1, Depends on whether the scalar can support it 		
	Color Temperature	Adjusts color temperature. Color temperature options shall be 9300K, 7500K, 6500K, 5500K, 3200K and User Defined. Default: User Defined		
Color	Color Sensor	Adjusts the display's color based on ambient color Temperature reading.		
Color	User Preset	If the User Preset 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.		
	Picture Modes	Preset color modes that change the color parameters to enhance color definitions. Available modes are: Standard, Movie, Gaming, Photo, Line mode, Color Enhance		

		Default: Standard			
	HDMI Full Color Range				
Audio	Audio Selections	Audio Input: Sets where audio should play from When set to Internal-PC, the audio comes out from the line out on the ECMG4 (ECM Docking) When set to Monitor, the audio comes out from the video source on the monitor Audio Output: Sets where audio should play for When set to Speaker, the audio output to the speaker When set to Line Out, the audio output to the line out on the monitor Mute: enables or disables the audio Default Off			
	Power Loss Behavior	Default: 50 When power to the monitor is lost and regained, the behavior that is chosen will be executed. Always On Always Off Last State Default: Last State			
Power	Power Lock	When enabled, the monitor will remain ON even if the power button is pressed. If this feature is enabled and power to the monitor is lost, when power is regained, pressing the power button will turn on the monitor. Default: Disabled			
	Energy Savings Mode	When Enabled, the monitor must adhere to Energy Star regulations. Default: Enabled			
	Power Status Light	Enable or disable the power status light Default: Enabled			
	Auto Display Wake Up	When Enabled, the light sensor can be used to wake the monitor from sleep mode Default: Enabled			
	Time Set	Option to set the current time			
Time	On/Off Schedule	Set the monitor to turn off and on at specific times. Default: Everyday			

		Off: 01:00:00				
		On: 07:00:00 On: 07:00:00				
On Screen Display	Recall Defaults	Selecting "Recall Defaults" restores all factory default settings for OSD-adjustable parameters (except OSD Language and OSD Time Settings) and for Preset Video Mode timings.				
	OSD Timer	Adjusts how long a period of OSD button inactivity the IDS Display will wait before closing the OSD. The adjustable range is between 5 and 60 seconds. Default: 15 seconds				
	OSD Language	Selects which language the OSD information is displayed in. The available languages are: English, French, Italian, German, Spanish, Russian, Simplified Chinese, Traditional Chinese, Japanese and Korean. Default: English.				
	OSD Lock	When selected, the OSD will not popup when the Menu button is pressed. If the OSD needs to be unlocked, press and hold the Menu button for five (5) seconds. This will cause the monitor to unlock the OSD menu.				
	OSD Portrait Rotation	Adjusts the OSD orientation between Portrait and Landscape mode				
	Touch Switch	Select normal touch mode or touch through mode. Default: Normal mode				
	Tabletop	When Enabled, the thermal profile will be changed. Default: Disable				
	Monitor Information	Displays the IDS Display model and the monitor and touchscreen serial # information				
	System Temperature	Displays the real-time temperature of the Video Board Note: CPU Sensor temperature is only available if the feature is supported by the computer module.				
	Help & Support	Display information regarding Elo Touch Solutions contact information.				

On-Screen Display (OSD) (Optional Elo Part Number – E483757) Connected Through the RJ45 Connection

Five OSD buttons can be found on the OSD remote. There is an LED light which shows the current state of the monitor. The following are the functions that relate to the designated button.

Note: Opening the OSD menu from the remote will disable the touch functions on the OSD menu.



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
\triangleright	n/a	Increase value of selected parameter / select next menu item
Ç	Power for the monitor	Toggles the power status of the monitor
\triangleleft	n/a	Decrease value of selected parameter / select previous menu item

Touch Activated OSD (for ET3203L and ET5053L)

IDS ET3203L/ET5053L can activate OSD menu by clicking 4 character $(3 \rightarrow 9 \rightarrow 3 \rightarrow 9)$.





*Note that only accept single touch to activate OSD menu and each click no longer than 3 seconds.

Audio

Audio can be output from the following locations:

- 1. From the IDS Display speakers via the video channel
- 2. The Line Out port on the IDS IO ports
- 3. From the computers Line Out port (If an Elo Computer Module is installed)

See the "Audio" OSD parameter for details.

Note: When headphone is plugged into the headphone output jack, the internal speakers turn off and audio is played over the headphone.

Volume and muting of the speaker and headphone outputs are controlled by the OSD.

Controlling the IDS Display remotely

The IDS Display allows remote access from a host application. This is done using either the VESA Display Data Channel Command Interface (DDC/CI) or the Multiple Display Control command sets. Users can communicate with the monitor through either of these protocols. The host application can send a variety of different commands which will be executed on the IDS Display. For detailed information regarding the command set, refer to the application note available <u>here</u>.

CEC Functionality (Consumer Electronic Control)

The IDS Display is equipped with CEC capability. If a host device (with CEC built in) is connected to the monitor through HDMI, the monitor can be turned on by only turning the host device on.

Real Time Clock (RTC) Functionality

This IDS Display has real time clock functionality. In the OSD menu, there is a sub-menu called RTC Settings.

To utilize the RTC functionality:

The user must set up the Time setting for their specific time zone.

When the On/Off Schedule is Enabled, the user can choose when to leave the monitor on and when it should be off. Individual or multiple days can be chosen.

Example:

Have the monitor ON for Monday, Wednesday and Friday between 9:00AM and 5:00PM. All other days and time, the monitor shall be OFF.

- Enable the On/Off Schedule
- Select M W F
- Set the ON time for 09:00:00 and the OFF time for 17:00:00

*Note that all of time settings operate on the 24-hour clock.

Wake-On-Touch

The touch display supports wake-on-touch functionality when the PC is in sleep mode. To enable this, please ensure that the BIOS settings have enabled USB support during the S4 sleep cycle.

Intelligent Brightness Control and Color Sensor Functionality

This IDS Display includes a light and color sensor that can adjust the brightness of the screen and the color of the display to meet the ambient light and color levels. Details of the functionality can be found in the Section 10, Appendix A.

The light sensor can be used to wake the monitor from sleep mode. This will happen when there is a change in the amount of light from very dim (<50 lux) to bright (>200 lux). To enable this feature, ensure that the power saving mode for the monitor is disabled.

Energy Saving Mode

IDS ET3203L/ET4303L/ET5053L can meet Energy Star 8.0 requirements, if Energy Saving Mode is enabled. When Energy Saving Mode is enabled, four side peripheral ports, MDC command and Auto Display Wake Up function will be limited. To restore full functionality of the IDS Display, disable the Energy Saving Mode



ENERGY STAR is a program run by the U.S. Environmental Protection Agency (EPA) and U.S. Department of Energy (DOE) that promotes energy efficiency.

This product qualifies for ENERGY STAR in the "factory default" settings and this is the setting in which power savings will be achieved.

Changing the factory default picture settings or enabling other features will increase power consumption that could exceed the limits necessary to qualify for ENERGY STAR rating.

For more information on the ENERGY STAR program, refer to energystar.gov.

Stylus (Active and Passive) (Optional)

Elo provides active stylus pens that can be used on the projected capacitance version of the monitor. Elo Active Stylus Part Number: E216215 (only available for ET5053L) Note: The minimum distance between two monitors should be 72cm (28.35in) \pm 10%

Elo also provides passive stylus pens that be used on the Infrared version of the monitor which can be used simultaneously with finger for touch. Elo Passive Stylus Part Number: E727568 (Only available for IR sku)

Glove Support

IDS ET3203L/ET4303L/ET5053L can support glove thickness from 0.1mm to 1.4mm, **please switch to touch through mode when using thicker glove**. The gloves used for IDS ET3203L/ET4303L/ET5053L are as below.



Latex surgical glove (0.1mm)



Thicker glove (0.7mm - 1.4mm)

*Note that touch performance is highly depending on type of glove used. Thickness and material are the main factors. A thicker glove will result in a poorer touch performance.

Elo Edge Connect micro-USB peripheral ports

Available on all four sides of the monitor. The micro USB ports are designed for Elo's optional peripherals. See <u>www.elotouch.com</u> for the optional peripherals that work with the IDS ET3203L/ET4303L/ET5053L display.

The pinout is as follows: Pin1: 5V Power Pin2: USB D-Pin3: USB D+ Pin4: NC Pin5: Ground

Huddle Kit (Optional)

Elo provides an optional Huddle kit (P/N E380925) which includes Elo's Conference Camera and i5 Windows 10 Computer Module complete with an intuitive dashboard interface for easy navigation to the pre-installed whiteboarding and wireless BYOD content-sharing software. The launcher also allows for quick access to any 3rd party video conferencing and office productivity software.

Conference Camera (Optional)

Elo provides an optional camera module (P/N E277819) which has a built-in microphone. This camera is designed for video conferencing meetings and supports 1080P Full HD video output.

Whiteboard Software (Optional)

Qwizdom Octopus – Can be used for whiteboard applications and presentations. The user guide for this software is available at https://gwizdomoktopus.com/user-guide/

Section 6: Maintenance Information

To avoid risk of electric shock, follow all safety notices and do not disassemble the IDS Display or Computer Module. They are not user serviceable.

Do not block or insert anything inside any of the ventilation slots.

The IDS Display is equipped with a 3-wire, grounding power cord. The power cord plug only fits into a grounded outlet. Do not fit or modify the plug into an outlet that has not been configured for this purpose. Do not use a damaged power cord. Only use the power cord that came with your Elo IDS Display. Use of an unauthorized power cord may invalidate your warranty.

Ensure that the system is maintained and runs within the specified environmental conditions listed in the products specifications available on the Elo Touch Solutions website <u>www.elotouch.com</u>.

Section 7: Technical Support

Technical Assistance

Technical Specifications

visit **www.elotouch.com/products** for technical specifications for this device

Support

visit www.elotouch.com/support for technical support

Refer to last page for worldwide technical support phone numbers.

Section 8: Regulatory Information

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.

Elo has put in place recycling arrangements in certain parts of the world. For information on how you can access these arrangements, please visit www.elotouch.com/e-waste-recycling-program/.

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.

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 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. This device complies with Part 15C of the FCC Rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interference; and

2) This device must accept any interference, including interference that may cause undesired operation of the device.

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 Industrial Canada.

CAN ICES3(A)/NMB3(A)

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage;et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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 A 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 the 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.

Agency Certifications

The following certifications and marks have been issued or declared for the IDS ET3203L/ET4303L/ET5053L monitor:

- UL, FCC (US) Class A
- cUL, IC (Canada)
- CB (International safety)
- CE (Europe) Class A
- RCM (Australia)
- VCCI (Japan)
- CCC (China) (for TouchPro version only)

China RoHS

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In accordance to Chinese law (Management Methods for the Restriction of the Use of

Hazardous Substances in Electrical and Electronic Products), the section below lists out the name and amount of the toxic and/or hazardous materials that this product may contain.

ငြာ ၈၀၀		Hazardous Substances				
Component Name	Lead (Pb)	Mercury (Hg)	Cadmium(Cd)	Hexavalent Chromium (Cr6+)	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Plastic Parts	0	0	0	0	0	0
Wire and Cable Assembly	0	0	0	0	0	0
РСВА	Х	0	0	0	0	0

This table is prepared in accordance with the provisions of SJ/T 11364

O: Indicates that said hazardous substance contained in all homogenous materials for this part is below the limit requirement of GB/T 26572.

X: Indicates that said hazardous substance contained in at least one of the homogenous materials used for this part is above the limit requirement of GB/T 26572.

For items marked with X, exemptions were taken according to EU RoHS.

Explanation of Markings

In accordance with the SJ/T11364 requirement, electrical and electronic products are marked with the following pollution control logo.

The Environment-Friendly Use Period for this product is 10 years. The product will not leak or mutate under normal operating conditions listed below, so that the use of this electronic information product will not result in any severe environmental pollution, any bodily injury, or damage to any assets.



Operating Temperature: See table on next page. Storage Temperature: See table on next page.

It is encouraged and recommended that product packaging be recycled and reused according to local laws.



Power Specifications

Electrical Ratings

Input

100 - 240 VAC 50/60Hz

Operating & Storage Conditions

Operating Conditions

Temperature	Portrait/Landscape/Tilt (≤15°) 0°C - 40°C / 32°F to 104°F
	Tabletop 0°C - 35°C / 32° F to 95° F
Humidity	20% to 80% (non-condensing)

Storage Conditions

Temperature	-20°C - 60°C / -4° F to 140° F
Humidity	10% to 95% (38.7° C max wet bulb temperature)

Section 9: Warranty Information

For warranty information, go to http://support.elotouch.com/warranty/

Section 10: Appendix A

Light Sensor Curve



Color Sensor

The color sensor functions according to the following chart:



www.elotouch.com

Visit our website for the latest

- Product Information
- Specifications
- Upcoming Events
- Press Releases
- Software Drivers
- IDS Display Newsletter

To find out more about our extensive range of Elo touch solutions, go to **www.elotouch.com**, or call the office nearest you.

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