USER MANUAL

Elo Touch Solutions
I-Series 3.0 for Android™

Android with Google Play services

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Section 1: Introduction

Product Description

Your new I-Series 3.0 Interactive Signage system combines the reliable performance from Elo 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 I-Series 3.0 system.

This I-Series 3.0 system incorporates an active matrix thin-film-transistor and LCD panel to provide superior display performance. Features that enhance system performance include:

- Projected Capacitive (PCAP) touchscreen

- Plug & Play compatibility

- micro-HDMI Out

- LAN/Wi-Fi/Bluetooth

- Built-in microphone and speakers as well as audio output capability (via an optional USB dongle)

- A general-purpose input/output header via an optional GPIO cable

List of compatible optional peripherals for the I-Series are listed in the product page at www.elotouch.com.

This manual contains detailed guidelines for operating (Sections 2 and 3) and maintenance (Section 4) of your new I-Series 3.0 system.

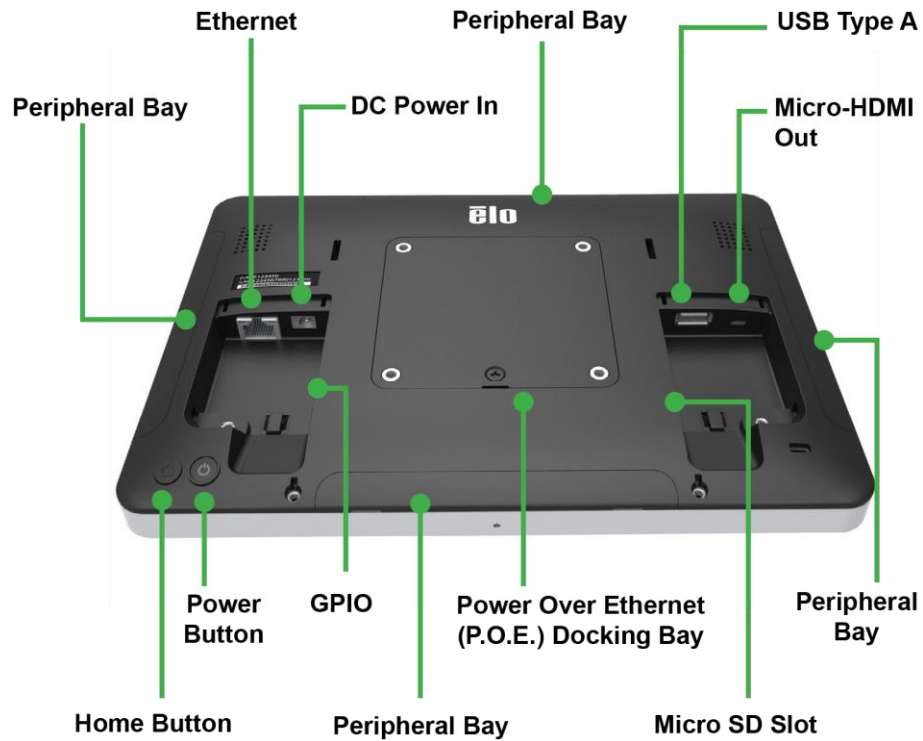# Section 2: Unpacking and Operation

Box Contents

Verify that the box contains:

- I-Series 3.0 system

- Quick Install Guide

- Power brick

- North American Power Cable

- Europe Power Cable

- Two (2) screws

The connectors are accessed by removing the cable security covers from the rear of the I-Series 3.0 system.

Elo I-Series 3.0

Ethernet Peripheral Bay USB Type A

Peripheral Bay DC Power In Micro-HDMI Out

Power Button GPIO Power Over Ethernet (P.O.E.) Docking Bay Peripheral Bay

Home Button Peripheral Bay Micro SD Slot

Note: side peripherals, micro-HDMI out, microphone and webcam are not available on the I-Series Value SKU's

Kiosk Mode/ Managed OS

- Android Navigation, Status Bar and device buttons disabled
- EloView maintains an app or a webpage in the foreground
- System pop-ups disabled
- Built-in peripheral support
- Security updates

Content Delivery/ Playback

- Upload Android apps and websites (online/ HTML kits) to a library
- Remotely and silently install Apps to field devices
- Apps do not need to be re-built to run on Elo platform

Device Management

- See connection status, screenshot, device parameters
- Set a number of device settings; reboot and data reset remotely
- Deliver over-the-air (OTA) upgrades remotely and silently

Automated Provisioning

- Device calls home upon initial startup out of the box to retrieve instructions
- Set up an app to auto-download, install and play on device connect
- Can be used to set up a third party device management or content agent

Installing the Elo Power over Ethernet module with the I-Series 3.0 (POE)

1. Unplug ALL ethernet and power cables from the device before installing the POE adaptor. Installing the adaptor with either of these cables connected will damage the device.
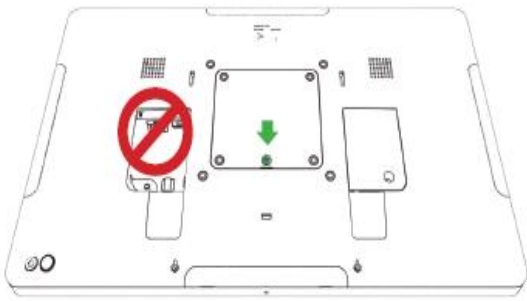
3. Plug Elo power-over-ethernet (POE) adaptor into recess, ensuring connector on bottom of adaptor lines up with the connector on the back of the I-Series 3.0.

Connector
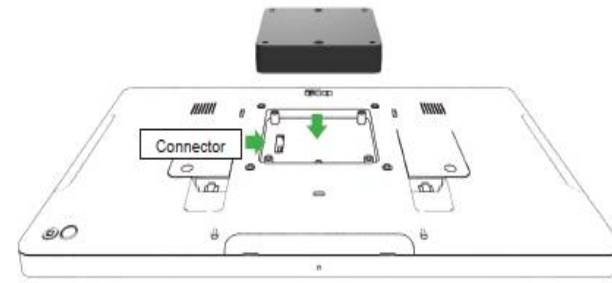
2. Remove screw, then lift cover.
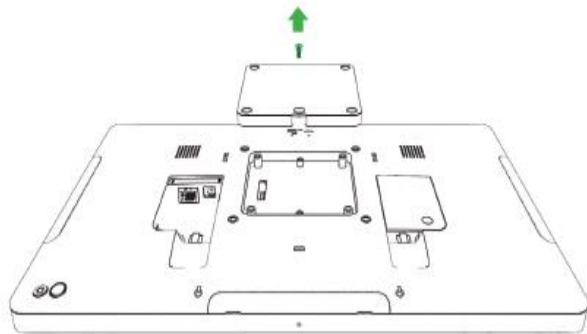
4. Secure adaptor to the I-Series 3.0 using 2 m3x16 screws (included).

User Manual – I-Series 3.0

Installing the POE optional spacer

5. Install optional spacer included if using 100 x 100mm VESA mount. Place it over the adaptor before adding VESA mounting bracket.
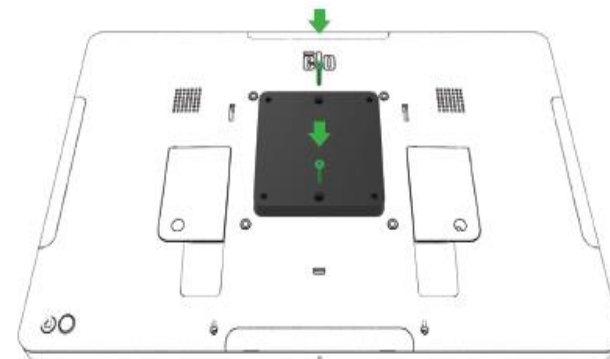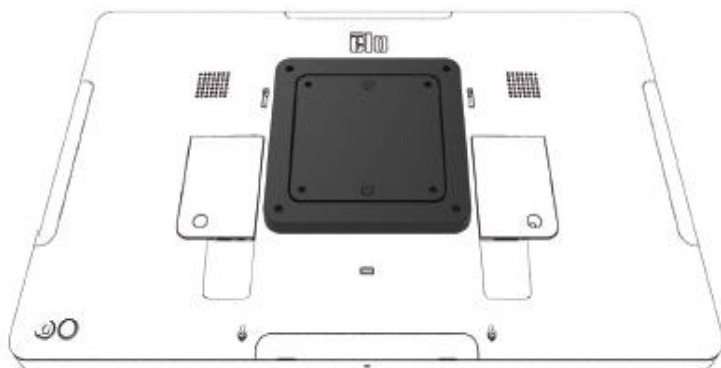
POE source must be UL / CUL Listed and have the mark showing that it is an approved equipment.
POE source must conform to standard POE+ (802.3at Type 2)

Warning: When using POE, do not connect the Ethernet cable before connecting the POE module.

Wallmounting Option: Use any standard VESA mount to wallmount the I-Series 3.0 when PoE is installed.

6. Attach VESA mounting bracket (not included) with screws long enough to pass through the adaptor and into the threaded holes of the I-Series 3.0 VESA mount. Elo recommends M4x16mm screws. Exact length of the screws depends on the thickness of VESA mount.

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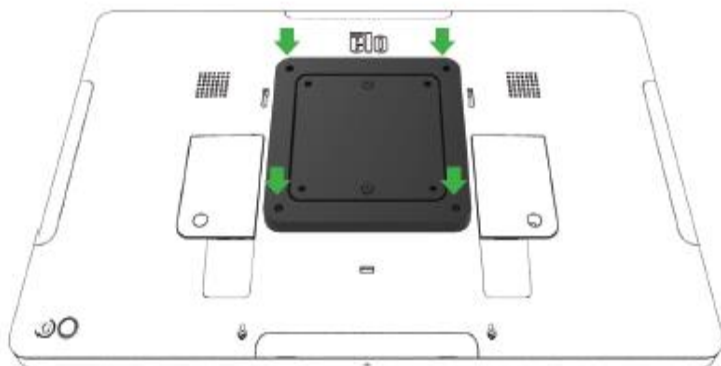
Power

The first time the DC power is connected to the system, the system will automatically turn on.
Press and hold power button when the system is on to bring up the Power Off option popup.

In the event that the system freezes and does not respond, press and hold the power button until the system turns off. If the system does not turn off via the power button, the system will need to be powered down by unplugging the power cord from the wall.

The Elo I-Series 3.0 power button is equipped with an LED that indicates the power status of the system, as follows:

Power status	Led status
OFF (disconnected from wall)	Off
OFF (connected to wall)	Red (Solid)
SLEEP	White (Blinking)
ON	White (Solid)

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 www.elotouch.com.

To bring the system out of sleep/standby mode, press the power button once. If the system is in sleep mode, touching the screen will wake up the system

If long periods of non-use are planned, turn off and unplug your Elo I-Series 3.0 to save power.

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

Product	Operating Voltage Range	Operating Frequency Range	Operating Current
10.1in	100 - 240Vac	50 – 60 Hz	1.8A
15.6in	100 - 240Vac	50 – 60 Hz	2.0A
21.5in	100 - 240Vac	50 – 60 Hz	2.5A

Operating System

System comes with Android 8.1 pre-loaded.

Touch Technology

The I-Series 3.0 uses Projected Capacitive touch screens, 10 simultaneous touches can be reported at one time.

Gesturing Images

Dual Touch Gestures and their Functions:
Swipe – The action of moving a finger across the screen.
 The ability to swipe through from one picture to another or drag an icon

Pinch-Zoom – Zoom into a picture
- Place two fingers on the screen and move them closer together to zoom in. Move your fingers away from each other to zoom out.

Before zoom

After zoom

Video

An LCD panel's 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 image resolution matches the LCD panel's native resolution.
10.1" is 1280 x 800, 15.6" and the 21.5" operate at 1920 x 1080.

Audio

Earphone out and Audio In are supported over the USB port using a dongle (Vantec NBA-120U or similar).

Wi-Fi + Bluetooth

The following protocols are supported for Wi-Fi and Bluetooth:

- Bluetooth 4.1+ BLE, A2DP/ HID (Keyboard/Mouse)/Barcode scanner support
- IEEE 802.11b/g/n/ac; WEP/WPA/WPA2 capable

Dynamic Frequency Selection

Dynamic Frequency Selection is available for the 5Ghz WiFi channels.

The following channels are supported:

Channel 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144

To enable Dynamic Frequency Selection (DFS) channels, there are two methods available:

From the device:

- Enter the Android Settings
- Open WLAN
- Click on Gear icon ⚙
- Enable the DFS switch.

From Eloview Cloud Portal:

- Select the device from the Eloview portal
- Go to the Settings tab
- Enable DFS

HDMI Output

I-Series 3.0 is equipped with a micro-HDMI port that can support a secondary monitor with HDMI (1920 x 1080 @ 60) input. When using an Elo touch monitor as a secondary display, you can enable touch by connecting a USB cable to the I-Series 3.0 type A USB port.

Note: This feature is not available on the Value SKUs

General-purpose Input/Output (GPIO) Support

The I-Series 3.0 supports a GPIO which can be used under the following conditions:

- Max Current: 200mA

- There are two input connections and one output connection.

Pin 1 → 5 Volt output connection
Pin 2 → Input connection 1
Pin 3 → Input connection 2
Pin 4 and Pin 5 are tied to ground

Elo has an optional GPIO cable (PN: E086398) which extends this GPIO connection so that it is easy for users to connect their own peripherals.

G-Sensor

All I-Series 3.0 units are equipped with a g-sensor and will rotate the video based on the orientation of the device.

Power Over Ethernet (PoE, Elo Part Number: E615169)

The I-Series 3.0 devices support the Elo peripheral for power over Ethernet (PoE). When connected, a dynamic power manager can be used to enable or disable specific items.

Note: when the PoE is connected, certain features are disabled to maximize available functions.
Refer to the table below for what will be available with POE:

	10.1 Value w/POE	15.6 Value w/POE	10.1 Standard w/POE	15.6 Standard w/POE	21.5 Standard w/POE
Micro SD Card	Available	Available	Available	Available	Available
Wi-Fi	Available	Available	Available	Available	Available
Bluetooth	Available	Available	Available	Available	Available
Camera	Not Available	Not Available	Available	Available	Available
Touch	Available	Available	Available	Available	Available
Audio	Available	Available	Available	Available	Available
Ethernet	Available	Available	Available	Available	Available
USB Peripheral ports	Not Available	Not Available	1 port user selectable**	1 port user selectable**	1 port user selectable**
USB 3.0 Type A	Available	Available	Not Available	Not Available	Not Available
HDMI Out	Not Available	Not Available	Not Available	Not Available	Not Available
GPIO	Available	Available	Available***	Available***	Available***

* Audio – if enabled, will be limited to 50% volume
** USB Peripheral Ports – 1 side peripheral port can be enabled
*** The 5V power pin is disabled when using PoE
Note: when using PoE with the 21.5 I-Series 3.0, brightness will be limited to 70%.

Global Positioning Satellite (GPS)

The I-Series 3.0 supports GPS functionality through software where the user can input the longitude and latitude coordinates to pinpoint the location of the specific device. This allows the GPS to function even indoors. In your EloView cloud account, enter the Edit mode under Details and the GPS option will be accessible.

Details	Software	Settings	Whitelist

Device Name
Device Name ▲▾

Site Name
Name

Device Model Name

Site Contact
First   Last
Phone Number

Address
Street Address
United States ▼
City
California ▼   Zip

GPS Co-ordinate
Latitude   Longitude

For more details on how to use this feature, please reference the apps notes at http://www.elotouch.com/eloview

USB Control

The I-Series 3.0 provides control for each individual USB port. Any specific USB port can be enabled or disabled.

From EloView:
Select the port that you want to enable or disable. If the lock is green, then the USB port is enabled. If the lock is red, then the port is disabled.
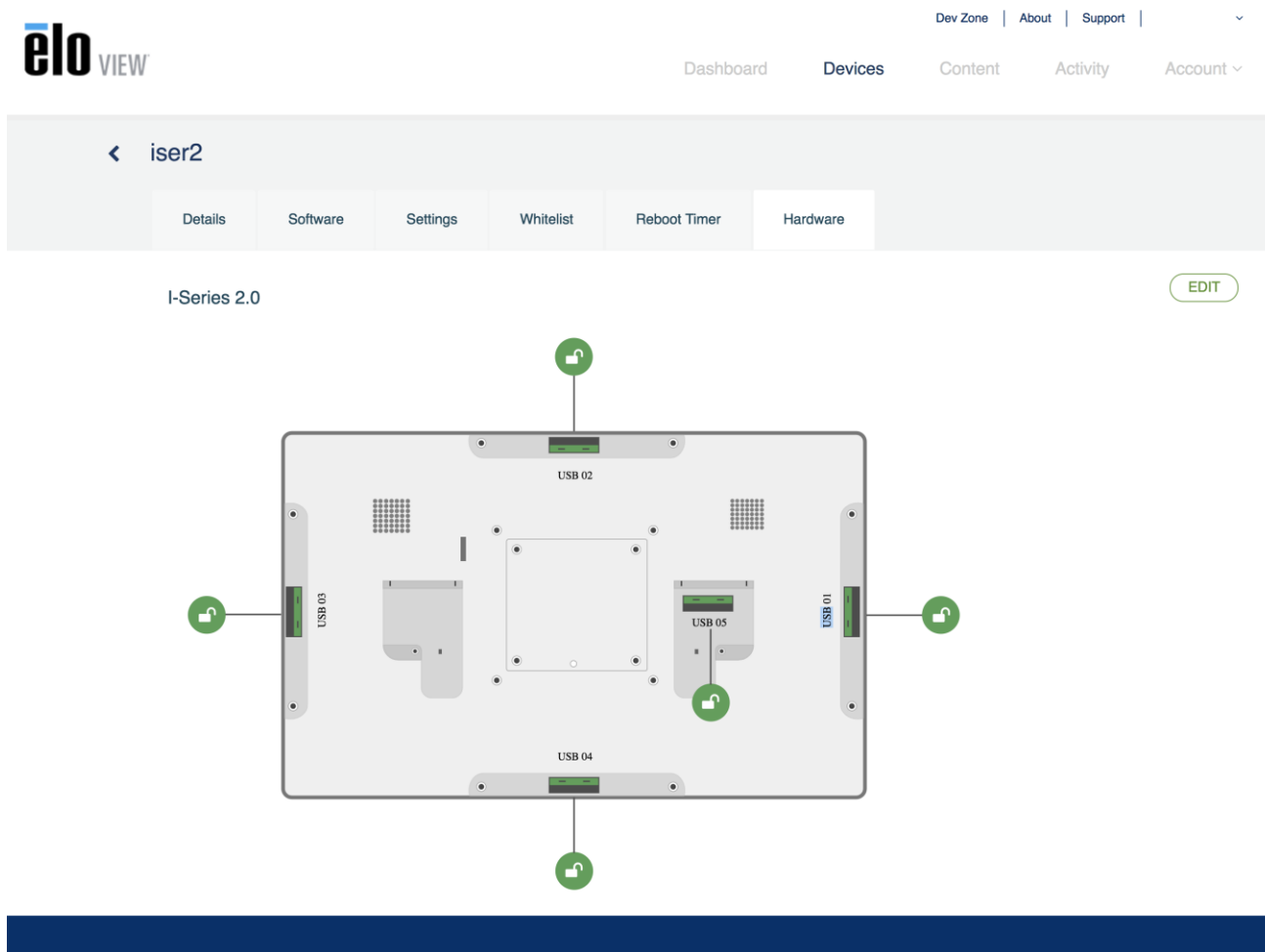
From Android Settings → USB port:

USB port

USB Port 1 (Type A USB)
Type A USB port on the left side of the unit

USB Port 2 (Micro USB)
Micro USB port on the left side of the unit (near type-A USB port)

USB Port 3 (Micro USB)
Micro USB port at the top of the unit

USB Port 4 (Micro USB)
Micro USB port on the right side of the unit (near LAN port)

USB Port 5 (Micro USB)
Micro USB port at the bottom of the unit
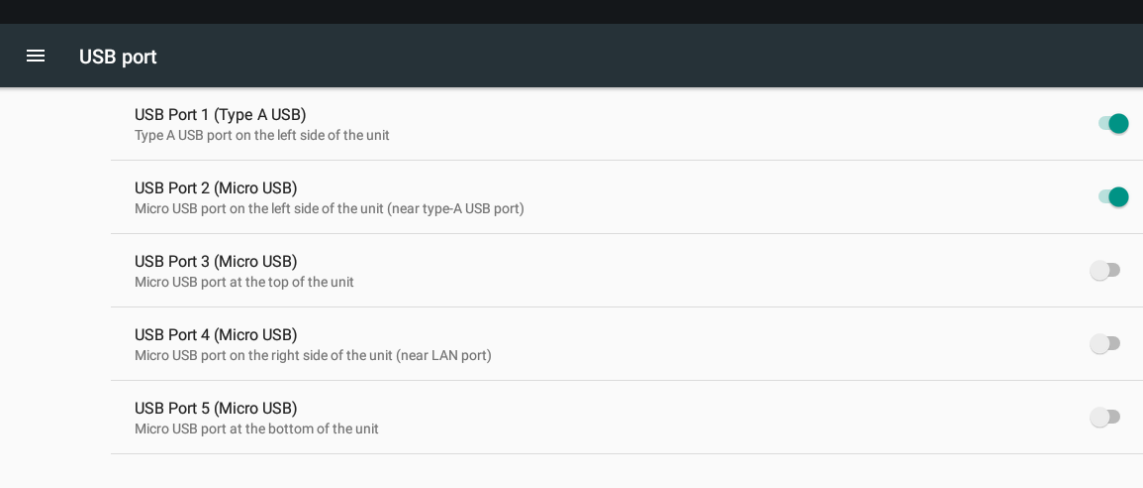
Android Debug Bridge (ADB) control

The I-Series 3.0 supports debugging via Wi-Fi/Ethernet or using the Type A USB port.

Enter the Android Settings → Android Tablet → tap 7 times on the Build Number to enter developer mode. Go back to the Settings and you will see "Developer Options." From here, enable the option called "USB debugging."

To connect via Wi-Fi, ensure that your I-Series 3.0 is online and not behind a firewall. Find the IP address (by going to Settings → About Phone → Status → IP Address. On your host computer, use the command adb connect <IP address> to be able to perform ADB actions.

To connect via Ethernet, enter the Developer Mode and enable the "Ethernet debugging with static IP" option. Connect the Ethernet cable and run the command adb connect 192.168.1.5 to connect to the device.

To connect via the Type A USB port, perform the following steps:

- Ensure the USB cable (type A) is not connected to the I-Series 3.0.

- From the settings, enter Developers Options

- Turn on the "Enable USB Debugging" option

- Turn on "Switch USB to device mode" option.

Note, enabling this option will cease communication between the USB peripheral ports.

- Plug USB cable into the Type A USB port.

- In the host PC, input "adb devices" to check if the I-Series 3.0 serial number shows up. If it is there, then you have connected successfully.

Note: When connecting to ADB over the USB port, all external USB ports will be disabled.

Intelligent Brightness Control

To extend the life of the panel, Elo incorporates intelligent brightness control which disables the panels backlight during hours when the system is not being used.

This function is fully controllable through your EloView account. Navigate to the Settings tab and use the dropdown menus that relate to the Display Timer.
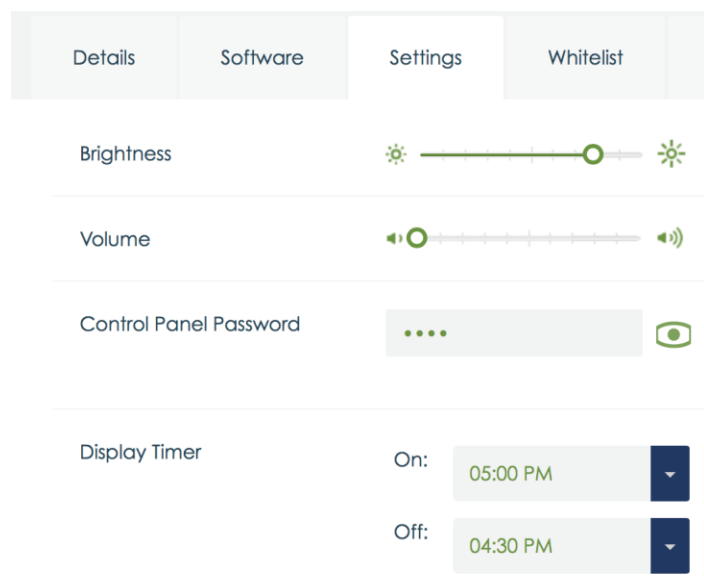
The default for this function is ON and will turn off the backlight during the hours of midnight and 6AM daily.

Secure Digital Card (SD Card)

The I-Series 3.0 supports up to 128GB SD cards.

Camera and Microphone (for standard models only)

The I-Series 3.0 has a built-in microphone located on the bottom of the device when viewed in landscape mode.

There is also a built-in camera located near the top of the device when viewed in landscape mode.

The camera supports up to 1080p @30hz, automatic image control, automatic exposure, automatic white balance and automatic gain control.

Section 3: Optional Accessories

Near Field Communication (NFC) Functionality (Elo Part Number: E001004)

The following NFC protocols are supported:

- ISO-14443-A

- ISO-14443-B

Interfaces

- RS232 and USB2.0 interfaces by use of corresponding cables.

- USB 2.0 compliant interface configurable to support USB HID: Keyboard, or USB Virtual COM.

- RS232 data output baud rate up to 115.2K BPS

Payment Applications

- American Express ExpressPay

- Discover ZIP

- MasterCard PayPass/MCHIP

- Visa MSD/qVSDC

- Google™ wallet

- Softcard

MIFARE Applications

- Read/Write of MIFARE Plus/Classic/Ultralight/DESFire cards

- Support MIFARE higher baud rate up to 424KHz

Barcode Scanner Functionality 1D (Elo Part Number: E093433)

- Incorporates proximity detector to activate Bar Code Scanner.

- Outstanding scanning performance up to 270 scans per second.

The following are the factory standard default settings:

Items	Default setting
Interface	HID USB
Language (Keyboard)	English
Reading mode	Good read off
Terminator	CR
RS232 baud rate	9600
Data bits	8 bits
Stop bits	1 stop bit
Parity	None
Code ID	Off
Accuracy	Read 1 time
Emulate external keyboard	Disable
Enable 1D symbologies	
UPC-A , UPC-E , EAN13 , ENA8 , CODE39 , CODE93 CODABAR , CODE128 , MSI/Plessey , CODE32 CODE11 , TELEPEN , GS1 DataBar Omnidirectional GS1 DataBar Limited , GS1 DataBar Expanded Interleaved 2 of 5 , Industrial 2 of 5 , Matrix 2 of 5	

Barcode Scanner Functionality 2D (Elo Part Number: E926356)

To customize the BCR, download the EZconfig application from Honeywell on a Windows PC. From here, all settings for the BCR can be changed.

The tools can be downloaded from the **here** and selecting the Software tab.

Incorporates proximity detector to activate the 2D Bar Code Scanner.

The Elo Barcode Scanner is ready to use in default mode. The scanner default mode is:

- USB Virtual COM port interface

- Presentation mode (always ON)

- Beep on scan

- Set up to read most common codes.

USB Keyboard Mode

TERMID124.

USB HID Mode

TERMID131.

Please note: USB Keyboard mode will automatically add a CR (carriage return) suffix.

To return the scanner to the default configuration mode (USB Virtual COM Port), scan the barcode below:

TERMID130.

For additional settings and configurations, please visit the product page on www.elotouch.com

Magnetic Stripe Reader (MSR) Functionality (Elo Part Number: E001002)

Default settings include:
The MSR can operate in keyboard mode.
Capable of reading 3 tracks.
Security level and Encryption function: OFF

Instructions how to change from Keyboard emulation to ASCII data:
Perform the following instruction sets by connecting the MSR to a Windows PC.
Download and install the USB Swipe and Insert Reader demo at: https://www.magtek.com/Content/SoftwarePackages/99510026.exe
**when prompted to install source code during the installation - choose no
Left click start, go to all programs, find MagTek and open USBMSR demo.
Ensure your reader is plugged in. On the bottom of the program, it will say detected HID mode device.

Once installed, open the USBMSR application. You will be sending commands to the device using the "Send Msg" text box to the right of the "Send Msg" button. Ensure the Set focus... and Auto Add Length check boxes are checked:
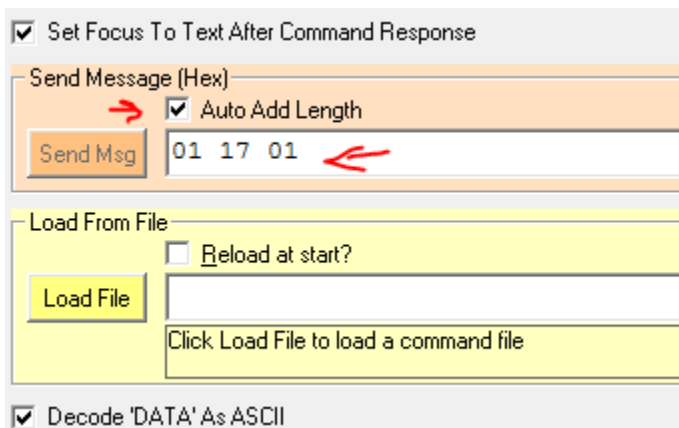
To change to ASCII mode, send: 011701
Place the above in the text box and click the "Send Msg" button.

To reset the unit (so the changes take effect) you will send: 02
Place the above in the text box and click the "Send Msg" button.

If the device is set to Security Level 3, Remote Services would be used:

Using a browser, go to: https://rs.magensa.net/rs2/app/publish.htm
On that page select the "Install" button
Save and then run the setup.exe file
Once installed, you will be presented a login page:
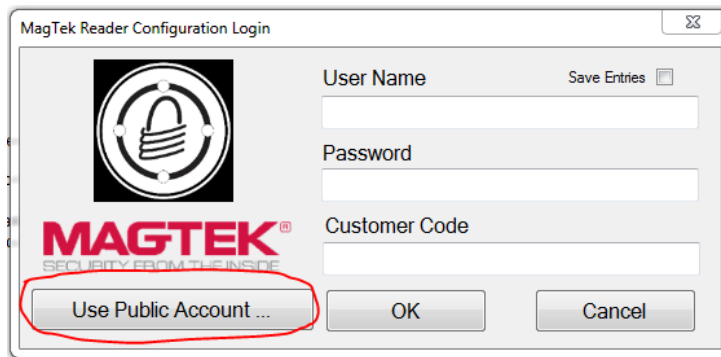
Select the "Use Public Account…" button.

You will then be presented the utility page and you will perform these steps:

- In the Reader Config Options drop-down list, select "ASCII_KEYPRESS_ON"

- Click the "Change Config" button

- Click the "Reset" button for the change to take effect
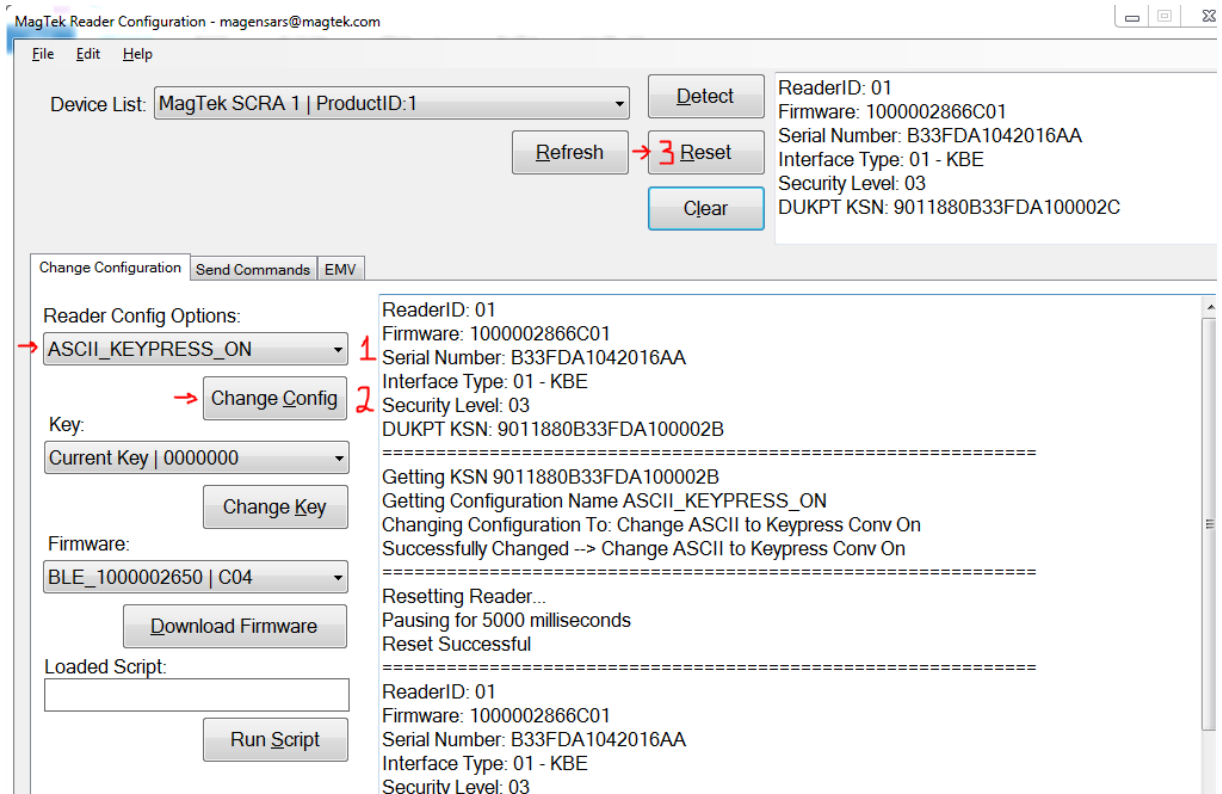
3G/4G LTE Module Information

The following devices from ConnectedIO are supported:

- North America: EM1000T-NA

- Europe: EM1000T-EU

Refer to the links above for more details about the modems.

Software Section (Download SDK from www.elotouch.com)

Glossary

Abbreviation

SoC: System on a chip

1. Terms

- IDLE_MODE: ELO specification for device interaction with POWER_KEY action

- MSR: Magnetic Stripe Reader

- BCR: Barcode Reader

- NFC: Near Field Communication

- ELOPeripheralService: The fundamental class to provide different functions for ELO application developmentEx

2. System Overview

Fig 3-1 shows the software stack of Android system. This implementation based on Android design and extends the framework functionality at java services layer to fulfill customer requirement. The extended functionality at java service is named as "ELOPeripheralService" which provides the interfaces for application development.
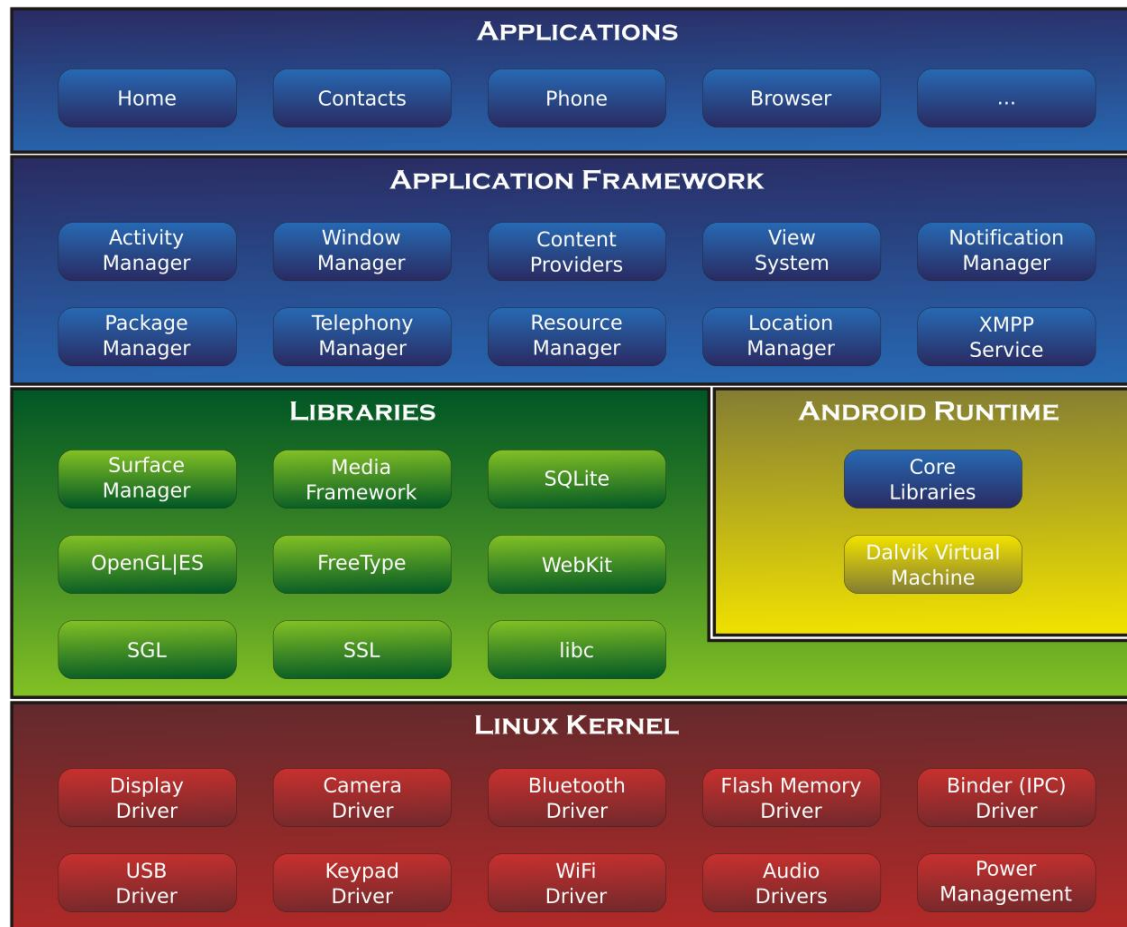
Fig 2-1. Android System Structure

2.1. Android Framework Java Service

Based on developed programming language, Android services can be divided into native (C base) and java service. Android services are a kind of server-client structure where the server side can receive a request from the client and output the result to client. Also, the server-client structure can deal with synchronization issues from multi-client requests. Therefore, this framework ability, which forms the fundamental class "ELOPeripheralService," is based on this kind of server-client design feature from Android.

2.2. ELOPeripheralService

ELOPeripheralService is the major module to act client request from application layer. In order to complete the Android framework system design for service then below classes is added into system:

- **ELOPeripheralNative -** Execution of some native-C function flows for ELOPeripheralService

- **ELOPeripheralManager -** Provides the interface to the application layer, which is the client component relative to ELOPeripheralService

- **EloPeripheralEventListener -** Application extends abstract class to receive the driven event from EloPeripheralManager. Uses event driven notification method to notify the application program about the status change

- **IELOPeripheralService.aidl -** Android programming language for java layer IPC communication. Used for Client-Server (ELOPeripheralManager-ELOPeripheralService) IPC communication where sending the application's request to server side

- **IELOPeripheralServiceListener.aidl -** Android programming language for java layer IPC communication. Used for server to notify the event driven status change to ELOPeripheralManager then ELOPeripheralManager will notify to application layer
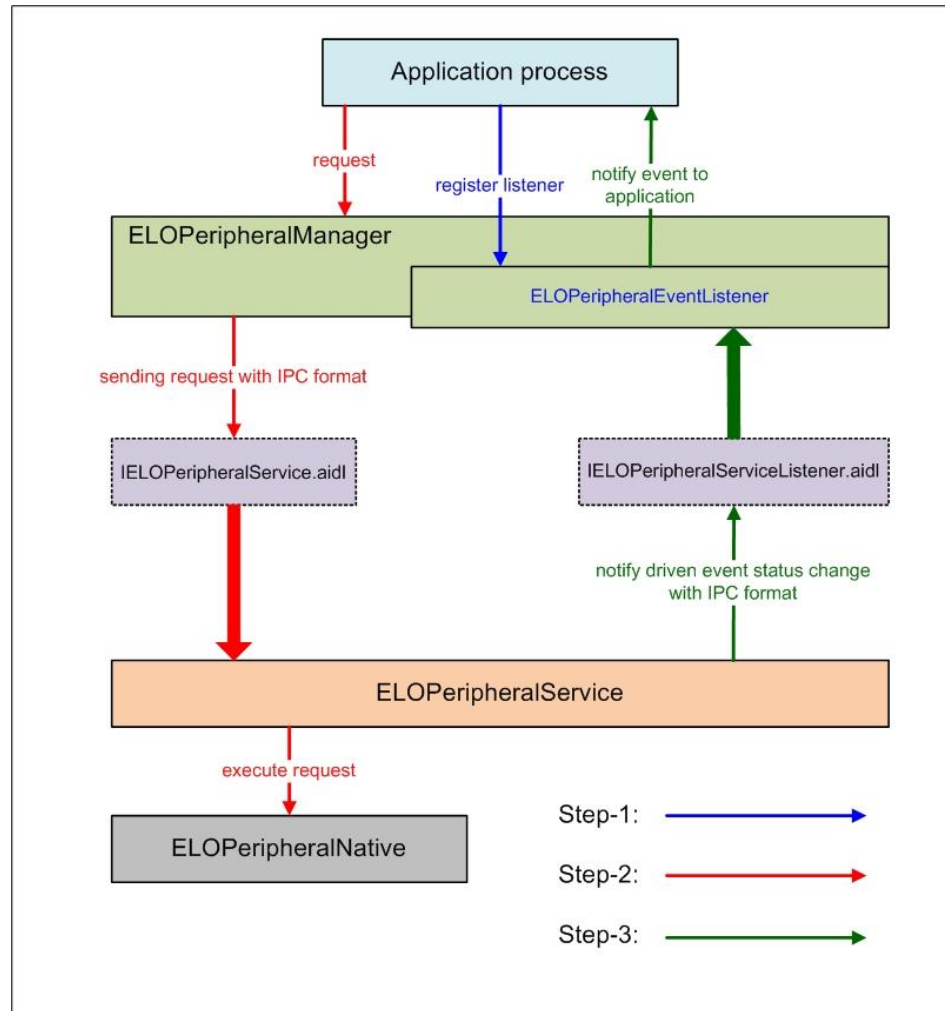
Figure 2-2. ELOPeripheralService

3. ELOPeripheralManager and ELOPeripheralEventListener

As we mentioned at last section, ELOPeripheralManager and ELOPeripheralEventListener will be the component to provide interface for application development. Therefore, we provide the inner member data of ELOPeripheralManager and ELOPeripheralEventListener as below.

3.1. ELOPeripheralManager

Inside this manager contains some inner class member as below and for each inner class provides specific functionality to peripheral equipment or defined action flow.
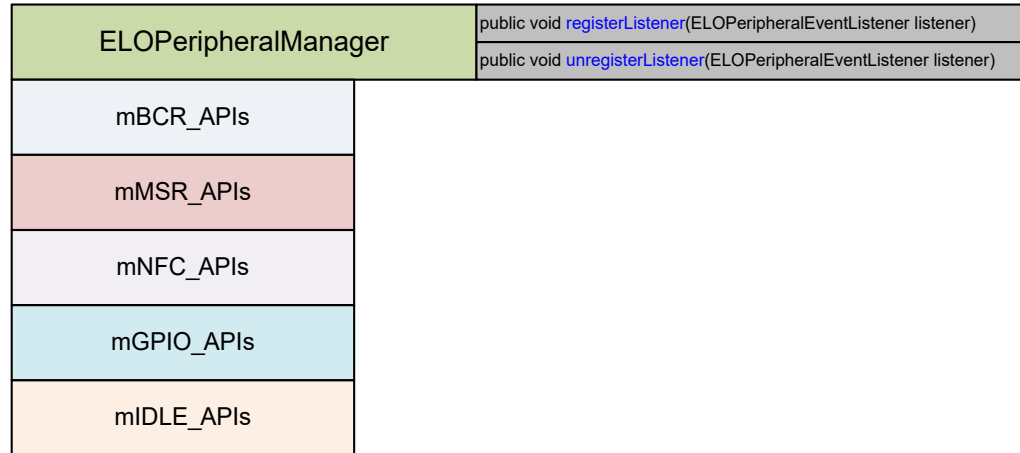
ELOPeripheralManager	public void registerListener(ELOPeripheralEventListener listener)
	public void unregisterListener(ELOPeripheralEventListener listener)
mBCR_APIs	
mMSR_APIs	
mNFC_APIs	
mGPIO_APIs	
mIDLE_APIs	

- **public void registerListener(ELOPeripheralEventListener listener) -** Provide interface for application to register the feedback structure instance. Needs to register before request (Activity life cycle: onResume)

- **public void unregisterListener(ELOPeripheralEventListener listener) -** Provide interface for application to unregister the feedback structure instance. Needs to unregister before leave the application (Activity life cycle: onPause)

3.1.1. BCR

```
public class BCR {
    public boolean activeBCR() throws RemoteException {}

    public boolean disactiveBCR() throws RemoteException {}

    public boolean isBCRDeviceConnected() throws RemoteException {}
}
```

- **activeBCR -** Activate the BCR device to reading the barcode data. BCR is active and successful reading the barcode sequence data then system by "ELOPeripheralEventListener" to notify application about the receiving data

- **disactiveBCR -** Deactivate the BCR device reading action

- **isBCRDeviceConnected -** Check the BCR device is connection with Android device or not

3.1.2.   GPIOs

```
public class GPIOs {
    public void pullHighGPIO (String iface) throws RemoteException {}

    public void pullLowGPIO (String iface) throws RemoteException {}

    public String[] getGPIOInterafces () throws RemoteException {}
}
```

- **pullHighGPIO -** Pull high the state of GPIO-iface

- **PullLowGPIO -** Pull low the state of GPIO-iface disactiveBCR

- **getGPIOInterfaces -** Get the list string data of interest GPIOs at designed system.

Refer to Table 3-1 GPIOs list

Note: The pull action only workable with output pin defined GPIO. The input pin defined GPIO can notify the application about the status change by "ELOPeripheralEventListener" also

GPIOs	PIN define
gpio80	Output
gpio81	Input
gpio82	Input

Table 3-1 GPIOs List

3.1.3.   IDLE

```
public class IDLE {
    public boolean activeIdleMode () {}

    public boolean disactiveIdleMode () {}
}
```

- **activeIdleMode -** Force system to enter IDLE_MODE (IDLE_MODE on)

- **disactiveIdleMode -** Force system to leave IDLE_MODE (IDLE_MODE off)

3.2. ELOPeripheralEventListener

```java
public abstract class ELOPeripheralEventListener {
    /**
     * Active barcode scanner reading function by USB-ID-PIN
     */
    void onBCR_StateChange(int state, String data) {
    }

    void onGPIO_StateChange(int state, String data) {
    }
}
```

- **onBCR_StateChange -** Refer to Table 3-2. Notify the application about the BCR status change data

- **onGPIO_StateChange -** Refer to Table 3-2. Notify the application about the GPIOs status change data

BCR state	value
ELOPeripheralManager.BCR_STATE_DEVICE_CONNECTION	1 << 0
ELOPeripheralManager.BCR_STATE_DEVICE_DISCONNECTION	1 << 1
ELOPeripheralManager.BCR_STATE_DATA_RECEIVIED	1 << 2
ELOPeripheralManager.BCR_STATE_PIN_AUTO_DISABLE	1 << 3

GPIO state	value
ELOPeripheralManager.GPIO_STATE_HIGH	1 << 4
ELOPeripheralManager.GPIO_STATE_LOW	1 << 5

GPIO data
gpio81
gpio82

Table 3-2

Section 4: Technical Support and Maintenance

Solutions to Common Problems

Problem	Suggested Troubleshooting
The Elo I-Series 3.0 does not turn on when power is applied to the system.	Check that the power cable is properly connected to the wall and the Elo I-Series 3.0. If the power LED is solid white, then the system is ON. If the power LED is red, then the system is OFF. If the system stays in the OFF state, try the following steps:
	Unplug the power cable and then re-plug after five seconds
	In the case that the power button LED displays solid white light, there may be an issue with the display or LCD backlight. Please contact Elo Support.
Blank screen	If the power button LED is blinking, the system may be in SLEEP mode. Press the power button to bring the unit out of SLEEP mode.

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.

Elo I-Series 3.0 Care and Handling

The following tips will help maintain optimal performance of your Elo I-Series 3.0:

- Disconnect the power cable before cleaning.

- To clean the unit (except for touch screen), use a soft cotton or microfiber cloth lightly dampened with a mild detergent.

- It is important that your unit remains dry. Do not get liquids on or inside the unit. In the event that liquid does get inside, have a qualified service technician inspect the unit before you power it on again.

- Do not wipe the screen with a cloth or sponge that could scratch the surface.

- When cleaning the touchscreen, use window or glass cleaner applied to a clean cloth. Never apply the cleaner directly on the touchscreen. Do not use alcohol (methyl, ethyl or isopropyl), thinner, benzene, or other abrasive cleaners.

Section 5: Regulatory Information

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 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 A 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 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 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.

Radio Equipment Directive

Elo hereby declares that the radio equipment type, I-Series 3.0, is in compliance with Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available at the following internet address: www.elotouch.com

This device is designed and intended for indoor use only.

	AT	BE	BG	HR	CY	CZ	DK
	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL
	PT	RO	SK	SI	ES	SE	UK

This device is restricted to indoor use

Operation frequency and radio-frequency power are listed as below:

- WLAN 802.11b/g/n/ac
  - 2400 - 2483.5MHz < 17 dBm EIRP
  - 5150 - 5250MHz < 18 dBm EIRP
- BT 2400-2483.5MHz < 11 dBm EIRP

ECC/DEC/(04)08:

The use of the frequency band 5 150-5 350 MHz is restricted to indoor operation because of the protection requirements of satellite services

FCC:

This device complies with part 15 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 received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice to Users in the United States:

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This equipment should be installed and operated to ensure a minimum of 20 cm spacing to any person at all times.

IC:

This device complies with Industry Canada's licence-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."

This equipment should be installed and operated to ensure a minimum of 20 cm spacing to any person at all times.

Agency Certifications

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

- FCC/IC
- CE
- UL/cUL/CB
- Japan MIC
- VCCI
- China CCC
- China SRRC

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/.

Caution:

Risk of explosion if battery is replaced by an incorrect type.

Dispose of used battery according to the local laws and regulations.

中国 RoHS (China RoHS)

根据中国法律《电器电子产品有害物质限制使用管理办法》，以下部分列出了产品中可能包含的有害物质的名称和含量。

中国电子电气产品环境信息

触控一体机	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电缆组件	X	O	O	O	O	O
玻璃外罩	X	O	O	O	O	O
液晶面板	X	O	O	O	O	O
金属框架	X	O	O	O	O	O
塑胶盖	O	O	O	O	O	O
印制线路板	X	O	O	O	O	O

本表格依据 SJ/T 11364 的规定编制.

O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下.

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求.

标志说明

根据 SJ/T11364 的要求, 电子信息产品标有以下污染控制标识。 此产品在 10 年内不会对环境产生影响。

Power Specifications

Electrical Ratings

Input	110/240VAC

Operating Conditions

Temperature	0°C - 40°C
Humidity	20% to 80% (non-condensing)

Storage Conditions

Temperature	-20°C - 50°C
Humidity	5% to 95% (non-condensing)

Section 6: Warranty Information

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

www.elotouch.com

Visit our website for the latest

- Product Information

- Specifications

- Upcoming Events

- Press Releases

- Software Drivers

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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