



DEVELOPER'S GUIDE

Elo Touch Solutions
PayPoint® Plus for Windows



Table of Contents

Section 1: Introduction.....	4
Section 2: Hardware.....	7
Section 3: Software.....	14
Section 4: Contact Information	17

Section 1: Introduction

Welcome

Welcome to the Elo PayPoint Plus Developer Program. We thank you for your partnership – together we can shape the future of our Point of Sale capabilities.

Product Description

The Elo PayPoint Plus register is an all-in-one cash register that comes equipped with a built-in receipt printer, magnetic stripe reader, barcode reader and cash drawer. Below are the specifications:

Area	PayPoint Plus Windows
Display	15.6" FHD
Touch	Projected Capacitive
Processor	Intel 8 th generation i5 processor with vPro™
OS	Windows 10IOT, No OS (with Linux support: Ubuntu, SUSE Linux)
Storage/Memory	8GB RAM/128SSD Hard Drive
Connectivity	WiFi 802.11 b/g/n/ac Bluetooth 5.0 (BLE)/iBeacon LAN
IO panel	4x USB, 2xSerial, 1x Cash Drawer Port, 1x Micro HDMI out, 1x 12V PUSB
Printer	Paper width: 80mm, Printer speed:250mm/sec, Star TSP100iii USB
Scanner	2D Honeywell N3680
Cash Drawer	5 bill x 6coin for NA/China, 4 bill x 8 coin for Worldwide, 3 position lock
MSR	3 track encryptable
Color	White (Black available as MTO)

Confidentiality

By partnering with Elo to integrate with Elo PayPoint Plus ("Register"), you agree you will:

- a. Not share, disclose, use, disseminate, or publish any information about the Elo PayPoint Plus Developer Program or the Register or any related SDK, code, software, firmware, API, or prototype to any third party for any reason other than as permitted in writing from Elo under the Elo PayPoint Plus Developer Program.
- b. Not share, disclose, or use the Register or any related SDK, code, software, firmware, API, or prototype for any reason not related to or permitted under the Elo PayPoint Plus Developer Program.
- c. Limit access to the Register and related SDK, code, software, firmware, API, or prototype and information about the Register and any related SDK, code, software, firmware, API, or prototype and the Elo PayPoint Plus Developer Program to your employees, Affiliates, and onsite consultants and their employees who (i) have a need to know about or use the Register and related SDK, code, software, firmware, API, or prototype in connection with your participation in the Elo PayPoint Plus Developer Program, and (ii) are obligated to you to maintain the security and confidentiality of the Elo PayPoint Developer Program and the Register and related SKD, code, software, firmware, API, or prototype. You will be responsible for each act and omission of each employee, Affiliate, onsite consultant, or employee of an onsite consultant as if such acts and omissions were your own. As used herein, "Affiliate" means any entity that now or hereafter controls, is controlled by or is under common control with a specified entity, where "control" means beneficial ownership, directly or indirectly, of more than 50% of the outstanding shares or other ownership interest (representing the right to elect directors or other managing authority or the right to make the decisions for such entity, as applicable), only for so long as such control exists.
- d. Use the same degree of care as you would use to protect your confidential, non-public or proprietary information and technologies, but in any case no less than a reasonable degree of care, to prevent the unauthorized use, dissemination, disclosure, or publication of information, guides, drawings, photographs, product specifications, data, code, software, firmware, prototypes, API, SDK, or other similar information, documents, or materials about the Elo PayPoint Plus Developer Program or the Register and related SDK, code, software, firmware, API, or prototype. For clarity, this prohibition applies but is not limited to social media posts, links, or shares regarding the Elo PayPoint Plus Developer Program, including your participation in the program.
- e. Not make copies of the Register or any related SDK, code, software, firmware, API, or prototype or any related documents or materials received from Elo in connection with the Elo PayPoint Plus Developer Program.
- f. Notify Elo of any unauthorized use, dissemination, publication or disclosure of information about the Elo PayPoint Plus Developer Program or the Register or any related SDK, code, software, firmware, API, or prototype of which you become aware.

- g. Comply with applicable export control regulations.
- h. Promptly, upon Elo's request or at the end of the Elo PayPoint Plus Developer Program, return the Register to Elo.
- i. Not use or reverse engineer the Register or any information you gather or develop through your use of the Register or participation in the Elo PayPoint Plus Developer Program for development, manufacturing, distribution, or production purposes.
- j. Provide suggestions, comments, or other feedback ("**Feedback**") to Elo about the Register. All Feedback shall be deemed Elo's property, and Elo shall be free to use, disclose, reproduce, license, distribute, or otherwise exploit Feedback as it sees fit without obligation or restriction of any kind.
- k. Adhere to the terms and conditions for use of the SDK.
- l. Adhere to the terms and conditions for use of the API.

Section 2: Hardware

Contents of the Box

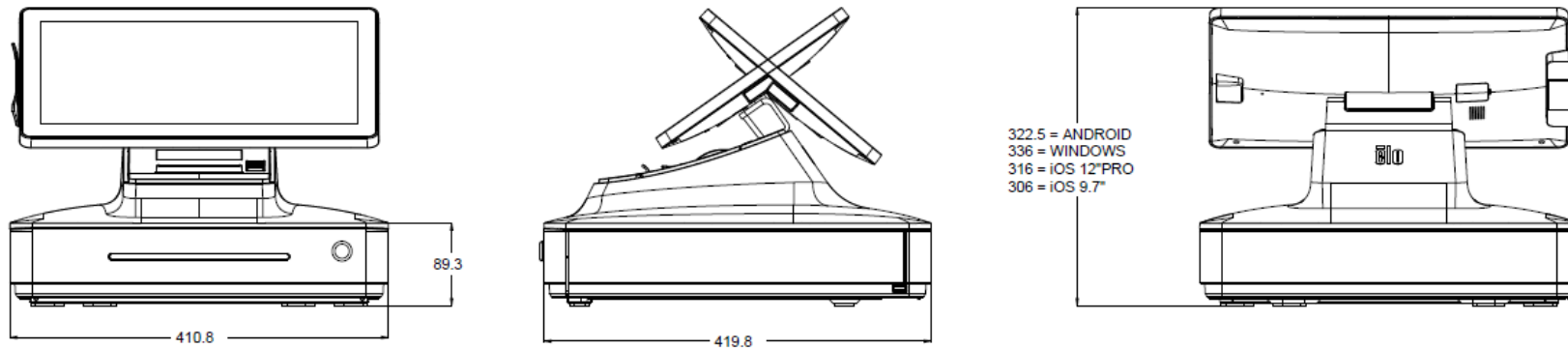
The Register contains the following:

- PayPoint Plus for Windows (“Register”)
- Power Cable
- 1 receipt paper roll
- 2 cash drawer keys
- RJ45 to DB9 cable
- Quick install guide
- Windows 10 IOT or No OS (Linux support for Ubuntu, SUSE Linux)

The following utilities available on the device will allow you to download OPOS/JPOS drivers as well as configure the peripheral:

- Star TSP100 futurePRNT Software – includes Windows Driver, Linux CUPS Driver, Configuration Utility, OPOS and JavaPOS and hardware manuals. The TSP100 futurePRNT provides ESC/POS mode emulation, which can be configured in “TSP100 Configuration Utility”. Thus, even if your current software is designed for the ESC/POS mode, you will be able to use it as is, without making changes.
- Honeywell EZConfig – Honeywell's EZConfig Cloud for Scanning is a free software service that facilitates fast and easy barcode scanner configurations and firmware updates all in an intuitive interface
- MagTek reader configuration program – MagTek's configuration program is a free utility that allows to remote configuration and key injection services

PayPoint Plus Dimensions



Printer

The Register has a built in 3-inch thermal printer. The printer is a TSP100iii from Star Micronics and communicates via USB. Below are the specs of the printer:

Printer Method	Thermal								
Printer Speed	43 receipts/minute (250mm/sec)								
Resolution	203dpi								
Character set	ANK 95, 32 Int 128 Graphic plus Chinese, Japanese, Korean, Taiwanese								
Paper Specs	<table border="0"> <tr> <td>Width</td> <td>80mm standard, 58mm with paper guide</td> </tr> <tr> <td>Thickness</td> <td>0.053 ~ 0.085 mm</td> </tr> <tr> <td>Roll Diameter</td> <td>Up to 83 mm</td> </tr> <tr> <td>Maxi Print Width.</td> <td>72mm</td> </tr> </table>	Width	80mm standard, 58mm with paper guide	Thickness	0.053 ~ 0.085 mm	Roll Diameter	Up to 83 mm	Maxi Print Width.	72mm
Width	80mm standard, 58mm with paper guide								
Thickness	0.053 ~ 0.085 mm								
Roll Diameter	Up to 83 mm								
Maxi Print Width.	72mm								
Auto Cutter	Guillotine								

The integrated printer on PayPoint Plus has a paper feed and power button on top of the unit. To find the device name of the printer, while holding the printer power button press the printer feed button and release the printer power button. The printer will print pertinent information relevant to the printer. Please find additional Star Micronics support topics below: <http://www.starmicronics.com/support/Default.aspx>

Scanner

The PayPoint Plus unit has inbuilt 2D omni-directional scanner. The scan engine is an N3680 from Honeywell. Below are the specs of the scanner:

Sensor	CMOS sensor with 640x480 pixel resolution
Illumination and Aiming	White LED illumination, Red dot aimer
Field of View	Horizontal: 37.8°, Vertical: 28.8°
Symbologies	Linear: Codabar, Code 11, Code 128, Code 2 of 5, Code 39, Code 93 and 93i, EAN/JAN-13, EAN/JAN 8, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MSI, GS1 Databar, UPC-A, UPC E, UPC-A/EAN-13 with Extended Coupon Code, Coupon GS1 Code 32(PARAF), EAN-UCC Emulation, GS1 Data bar 2D Stacked: Codablock A, Codablock F, PDF417, MicroPDF417 2D Matrix: Aztec Code, Data Matrix, MaxiCode, QR Code, Chinese Sensible (Han Xin) code Postal Codes: Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet

The PayPoint Plus unit ships with a default of “on/off” mode on the 2D scanner.

The scanner default mode out of the box is:

- Virtual com port interface
- Manual Trigger mode (Hardware or software). A HW manual trigger button is located at the back of the scanner
- Beep on scan
- Set up to read most common codes

There are three types of communication interfaces:

- Keyboard – the barcode scanner works as a keyboard wedge. This communication mode is the easiest to implement but also has the least exposed functionality of the scanner

- HID – the barcode works as a HID device.
- Serial – the barcode works as a serial device. This interface exposes all of the functionality of this scanner and is the most flexible.

Types of trigger modes:

- Manual trigger mode – When in manual trigger mode, the scanner scans until a bar code is read, or until the trigger is released. The PayPoint Plus Register is not ideal for this trigger mode. However, a manual trigger is located at the back of the scanner in the event the scanner has to be returned to its default mode.
- Software trigger mode – You can activate the scan engine either by pressing the trigger, or using a serial trigger command (see Trigger Commands on page 10-3 of Honeywell User Guide). When in serial mode, the scan engine scans until a bar code has been read or until the deactivate command is sent. The scan engine can also be set to turn itself off after a specified time has elapsed. The scan engine has to use the HID or Serial communication protocol to use this trigger mode.
- Presentation mode - Presentation Mode uses ambient light to detect bar codes. The LED dims until a bar code is presented to the scanner, then the LED brightens to read the code. If the light level in the room is not high enough, Presentation Mode may not work properly. The scan engine can be change illumination and sensitivity based on the ambient lighting.

If you would like to change the scanner to HID or keyboard mode, please scan the below:

USB Keyboard Mode



USB HID Mode



You may need to change settings, configurations or modes on your scanner to fit your application needs. You can make these changes in the following ways:

- Scan [barcodes](#) for common configuration changes (see page 9 to 14).
- Use exposed API's to send serial based commands to scanner (see SDK documentation). [Find serial command list here \(Page 10-3\)](#).

The 2D scanner is compatible with the following Honeywell plug-in's (to be purchased separately). Please call us if you are interested in using either of these plug-in's in your POS app:

- Easy DL™ Plug-in: Honeywell's Easy DL™ scanning software plug-in parses barcode data found on government-issued identification cards (US and Canada) to deliver ready-to-use information to the host system. The embedded barcode parsing functionality can support applications including age verification or automatic electronic form population. Easy DL reduces transaction time by 95%, scanning and populating information in a matter of seconds. See the datasheet [here](#).
- EasyBCBPT™ TotalFreedom Plug-in: Honeywell's EasyBCBPT™ identity verification software plug-in parses barcode data found on printed or mobile boarding passes for airport applications such as passenger check-in, passenger boarding, security screening, club lounge entry and duty-free store entry. Powered by Honeywell's TotalFreedom® open-system architecture, EasyBCBP ID verification software eliminates the need for host system software to process the encoded information contained within 2D barcodes found on printed or mobile boarding passes. See datasheet [here](#).

Cash Drawer

The cash drawer is built similar to a full-size industry standard with external dimensions of 411mm (width) x 420mm (depth) x 89mm (height). The cash drawer open is electrically driven through the printer mechanism (Hence, Star's SDK can be used to drive the cash drawer as well similar to a standard TSP100iii set up).

The US cash drawer insert features a 5 bill and 6-coin configuration. Each bill holder for the US is 168mm x 71mm x 51mm tall. The bill holders are adjustable by +/- 6mm. The coin compartment is 86mm long x 58mm wide x 36mm tall. The worldwide cash drawer features a 4 bill and 8-coin configuration. Each bill holder for the Worldwide cash drawer is 170mm x 91mm x 51mm tall. The coin compartment is 41mm long x 91mm wide x 36mm tall.

The Cash Drawer is secured with a 3-position lock – Locked, Open, open with SW trigger. The register will be sold with 3 unique keys combinations (001, 002, 003). The key combination is visible and should match on the lock as well as the key. We will make spare keys available for customers to purchase on as-needed basis.

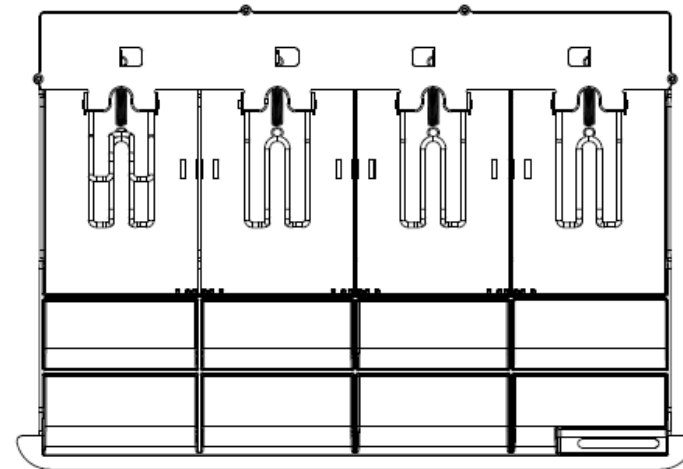
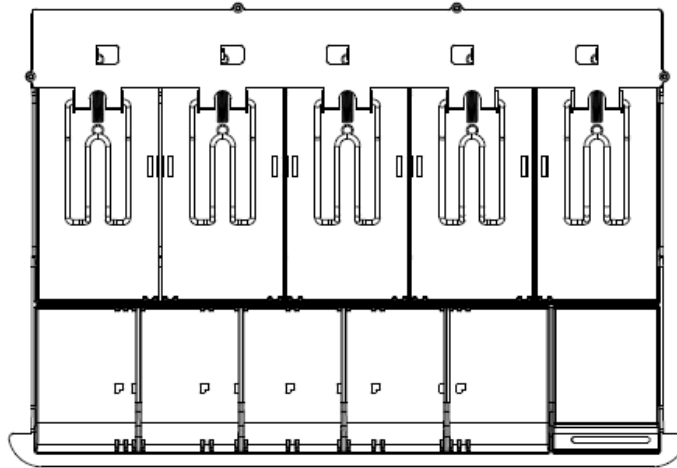
This PayPoint Plus unit also features a second cash drawer port under the unit. This port allows an additional cash drawer to be used with the PayPoint System. If you are using an APG cash drawer, you will need a cable 101A (APG) to run this second cash

drawer.

MSR

The PayPoint Plus unit features a 3-track encryptable MSR from MagTek. Below are the specs:

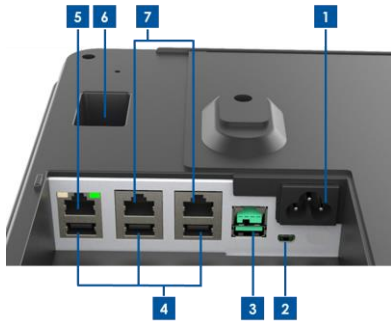
Swipe Speed	6~60 ips (15.4~152.4 cm/sec)
Swipe Direction	Bi-directional
# of tracks	3
Encryption	Default not encrypted. Can be encrypted to Level 3 with Elo's API
Supported formats	ISO 7811, ISO 7810, AAMVA, CA DMV, ANSI



You will have the ability to encrypt the reader using MagTek's configuration utility.

Additional input/output ports

This Register features several ports at the bottom of the unit.



- 1 Power

- 2 Micro HDMI port

- 3 12V USB port

- 4 USB ports

- 5 Ethernet port

- 6 RJ12 cash drawer port

- 7 2x RJ45 serial ports

Section 3: Software

Overview

PayPoint Plus for Windows is available with WIN 10 IOT or without OS (Linux kernels tested by Elo – Ubuntu 16.04/18.04 and SUSE Linux. Other Linux Kernels can be supported – please contact Elo for drivers and integration support).

How to download drivers:

Printer: Star TSP100iiiU

Windows: Star's futurePRNT software allows you to download drivers and configure the printer. Click [here](#) to download latest version (Version 7.4 is already installed on the Register). This software includes Windows Driver, Linux CUPS Driver, Mac OS X CUPS Driver, Configuration Utility, OPOS and JavaPOS and hardware manuals.

Star Micronics TSP100 futurePRNT Software Downloads

Recommended:

The TSP100 futurePRNT Software supports all Star TSP100 Series Printers.
The futurePRNT includes support for [AllReceipts](#) (digital receipt service), Survey Function, Device management and Engage NOW. (Windows only)

▶ [futurePRNT V7.4 Lite \(283MB\)](#)
Includes Windows Driver, Linux CUPS Driver, Mac OS X CUPS Driver, Configuration Utility, OPOS and JavaPOS but No Hardware Manuals
Windows 10(32/64-bit), Windows 8.1(32/64-bit), Windows 8(32/64-bit), Windows 7(32/64-bit)
Red Hat Enterprise Linux 7.4, openSUSE 42.3, ubuntu 18.04 LTS, CentOS 7.4, Fedora 17, Fedora 27(except for TSP100iiiU)
macOS 10.13, macOS 10.12, Mac OS X 10.11, Mac OS X 10.10

▶ [futurePRNT V7.4 Full \(476MB\)](#)
Includes Windows Driver, Linux CUPS Driver, Mac OS X CUPS Driver, Configuration Utility, OPOS, JavaPOS and Manuals

▶ [Bidirectional Control Tool \(465KB\)](#)
This software is for enabling bidirectional control of printer queue for Star printers.
Windows 10(32/64-bit), Windows 8.1(32/64-bit), Windows 8(32/64-bit), Windows 7(32/64-bit)
Target OS: Windows 10 Fall Creators Update (1709)

Software Manuals:

▶ [futurePRNT Software Manual for Windows](#)

▶ [Linux CUPS Driver Software Manual](#)

▶ [Mac OS X CUPS Driver Software Manual](#)

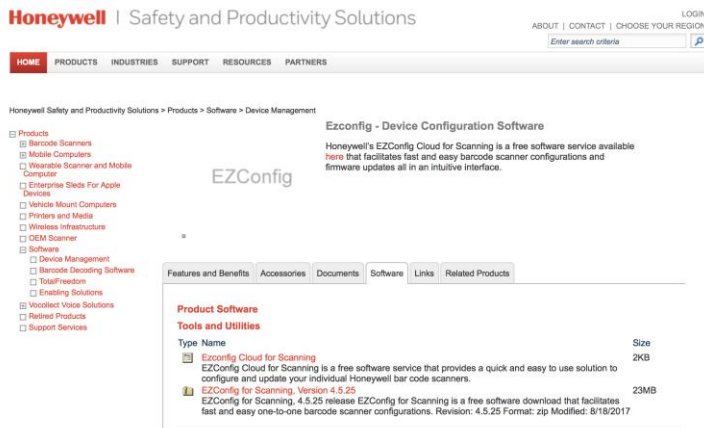
The TSP100 futurePRNT provides ESC/POS mode emulation, which can be configured in "TSP100 Configuration Utility". Thus, even if your current software is designed for the ESC/POS mode, you will be able to use it as is, without making changes. The functions (logo printing, journal, etc.) of the TSP100 futurePRNT remain usable even when you print in the ESC/POS mode. For information about how to use the ESC/POS mode, refer to "4.18 Print Job Routing (Write Printer)" in the manual for details.

Click [here](#) for the user manual for Star's FuturePRNT software for Windows

Linux: The following OS are supported by Star: Windows 10 IOT, Red Hat Enterprise Linux 7.4, openSUSE 42.3, ubuntu 18.04 LTS, CentOS 7.4, Fedora 17. Click [here](#) for the user manual and instructions to download LINUX drivers.

2D scanner: Honeywell N3680

Windows: Honeywell's EZConfig software is a web-based configuration utility that facilitates fast and easy barcode scanner configurations and firmware updates all in an intuitive interface. Click [here](#) to download the latest version (a version is installed on the Register).



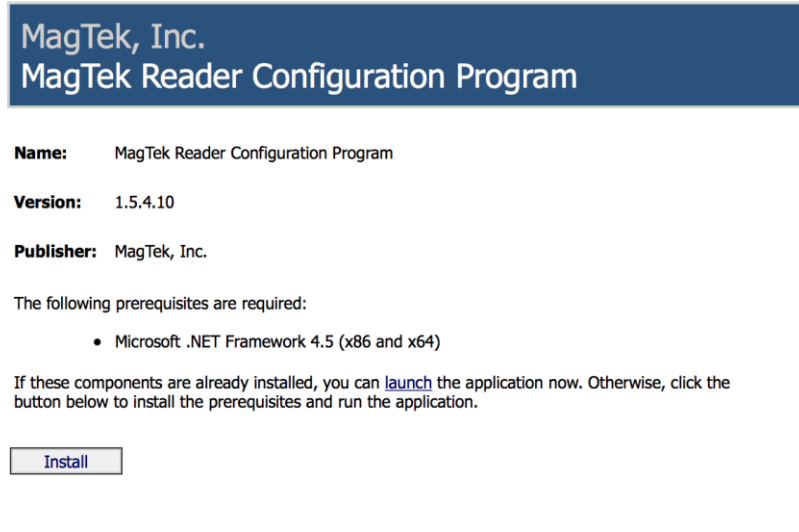
Click [here](#) for a user guide that details the functionality of this configuration utility.

Click [here](#) for JPOS, OPOS, POSNET drivers

Linux: Instead of providing a dedicated USB COM Port driver for Linux, the Register supports the CDC-ACM (Communications Device Class Abstract Control Model) protocol. This protocol is supported by Linux distributions with kernel versions 2.6.14 and higher. This means that a USB COM Port connection can be established without the need for a manufacturer's device driver. Within Linux, the CDC ACM driver is referred to as 'ttyACM' or sometimes just 'ACM'.

The linked document [LINUX USB serial port emulation](#) provides more detailed information to aid setting up and testing a Linux USB serial connection.

Windows: the MagTek Reader Configuration Program is a configuration utility that allows for remote configuration and key injection services. Click [here](#) to install the MagTek Reader Configuration Program.



The screenshot shows the installation window for the MagTek Reader Configuration Program. The window has a dark blue header with the text "MagTek, Inc. MagTek Reader Configuration Program". Below the header, the following information is displayed:

- Name:** MagTek Reader Configuration Program
- Version:** 1.5.4.10
- Publisher:** MagTek, Inc.

The following prerequisites are required:

- Microsoft .NET Framework 4.5 (x86 and x64)

If these components are already installed, you can [launch](#) the application now. Otherwise, click the button below to install the prerequisites and run the application.

At the bottom of the window, there is a button labeled "Install".

Click [here](#) for user guide that details the functionality of this configuration program.

Section 4: Contact Information

Our team is on standby to provide any help or support during the process. Please first reach out to Technical Support team for any questions or assistance.

Relationship



Dave Murphy
Software Alliances

dave.murphy@elotouch.com



Sonal Apte
POS Products

sonal.apte@elotouch.com

Technical Support



Josh Davidson
Application Engineer
+1 844 435 6832

josh@elotouch.com



Courtney Murry
Application Engineer
+1 844 435 6832

courtney.murry@elotouch.com

Developer Support

Developer Group
elodev@elotouch.com

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

North America

Tel +1 408 597 8000
Fax +1 408 597 8001
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 +52 55 2281-6958
www.elotouch.com

