



DEVELOPER'S GUIDE

Elo Touch Solutions
PayPoint® Plus for Android™



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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 mPOS 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, cash drawer, and customer facing display. Below are the specifications:

Area	PayPoint Plus Android
Display	15.6" FHD
Touch	Projected Capacitive
Processor	Qualcomm® Snapdragon™ Octa-Core
OS	Android 7.1 Nougat with EloView®
Memory	3 GB DDR3 RAM 32GB EMMC Flash
Connectivity	Wi-Fi 802.11 b/g/n/ac Bluetooth 4.1 (BLE)/iBeacon LAN
IO panel	5x 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 5 coin for NA/China 4 bill x 8 coin for Worldwide 3 position lock
MSR	3 track encryptable
CFD	2x16 (only available in NA/China version)
Part Number	E347513 (NA and China) / E347918 (Worldwide)

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 SDK, 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.

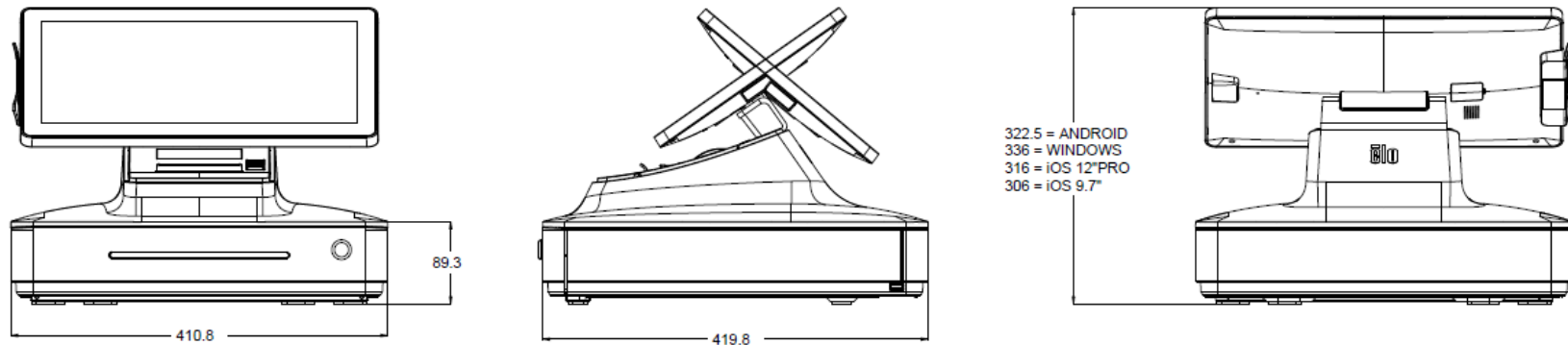
Section 2: Hardware

Contents of the Box

The Register contains the following:

- PayPoint Plus for Android (“Register”)
- Power Cable
- 1 receipt paper roll
- 2 cash drawer keys
- RJ45 to DB9 cable
- Quick install guide

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	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. We do not recommend leaving the scanner on 100% of the time – instead use API's to turn on for reading and turn off when done.

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

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](#).
- EasyBCBP™ TotalFreedom Plug-in: Honeywell's EasyBCBP™ 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](#).

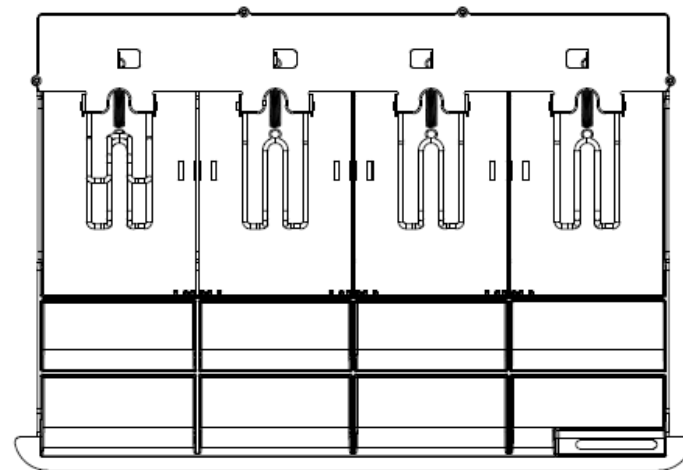
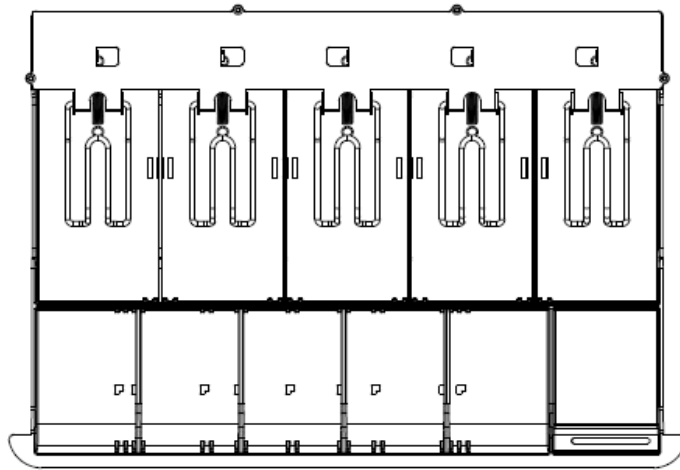
Cash Drawer

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.



CFD

The PayPoint Plus unit features a 2x16 character VFD on some models (not available for worldwide models). Please see Software Section to download SDK's.

MSR

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

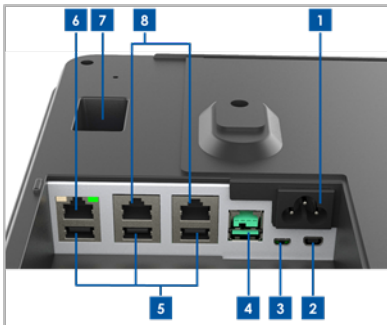
Swipe Speed	4~60 ips (10.1~152.4 cm/sec)
Swipe Direction	Bi-directional
# of tracks	3
Encryption	Default not encrypted. Can be encrypted to Level 3 with Elo's API
Supported formats	ISO 7811, ISO 7810, AAMVA, CA DMV, ANSI

You have the ability to encrypt the reader using the following steps (we use Magensa Remote services from Magtek to enable this functionality):

1. Navigate to the Peripheral Test App from the device Control Panel -Apps section
2. Click on the 'i' button on the lower left corner.
3. Click on 'MSR Injection'.
4. Enter Customer Code, User ID and Password and hit Enter. (if you do not have a credentials, please contact your Magtek representative)
5. On the MSR Configuration screen chose the desired Security level and KSID and click 'Change'.
6. Please note that once you have set the security to Level 3, it cannot be changed back to Level 2.

Additional input/output ports

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



1	Power
2	Micro HDMI port
3	Mini USB port
4	12V USB port
5	USB ports
6	Ethernet port
7	RJ12 cash drawer port
8	2x RJ45 serial ports

Section 3: Software

Overview

PayPoint Plus for Android offers EloView® - a secure, cloud based platform that allows you to remotely manage your OS, deploy your POS applications in locked kiosk mode and manage your devices quickly with ease.

EloView is a modular system that can support your existing management tools and is designed to run stock Android apps. A free 90-day trial is available to you: [Click here to get started](#).

See a list of features at <http://www.elotouch.com/elo-view>

The following table is an overview of released software versions available to download. Visit [WhatsNew](#). for more updated information, downloads and documentation.

Toolset	Developer Version	Notes
Android OS	Nougat 7.1	
EloView	Device: 3.18.18 (Oct 2017)	User will be able to register device, manage devices and deploy content similar to current version of EloView. See www.eloview.com for current releases
SDK	3.0	Common SDK for PayPoint and PayPoint Plus with API to detect platform used. All peripherals of PayPoint including Printer, Cash Drawer, MSR, BCR and CFD are supported. Test App on Device to test peripherals, update device, inject key to encrypt MSR

The Register is enabled with EloView as a factory default. If you would like to work in Android Desktop mode, you can:

- Enter EloView Control Panel by pressing Home and Power buttons together on the underside of the screen
- When prompted for password: 1elo is the default password
- From the Home tab, tap 5 times anywhere in the white area until Android Home button appears
- Tap Android Home
- The Android Home mode will not allow you to update the device with the latest available OS updates
- You can go back into EloView mode only by Factory Resetting the device from standard Android Settings

How to Download SDK:

Download the [SDK and Documentation](#). Once you have provided your email information, we will send you a security token which will be available for 5 days to download the SDK.

Download Star Micronics [SDK and Documentation](#) (to drive printer, cash drawer and second cash drawer port in the unit)

Peripherals

You can check all Peripheral functions using Peripheral Test app. This app can be accessed in Control Panel -> Apps tab "Peripheral Test App". You can also change MSR keys and encryption form this app. You can also update your device from the EloView control panel.

Additional notes:

As an EloView customer, you also have the ability to use API's to add features to your app. API's are available for features like silent app install, uninstall, silent reboot, OS Upgrade and OTA updates. You can access these APIs on [DevZone](#)

Developer Tools:

On certification, we hope that together we are able to bring a world class merchant experience that allows OS updates, content deployment, firmware/device updates over the cloud. To that end, we would like your feedback on ability to implement SDK such that:

- Your POS app is compatible with PayPoint for Android and PayPoint Plus for Android. We will expose API's that enable identification of hardware.
- Ability to build MSR key injection tools within POS app to build remote key injection capability.
- Ability to build firmware update within POS app to build remote firmware capability.

Refer to <https://eloview.com/help/> for currently available tools for EloView and PayPoint Android.

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



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Additional Resources on PayPoint Plus for Android

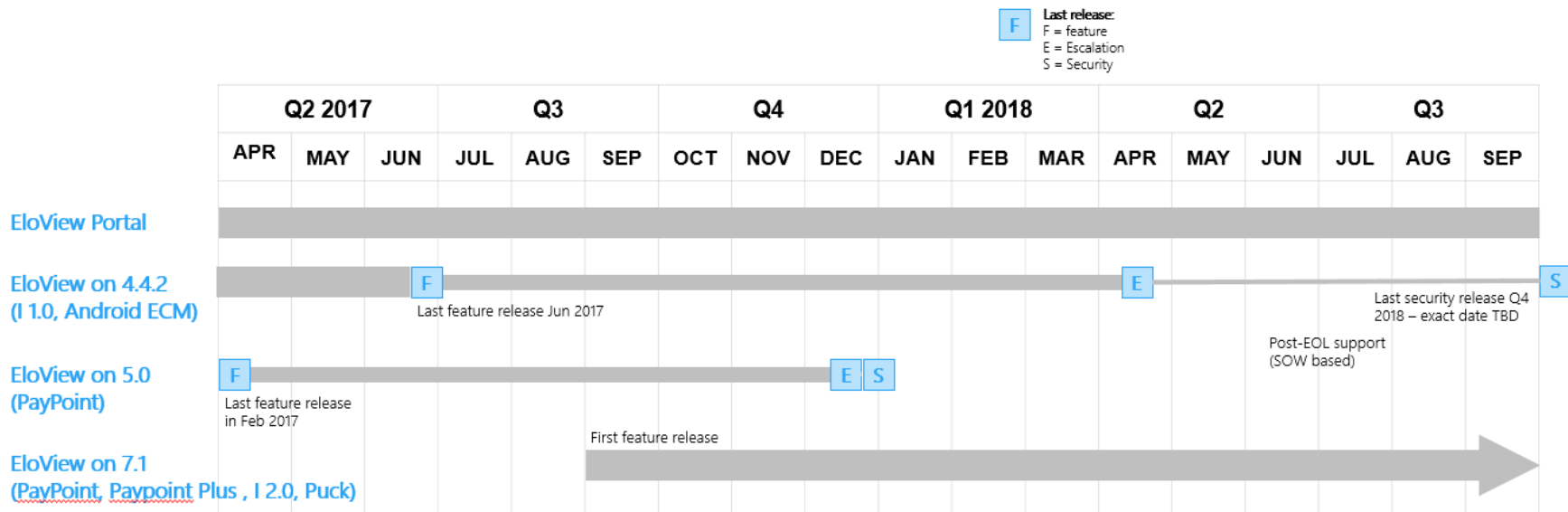
- [Detailed specifications](#)
- [User Guide](#)
- [Quick Install guide](#)
- [Dimension Drawings](#)
- [MSR Key injection](#)

Section 5: Frequently Asked Questions

What is the plan for end of life of the current PayPoint for Android product?

The current PayPoint Android Platform (Part number E301918) will be replaced by the refreshed PayPoint Android Platform (processor upgrade). Customers will be unable to buy the older generation after the launch of the new generation in Nov 2017. However, we will continue to support the current install base of the older generation as follows:

- Hardware will continue to be supported by the 3-year warranty obligation at the time of sale to customer
- Software will continue to be supported as follows:



How do I connect PayPoint Plus to the internet?

You can connect either by Ethernet or Wi-Fi and is configurable from EloView Control Panel.

My PayPoint boots to an EloView screen. How do I get an EloView account and what does it do for me?

If you have an existing EloView Account, you can register this Developer device to your existing account. If you do not have an existing EloView Account, please contact our Technical Support Group and we will walk you through the new account and registration process. Please visit www.eloview.com to learn more about our device management and content deployment platform for our Android devices.

How do I exit the EloView screen and go to Android Home mode?

This Developer unit ships with EloView. If you would like to work in Android Home mode, you can:

- Enter EloView Control Panel by pressing Home and Power buttons together on the back of the unit
- When prompted for password: 1elo
- From the Home tab, tap 5 times anywhere in the white area until Android Home button appears
- Tap Android Home
- The unit will reboot to the Android Desktop
- Note: You can go back into EloView mode by Factory Resetting the device from standard Android Settings

Who should we call for questions and support?

Our team as outlined in Section 4 is available for questions. To streamline our ability to respond quickly, we ask that you start with Josh or Courtney in the technical support group. We will also schedule periodic calls with our support and development group to ensure that you have access to our team during the Developer and the certification process.

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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