



Clear Ballot

ClearVote 2.3

ClearAccess Installation Guide

ClearAccess Installation Guide

Clear Ballot Part Number: 100053-10020

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Clear Ballot Group
2 Oliver Street, Suite 200
Boston, MA 02109
857-250-4961
clearballot.com

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Table of contents

Preface	9
Chapter 1. Getting started	11
1.1 Reinstalling Microsoft Windows and ClearAccess	11
1.2 Recording information on the Installation Checklist	11
1.3 Installation notes and tips	11
1.4 Components required to install ClearAccess	12
Chapter 2. Installing Microsoft Windows	14
2.1 Connecting external devices to the ClearAccess station	14
2.2 Installing Windows 10 Pro	14
2.3 Activating Windows	19
2.4 Installing the Windows patch	24
2.5 Installing the Elo touchscreen drivers	26
2.6 Installing the remaining Windows drivers	28
2.6.1 Chipset driver	28
2.6.2 Audio driver	29
2.6.3 Graphics driver	29
2.6.4 G-Sensor driver	30
2.7 Disabling BitLocker	31
2.8 Updating Microsoft Defender Antivirus	31
Chapter 3. Installing and configuring the Oki Data printers	33
3.1 Preparing the printer for installation	33
3.2 Operating features of the Oki Data printer	33
3.2.1 Supported ballot sizes	33
3.2.2 Print tray and duplexing support	33
3.3 Installing the drivers for the Oki Data printer	34



3.4 Setting the Media Weight	35
3.5 Configuring custom paper sizes	35
3.6 Configuring Oki Data Printer to Boot on Power	36
Chapter 4. Installing and configuring the Lexmark MS521dn printer	38
4.1 Preparing the printer for installation	38
4.2 Operating features of the Lexmark MS521dn printer	38
4.2.1 Supported ballot sizes	38
4.2.2 Print tray and duplexing support	38
4.3 Installing the Lexmark MS521dn printer driver	39
4.4 Setting the printer model for the Lexmark MS521dn printer	40
4.5 Changing the printer settings for the Lexmark MS521dn printer	42
4.6 Adjusting the margins for the Lexmark MS521dn printer	44
4.7 Configuring custom paper sizes for the Lexmark MS521dn printer	45
4.8 Adjusting the paper tray for the Lexmark MS521dn printer	47
Chapter 5. Installing ClearAccess	50
5.1 Hardening the ClearAccess station	50
5.1.1 Hardening during installation	50
5.1.2 Postinstallation hardening	51
5.2 Installing the ClearAccess software	51
5.3 Selecting the printer in ClearAccess	57
5.4 Validating ClearAccess software	59
5.5 Dell Optiplex configuration with bezel	60
5.5.1 Bezel configuration supplies	60
5.5.2 Configuring the bezel	60
5.5.3 Disassembling the bezel	64
5.5.4 Powering on the ClearAccess station with the bezel	64
Chapter 6. Configuring the ClearAccess station	66
6.1 Completing the hardening of the ClearAccess station	66



6.1.1 Restricting access to the BIOS	66
6.1.2 Configuring BIOS settings for the Elo E and Elo X	67
6.1.3 Setting the Elo E and Elo X power settings	67
6.1.4 Stopping automatic Windows updates	68
6.1.5 Disabling the power button on the Elo X Series	69
6.2 Enabling BitLocker (optional)	70
6.3 Configuring the touchscreen	71
6.3.1 Changing the physical orientation of the touchscreen	71
6.3.2 Changing the Windows display mode	71
6.3.3 Calibrating the Elo E touchscreen	72
6.4 Installing the barcode scanner	74
6.5 Disable EloPOS unused ports	74
6.6 Testing the barcode scanner	75
6.7 Installing the ClearAccess setup box configuration with the Oki Data printer and CyberPower UPS	76
6.8 Installing the ClearAccess setup box configuration with the Lexmark printer and APC UPS	91
6.9 Completing the installation of the ClearAccess station	106
Appendix A. Installation checklist	107
Appendix B. Upgrades to the ClearAccess software and adding printers	109
B.1 Upgrades to the ClearAccess software	109
B.2 Installing a new printer	109
B.3 Replacing a printer	109
B.4 Enabling Bypass mode on the APC UPS	109
Appendix C. ClearAccess troubleshooting	110



Preface

This section defines the purpose of this document.

About this document

This document describes how to install the ClearAccess voting software.

This document complies with the requirements of the *Voluntary Voting System Guidelines (VVSG)*, Version 1.0, 2005, Volume II, Section 2.8.6, "Operations Support."

Scope of this document

This document contains the following sections:

- Chapter 1. Getting started
- Chapter 2. Installing Microsoft Windows
- Chapter 3. Installing and configuring the OKI Data printers
- Chapter 4. Installing and configuring the Lexmark MS521dn printer
- Chapter 5. Installing ClearAccess
- Chapter 6. Configuring the ClearAccess station
- Appendix A. Installation checklist
- Appendix B. Upgrades to the ClearAccess software and adding printers
- Appendix C. ClearAccess troubleshooting

Intended audience

This document is for election officials and election staff who are responsible for operations and maintenance before, during, and after an election. Clear Ballot personnel also use this document to support election officials and election staff.

Conventions

This section describes conventions used in this document.

References to ClearVote products

A ClearVote® system can comprise the ClearAccess®, ClearCast®, ClearCount®, and ClearDesign® products. Jurisdictions are not required to purchase all products. You can ignore references to any ClearVote products that are not part of your voting system. Also ignore implementation options that are not relevant to your policies and procedures.



BDF and ADF

ClearAccess imports an election definition contained in an accessible definition file (ADF) created by ClearDesign. ClearCount and ClearCast import an election definition contained in a ballot definition file (BDF) created by ClearDesign.

Versions of ClearDesign earlier than 2.0 created unencrypted ADFs and BDFs. ClearDesign 2.0 and later versions produce encrypted ADFs and BDFs. You can distinguish between unencrypted and encrypted ADFs and BDFs by the ending of the filename.

File type	Filename ends in
Unencrypted accessible definition file	adf.zip
Encrypted accessible definition file	adfx.zip
Unencrypted ballot definition file	bdf.zip
Encrypted ballot definition file	bdfx.zip

In this document, the general terms ADF and BDF can refer to both the unencrypted and encrypted versions of these files.

For the specifics of the ADF and BDF file formats, see the following:

- *ClearDesign Accessible Definition File Guide*
- *ClearDesign Ballot Definition File Guide*

Contact us

Clear Ballot Group welcomes your feedback on our documentation. Please send comments to Documentation@ClearBallot.com.

If you have questions about using your product, contact your Clear Ballot representative.

Chapter 1. Getting started

This chapter provides an overview of installing ClearAccess. Read this chapter in its entirety before you begin the installation process.

Follow the order of installation presented in this document. Some setup options depend on the installation of components in the appropriate order.

Estimated time to complete:

- Allow three to five hours for a full, first-time installation.
- Subsequent installations will take less time as you gain familiarity with the process.

1.1 Reinstalling Microsoft Windows and ClearAccess

This guide describes how to install Microsoft Windows and ClearAccess on a new computer.

For guidelines on reinstalling Windows and ClearAccess on a computer where this software was previously installed, contact Clear Ballot Technical Support.

1.2 Recording information on the Installation Checklist

Before you begin the installation, make a copy of the Installation Checklist. See Appendix A page 107.

As you go through the installation process, record the information indicated on the Installation Checklist. After you complete the installation, store the annotated Installation Checklist in a secure location for future reference.

1.3 Installation notes and tips

Review the following notes and tips before beginning the installation process:

- This guide assumes that you use DVDs as the installation media. If you use alternative media, such as USB drives, adjust the instructions as needed.
- Some installation tasks require you to use a mouse to right-click a file or list item. To achieve the same action on a touchscreen, press and hold the item and then release it.
- To set up a keypad and a sip-and-puff device to use with ClearAccess, see the *ClearAccess Supervisor Guide*.

1.4 Components required to install ClearAccess

Before beginning your ClearAccess installation, gather the components listed in Table 1-1.

Table 1-1. Components required to install ClearAccess

Item	Notes
Touchscreen with power cable	Have a Phillips-head screwdriver available to change the orientation of the touchscreen.
Printer	Make sure that the power cable, USB cable, toner, and paper are available with the printer.
External USB DVD drive	The touchscreen computers supported by ClearAccess do not include internal DVD drives. Connect an external DVD drive to the touchscreen computer to install all software components.
External USB keyboard	The touchscreen computers supported by ClearAccess do not include keyboards. You can connect an external keyboard to the touchscreen for convenience during installation or you can use the keyboard that appears on the touchscreen.
(Optional) Mouse	Clear Ballot recommends attaching a mouse for convenience during the installation process. Alternatively, you can use the touchscreen.
ClearVote software installation DVDs	<p>The following ClearVote software DVDs are required to install ClearAccess:</p> <ul style="list-style-type: none"> <p><i>ClearAccess Microsoft Windows 10 Pro (1607)</i></p> <p>Contains the installation program for Windows 10 Pro, Build 1607.</p> <p><i>Windows Updates for ClearVote Microsoft Windows 10 Pro (1607)</i></p> <p>Contains the drivers for touchscreen graphics, touch, audio, and chipset. Also contains the Windows security patch.</p> <p><i>ClearAccess Application and Printer Drivers</i></p> <p>Contains the ClearAccess software.</p> <p>Contains the setup programs and drivers for all supported printers.</p>

Table 1-1. Components required to install ClearAccess (continued)

Item	Notes
External USB drive loaded with Windows Defender antivirus definitions	<p>The ClearAccess station has no access to the Internet or any external network. To update the antivirus definitions used by Windows Defender on the ClearAccess station, see "Updating Windows Defender Antivirus" on page 1.</p> <p>You can also use a USB drive to add accessible definition files (ADFs) to the ClearAccess station.</p>
Telephone	<p>Make sure that you have a telephone available so that you can call Microsoft to activate Windows at the end of the installation process.</p>

Chapter 2. Installing Microsoft Windows

This chapter provides instructions for installing Microsoft Windows on the ClearAccess station.

Estimated time to complete: 1.5 to 2 hours

2.1 Connecting external devices to the ClearAccess station

To prepare for installation, connect each of the following external devices to an available USB port on the ClearAccess station:

- Keyboard
- DVD drive
- Mouse (optional)

2.2 Installing Windows 10 Pro

This section describes the installation process for Windows 10 Pro Build 1607.

Beginning the installation process

To begin installing Windows 10 Pro:

1. Insert the Microsoft Windows 10 Pro (1607) DVD into the drive and turn on the computer.
2. As soon as the logo of the manufacturer appears on the touchscreen, repeatedly press **F11**. A BIOS menu appears on the touchscreen.
3. From BIOS menu, select the option to boot from the DVD.

Windows may display a dialog that states: "Press any key to boot from CD or DVD." If you see this dialog, press any key to continue.

The computer boots from the DVD drive and the installation program displays the Windows Setup dialog (Figure 2-1).

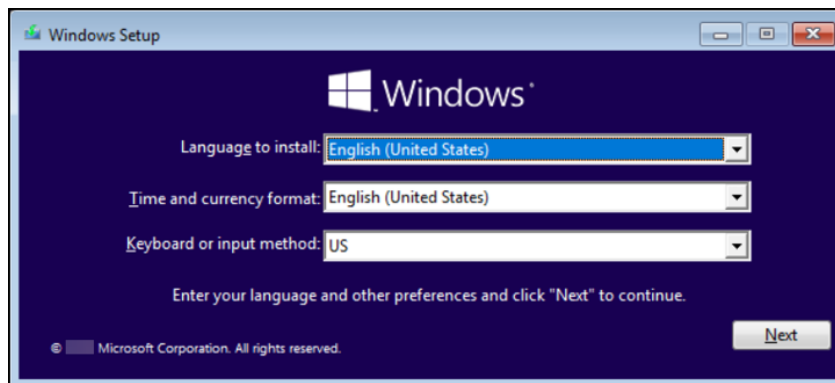


Figure 2-1. Windows Setup dialog

4. On the Windows Setup dialog (Figure 2-1), select the **Language to install, Time and currency format, and Keyboard or input method** and click **Next**.
5. When the installation program displays the following dialog (Figure 2-2), click **Install Now**.

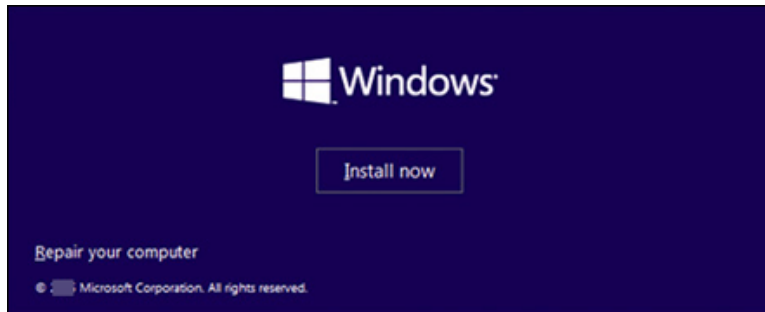


Figure 2-2. Dialog to start the Windows installation

The installation program displays the Applicable Notices and License Terms dialog (Figure 2-3).

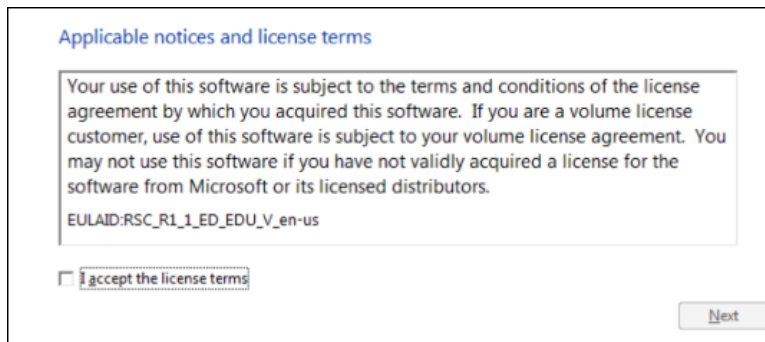


Figure 2-3. Applicable Notices and License Terms dialog

6. Select the check box **I accept the license terms** and click **Next**.

The installation program displays a dialog that prompts you to select the type of installation (Figure 2-4).

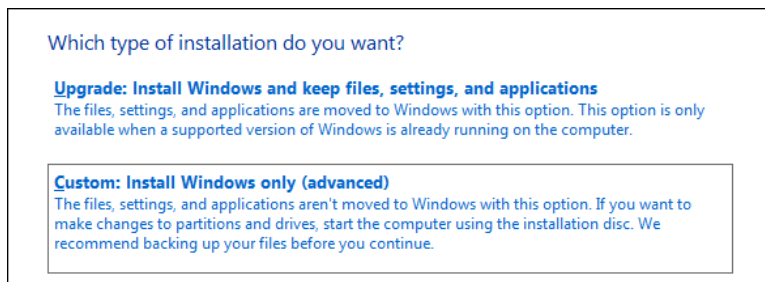


Figure 2-4. Which Type of Installation Do You Want dialog

7. Click **Custom: Install Windows only (advanced)**.

The installation program displays a dialog that asks where you want to install Windows (Figure 2-5). In this dialog, **Drive 0 Unallocated Space** is selected by default.

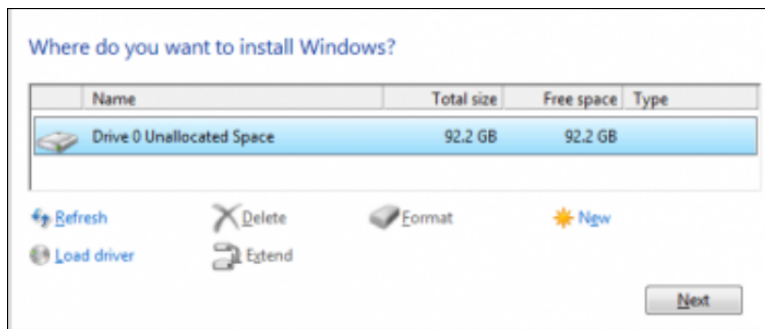


Figure 2-5. Where Do You Want to Install Windows dialog

8. Click **Next** to select the default.

The installation process begins and takes between 10 and 15 minutes to complete. As the installation proceeds, the installation program displays a series of progress messages in the Installing Windows dialog (Figure 2-6).

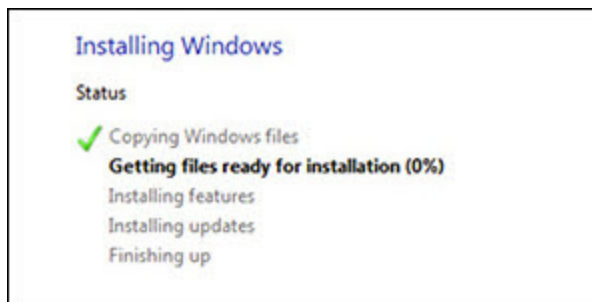


Figure 2-6. Installing Windows dialog where progress message appear

When the installation is complete, the computer restarts.

Completing the installation setup

After the computer restarts, follow these steps to complete the installation setup:

1. If the Let's get connected dialog appears, click **Skip this step**.

The installation program displays the Get Going Fast dialog (Figure 2-7).

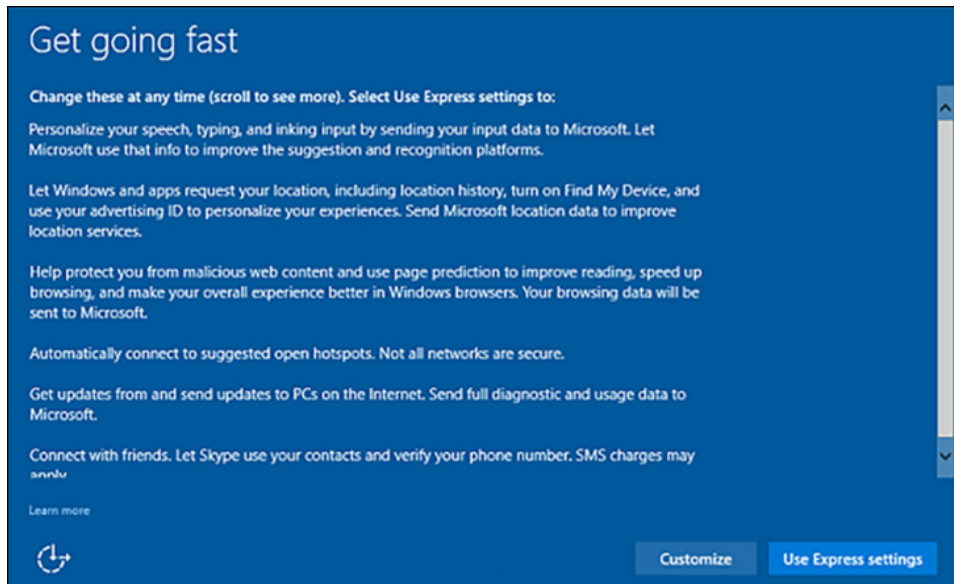


Figure 2-7. Get Going Fast dialog

2. In the Get going fast dialog (Figure 2-7), click **Customize**.

The installation program displays the Personalization and Location sections of the Customize Settings dialog (Figure 2-8).

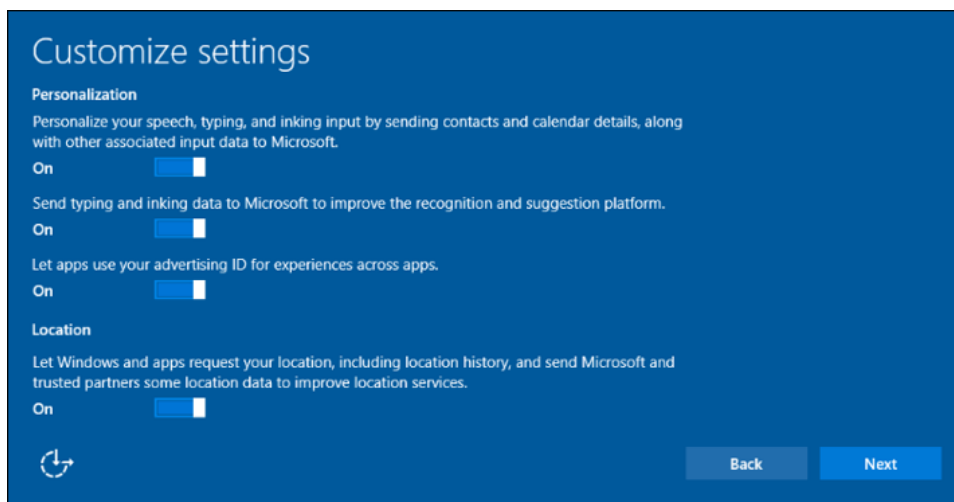


Figure 2-8. Customize Settings dialog—Personalization and Location settings

3. Turn off all Personalization and Location settings and click **Next**.

4. In the Connectivity and error reporting section of the Customize Settings dialog, turn off all settings and click **Next** (Figure 2-9).

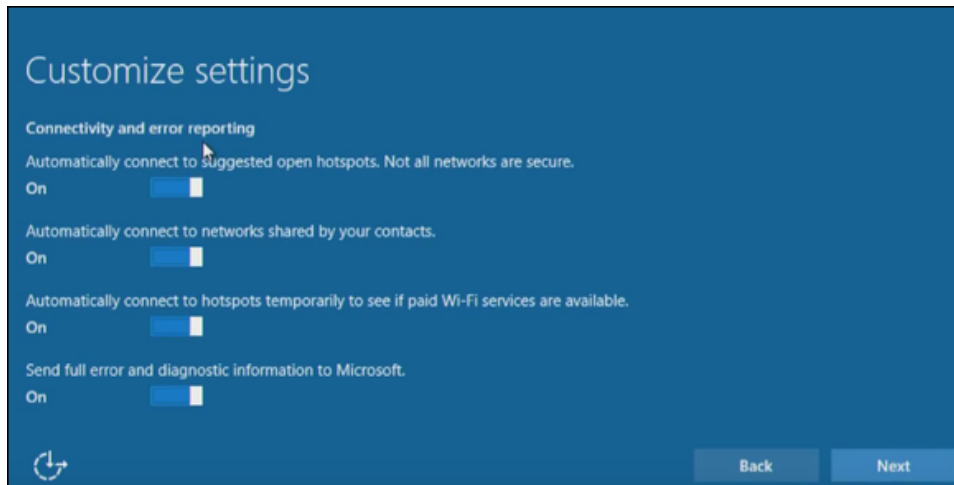


Figure 2-9. Customize Settings dialog—Connectivity and error reporting section

5. In the Browser, protection, and update section of the Customize Settings dialog, turn off all settings and click **Next** (Figure 2-10).

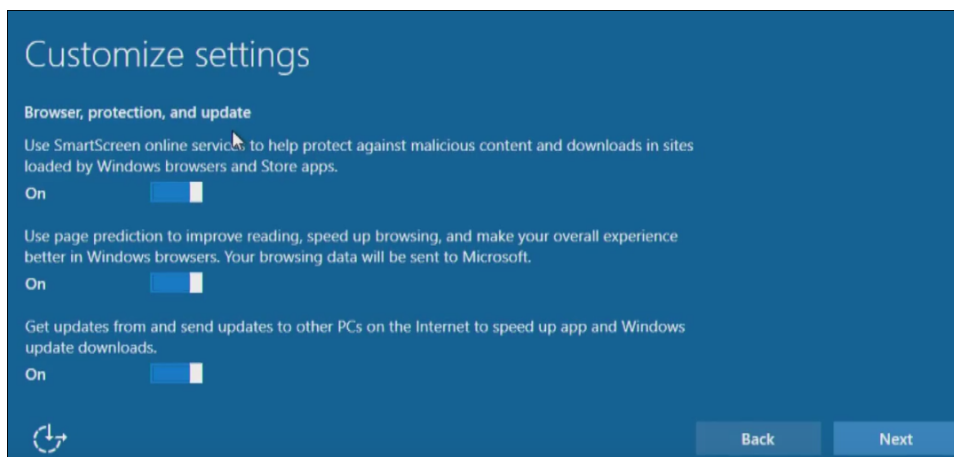


Figure 2-10. Customize Settings dialog—Browser, protection, and update section

The installation program displays the Create an Account for This PC dialog (Figure 2-11).

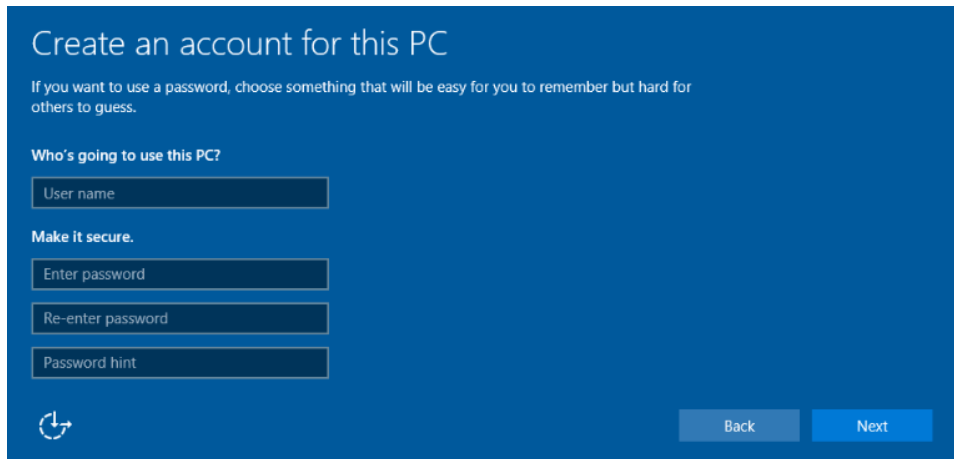


Figure 2-11. Create an Account for this PC dialog

6. In the Create an Account for This PC dialog (Figure 2-11), enter a user name, password, and password hint for the Windows administrator and click **Next**.

Record the information that you enter on the Installation Checklist (page 107).

7. In the Meet Cortana dialog, click **Not now**.
Windows completes its setup.
8. Remove the Microsoft Windows 10 Pro (1607) DVD from the DVD drive.

2.3 Activating Windows

After you install Windows, you must activate it. Because the ClearAccess station is not connected to the Internet, you must call Microsoft to complete the activation.

To start the activation process, insert the Windows Updates DVD into the drive.

Copying the product key

To copy the product key:

1. Open File Explorer and navigate to the Windows Tools folder on the DVD.
2. Open the Windows Activation Key.txt file.
3. Copy the text string.
4. Close the Windows Activation Key.txt file.

Entering the product key

To enter the product key:

1. Click the Windows **Start** button and type **Activation**.

Windows displays search results (Figure 2-12).

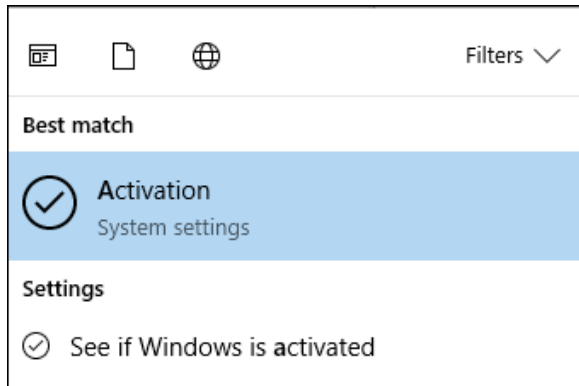


Figure 2-12. Searching for Activation by clicking the Windows Start button

2. Select **Activation** from the search results.

Windows displays the Activation section of the Settings dialog (Figure 2-13).

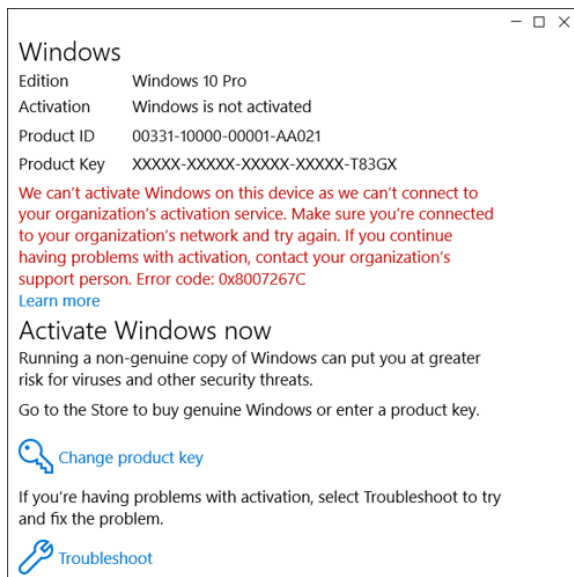


Figure 2-13. Activation section of the Settings dialog

3. Click **Change product key**.

Windows displays the message:

Do you want to allow this app to make changes to this device?

4. Click **Yes**.

Windows displays the Enter a product key dialog (Figure 2-14).

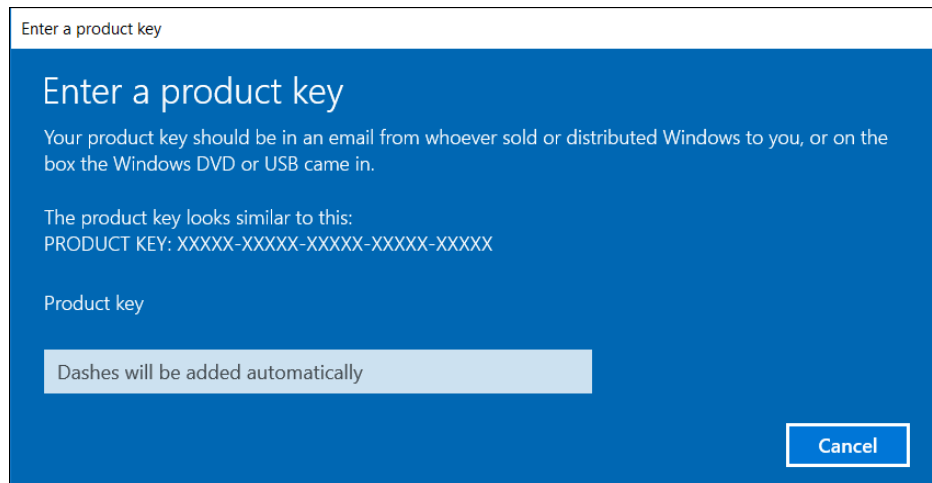


Figure 2-14. Enter Product Key dialog

5. Paste the activation string that you previously copied in the Product Key field and click **Next**. After a moment, Windows displays a message similar to the Figure 2-15.

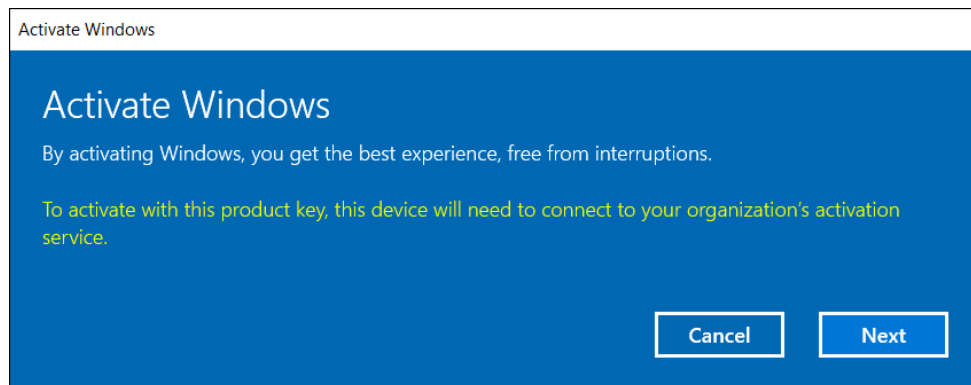


Figure 2-15. Activate Windows dialog

6. Click **Next**.

Windows tries to activate. After a few moments, a message indicates that Windows could not be activated (Figure 2-16).

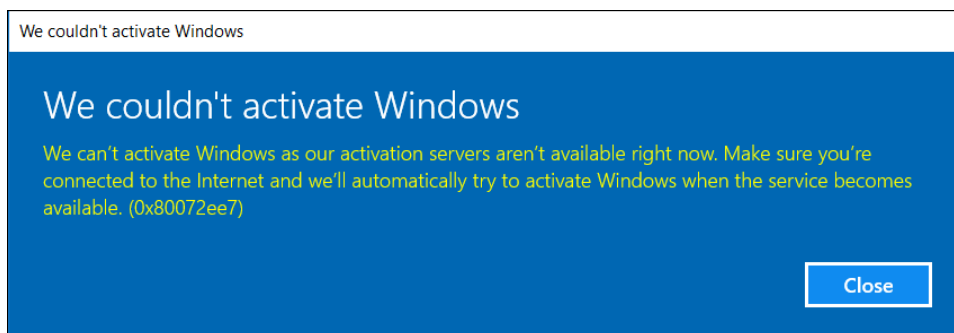


Figure 2-16. We Couldn't Activate Windows dialog

7. Click **Close**.

Completing the activation process

To activate Windows:

1. Right-click the Windows **Start** button and type *Run*.
2. From the pop-up menu, select **Run**.
Windows displays the Run dialog.
3. In the Run dialog, type *slui 4* and click **OK**.

Make sure to type a space between the i and the 4.

Windows displays the Select your country or region dialog (Figure 2-17).

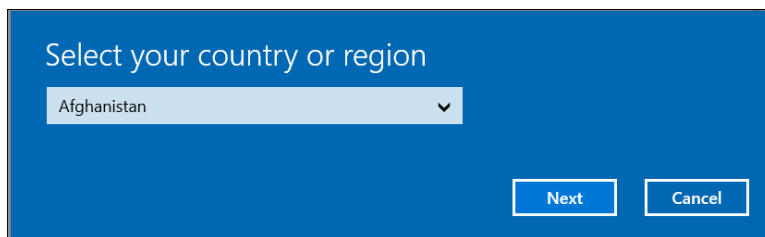


Figure 2-17. Select Your Country or Region dialog

4. Select your country from the drop-down list and click **Next**.

The screen displays a toll-free telephone number to call for activation (Figure 2-18).

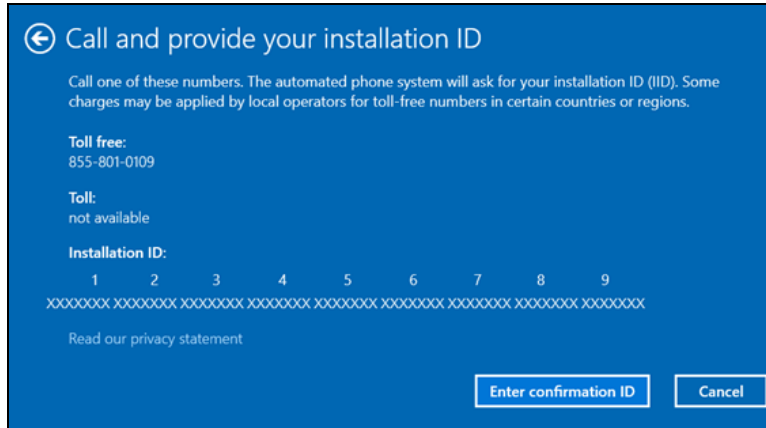


Figure 2-18. Call and Provide Your Installation ID dialog

5. Call the number, follow the automated prompts, and provide the nine-part Installation ID that appears on the screen.
6. Click **Enter confirmation ID**.
7. Enter the eight-part confirmation number provided by the automated activation service (Figure 2-19).

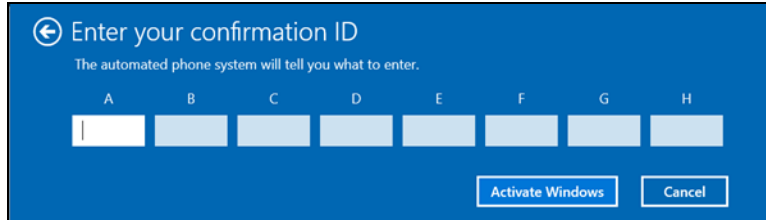


Figure 2-19. Enter Your Confirmation ID dialog

8. Click **Activate Windows**.

A confirmation message indicates that you are done activating Windows.

9. Click **Close**.

Windows installation is complete. The system is activated but has no Internet access.

Following Windows installation, check the computer's date and time settings. If necessary, correct these settings.

2.4 Installing the Windows patch

This topic describes how to patch Windows for some security updates. The patch process requires you to install two files: a service stack update and a Windows update.

Installing the service stack update

To install the service stack update KB4556940:

1. Insert the Windows Updates disk and navigate to Windows Tools and then open the Windows Patch directory in File Explorer.
2. Double-click **Windows10.0-KB4556940-x64.msu**.

The installation program displays the Windows Update Standalone Installer dialog (Figure 2-20).

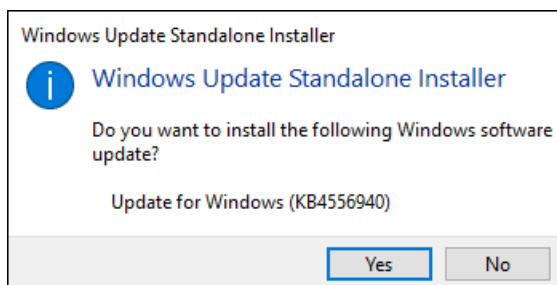


Figure 2-20. Windows Update Standalone Installer dialog—Service stack update

3. Click **Yes** in the Windows Update Standalone Installer dialog (Figure 2-20).

The update takes approximately a minute. When the service stack update is complete, the installation program displays the message shown in Figure 2-21.

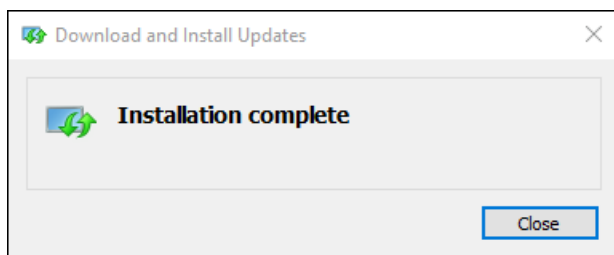


Figure 2-21. Installation Complete message—Service Stack Update

Installing the Windows Updates

To install the Windows updates KB4556813:

1. In the Windows Patch directory of the Windows update DVD, double-click the file named **windows10.0-kb4556813-x64_074956aa9f895643ea0768d516375d4a1cd732a2.msu**.

The installation program displays the Windows Update Standalone Installer dialog (Figure 2-22).

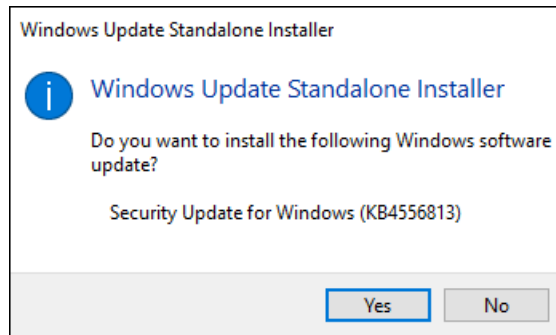


Figure 2-22. Windows Update Standalone Installer dialog—Windows security update

2. Click **Yes** to start the installation.

After you click **Yes** to start the installation, Windows takes approximately 30 minutes to install the software. When prompted to do so, restart your computer.

After you restart the computer, Windows takes approximately 30 minutes to process the updates.

3. Confirm that you have installed the updates:
 - a. Click the **Start** button on the Windows taskbar and search for and select **View installed updates**.
 - b. Confirm that KB4556940 and KB4556813 appear in the Installed Updates dialog (Figure 2-23).

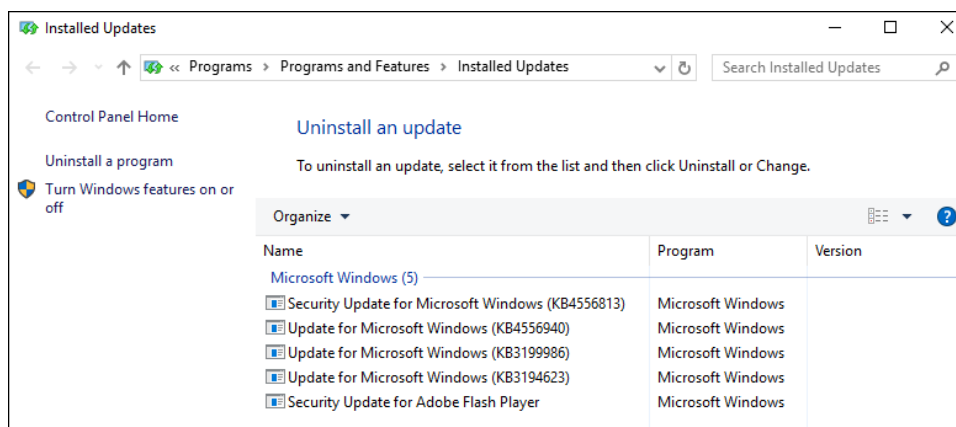


Figure 2-23. Installed Updates dialog

2.5 Installing the Elo touchscreen drivers

After installing Windows on the ClearAccess station, install the drivers that optimize Windows for the Elo touchscreen.

Starting the installation of the Elo touchscreen drivers

To start the installation of drivers:

1. Log in to the ClearAccess station as the Windows administrator.
2. Insert the Windows Updates DVD in the DVD drive.
3. Use File Explorer to navigate to the folder on the DVD corresponding to your touchscreen model.

Installing the eloTouch driver

To install the eloTouch driver:

1. Use File Explorer to open the eloTouch folder corresponding to your touchscreen model on the Windows Updates DVD and copy the eloTouch driver Zipped file to your desktop.
2. Right-click the eloTouch driver Zipped file and select **Run as administrator**.

Windows displays the following message:

Do you want to allow this app to make changes to your device?

3. Click **Yes**.

WinZip Self-Extractor displays the message shown in Figure 2-24.

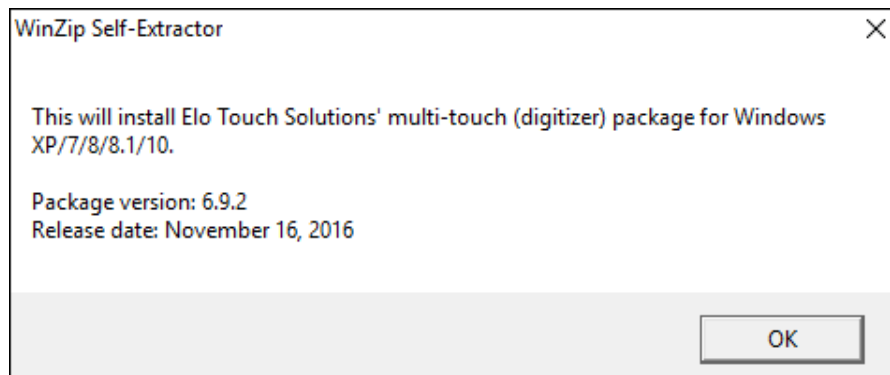
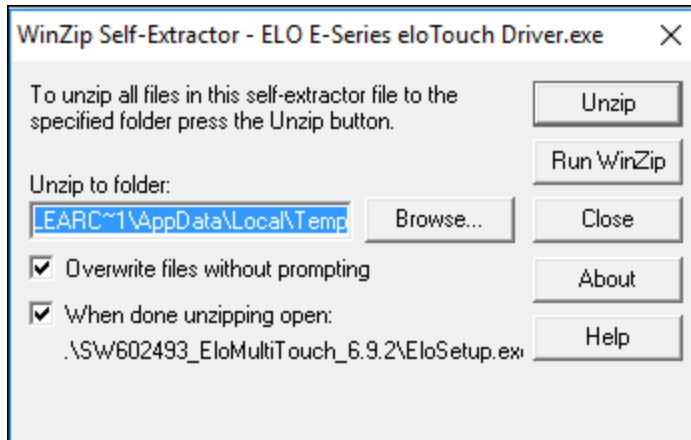


Figure 2-24. WinZip Self-Extractor

4. Click **OK**.

WinZip Self-Extractor displays the following dialog.



5. Click **Unzip**.

WinZip Self-Extractor displays a message indicating that it successfully unzipped the files.

6. Click **OK**.

The driver installation begins automatically.

7. When EloSetup displays the license agreement, click **Yes, I agree with this license**.

EloSetup displays a progress message and finishes by displaying the message "Setup is complete."

8. Click **OK** to dismiss the message.

Note: Do not restart the touchscreen computer until you have installed all drivers.

Disabling touchscreen beeps

The eloTouch driver may automatically turn on touchscreen beeps. These beeps conflict with the audio prompts of ClearAccess.

To disable the touchscreen beeps:

1. Right-click the **EloConfig** shortcut on the desktop.
Windows displays a pop-up menu.
2. From the pop-up menu, select **Run as administrator**.
Windows displays the following message:
Do you want to allow this app to make changes to your device?
3. Click **Yes**.
The Elo Touchscreen Configuration program opens.
4. Click **Touch Screen Properties**.
5. Deselect **Motherboard Beeper** check box and click **OK**.
6. Click **Close** to exit the Elo Touchscreen Configuration program.

2.6 Installing the remaining Windows drivers

After installing the eloTouch driver, install the remaining Windows drivers to configure the ClearAccess system to work properly. The drivers described in this section apply to the EloPOS. If you are installing other models of computers, contact the Clear Ballot Success team (support@clearballot.com) for the appropriate drivers to install.

Note: Do not restart the computer until you have installed all the drivers.

2.6.1 Chipset driver

To install the Chipset driver:

1. Double click the folder **Chipset** and right-click the application **SetupChipset.exe**.
Windows displays a pop-up menu.
2. From the pop-up menu, select **Run as administrator**.
Windows displays a dialog stating:
Do you want to allow this app to make changes to your device?
3. Click **Yes**.
The installer displays the Welcome screen.

4. On the Welcome screen, click **Next**.
Windows displays the License Agreement dialog.
5. On the License Agreement dialog, select **Accept**.
6. Click **Install**.
The installer runs and displays the Completion dialog when finished.
7. On the Completion dialog, select **Restart Later** and return to the folder **EloPOS Required Drivers**.

2.6.2 Audio driver

To install the audio driver:

1. Double click on the folder **Audio** and right-click **Setup.exe**.
Windows displays a pop-up menu.
2. From the pop-up menu, select **Run as administrator**.
Windows displays a dialog that states:
Do you want to allow this app to make changes to your device?
3. Click **Yes**.
The installer displays the InstallShield dialog.
4. Follow the prompts on screen to complete the installation.
The installer displays the InstallShield complete dialog.
5. On the InstallShield Wizard Complete dialog, select **No, I will restart my computer later** and then **Finish**.
The InstallShield Wizard Complete dialog closes.
6. Navigate back to the folder **EloPOS Required Drivers**.

2.6.3 Graphics driver

To install the graphics driver:

1. Double-click the folder **Graphics**.
2. Right click the application file **igxpin.exe**.
Windows displays a pop-up menu.

3. From the pop-up menu, select **Run as administrator**.
Windows displays a dialog that states:
Do you want to allow this app to make changes to your device?
4. Click **Yes**.
The installer displays the Welcome to the Setup Program dialog.
5. On the Welcome to the Setup Program screen, select **Next**.
6. Continue clicking **Next** on each screen until the installation is complete.
When finished, the installer displays the Setup is Complete dialog.
7. On the Setup is Complete dialog, select **No, I will start my computer later** and click **Finish**.
8. Return to the folder **EloPOS Required Drivers**.
9. On the Setup Is Complete screen, select **No, I will restart this computer later** and then click **Finish**.
10. Navigate to the folder **EloPOS Required Drivers**.

2.6.4 G-Sensor driver

To install the G-Sensor driver:

1. Open the folder **G-Sensor** and right-click **setup.exe**.
Windows displays a pop-up menu.
2. From the pop-up menu, select **Run as administrator**.
Windows displays a dialog stating:
Do you want to allow this app to make changes to your device?
3. Click **Yes**.
4. Follow the prompts on the screen until the installation is complete.
When finished, the installer displays the InstallShield Wizard Complete screen.
5. On the InstallShield Wizard Complete screen, click **Finish** to close the dialog.

Note: After you install all drivers, remove the Windows Updates DVD from the DVD drive. If the computer does not restart automatically, restart it manually.

2.7 Disabling BitLocker

When Windows is installed, BitLocker encrypts the drive. Because the mode of encryption does not meet Clear Ballot standards, you must decrypt the drive. After hardening the computer, which sets the encryption mode to FIPS 140-2, you may choose to re-enable BitLocker and encrypt the drive.

To disable BitLocker:

1. Click the Start button on the Windows taskbar, search for and select **Manage BitLocker**.
2. When Windows displays the BitLocker Drive Encryption window, click the option to **Turn on BitLocker** and accept any confirmation dialogs that appear.
3. When Windows displays the recovery key dialog, insert a USB drive into the computer and click **Save to a File**. Navigate to the desired location on the USB drive and click **Save**.
4. Follow the instructions to Activate BitLocker.
5. When BitLocker is activated, in the BitLocker Drive Encryption dialog, click **Turn off BitLocker**. Accept any confirmation dialogs that appear.

The decryption process takes several minutes. When finished, the status **BitLocker Off** appears in the BitLocker Drive Encryption dialog.

6. Navigate to the location on the USB drive where you saved the recovery key and delete it.

2.8 Updating Microsoft Defender Antivirus

Microsoft provides the Microsoft Defender Antivirus program (also called Windows Defender) with its Windows operating system. To keep the virus definitions up to date, you must update the program. Clear Ballot recommends that the Microsoft Defender Antivirus program be updated on every ClearAccess station when the following events occur:

- When the system is first installed and configured
- Before each election

Because computers used in elections must *never* be connected to the Internet, the virus definition update must be performed offline using removable media.

To download antivirus definitions:

1. On a computer outside the closed ClearAccess network that has a USB port and Internet connection, navigate to <https://www.microsoft.com/security/portal/definitions/adl.aspx>.
2. Insert a USB drive in the USB port and download the antivirus definitions to the USB drive according to the instructions on that site for your operating system and bit version.

The software is delivered as a single file named *mpam-fe.exe* or something similar.

3. Eject the USB drive and then remove it from the computer where you downloaded the antivirus definitions.

If Windows software restriction policies are in effect on the computer being updated, disable the restrictions or add a temporary path rule to allow the update to run.

To update Microsoft antivirus software offline:

1. Log in to the computer as the Windows administrator.
2. Insert the USB drive into a USB port on the computer and browse to the file.
3. Right-click the file and select the **Run as Administrator** option from the pop-up menu.
4. When the User Account Control dialog appears, click **Yes** to run the update. You may see the mouse pointer spinning as the update progresses. If not, wait 30 seconds.
5. From the task bar, type *settings* in the Search field and then select **Settings** from the search results.

The Windows Settings page appears.

6. Click **Update & security**.
7. Select **Windows Defender** on the left and then click **Open Windows Defender**.

The Windows Defender dialog opens.

8. Click the **Update** tab and check the date and time that the definitions were created. The date should be the date you downloaded the file.
9. Close the Windows Defender dialog.

Maintain the history and archive copies of each update.

Chapter 3. Installing and configuring the Oki Data printers

This chapter describes how to install the Oki Data B432dn and Oki Data B432dn-B printers used with ClearAccess. The installation and configuration processes are the same for both printers.

Before you load an election, make that the printers are installed and configured as described in this chapter.

Estimated time to complete: 30 minutes

3.1 Preparing the printer for installation

To prepare the printer for installation:

1. Unpack the printer.
2. (If necessary) Install the toner in the printer.
3. Review the paper requirements in the *ClearVote Ballot Stock and Printing Specification*.
4. To print sheets larger than 14 inches from tray 1, install the paper tray extender.
5. Put paper in the input tray.
6. Connect the printer to AC power.

Note: Do *not* turn on the printer or connect it to the ClearAccess station until told to do so in "Installing the drivers for the Oki Data printer" on the next page.

3.2 Operating features of the Oki Data printer

3.2.1 Supported ballot sizes

- Width: 8.5 inches
- Length: 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 and 22 inches

Out of the box, the printers automatically print ballots that are 11 and 14 inches long. Depending on the printer driver used, you can configure additional paper sizes. See "Configuring custom paper sizes" on page 35.

3.2.2 Print tray and duplexing support

All ballot printing uses tray 1. Printing is automatically duplexed (two-sided).



3.3 Installing the drivers for the Oki Data printer

Note: Do not turn on the printer or connect it to the ClearAccess station until instructed to do so in the following steps.

To install the Election Printer driver:

1. Insert the ClearAccess Application and Printer Drivers DVD into the DVD drive.
2. Open File Explorer and navigate to the Printer Drivers folder on the DVD.
3. Extract both Oki Data B423n Driver and Oki Data B432n Driver Update folders by copying and pasting the folders onto the computers Desktop.
4. On the desktop, open the Oki B432dn Driver folder and double click on the B432dn Driver application to start the installation.

Windows displays the prompt:

Do you want to allow this app to make changes to your device?

5. Click **Yes**.
6. When the installer displays the license agreement, click **Accept**.
7. When the installer displays the Pre-installation check dialog, click **Next**.
8. In the Choose installation type dialog, select **Easy Installation (Local)**.
9. In the Installation settings dialog, select **OKI B432(PCL6)** and click **Next**.
10. If a message appears stating "Would you like to install this device software?", select **Install**.
11. When prompted, use a USB cable to connect the printer to the ClearAccess station and turn on the printer.
12. Record the location of the USB port on the ClearAccess station where you connected the printer on the Installation checklist.
13. If a message appears stating that an operation could not complete because an element was not found, click **OK**.

This message is normal during the installation of some printer models.

14. When the Install Result dialog shows *Success* as the status, click **Finish**.

To install the Elections printer driver update, allowing the printer to print up to 22 inches:

15. On the desktop, open the Oki B432dn Driver Update folder and right click on ElectionSetup batch file, select **Run as Administrator**.

16. A command line will appear stating “Are you sure to start setup? (Y/N)”, **type in Y then press enter** to start the installation of the printer driver update.
17. After the installation is complete, power cycle the EloPOS so the driver(s) take effect.
18. Delete extracted files/ folders related to printer drivers from the desktop.
19. Shut off the Multi-purpose tray on the printer by navigating through the settings on the printer LCD. **Menus → Tray Config → MP Tray → Tray Usage = Do Not Use.**

3.4 Setting the Media Weight

To ensure that ballots print cleanly on heavy stock, follow these steps to configure the Media Weight setting on the printers:

1. On the printer control panel, press the Down arrow until the Menus option displays.
2. Press **OK**.
The Tray Config option displays.
3. Press **OK** and then press the Down arrow until the Tray 1 Config option displays.
4. Press **OK** and then press the Down arrow until the MediaWeight option displays.
By default, the MediaWeight is Medium.
5. Press **OK**.
The MediaWeight setting begins to blink.
6. Use the Down arrow to select **Heavy** and then press **OK** to confirm that setting.
Regardless of the paper weight, always set the MediaWeight to Heavy.
7. Use the Return button to return to the Menus option.

3.5 Configuring custom paper sizes

Out of the box, the Oki Data B432dn and Oki Data B432dn-B printers can print ballots that are 11 and 14 inches long. Depending on the printer driver, additional paper lengths can be configured.

To determine which paper sizes are configured, access the printer's Printing Preferences dialog and check the Size drop-down list.

To set up printing for a ballot length that is not already configured, follow these steps to define a custom paper size:

1. Log in to the ClearAccess station as the Windows administrative user.
2. Click the Windows **Start** button and then type *printers*.

3. Select **Printers & scanners** from the search results.
Windows displays the Printers & scanners dialog.
4. Under Printers & Scanners, click **OKI B432**, then click **Manage**.
Windows displays the Manage your device dialog.
5. Click **Printing preferences**.
Windows displays the Oki B432 Printing Preferences dialog.
6. Click **Paper Feed Options > Custom Size**.
The Custom Size dialog opens.
7. On the Custom Size dialog, do the following:
 - a. Enter a Name.
 - b. Set the Unit as **inch**.
 - c. Specify the Length.
 - d. Keep the Width as 8.50 inches.
ClearAccess does not support any widths other than 8.50.
8. Click **Add** and then **OK** to close the dialog.
9. Click **OK** to close the Paper feed options and Printing preferences dialogs.

3.6 Configuring Oki Data Printer to Boot on Power

The Oki Data printer can be configured to automatically turn on once the uninterrupted power supply is given power. This allows the printer to become active without needing to press the power button. In certain configurations, this would allow the entire ClearAccess system to be prepared prior to election and require minimal election day setup.

1. From the Oki Data printer menu, select **Admin Setup**.
2. The user will be prompted to provide a password. The default password is the first ten characters of the printer's serial number.
3. Once provided, select **Power Setup**.
4. Change the **Power Return** setting from 'Manual' to 'State Continue'.
5. Exit from this menu to resume normal printer use.

The configured printer will now boot once the UPS turns on. To power off the printer, the user should shut down the UPS and not use the power button on the printer. This setting will not persist between power cycles if the power button is used to power down after configuring to boot on power.

This is not a required setting for use with the Oki printer and should only be used for appropriate configurations. Users not leveraging this feature should continue to use the manual power button.

Chapter 4. Installing and configuring the Lexmark MS521dn printer

This chapter describes how to install the Lexmark MS521dn printer used with ClearAccess.

Before you load an election, make sure that the printer is installed and configured as described in this chapter.

Estimated time to complete: 25 minutes

4.1 Preparing the printer for installation

To prepare the printer for installation:

1. Unpack the printer.
2. (If necessary) Install the toner in the printer.
3. Review the paper requirements in the *ClearVote Ballot Stock and Printing Specification*.
4. Put paper in the input tray.
5. Connect the printer to AC power.

4.2 Operating features of the Lexmark MS521dn printer

This section describes the supported ballot sizes and duplex printing on the Lexmark MS521dn printer.

4.2.1 Supported ballot sizes

The Lexmark MS521dn printer supports the following size ballots:

- Width: 8.5 inches
- Length: 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 and 22 inches

Out of the box, the printer automatically prints ballots that are 11, 13, and 14 inches long. You can configure additional paper sizes. See "Configuring custom paper sizes for the Lexmark MS521dn printer" on page 45.

4.2.2 Print tray and duplexing support

All ballot printing uses tray 1. Printing is automatically duplexed (two-sided).

4.3 Installing the Lexmark MS521dn printer driver

To install the Lexmark MS521dn printer driver:

1. Log in to the ClearAccess computer as the Windows administrative user. Ensure the Lexmark MS521dn printer is not connected to the computer at this time.
2. Use File Explorer to navigate to the following location on the installation media:
2-Print Drivers\3-Lexmark_ms521dn Driver\Lexmark_Universal_v2_UD1_PostScript_07062021.exe
3. Double-click **Lexmark_Universal_v2_UD1_PostScript_07062021.exe**.

Windows displays the message:

Do you want to allow this app to make changes to your device?

4. Click **Yes**.

The Windows PostScript System Driver dialog appears displaying the Lexmark License Agreement (Figure 4-1).



Figure 4-1. Lexmark license agreement

5. Scroll to the bottom of the license agreement and click **Accept**.

The Windows PostScript System Driver dialog asks you to select an installation type (Figure 4-2).

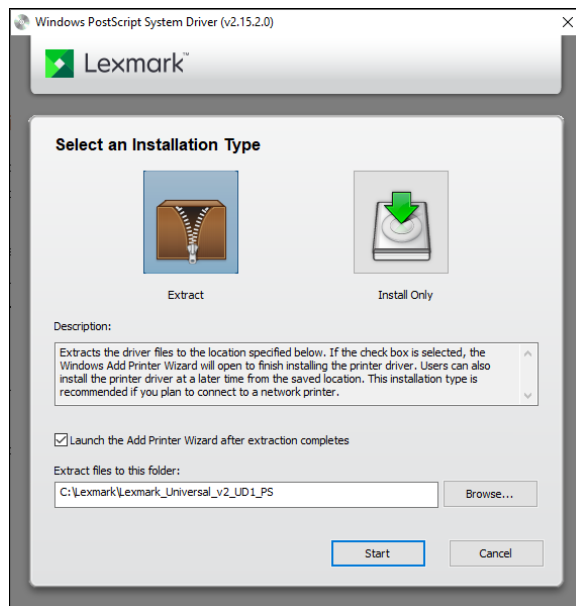


Figure 4-2. Select an installation type

6. Click **Install Only** and then click **Start**.

The printer driver is installed, and the Windows PostScript Driver dialog automatically closes.

7. Power on the Lexmark MS521dn printer and connect it to the computer via a USB cable. The printer will automatically be detected by the computer and configured to work with the previously installed driver.
8. To verify that the printer driver has been properly configured:
 - a. Click the Start button on the Windows taskbar, search for and select **Printers & scanners**.
Windows displays the Printers & scanners dialog.
 - b. Ensure that "Lexmark Universal v2 PS3" is listed on the Printers & scanners list.
 - c. Click **Lexmark Universal v2 PS3** and then click **Manage**.
The Manage your device dialog appears.
 - d. Click **Print a test page** to verify that the printer driver has been properly configured.

4.4 Setting the printer model for the Lexmark MS521dn printer

Once the Lexmark printer driver has been installed, you must set the correct printer model on the Printer properties dialog.

To set the correct printer model:

1. Log in to the ClearAccess computer as the Windows administrative user.
2. Click the Start button on the Windows taskbar, search for and select **Printers & scanners**.
Windows displays the Printers & scanners dialog.
3. Click **Lexmark Universal v2 PS3**. Then, click **Manage**.
Windows displays the Manage your device dialog.
4. Click **Printer Properties**.

Windows displays the Lexmark Universal v2 PS3 Properties dialog (Figure 4-3).

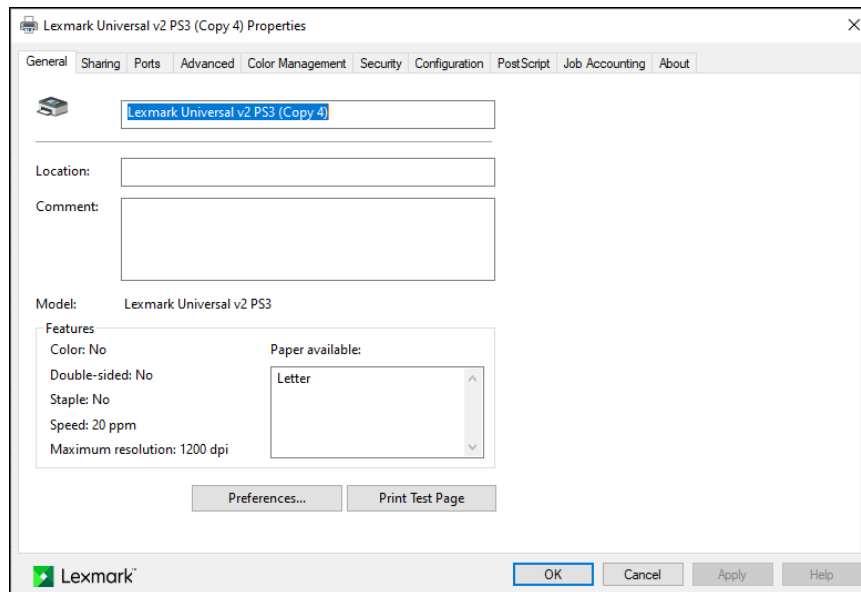


Figure 4-3. Lexmark Universal v2 PS3 Properties dialog

5. Click the **Configuration** tab.
The dialog displays a set of printer configuration options.

6. Click **Set Printer Model**.

The Set Printer Model dialog appears (Figure 4-4).

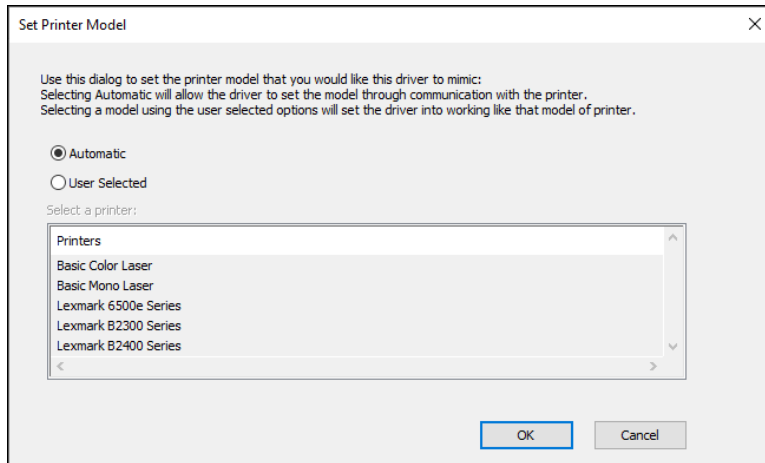


Figure 4-4. Set Printer Model dialog

7. Click **User Selected**. On the Select a printer list, select **Universal Mono Laser**.
8. Click **OK** and then click **OK** again to close the Set Printer Model and Lexmark Universal v2 PS3 Properties dialogs.

4.5 Changing the printer settings for the Lexmark MS521dn printer

To ensure that the highest quality ballots are printed from the Lexmark MS521dn printer, the default printer settings must be changed.

To change the default printer settings:

1. Log in to the ClearAccess computer as the Windows administrative user.
2. Click the Start button on the Windows taskbar, search for and select **Printers & scanners**.
Windows displays the Printers & scanners dialog.
3. Click **Lexmark Universal v2 PS3**. Then, click **Manage**.
Windows displays the Manage your device dialog.

4. Click **Printing preferences**.

Windows displays the Lexmark Universal v2 PS3 Printing Preferences dialog with the Layout tab selected (Figure 4-5).

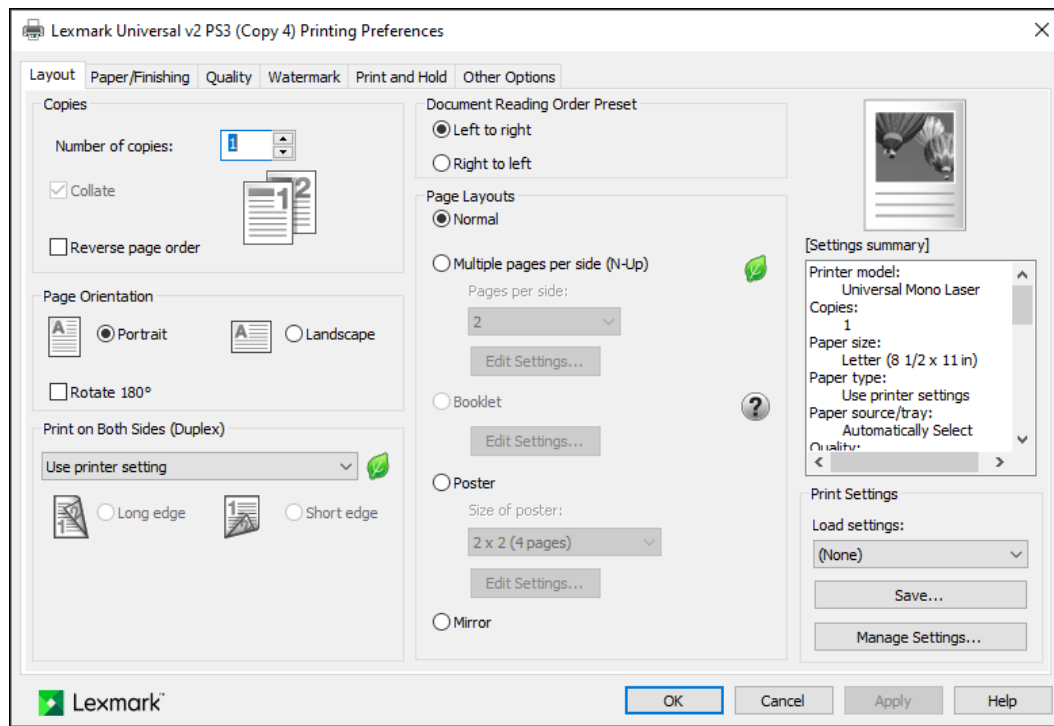


Figure 4-5. Lexmark Universal v2 PS3 Printing Preferences dialog

5. On the Layout tab, choose the following options:
 - a. Under Page Orientation, select **Portrait**.
 - b. From the Print on Both Sides (Duplex) drop-down list, select **Use printer setting**.
 - c. Under Document Reading Order Preset, select **Left to right**.
 - d. Under Page Layouts, select **Normal**.
6. Click the **Paper/Finishing** tab and choose the following options:
 - a. From the Other paper size with different orientation drop-down list, select **Off**.
 - b. From the Paper type drop-down list, select **Heavy**.
 - c. From the paper source/tray drop-down list, select **Automatically select**.
 - d. Ensure the Use multiple input options box is unchecked.
 - e. On the Output Bin list, select **Use printer setting**.
 - f. From the Separator sheet source drop-down list, select **Use printer settings**.

7. Click the **Quality** tab and choose the following options:
 - a. Under Toner Darkness, select **Use toner darkness**.
Use the slider to set the toner darkness value to **2**.
 - b. From the Pixel Boost drop-down list, select **Use printer setting**.
 - c. From the Resolution drop-down list, select **600 dpi**.
 - d. From the Halftone drop-down list, select **Use printer setting**.
 - e. From the Gray Correction drop-down list, select **Use printer setting**.
8. Click **Apply** and then click **OK** to close the Lexmark Universal v2 PS3 Printing Preferences dialog.

4.6 Adjusting the margins for the Lexmark MS521dn printer

To ensure that printed ballots are properly aligned, you must adjust the margins on the Lexmark MS521dn printer. To adjust the margins, use the buttons on the operator panel. The operator panel is on the top of the printer in the lower left corner. Figure 4-6 shows the operator panel.

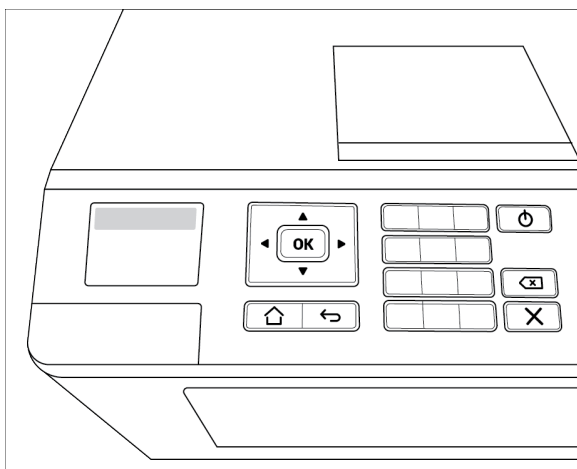


Figure 4-6. Lexmark MS521dn printer operator panel

To adjust the printer margins:

1. On the operator panel keypad, type ****36**.
The Diagnostics menu appears.
2. Press the Down arrow until Printer diagnostics & adjustments is selected and press **OK**.
The Printer diagnostics & adjustments menu appears.
3. Press the Down arrow until Registration adjust is selected and press **OK**.
The Registration adjust menu appears.

4. Press the Down arrow until Top margin is selected and press **OK**.
The Top margin menu appears.
5. On the operator keypad, type **15** to set the top margin to 15. Press **OK** to submit the change.
The Registration adjust menu reappears.
6. Repeat steps 4 and 5 to select and set the following margins on the printer:
 - a. Bottom margin = 0
 - b. Left margin = 0
 - c. Right margin = 15
 - d. Left Skew = 0
 - e. Duplex top margin = 9
 - f. Duplex left margin = 0
7. When all margins have been set, press the **Home** button to return to the main menu.

4.7 Configuring custom paper sizes for the Lexmark MS521dn printer

Out of the box, the Lexmark MS521dn printer can print ballots that are 11, 13, and 14 inches long. Additional paper lengths can be configured by accessing the printer's Printing Preferences dialog.

To set up printing for a ballot length that is not already configured, follow these steps to define a custom paper size:

1. Log in to the ClearAccess computer as the Windows administrative user.
2. Click the Start button on the Windows taskbar, search for and select **Printers & scanners**.
Windows displays the Printers & scanners dialog.
3. Click **Lexmark Universal v2 PS3**. Then, click **Manage**.
Windows displays the Manage your device dialog.

4. Click **Printing preferences**.

Windows displays the Lexmark Universal v2 PS3 Printing Preferences dialog (Figure 4-7).

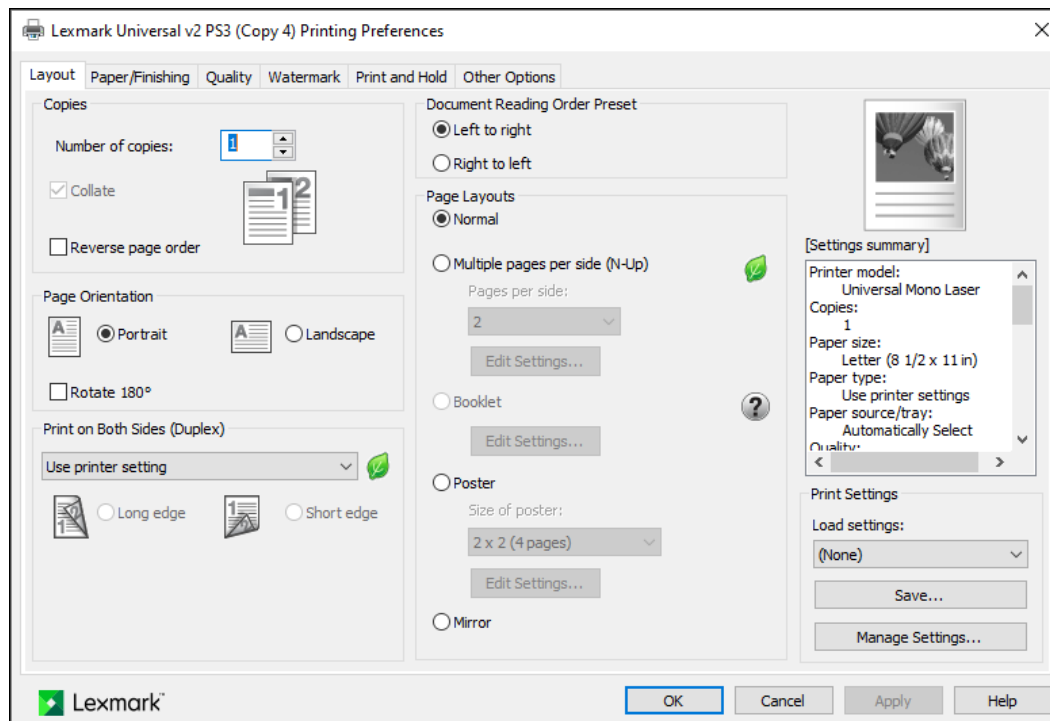


Figure 4-7. Lexmark Universal v2 PS3 Printing Preferences dialog

5. Click the **Paper/Finishing** tab.

The Printing Preferences dialog displays a list of paper and finish settings.

6. Click **Manage Custom Sizes**.

The Custom Paper Sizes dialog appears (Figure 4-8).

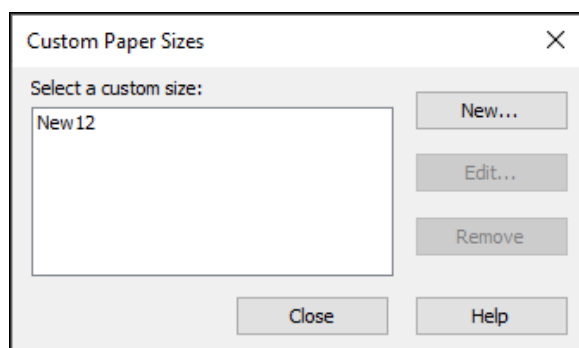


Figure 4-8. Custom Paper Sizes dialog

7. Click **New**.

The New Custom Paper Size dialog appears (Figure 4-9).

Figure 4-9. New Custom Paper Size dialog

8. To define a custom paper size:
 - a. In the **Name** field, enter a name for the custom paper size.
 - b. Select **Inches** as the Unit.
 - c. Set the Width to 8.5 inches
ClearAccess does not support any widths other than 8.50.
 - d. Specify the desired Height (this is the Length of the ballot).
 - e. Click **OK** to close the New Custom Paper Size dialog.
9. Repeat steps 7 and 8 to continue defining additional custom paper sizes.
10. When all desired custom paper sizes have been defined, click **Close** to close the Custom Paper Sizes dialog.
Your newly configured custom paper sizes are now available on the Paper size drop-down list in the Lexmark Universal v2 PS3 Printing Preferences dialog.

4.8 Adjusting the paper tray for the Lexmark MS521dn printer

The Lexmark MS521dn printer is capable of printing ballots up to 22 inches long. You can adjust the printer's paper tray to hold paper of any length between 11 and 22 inches. The paper tray contains a LTR clip that is inserted when paper with a length between 11-15 inches is used. The LTR clip is removed when paper with a length between 16-22 inches is used. Figure 4-10 shows the Lexmark MS521dn adjustable paper tray fully collapsed with the LTR clip inserted.

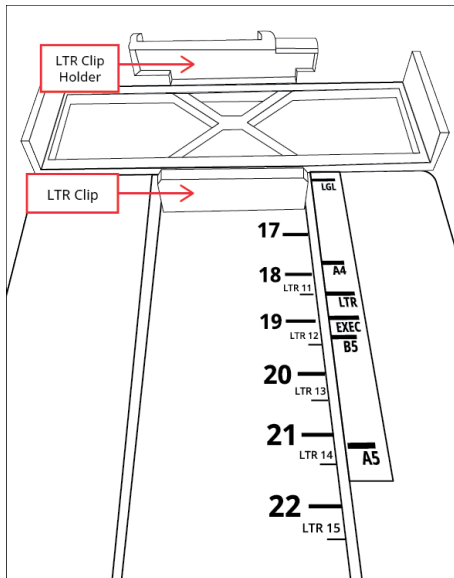


Figure 4-10. Lexmark MS521dn adjustable paper tray – fully collapsed

Adjusting the paper tray for 11-15 inch paper lengths

To adjust the paper tray for lengths between 11 and 15 inches:

1. Insert the LTR clip into the paper tray and ensure the adjustable portion of the tray is fully collapsed as shown in Figure 4-10 above.
2. On the adjustable portion of the tray, locate the engraved lines that indicate how to adjust the tray for paper lengths between 11 and 15 inches. These lines are labeled LTR11, LTR12, LTR13, LTR14, and LTR15.

3. Slowly pull out the adjustable portion of the tray until the white LTR line on the right of the tray is aligned with the engraved line for the desired paper length. Figure 4-11 shows an example of how to properly align the tray when using 13 inch paper.

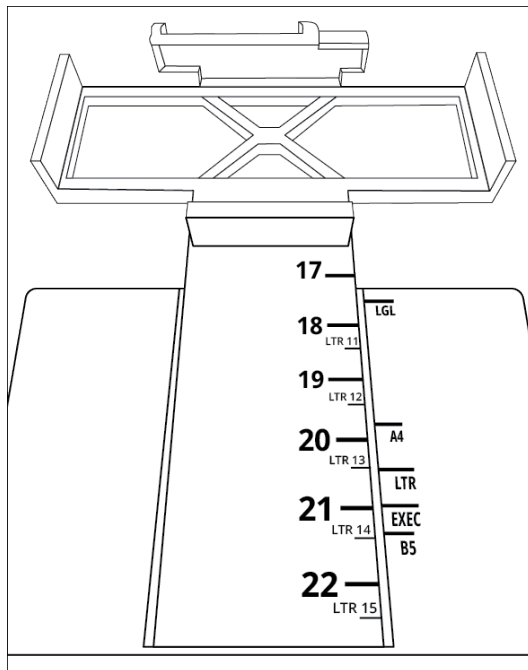


Figure 4-11. Lexmark MS521dn adjustable paper tray – aligned for 13 inch paper

4. Insert paper of the desired length into the tray.

Adjusting the paper tray for 16-22 inch paper lengths

To adjust the paper tray for lengths between 16 and 22 inches:

1. Remove the LTR clip and place it in the LTR clip holder at the back of the paper tray. Ensure the adjustable portion of the tray is fully collapsed.
2. On the adjustable portion of the tray, locate the engraved lines that indicate how to adjust the tray for paper lengths between 16 and 22 inches. These lines are labeled 16, 17, 18, 19, 20, 21, and 22.
3. Slowly pull out the adjustable portion of the tray until the white LGL line on the right of the tray is aligned with the engraved line for the desired paper length.
4. Insert paper of the desired length into the tray.

Chapter 5. Installing ClearAccess

This chapter describes how to install the ClearAccess software on the ClearAccess station.

The ClearAccess installation package does the following:

- Installs the ClearAccess software
- Installs Google Chrome Standalone Enterprise 64-bit
- Performs some hardening tasks
- Sets the default Windows Text-to-Speech (TTS) voice to female

Estimated time to complete: 30–45 minutes

5.1 Hardening the ClearAccess station

A critical part of the installation and configuration process is hardening the ClearAccess station. The term *hardening* refers to implementing security measures that protect the system from unauthorized access.

5.1.1 Hardening during installation

The ClearAccess installation program automatically performs the following hardening actions:

- Creates the Windows user account for ClearAccess.
ClearAccess runs automatically when this user logs in.
- Configures all Windows nonadministrative users, including the ClearAccess user, to run only in kiosk mode.
- Implements password-complexity rules for Windows user accounts.
- Removes Windows applications installed on the system.
The person performing the installation must confirm each removal.
- Sets all applications remaining on the system to run as a Windows administrator.
- Enables FIPS 140-2 security mode.
- Turns off and disables unused services, including all networking services.

- Disables the following:
 - Windows Sleep mode
 - Windows Smartscreen
 - Windows Wireless service
 - Windows Bluetooth service
 - Windows Autoplay
 - Keyboard shortcuts
 - Setup notifications
 - Startup applications

5.1.2 Postinstallation hardening

Although the installation program automatically performs most hardening tasks, some postinstallation hardening steps are required. See "Completing the hardening of the ClearAccess station" on page 66.

5.2 Installing the ClearAccess software

This topic describes the steps for installing the ClearAccess software.

Beginning the installation process

To begin the installation:

1. If necessary, connect an external DVD drive to the ClearAccess station.
2. Log in to the ClearAccess station as the Windows administrative user.
3. Insert the ClearAccess Application and Printer Drivers DVD into the DVD drive.
4. Use File Explorer to navigate to the ClearAccess Installer file on the DVD.
5. Right-click the installation file and select **Run as administrator**.

Windows displays the message:

Do you want to allow this app from an unknown publisher to make changes to your device?

6. Click **Yes**.

The installation program displays the Welcome to ClearAccess Setup dialog (Figure 5-1).

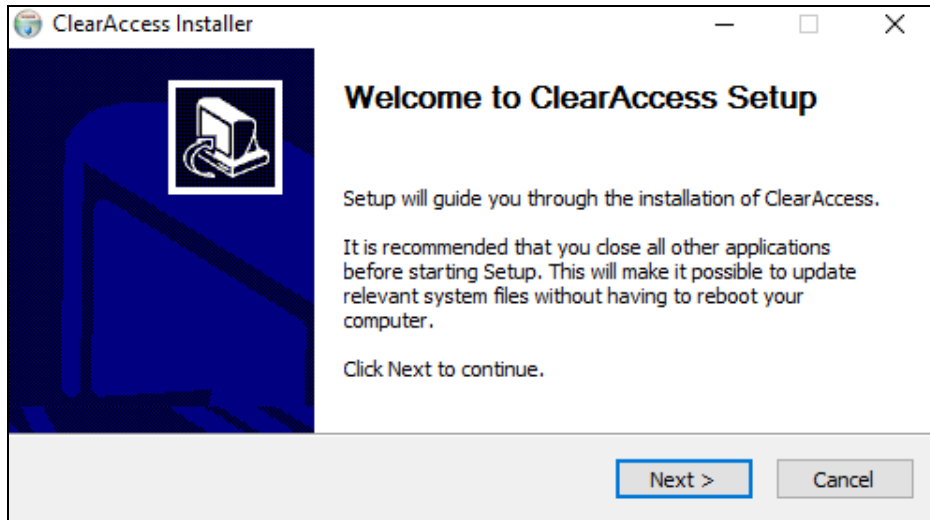


Figure 5-1. Welcome to ClearAccess Setup dialog

Selecting components and drivers

To install components and drivers:

1. When the installation program displays the Welcome to ClearAccess Setup dialog, click **Next**.

The installation program displays the Choose Components dialog (Figure 5-2).

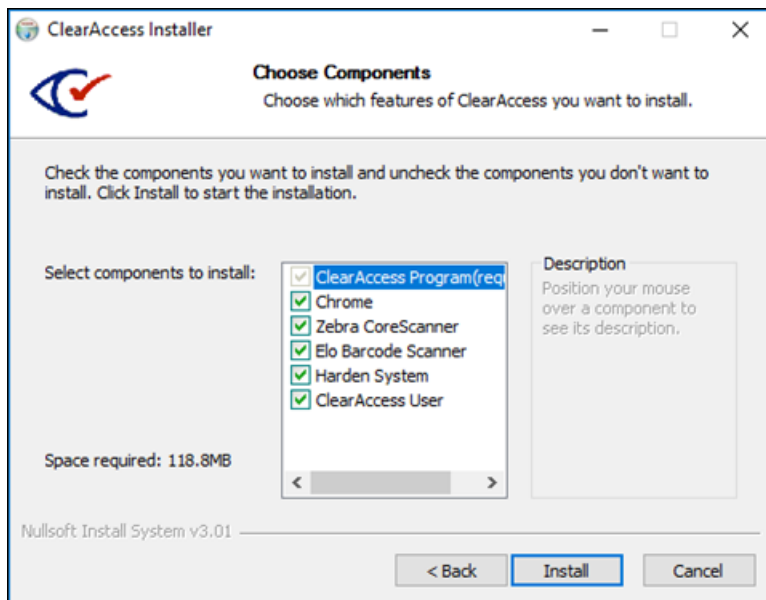


Figure 5-2. Choose component dialog

2. Select all components and click **Install**.

The installation begins and the installation program displays several status messages.

Installing the Zebra CoreScanner

The Zebra CoreScanner is the barcode scanner supported by ClearAccess.

After the ClearAccess installation program displays several status messages, the Zebra CoreScanner (64bit) - InstallShield Wizard starts.

Note: Because the Zebra CoreScanner driver is part of the ClearAccess installation package, you must install the driver even if you did not purchase the Zebra printer.

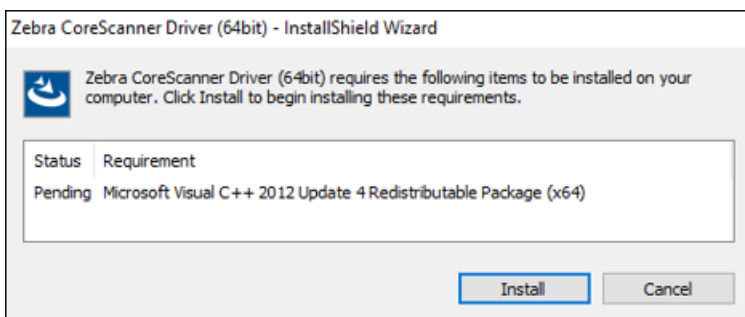


Figure 5-3. Zebra CoreScanner (64bit) - InstallShield Wizard

To install the Zebra CoreScanner driver:

1. On the first screen of the InstallShield Wizard of the Zebra CoreScanner, click **Install**.
The installation program displays several status messages.
2. When Zebra CoreScanner Driver dialog appears, click **Next** (Figure 5-4).

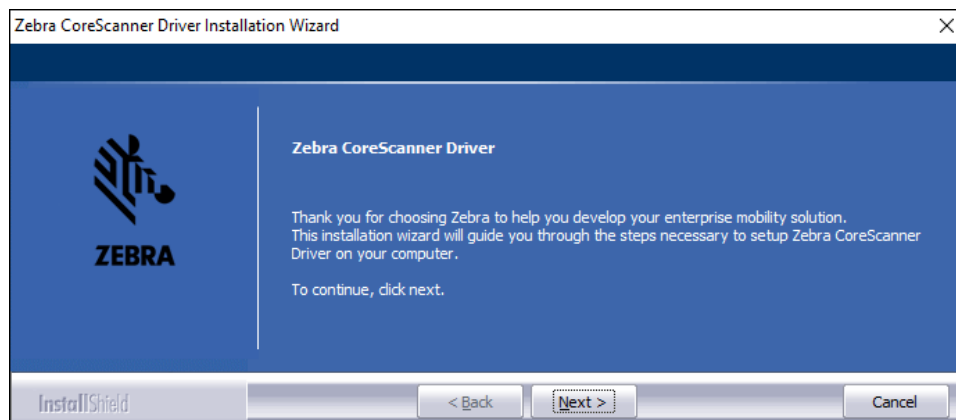


Figure 5-4. Zebra CoreScanner Driver dialog

The driver installation program displays the Setup Type dialog (Figure 5-5).

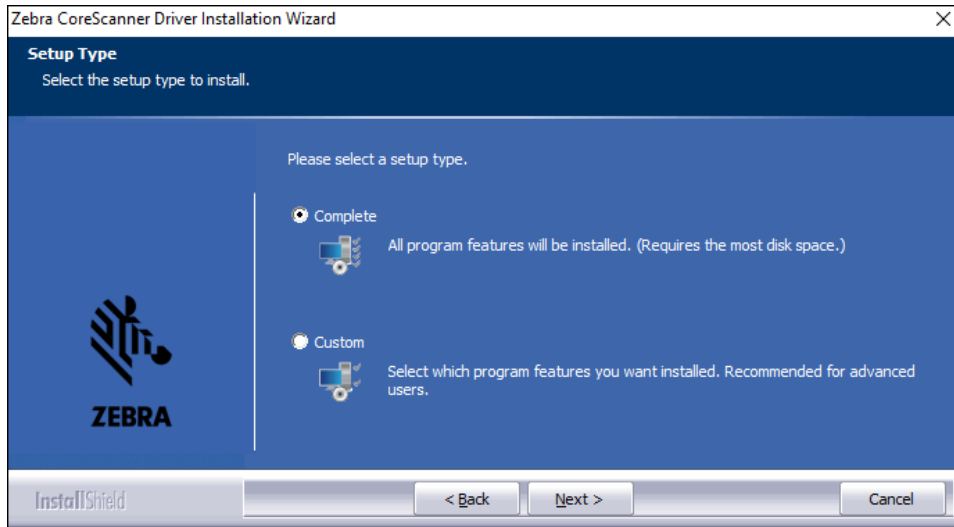


Figure 5-5. Setup Type dialog

3. Select **Complete** and click **Next**.

The driver installation program displays the following dialog (Figure 5-6).

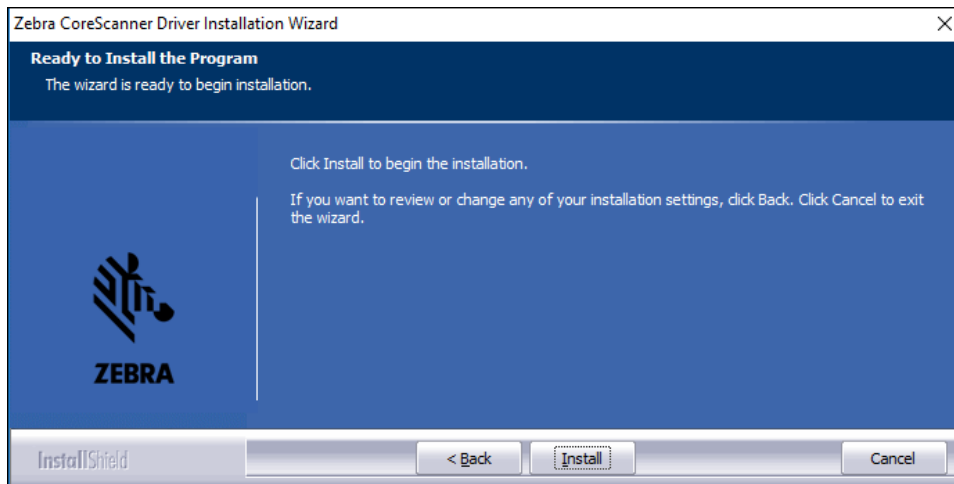


Figure 5-6. Ready to Install the Program dialog

4. Click **Install**.

The driver installation program displays several progress messages and displays the following dialog when the installation is complete (Figure 5-7).

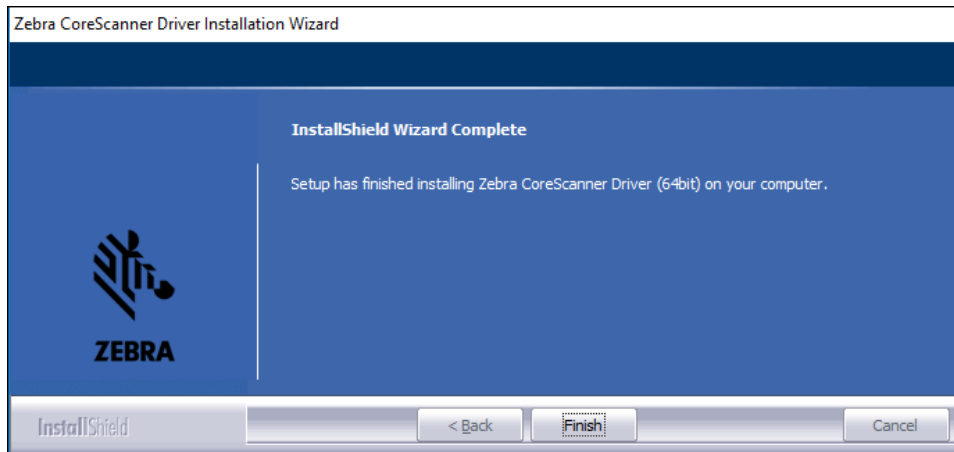


Figure 5-7. InstallShield Wizard Complete

5. Click **Finish**.

The installation program displays several status messages as it progresses and completes the installation process.

Uninstalling unused programs

Next, the installation program displays the Uninstall Programs dialog.

To uninstall unused programs:

1. **Important:** Deselect any option that should not be uninstalled and click **OK**.

The installer displays the Uninstall Programs dialog (Figure 5-8). This dialog does not appear if there are no programs to uninstall.

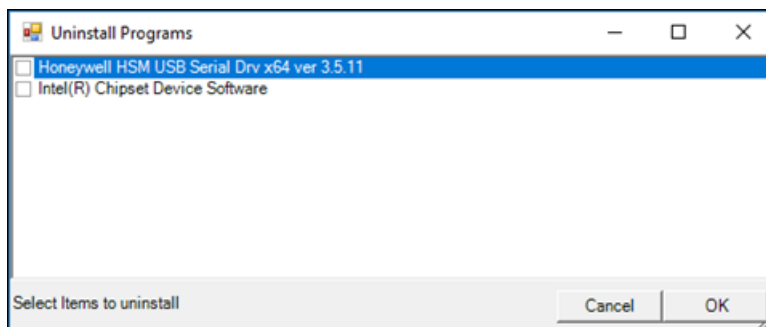


Figure 5-8. Uninstall Programs dialog

2. Click **OK**.

The installer displays the message:

Are you sure you want to Uninstall the applications?

The message appears even if no programs are selected for deletion.

3. Click **Yes**.
4. As individual programs are removed, you may need to provide one or more of the following inputs:
 - Click **Yes** if any messages ask you to confirm program deletion.
 - Click **Uninstall** if any messages prompt you to begin uninstalling.
 - Do *not* restart the computer if you are prompted to do so during the program removal process.
 - If an Uninstall Complete dialog appears, click **Finish** as needed to continue.

Creating the ClearAccess user

Next, the installer displays the ClearAccess Password dialog (Figure 5-9). This dialog asks you to enter and confirm the password for the ClearAccess user.

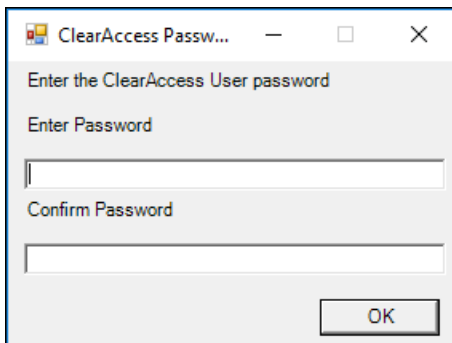


Figure 5-9. ClearAccess Password dialog

Enter a password that meets the requirements and click **OK**.

Completing the installation

To complete the installation:

1. When the installer displays the Completing ClearAccess Setup dialog (Figure 5-10), do the following:
 - a. Remove the ClearAccess DVD from the DVD drive.
 - b. Unplug the drive from the ClearAccess station.
 - c. Select **Reboot Now** and click **Finish** on the Completing ClearAccess Setup dialog (Figure 5-10).



Figure 5-10. Completing ClearAccess Setup dialog

2. After the reboot finishes, press the **Esc** key.

The lower-left corner of the screen now shows a ClearAccess user in addition to the Windows user created when the computer was first set up.

5.3 Selecting the printer in ClearAccess

After installing ClearAccess, you must use ClearAccess Setup to select the printer that the station uses. This step ensures ballots print correctly.

Note: You *must* select the printer in Setup even if only one printer is installed and connected to the ClearAccess station.

To select the printer and confirm ClearAccess system settings:

1. Log in to Windows on the ClearAccess station as the ClearAccess user.
2. On the ClearAccess Load Election screen, select **Administrator** from the Select Role drop-down list, enter the administrator code in the **Enter Code** field, and click **OK** (Figure 5-11).

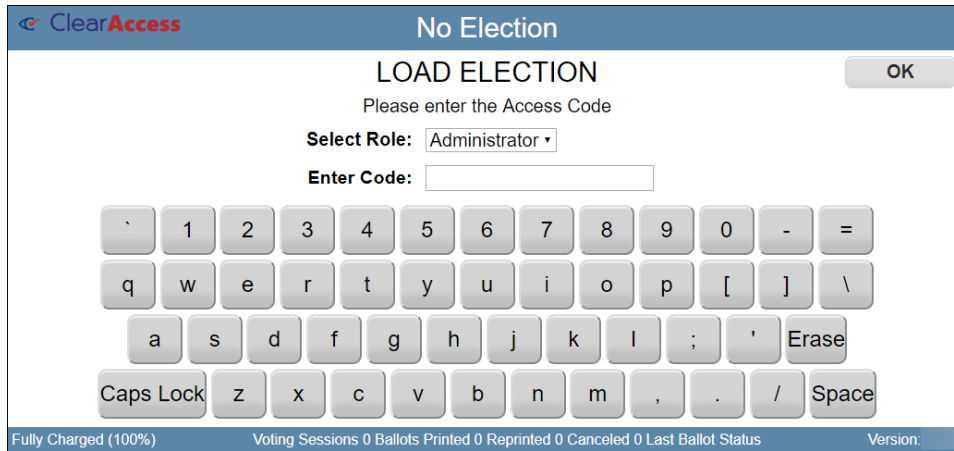


Figure 5-11. Entering the Administrator Code on the Load Election screen

ClearAccess displays the following screen (Figure 5-12).

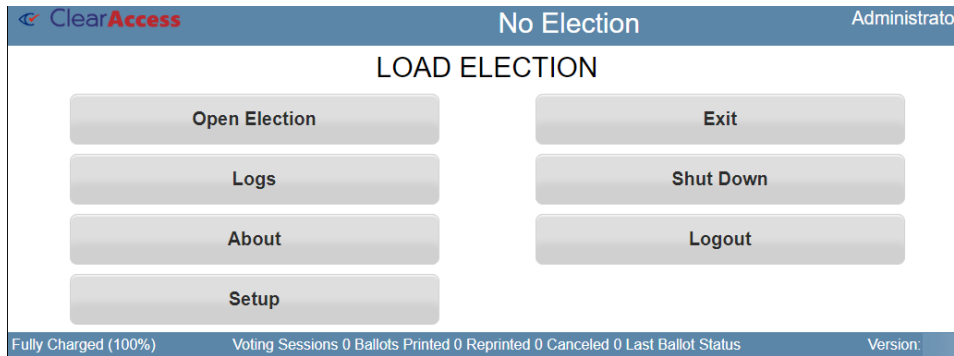


Figure 5-12. Selections on the Load Election screen after logging in as Administrator

3. Select **Setup**.

ClearAccess displays the following Setup screen (Figure 5-13).

Figure 5-13. Setup screen

4. Accept or change the values for the following settings:

- Printer
- Date
- Time Zone
- Time
- DPI Setting—Use this setting to adjust the size of buttons on ClearAccess screens. This setting ensures that buttons on smaller, high-resolution displays render at an adequate size. The available button sizes are:
 - 100 dpi (Default)
 - 130 dpi (Large)
 - 160 dpi (Extra Large)

5. When done, click **Save**.

5.4 Validating ClearAccess software

After installing or upgrading ClearAccess, validate the software by comparing it with the certified software files from your designated state or federal agency. Validating ensures that:

- The correct software is loaded on the ClearAccess station.
- The ClearAccess software has not been modified.

- No unauthorized software is installed on the ClearAccess station. If necessary, validation can also be performed prior to an election.

For instructions on validating the ClearAccess software, see the *ClearAccess System Identification Guide*.

5.5 Dell Optiplex configuration with bezel

The bezel provides a secure enclosure for the ClearAccess station, protecting the USB and power ports on the computer. This chapter describes the configuration and disassembly of the ClearAccess bezel for the Dell OptiPlex 5250 computer.

After the ClearAccess station has been configured with the bezel, the power, printer and personal assistive device cables cannot be removed (until the bezel is removed). The ClearAccess station configured with the bezel must be stored and operated with personal assistive devices attached.

The bezel should only be configured after software and printers have been installed and configured.

Note: The bezel shown in this chapter is white for purposes of illustration only. The bezel shipped to customers is black.

5.5.1 Bezel configuration supplies

Bezel configuration and disassembly is performed using the following tools and supplies:

- Top and bottom bezel sleeves
- Dell port cover
- Two security screws
- Long-nosed #1-sized Phillips screwdriver
- Security seals
- Paperclip

The top and bottom bezel sleeves, security screws, and long-nosed #1-sized Phillips screwdriver are shipped with the bezel. The Dell port blockers are shipped with the Dell Optiplex 5250 computer.

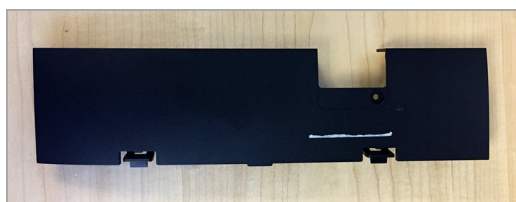
5.5.2 Configuring the bezel

Configure the bezel on the Dell OptiPlex 5250 as follows:

1. Plug the printer, power and personal assistive device cables into the computer.



2. Install the Dell Port cover, ensuring that the installed cables thread properly through the cover.

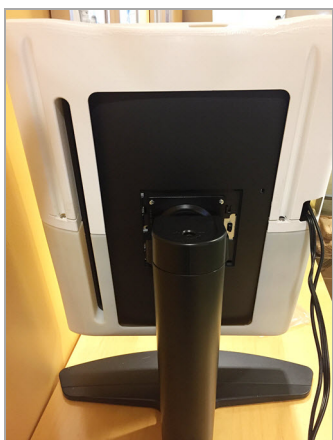


3. Thread the cables through the appropriate cavity in the bezel sleeve.
4. For ease of installation, rotate the Dell 5250 monitor into landscape mode.

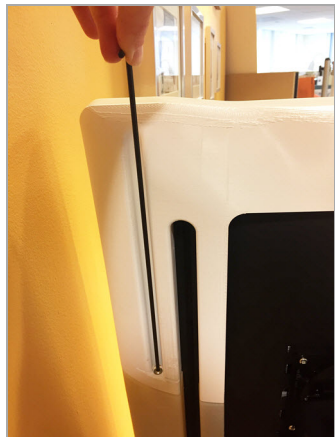
5. Slide the bezel covers onto the computer. Ensure that the edges of the sleeves are flush.



6. Pivot the computer into portrait position, so that the top of the unit is facing up.



7. Using the screwdriver provided, screw the two security screws into the back side of the bezel in order to secure the bezel.



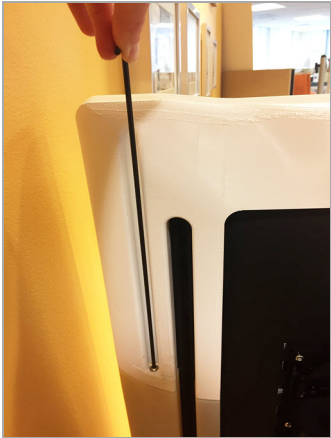
8. Apply a seal to the seam between the bezel sleeves. Alternatively, a cable seal can be threaded through the cavity on the back side of the bezel above the screws.
9. Apply a seal to the USB port cutout on top of the unit.
10. Plug the headphones into the exposed audio jack on top of the unit.



5.5.3 Disassembling the bezel

Remove the bezel from the Dell OptiPlex 5250 as follows:

1. Verify the numbers of the seals applied to the bezel.
2. Remove the bezel seals.
3. Detach the audio headphones.
4. Remove the screws locking the bezel into place using the screwdriver provided.



5. Pivot the computer into landscape position.
6. Carefully detach the bezel sleeves from the computer.
7. Return the computer into portrait position.
8. Thread the cabling out of the bezel sleeve cavity.
9. Remove the port cover.
10. Detach the installed cables from the ClearAccess station.

5.5.4 Powering on the ClearAccess station with the bezel

The following procedure is used to power on the ClearAccess station configured with bezel. The can be shut down from the ClearAccess application.

1. Plug the computer's power cord into an AC power jack.
2. Pivot the computer into landscape position.
3. Locate the cavity on the base of the bezel in which the power button is housed.
4. Straighten the paper clip, then feed gradually into the cavity.

5. Press lightly to turn the machine on , then retract the clip from the cavity.
6. Rotate the cavity back into portrait position.



Chapter 6. Configuring the ClearAccess station

This chapter describes how to configure the ClearAccess station.

Estimated time to complete: 30 minutes

6.1 Completing the hardening of the ClearAccess station

After you install ClearAccess, you must perform the tasks described in this section to complete the hardening process.

6.1.1 Restricting access to the BIOS

All ClearAccess stations should restrict access to the BIOS.

The Elo E and Elo X series models require additional steps to prevent intermittent freezing.

As part of hardening the ClearAccess station, restrict access to the BIOS by implementing a supervisor password.

Note: The exact behavior of the BIOS depends upon the computer make and model. If necessary, consult your computer's documentation or Clear Ballot Technical Support if you need help completing this task.

To restrict access to the BIOS:

1. Restart the ClearAccess station.
2. During the restart, press the F11 key immediately when the logo of the touchscreen manufacturer appears.
A BIOS menu appears.
3. Use the Down arrow key to select **Enter Setup** and then press **Enter**.
4. Navigate to the **Security** tab.
5. Create an administrator password, following the on-screen instructions.
Record the new password on the "Installation checklist" on page 107.
6. Navigate to the **Save & Exit** tab and then select **Save Changes and Exit**.
The computer restarts automatically.
7. To verify your changes, restart the computer again and press **F11** when the logo of the touchscreen manufacturer appears.
8. Confirm that BIOS Setup prompts you for a password.

6.1.2 Configuring BIOS settings for the Elo E and Elo X

To configure the BIOS setting for the Elo E and Elo X:

1. Configure the following additional BIOS settings for the Elo E:
 - a. Open the BIOS setup utility and enter the password that you previously created.
 - b. Navigate to the **Advanced** tab and select **CPU Configuration**.
 - c. Change **Power Technology** to **Custom**.
 - d. Navigate to the **Save & Exit** tab and select **Save Changes and Exit**.
2. Configure the following additional BIOS settings for the Elo X:
 - a. Open the BIOS setup utility and enter the password that you previously created.
 - b. Navigate to the **Advanced** tab and select **PPM Configuration**.
 - c. Set **Monitor Mwait** and **CPU C State Report** to **Enabled**.
 - d. Navigate to the **Save & Exit** tab and select **Save Changes and Exit**.

6.1.3 Setting the Elo E and Elo X power settings

Adjust the Elo E and Elo X power settings as described in this section to prevent intermittent freezing.

1. Log in to the ClearAccess station as the Windows administrative user.
2. Click the Windows Start button and type **edit power plan**.
3. Select **Edit power plan**.
4. Click **Change advanced power settings**.
5. Select **High performance** from the drop-down menu.
6. Click [+] next to **Processor power management** to open it.
7. Make sure that **Minimum processor state** and **Maximum processor state** are both 100%
8. Click **OK**.
9. Click **Save Changes**.
10. Restart the ClearAccess station.

6.1.4 Stopping automatic Windows updates

This procedure prevents automatic updates to the Windows operating system.

To stop automatic Windows updates:

1. Log in to the ClearAccess station as the Windows administrative user.
2. Click the Windows **Start** button and type **services**.
3. Select **Services** from the search results.

Windows displays the following message:

Do you want to allow this app to make changes to your device?

4. Click **Yes**.

Windows displays the Services dialog (Figure 6-1).

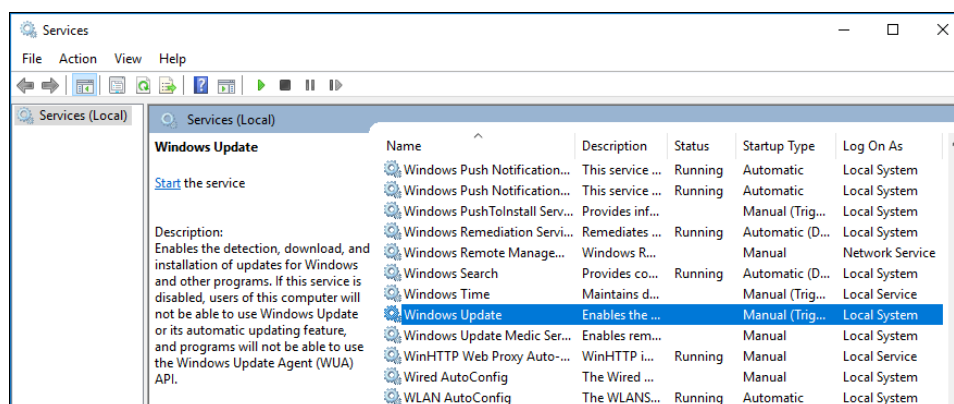


Figure 6-1. Services dialog

5. In the Services dialog, scroll down and double-click the **Windows Update** service (Figure 6-1).

Windows displays the Update Properties dialog and the General tab is selected (Figure 6-2).

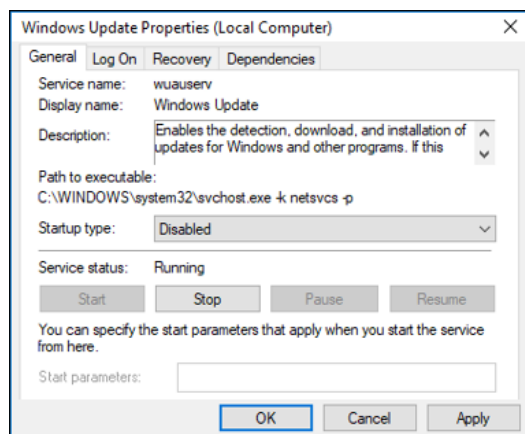


Figure 6-2. Windows Update Properties dialog

6. On the General tab of the Windows Update Properties dialog, do the following:
 - a. Change Startup type to **Disabled**.
 - b. Click **Stop** if has not already been disabled.
 - c. Click **OK**.
7. Close the Services dialog.

6.1.5 Disabling the power button on the Elo X Series

If your voting station uses the Elo X Series touchscreen computer, Clear Ballot recommends disabling the computer's power button to prevent users from turning it off during voting.

After you disable the Elo X Series power button, the following guidelines apply:

- Pressing the power button does not turn off the computer.

To turn off the computer, do the following:

 - If ClearAccess has started, use the **Shut Down** button in ClearAccess.
 - If ClearAccess has not started, use the Windows **Power > Shut Down** command.
- You can use the power button to turn on the computer.
- The Brightness Up, Brightness Down, Volume Up, and Volume Down buttons are disabled.

To disable the Elo X Series power button:

1. Log in to the ClearAccess station as the Windows administrative user.
2. (Optional) Use the Volume buttons on the Elo X computer's control panel to ensure that the volume is at the desired level.

You can also adjust volume later by using the volume controls in the Windows or ClearAccess software.
3. On the computer control panel, simultaneously press the Brightness Up and Brightness Down buttons for three seconds until the OSD LOCK message appears on the screen (Figure 6-3).

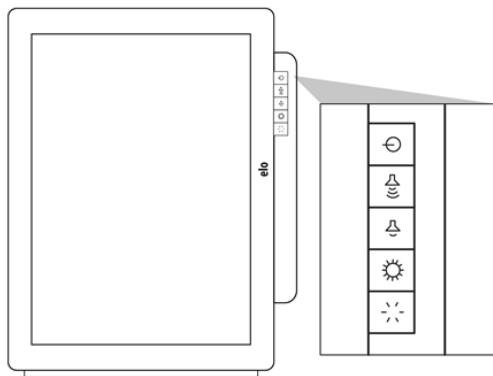


Figure 6-3. Control panel—Elo X Series

4. Release the Brightness Up and Brightness Down buttons.

Disabling the power button on the Elo X computer is persistent. The button remains disabled in future sessions until you explicitly re-enable it.

To re-enable the Elo X Series power button:

1. Log in to the ClearAccess station as the Windows administrative user.
2. On the Elo X computer's control panel, simultaneously press the Brightness Up and Brightness Down buttons for three seconds until the OSD UNLOCK message blinks on the screen.
3. Release the Brightness Up and Brightness Down buttons.

6.2 Enabling BitLocker (optional)

When Windows is installed, BitLocker encrypts the drive. Because the mode of encryption does not meet Clear Ballot standards, you must decrypt the drive. After hardening the computer, which sets the encryption mode to FIPS 140-2, you may choose to re-enable BitLocker and encrypt the drive.

To enable BitLocker:

1. Click the Start button on the Windows taskbar, search for and select **Manage BitLocker**.
2. When Windows displays the BitLocker Drive Encryption window, click the option to **Turn on BitLocker** and accept any confirmation dialogs that appear.
3. When Windows displays the recovery key dialog, insert a USB drive into the computer and click **Save to a File**. Navigate to the desired location on the USB drive and click **Save**.

Note: Store this file in a secure location so that it is available for future use.

4. On the How do you want to back up your recovery key dialog, click **Next**.
5. When Windows displays the Choose how much of your drive to encrypt dialog, select **Encrypt used disk space only (faster and best for new PCs and drives)** and click **Next**.

6. When Windows displays the Choose which encryption mode to use dialog, select **New encryption mode (best for fixed drives on this device)** and click **Next**.
7. When Windows displays the Are you ready to encrypt this drive dialog, check the **Run BitLocker system check** box and click **Continue**.
8. In the dialog that appears, click **Restart Now**.

Windows restarts.

6.3 Configuring the touchscreen

The touchscreens supported by ClearAccess ship from the factory with the screen in landscape (horizontal) orientation. To use the ClearAccess station in portrait (vertical) orientation, complete the configuration tasks described in this topic.

6.3.1 Changing the physical orientation of the touchscreen

To change the physical orientation of an Elo computer from landscape to portrait:

1. Use a Phillips-head screwdriver to remove the four screws that attach the Elo screen to the stand.
2. Rotate the screen so that the Elo logo on the front of the screen is on either the left or right:
 - Elo E Series—When you rotate the screen, be careful not to exert undue pressure on the wires connecting the screen to the base.
 - Elo X Series—If the voting station uses a barcode scanner, Clear Ballot recommends rotating the screen so that the logo is on the right. This position accommodates the short cable of the barcode scanner. Also, see "Installing the barcode scanner" on page 74.
3. Use the four screws to reattach the screen to the base.

6.3.2 Changing the Windows display mode

To change Windows display mode:

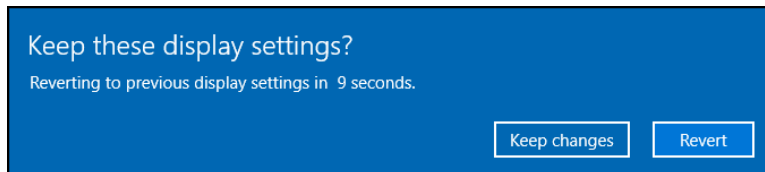
1. Log in to the ClearAccess station as a Windows administrative user.
2. Click the Windows **Start** button at the bottom of the screen and type *display settings*.
3. From the search results, select **Change display settings**.

The Windows Display screen appears.
4. Select the value of the **Orientation** field based on how you oriented the screen (Table 6-1).

Table 6-1. Orientation field settings

Position of the Elo logo	Select the following Orientation field setting:
Left	Portrait
Right	Portrait (flipped)

Windows displays the prompt shown in Figure 6-4.

**Figure 6-4. Prompt for keeping display settings**

5. Click **Keep changes**.

The ClearAccess station can now display in portrait mode.

6.3.3 Calibrating the Elo E touchscreen

This section applies only to the Elo E Series computer.

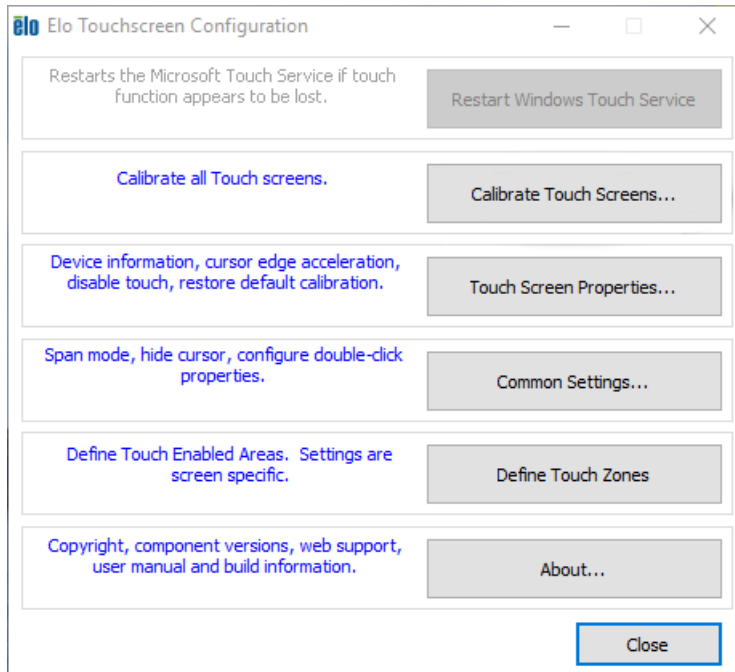
After you change the Orientation to Portrait or Portrait-Flipped on the Windows display screen as described in the previous section, calibrate the screen. The touchscreen will not function properly until you calibrate it.

You need a mouse and an external keyboard to calibrate the screen.

To calibrate the touchscreen:

1. Log in to the ClearAccess station as a Windows administrative user.
2. Right-click the EloConfig shortcut and select **Run as administrator**.

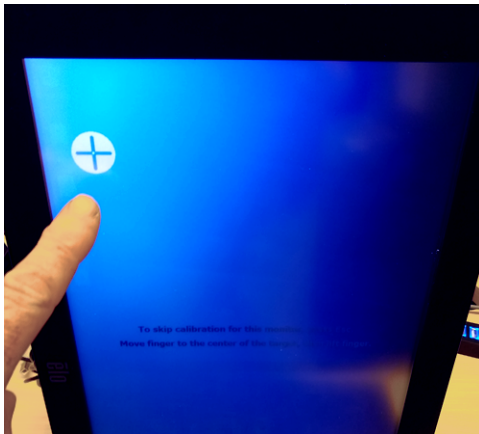
The Elo Touchscreen Configuration dialog appears.



3. Click **Calibrate TouchScreens**.

A series of target icons appear on the screen.

4. Press each target icon lightly in the center with a fingertip as shown in the following image.



5. Click the **Accept** button to confirm the calibration.

6.4 Installing the barcode scanner

A barcode scanner allows a voter to scan a QR code to automatically load the correct ballot for that voter. See the *ClearVote Approved Parts List* for barcode scanner models supported by ClearAccess.

To install the Elo UM600149 barcode scanner:

1. Remove one of the four plastic coverings on the POS.
There should be one plastic covering on each side of the POS. After removing the covering, you should see a small port.
2. Insert the Elo barcode scanner into the bottom port, so that the scanner appears at the base of the Elo.
The machine should beep and the scanner's light should turn on.

The driver for the barcode scanner is installed automatically during ClearAccess installation. No additional software configuration is required to use the barcode scanner.

6.5 Disable EloPOS unused ports

For security reasons, it is highly recommended to turn off or disable all unused peripheral USB ports located on each side of the Elo touchscreen.

1. Power off EloPOS
2. Plug in a keyboard to any USB-A port
3. Power on the EloPOS by pressing the power button located on the back right of the touchscreen
4. While it is booting up, repeatedly press delete until it boots into its BIOS menu
5. Use right arrow to go into 'Advanced' tab
6. Scroll down and select 'USB Configurations'.
7. Disable all unused USB peripherals (Top, Bottom and Right).
8. Save and Exit the BIOS.
9. Power off and then power on the EloPOS so the changes take effect.

6.6 Testing the barcode scanner

After installing the barcode scanner, test it to ensure it is functioning properly.

To perform this test, you need the following:

- A USB drive containing a sample election in an ADF in the root directory
- The code for the ADF
- A printed QR code created for the election

To test the barcode scanner:

1. Install the barcode scanner as described in the previous section.
2. Log in to ClearAccess as Administrator.

The ClearAccess status bar shows a *Scanner Attached* message (Figure 6-5).

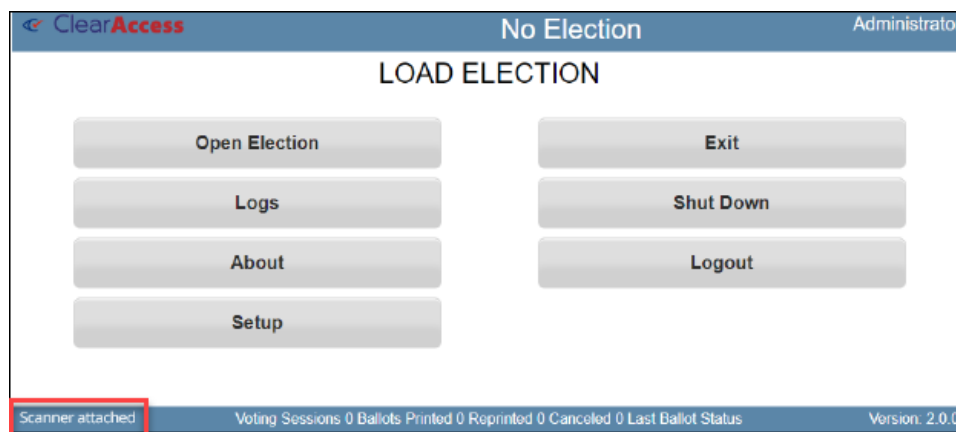


Figure 6-5. Scanner attached message on the status bar

3. Load the sample election as follows:
 - a. Plug the USB drive containing the ADF into an available USB port on the computer.
 - b. On the Load Election screen, click **Open Election**.
If a different election is already loaded, you first need to close it by selecting **Close Election**.
 - c. On the Elections screen, click the election name.
 - d. On the next screen, enter the ADF code and click **OK**.
 - e. On the Select Vote Center screen, select the appropriate vote center.
4. Click **Test Vote**.

5. Hold the QR code 5 to 10 inches away from the barcode scanner so that the barcode scanner's red target light centers on the code (Figure 6-6).

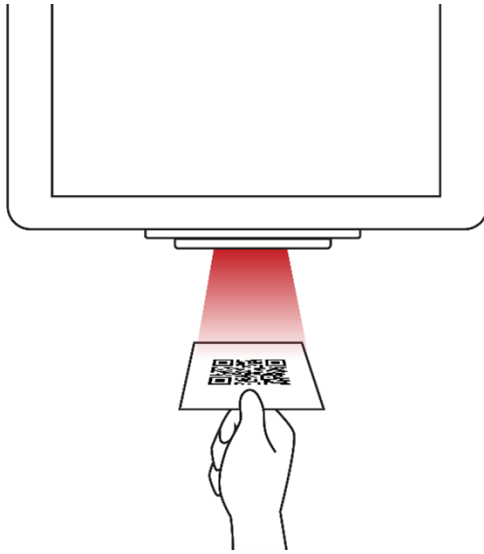


Figure 6-6. Scanning the QR code

The barcode scanner beeps to confirm a successful scan. The ballot options appear on screen.

6.7 Installing the ClearAccess setup box configuration with the Oki Data printer and CyberPower UPS

Supplies Required:

- 4 x 2-inch 1/4-20 bolts
- 7/16-inch socket head driver
- Touchscreen kickstand
- Eyebolt assembly
- UPS L-Brackets
- #2 Screwdriver
- Universal Power Supply (UPS) bracket-mounting screws

This section describes how to install the ClearAccess setup box and its peripherals such as the Elo Touchscreen Monitor, printer, UPS, keypad, headphones, and sip-and-puff device. It is only relevant to jurisdictions that use the Elo Touchscreen Monitor. If your jurisdiction uses Dell Optiplex or Dell Inspiron computers, skip the steps in this section.

Figure 6-7 shows an installed ClearAccess setup box.

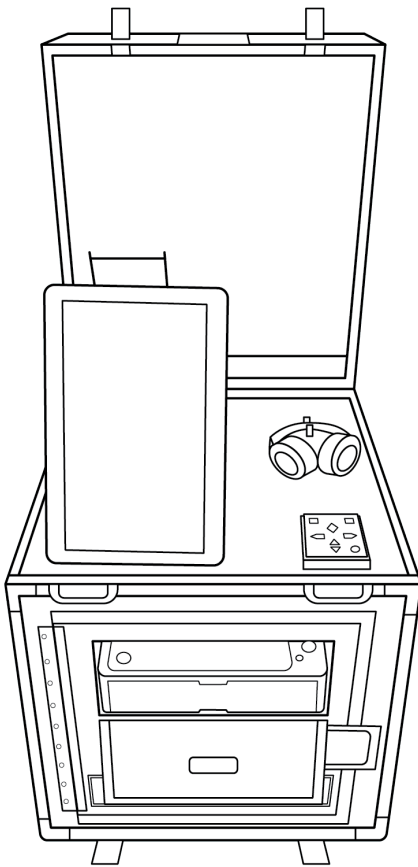


Figure 6-7. Installed ClearAccess setup box

Installing the UPS in the setup box

1. Remove the Uninterrupted Power Supply (UPS) out of its packaging.
2. Set aside the face plate.
3. Install the two mounting L-brackets on the left and right sides of the UPS.
 - a. Line up the bottom of the L with the front of the UPS.
 - b. Attach the brackets by using the UPS mounting screws.

Figure 6-8 shows an L bracket attached to the UPS.

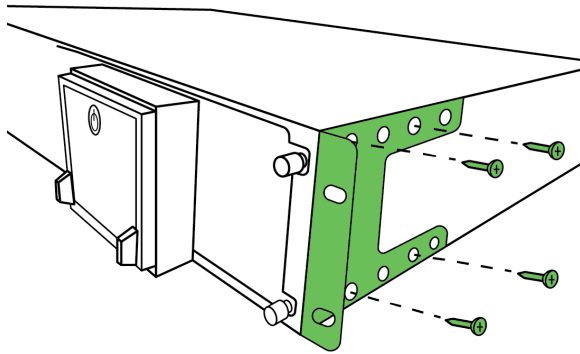


Figure 6-8. An L-bracket attached to the UPS

4. Unlatch the door on the front of the ClearAccess setup box (Figure 6-9):
 - a. Rotate the butterfly latch to the left.
 - b. Swing the door open.

These actions expose both the printer and lower UPS compartments.

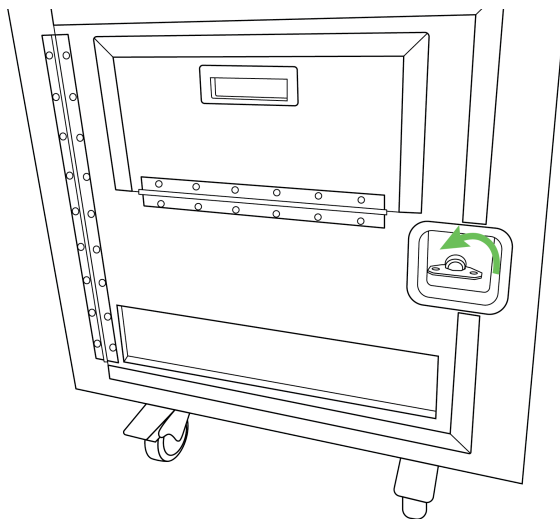


Figure 6-9. The front door and butterfly latch

5. Slide the UPS into the lower UPS compartment and push it back so that the installed L-brackets align with the box's bracket holes (Figure 6-10).

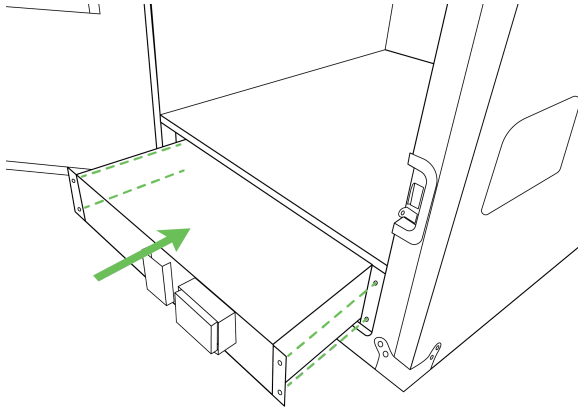


Figure 6-10. Aligning the UPS

6. Secure the L-bracket to the rack mount of the setup box by using the bracket mounting screws (Figure 6-11).

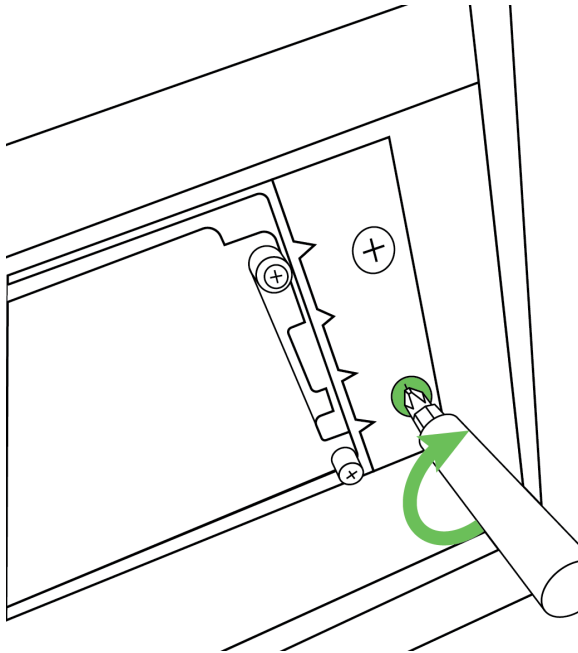


Figure 6-11. Securing the UPS

7. Align the UPS face plate on the front of the UPS and apply pressure to both sides of the face plate until it clicks into position (Figure 6-12).

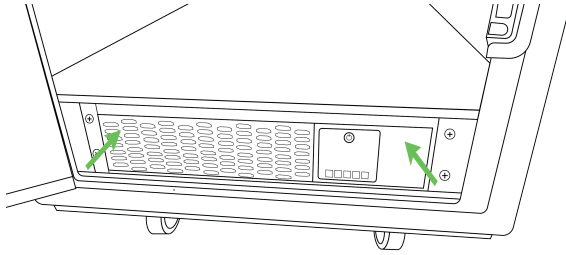


Figure 6-12. Installing UPS face plate

Installing the printer in the setup box

1. Remove the printer from its packaging and peel off any tape from manufacturing.
2. To access the toner compartment for an Oki printer:
 - a. Press the circular button on top of the printer in the front left corner to access the toner compartment (Figure 6-13).

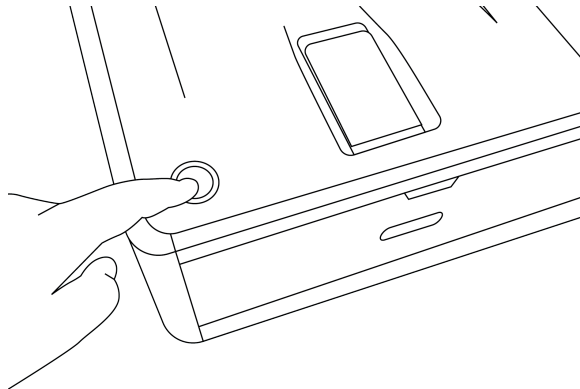


Figure 6-13. Accessing the toner compartment of the Oki printer

- b. Flip the blue lever back to lock the toner in place. Remove any manufacturing tape (Figure 6-14).

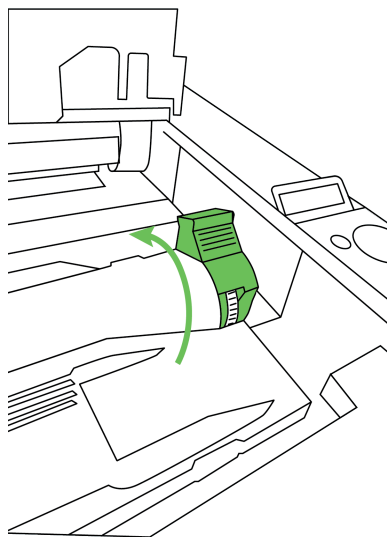


Figure 6-14. Locking the printer toner in place

3. Place the printer into its compartment with the holes on the bottom of the printer aligned on top of the pegs on the floor of its compartment (Figure 6-15).

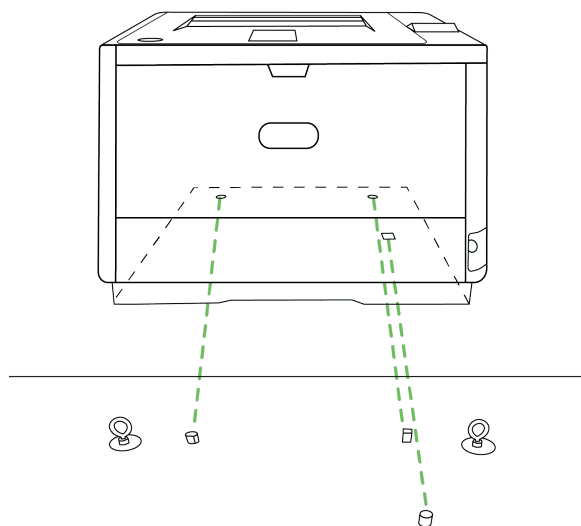


Figure 6-15. The printer aligned on its pegs in its compartment

4. Swing the metal assembly over the printer and loop the J-hooks through the installed eyebolts on the floor of the printer compartment, on either side of the printer (Figure 6-16).

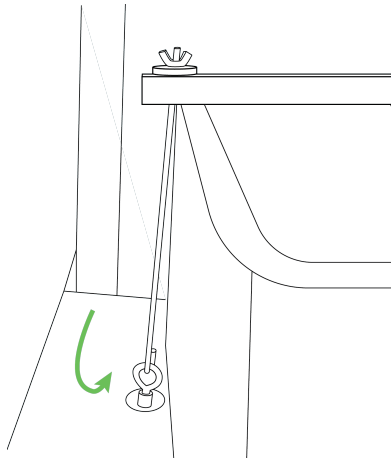


Figure 6-16. J-hook looped around one of the eyebolts

5. Tighten the wingnuts to secure the printer in its compartment (Figure 6-17).

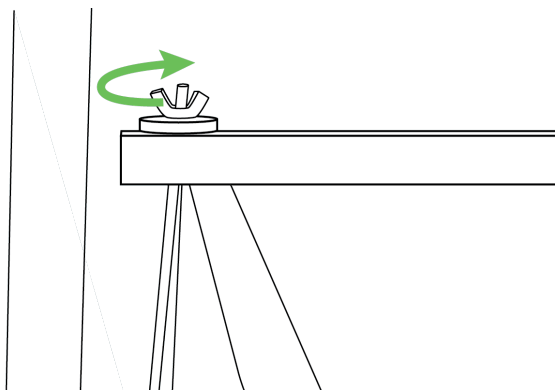


Figure 6-17. Tightening the wingnuts

6. Install the ferrite (Takachi Electronics model TFT152613N) on the printer's power cable, looped a single time three inches from the end that will plug into the printer (Figure 6-18).

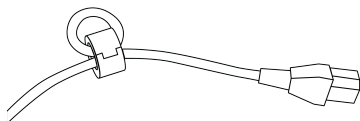


Figure 6-18. Ferrite installed on printer power cable

7. Open the back door of the ClearAccess setup box.
8. Plug the printer's power cable into the printer. Plug the AC (male) side into one of the critical ports of the UPS.

9. Install the ferrite (Würth Elektronik model 742 712 22) on the printer's data cable, looped a single time two inches from the end that will plug into the printer (Figure 6-19).

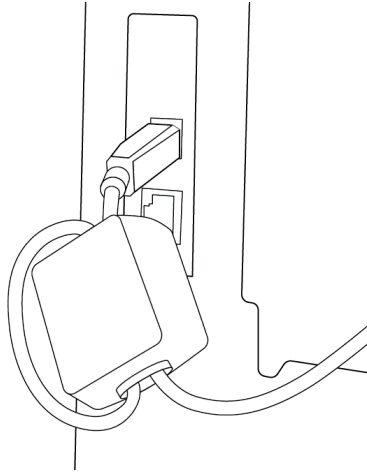


Figure 6-19. Ferrite installed on the printer's data cable

10. Plug the printer's USB B (square) end into the printer. Guide the USB A side through the hole in the top of the compartment and leave it there for now.

Setting up the kickstand

1. Unlatch the top compartment of the setup box by rotating both butterfly latches to the left (Figure 6-20).

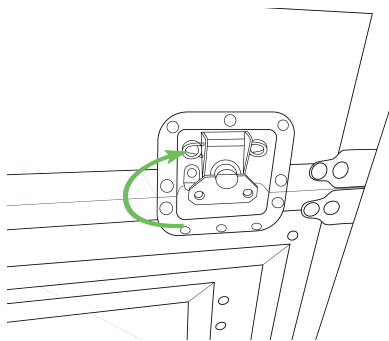


Figure 6-20. Butterfly latches to unlatch top compartment

2. Grab the middle handle to open the top compartment (Figure 6-21).

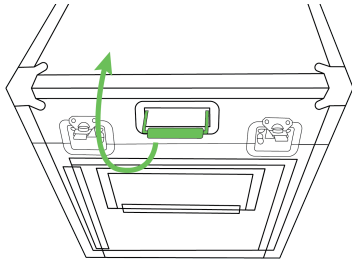


Figure 6-21. Opening the top compartment

3. Place the kickstand on its raised mounting platform on the top compartment with its handle closest to the compartment lid. Align the holes in the kickstand with the mounting holes in the raised platform (Figure 6-22).

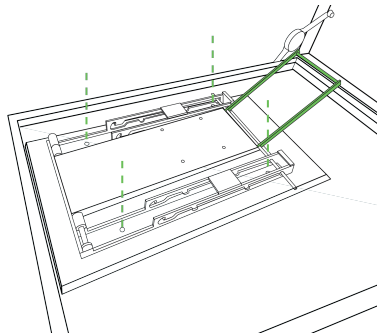


Figure 6-22. Kickstand aligned on mounting platform

4. Screw the kickstand into place on the mounting platform.
5. Lift the kickstand into its upright position by grabbing the handle and pulling it forward (Figure 6-23).

This will allow access to the rear side of the display mounting plate.

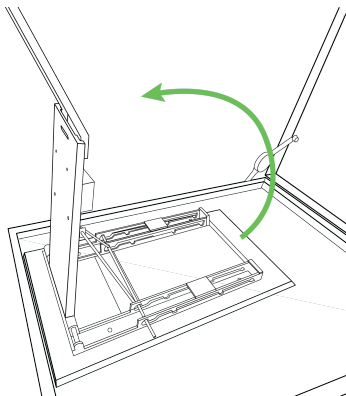


Figure 6-23. Installed kickstand in its upright position

Mounting the touchscreen on the kickstand



Caution: Pinch point. Be aware of your hand position when opening and closing the kickstand.

1. Align the mounting holes of the Elo Touchscreen to the mounting holes of the kickstand plate. Using a #2 screwdriver, secure the touchscreen on the plate with four M4 screws (Figure 6-24).

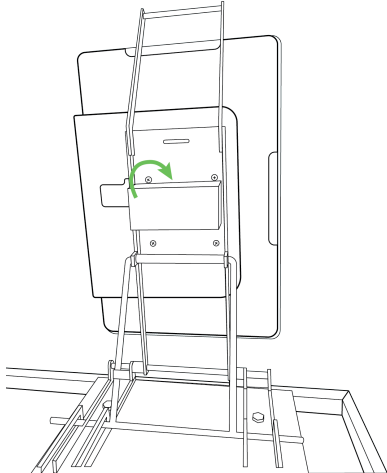


Figure 6-24. The Elo Touchscreen mounted to the kickstand

2. Slide the Elo Touchscreen power brick into the cord management shelf on top of the left wall of the compartment (Figure 6-25).

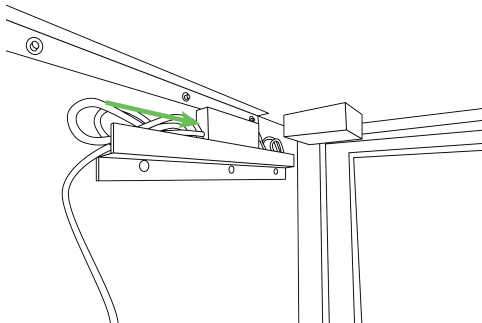


Figure 6-25. Power brick secured inside the box

3. Plug the AC connector of the power brick into one of the critical ports of the UPS (Figure 6-26).

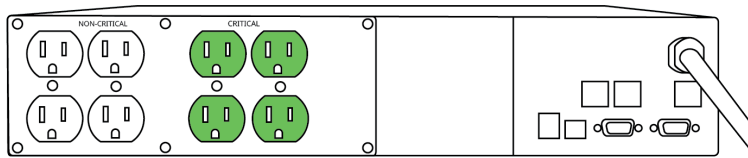


Figure 6-26. Critical ports of UPS

4. Thread the DC barrel of the power cord towards the hole in the top of the compartment and plug it into the Elo Touchscreen (Figure 6-27).

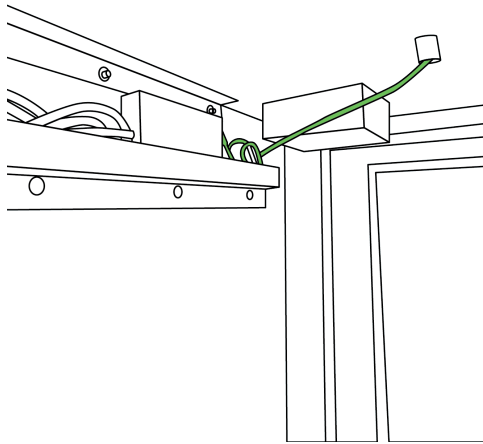


Figure 6-27. Elo Touchscreen power cord threaded through the top of the compartment

Installing the keypad, headphones, and sip-and-puff device

1. To install the keypad, first thread the end of the USB cord through the hole in the top edge of the keypad's footprint (Figure 6-28).

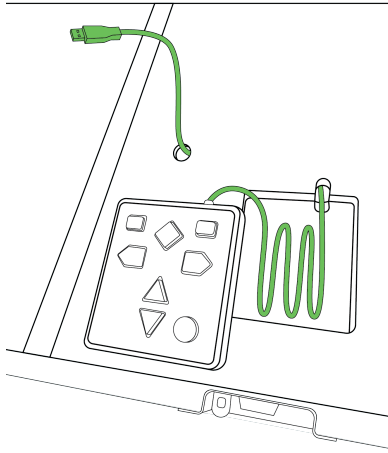


Figure 6-28. The keypad and its footprint

2. Once the cable is inside the box, thread it back out to the top so it can be plugged into the touchscreen monitor. Use the black, bottom-most USB port.
3. Plug the headphones into the auxiliary port located on the back right side of the touchscreen and secure the headphones to the holding clip (Figure 6-29).

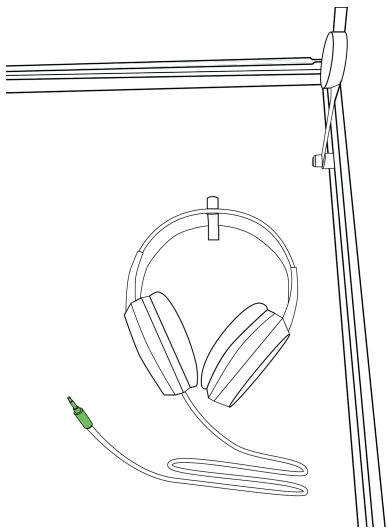


Figure 6-29. Headphones secured to the holding clip

4. Plug the sip-and-puff into the blue 3.0 USB port behind the Elo Touchscreen. Plug the USB A side of the printer cable into the appropriate USB port behind the Elo Touchscreen.

Figure 6-30

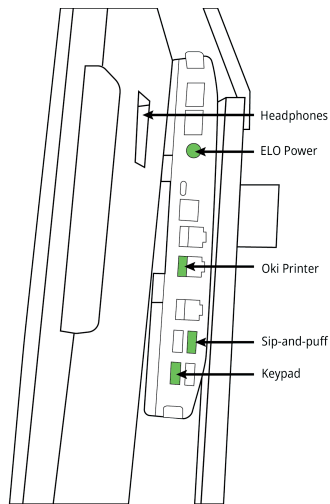


Figure 6-30. View of the Elo Touchscreen ports

5. After plugging in all peripherals into the correct ports, install the USB port cover and secure it with the supplied thumbscrews (Figure 6-31).

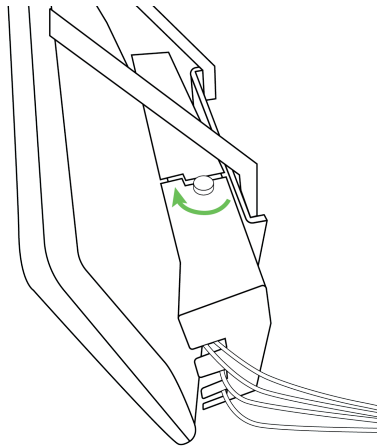


Figure 6-31. Securing the USB port cover

Turning on the devices and the touchscreen

1. Plug the AC power cord of the UPS into the power source and press the large power button and then the **Enter** button (Figure 6-32).

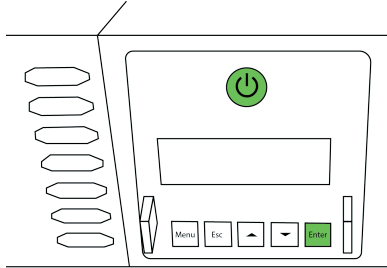


Figure 6-32. Turning on the UPS

2. Press and hold the power button on the printer (Figure 6-33).

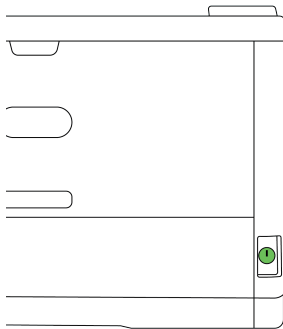


Figure 6-33. Oki printer power button

3. Close the front and back doors of the setup box:
 - a. Rotate the butterfly latches to the right.
 - b. Place tamper-evident seals according to your rules of your jurisdiction.

4. Pull open the small hatch located on the front door of the setup box to expose the top of the printer (Figure 6-34).

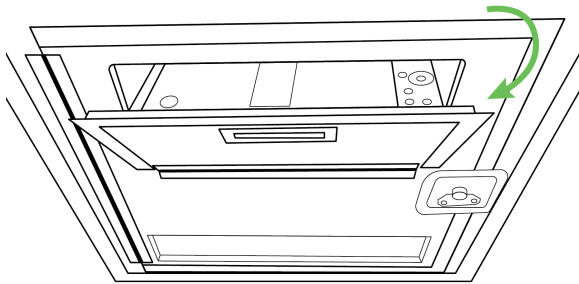


Figure 6-34. Exposing the printer door

5. Open the top compartment if it is not already opened:
 - a. Using the kickstand handle to position the Elo Touchscreen so that it is upright.
 - b. Turn on the Elo Touchscreen by pressing the power button located on the back right side of the monitor (Figure 6-35).

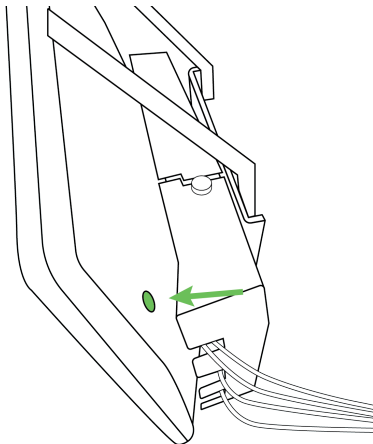


Figure 6-35. Turning on the Elo Touchscreen



Caution: When lifting the ClearAccess setup box, always lift with two people. Each person must use two handles to distribute the weight evenly.

6.8 Installing the ClearAccess setup box configuration with the Lexmark printer and APC UPS

Supplies Required:

- 4 x 2-inch 1/4-20 bolts
- 7/16-inch socket head driver
- Touchscreen kickstand
- Eyebolt assembly
- UPS L-Brackets
- #2 Screwdriver
- Universal Power Supply (UPS) bracket-mounting screws

This section describes how to install the ClearAccess setup box and its peripherals such as the Elo Touchscreen Monitor, printer, UPS, keypad, headphones, and sip-and-puff device. It is only relevant to jurisdictions that use the Elo Touchscreen Monitor. If your jurisdiction uses Dell Optiplex or Dell Inspiron computers, skip the steps in this section.

Figure 6-36 shows an installed ClearAccess setup box.

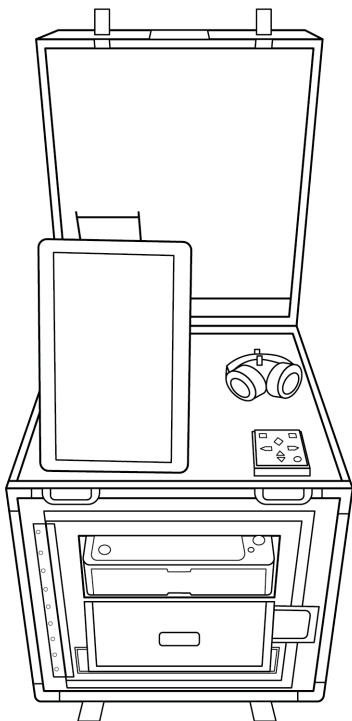


Figure 6-36. Installed ClearAccess setup box

Installing the UPS in the setup box

1. Remove the Uninterrupted Power Supply (UPS) out of its packaging.
2. Set aside the face plate.
3. Install the two mounting L-brackets on the left and right sides of the UPS.
 - a. Line up the bottom of the L with the front of the UPS.
 - b. Attach the brackets by using the UPS mounting screws.

Figure 6-37 shows an L bracket attached to the UPS.

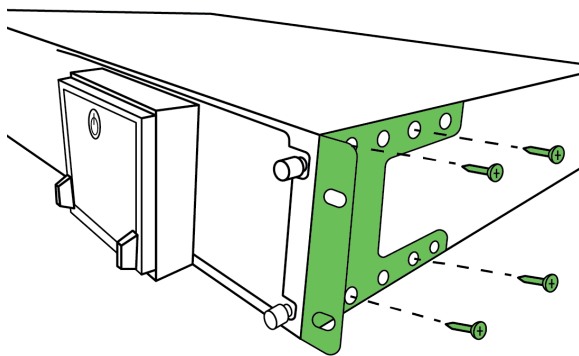


Figure 6-37. An L-bracket attached to the UPS

4. Unlatch the door on the front of the ClearAccess setup box (Figure 6-38):
 - a. Rotate the butterfly latch to the left.
 - b. Swing the door open.

These actions expose both the printer and lower UPS compartments.

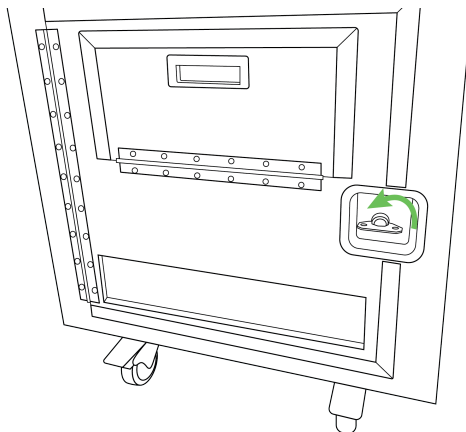


Figure 6-38. The front door and butterfly latch

5. Slide the UPS into the lower UPS compartment and push it back so that the installed L-brackets align with the box's bracket holes (Figure 6-39).

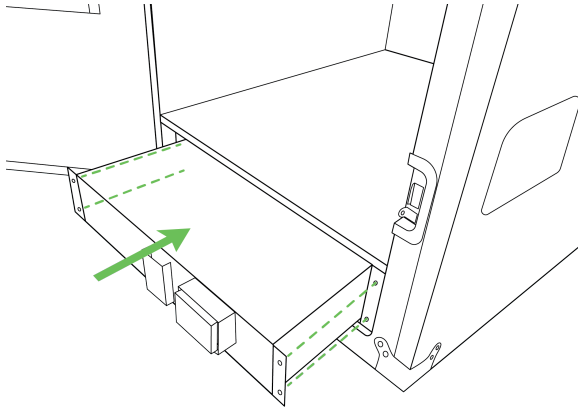


Figure 6-39. Aligning the UPS

6. Secure the L-bracket to the rack mount of the setup box by using the bracket mounting screws (Figure 6-40).

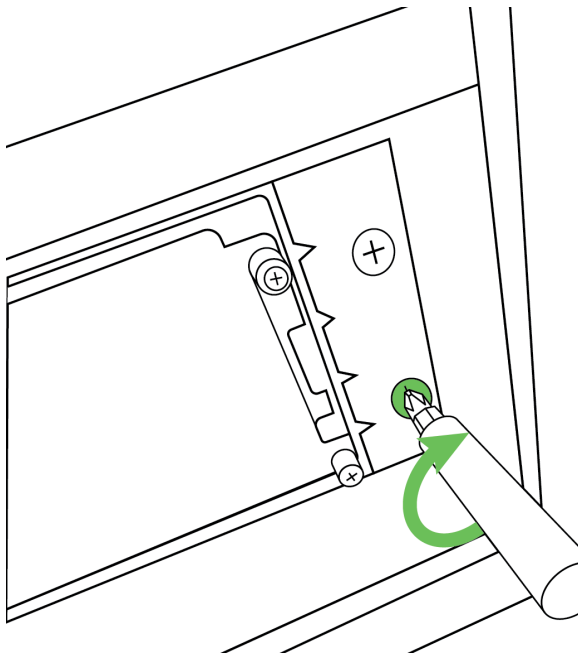


Figure 6-40. Securing the UPS

7. Align the UPS face plate on the front of the UPS and apply pressure to both sides of the face plate until it clicks into position (Figure 6-41).

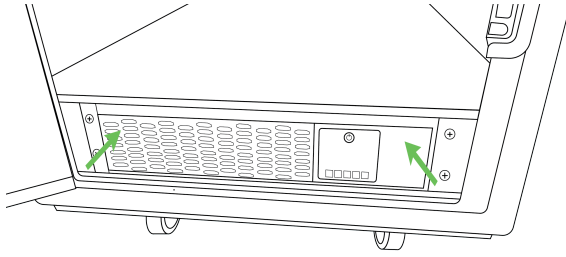


Figure 6-41. Installing UPS face plate

Installing the printer in the setup box

1. Remove the printer from its packaging and peel off any tape from manufacturing.
2. To access the toner and imaging unit compartments for the Lexmark printer:
 - a. Press the black rectangular button on the right side of the printer to open the printer door (Figure 6-42).

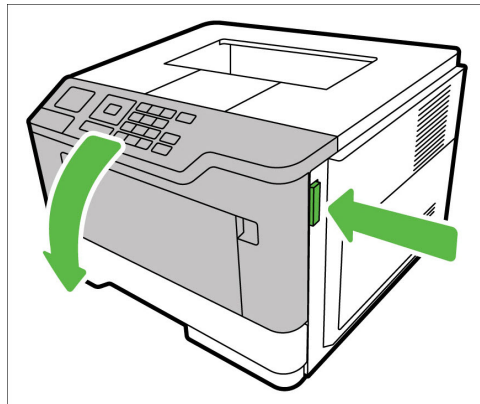


Figure 6-42. Opening Lexmark printer door

- b. Pull the green handle on the toner unit out toward you to remove it from the printer. Remove any manufacturing tape (Figure 6-43).

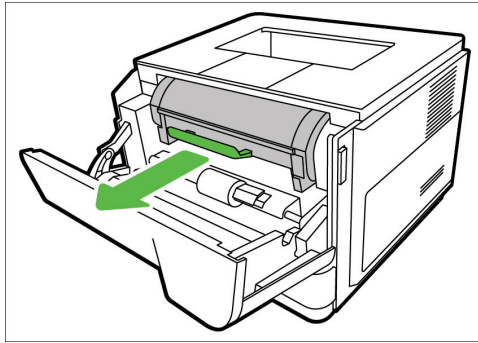


Figure 6-43. Removing toner unit from the Lexmark printer

- c. Pull the green handle on the imaging unit out toward you to remove it from the printer. Remove any manufacturing tape (Figure 6-44).

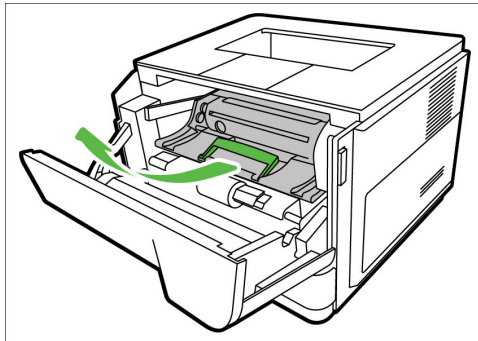


Figure 6-44. Removing imaging unit from the Lexmark printer

- d. Replace the toner and imaging units in the printer and close the printer's front door.

3. Place the printer into its compartment with the holes on the bottom of the printer aligned on top of the pegs on the floor of its compartment (Figure 6-45).

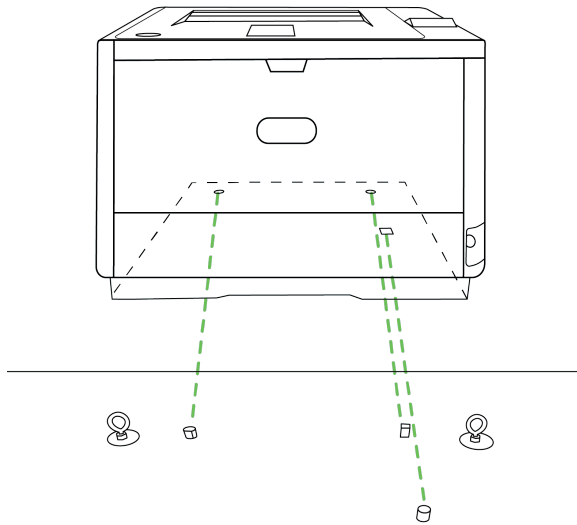


Figure 6-45. The printer aligned on its pegs in its compartment

4. Swing the metal assembly over the printer and loop the J-hooks through the installed eyebolts on the floor of the printer compartment, on either side of the printer (Figure 6-46).

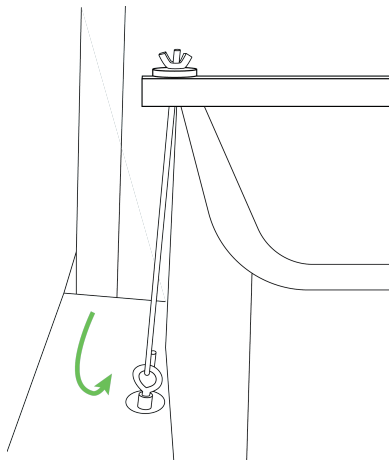


Figure 6-46. J-hook looped around one of the eyebolts

5. Tighten the wingnuts to secure the printer in its compartment (Figure 6-47).

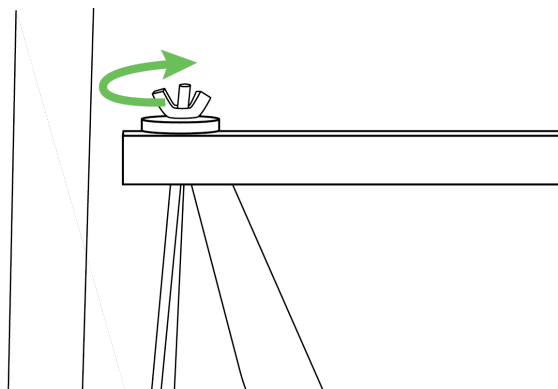


Figure 6-47. Tightening the wingnuts

6. Open the back door of the ClearAccess setup box.
7. Install the ferrite (Laird model 28A5776-0A2) on the printer's power cable, looped two times two inches from the end that will plug into the printer (Figure 6-48).

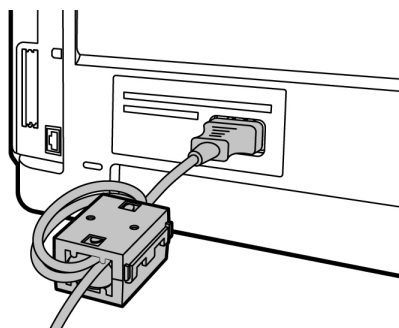


Figure 6-48. Ferrite installed on printer power cable

8. Install another ferrite (Laird model 28A5776-0A2) on the printer's power cable, looped two times two inches from the end that will plug into the UPS.
9. Plug the printer's power cable into the printer. Plug the AC (male) side into one of the ports of the UPS.

10. Install the ferrite (Würth Elektronik model 742 712 22) on the printer's data cable, looped a single time two inches from the end that will plug into the printer (Figure 6-49).

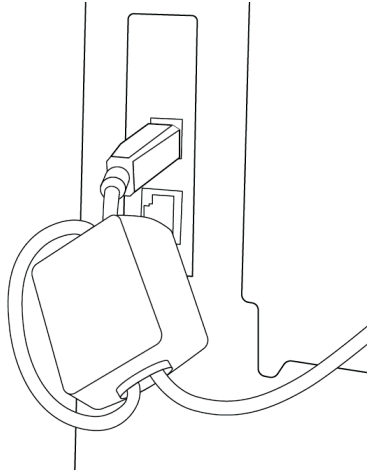


Figure 6-49. Ferrite installed on the printer's data cable

11. Plug the printer's USB B (square) end into the printer. Guide the USB A side through the hole in the top of the compartment and leave it there for now.

Setting up the kickstand

1. Unlatch the top compartment of the setup box by rotating both butterfly latches to the left (Figure 6-50).

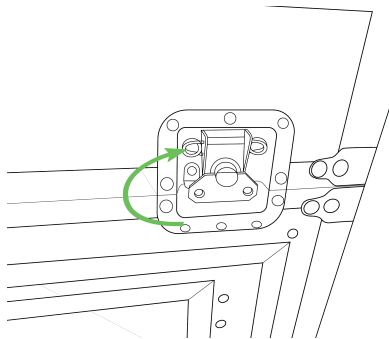


Figure 6-50. Butterfly latches to unlatch top compartment

2. Grab the middle handle to open the top compartment (Figure 6-51).

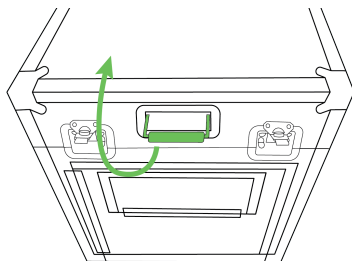


Figure 6-51. Opening the top compartment

3. Place the kickstand on its raised mounting platform on the top compartment with its handle closest to the compartment lid. Align the holes in the kickstand with the mounting holes in the raised platform (Figure 6-52).

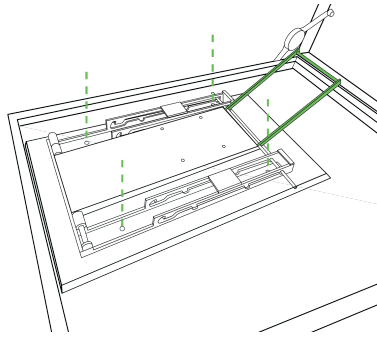


Figure 6-52. Kickstand aligned on mounting platform

4. Screw the kickstand into place on the mounting platform.
5. Lift the kickstand into its upright position by grabbing the handle and pulling it forward (Figure 6-53).

This will allow access to the rear side of the display mounting plate.

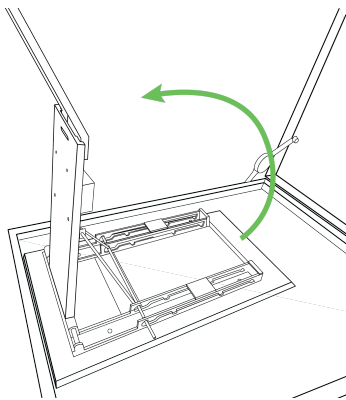


Figure 6-53. Installed kickstand in its upright position

Mounting the touchscreen on the kickstand



Caution: Pinch point. Be aware of your hand position when opening and closing the kickstand.

1. Align the mounting holes of the Elo Touchscreen to the mounting holes of the kickstand plate. Using a #2 screwdriver, secure the touchscreen on the plate with four M4 screws (Figure 6-54).

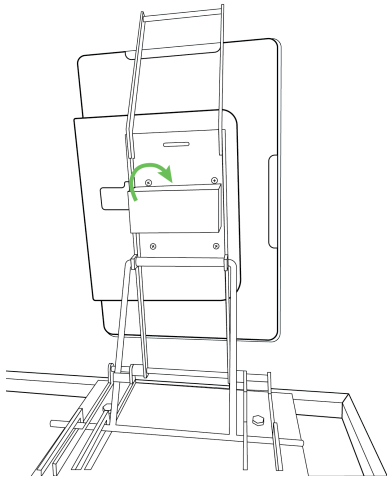


Figure 6-54. The Elo Touchscreen mounted to the kickstand

2. Slide the Elo Touchscreen power brick into the cord management shelf on top of the left wall of the compartment (Figure 6-55).

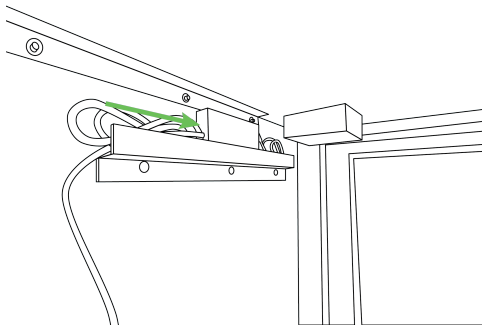


Figure 6-55. Power brick secured inside the box

3. Install the ferrite (Laird model 28A2029-0A0) on the Elo Touchscreen power cord two inches from the end that will plug into the UPS (Figure 6-56).

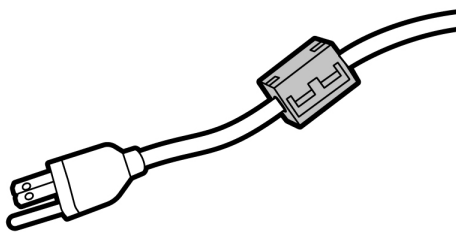


Figure 6-56. Ferrite installed on the Elo Touchscreen power cord

4. Plug the AC connector of the Elo Touchscreen power cord into one of the AC ports of the UPS.
5. Thread the DC barrel of the power cord towards the hole in the top of the compartment and plug it into the Elo Touchscreen (Figure 6-57).

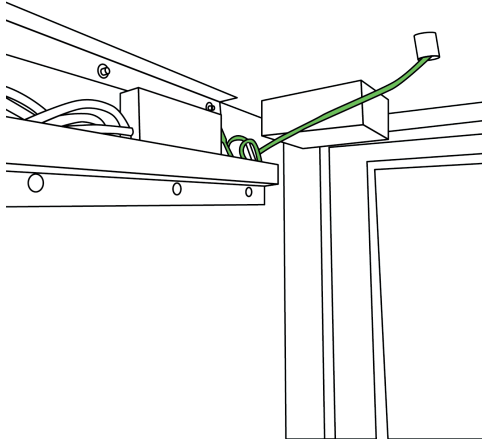


Figure 6-57. Elo Touchscreen power cord threaded through the top of the compartment

Installing the keypad, headphones, and sip-and-puff device

1. To install the keypad, first thread the end of the USB cord through the hole in the top edge of the keypad's footprint (Figure 6-58).

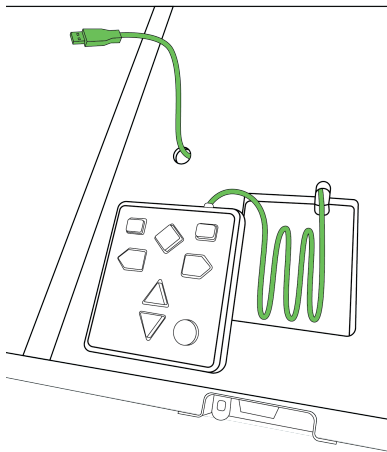


Figure 6-58. The keypad and its footprint

2. Once the cable is inside the box, thread it back out to the top so it can be plugged into the touchscreen monitor. Use the black, bottom-most USB port.

3. Plug the headphones into the auxiliary port located on the back right side of the touchscreen and secure the headphones to the holding clip (Figure 6-59).

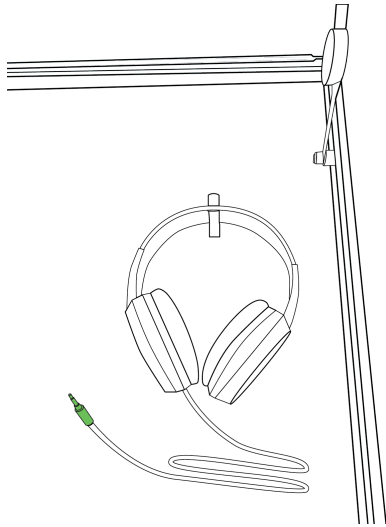


Figure 6-59. Headphones secured to the holding clip

4. Plug the sip-and-puff into the blue 3.0 USB port behind the Elo Touchscreen. Plug the USB A side of the printer cable into the appropriate USB port behind the Elo Touchscreen.

Figure 6-60 identifies the ports for all devices.

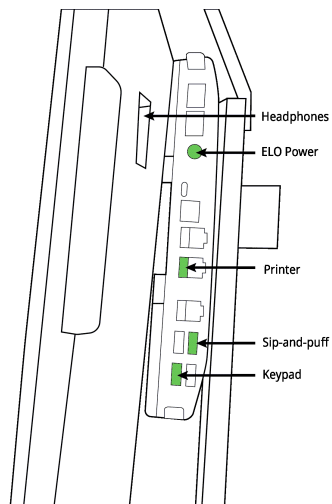


Figure 6-60. View of the Elo Touchscreen ports

5. After plugging in all peripherals into the correct ports, install the USB port cover and secure it with the supplied thumbscrews (Figure 6-61).

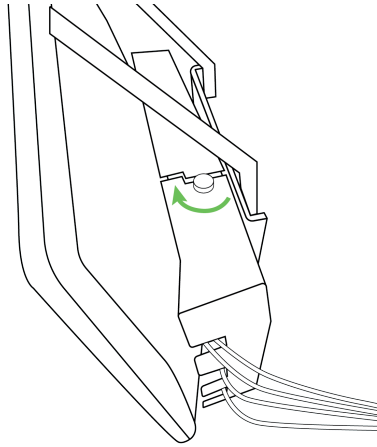


Figure 6-61. Securing the USB port cover

Turning on the devices and the touchscreen

1. Install the ferrite (Laird model 28A2029-0A2) on the AC power cord of the UPS two inches from the UPS (Figure 6-62).

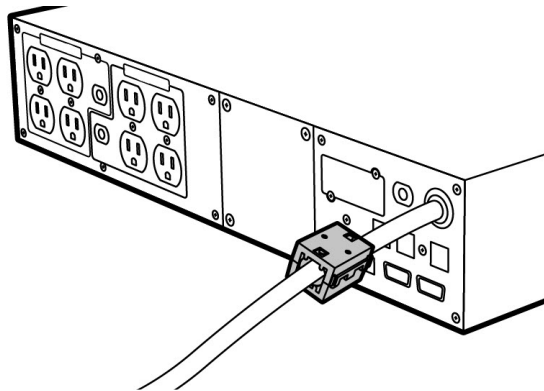


Figure 6-62. Ferrite installed on UPS power cord

2. Plug the AC power cord of the UPS into the power source.

3. Turn on the APC UPS (Figure 6-63):
 - a. Press the Power button.
 - b. Press the **OK** button and select **Turn on immediately**.

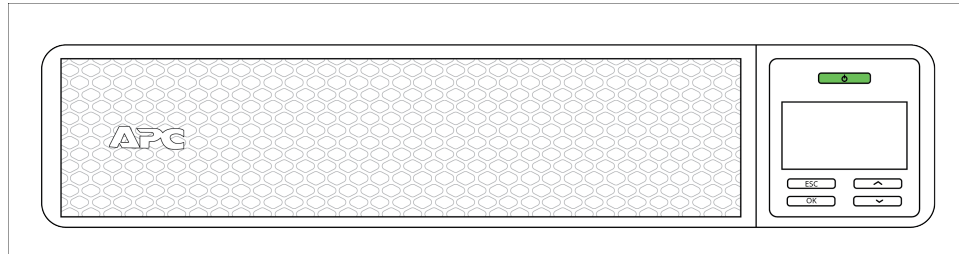


Figure 6-63. Turning on the APC UPS

4. To set up the UPS, set **Go into Bypass** for the Bypass Control option. To set this option, do the following on the UPS:
 - a. Click the **OK** button.
 - b. Under the Main menu, select the **Control** option.
 - c. Under the Control menu, select the **Bypass Control** option.
 - d. Under the Bypass Control option, select **Go to Bypass**.
5. Press and hold the power button on the printer (Figure 6-64).

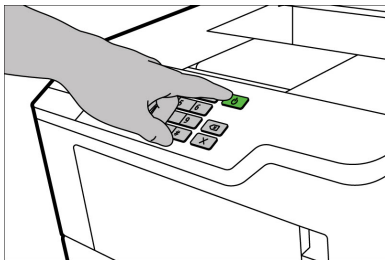


Figure 6-64. Lexmark printer power button

6. Close the front and back doors of the setup box:
 - a. Rotate the butterfly latches to the right.
 - b. Place tamper-evident seals according to your rules of your jurisdiction.

7. Pull open the small hatch located on the front door of the setup box to expose the top of the printer (Figure 6-65).

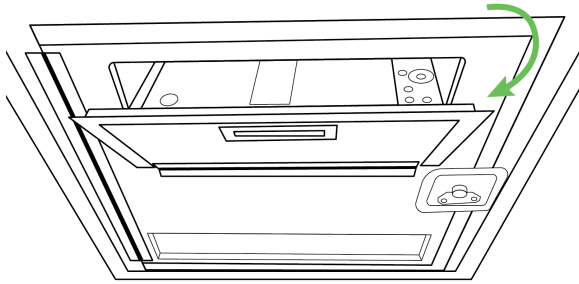


Figure 6-65. Exposing the printer door

8. Open the top compartment if it is not already opened:
 - a. Using the kickstand handle to position the Elo Touchscreen so that it is upright.
 - b. Turn on the Elo Touchscreen by pressing the power button located on the back right side of the monitor (Figure 6-66).

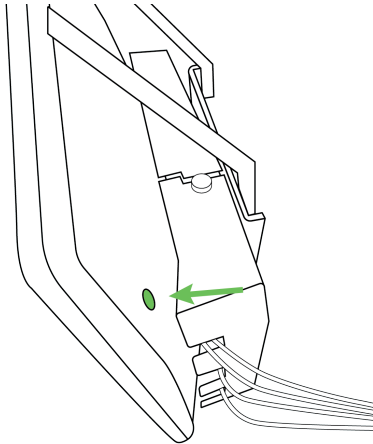


Figure 6-66. Turning on the Elo Touchscreen



Caution: When lifting the ClearAccess setup box, always lift with two people. Each person must use two handles to distribute the weight evenly.

6.9 Completing the installation of the ClearAccess station

When installation and setup of the ClearAccess station is complete, remove the DVD drive, external keyboard, and mouse from the ClearAccess station. For future software upgrades, attach the external keyboard and mouse for the duration of the upgrade and remove them when finished.

Make sure to record the ClearAccess, Windows, BIOS, and printer passwords and codes on the Installation Checklist. (See Appendix A page 107.) Store the Installation Checklist in a secure location. Reveal passwords/codes only to election officials with the appropriate privileges.

When all installation tasks in this guide are complete, perform the ClearAccess setup configuration described in the *ClearAccess Maintenance Guide*.

Appendix A. Installation checklist

Use this checklist to track the progress of your ClearAccess installation and setup. Use the Notes column to record important information such as account information and version numbers.

Table A-1. ClearAccess installation checklist

Task	Date	Time	Name	Notes
Gather all installation requisites				
Operating system				
Install Microsoft Windows				
Activate Windows				
Install touchscreen drivers				
Update Microsoft Defender Antivirus				
Printer				
Prepare the printer				
Install printer driver				
Configure printer				
Location of the USB port on the ClearAccess station where the printer is connected				

Table A-1. ClearAccess installation checklist (continued)

Task	Date	Time	Name	Notes
ClearAccess software				
Install ClearAccess software				
Select the printer and confirm system settings in ClearAccess Setup				
Verify the software				
ClearAccess station				
Restrict access to BIOS				
Stop automatic Windows updates				
Disable the power button on the Elo X computer				
Set the ClearAccess station display orientation				
Remove DVD drive, keyboard, and mouse				
Record and secure passwords/codes				

Appendix B. Upgrades to the ClearAccess software and adding printers

B.1 Upgrades to the ClearAccess software

To upgrade to a new version of ClearAccess, you must reinstall the Windows operating system and the new version of ClearAccess.

B.2 Installing a new printer

To install a new printer:

1. Log in the as the Windows administrator.
2. Follow the instructions in "Installing and configuring the Oki Data printers" on page 33 or "Installing and configuring the Lexmark MS521dn printer" on page 38 to install one of the supported printers.
3. Log out of the Windows administrator account.
4. Log in to Windows as the ClearAccess user.
5. On the Load Election screen, select **Administrator** in the **Select Role** field and enter the appropriate code.
6. On the Load Election screen, select **Setup**.
7. On the Setup screen, select the **Printer** from the drop-down list.

B.3 Replacing a printer

See "Replacing a printer" in the *ClearAccess Maintenance Guide*.

B.4 Enabling Bypass mode on the APC UPS

When a voting station uses a Lexmark printer, you must configure the APC UPS to enable the **Go into Bypass** selection for the Bypass Control option. To set this option, do the following on the APC UPS:

1. Click the **OK** button.
2. Under the Main menu, select the **Control** option.
3. Under the Control menu, select the **Bypass Control** option.
4. Under the Bypass Control option, select **Go Into Bypass**.

Appendix C. ClearAccess troubleshooting

This section lists potential issues and possible solutions.

You cannot find the Elo touchscreen utility after installation.

Condition

The Elo Touchscreen Utility provides users several necessary configuration options, such as the ability to disable the motherboard beeper and a touchscreen calibrator.

The Elo Touchscreen Utility provides users several necessary configuration options, such as the ability to disable the motherboard beeper and a touchscreen calibrator.

Workaround 1

Click the Windows Start menu and type **elo**.

Workaround 2

Open the Windows Control Panel and then search for **elo**.

When logging in as the Windows administrative user after installing ClearAccess, you see the message: "This app has been blocked by your system administrator."

Condition

The ClearAccess installation prevents many applications from running. Start-up applications try to run automatically and are thus being blocked by the system. If the installation process is unable to disable one of these applications, ClearAccess may display a warning message.

Workaround

To disable start-up applications:

1. Right click on the task bar and open the Task Manager.
2. Click **More details** if necessary and go to the **Startup**.
3. For any application with the status Enabled, click the **Disable** button.

A "printer not found" message appear on the ClearAccess station

This message can appear when the ballot printer is connected to a USB port that differs from the original USB port used when the printer was installed. To resolve this issue, plug the printer into the original USB port recorded on the Installation checklist (page 107) and try to reprint.

