



Clear Ballot

ClearVote 2.1

ClearAccess Installation Guide

ClearAccess Installation Guide

Clear Ballot Part Number: 100053-10017

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Preface

This section defines the purpose of this document. It contains the following subsections.

- About this document
- Scope of this document
- Intended audience
- Contact us

About this document

This document provides instructions for installing the ClearAccess voting software. It corresponds to *VVSG 2005, Volume 2, Section 2.8.6*.



A ClearVote® system can comprise the ClearAccess®, ClearAudit®, 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.

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 Okidata B432dn and Okidata B3432dn-B printer](#)
- [Chapter 4. Installing ClearAccess](#)
- [Chapter 5. 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 intended for election officials and election staff who are responsible for operations and maintenance before, during, and after an election. This document is also used by Clear Ballot personnel who support election officials and election staff.

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 ClearVote 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 2–4 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 on page 54.

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"> • <i>ClearAccess Microsoft Windows 10 Pro (1607)</i> Contains the installation program for Windows 10 Pro, Build 1607. • <i>Windows Updates for ClearVote Microsoft Windows 10 Pro (1607)</i> Contains the drivers for touchscreen graphics, touch, audio, and chipset. • <i>ClearAccess Application and Printer Drivers</i> Contains the ClearAccess software. Contains the setup programs and drivers for all supported printers.

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 23.</p> <p>You can also use a USB drive to add accessible definition files (ADFs) to the ClearAccess station.</p>
Telephone	Make sure that you have a telephone available so that you can call Microsoft to activate Windows at the end of the installation process.

Chapter 2. Installing Microsoft Windows

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

Estimated time to complete: 30–60 minutes

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. When the logo of the manufacturer appears on the touchscreen, immediately press and hold F11.

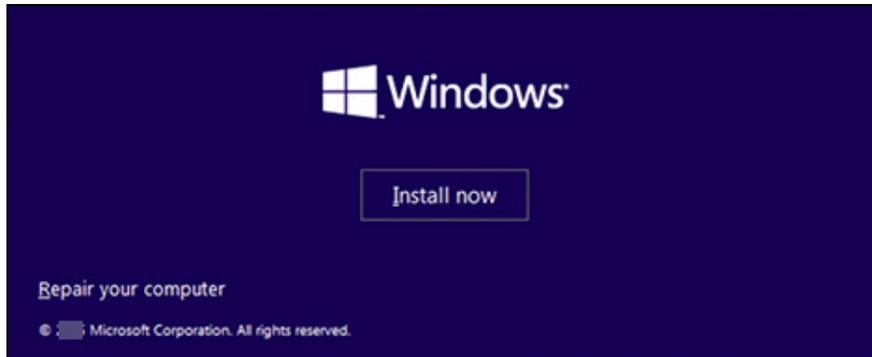
A BIOS menu appears on the touchscreen.

3. Select the option to boot from the DVD.

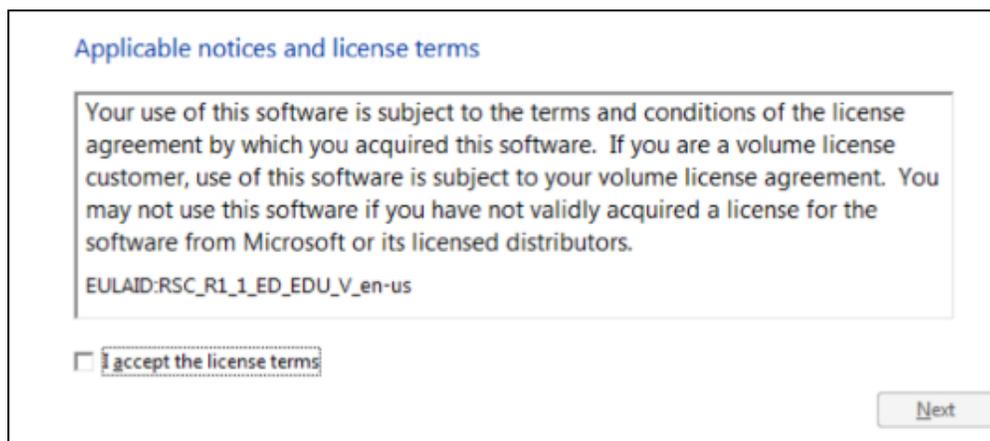
The computer boots from the DVD drive and the Windows Setup dialog appears.



4. 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, click **Install Now**.

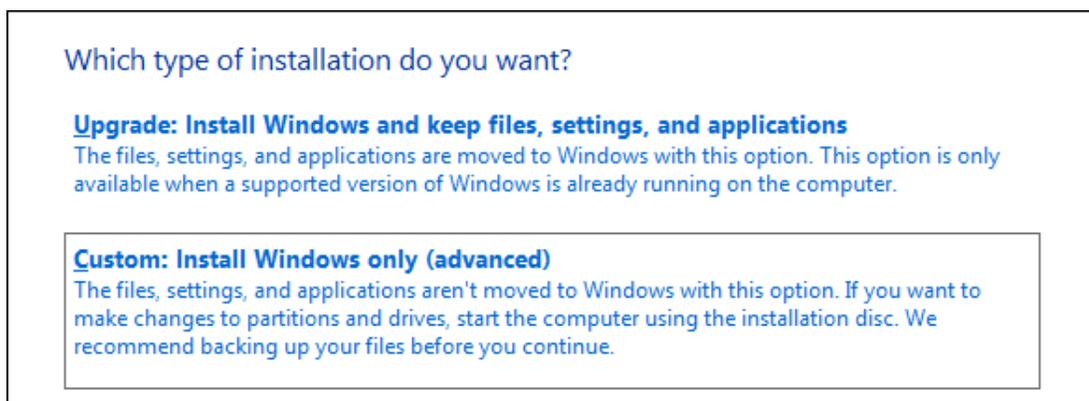


The installation program displays the Windows license agreement.



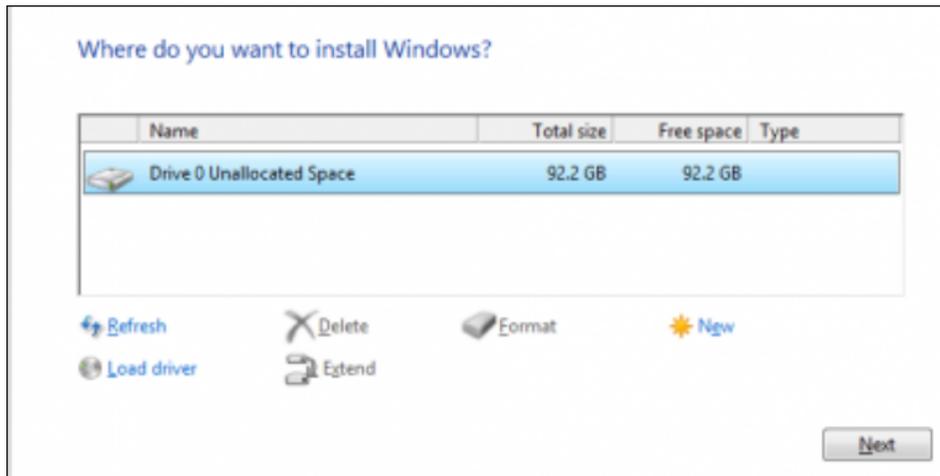
6. Select the check box **I accept the licence terms** and click **Next**.

The installation program displays a dialog that prompts you to select the type of installation.



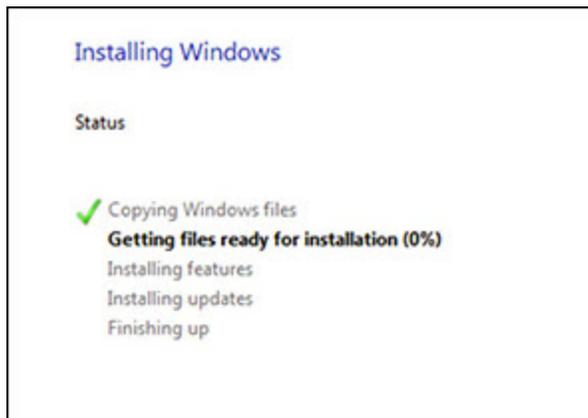
7. Click **Custom: Install Windows only (advanced)**.

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



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.



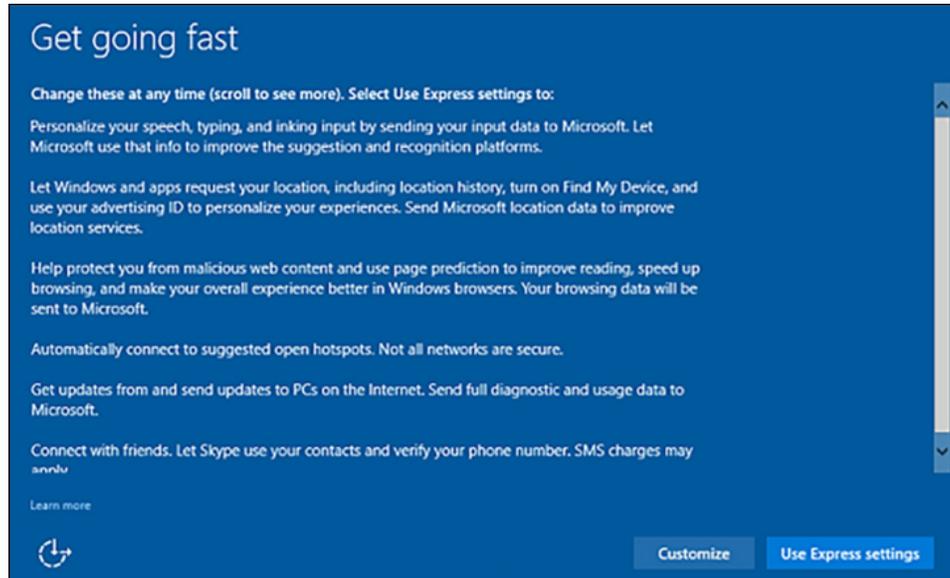
When the installation is complete, the computer restarts.

Completing the installation setup

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

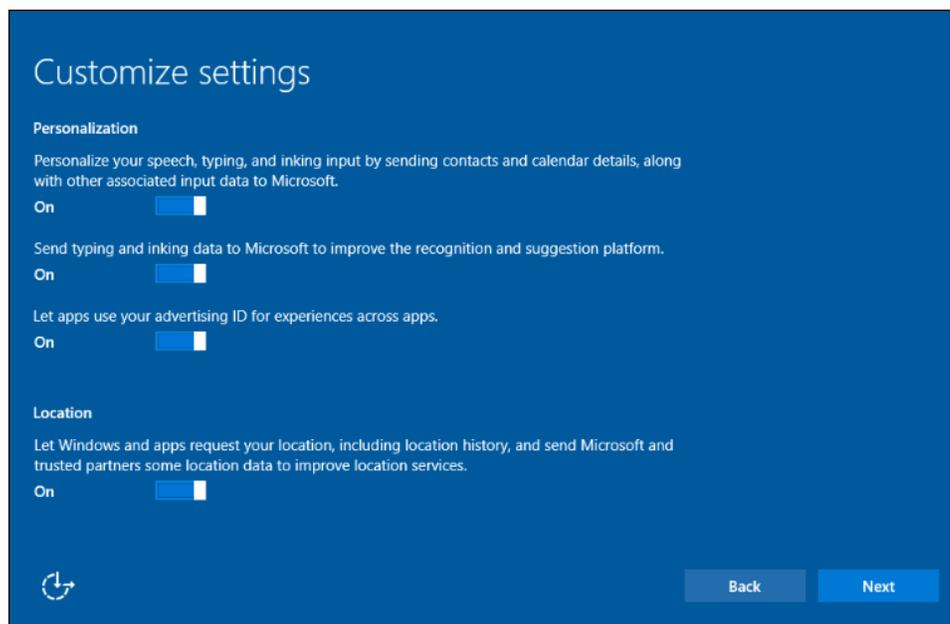
1. If the Let's get connected dialog appears, click **Skip this step**.

The installation program displays the Get going fast dialog.



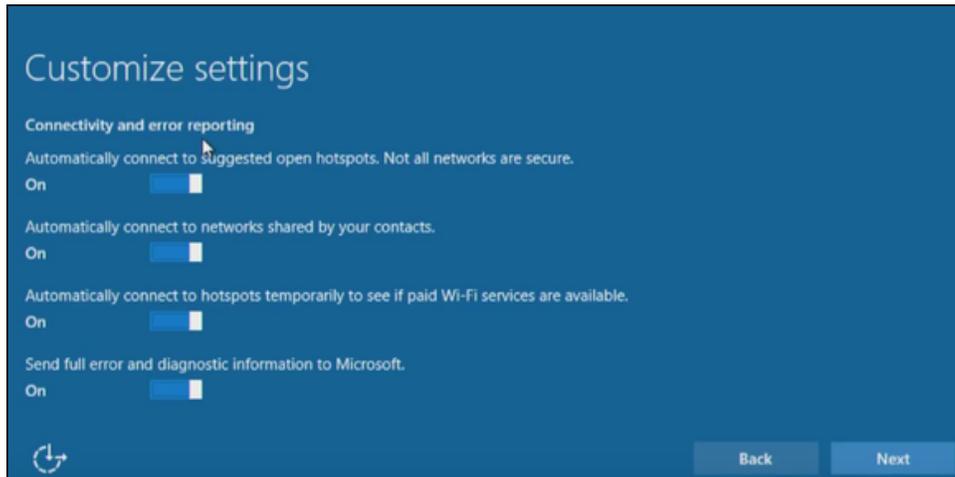
2. In the Get going fast dialog, click **Customize**.

The installation program displays the Customize settings dialog.

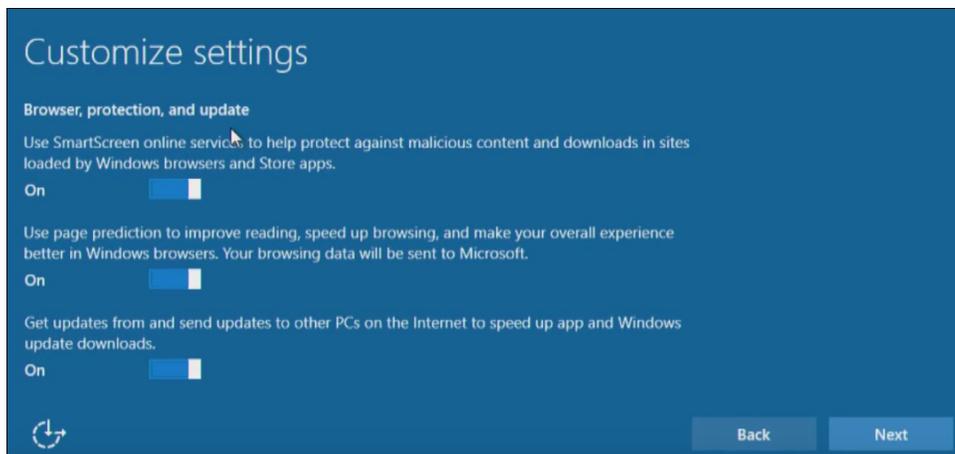


3. Turn off all Personalization and Location settings and click **Next**.

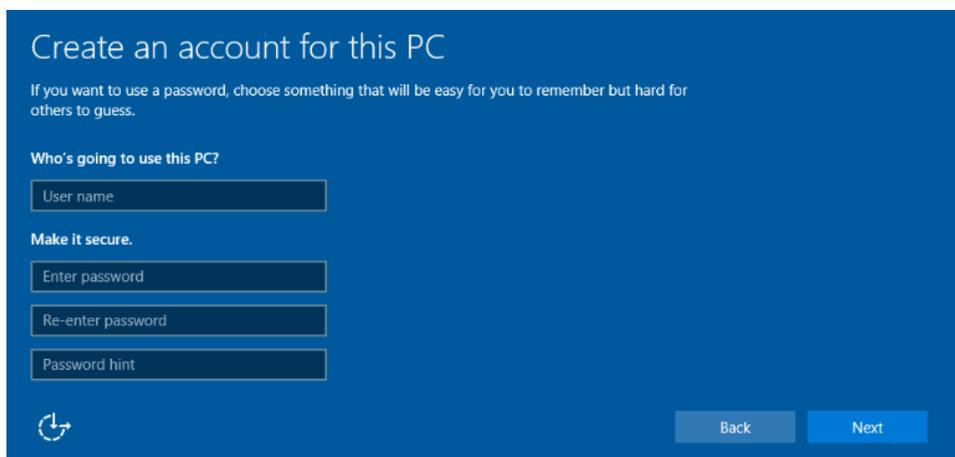
4. In the Connectivity and error reporting section of the Customize settings dialog, turn off all settings and click **Next**.



5. In the Browser, protection, and update section of the Customize settings dialog, turn off all settings and click **Next**.



The installation programs displays the Create an account for this PC dialog.



6. In the Create an account for this PC dialog, 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.

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:

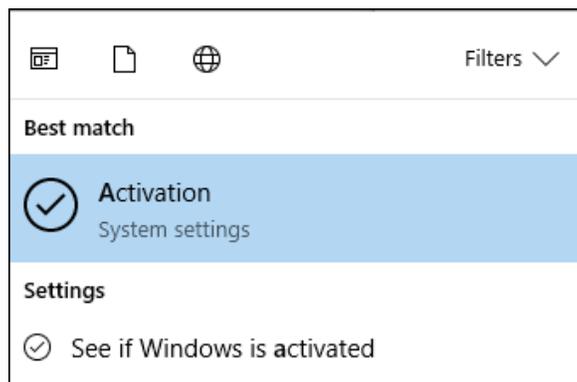
1. Open File Explorer and navigate to the Windows Tools folder on the DVD.
2. Open the Activation Key.txt file.
3. Copy the text string.
4. Close the Activation Key.txt file.

Entering the product key

To enter the product key:

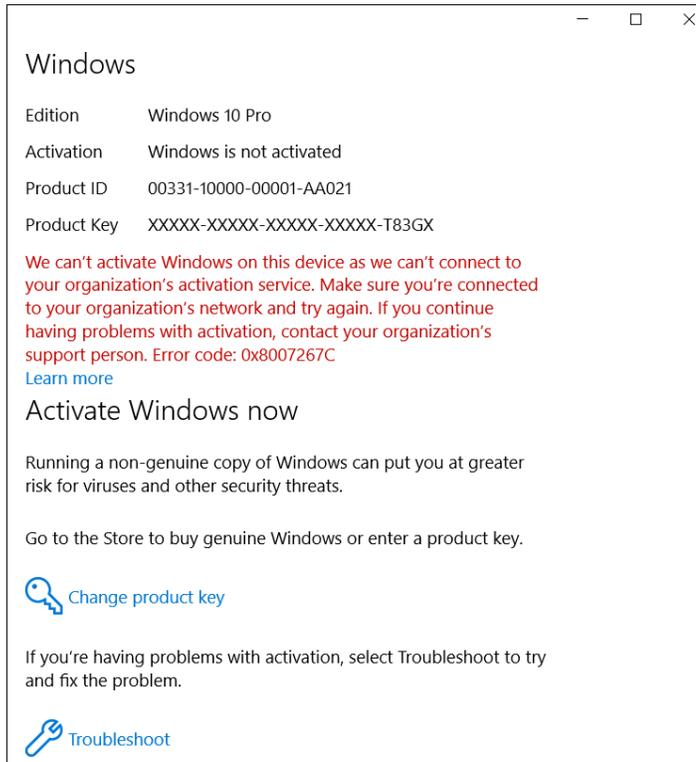
1. Click the Windows **Start** button and type *Activate*.

Windows displays search results similar to the following.



2. Select **See if Windows is activated** from the search results.

Windows displays the Activation section of the Settings dialog.



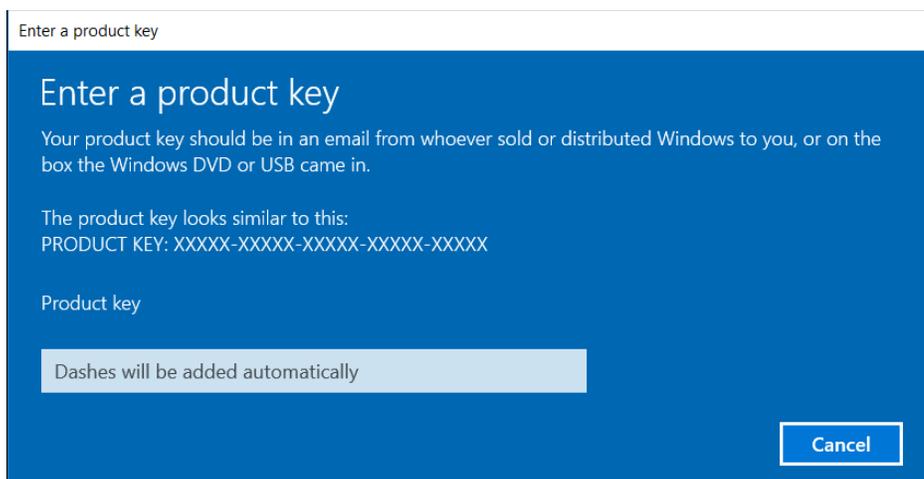
3. Click **Change product key**.

Windows displays the message:

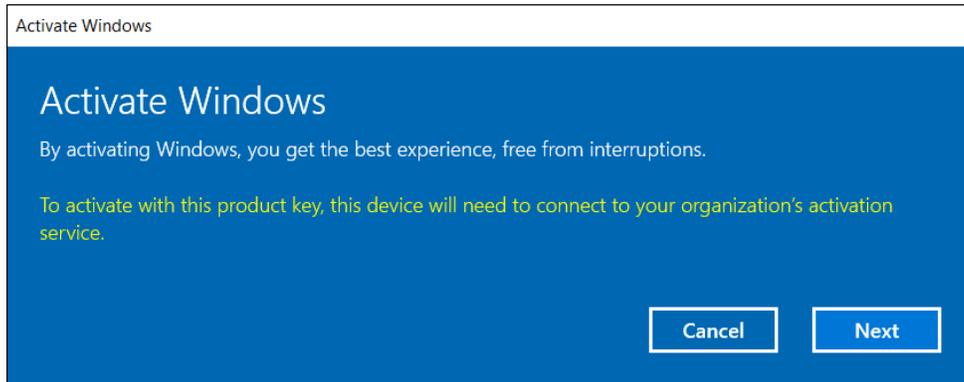
Do you want to allow this app to make changes to this device?

4. Click **Yes**.

Windows displays the Enter a product key dialog.

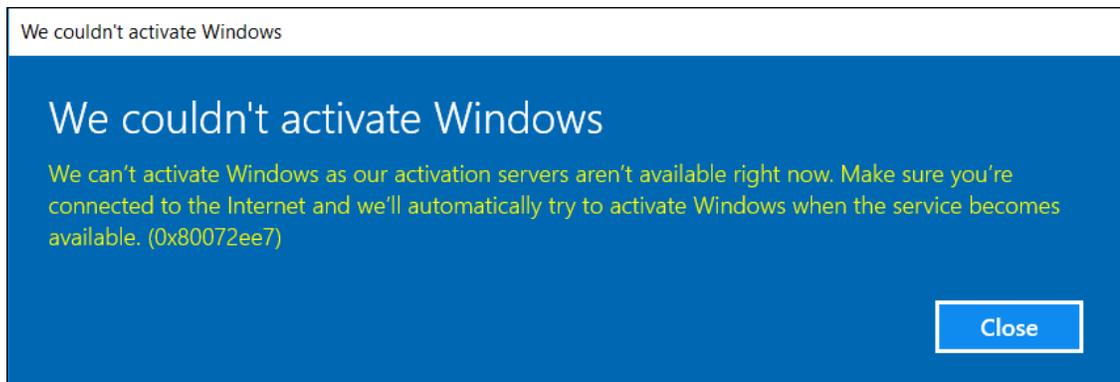


- Paste the activation string that you previously copied in the Product Key field and click **Next**. After a moment, Windows displays a message similar to the following.



- Click **Next**.

Windows tries to activate. After a few moments, a message indicates that Windows could not be activated.



- Click **Close**.

Completing the activation process

To activate Windows:

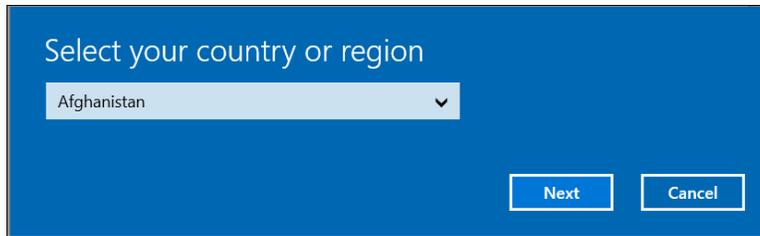
- Right-click the Windows **Start** button and type *Run*.
- From the pop-up menu, select **Run**.

Windows displays the Run dialog.

- In the Run dialog, type *slui 4* and click **OK**.

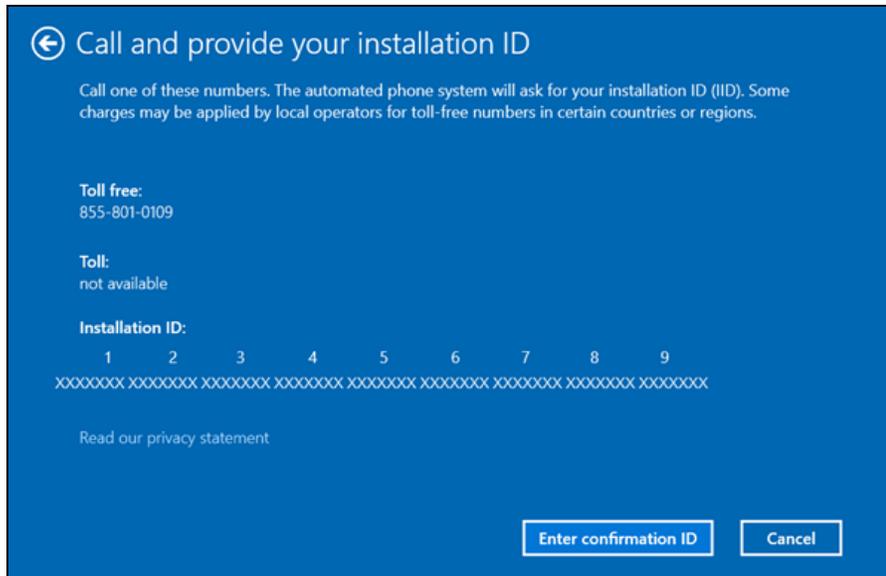
Make sure to type a space between the i and the 4.

Windows displays the Select your country or region dialog.

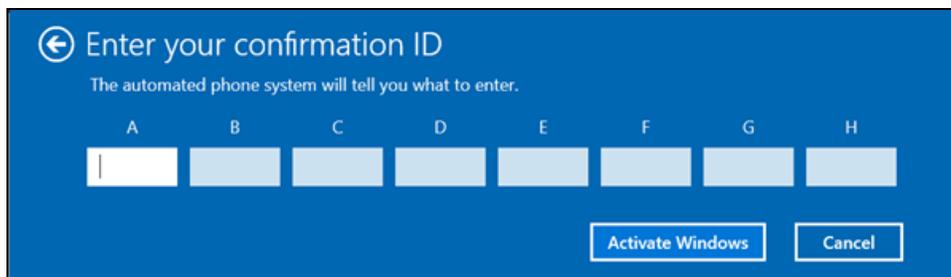


4. Select your country from the drop-down list and click **Next**.

The screen displays a toll-free telephone number to call for activation.



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.



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 Elo touchscreen driver

After installing Windows on the ClearAccess station, install the driver that optimizes Windows for the Elo touchscreen.

Starting the installation of the Elo touchscreen driver

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:

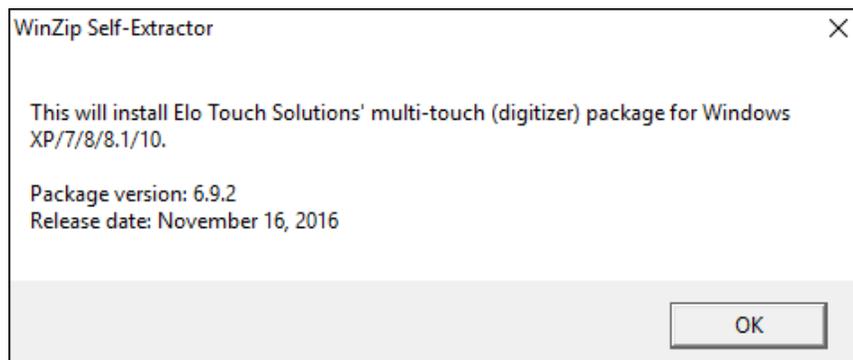
1. Use File Explorer to open the eloTouch folder corresponding to your touchscreen model on the Windows Updates DVD and copy the eloTouch driver Zipped file to your desktop.
2. Right-click the eloTouch driver Zipped file and select **Run as administrator**.

Windows displays the following message:

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

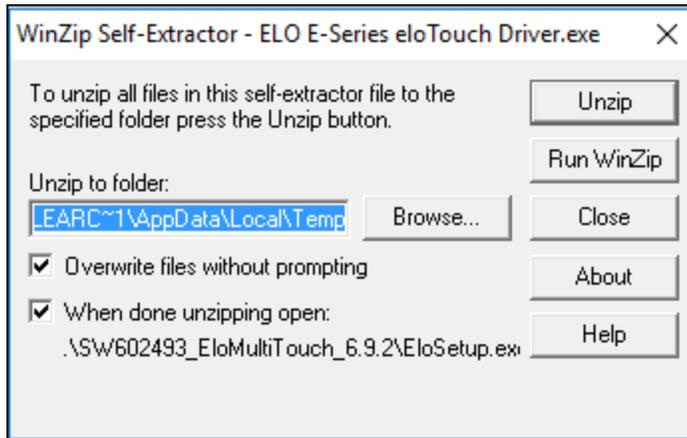
3. Click **Yes**.

WinZip Self-Extractor displays the following message.



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 and Windows displays the following message:

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

7. Click **Yes**.

8. 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."

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



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

Disabling touchscreen beeps

The eloTouch driver automatically turns 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 the following message:
Do you want to allow this app to make changes to your device?
2. Click **Yes**.
The Elo Touchscreen Configuration program opens.
3. Click **Touch Screen Properties**.
4. Clear the **Motherboard Beeper** check box and click **OK**.
5. Click **Close** to exit the Elo Touchscreen Configuration program.

After you complete installing all drivers, remove the Windows Updates DVD from the DVD drive. If the computer does not automatically restart after installing the final driver, restart it manually.

2.5 Updating Windows Defender Antivirus

To ensure that a ClearAccess station contains the latest antivirus definitions, update Windows Defender Antivirus on the ClearAccess station when the following events occur:

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

Because the ClearAccess station is not connected to the Internet, you must first download the Windows Defender Antivirus update files to removable media on a computer equipped with a USB port and Internet connection.

Downloading the Windows Defender Antivirus update

To download and install the Windows Defender Antivirus update:

1. On a computer connected to the Internet, insert a clean USB drive into a USB port.
Clear Ballot recommends using encrypted USB drives. See the *ClearVote Approved Parts List* for approved devices.
2. Open a Web browser and go to <https://www.microsoft.com/en-us/wdsi/definitions>.
3. Locate the section Manually download the update.

4. Next to Windows Defender Antivirus for Windows 10 and Windows 8.1, right-click the **64-bit** download link.

You need to download different security intelligence files for different products and platforms. Select the version that matches [your Windows operating system](#) or the environment where you will apply the update.

Antimalware solution	Definition version
Windows Defender Antivirus for Windows 10 and Windows 8.1	32-bit 64-bit ARM
Microsoft Security Essentials	32-bit 64-bit

The browser writes a file called mpam-fe.exe to your designated Downloads folder.

5. Drag the file mpam-fe.exe from your Downloads folder to the USB drive.
6. Eject and remove the USB drive from the computer.

Installing Windows Defender Antivirus updates on the ClearAccess station

To install the Windows Defender Antivirus updates on the ClearAccess station:

1. Insert the USB drive containing the Windows Defender Antivirus updates in an available USB port on the ClearAccess station.
2. Log in to the ClearAccess station as the Windows administrator.
3. Use File Explorer to copy the antivirus file from the USB drive to the desktop of the ClearAccess station.
4. Eject and remove the USB drive.
5. To run the installer, do the following:
 - If you are updating the virus definitions for the first time as part of a ClearAccess installation, double-click the antivirus file on the desktop.
 - If you are updating the virus definitions after the first time, right-click the antivirus file on the desktop and select **Run as administrator** from the pop-up menu.
6. Click **Yes** if Windows displays the prompt:

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

The update program runs transparently. You do not see anything on the screen as the update runs. The screen does not display a message when the update is complete.

Confirming the Windows Defender Antivirus update

To confirm that the update is complete:

1. Click the Windows **Start** button and type *defender*.
2. Right-click **Windows Defender** in the search results and select **Run as administrator**.
The Windows Defender dialog opens on the Home tab.
3. Click the **Update tab**.
4. Check that the Last updated field contains today's date.
5. Close the Windows Defender dialog.

Chapter 3. Installing and configuring the Okidata B432dn and Okidata B3432dn-B printer

This chapter describes how to install the Okidata B432dn and Okidata B432dn-B printer 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.



This chapter also appears in the *ClearAccess Installation Guide*. This chapter is repeated in this document for convenience so that you can check the printer installation and configuration before loading an election.

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.



Do *not* turn on the printer or connect it to the ClearAccess station until told to do so in "Installing the driver for Okidata printer driver" on the next page.

3.2 Operating features of the Okidata printer

3.2.1 Supported ballot sizes

- Width: 8.5 inches
- Length: 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20 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 28.

3.2.2 Print tray and duplexing support

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

3.3 Installing the driver for Okidata printer driver



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 Okidata B432dn printer:

1. Insert the ClearAccess Application and Printer Drivers DVD into the DVD drive.
2. Open File Explorer and navigate to the Printer Drivers/Okidata B432dn folder on the DVD.
3. Double-click the driver application file to start the installation.
Windows displays the prompt: Do you want to allow this app to make changes to your device?
4. Click **Yes**.
5. When the installer displays the license agreement, click **Accept**.
6. When the installer displays the Pre-installation check dialog, click **Next**.
7. In the Choose installation type dialog, select **Easy Installation (Local)**.
8. In the Installation settings dialog, select **OKI B432(PCL6)** and click **Next**.
9. When prompted, use a USB cable to connect the printer to the ClearAccess station and turn on the printer.
10. 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 Okidata B432dn printer models.
11. When the Install Result dialog shows *Success* as the status, click **Finish**.

If you experience an issue with the connection between the printer and the ClearAccess station during the installation process, disconnect the printer, connect it to a different USB port, and repeat the installation.

3.4 Setting the MediaWeight

To ensure that ballots print cleanly on heavy stock, follow these steps to configure the MediaWeight 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.

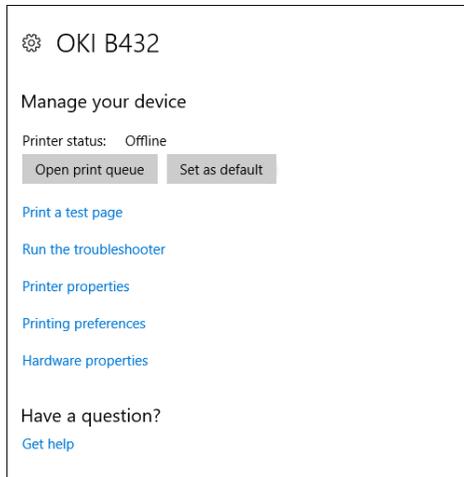
3.5 Configuring custom paper sizes

Out of the box, the Okidata B432dn and Okidata 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.

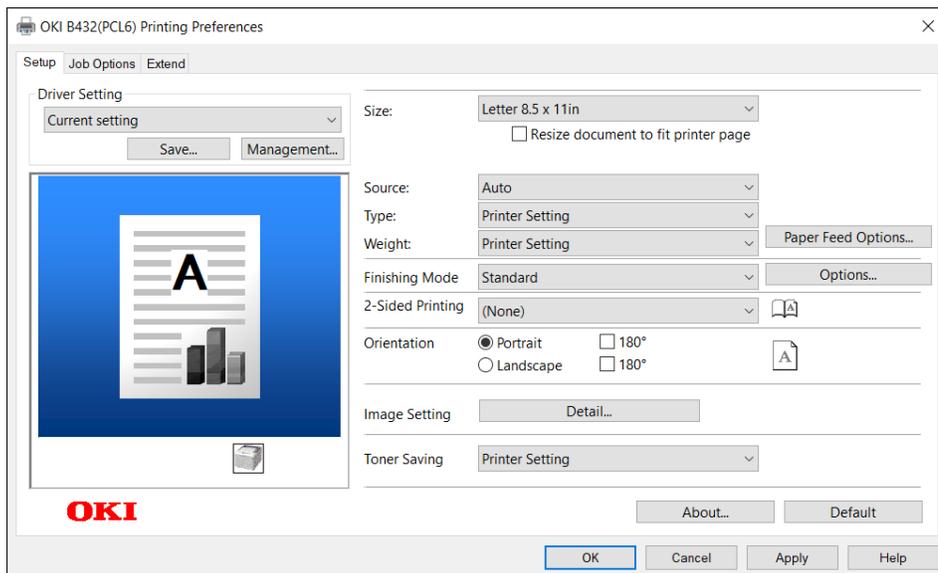
To set up printing for a ballot length that is not already configured, follow these steps to define a custom paper size:

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.



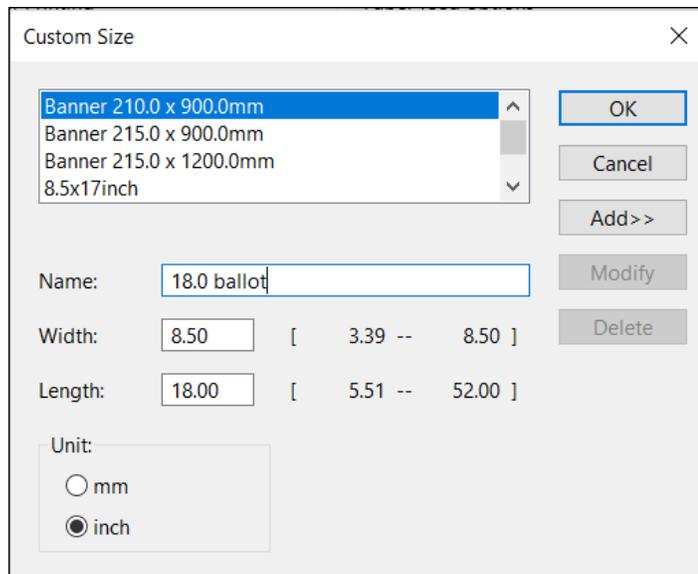
5. Click **Printing preferences**.

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.

Chapter 4. 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

4.1 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.

4.1.1 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 any 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

4.1.2 Postinstallation hardening tasks

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 40.

4.2 Installing the ClearAccess software

This topic describes the steps for installing the ClearAccess software.

Beginning the installation process

To begin the installation:

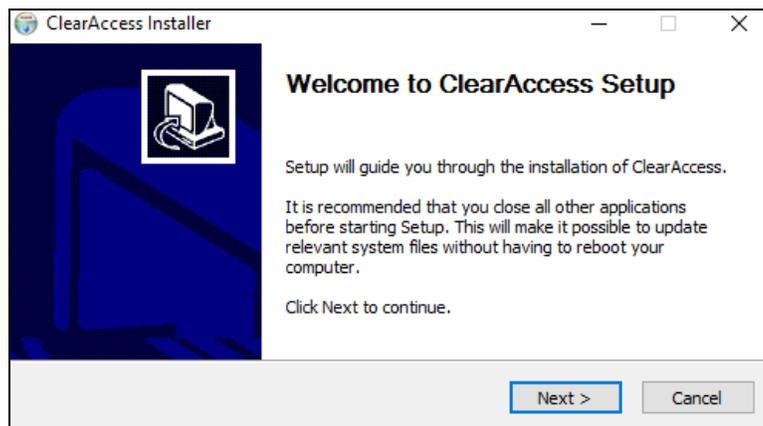
1. If necessary, connect an external DVD drive to the ClearAccess station.
2. Log in to the ClearAccess station as the Windows administrative user.
3. Insert the ClearAccess Application and Printer Drivers DVD into the DVD drive.
4. Use File Explorer to navigate to the ClearAccess Installer file on the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

Windows displays the message:

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

6. Click **Yes**.

The installation program displays the Welcome to ClearAccess Setup dialog.

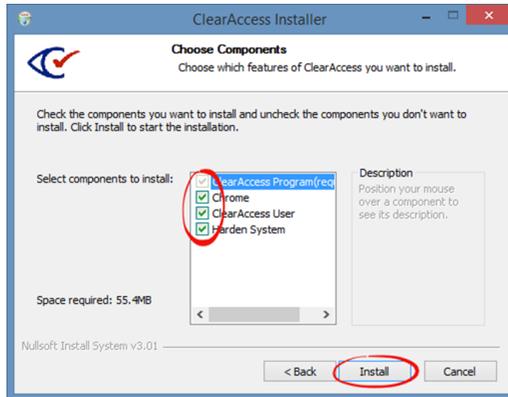


Selecting components and drivers

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.



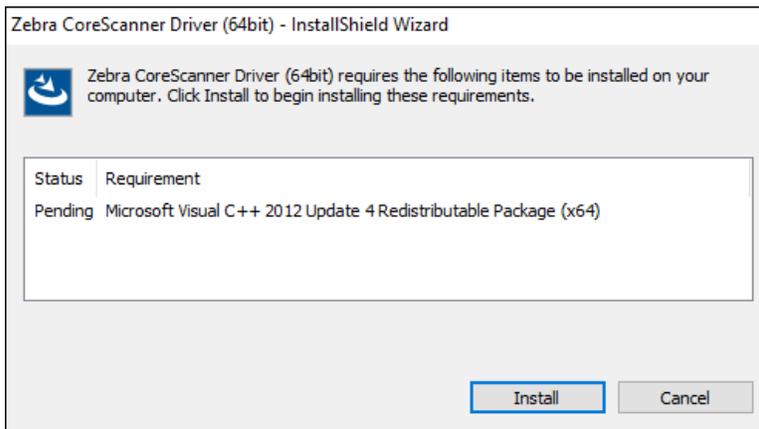
2. Select all components and click **Install**.

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

Installing the Zebra CoreScanner

The Zebra CoreScanner is a the bar code scanner supported by ClearAccess.

After the ClearAccess installation program displays several status message, the InstallShield Wizard for the Zebra CoreScanner starts.

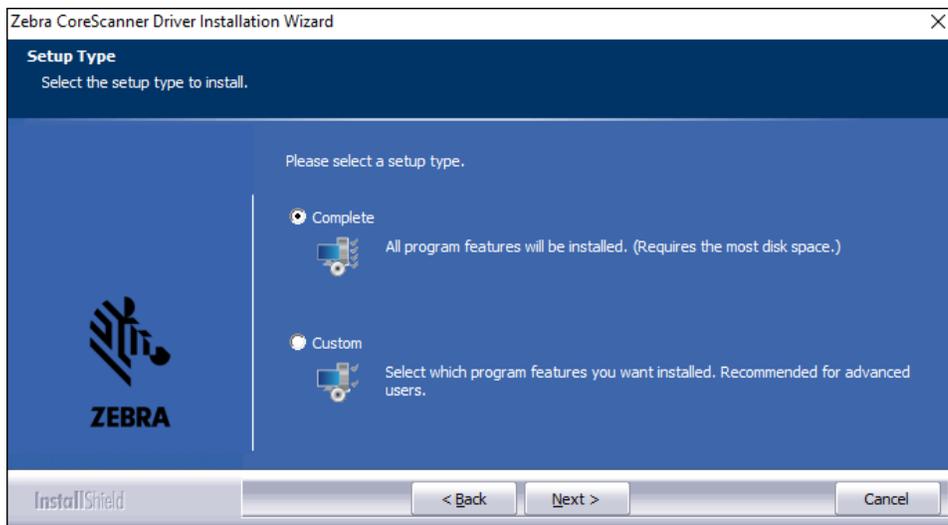


To install the Zebra CoreScanner driver:

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

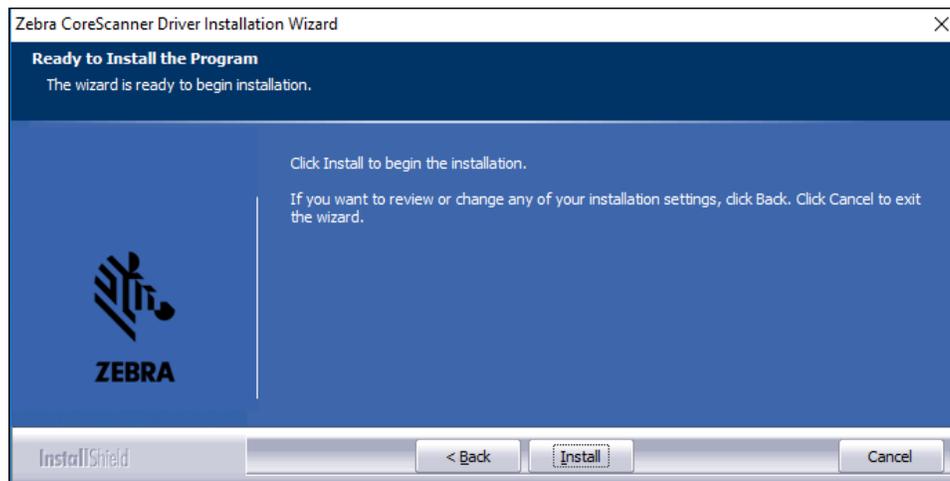


The driver installation program displays the Setup Type dialog.



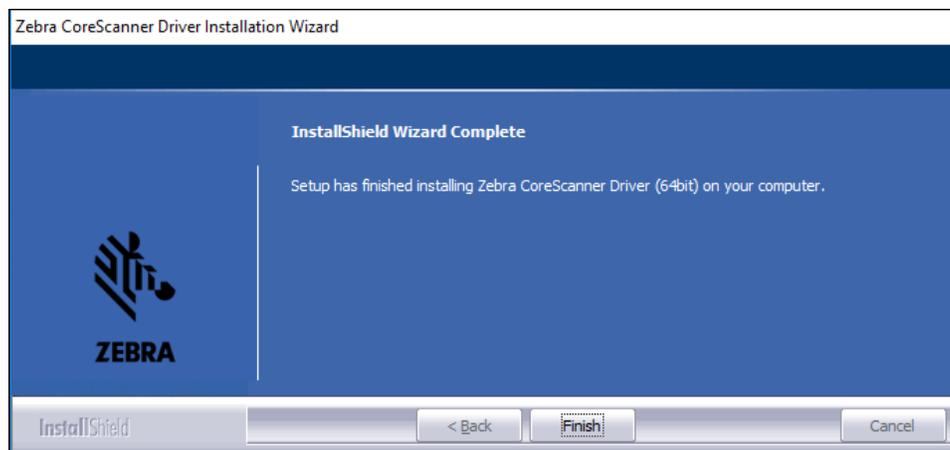
3. Select **Complete** and click **Next**.

The driver installation program displays the following dialog.



4. Click **Install**.

The driver installation program displays several progress messages and displays the following dialog when the installation is complete.



5. Click **Finish**.

The installation program displays several status messages as it progresses

Uninstalling unused programs

Next, the installation program displays the Uninstall Programs dialog.

To uninstall unused programs:

1. **Important:** Deselect any option, including Elo MultiTouch and click **OK**.



2. Click **OK**.

The installer displays the message:

Are you sure you want to Uninstall the applications?

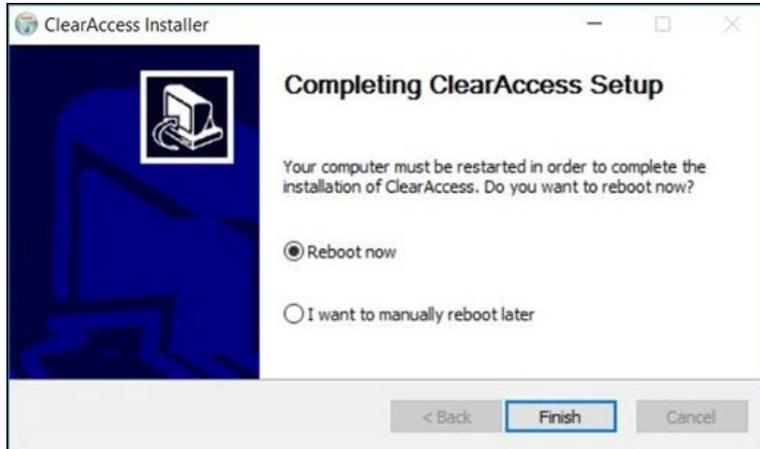
The message appears even if no programs are selected for deletion.

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.

Completing the installation

To complete the installation:

1. When the installer displays the Completing ClearAccess Setup dialog, 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**.



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.

4.3 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.



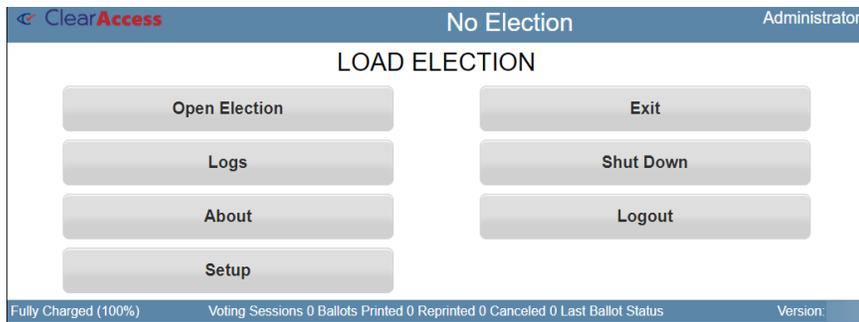
You *must* select the printer in Setup even if only one printer is installed and connected to the ClearAccess station.

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**.

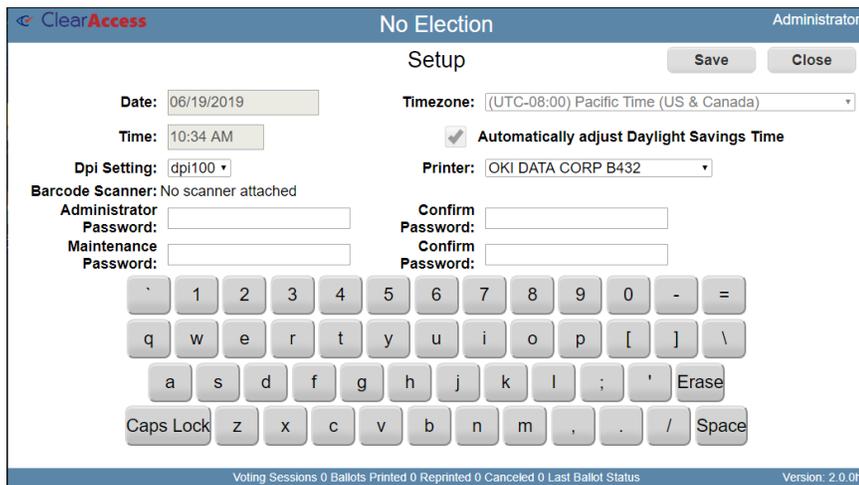


ClearAccess displays the following screen.



3. Select **Setup**.

ClearAccess displays the following 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** and then **Close**.

4.4 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*.

Chapter 5. Configuring the ClearAccess station

This chapter describes how to configure the ClearAccess station.

Estimated time to complete: 30 minutes

5.1 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.

5.1.1 Restricting access to the BIOS

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



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 54.
6. Select **Save 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.

5.1.2 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.

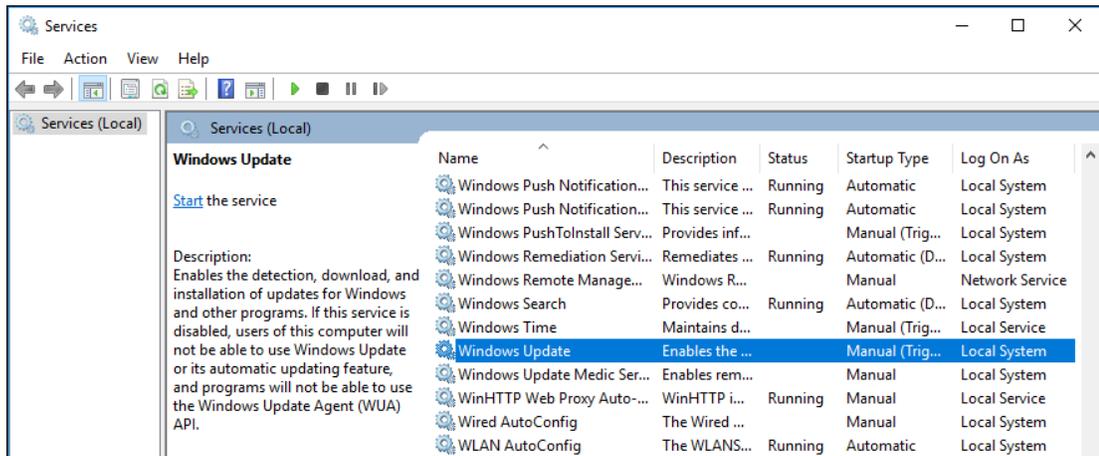
Windows displays the following message:

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

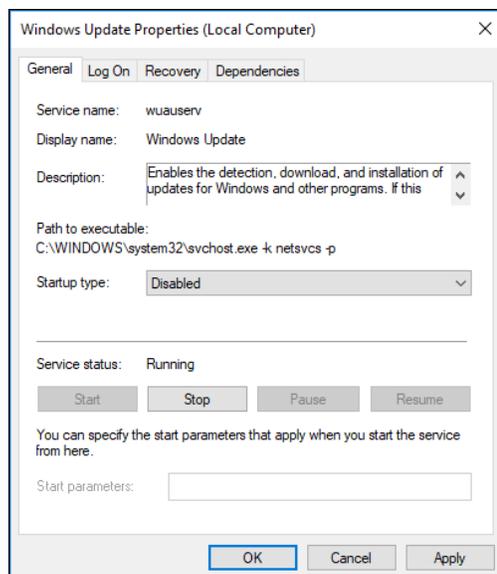
4. Click **Yes**.

The Services dialog opens.

5. Scroll down and double-click the **Windows Update** service.



Windows displays the Update Properties dialog and the General tab is selected.



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

5.1.3 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:

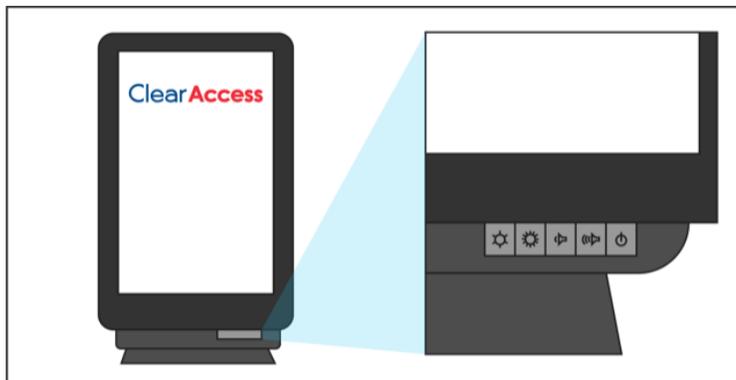
 - If ClearAccess has started, use the **Shut Down** button in ClearAccess.
 - If ClearAccess has not started, use the Windows **Power > Shut Down** command.
- You can use the power button to turn on the computer.
- The Brightness Up, Brightness Down, Volume Up, and Volume Down buttons are disabled.

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.



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 Lock message blinks on the screen.
3. Release the Brightness Up and Brightness Down buttons.

5.2 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.

5.2.1 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 bar code scanner, Clear Ballot recommends

rotating the screen so that the logo is on the right. This position accommodates the short cable of the bar code scanner. Also, see "Installing the bar code scanner" on page 46.

3. Use the four screws to reattach the screen to the base.

5.2.2 Changing the Windows display mode

To change Windows display mode:

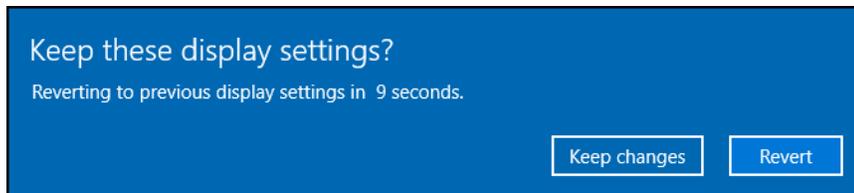
1. Log in to the ClearAccess station as a Windows administrative user.
2. Click the Windows **Start** button at the bottom of the screen and type *display settings*.
3. From the search results, select **Change display settings**.

The Windows Display screen appears.

4. Select the value of the Orientation field based on how you oriented the screen.

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

Windows displays the following prompt.



5. Click **Keep changes**.

The ClearAccess station can now display in portrait mode.

5.2.3 Calibrating the Elo E touchscreen

This section applies only to the Elo E Series computer.

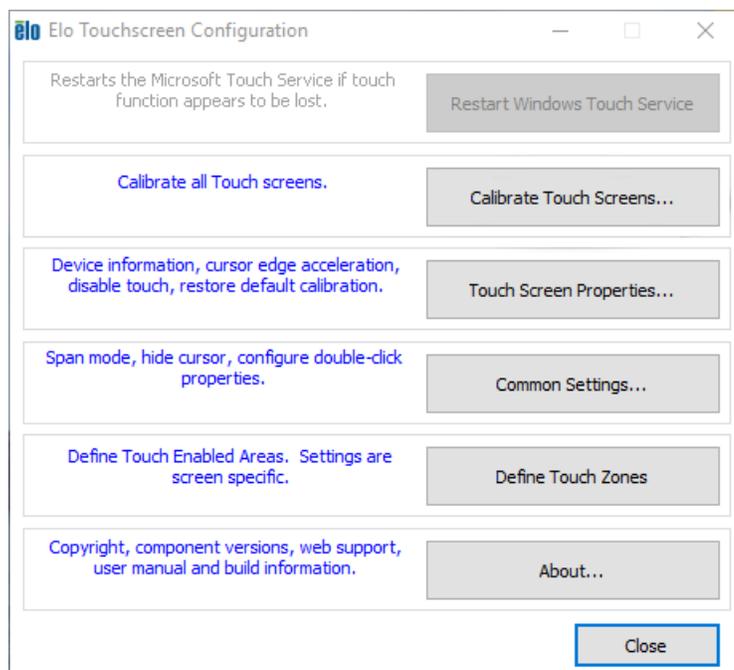
After you change the Orientation to Portrait or Portrait-Flipped on the Windows display screen as described in the previous section, calibrate the screen. The touchscreen will not function properly until you calibrate it.

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**.

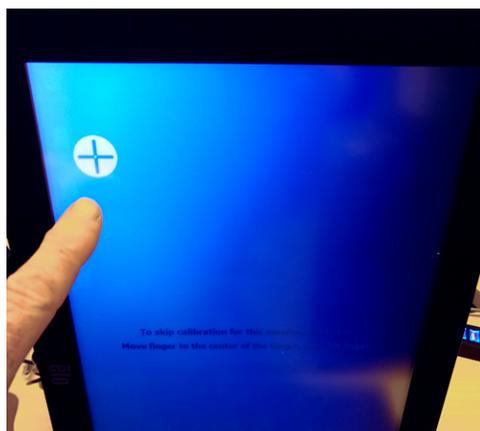
The Elo Touchscreen Configuration dialog appears.



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.

5.3 Installing the bar code scanner

A bar code 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 bar code scanner models supported by ClearAccess.

To install the bar code scanner:

1. Plug the scanner into one of the voting station's available USB ports.
2. If the computer is on, a beep occurs when the scanner is recognized by the system.
It is not necessary to restart the system or ClearAccess after plugging in the scanner.
3. Position the scanner on the touchscreen pedestal base so that it is behind the screen facing out to the right.



4. Clear Ballot recommends affixing the scanner to the base by using two-sided tape or adhesive-backed Velcro.
5. Test the scanner as described in the next section.
6. (Optional) Place a piece of tape on the table surface to mark the optimum position where poll workers should hold QR Codes for scanning. This is typically 5–10 inches from the scanner.

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

The Zebra bar code scanner includes a button on top for triggering manual scans. Manual scans are not used with ClearAccess and the button is automatically disabled.

5.4 Testing the bar code scanner

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

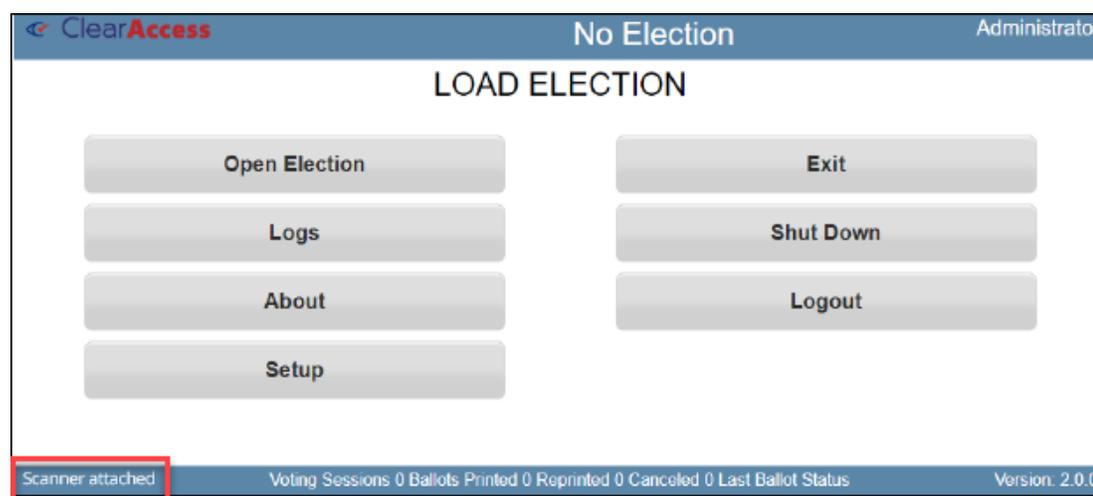
To perform this test, you need the following:

- A USB drive containing a sample election in an ADF in the root directory
Clear Ballot recommends using encrypted USB drives. See the *ClearVote Approved Parts List* for information about approved devices.
- The code for the ADF
- A printed QR code created for the election

To test the bar code scanner:

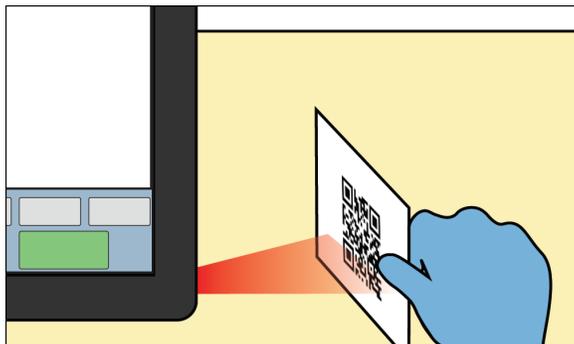
1. Install the bar code scanner as described in the previous section.
2. Log in to ClearAccess as the election administrator.

The ClearAccess status bar shows a *Scanner Attached* message.



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**.
4. Click **Test Vote**.

5. Hold the QR code 5 to 10 inches away from the scanner so that the scanner's red target light centers on the code.



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

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.



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 screen 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 is facing upward.



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



5.5.3 Disassembling the bezel

Remove the bezel from the Dell OptiPlex 5250 computer as follows:

1. Verify and remove the tamper-evident seals applied to the bezel.
2. Detach the audio headphones.

3. Remove the screws locking the bezel into place using the screwdriver provided.



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

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 computer can be shut down from the ClearAccess application.

1. Plug the computer's power cord into an AC power source.
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 a paper clip, then feed it gradually into the cavity.
5. Press lightly to turn the computer on, then retract the paper clip from the cavity.
6. Rotate the computer back into portrait position.

5.6 Completing the installation

When installation and setup of ClearAccess is complete, remove the DVD drive, external keyboard, and mouse from the ClearAccess station. For future software upgrades, attach the external keyboard and mouse 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 on page 54.) 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 Windows Defender Antivirus				
Printer				
Prepare the printer				
Install printer driver				
Configure printer				

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. Follow the instructions in the *ClearAccess Installation Guide* for the version that you want to install.

B.2 Installing a new printer

To install a new printer:

1. Log in to the as the Windows administrator.
2. Follow the instructions in Chapter 3 on page 26 to install one of the supported printers.
3. Log out of the Windows administrator account.
4. Log in to Windows as the ClearAccessUser.
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*.

Appendix C. ClearAccess troubleshooting

This section lists potential issues and possible solutions.

Symptom	Condition	Fix
Cannot find Elo Touchscreen Utility after installation	<p>The Elo Touchscreen Utility provides users several necessary configuration options, such as the ability to disable the motherboard beeper and a touchscreen calibrator.</p> <p>In some instances, the Touchscreen Utility installer fails to create a desktop icon or a program shortcut on the Windows Start menu. This gives the appearance that the installation failed.</p>	<p>To find the Elo Touchscreen Utility after installation if no shortcut is visible:</p> <p>Workaround 1:</p> <p>Click the Windows Start menu and type <i>elo</i>.</p> <p>Workaround 2:</p> <p>Open the Windows Control Panel and then search for <i>elo</i>.</p>