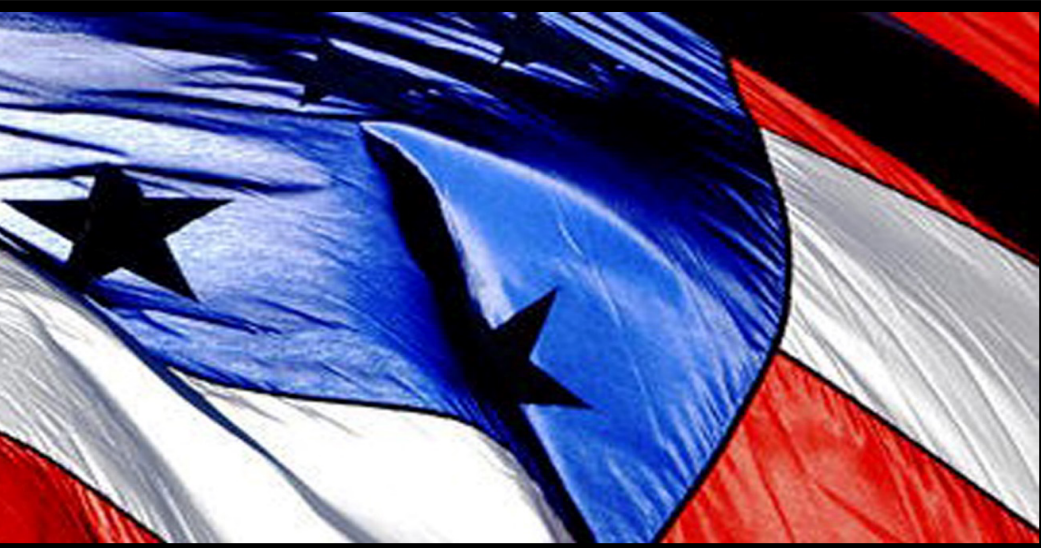




System Operations Procedure: Warehouse Technician's Guide



OpenElect® Voting System
System Operations Procedures
Document Number: 04-00460
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Version 1.3

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OpenElect® Voting System OVS System Operations Procedures

Warehouse Technician's Guide

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Section One

Introduction

This guide describes the procedures Election Warehouse Technicians follow to prepare the OpenElect® Voting Devices (OVD) units before an election and to audit data following an election. The OVD units are:

- OpenElect® Voting Optical (OVO)
- OpenElect® Voting Interface (OVI)
- OpenElect® FreedomVote Tablet (FVT)

This guide also describes the procedures on how the OVD units are utilized outside the Election Day precinct and Election Center activities:

- OVO Sessions
 - Absentee Tabulation
 - Recount
 - Provisional Tabulation
- Early Voting (FVT, OVI-VC and OVO)
- Logic Testing (FVT, OVI-VC and OVO)

1.1 Applicable Documents:

- *OVS System Overview*
- *OVS Acronyms*
- *System Operations Procedures: Election Day Poll Worker's Guide*
- *System Operations Procedures: Election Day Troubleshooter's Guide*
- *System Maintenance Procedures*
- *Election Server User Guide*
- *Software Server User Guide*

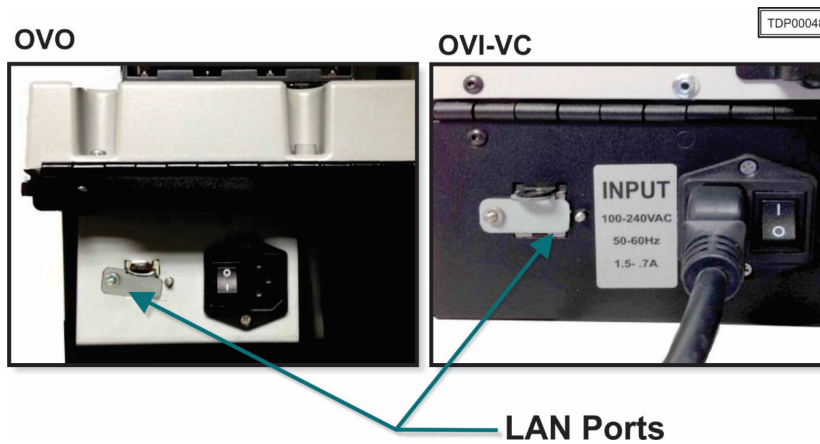
1.2 General Interface Information

While interacting with the FVT, OVO and OVI-VC, the user may be presented with an Error Message (such as "245 Printer Init Failure"). Appendix A (OVD Administrative Error Log Codes) provides the error codes and messages that can be presented in the Administrative Log of the OVD units and in some cases on screen, the reason for the message, and the actions that are recommended to be taken. Please refer to Appendix A when presented with an error message or error code log entry.

1.3 Security

1.3.1 To Maintain Security:

- Keep the room where computer equipment is located **locked** at all times.
- Give each user a unique password (logins are tracked by the machine and application logs) and have users safeguard their passwords.
- The network remains dedicated to the Election Server and OVOs within the physical election warehouse area. **Do not attempt to network to a larger LAN or to the Internet!**
- Only authorized maintenance technicians and Election Headquarters personnel may access election warehouse equipment.
- Only authorized technicians with assigned passwords may access the Election Server application.
- Ensure the election warehouse room where election loading takes place is locked when authorized personnel are not present.
- After the election is loaded on the OVO and OVI-VC, the LAN port cover is sealed, the FVT case is locked and the OVO top access door is locked.



Establish user roles and provide Supervisor and Maintenance passwords only to qualified and fully trained personnel. Adhere to limited and careful distribution of passwords, Passwords should be carefully distributed and guarded by their owners.

All events are logged for pre-election audit purposes.

1.4 The Election Warehouse

In this guide, the county office responsible for elections is called “Election Headquarters” and the facility where a jurisdiction stores and maintains voting systems is called the “Election Warehouse.” The election warehouse is where new elections are installed and where post-election system audits may take place. The election warehouse requires reliable power sources and sturdy tables to hold equipment.

1.5 Recommended Technician Responsibilities

The table below lists the role, skill required, location and responsibilities of the various Election Technicians.

Table 1-1. Election Technicians’ Roles and Responsibilities

Role	Number/ Skills	Location	Responsibilities
Election Warehouse Manager and Assistant Manager(s)	1-2 people: Beg / Inter. Tech. Skills; Advanced Election / warehouse experience	Election Warehouse	<ul style="list-style-type: none">• Manage election warehouse facility and technicians• Inventory control• Warehouse space allocation• Manage preparation for new election• Oversee creation of Technician’s Lists• Receive Election and Training TMs from Election Headquarters (for Election Loading)• Maintain plans for training, precinct deliveries, inventory control, and a testing standards checklist• Oversee election audits• Supervise preventative and corrective maintenance

Role	Number/ Skills	Location	Responsibilities
Technician	The number of technical personnel required depends on the size and complexity of the jurisdiction: Inter. / Advanced technical skills	Election Warehouse	<ul style="list-style-type: none"> • Load new election-specific information • Run Logic Test, hardware diagnostics • Prepare OVD units for an election • Create Technician's List for poll location • Perform mandatory recount at returned OVO systems as required • Recover data from returned OVOs, perform audits, generate reports as required • Maintain, test and diagnose system components • In Supervisor role, runs Early Voting, Absentee, Provisional, and Recount session types • Track and store equipment
Troubleshooter Technician	The number of technical personnel required depends on the size and complexity of the jurisdiction: Inter. / Advanced tech skills.	Election Polls	<ul style="list-style-type: none"> • Respond to Technical Assistance and/or Hotline calls during voting • Perform corrective maintenance and equipment replacement at the polls during voting • Respond to Technical Assistance and/or Hotline calls during voting
System Support Technician (SST)	1 person: Advanced Skills; Trained or provided by the vendor to assist the jurisdiction	Election Headquarters, Election Warehouse	<ul style="list-style-type: none"> • Provide troubleshooting and support for ROV Headquarters • Provides support for escalated precinct voting issues

1.6 General Overview of Tasks and Procedures

The following tasks and procedures summarize the security duties of personnel at the Election Warehouse facility. Technicians at the warehouse are trained in system and security procedures. Maintenance passwords are supplied to warehouse personnel to allow them access the maintenance functions in the application (load and clear elections, run tests, etc.).

The steps outlined here are described in detail in the following chapters of this guide.

1.6.1 Pre-Voting Equipment Preparation

The Warehouse Technicians will perform the following steps in preparation of an upcoming election:

- Validate authenticity of system equipment at the warehouse.
- Maintain security for equipment at the warehouse.
- Prohibit unauthorized personnel from entering the warehouse where equipment is stored and prepared.
- Install a cleaned TM device in each OVO and OVI unit prior to loading a new Election.
- Perform OVD diagnostic tests.

1.6.2 Election Installation

To prepare the OVD units for an election, the technician will either load the election utilizing the Election Server application or via a USB TM.

1.6.2.1 Loading Election with the Election Server (OVO and OVI-VC only)

- Set up a secure, local network with Election Server and OVO and OVI-VC systems (connecting a maximum of 20 units per group).
- Install a new election from a valid Election USB on a dedicated Election Server. (This is automatically done by the Election Server when the application is initiated with a new Election USB inside the Laptop USB port.)
- Update the OVO and OVI-VC system clock with Load Election process. (This again is done automatically by the Election Server as it interfaces with each OVD).
- After a new Election is loaded, the technician inspects the precinct Zero Count reports for correct election information.
- The Technician will then document the Protective and Public count for each OVO unit on the Technician's list for poll officials to verify on Election Day.
- Print Test Ballots from OVI-VC to verify election logic.
- Run a Logic Test to verify the OVO logic in voting and tabulating accuracy.
- Run Accuracy Tests as part of the Logic Test.
- Run Diagnostic Tests to verify that hardware is working.

1.6.2.2 Loading the Election with a USB TM (The FVT will only load elections via a USB)

- The OVD will try to connect to the Election Server (ES) first (OVO and OVI-VC) and obtain the election from the server. If the ES is not found (with an election loaded), it will read the election files from the USB.
- The USB which contains the election file must also have the regular Data folder with the USB anchor file. There must be the same 4-5 election files which would be on the Election Server (this includes the TOC file).

- The OVD will verify the validity of the election file. If the validity fails, an error message will display, just like it does when loading the election from the ES.
- The main election loading process from the USB is the same as loading the election from the Election Server.
- When election load is successful, the user will be required to confirm the current date and time on the machine or the user can update the date/time and save it.
- After the election is loaded successfully and the date/time is set, the user is required to shut down and rebooted the OVD to use the election (OVO and OVI-VC only).
- If an error occurs during loading of the election from the USB, an error message will display and any temporary election files on the hard drive will be deleted. The election files will stay on the USB.
- If the user powers off the OVD while displaying the date/time screen (OVO and OVI-VC only), they have not completed the election load process; the election is not considered loaded. The election will be deleted when the OVD is rebooted. This means the election will need to be reloaded to complete the process successfully.
- On boot, if the election ID and election version on the USB matches the election ID and version already loaded on the machine, it will not re-load the election. However, the user can select the Load Election button on the Maintenance menu to force a re-load of the election.
- After a new Election is loaded, the technician inspects the precinct Zero Count reports for correct election information.
- The Technician will then document the Protective and Public count for each OVD unit on the Technician's list for poll officials to verify on Election Day.
- Print Test Ballots from FVT or OVI-VC, depending on the poll location's setup, to verify election logic.
- Run a Logic Test to verify the OVO's logic in voting and tabulating accuracy.
- Run Accuracy Tests as part of the Logic Test.
- Run Diagnostic Tests to verify that hardware is working.

Whether loading an election on an OVD with the Election Server or a TM, ensure that the following election files are present:

- Election.zip
- election.enc
- TOC
- TOC.sig
- Sounds.zip (for elections using the OVI-VC)

1.6.3 Pre-initialize Ballots

The Jurisdiction can optionally setup a group of precincts for an OVO before Election Day. The list of precincts will be used at the poll location on Election Day to automatically initialize those precincts.

1.6.4 Preparation for and Delivery to Precincts

- Affix numbered security seals on each OVD unit case prior to releasing units to polling locations.
- Affix the OVO to the top of the Ballot Box.
- Create a Technician's list for each precinct, itemizing equipment and entering numbers from all security seals.
- Follow jurisdiction security procedures for equipment delivery and pick-up.
- Follow jurisdiction security procedures for replacing faulty equipment during an election.

Use the Election Day Troubleshooter's Guide and the Election Day Poll Worker's Guide to solve problems quickly at poll locations, and to provide information about setup.

1.6.5 Post-Election Audit Procedures

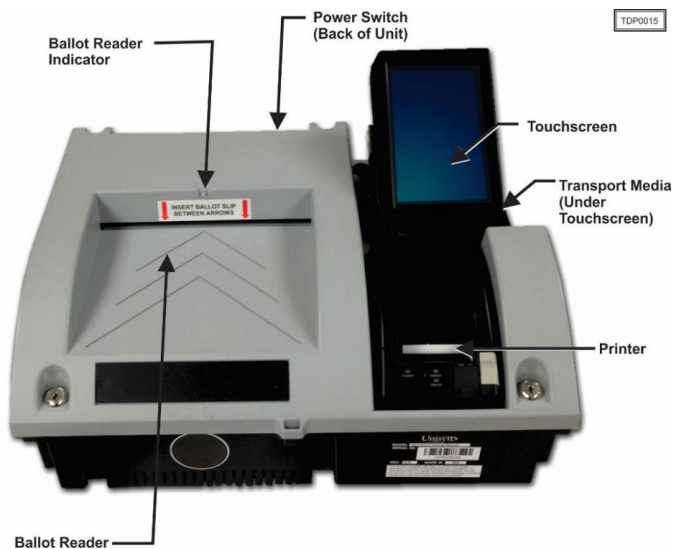
- Access and print Audit Trail reports showing all vote selections from the OVO unit.
- Access and print Administrative Logs as needed following an election to audit system activity on an OVD unit.
- Recover voting data files for replacement equipment (Transport Media or Hard Drive) if necessary.
- The scanned ballot images are store on the TM when ballots are cast. When voting is closed and the TM date is uploaded to the Tabulator Client, it can also optionally upload the ballot images for storage on the OCS system. Also, a blank TM can be inserted into an OVO to recover the vote and image files onto the TM. However once a new session is started this data is cleared.
- Prohibit attempts to install any other programs or data on the systems.

The log files and audit trails can be printed on the OVO and the resulting reports should be stored offsite in a stable secure area.

The electronic records are captured in both the tabulator and election manager and can be backed up to a TM(s) and stored offsite in a secure area.

1.7 OVO Overview

The OVO is a paper-based ballot voting system that facilitates voting at precinct polling locations by reading paper ballots and producing tabulated precinct results. Warehouse Technicians prepare the OVO systems for a new Election at the Election Warehouse.



The OVO consists of the following components:

- **Personal Computer (PC)** - computer component (with a touchscreen display) has pre-installed server software (that manages data and communication) and client software that provides a user interface for voting and maintenance. A new election loaded via the Election Server or a USB (with the election loaded on the USB) sets passwords, parameters and ballot styles for that election. (Valid ballots for a poll location are set up prior to Election Day via the Pre-Init Precincts function or on Election Day startup by scanning a ballot header ballot or initializing ALL PRECINCTS.)
- **Transport Media (TM)** – A thumb drive provides the means of transporting audit, ballot images and vote files from the precinct or voting center on Election Night to Election Headquarters where the central count system resides. The TM can also be used to load the OVO directly with the new Election.
- **Ballot Reader** - dual-sided scanner connected to the PC to scan data from marked ballots. The Ballot Reader ejects accepted ballots into an attached ballot box or rejects unaccepted ballots back out to the voter.
- **Printer** - 58 mm thermal receipt printer connected to the PC to print receipts and reports at the OVO.
- **OVO Ballot Box.** The OVO unit is secured on top of the ballot box that is 24" wide x 32" deep x 36" high (609.6 mm wide x 812.8 mm x 1914.4), at the warehouse prior to delivery.

The ballot box is available in two options: Standard and Portable. The standard ballot box is fully enclosed with 3 secured access points:

1. Where the OVO device is attached on top of the ballot box.
2. A slot on the back of the ballot box where ballots are inserted if the OVO is inactive (on an emergency basis). The emergency bin can also be used for Provisional or absentee ballots, where envelopes can also be inserted without being counted by the device. Ballots inserted via this slot are deposited into a separate compartment inside the ballot box from the cast ballots and is accessed via a locked/sealed door. These ballots are taken to Central Count for validation and tabulation.
3. A locked/sealed door is on the back of the ballot box for removal of the cast ballots after the close of the election. This door is behind the Emergency bin described in item 2 above.

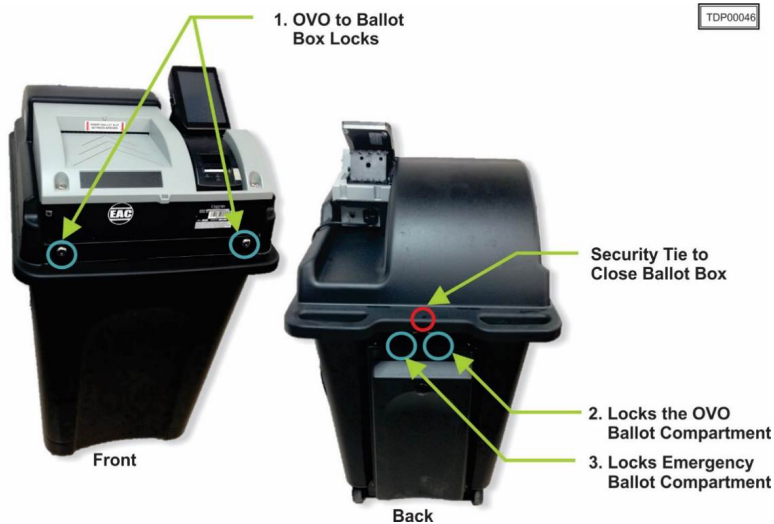


Figure 1-3. Ballot Box Security Points

- The Portable ballot box is fully enclosed when sealed. It has one secured access point, located where the OVO device is attached on top of the ballot box.



Figure 1-4. Portable Ballot Box Security

1.8 OVI-VC Overview

The Unisyn OpenElect Voting Interface-Vote Center (OVI-VC) system is a touchscreen system that is used by voters to produce a voted paper ballot. The OVI-VC facilitates voting at precinct and election center polling locations by supporting independent and secure voting by all voters regardless of ability.

The OVI-VC unit is also used for Early Voting. Warehouse Technicians prepare the OVI-VC systems for a new Election at the Election Warehouse.

The OVI-VC case houses the following hardware components (excluding the keypad):

- **Personal Computer (PC)** - computer component (with a touch panel display) has client software that provides a user interface for voting and maintenance. A new election loaded via the Election Server or a USB (loaded with the Election files) sets passwords, parameters and ballot styles for that election.
- **Transport Media** –USB thumb drive provides the means of transporting audit files from the Warehouse to Election Headquarters where the Election Manager PC/Application resides. The TM can also be used to load the OVI-VC directly with the new Election.
- **BMD Ballot Printer** - 82.5 mm thermal ballot printer connected to the PC to print official ballots, as well as reports.
- **Keypad** - 9-key keypad with raised label designations. The keypad also has:
 - 1 Binary Input Interface jack (for the sip and puff)
 - 1 Audio Interface jack



Figure 1-5. OVI-VC

At the polling locations, voters enter their votes and print their ballot using the OVI-VC system. The OVI-VC is ADA compliant and can provide the voter with headphones to hear an audio ballot, keypad or sip and puff devices to aid in navigating the ballot. The jurisdiction will provide a zoom-in function device to aid in reading the ballot. Once the ballot has been marked by the voter, it is printed out by the OVI-VC's printer. The printed ballot is then read with an OVO scanner or placed in the provisional ballot box slot for reading at a Central Count facility. At the end of Election Day, the Operator closes voting on the system, and prints the Close Report.

1.9 FVT Overview

The FVT will aid voters with limited physical capabilities to vote independently and privately at the voting centers. Using the FVT, voters can navigate the ballot via the touchscreen, ADA keypad, and/or a sip-and-puff device interface to make their selections. The FVT also provides the voter with an optional audio presentation of the ballot and using the keypad/sip-and-puff

device the user makes their selections. After all selections have been made, the user can review an electronic ballot and upon acceptance, the ballot is then sent to the printer.

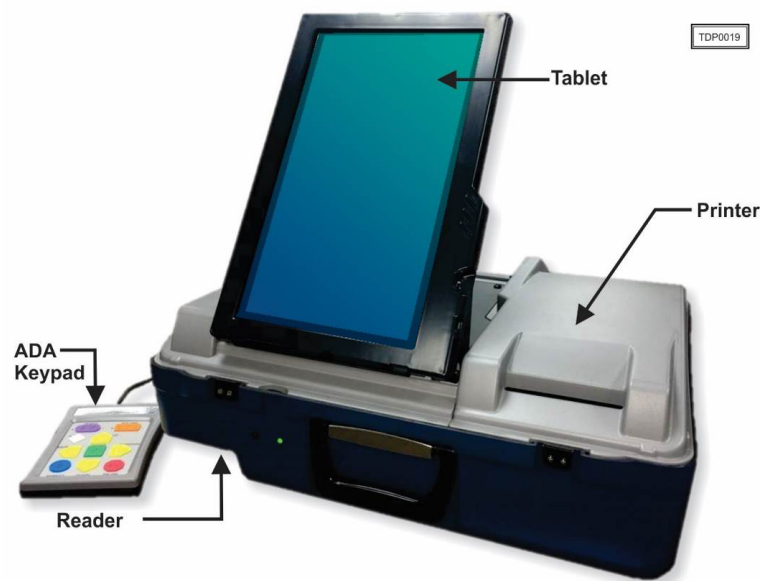


Figure 1-6. FVT

The FVT case houses all of the unit's hardware components making it easy to set-up and transport. A single power source controls the case components. The internal battery on the tablet can sustain the tablet and barcode reader for up to eight hours. The battery in-use indicator on the tablet's screen will appear when the tablet is using battery power. The FVT will not allow a new session to begin if the power level falls below 20% or it loses contact with the printer, in this case, an error message will be presented to the user.

The FVT case houses the following hardware components:

- **Tablet** - The tablet is an Android Tablet with a 13.3 in touchscreen.
- **Printer** - 82.5mm thermal printer used to print official ballots and reports.
- **Barcode Reader** - 1D /2D barcode reader.
- **Keypad** - 10-key keypad with raised label designations.

1.10 UPS Overview

An Uninterruptible Power Supply (UPS) is offered as a component of the OVS system for use with the OVDs in precincts. The UPS provides up to two hours of power, if the polling location's power is unavailable, to the OVD connected to it.

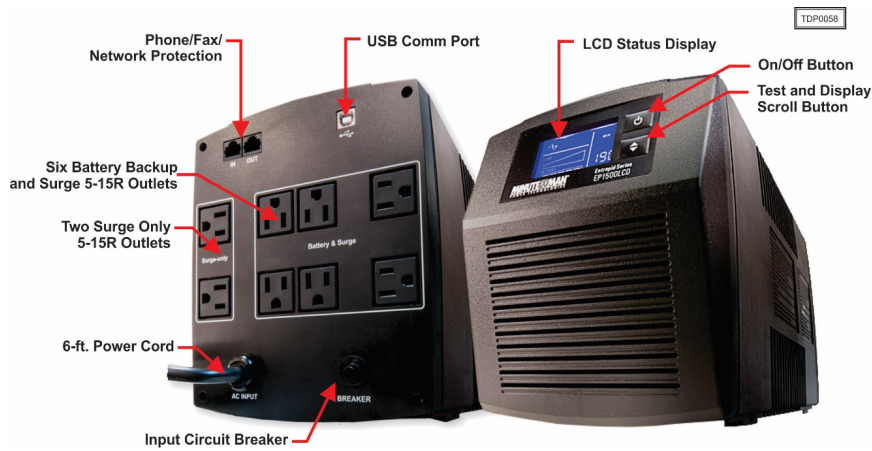


Figure 1-7. UPS

The UPS provides an audible alarm that lets the poll worker's know when power is switched to battery, when the battery enters the battery low state, or when an overload condition occurs. When a blackout, brownout or an overvoltage condition occurs, the UPS will transfer to the battery mode, the Unit Status Indicator will show the battery is on and an audible alarm will sound once every five seconds indicating that the commercial power is lost or unacceptable.

When the commercial power returns or is at an acceptable level, the UPS will automatically transfer back to the AC normal mode.

To ensure safety at the polling locations it is recommended that each UPS device be plugged into a Belkin Surgecube™ surge protector that is plugged directly into a wall outlet. Do not plug another piece of equipment into the UPS, or use extension cords going into or out of the UPS.

1.11 Ballot Overview

The OVO and OVCS support two-sided and one-side paper (full) ballot pages 8.5-by-11 inches, 8.5 by 14 , 8.5 by 17, and 8.5 by 19 inches (excluding a stub at the top). Only one length of ballot is used for any particular election. But the length can vary with each election. There can be an optional 1.5" stub defined for the top of any of the full page ballots.

BMD Ballot pages (which are single sided) are the same lengths as the full size ballots for each particular election.

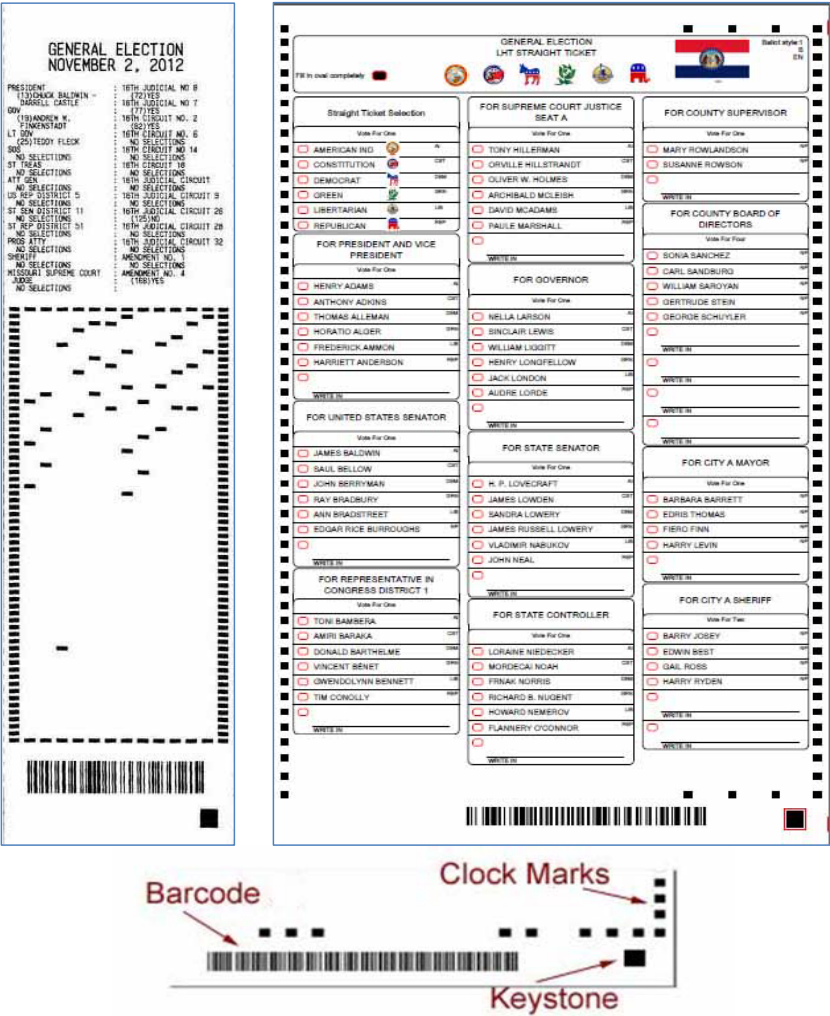


Figure 1-8. Ballot Styles

The front page of a ballot page has a keystone marker in the lower bottom margin. The marker is used to recognize the top/bottom and front/back of a ballot page.

The header of the ballot (depending upon the jurisdiction's procedures) can provide information on the ballot definition (see the two ballot header examples below):

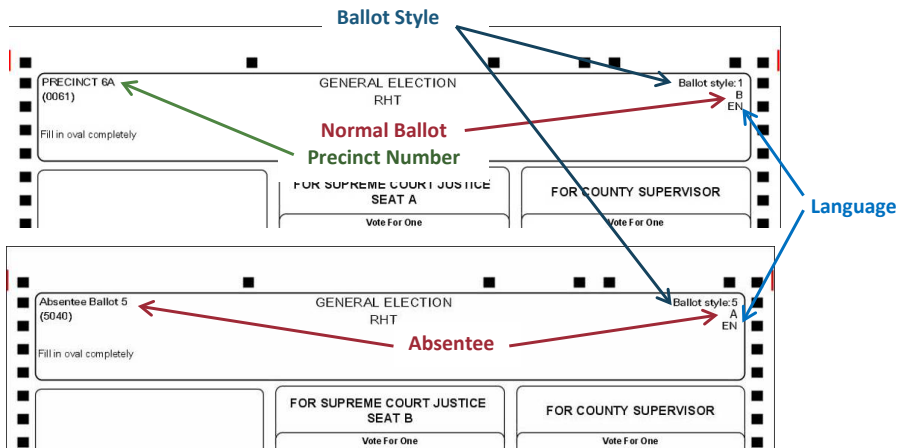


Figure 1-9. Ballot Header

1.11.1 Ballot Barcode Definition

The bottom of all ballots read by the scanners has a “Barcode 128” value on the bottom of the ballot to identify the ballot type. The data is an un-delimited string of 18 characters that will be interpreted as follows:

Table 1-2. Barcode 128 Definitions

Front Barcode

Start	Finish	Value
0	2	3 digit Election ID
3	7	5 digit Precinct ID
8	11	4 digit Ballotstyle ID
12	13	2 digit Party ID
14	15	2 digit Language ID
16	16	1 digit Ballot Code
17	17	1 digit Page number

The ballot code has seven values:

- A = Absentee
- B = Ballot (Regular Election Day ballot)
- C = Close (On a close ballot ignore locations 3-13 and 15)
- D = FVT or OVI-VC printed ballot
- H = Header ballot card (used for vote-by-ballot)
- I = Header ballot card (used for non-vote-by-ballot elections)
- P = Provisional
- T = Test

Additionally, there is a second, smaller, barcode printed on the back of two sided ballots. This barcode serves as a check to make sure that the front and back side of the ballots are from the same ballotstyle and page. It is located at the bottom center of the back page of the two sided ballot.

1.11.2 Ballot Types and Usage

As described in the previous section, there are seven ballot types defined for use by the OVO. The standard ballot types used in the precincts are:

- **Regular (Type B) ballots** that are used by registered voters for the precinct to mark their votes and cast their ballots via the OVO at the precinct.
- **BMD (Type D) ballots** that are produced by the FVT and OVI-VC voting units and typically cast via the OVO at the precinct or voting center.
- **Provisional (Type P) ballots** that are used at the precinct (and other locations) for non-verified voters to mark their votes and then insert the ballot into a Provisional envelope hands the envelope to the Poll Worker who inserts it into the Secondary Ballot Slot in the ballot box.

In addition to these ballots, **Absentee (Type A) ballots** are sent to voters prior to the election. These ballots are typically returned to Central Election Headquarters via mail for casting by election personnel using a dedicated OVO or via an Absentee Session on the OVCS.

The remaining ballot types are used by election, maintenance and poll worker personal to manage or test the OVOs.

- **Close (Type C) ballots**, used to close the current session running on the OVO.
- **Header (Type H) ballots**, used to initialize precincts (ballot styles) at the precincts and/or voting centers. A blank ballot can also be utilized for this purpose.
- **Header (Type I) ballots**, used to initialize precincts (which are not vote-by-ballotstyle) at the precincts and/or voting centers. A blank ballot can also be utilized for this purpose.
- **Test (Type T) ballots**, can be used within a precinct or Test Center on Election Day. The purpose of the Test Ballot is to check the Ballot Reader and the validation review process of the OVO system on an Ad Hoc basis

Section Two

Starting Up and Shutting Down OVD Units

Follow the procedures in this chapter whenever instructed to start up or shut down an OVD unit. A complete description of startup and recovery conditions is included.

This section consists of:

- Verifying required media prior to start (TM and Paper)
- OVD Startup Process
- OVD Recovery
- Shut Down and Power Off

2.1 Media Installation

Before an OVD unit will start, it must have Transport Media (TM) and paper installed.

2.1.1 Insert Transport Media – OVO and OVI-VC

The OVO or OVI-VC will not start without a Transport Media (TM) inserted in its port. The TM must be inserted and removed while the OVD system is powered off. Follow the jurisdiction's labeling procedures for TMs and equipment.



IMPORTANT

Make sure OVD units are shut down and powered OFF when inserting or removing the Transport Media.

- Insert any **cleared** TM into any OVD unit.
- The TM must be a valid Unisyn-supplied USB device.
- If a TM is already installed, and a Training Election is currently loaded, use the existing TM to load an election as long as voting is closed.
- If a TM is already installed, and a past election is loaded, make sure the precinct votes have been recorded and the TM has been cleared by the Election manager. If there is no problem, use the existing **cleared** TM.

2.1.1.1 OVO TM Removal and Installation

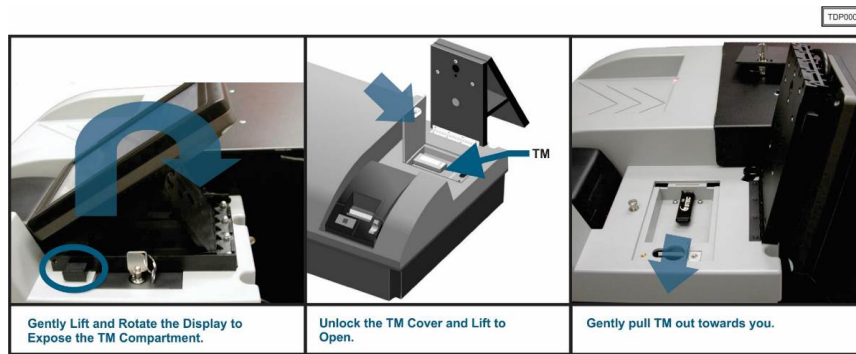


Figure 2-1. OVO TM Removal

To access the OVO TM compartment, depress the button on the display assembly (circled above in blue) and then rotate the display up. Unlock the compartment and remove the TM device. Grasp the TM by its end and gently pull it out of the USB port.



Figure 2-2. Install an OVO TM

To install a new TM:

- Make sure the replacement TM is cleared and has a label, document its number, and then insert it into the TM connector.
- Close and lock the top access panel and restore the touch screen monitor to the operating position.

2.1.1.2 OVI-VC TM Installation and Removal

To access the OVI-VC TM:

- Switch off the OVI-VC using the case power switch to force a shut down.
- Unlock and open the cover of the OVI-VC and remove the TM behind the ballot printer by grasping the Transport Media by its end (circled below in blue) and gently pull the TM device out of the USB port.
- Make sure the cleared replacement TM has a label, document its number and then insert it into the TM connector.
- Close and lock the OVI-VC case.

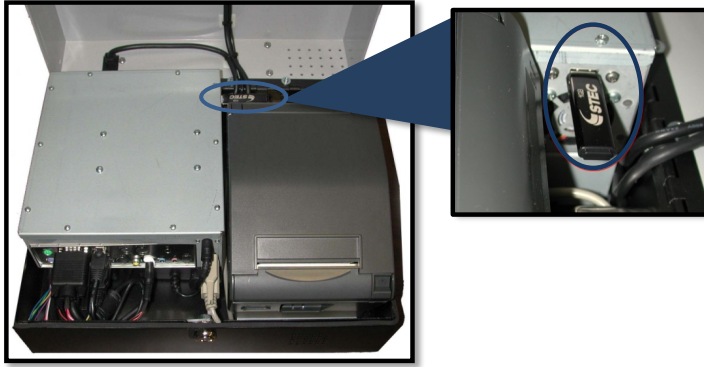


Figure 2-3. OVI-VC TM Location

2.1.2 Install Report Printer Paper

Before turning on the OVD units, check the thermal paper in the printer to ensure there is enough for Election Day. The devices will not operate without paper and the initialization process will stop if the paper level is too low. The thermal printer paper will need to be installed before the system will finish the startup process.

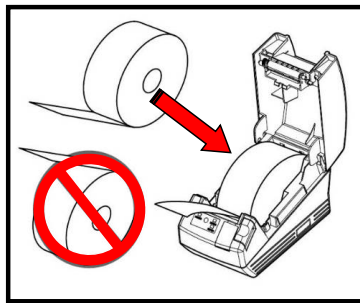
2.1.2.1 OVO Thermal Paper Installation

The steps for installing thermal paper in the OVO are:

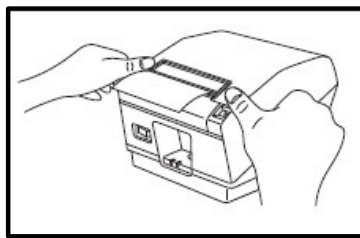
1. Make sure the printer is not receiving data.
2. Open the printer cover by pressing the cover-open lever at the top of the printer (see illustration to the right).
3. Remove the used paper roll core, if there is one.



4. Insert the new paper roll with the paper feed coming up from the bottom (not hanging over the top). The paper feed end of the roll should face the front of the printer (opposite the end with cables).



5. Pull out a small amount of paper and then close the cover. Press down on both sides of the cover to latch it securely.
6. Once the OVO is powered on, the Test Printer diagnostic from the Administrative Menu (Diagnostics function) should be run to make sure the paper is installed correctly.



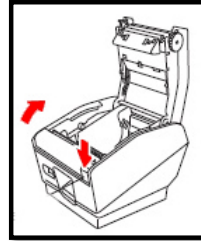
2.1.2.3 OVI-VC and FVT Thermal Paper Installation

To change the paper on the FVT and OVI-VC printer, turn off the power to the case by toggling the switch on the back to the off position. Unlock the case and lift the cover to expose the printer.

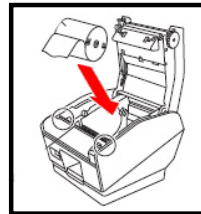
1. Press the printer's cover release button at the front of the printer.



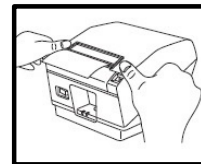
2. Lift up the printer lid.
3. Remove the paper roll core (it will have some paper remaining).



4. Set the new paper roll into the hollow, with the leading edge coming toward the front from under the bottom of the roll.



5. Push down both sides of the printer cover to close. Make sure that the printer cover is securely closed.
6. Close and relock the case.



Once the FVT or OVI-VC is powered on, it will automatically print a Machine Information report to test the paper installation and position the paper (in relation to the paper blackmarks).

2.2 OVO and OVI-VC Startup

OVO and OVI-VC startup processes are very similar. The basic steps taken during startup are:

- Operator switches on the device.
- Screen displays the system software verification.
- System performs self-diagnostics for all components.
- System checks for presence of Election Server with new election.
- System checks for existence of vote files to determine state of election (pre-election, voting in progress, post-election), and recovers if necessary.
- If not a Training Election, the system verifies it is an Election Day.
- The OVO system checks the election files for any corruption using the signature of all election definition files in their encrypted state.

If there is a problem during startup, an error screen similar to the following screen is displayed:

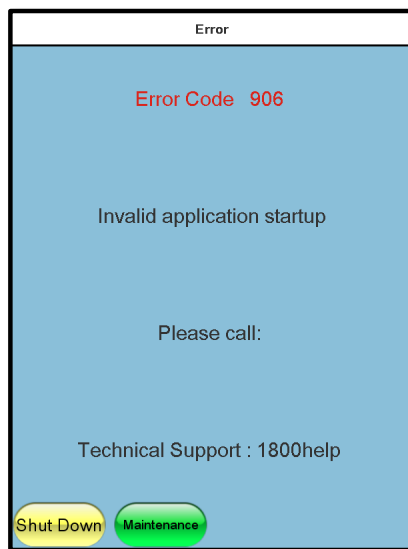


Figure 2-4. OVO Error Message

If the system successfully starts up and it is not Election Day, the system displays the Maintenance Password Screen. If it is Election Day, the system loads the election data and proceeds to the voting mode.

The units always asks for a maintenance password after starting up, unless it is Election Day or a Training Election is loaded and the OVD is **not** connected to the Election Server network. Be sure to use the maintenance password for the election or Training Election currently loaded on the OVD.

! IMPORTANT *Verify a cleared valid Unisyn supplied TM is inserted into the OVO.*

2.2.1 Power On the OVO and OVI-VC

Press the switch on the back of the case, next to the AC inlet, on the back of the case.

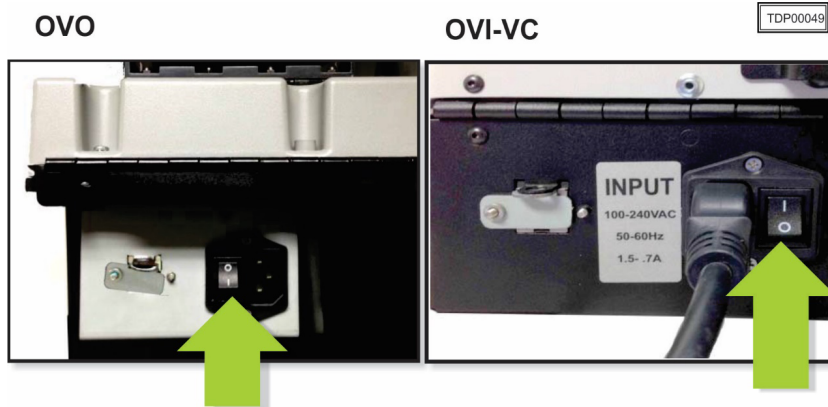


Figure 2-5. OVO and OVI-VC Power Switch

2.2.2 Software Verification

Software verification is performed by the Validator application. The Validator application is a small program which runs on the OVD system every time the system is powered on. This application validates each of the files used by the voting application. If the Software Server (SS) application is connected through the network to the OVD system, the Validator application will check to see if new software needs to be downloaded from the SS application to the OVD system (See section 3).

2.2.3 Software Validation

The Validator application reads the list of files needed by the voting application from an encrypted script file on the OVD system. Every file listed will have a signature validation performed on it to verify that the local file has not been damaged or altered. If all files validate successfully, the voting application will be started. If the files do not validate successfully and the SS application is not connected, an error message is displayed on the screen and the voting application will not be started.

2.2.4 Software Loading

When the Validator application starts, it looks for a network connect to the SS application. If the SS application is found, the Validator application requests the encrypted script file which contains the list of software needed on the OVD system. If the files names and signature values currently on the unit's system do not match what is in the downloaded script file, the correct files are downloaded from the SS application. The Validator application software itself is also updated with this process.

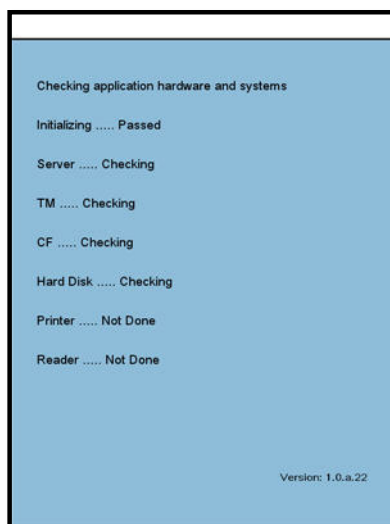
If there is an error in the software verification, an error message is displayed and the voting application is not loaded. Refer to Appendix A (OVD Administrative Log Error Codes) for the list of error codes and explanations.

In this case:

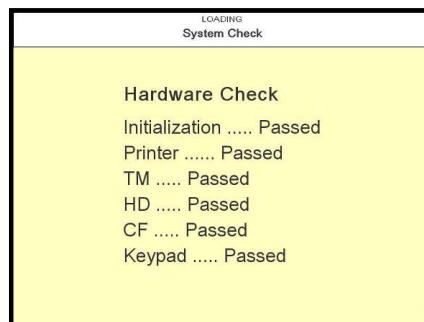
- Shut down the system.
- Connect to a Software Server PC with an up-to-date certified software release loaded in the USB drive.
- Restart the unit and reload the software.

2.2.5 Self-Diagnostics

The OVO/OVI will perform a series of checks to make sure it is communicating with all peripheral components.



OVO System



OVI System

If there is an error in the self-diagnostic testing —a vital component is not powered on or properly functioning —“Error” appears at the end of the status line. When all components have been tested, a message prompts the operator to call Technical Support, and the unit’s startup stays at this screen.

- A full screen error appears for printer problems. Once the printer’s problem has been corrected the startup process will continue.
- If the error cannot be corrected, for example, the Hard Disk is not responding, contact the vendor representative for service on the unit.



WARNING

Never open the OVO case without assistance from a certified technician. Opening the case can increase the risk of shock and will void the warranty.

Machine Info Report

Each OVO and OVI-VC automatically prints a Machine Info Report. The Machine Information report provide information on the election (if one has been loaded) the current date, time, location and the hardware and software information.

Some models of the OVI-VC will not have a tethered keypad. These machines are for general use, not ADA use. In this instance it is normal for the Machine Info Report to notify the user that the keypad cannot be detected, see Figure 2-6 (outlined in red). If OVI-VC has a keypad and the report states it is not found, run the keypad diagnostic test as outlined in section 6.2.7. If the OVI-VC unit fails the diagnostic test, replace the OVI-VC.

NOTE: If the OVI-VC has a keypad and the keypad is detected during self-diagnostics, there will be no comment on the Machine Info report.

Always check the Machine Info Report to verify that the correct setup is present.

2.2.6 Check for Election Server

The system then checks for the presence of the Election Server and a new election when. If the TM inserted contains no votes (is “clean”) and if the Election Server is connected with a new election, it can be downloaded.

If the Election Server is not found, the system then will attempt to read the election files from the USB. If the Election files are found, the load process will be via the USB. The main election loading process from the USB is the same as loading the election from the Election Server.

2.2.7 Perform Security Check on Election Files

The system ensures the security of encrypted Election Files during the boot up process. A Machine Information Report will print with the Election title and version number, highlighted in blue below, once it is loaded. Verify the election information is correct.

Machine Info	Machine Info
<p>Election Title: Unisyn County CA USA General Election – 2015 Election Date: Tues Oct 12,2015</p> <p>Current Date: Tues Oct 12, 2017 07:30:11 AM</p> <p>Software Version: 2.0R5c OS Version: OVI OS ver. 2.0.Oct 8, 2016 Machine Name: UNI000122 Keypad: Not connected Unisyn Service System</p> <p>Election ID: 106 Election Version: 77.4.6 Customer: VST Session Type:</p> <p>Voting Status: NEW Open Time:</p> <p>Protective Count: 988 Public Count: 0 Session Count: 0</p> <p>Session Canceled: 0</p> <p>Precinct Counts: 0</p> <p>Time Zone: Pacific Standard Time Region: America/Los_Angeles IP Address:192.168.0.8 Printer Model: Star Micronics TSP74311 CPU Speed: 1.86GHz Memory Size: 2,012MB Screen Size: 15" Screen Calibration Time: Technical Support: 1-xxx-xxx-xxxx</p>	<p>Election Title: Unisyn County CA USA General Election – 2015 Election Date: Tues Oct 12,2015 Current Date: Tues Oct 12, 2017 07:30:11 AM Election ID: 106 Election Version: 77.4.6 Customer: VST Public Count: 0 Protective Count: 988</p> <p>Machine Name: UNI000122 Software Version: 2.0R5c OS Version: OVO OS ver. 2.0.Oct 8, 2016 Time Zone: Pacific Standard Time Region: America/Los_Angeles IP Address:192.168.0.8 Printer Model: CT-S281 V.1.0 Scanner FW Version: 1622 Image Calibration: 07/27/201 2:41 PM PDTre Version 1.0.a.22 Speed Calibration: 07/27/201 2:41 PM PDT CPU Speed: 1500MHz Memory Size: 438MB</p> <p>Technical Support: 1-xxx-xxx-xxxx</p>
OVI	OVO

Figure 2-6. OVI and OVO Machine Information Reports

2.2.8 Pre-Initialize Precincts on the OVO

The Jurisdiction can setup a group of precincts for an OVO before Election Day. This list of precincts will be used at the poll location on Election Day to automatically initialize those precincts. A maximum of 50 precincts or All Precincts can be pre-initialized.

NOTE: This function is only available from the Maintenance Menu when it is **not** Election Day.

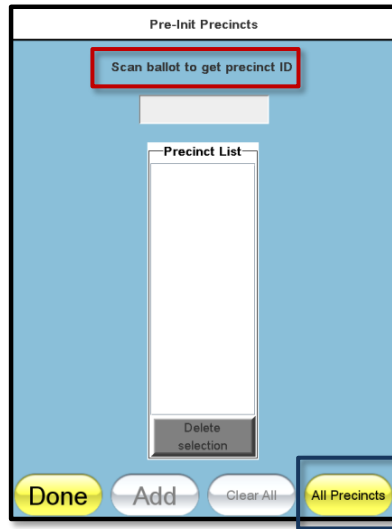
The following describes the contents and handling on the Pre-Init Precincts screen:

To add a precinct to the list:

- Insert header cards or ballots for the precincts to be added to the list. (Prompt is outlined in red.)

NOTE: For Vote By Ballotstyle elections, Pre-Initialization of Precincts must be done using printed Header cards, not blank ballots or OVI-VC ballots.

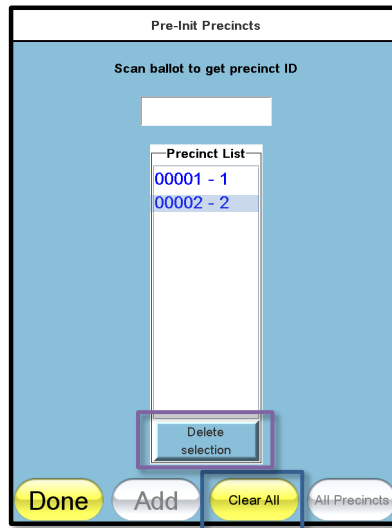
- The precinct ID field will display the Precinct ID read from the barcode on an inserted ballot card.
- Press the **Add** button to add the scanned precinct ID to the precinct list.



- Once the first precinct is added to the list the 'All Precincts' button is disabled. (Outlined to the right in blue.) The operator must clear the precincts from the list before the 'All Precincts' button is re-enabled.

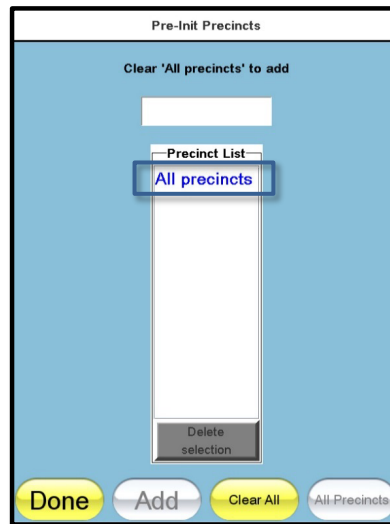
The **Clear All** button will clear all precincts in the list. This button is enabled once the first precinct is added to the list or the **All Precincts** button is selected. (Outlined in Blue.)

To delete a precinct identified in the precinct list, touch the precinct to delete; the precinct is highlighted. The **Delete Selection** button is now enabled (outlined in Purple). Touch the **Delete Selection** button and the selected precinct will be deleted.



The **All Precincts** button will put the words 'All Precincts' in the list. (Outlined in Blue.)

On boot up of the OVO on Election Day, if that value is set then the OVO will print a Consolidated Zero Count and Tally Report. The Machine Info screen/ticket will say 'All Precincts' for the precincts setup (even before precincts are initialized).



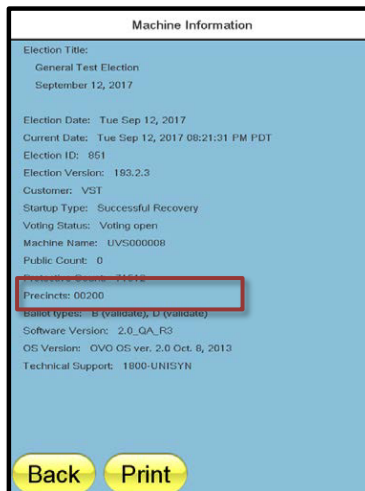
For Vote By Ballotstyle elections, if a precinct with a duplicate ballot style is entered, it will warn the operator that this is a duplicate and allow them to accept or reject the new precinct. If the new precinct is rejected, then the original precinct will remain in the list on the screen. If the new precinct is accepted, then the old precinct with the conflicting ballot style will be removed from the list on the screen. When the Precinct ID is added to the list it will display with a dash (-) and the ballot style ID after it. This indicates which precincts were added with Header cards and which ballot style ID is mapped to a specific precinct.

A Machine Info report will print when exiting the Pre-init Precinct screen if a change was made to the pre-initialized precinct list. (Outlined in red.)

The pre-initialized precinct list is used to automatically initialize those precincts at the start of a session so that the poll worker does not need to insert ballots cards on the 'Header card' screen.

The pre-init precinct list is only used for Election Day, Override, Training, and Logic and Accuracy Testing (LAT) non-consolidated sessions.

The Machine Info Screen will display the list of pre-initialized precincts. (Circled in red) If



the 'All Precincts' button was selected then 'All Precincts' text will display.

That list will not show the ballot style ID, but on the printed Machine Info report it will show the ballot style ID to precinct ID mapping.

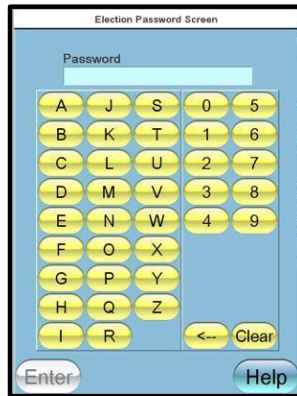
When the **Pre-init Precincts** button is clicked and data from a closed voting session is found, a screen with a message asking the user whether to clean the vote files is displayed. If user chooses not to clean vote files, the OVO goes back to the maintenance menu screen. If the user chooses to clean the vote files, the vote files are cleaned and OVO goes to the Pre-init Precincts screen. When **Pre-init Precinct** button is clicked, if there is no closed voting session found, the OVO goes directly to the Pre-init Precincts screen.

NOTE: When a new election is loaded, the pre-initialized precinct list is deleted.

2.2.9 Application Startup - Check for Vote Files and Election Day

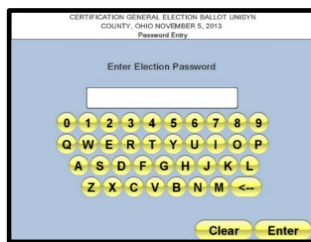
On application startup, if the system detects any vote files, it checks them as described in Section 2.4. This determines whether the system will start in a Pre-Election or Post-Election state. The system also checks whether it is an Election Day, as defined by the currently loaded election. If it is Election Day and there are no vote files, the system will start in Election Day voting mode.

OVO - The system will prompt for the Election password (if used) and then either initialize the precincts that were pre-initialized (see section 2.2.8) or, prompt the poll worker for a ballot header/ballot for each precinct to be initialized and Zero Count reports will print for each precinct initialized. Following initialization of the active precincts, the Election Application will start with voting open.



OVI – The system will start the Election Application with voting open and present the Election Password screen to begin a voting session.

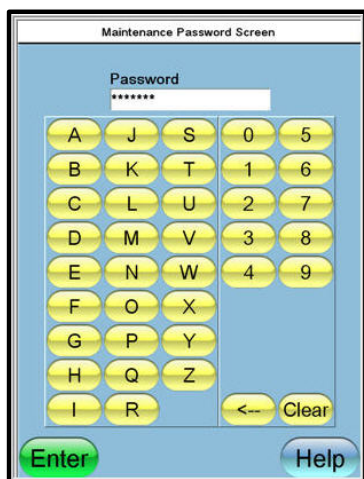
NOTE: The OVI-VC does not require precincts to be activated.



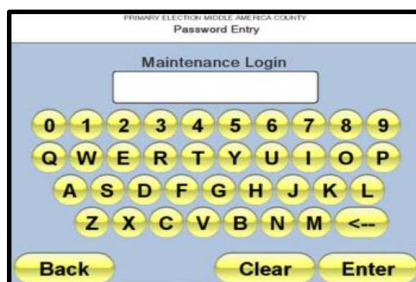
- If a **Training Election** is loaded on the OVD, the system considers it "Election Day" for training purposes and will proceed as described above.
- If it is **Election Day** and open vote files are detected (voting was not closed) the system will recover and start with voting open at the last known state.
- If it is **Election Day** and closed vote files are detected (voting was closed), the system will start at the Administrative Menu screen.
- If it is **not Election Day** and vote files are closed, the Maintenance password prompt appears; enter the Maintenance password to log in to the Maintenance Application.

2.2.9.1 Non-Election Day OVD Login

If it is *not* Election Day, the Maintenance Password Screen (illustrated below) appears when the OVO and OVI-VC are started. Enter the Maintenance or Supervisor password, as defined by the Election Manager, for the election that is loaded on the unit, and press the **Enter** button.



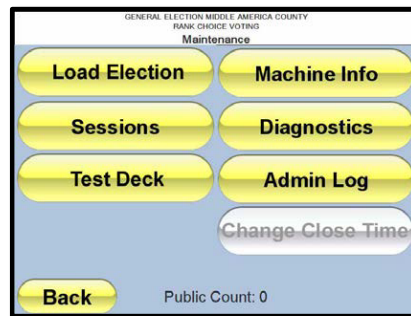
OVO Maintenance Password Screen



OVI Maintenance Password Screen

The Logic Test and all other special Session Types (Early Voting, Absentee, Provisional, Override, and Recount) are accessed through the Maintenance Menu's **Sessions** button on non-Election Days with the proper password.

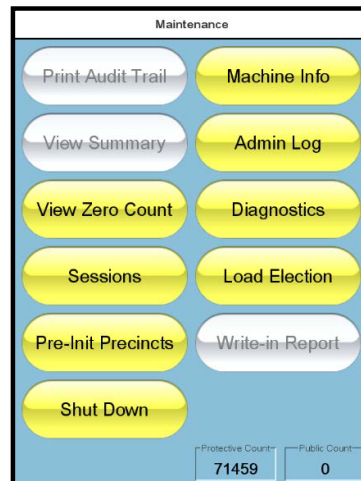
The OVI-VC Maintenance screen shows the Maintenance Menu before voting, when an Election has just been loaded and the OVI-VC was rebooted. Note the **Public Count** at the bottom of the screen is zero, signifying no ballots have been printed.



The OVO Maintenance screen shows the Maintenance menu before voting, when an Election has just been loaded and the OVO rebooted. Note the **Protective Count** and **Public Count** at the bottom of the screen.

The OVO's Protective Count has recorded 125363 ballot pages have been cast in its lifetime. The Public Count is zero, indicating there is no voting data for the currently loaded election.

NOTE: If a clean TM has been inserted but votes have not been cleaned from the system, when the **Sessions** or **Load Election** button is selected, the system will ask for a confirmation in order to clean the previous votes from the system.



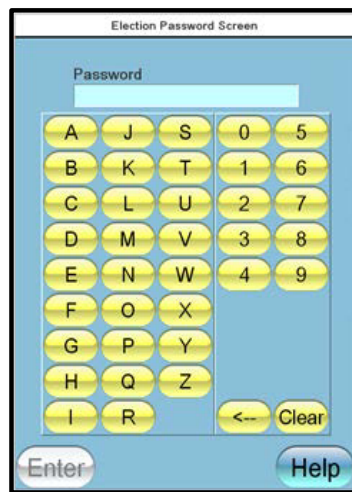
2.2.9.2 Election Day or Training OVO Login

If it is Election Day, or if a Training Election is loaded, the OVO will proceed through the following steps after the election data has been loaded:

1. Enter Election Password.

If the jurisdiction has selected the Election Password option, the OVO will ask for the Election password. Enter the Election password and touch **Enter**.

If the jurisdiction has not selected the Election Password option, the Election Password Screen is not displayed.



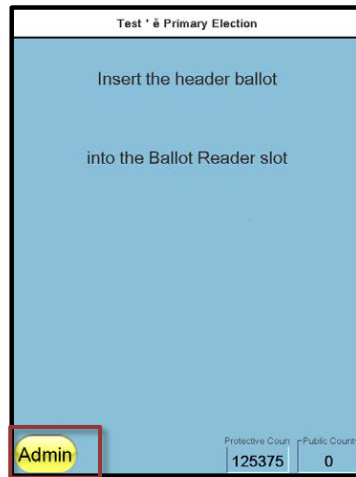
2. Print a Machine Info Report.

3. Initialize Precincts.

The OVO will be initialized for voting via one of the following four (4) methods:

- a) Automatically initialize the precincts that were setup via the Maintenance Pre-initialize Precinct process. A zero count report will automatically print for each precinct identified then the 'Add Precinct' screen will display to allow additional precincts to be added.
- b) Allow the operator to initial ALL Precincts via the Admin Sessions function "ED All Precincts" or via the Maintenance Pre-initialized Precinct function to 'All Precincts'. A consolidated zero count report will be printed and individual precinct zero count reports will not be printed.
- c) Enter the Admin menu via the Admin button bottom left (see screen to below), select Sessions button from the Administrative screen and start one of the other available sessions: Early Voting, Absentee, Provisional, Recount, or Logic Test.
- d) Prompt the operator to insert a "Header" ballot (which is a header ballot or a blank ballot).

If precincts need to be initialized or mapped via “header” ballots or blank ballots, a request to insert a Header ballot screen, shown to the right, appears.

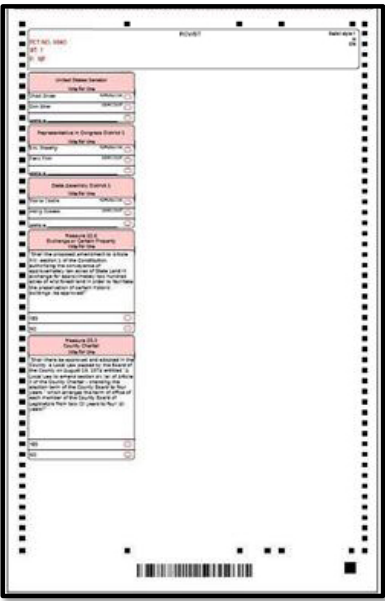


Header cards, illustrated to the right, are supplied when “vote by ballot style” is used by the jurisdiction. If Header cards are not supplied, then blank precinct ballots (shown below) for each precinct ID that can have votes cast at this location should be entered.

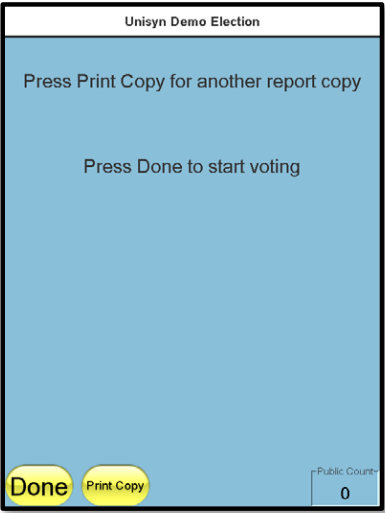


4. Add Additional Precincts.

Initialize each precinct by inserting the header card or ballot in the Ballot Reader on the OVO. Insert one Header ballot at a time. A Zero Count report will print for the precinct ID read from the card inserted.



- 5. To print additional copies of the consolidated zero count report, press the **Print Copy** button for each additional copy needed.
- 6. When the initializing precincts process is finished, press the **Done** button to begin voting.



If a Training Election is loaded, insert marked Training ballots in the Ballot Reader Slot.

IMPORTANT

Training ballot pages cast will increment the OVO machine's Protective Count.

2.2.9.3 Election Day or Training OVI-VC Login

If it is Election Day, or if a Training Election is loaded, the OVI-VC is available for voting immediately after the Machine Information Report is printed.

To initiate the first voter's session, the system will request the Election Password to be entered. Enter the Election Password to begin the session.

2.3 FVT Startup

FVT startup process is similar to the other OVD startup processes. The basic steps taken during startup are:

- Operator switches on the device.
- System checks to determine state of election (pre-election, voting in progress, post-election).

2.3.1 Power On the FVT

Locate the switch on the back of the FVT cover and switch it to the On position. All components of the FVT will power on.



Figure 2-7. FVT Power Switch

2.3.2 Application Startup – Check for Vote Files

When the FVT is powered on, it starts in one of the following three screens based on its state.

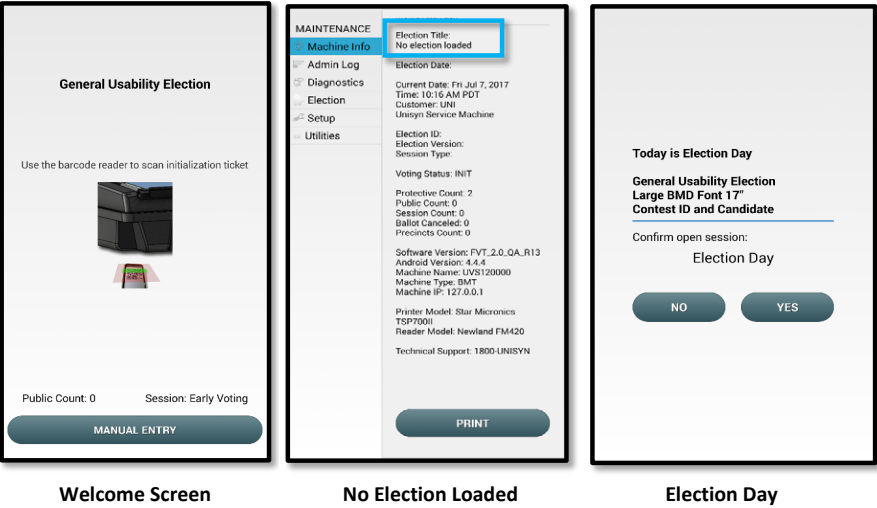
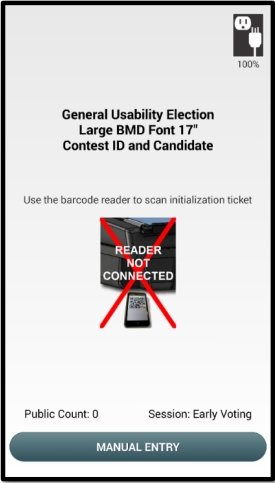


Figure 2-8. Start Up Screens for the FVT

If there is a problem during startup, an error screen similar to the screen below is displayed.

The Welcome Screen shows the barcode reader is not connected to the power supply.



If the system successfully starts up it will display the Welcome Screen.

2.4 Recovery

Recovery by the OVD systems is automatic. This section provides details on determining the state of the unit and the steps taken by the system to recover.

2.4.1 OVO Recovery

Prior to presenting the application screen, the system checks for the loaded election, for the existence of vote files, whether or not it is Election Day, and whether or not any existing vote files are open or closed. This section explains what happens *internally* when the OVO starts.



IMPORTANT

Logic Tests do not recover. The election is always “reset” on startup.

2.4.1.1 Check for Vote Files

To ensure that votes are not lost in the event that the system fails or is used improperly, the system uses redundant storage units. The system writes its vote files to the Transport Media first, then to the hard disk of the OVO, and finally to a third storage device (OVO - a second thumb drive inside the unit). The system will not run if any of these devices fails or if data does not match between the three storage units.

If vote files are found on any device on startup, the system checks to make sure the data matches on all three storage devices.

- If no voting files are found and all devices are “clean,” no recovery is necessary. It is “Pre-Election.”
- If the vote files are detected, voting may be in progress. A forced shut down occurred during voting, and the election is in progress.
- If the tally file is detected, voting was closed and tallied, and cannot be opened. It is “Post-Election.”

2.4.1.2 Recovery Process

Recovery is a process performed by the system when it starts up and discovers that:

- The vote files exist on the hard disk, but the TM is clean.
- LAT vote files exist on the storage devices.
- Vote files exist and match on all three devices and voting has been opened
- Vote files exist and match on all three devices and voting has been closed
- The vote files exist, but the files do not match on the three storage devices
- The vote files exist, but one or two devices have been replaced and are blank.



IMPORTANT

Usually replacing either the OVO or the TM component with a “clean” component and restarting the OVO results in a successful recovery.

Recovery writes the most complete data from one device to the other two memory devices and returns the system as nearly as possible to the last known state. A successful recovery message is added to the startup splash screen, and the Election or Maintenance Application will then load normally.

- If Logic Test (LAT) vote files are found, the vote files are deleted from all three devices.
- 2 → 1: Data matches on the TM and one other device. Voting data is recovered from the TM and written to the other two devices.
- 2 → 1: Data matches on the OVO hard drive and the third storage device. The TM has no vote files (is “clean”). Voting data is recovered from the hard drive and written to the other two devices. (The system will remember a clean TM had been found for later processing decisions).
- 1 → 2: Data is on TM only. The hard drive and third storage device either has no vote files (are “clean”) or have different vote files. Voting data is recovered from the TM and written to the other two devices.

During startup the machine’s name is written to the ‘machinename’ file on the media. If the TM is recovered onto a new machine, that new machine’s name is also written to the ‘machinename’ file. During the recover process the signatures for every vote entry in the vote file are verified. It uses the machines listed in the ‘machinename’ file to help with the verification.

2.4.1.3 Recovery to Voting Open

Because mismatching data may be the result of a power or device failure during voting, the system attempts to recover as nearly as possible, to its last known state when it is restart. The vote files are handled as follows on recovery:

- The Vote file is opened and new voting data is added to it.
- The Administrative Log file appended. If the OVO was replaced and the TM from the old OVO is inserted, the Admin log from the TM is written to the two other devices and logging is continued on the new system.
- The Tally file indicates a post-election state. Only Administrative Functions will be available.

Refer to the previous sections for information about logging in to the Maintenance Menu or starting voting in the Election Application after recovery.

2.4.2 OVI Recovery

The OVI-VC system does not retain ballot images or vote data, so there are limited recovery needs. The data that the system does maintain for a session includes session type and status as well as the number of times the ballot for a given precinct/party has been printed and the log file. In addition to the normal startup checks for the integrity of software and election data

source files, the system compares the status file, session type and log file on the redundant media before continuing the session from the state it was in before shutdown.

If any tampering of the files is detected, the system will not allow voting to continue.

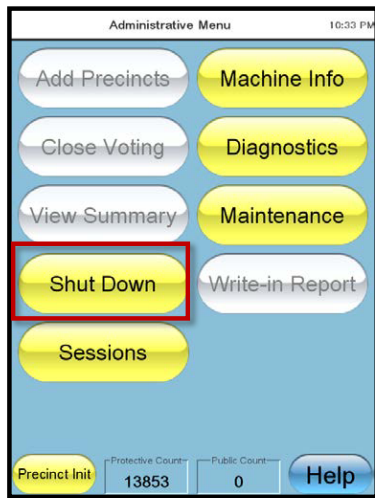
2.4.3 FVT Recovery

The FVT operates the same as the OVI-VC, it does not retain ballot images or vote data. The data that the system does maintain for a session includes session type and status as well as the number of times the ballot for a given precinct/party has been printed and the log file. If the FVT is rendered inoperable, it should be replaced.

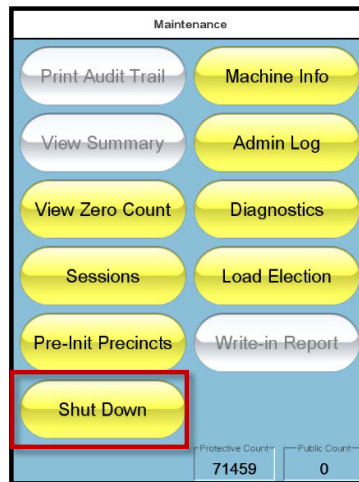
2.5 Shut Down and Power Off

2.5.1 OVO Shut Down and Power Off

To shut down and power off the OVO use the **Shut Down** command on the Maintenance or Administrative Menu before switching off the system. The system closes the applications and shuts down system functions.

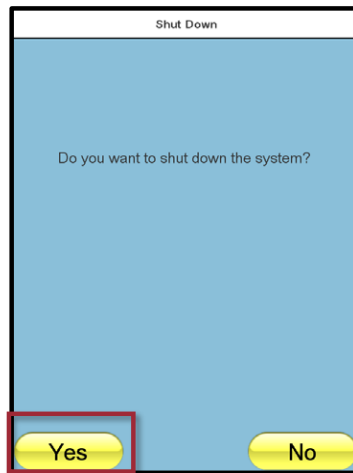


Administrative Menu

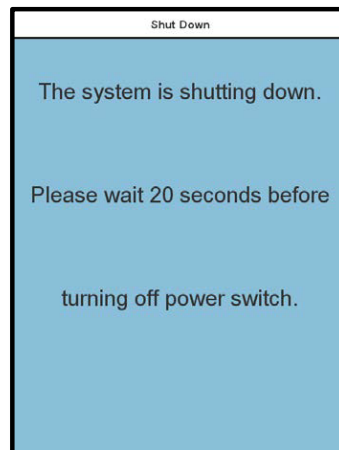


Maintenance Menu

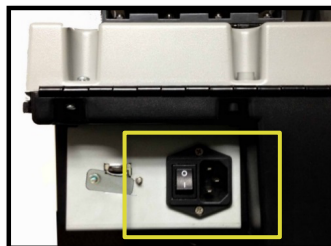
- Press **Shut Down** on the Menu.
- Press the **Yes** button to confirm the Shut Down request.



- After 20 seconds the system can be turned off.

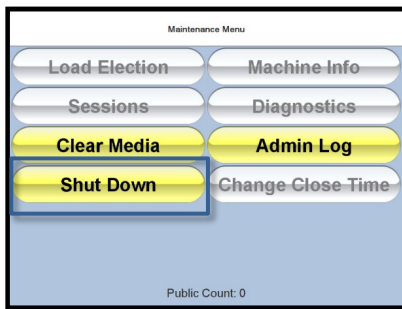


- Press the switch on the back the unit to turn off the power.



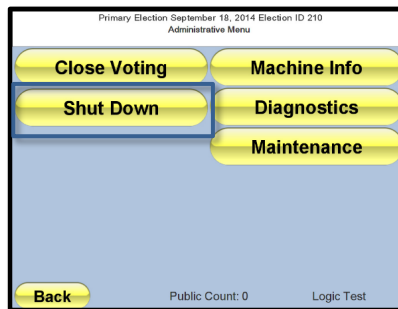
2.5.2 OVI Shut Down and Power Off

Select the Shut Down button on either the Maintenance or Administrative Menu screen.

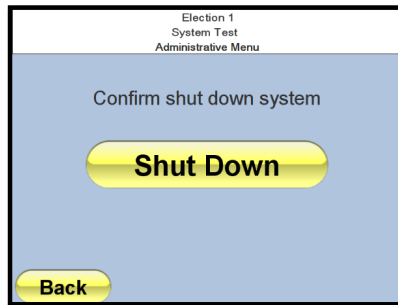


Maintenance Menu

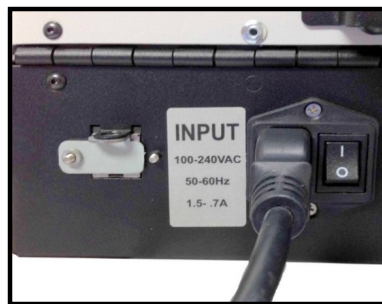
Then confirm the Shut Down by touching the Shut Down button.



Administrative Menu



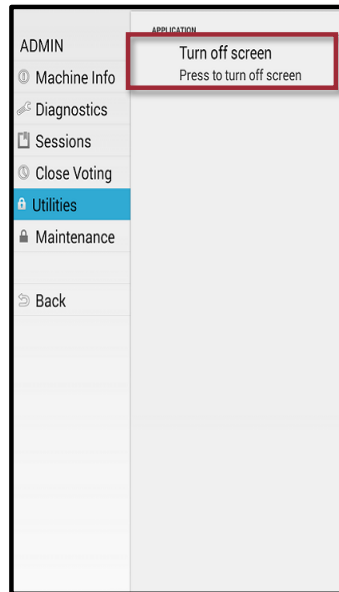
To power off the OVI-VC simply switch off the power on the back of the system



2.5.3 FVT Shut Down and Power Off

To turn off the FVT, go to either the Maintenance or Admin Menu and click on **Utilities**.

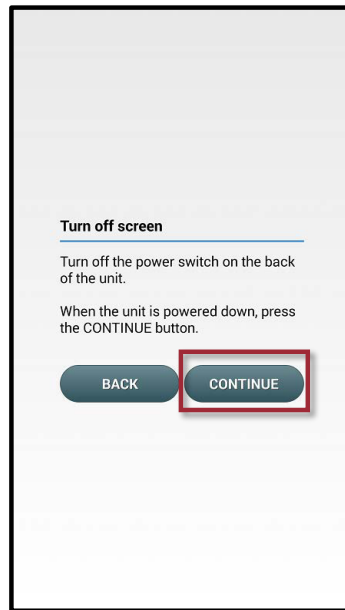
Tap on **Turn off screen**.



A confirmation page displays to turn FVT off. Before proceeding, switch off the FVT unit using the button on the back of the unit.

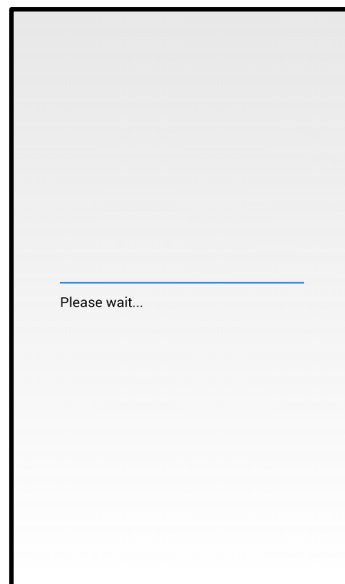


Once the unit is completely powered down. Click on the **Continue** button.



A **Please Wait** screen will display.

The screen will start dimming, when it is completely dark, the FVT is OFF.



2.5.4 Force Shut Down

If voting is open and there is a hardware failure or a fatal error, a forced shutdown may have to be performed. To force a shutdown, simply depress the power switch on the OVD's case exterior to turn off the system.



IMPORTANT

Always wait at least twelve seconds before restarting the OVD.

When the OVD is restarted, it will check to see if voting was open and attempt to recover to the last known state. See Section 2.4 for a description of OVD startup under various recovery conditions.

Section Three

OVD Software Overview

The OVO and OVI-VC applications run on a software configuration consisting of a secure Linux operating system and pre-installed software components. The FVT configuration uses an Android operating system and pre-installed software components. The pre-installed software components used on the OVD systems provide the following:

- Validator function that verifies the necessary files are on the system.
- Maintenance function used for system testing, diagnostics and reports.
- Election function used for voting.

No user access is given to the operating system. The system starts (as described in section 2.2.9) in either Maintenance (for non-Election Days) or voting (for Election Day and Training). There is a separate application for the FVT, OVO and the OVI-VC that is unique to that device.

The operating system and software are pre-installed and pre-configured on the OVD units upon delivery.

NOTE: Installation of the software is separate from the Election files, which are installed during Election Loading as described in Section 5 of this guide.

3.1 Maintenance Functions

The Maintenance Application provides functionality for setup, diagnostics, Logic and Accuracy Testing (LAT) and audit reports.

To access the Maintenance menu the user must enter a Maintenance password, or scan a FVT Maintenance barcode, when prompted. The maintenance password prompt appears on startup when (a) it is *not* Election Day, (b) a Training Election is not installed and (c) an election is *not* being loaded. It also appears when the **Maintenance** button from the Admin Menu is selected.

The Maintenance (or Supervisor) password is defined by jurisdiction in the Election Manager, for the election that is loaded on the OVD unit.

NOTE: The Logic Test and all other special Session Types (Early Voting, Absentee, Provisional, Override, and Recount) are accessed through the Maintenance Menu (Sessions button) on non-Election Days with the proper password also provided by the jurisdiction.

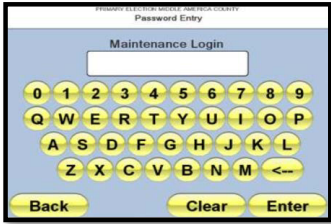
OVO Maintenance Password Screen

Enter the password provided and press **Enter**. This will bring up the Maintenance Menu Screen.



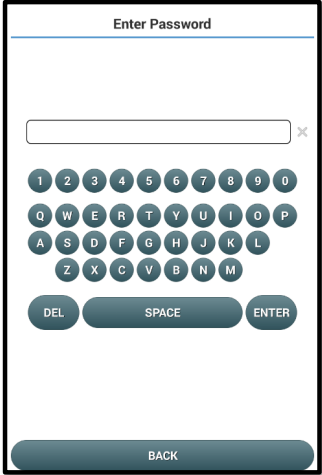
OVI Maintenance Password Screen

Enter the password provided and press **Enter**. This will bring up the Maintenance Menu Screen.



FVT Maintenance Password Screen

Enter the password provided and press **Enter**. This will bring up the Maintenance Menu Screen. The screen will appear with the Machine Info in the right side information column.



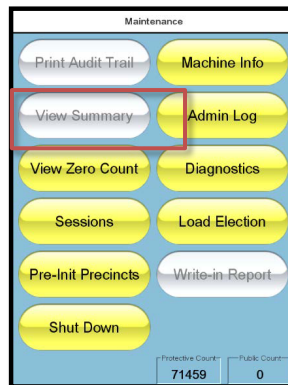
The following sections will discuss the Maintenance Menu screens for each of the voting devices.

3.1.1 OVO Maintenance Menu

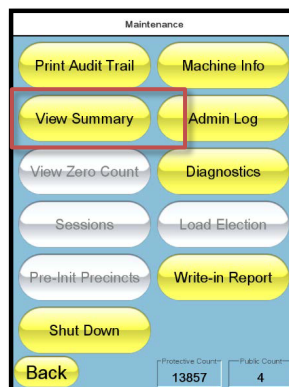
The Maintenance menu contains a set of function buttons that support component diagnostics, Logic and Accuracy Testing (LAT) and audit reporting. These buttons are active for specific tasks and will be disabled when they are not available, (as show in the following illustrations).

NOTE: The button will be grey when it is *not* active, and yellow when it *is* active. The illustration below shows that active/inactive View Summary button.

The screen to the right is an example of the maintenance screen before voting, when an election has been loaded and the OVO rebooted. The View Summary button is not available.



This Maintenance screen shows the View Summary button as active. This indicates that voting is open but no votes have been cast; or voting has closed.



A description of the functions buttons for each of the voting devices is provided in the following sections.

3.1.1.1 OVO Maintenance Functions (Buttons)

This illustration shows all of the OVO Maintenance functions available (the Maintenance screen will never have all the buttons enabled at one time, this is just an illustration). Press a button to initiate the function.



Print Audit Trail

The Print Audit Trail function is available only after voting is closed. If there is a question concerning the previous election and if the voting data still exists on the OVO, the Technician can print an Audit trail for the OVO. The Audit Trail records all ballot data.

The function retrieves the vote file from the OVO Hard Drive and prints a ballot data (position numbers) of all the votes cast on the OVO.

Ballot data is randomized for the report.

The ballot data is printed in one contiguous printing operation without cutting between the ballots.

If the **Cancel** button is pressed on the screen while printing the report, the printing will stop and the message 'incomplete' will print at the bottom of the report.

View Summary

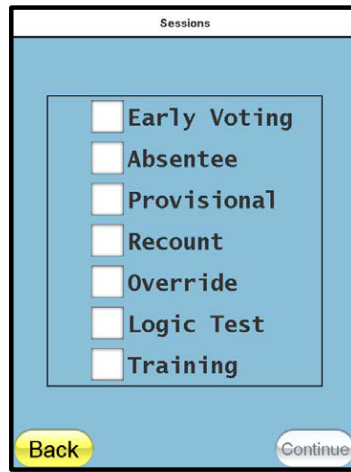
Available after voting is open and before a ballot page is cast (shows the Zero Count report) and after voting is closed, when it shows the full Election Summary report for each precinct (or consolidated tally for some session types) with tallies for all contests.

View Zero Count

The **View Zero Count** function is only available when voting is not open and no vote files exist. The Technician can select **View Zero Count** to view and/or print the Zero Count report for any precinct ID setup for this election (the same report that prints on Election Day startup). This allows the Technician to check the Election data for specific precincts.

Sessions

The **Sessions** button is enabled when a non-training election is loaded, it is not election day, there are no vote files on any media or the vote files are closed with the 'clean' TM. Selecting **Sessions** starts the Election Application on a non-Election Day for the specific purpose of running Early Voting, Absentee, Provisional, Recount, Override, Logic Test or Training session type. More information about these session types is provided in Section 6.4 (Logic Test) and Section 11 (Early Voting, Absentee, Provisional, Recount and Training).



Change Close Time

Button is available during Election Day voting. This function allows the maintenance user to change the election close time, established by the Election Manager under the "Enforce Close Time" option, if it is necessary.

Pre-Init Precincts

Button is available prior to opening voting. Permits a group of precincts to be identified and automatically initialized at the precinct when polls are being opened (without submitting header cards and/or ballots).

Shut Down

Press **Shut Down** before switching off the system.

Machine Info

The **Machine Info** button is always enabled. It appears on both the Maintenance and Administrative Menus to provide information about the software and data currently on the OVO. **Machine Info** opens a screen displaying the following information (shown on the left), which is able to be printed (report shown on the right):

Machine Information
Election Title: General Test Election September 12, 2017
Election Date: Tue Sep 12, 2017
Current Date: Tue Sep 12, 2017 08:21:31 PM PDT
Election ID: 851
Election Version: 193.2.3
Customer: VST
Startup Type: Successful Recovery
Voting Status: Voting open
Machine Name: UVS000008
Public Count: 0
Protective Count: 71512
Precincts: 00200
Ballot types: B (validate), D (validate)
Software Version: 2.0_QA_R3
OS Version: OVO OS ver. 2.0 Oct. 8, 2013
Technical Support: 1800-UNISYN

Back

Print

Machine Info
Election Title: General Usability Election Normal BMD Font Contest ID and Candidate
Election Date: Wed Sep 19, 20185
Current Date: Mon Jun 26, 2017 09:44:45 AM PDT
Election ID: 859
Election Version: 202.2.4
Customer: VST
Public Count: 0
Protective Count: 213
Machine Name: UNI000123
Software Version 2.0R4b
OS Version: OVO OS ver. 2.0 Oct 8, 2013
Time Zone: Pacific Standard Time
Region: America/Los Angeles
IP Address: 192.168.203.30
Printer Model: CT-S281 V.1.0
Printer FW Version 11.00
Scanner FW Version: 1622
Image Calibration: 06/22/17 12:32 PM
Speed Calibration: 06/22/17 12:32 PM
CPU Speed: 1.86GMHz
Memory Size: 2,012MB
Screen Size: 15"
Technical Support: 1-xxx-xxx-xxxx

Administrative Log

The Administrative Log is available before, during and after voting.

If there is a question concerning the election, the Technician can select the **Admin Log** function to view the Administrative Log file. The Administrative Log tracks all activity that occurs on the OVO, from the time new election data is loaded until data is cleared again.

The Admin Log function allows Technician to page through events from the present to the time when the election was loaded on the system. It also allows the Technician to print the displayed portion of the log. All events have a code, the codes are explained in Appendix A.

Diagnostics

Diagnostics provides a set of hardware diagnostics to assist Technicians in diagnosing and troubleshooting OVO system problems.

Load Election

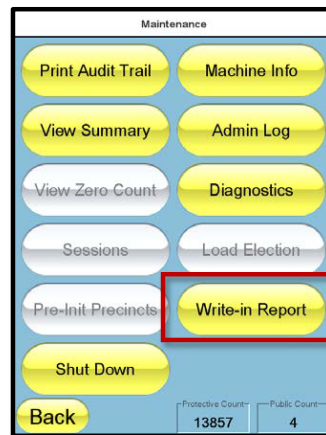
The **Load Election** function is enabled when a “clean” TM can be loaded (votes have been uploaded), the vote files are closed on the other media, and it is **not** Election Day.

An election can only be loaded when the OVO is networked to the Election Server with Election data or a “clean” TM has been inserted with the Election data. This function is available in case the Technician cancels out of the auto-Load Election process for any reason and then wishes to begin the Load process again.

NOTE: If the Election Server is to be used, the Unisyn OVO must be booted up with the LAN connection in place or the LAN will not be recognized.

Write-In Report

The **Write-in Report** button on the Maintenance menu is enabled after voting is closed. This function extracts the write-in images from the cast ballot images and prints them on the Write-in Report.



Press:

The **Yes** button to print the Write-in report.

The **No** button to return to the Maintenance screen.

The **Compress Images** box to compress the images for printing.

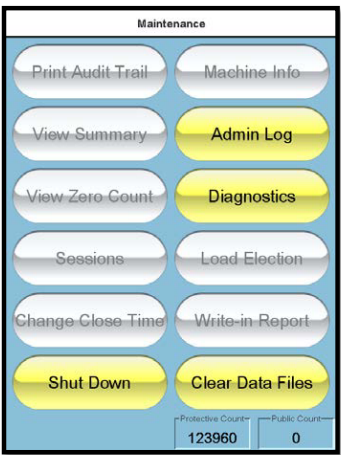


Clear Data Files

The **Clear Data Files** button is only displayed on the Maintenance menu after a 9xx error has occurred and the maintenance user has logged in using the Maintenance button on the Error Screen. After login, the Maintenance menu will be displayed (illustrated to the right).

The user selects the Clear Data Files button to clear the vote and log files off all three media. This will also reset the public count and set the election state to 'Voting not open'. After the media is cleared, the Maintenance menu will be displayed again. The Machine Info button is disabled on the menu because the state of the election is in an unknown state.

When a non-recoverable 9xx error occurs at the precinct, a troubleshooter dispatched to the precinct will have removed the TM from the machine and put it into a replacement OVO to continue processing ballots. This function is typically used in the warehouse after Election Day to prepare the original OVO (with the 9xx error for storage or for another election.



The following information is also displayed on the bottom of the OVO maintenance screen.

Protective Count

Status box at the bottom of the screen is the count of ballot pages cast over the lifetime of the OVO machine.

Public Count

Status box at the bottom of the screen is the count of ballot pages cast in the current election session.

3.1.2 OVI Maintenance Functions (Buttons)

Machine Info

Displays the OVI-VC machine name, firmware version, election date and version, and, if voting is open, precincts initialized for voting on the machine.

Load Election

Available when voting is closed and it is NOT Election Day. When pressed, if the OVI-VC detects a connection to the Election Server it requests a download of a new election files. If the Election Server is not connected, the OVI-VC will then check the TM for the Election files, if they are not found an error message appears.

Diagnostics

The Diagnostics button displays a menu of hardware tests that can be run before, during, and after voting. Not all tests are available during voting. The diagnostic tests are covered in Section 6.2.

Admin Log

The Admin Log displays the system's self-auditing Administrative Log.

Sessions

The Session button is available when it is **not** Election Day and voting is not open. The Sessions button opens a menu offering access to Early Voting, Logic Test and Election Day - Override session types.

Change Close Time

This button is available while Election Day voting is open, when "Enforce Close Time" has been set for the election (an option in the Election Manager). It allows a Maintenance user to change the close time set for the OVI-VC so that the Operator can close voting on the system as needed.

Test Deck

Available when voting is closed and it is NOT an Election Day. The Test Deck button prints out a deck of pre-marked BMD ballots for use in Logic and Accuracy testing.

The following information is also displayed on the OVI-VC maintenance screen.

Save Machine Key

The button allows the user save the Machine key on TM.

Customer Reset

The button allows the user to reset the OVI-VC Customer key.

Shut Down

The button allows to shut down the system before switching off the OVI-VC power.

Back

The button at the bottom of the screen allows the user to exit out of the menu back to the Admin menu. The Back button is not displayed if there is no exit from the screen.

Public Count

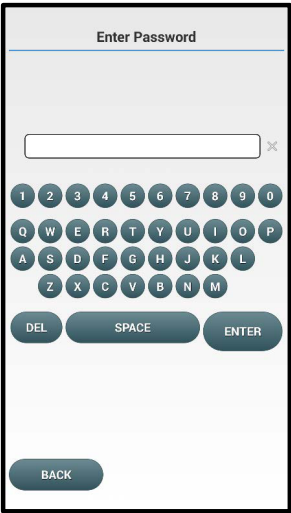
The status box, at the bottom of the screen, is the count of ballot pages cast in the current session.

3.1.3 FVT Maintenance Menu

The FVT Maintenance Menu can be accessed three ways. On the Welcome screen, the user is given two options for accessing the maintenance screen. The user can either scan a maintenance barcode or press the **Manually Enter** button to access the Maintenance screen.

- 1) The jurisdiction will provide the user with a Maintenance barcode which when scanned will go directly to the Maintenance screen.
- 2) The user can press the **Manual Entry** button at the bottom of the screen. This will take the user to the Enter Password screen.

The user enters the password provided by the jurisdiction and presses the **Enter** button.



The FVT's Maintenance menu displays.

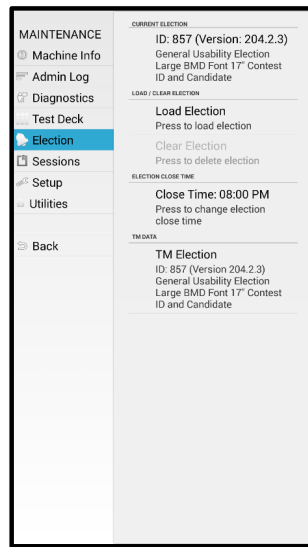
MAINTENANCE	MACHINE INFORMATION
Machine Info	Election Title: General Usability Election
Admin Log	Election Date: September 12, 2017
Diagnostics	Current Date: Thu Jun 29, 2017 Time: 03:33 PM PDT Customer: UNI Unisyn Service Machine
Test Deck	Election ID: 855 Election Version: 223.2.1 Session Type: Early Voting (BALLOT)
Election	Voting Status: OPEN Open Time: Thu Jun 29, 2017 02:31 PM PDT
Sessions	Protective Count: 0 Public Count: 0 Session Count: 0 Ballot Canceled: 1 Precincts Count: 0
Setup	Software Version: FVT_2.0_QA_R13 Android Version: 4.4.4 Machine Name: UNVS000009 Machine Type: BMT Machine IP: 127.0.0.1
Utilities	Printer Model: Star Micronics TSP700II Reader Model: Newland FM420
Back	Technical Support: 1-800-UNISYN
	PRINT

- 3) The user can also access the Maintenance menu from the Admin menu. There is a **Maintenance** button located in the functions list that will bring up the Maintenance menu will pressed.

ADMIN	MACHINE INFORMATION
Machine Info	Election Title: General Usability Election
Diagnostics	Large BMD Font 17"
Sessions	Contest ID and Candidate
Close Voting	Election Date: September 17, 2018
Utilities	Current Date: Mon Sep 17, 2018 Time: 11:14 AM PDT Customer: UNI Unisyn Service Machine
Maintenance	Election ID: 857 Election Version: 204.2.3 Session Type: Election Day (BALLOT)
Back	Voting Status: CLOSED Open Time: Mon Sep 17, 2018 10:51 AM PDT Close Time: Mon Sep 17, 2018 11:13 AM PDT
	Protective Count: 2 Public Count: 0 Session Count: 0 Ballot Canceled: 0 Precincts Count: 0
	Software Version: FVT_2.0_QA_R13 Android Version: 4.4.4 Machine Name: UNVS000009 Machine Type: BMT Machine IP: 127.0.0.1
	Printer Model: Star Micronics TSP700II Reader Model: Newland FM420
	PRINT

The Maintenance menu screen on the FVT is divided into two panels. The panel on the left is the menu bar. It displays a lists of all the functions found on the menu. The panel on the rights displays the information pertaining to the active function. In the example to the right, the Election button on the left panel is active, the Election functions and information is displayed in the right panel.

All buttons on the menu bar are active, should the user click on a button that has no current information the panel on the right presents a message stating the information is not available.



The buttons available on the FVTs Maintenance screen are:

Machine Info

The Maintenance menu defaults to the Machine Info screen. The Machine Info screen displays the FVT machine name, firmware version, election date and version, and, if voting is open, precincts initialized for voting on the machine.

Admin Log

The Admin Log displays the system’s self-auditing Administrative Log.

Diagnostics

The Diagnostics buttons displays a menu of hardware tests that can be run before, during, and after voting. Not all tests are available during voting. The diagnostic tests are covered in Section 6.2.

Test Deck

Available when voting is closed and it is NOT an Election Day. The Test Deck button prints out a deck of pre-marked BMD ballots for use in Logic and Accuracy testing.

Election

The Election button displays information about the current election, if there is an election loaded on the FVT. If there is not an election currently loaded, the Load Election option is activated and will allow an election to be loaded from the Election TM. If there is an election loaded but it has not been opened or the election is closed, the Clear Election option is active.

Sessions

The Sessions button is available when voting is not open. The Sessions button opens a panel offering access to Election Day, Early Voting, Absentee, and Training session types.

Setup

Provides the user with the machine name and address, the current date and time, and allows the machine to be reset to either the customer's standards or manufacture's standards.

Utilities

The Utilities button provides the user with the ability to create an Initialization barcode and to export the Public Key and Admin Log. This is also provides the user with the ability to lock, update, turn off the screen or close the application.

Back

The button at the bottom of the screen allows the user to exit out of the menu back to the Admin menu. The Back button is not displayed if there is no exit from the screen.

3.2 Voting Modes and Functions

3.2.1 OVO Voting Modes and Functions

The OVO voting functions allows ballots to be read, cast and tabulated. The OVO the modes, shown in Table 3-1, to accommodate different types of voting. Once voting is open in one of the modes, the functions operate essentially the same. Differences are also described in the following table.

Table 3-1. OVO Modes and Functions

Mode	Start Conditions	Voting Functions	Data Handling
Election Day	"Normal" election is loaded. Must be Election Day. Prompts for the election password (if required) and then for a ballot header card.	All voting functions are available. Default is only ballots with "Normal" or OVI-VC ballot codes. All ballots can be optionally added with Maintenance Password approval.	Retains voting data and Public Count.
Training Session	"Normal" election is loaded. Must not be Election Day. Select Training from the Maintenance menu=>Session button. Prompts for ballot header card.	All voting functions are available. Additional Training options are provided on the Administrative Menu	All files and reports are marked "Training"
Training Election	Select Training from the Maintenance menu=>Session button. Can be any day. Prompts for ballot header card.	All voting functions are available.	All files and reports are marked "Training"
Logic Test	"Normal" election is loaded. Sessions-Logic Test has been selected from the Maintenance or Administrator Menu. Then session type for the Logic Test is selected	All voting functions are available. Default ballots depend on the session type selected. All ballots can be optionally added with Maintenance Password approval.	Clears voting data and Public Count on restart of the OVO. All files and reports are marked "Logic Test"
Early Voting	"Normal" election is loaded. A clean TM is inserted, and Sessions-Early Voting has been selected from the Maintenance or Administrator Menu.	All voting functions are available. Default is only ballots with "Normal" or OVI-VC ballot codes. All ballots can be optionally added with Maintenance Password approval.	Retains voting data and Public Count on shutdown. All reports are marked "Early Voting." Prints Consolidated Zero Count and Election Summary Reports.

Mode	Start Conditions	Voting Functions	Data Handling
Absentee	"Normal" election is loaded. A clean TM is inserted, and Sessions-Absentee has been selected from the Maintenance or Administrator Menu.	Overvote/undervote validation, Override function, Ballot Alert and Voter receipts are optional. Default is only ballots with "Absentee" or OVI-VC ballot codes. All ballots can be optionally accepted.	Retains voting data and Public Count on shutdown. All reports are marked "Absentee." Prints consolidated Zero Count and Election Summary reports.
Provisional	"Normal" election is loaded. A clean TM is inserted, and Sessions -Provisional has been selected from the Maintenance or Administrator Menu.	Overvote/undervote validation, Override function, Ballot Alert and Voter receipts are optional. Default is only ballots with "Provisional" or OVI-VC ballot codes. All ballots can be optionally accepted.	Retains voting data and Public Count on shutdown. All reports are marked "Provisional." Prints consolidated Zero Count and Election Summary reports.
Recount	"Normal" election is loaded. A clean TM is inserted, and Sessions-Recount has been selected from the Maintenance or Administrator Menu.	Overvote/undervote validation, Override function, Ballot Alert and Voter receipts are optional. Default is only ballots with "Normal" or OVI-VC ballot codes. All ballots can be optionally accepted.	Retains voting data and Public Count on shutdown. All reports are marked "Recount." Prints consolidated Zero Count and Election Summary reports.
Election Day - Override	A clean TM is inserted, and Sessions-Override has been selected from the Maintenance Menu.	All voting functions are available. Default is only ballots with "Normal" or OVI-VC ballot codes. All ballots can be optionally added with Maintenance Password approval.	Retains voting data and Public Count on shutdown.

3.2.2 FVT and OVI-VC Voting Modes and Functions

The FVT and OVI-VC allow voters to enter their selections using a variety of input devices and prints ballots. It runs in the six (6) modes shown in the following table to accommodate different types of voting. Differences are described in the table.

Table 3-2. FVT and OVI-VC Modes and Functions

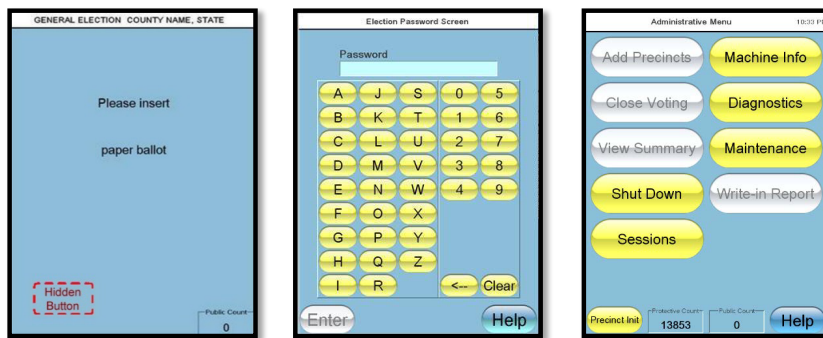
Mode	Start Conditions	Voting Functions	Data Handling
Election Day	"Normal" election is loaded. Must be Election Day. Prompts for a password (if required) and then for precinct.	All voting functions are available.	Retains voting session information and Public Count.
Training Election	Training election is loaded. Can be any day. Prompts for precinct.	All voting functions are available. Additional Training options are provided on the Administrative Menu	All files and reports are marked "Training"
Training Session	"Normal" election is loaded. Must not be Election Day. Select Training from the Maintenance menu=>Session button.	All voting functions are available.	All files and reports are marked "Training"
Early Voting	"Normal" election is loaded. Session/ Early Voting has been selected from the Maintenance Menu.	All voting functions are available.	Retains voting session information and Public Count on shutdown. All reports are marked "Early Voting."
Logic Test	"Normal" election is loaded. It is NOT Election Day. For OVI: Session/Logic Test has been selected from the Maintenance Menu. For FVT: Select 'LAT' checkbox when starting the session.	All voting functions are available.	Does not retain voting session information or Public Count after shutdown. All reports are marked "Logic Test."
Election Day - Override	"Normal" election is loaded. It is NOT Election Day, and Session/Override has been selected from the Admin or Maintenance Menu.	All voting functions are available.	Retains voting session information and Public Count after shutdown.

3.3 Administrative Menu

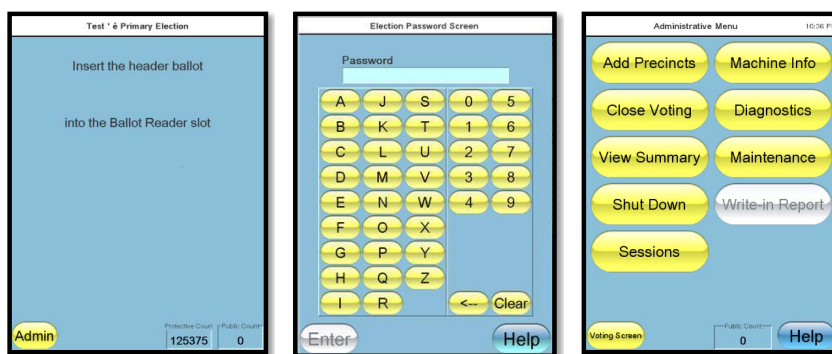
3.3.1 OVO Administrative Menu and Functions (Buttons)

The Administrative Menu can be accessed on the OVO through two screens during voting. The main voting screen contains a hidden button, shown on the illustration below. Press the area

that contains the hidden button to bring up the password screen. Enter the password and the Administrative Menu screen is displayed.



The second screen that provides access to the Administrative Menu screen is the 'Insert the header ballot' screen. Press the **Admin** button, on the bottom of the screen, and the Election Password Screen will be displayed. Enter the Election password and the Administrative menu screen will be displayed.



The list below is the collective buttons available on the OVO's Administrative menu while in various modes. All buttons available to the OVO Administrative screen are:

Add Precinct

The Add Precinct button allows the user to add a precinct on Election Day.

Close Voting

The Close Voting button allows user to close voting session.

View Summary

Available after voting has been closed and when voting is open, but no votes have been cast. View summary allows the user to view or print the Election Summary Report (tally of results) for each precinct (or for consolidated precincts). Before votes have been cast, this function displays the Zero Count Report. Once votes have been cast and voting is open, this button is disabled

Shut Down

Press **Shut Down** to close the application before switching off the system.

Machine Info

Displays the election title, date, and session type; the current date and time; election and software version loaded; OVO machine name; and, if voting has been opened, precincts initialized for voting on the machine. This function is also on the Maintenance Menu.

Diagnostics

This button also appears on the Maintenance Menu. It displays a menu of tests that check the OVO hardware. The operator can run selected diagnostics before, during and after voting. Not all tests are available during voting. The diagnostic tests are covered in Section 6.2.

Maintenance

The Maintenance button provides access to the Maintenance functionality of the application. A maintenance or supervisor password is required to enter the Maintenance Screen and its functionality.

Write-In Report

The **Write-in Report** button on the Maintenance menu is enabled after voting is closed. This function extracts the write-in images from the cast ballot images and prints them on the Write-in Report.

Sessions

The **Sessions** function (via the Administrative Menu) allows various session types to be performed on Election Day. This button is only enabled before the voting session is opened and only on Election Day.

Voting Screen

The Voting Screen button at the bottom left of the screen returns to the Election main screen.

Precinct Init

The **Precinct Init** button at the bottom left side of the screen returns to the Precinct Init screen. This button is displayed only if the Administrative Menu was entered via the Precinct Init screen.

Help

The Help button at the bottom of the screen displays context-sensitive Help for the screen which is displayed.

The following information is also displayed on the OVO Administrative screen.

Protective Count

Count of ballot pages cast for the lifetime of the OVO. This value will not appear on the screen if a voting session is open.

Public Count

Count of ballot pages cast in the current election session.

Session Type

Displays the type of voting session. No session type name is displayed for Election Day voting. If the session is not Election Day voting, the type of session is displayed at the bottom of the screen in red letters (such as Training or Absentee).

If a Training Election is loaded, the OVO Administrative Menu Screen has two additional functionality buttons:

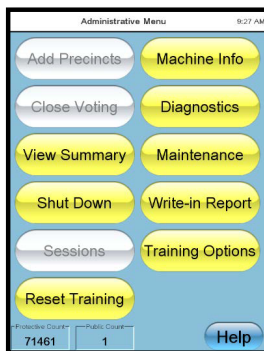
Training Options

This button allows the user to change ballot validation behavior during the training election.

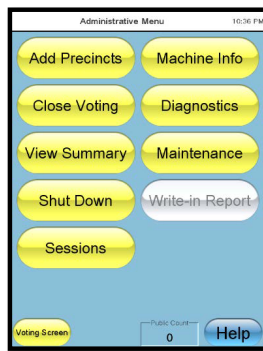
Reset Training

This button becomes active voting is closed, and allows them to restart the Training session.

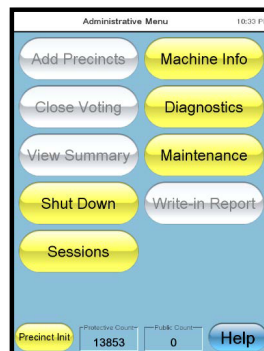
Below are sample of OVO Administrative Menu screens under different election conditions.



Training Admin Screen with Training Buttons



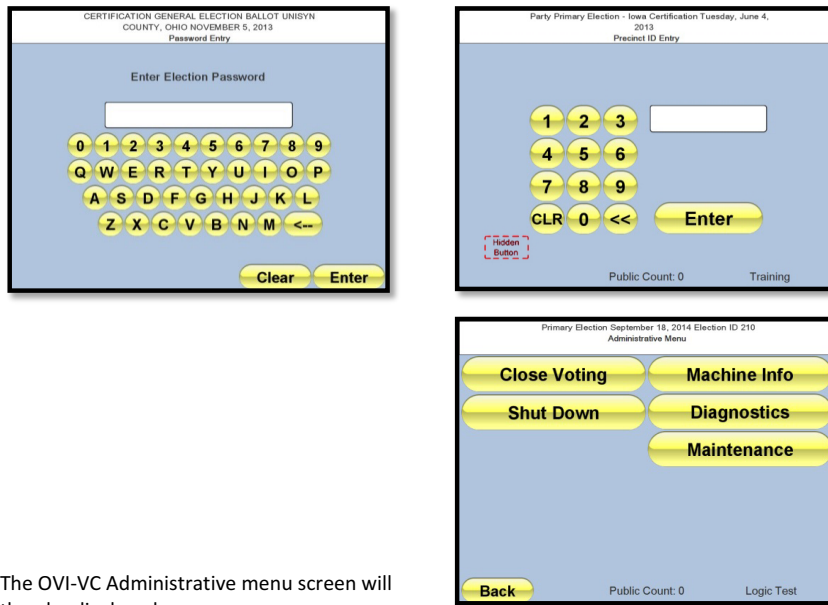
Access to Voting Screen Buttons



Access to the Precinct Init Button

3.3.2 OVI Administrative Menu and Functions (Buttons)

To access the Administrative menu on the OVI-VC during voting, enter the Election Password and then touch the hidden **Admin** button on the Precinct ID entry screen (illustrated below).



The OVI-VC Administrative menu screen will then be displayed.

As with the OVO, the buttons available on the OVI-VC's Administrative menu vary depending on the current conditions. Below is a list of all the functions (buttons) available on the OVI-VC's Administrative menu are:

Close Voting

The Close Voting button allows user to close voting session.

Machine Info

Displays the OVI-VC machine name, firmware version, election date and version, and, if voting is open, precincts which have been voted on the machine.

Diagnostics

Diagnostic buttons displays a menu of hardware tests that can be run before, during, and after voting. Not all tests are available during voting.

Maintenance

The Maintenance button provides access to the Maintenance functionality of the application. A maintenance or supervisor password is required to enter the Maintenance Screen and its functionality.

Shut Down

Press **Shut Down** to close the application before switching off the system.

Back

The button at the bottom of the screen allows the user to exit out of a menu back to the Election during voting.

The following information is also displayed on the OVO maintenance screen.

Public Count

This status box at the bottom of the screen is the count of ballot pages which have been printed on this OVI-VC for the current election session.

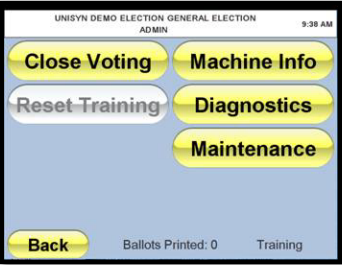
Session Type

Displays type of voting session. No session type name is displayed for Election Day voting. If the session is not Election Day voting, the type of session is displayed at the bottom of the screen in red letters (such as Training)

If a Training Election is loaded, the OVI-VC Administrative Menu Screen will have one additional functionality button:

Reset Training

The Reset Training button is only available when a Training Election is loaded and voting is closed - this allows the user to restart the Training session.

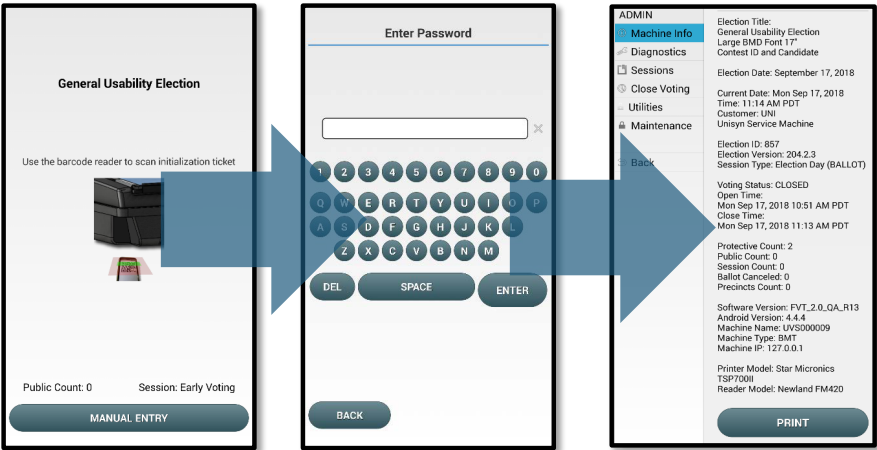


3.3.3 FVT Administrative Menu and Functions (Buttons)

There are multiple ways to access the Admin menu on the FVT.

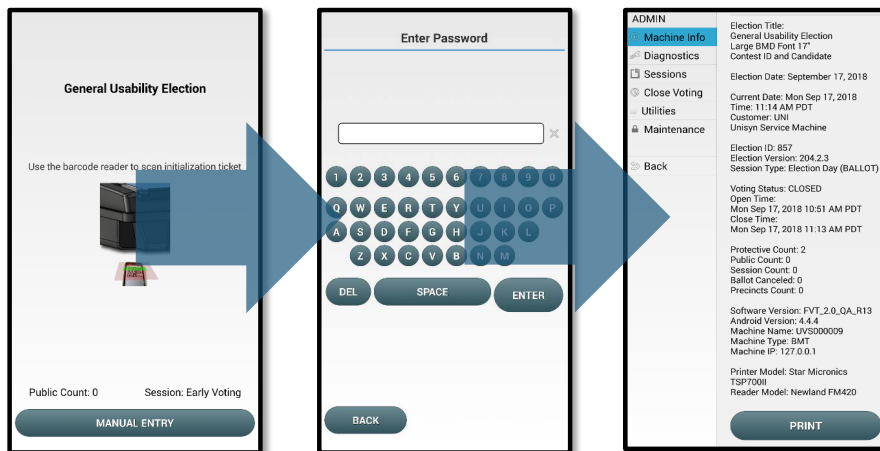
Access When Voting is Open

From the Welcome Screen, the user can press the **Manual Entry** button and enter the Admin password on the password screen. The Precinct ID screen appears; the Admin button is located in the top right of the screen. Press the **Admin** button to access the Admin screen.



Access When Voting is Closed

From the Welcome Screen the user presses the **Manual Entry** button. On the Enter password screen the user enters the Admin/Supervisor password and presses the **Enter** button and the Admin screen displays.

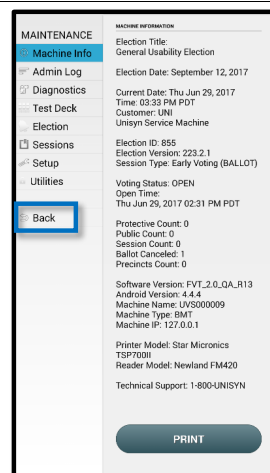


Access Anytime

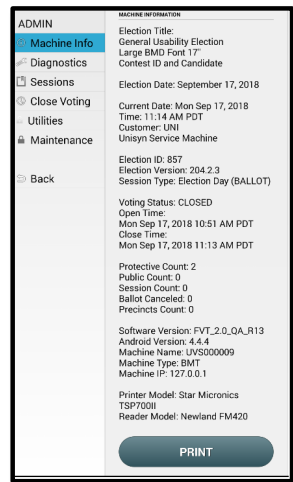
From the Maintenance screen

The user will access the Maintenance screen by scanning the Maintenance barcode or entering the Maintenance password. Press the **Back** button in the menu bar to access the Admin screen.

From the Welcome Screen the user will scan the Admin/Supervisor barcode or enter the Admin password on the Password screen to access the Admin screen.



The FVT's Admin screen is setup the same way as the Maintenance screen, the functional button on are the left and the options and information pertaining to them is on the right.



The Admin buttons for the FVT are:

Machine Info

Displays the FVT Election information, Election date, current date/time, software information, machine name, firmware version, election ID and version, and, if voting is open, protective and public counts, and machine information.

Diagnostics

Diagnostic buttons displays a menu of hardware tests that can be run before, during, and after voting. **NOTE:** Not all tests are available during voting.

Sessions

The Sessions button is available voting is not open. The Sessions button opens a panel offering access to Election Day, Early Voting, Absentee, and Training session types.

Summary

Available after voting is open but before the first ballot page is cast (shows the Zero Count) and after voting is closed, when it shows the full Election Summary report for each precinct (or consolidated tally for some session types) with tallies for all contests.

Back

The button at the bottom of the screen allows the user to exit out of a menu back to the Election during voting.

The following buttons are available only from the Admin screen.

Close Voting

This button is used to close the voting session.

Utilities

The Utilities button provides the user with the ability to turn off the screen the FVT.

Maintenance

The Maintenance button provides access to the Maintenance functionality of the application. A maintenance or supervisor password is required to enter the Maintenance Screen and its functionality.

3.4 Voting Mode

For specific information on voting with the OVO, OVI-VC and the FVT, please refer to Section Four of the *Election Day Poll Worker's Guide*. The OVDs voting functionality depends on which jurisdiction options were selected when the election was created.

The OVO vote handling can be found in Section 4.2, *Typical Voting* and Section 3.1 and 3.2, *Voting Startup* of the *Election Day Poll Worker's Guide*.

The OVI vote handling can be found in Section 5, *Voting Procedures Using the OVI* in the *Election Day Poll Worker's Guide*.

The FVT vote handling can be found in the Section 6, *Voting Procedures Using the FVT* in the *Election Day Poll Worker's Guide*.

3.5 Protective and Public Counts

The OVD each maintains two "counters" that act as system odometers.

- The **Protective Count** maintains a count of ballot pages cast (OVO) or ballot pages printed (FVT and OVI-VC) over the lifetime of the machine. This count is maintained throughout loading new elections, running and restarting training elections, and running Logic and Accuracy tests.
- The **Public Count** maintains a count of ballot pages cast (OVO) or ballot pages printed (FVT and OVI-VC) for the current election session.

At the end of an election, the increment in the Protective Count (from open to close of voting) should equal the Public Count. The Protective and Public counts are recorded by the Zero Count report, the Election Summary report, and, by procedure, on the Technician's List.

3.6 Voting Data Files

During and at the close of an election, the OVO writes voting data to its three storage locations: the PC hard drive, the TM and the backup USB. All devices must be working, and the data on the devices must match, otherwise there is a system error.

At the close of voting on Election Day, the OVO is shutdown and the TM is removed and returned to Election Headquarters to be uploaded to a central count system. Vote files stored on the OVO TM and the other storage locations are:

- **Administrative Log** self-audits all OVO system activity.
- **Vote file** records an image of each voter's ballot and is used to generate the Audit Trail report.
- **Tally file** is generated from the vote file at close of voting to create the Election Summary report for each precinct.
- **Images** folder contains the scanned ballot images (stored on TM and hard drive)

The OVI-VC maintains an Administrative Log on the PC Hard drive and its Transport Media. The log is used to self-audit all OVI-VC system activities/events. The FVT maintains an Administrative Log on its system drive, the log data can be viewed from the application or saved to a TM.

Section Four

Loading Updated Software on OVD Units

The process for loading software updates on the OpenElect® voting devices varies between the OVO/OVI and the FVT. The OVO and OVI-VC use the Software Server (an OVS OCS application) and the FVT uses an Installer USB. Each process is described in this section.

4.1 Updating Software on the OVO and OVI-VC

The Software Server is used to load a new software release on either the OVO or OVI-VC units. The Software Server (SS) will support only one OVD type (OVO or OVI-VC) at a time. A single Software Server is capable of loading the voting software on multiple (up to 20) OVO or OVI-VC systems simultaneously. For one OVD system, the voting software download process takes approximately five minutes. The software upgrades are performed by a Maintenance Technician at the Election Headquarters Warehouse.

The “Certified Software” to be downloaded to the OVD units is provided on a Unisyn OpenElect Software Release USB drive. The Software Server uses the software release created during the certification process to download software updates, via a closed and secure network, to the OVDs. The Software Release USB is inserted in the USB port of the jurisdiction’s OCS laptop or PC which contains the Software Server application. The Software Server updates the software across a secure dedicated Local Area Network (LAN) to the voting devices. The Software Server logs the connection of each device, and the software download.



IMPORTANT

There is a unique Software Release TM for the OVO and another for the OVI-VC. Only one OVD type can be downloaded at a time.

Depending upon the size of the jurisdiction, multiple laptops/Software Servers may be required to support the OVD population. The OVS laptop platform supports both the Election Server and Software Server applications on the same machine.

The following components are necessary to load the software:

- A laptop or PC with Software Server software installed.
- The correct Software Release USB in the Software Server's USB port
- Network switch or hub and cables
- OVDs networked to the Election Server
- A clean TM in each OVO and OVI-VC
- A release key for the software release
- OCS laptop/PC OS login/password account

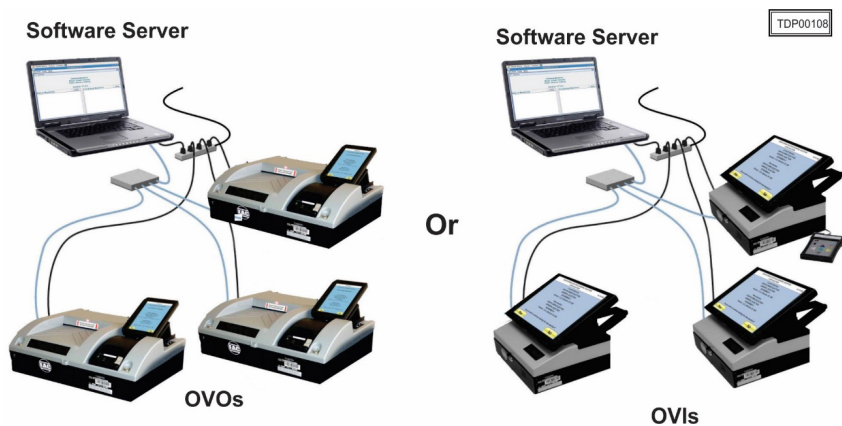


Figure 4-1. Software Server Setup

All Software Servers (if there is more than one) are configured to have the same static IP address. Only one Software Server laptop/PC should be on each network.

! IMPORTANT

Audits must occur before a new Software Release is loaded on an OVO or OVI-VC system.

! WARNING

The OVD units will not allow a new Software release to be loaded if voting session files exist on the TM. A “clean” TM (cleaned via the Election Manager) must first be inserted in the unit.

Refer to the Section 2 of the *Software Server User Guide* for detailed instructions on downloading software updates to the OVD devices.

! IMPORTANT

Following a software update, the OVD unit should be rebooted before it is used.

! IMPORTANT

Following a software update, the OVD unit will require a new Election be loaded and tested to ensure the system is operating properly.

! IMPORTANT

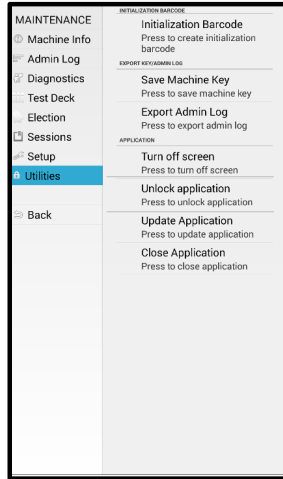
The OVI-VC will not allow load an Election with “No sounds.” The message: “Can’t load Election with No Sounds” will be displayed.

4.2 Updating Software on the FVT

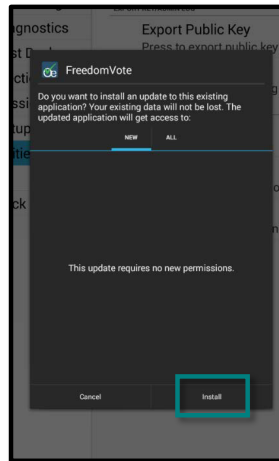
“Certified Software” upgrades for the FVT are performed using the provided Unisyn OpenElect Software Release Installer USB. The upgrades are performed by a Maintenance Technician at the Election Headquarters Warehouse. The Maintenance Technician will follow all procedures established by the jurisdiction to ensure the security of the voting machines and software.

To start the upgrade process close any open sessions on the FVT and log in as a Supervisor user. Insert the Installer USB with the new application file in the USB hub and wait 20 seconds for the USB to mount.

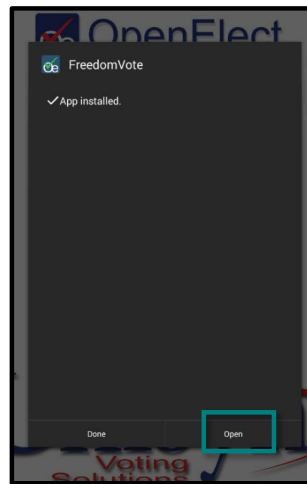
1. Select Utilities from the Maintenance Menu and on the right side of the screen, select **Update Application**.



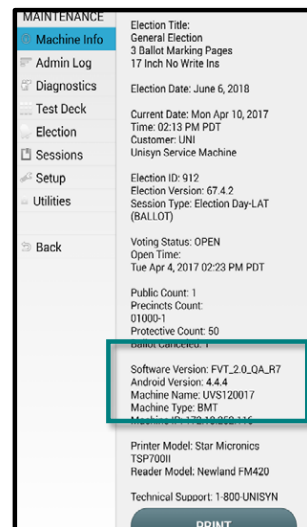
2. A black screen will display asking to load the application, select the **Install** button at the bottom of the Screen.



3. The process to load the software will take approximately 20-30 seconds and when complete a message displays stating **App Installed**.
4. Press the **Open** button at the bottom of the screen, the FVT application will reload.



5. The Maintenance screen will appear; verify the software version number on the Machine Info screen.
6. Remove the Installer USB and store it in a secure location.



4.3 Maintain Security

- Only authorized Maintenance Technicians may access warehouse equipment.
- Keep the room locked when authorized personnel are not present.
- Remove the Software Release USB when not in use and store it in a secure location.

- All actions are logged for audit purposes.

Software Server Security

- Make sure the network remains dedicated to the Software Server and OVDs within the physical warehouse area. Do not attempt to network to a larger LAN or to the Internet.
- The user of the Software Server must have and enter the release key for the software release on the USB to start the Software Server application.

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Section Five

Loading a New Election on OVD Units

The Election Server (OVS OCS application) is used to load new election or training election files (and to update the system clock) on OVOs and OVI-VCs units simultaneously. A clean TM with the Election files can also be used to load individual FVT, OVO and OVI-VC units with a new election.

NOTE: A Clean TM is the only method available for loading elections on the FVTs.

The Election Server (ES) uses the Election TM (created by the Election Manager application) to download new Election data, via a closed and secure network, to OVS voting devices. The Election TM created from the jurisdiction's election data is inserted in the USB port of an Election Server, supplied as a laptop or PC with preinstalled software for use at the jurisdiction's Election Warehouse. The Election Server updates the system clock and downloads new Election data to the voting devices across a secure dedicated Local Area Network (LAN) to the voting devices. The Election Server logs the connection of each device, and the Election download. The result, is a voting device system ready for an election at any voting precinct or for training.

The Election Server resides on a laptop (or PC) at the Election Headquarters Warehouse. Depending upon the size of the jurisdiction, multiple laptops/Election Servers may be required to support the OVD population. The OVS laptop platform can support both the ES and Software Server (SS) applications on the same machine.

The following components are necessary to load the election using the Election Server:

- A laptop or PC with Election Server software installed and activated.
- The correct Election TM in the Election Server's USB port
- Network switch or hub and cables
- OVDs networked to the Election Server
- A clean Transport Media (TM) in each OVO and OVI-VC
- A Maintenance login password to the new Election (to start the Election Server)
- A Maintenance login password to the old Election (to start OVDs before loading, if autoloading at ES not enabled)
- An Election Server Linux Login/password account.



- Verify the date and time of the PC/Laptop being used to host the ES application prior to starting downloads to insure the correct time and date are set on the OVD units during the download process.

All Election Servers (if there is more than one) are configured to have the same static IP address. A single Election Server is capable of loading an election on multiple (up to 20) OVO and OVI-VC systems simultaneously. The Election Server will support all OVD types at the same time (OVO and OVI-VC).

A clean TM with the election files can also be used to load individual OVO and OVI-VC devices one at a time. To load the election using a TM requires the TM loaded with the Election files.

IMPORTANT

If sounds files are not included in the Election files created by the Election Manager, that Election will not be loadable by the OVI-VC units. Only the OVCS and OVO will be able to load those elections.

IMPORTANT

Audits must occur before a new Election or Training Election is loaded on an OVO or OVI-VC system.

WARNING

The OVD units will not allow an election to be loaded if voting session files exist on the TM. A “clean” TM (cleaned via the Election Manager) must first be inserted in the unit.

Whether loading an election on an OVD with the Election Server or a TM, ensure that the following election files are present:

- Election.zip
- election. enc
- TOC
- TOC.sg
- Sounds.zip (for OVI-VC)

5.1 Maintain Security

- Only authorized Maintenance Technicians may access warehouse equipment.
- Keep the room locked when authorized personnel are not present.
- Make sure the network remains dedicated to the Election Server and OVDs within the physical warehouse area. Do not attempt to network to a larger LAN or to the Internet.
- Only authorized Maintenance Technicians (or Supervisors) with assigned passwords may access the Election Server application.

- Remove election TMs when not in use.
- All actions are logged for pre-election and post-election audit purposes.

5.2 Handling System Failures During Downloading

Election Server Laptop/PC powers off during OVD Election download

If the ES Laptop/PC powers off during OVD election download, at the OVD devices, the Election Files are marked as Non-Populated. This means the previous election at the OVD has been removed and the new election is incomplete. On reboot of the Election Server, the election download process needs to be restarted. If Auto Load is not on, the user will need to use UNISYN1 as the Maintenance password (default password when there is no election loaded).

Loss of communications during OVD Election downloads

If there is a loss of communications during an OVD download, at the OVD devices, the Election Files are marked as Non-Populated. This means the previous election at the OVD has been removed and the new election is incomplete. Once communications has been restored, the election download process needs to be restarted. If Auto Load is not on, the user will need to use UNISYN1 as the Maintenance password (default password when there is no election loaded)

5.3 Election Loading Process

5.3.1 OVO/OVI-VC Utilizing the Election Server

Refer to the *Election Server User Guide* for detailed instructions on downloading an election to the OVD devices using the Election Server.

- ***The Election Server program must be started before the OVD is switched on.***
- ***Switch on the Election Server Laptop/PC***
 - 1) Log on to the PC with a username and password. After successful login the Election Server application will automatically start.
 - 2) When prompted, enter a Maintenance user name and password for the election about to be loaded.
 - 3) Confirm the election title, as well as the current date and time. Make sure the PC is set for the ***time zone*** where voting will occur.



IMPORTANT

The OVD receives its system date and time from the Election Server PC. Because the OVD may be OFF when Daylight Savings Time changes occur, plan now for the time change.

- 4) If the date and time are correct, press **OK** to go to the main screen of the Election Server. If the date, time or time zone is incorrect, press **NO**, a supervisor will need to set the correct date information on the PC.
- 5) To auto-load the election without entering a password at each OVD, open the Election Server's **Election** menu and select **Auto Load Election**. Do not make this selection to receive a prompt to overwrite the previous election and clear the vote files on the OVD.
- 6) When the Election Server has been started, switch on the OVD systems connected to the election-loading network.
- 7) To manually load the election, enter a Maintenance password for the election **currently installed on the OVD** and touch **Enter**.

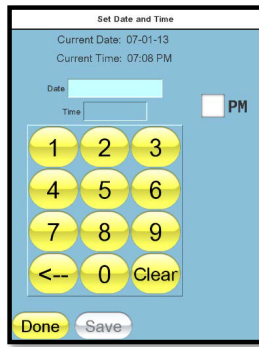
5.3.2 OVO and OVI-VC Utilizing the Election TM

To load the OVO and OVI-VC via a TM, follow the steps below:

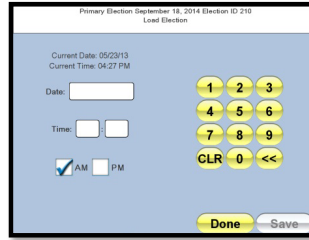
- Ensure the OVD to be loaded with the new election has voting closed and is powered off.
- Insert the "clean" TM with the Election files in the device.
 - To create a TM (USB Drive) with Election Files to support these capabilities, take a Clean TM drive and place it in a USB port of the PC/laptop that contains the election files created by the Election Manager. Copy all the election files from EM to the root drive of the TM. Label the TM with the election information.
- The OVD should **not** be connected to the Election Server or Software Server network. As long as the device is connected to the ES or SS, it will not load from the TM.
- Switch on the OVD power.
- Once the unit determines that it is not connected to the Election Server, it will check the TM for Election Files, once found it will start the Election Loading process.
- Once it has completed loading the election from the TM, the time and date will be presented and the user will be given the option to change the data/time or leave it as it is currently set.

5.3.2.1 Set Time/Date on OVO and OVI-VC

For the OVI-VC and OVO the following screens are displayed, see below. The current time and date are displayed at the top of the screen. If the time and date are correct, press the **Done** button to leave the current settings.



OVO



OVI-VC

To change the Date and Time on the OVO and OVI-VC:

- Set the Date by touching the Date field and enter MMDDYY (all 6 numeric characters required).
- Set the time
 - On the OVO, touch the Time field and enter HHMM
 - On the OVI-VC, touch the first time field and enter HH, then touch the second time field and enter MM.
- **Set AM/PM** by selecting either the AM or the PM field.
- Once the time and date are correct, Touch the **SAVE** button.
 - If there is an error in the data entered (such as too few numbers or numbers are out of range) the system will display an appropriate error message and the user will need to correct the value.
 - Touch the **Done** button to keep the current date and time.
- The OVD will then display a screen that indicates the load was successful.

The OVD will log the previous time and date and the new time and date in the system log.

If the date and time is set incorrectly, the election will have to be reloaded again to correct the date and time.



This does not ensure the same date and time across all OVOs, it is up to the user to be accurate on entering the time and date.



WARNING

If the user powers off the OVD while displaying the date/time screen (OVO and OVI-VC only), they have not completed the election load process; the election is not considered loaded. The election will be deleted when the OVD is rebooted. This means the election will need to be reloaded to complete the process successfully.

5.3.2.2 TM Election files on OVO and OVI-VC

If the 'Clear USB Election Files After Load' option was selected in the EM for this election, the election files on the TM will be deleted after exiting the Set Date and Time screen.

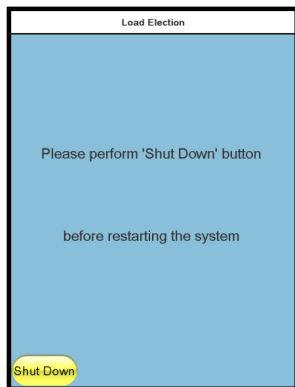
If the 'Clear USB Election Files After Load' option was not selected in the EM, the election files will remain on the TM after the load election process is complete. This allows the user to remove the TM after the OVD is power off and insert it into another OVD to load the same election on another system.

Also, once the first voting session is started, the OVD it will delete the election files from the TM.

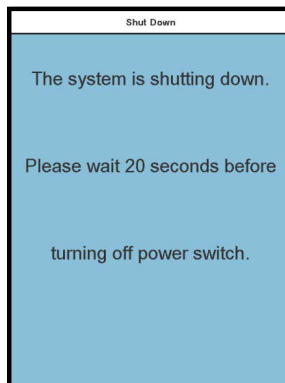
5.3.2.3 Shut Down the OVO and OVI-VC

After the **Done** or **Save** button is selected on the Set Date and Time screen, the OVD must be powered off.

In the case of the OVO, press the **Shut Down** button and then power off the unit via the switch at the back of the unit.

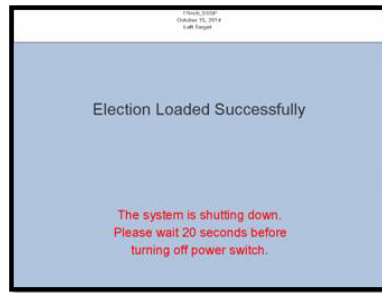


Shut Down Option



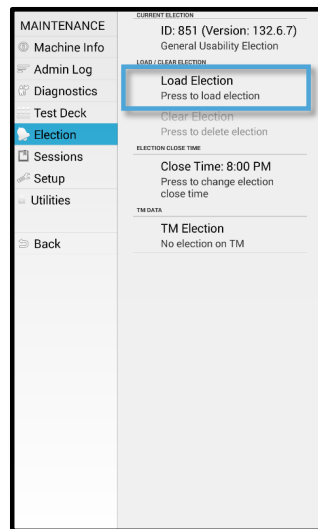
Wait 20 seconds

In the case of the OVI-VC, the system will shut itself down. Wait 20 seconds before turning off the power switch on the back of the unit.

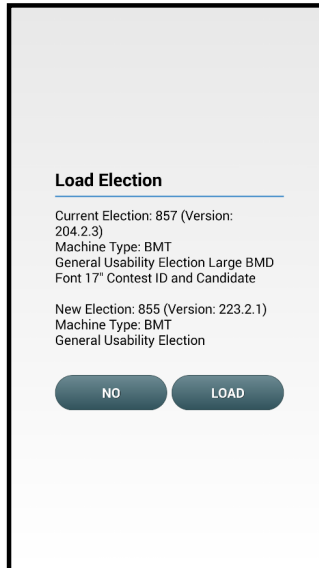


5.3.3 Load the Election on the FVT

- Ensure the FVT's voting session is closed.
- Insert the "clean" TM with the Election files in the USB hub.
- Access the Maintenance Menu and press the **Election** button.
- Press the **Load Election** button on the right side of the screen to load the election.



- Election Information screen displays with the information for the new election. Review the information to verify it is the correct election, then press the **LOAD** button.



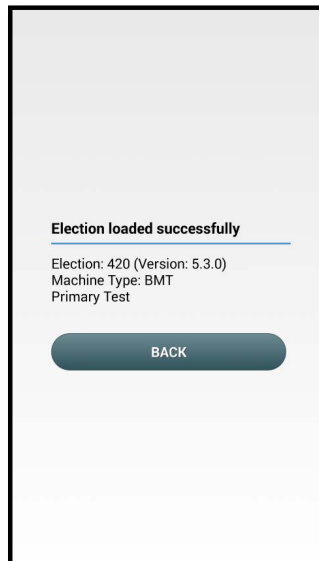
Load Election

Current Election: 857 (Version: 204.2.3)
Machine Type: BMT
General Usability Election Large BMD
Font 17" Contest ID and Candidate

New Election: 855 (Version: 223.2.1)
Machine Type: BMT
General Usability Election

NO LOAD

- Once it has completed loading the election from the TM, the Election loaded successfully screen appears. Press the **BACK** button to return to the Maintenance Menu.



Election loaded successfully

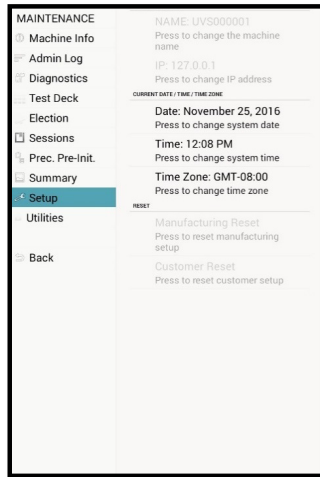
Election: 420 (Version: 5.3.0)
Machine Type: BMT
Primary Test

BACK

5.3.3.1 Set Time/Date on the FVT

After the election has successfully loaded, check that the date and time are correct by reviewing the Setup screen. If the date, time, or timezone needs to be changed, a Supervisor user must be logged into perform these functions.

When any of these three options are selected the black System menu will display allowing you to change these values. Once you have set the correct date, time, and/or timezone (as needed), press the **Back** button to return to the voting application.



5.4 Election Fails to Load

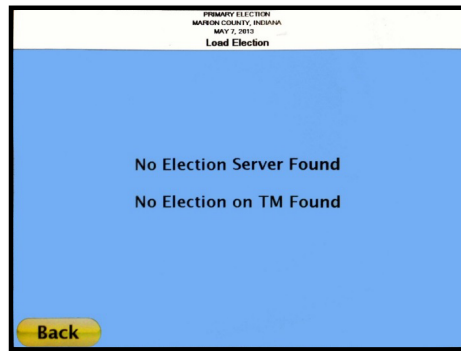
If the election failed to load, an error message appears on the OVD. Refer to Appendix A, System Code Reference, for a list of error codes and explanations.

Check the following:

- Election Server Load (OVO or OVI-VC)
 - For its TCP/IP connection to the loading network, the Election Server has the required IP address and subnet mask (see the Election Server User Guide for more information).
 - The Transport Media in the OVD is clean when the OVD, connected to the election loading network, is started.
 - The Election Server application was loaded before the OVD is turned on.
 - LAN cables are connected correctly to the ES laptop, Switch/Hub, and OVD devices.
 - Switch/Hub is powered on.
- TM Election Load (FVT, OVO or OVI-VC)
 - Check to ensure the TM in the OVD is clean.
 - Verify the TM contains all the correct Election Files.
 - Verify that the ES is **not** connected to the OVO/OVI.

OVI

If the election does not have audio files – an option available via the Election Manager – the OVI-VC will recognize the election as being incomplete and will not load the election. The following screen will appear in this case:



There will be no error message displayed stating there are no audio files.

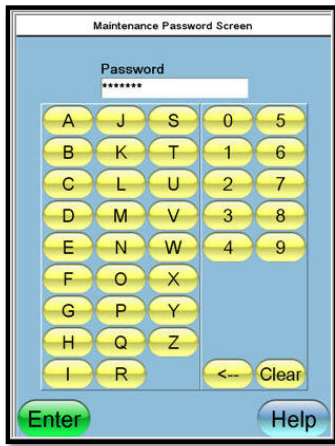
IMPORTANT

The OVI-VC requires audio files regardless if the OVI-VC has a keyboard and headphones. If the audio files are not included in an election, the election will not load on the OVI-VC.

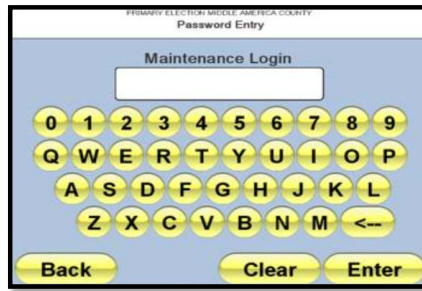
Attempt to load an election again without restarting by using the **Load Election** button on the Maintenance Menu. **Load Election** is only available when (1) no open vote files are found (voting has been closed), and (2) it is not Election Day for a “real” (not Training) election. The command will succeed only if the TM inserted in the OVD has been cleaned and contains no vote files.

5.5 Manual Load Election from the Election Server

If the OVO/OVI unit boots without loading the new Election (Auto Load Election is set off), the process requires interaction at the device. As is noted above, the device first makes contact with the Election Server on startup and retrieves the initial Election file (the Election Server will be displaying on the Activity Window that the unit communicated and that the Election.zip file was downloaded). The device will prompt for entry of a Maintenance Password.



OVO Maintenance Password Screen



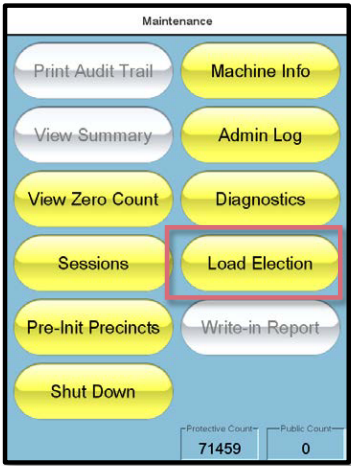
OVI Maintenance Password Screen

A maintenance or Supervisor password can be used. Once a valid password for the currently loaded election is entered, the system will display the Maintenance menu.

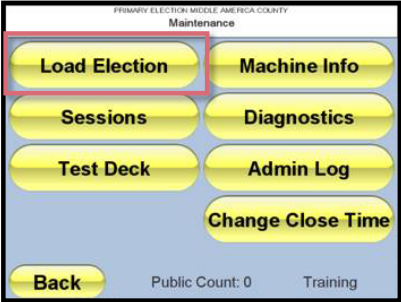
NOTE: the password needs to be for the election that is loaded when this process started, not the new Election being downloaded. If the current password is not known, the new election can be downloaded by using the Auto Load Election option.

If the unit does not have a populated election (either a new SW version has been loaded or a previous Election Download was aborted before it was completed) the user will need to use "UNISYN1" as the Maintenance password (default password when there is no election loaded). This password is only enabled when one of these two events has occurred. Once an Election is populated, this password is no longer accepted.

Once a valid password is entered, the Maintenance Menu is displayed.



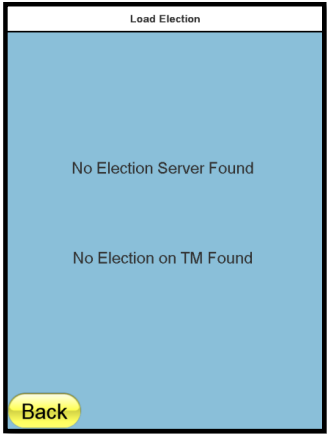
OVO Maintenance Screen



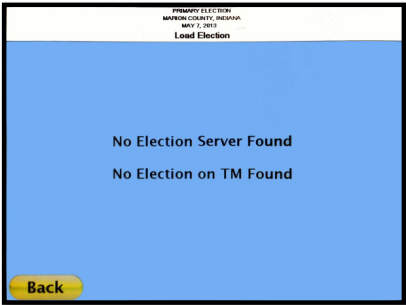
OVI Maintenance Screen

An election download is manually initiated by pressing the **Load Election** button, circled above in red. Wait as the system checks for new election data. The Election Server will redownload the Election.zip file and redisplay this status on it's Active Machines pane or the device will load from the TM if the Election files are found there and the Election Server is not connected.

If a download is unavailable, the system will display the following screen:

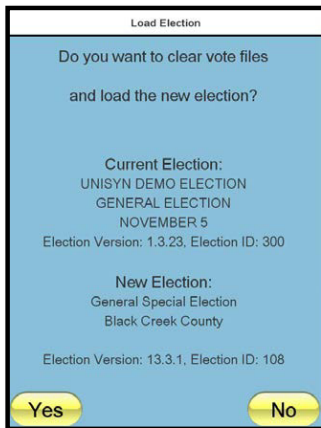


OVO

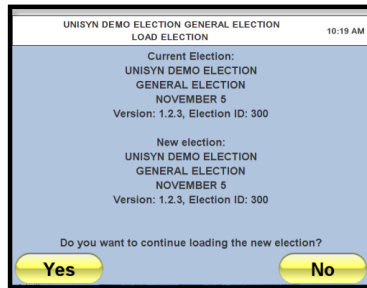


OVI

If a Download is available from the ES, the device will then display a prompt to continue with the download or not.



OVO Load Election



OVI Load Election

If **No** is selected, the device will return to the Maintenance Menu.

If **Yes** is selected, the OVO/OVI-VC will request download files from the Election Server. The Election Server will display information on the download process.

The OVO/OVI-VC will go through sequence of Download information screens indicating what files are currently being loaded:

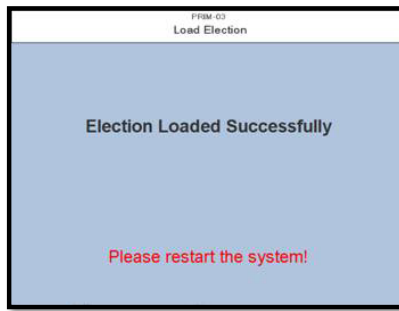
- 1) Load Election.Zip
- 2) Unzip Election File
- 3) Load File Sounds.zip
- 4) Unzip Sound Files

The final election load screen will be the :

- 5) Election Loaded Successfully

The unit should be restarted.

On Startup, verify the election version loaded on the Machine Information report that is printed.



! IMPORTANT

Following an election download, the OVD unit should be rebooted before it is used for any purpose.

! IMPORTANT

Always wait at least twelve seconds before restarting the OVD.

Section Six

Testing the Voting Systems

To prepare the OVD units for voting at the polls, run a series of hardware, logic and accuracy tests to ensure the systems are functioning properly. Hardware tests can be performed before or after the new election is loaded on the system, and while a training or normal election is loaded. The Logic and Zero Count tests, however, must be performed using the actual election that will be voted. All tests are described in this section.

Table 6-1. List of Pre-Election Tests

Test	Unit	Election Data Loaded	Access from
Test Printer	OVO/OVI/FVT	Training or Normal Election	Maintenance Menu / Diagnostics
Test Touchscreen	OVO/OVI	Training or Normal Election	Maintenance Menu / Diagnostics
Test Display	OVO/OVI	Training or Normal Election	Maintenance Menu / Diagnostics
Touchscreen Calibration	OVO/OVI	Training or Normal Election	Maintenance Menu / Diagnostics
Test Audio	OVI/FVT	Training or Normal Election	Maintenance Menu / Diagnostics
Test Headphones	OVI/FVT	Training or Normal Election	Maintenance Menu / Diagnostics
Test Binary Input (Sip and Puff)	OVI/FVT	Training or Normal Election	Maintenance Menu / Diagnostics
Test Keypad	OVI/FVT	Training or Normal Election	Maintenance Menu / Diagnostics
Test Barcode Reader	FVT	Training or Normal Election	Maintenance Menu / Diagnostics
Test Battery	FVT	Training or Normal Election	Maintenance Menu / Diagnostics
Test Media	FVT	Training or Normal Election	Maintenance Menu / Diagnostics
Auto Test (performs multiple tests)	FVT	Training or Normal Election	Maintenance Menu / Diagnostics
Test Reader (Ballot Reader)	OVO	Training or Normal Election	Maintenance Menu / Diagnostics
Calibrate Reader (Ballot Reader)	OVO	Training or Normal Election	Maintenance Menu / Diagnostics

Test	Unit	Election Data Loaded	Access from
Accuracy Test	OVO	Training or Normal Election	Maintenance Menu / Diagnostics Voting must be closed
Logic Test	OVO/ OVI-VC/FVT	Normal Election	Maintenance menu - Session
Zero Count Report	OVO	Normal Election	Maintenance Menu
Test UPS	UPS	N/A	Access the UPS unit directly

6.1 Recommended Equipment Testing Prior to Election Day

Prior to Election Day, voting devices are tested at the warehouse storage location:

- The room remains locked during testing.
- Only authorized Maintenance users run the pre-election hardware accuracy and logic tests.
- No networking or outside devices are used during testing.
- A Supervisor ensures use of correct test ballots and correct procedures for all testing.
- Each OVI-VC device is tested for hardware operation (diagnostics), visual presentation and audio.
- Each OVO device is tested with hardware diagnostics.
- Each FVT unit is tested with hardware diagnostics (Auto Test), and visual/audio presentation.
- All (or randomly selected) devices are tested as part of the Logic Test.
- An equipment check-off list is maintained to document and prove all testing.
- A Supervisor ensures any hardware or count errors are documented and addressed.
- Close voting reports from the FVT and OVI-VC used in the Logic Testing are retained to prove testing.
- The Logic Test Election Summary from each OVO is retained to prove testing.
- The Logic Test Audit Trail from each OVO is retained to prove accuracy of the testing.
- Test ballots are retained to prove accuracy of the testing.
- TMs with Logic Test data are marked as such for delivery to Tabulation upload.
- Clean TMs are inserted in all OVO devices where they were removed for Logic Test.
- A Zero Count is requested for each precinct on each OVO used for Logic Testing is requested from the Maintenance application following testing to prove there are no votes on the system prior to Election Day.
- OVO equipment is certified ready and TM access sealed for Election use.

- FVT or OVI-VC equipment is certified ready and sealed for Election use.

6.2 System Diagnostics

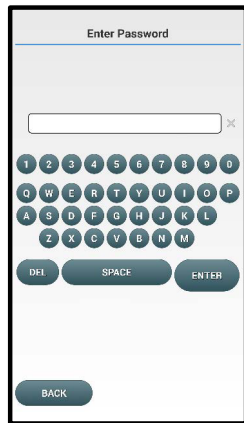
The OVD system has two sets of diagnostic tests:

- Those accessible via the Administrative Menu Screen for use by the precinct poll workers.
- Those accessible via the Maintenance Menu Screen to those with a maintenance or supervisor password.

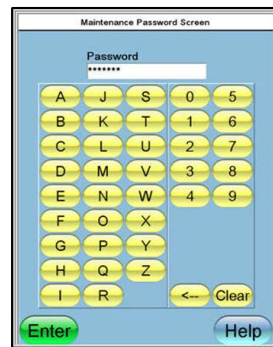
As maintenance-level diagnostics are completed on the OVD units prior to Election Day, the technician marks off the tests completed and notes their success or failure on the Warehouse Technician's List, which may vary from jurisdiction to jurisdiction. In some cases, the Diagnostics available to the poll worker (via an Administrative Menu) are a simplified version of the Diagnostics available via the Maintenance Menu and/or some diagnostics are unavailable to the poll worker. For a description of the diagnostics available to the poll worker, please refer to the *Election Day Poll Worker's Guide*. The remainder of this section will address only the System Diagnostics available via the Maintenance Menu.

6.2.1 Accessing the Maintenance Diagnostics

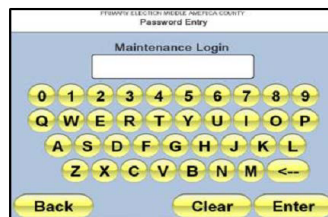
Enter a Maintenance or Supervisor password to access the Maintenance Menu. The password prompt appears on startup when (a) it is *not* Election Day, (b) a Training Election is not installed, (c) an election is *not* being loaded from the Election Server (OVO and OVI-VC), and (d) when the Maintenance button is selected from the Admin Menu via the Election functionality.



FVT Maintenance Screen



OVO Maintenance Screen



OVI Maintenance Screen

Figure 6-1. Maintenance Menu Password Screens

Use the Maintenance (or Supervisor) password, as defined by the Election Manager for the election that is currently loaded, to login to the OVD unit.

The Logic Test and all other special Session Types (Early Voting, Absentee, Provisional, Override, and Recount), as well as the System Diagnostics, are accessed through the Maintenance Menu.

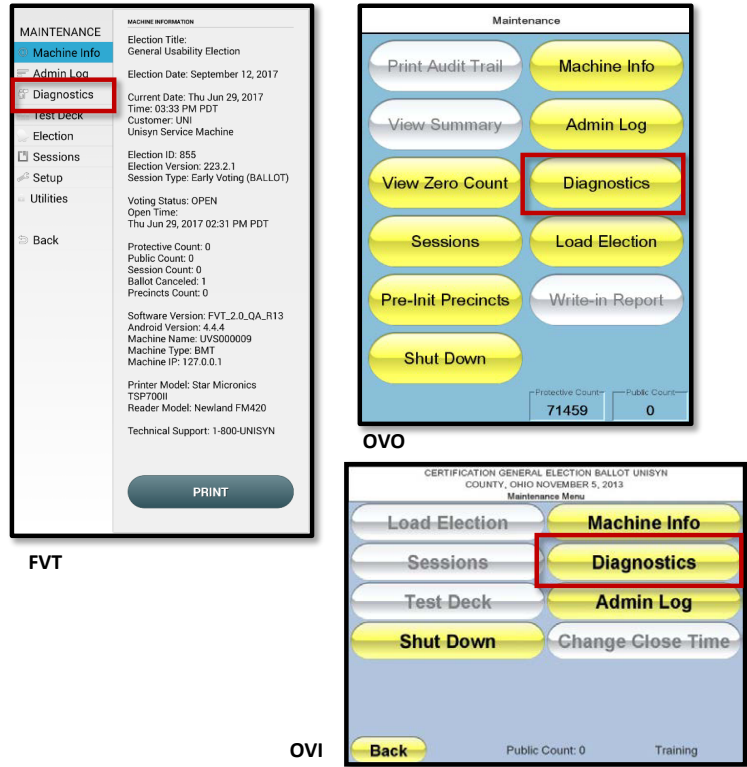


Figure 6-2. Maintenance Screens

The maintenance screens above show the Maintenance Menu before Election Day. The various function buttons on the Maintenance Menus are active under different circumstances as described in the various sections of this document. In the case of the Diagnostics button, it is always enabled and available.

Touching the **Diagnostics** button on the OVD display will result in the appropriate diagnostic screen being displayed, depending upon the device. Each device has its own set of diagnostic buttons.

NOTE: The FVT's Diagnostics screen provides an Auto Test function, outlined in red. It is recommended that this function be used to test hardware diagnostics

prior to an election. (Refer to section 6.2.15 for a complete description of the FVT's Auto Test function.) The individual test buttons should be used to test components for troubleshooting issues. The individual buttons are discussed in this section. The diagnostic tests ran for the individual buttons differ slightly from some of the tests ran under Auto Test.

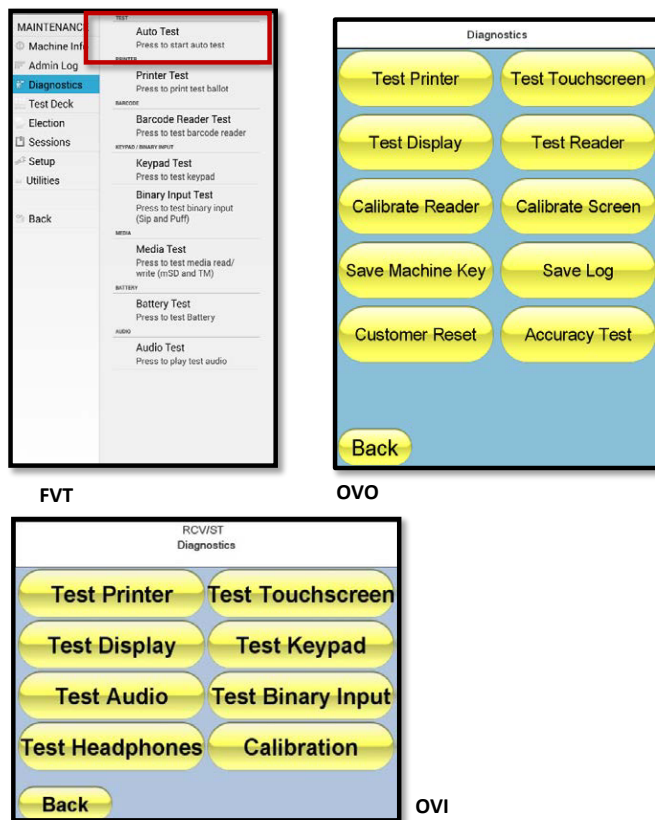
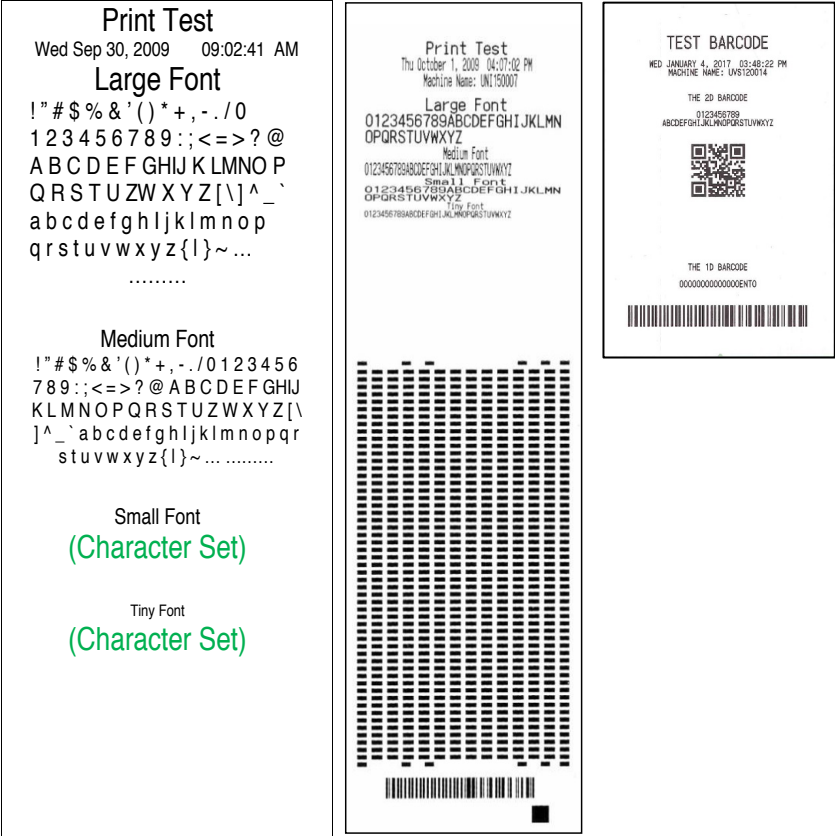


Figure 6-3. Diagnostics Screens

6.2.2 Test Printer (OVO, OVI-VC and FVT)

When the TEST PRINT button (Printer Test on the FVT) is touched on the diagnostics screen, the OVO will print a receipt with characters in varying fonts as is illustrated below on the left. The OVI-VC and FVT will print a test BMD ballot with the correct number of grid marks as defined by the loaded election. The FVT will also print a Test Barcode that contains a 1D and 2D barcode.

The BMD ballot has ‘Print Test’ printed on the top and a section with numbers and letters printed in various font sizes as is illustrated below to the left. Make sure the printing is clear and the fonts are legible.



OVO Print Test Report BMD Print Test Report FVT Test Barcode

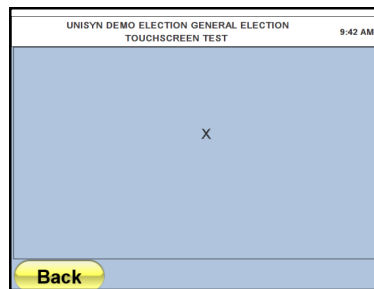
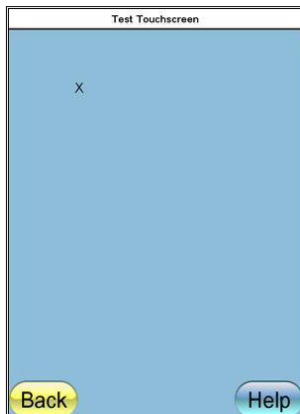
Figure 6-4. Printer Test Reports

It is recommended that the old Printer paper be removed and a new roll installed when preparing a Printer for delivery to the polls. Additional rolls of paper should be supplied to each poll location.

6.2.3 Test Touchscreen (OVO/OVI-VC)

From the OVO or OVI-VC Diagnostics Menu, select **Test Touchscreen**. A blank screen appears, touch the screen anywhere in the main part of the screen. An X will display where the screen was touched. Touch the screen a couple of times to ensure the X will move to each new location/touch. This checks the calibration of the screen.

Press **Back** to return to the Diagnostics Menu.

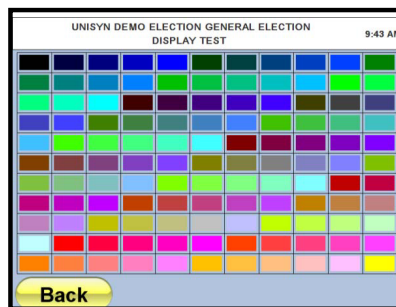
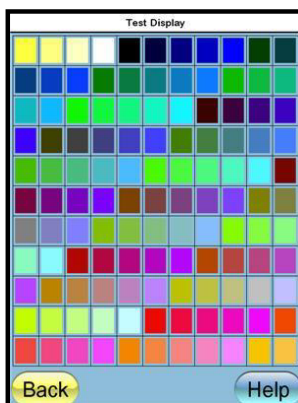


! IMPORTANT

If the X does not move to where the user touches the screen, the screen should be recalibrated (see section 6.2.5).

6.2.4 Test Display (OVO/OVI-VC)

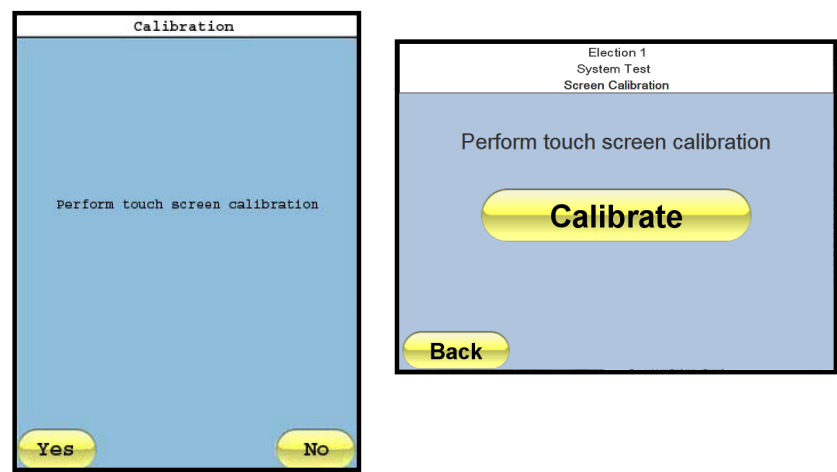
From the OVO or OVI-VC Diagnostics Menu, select **Test Display**. A series of colored boxes will display. This test verifies that system colors are being displayed.



6.2.5 Calibration Screen (OVO/OVI-VC)

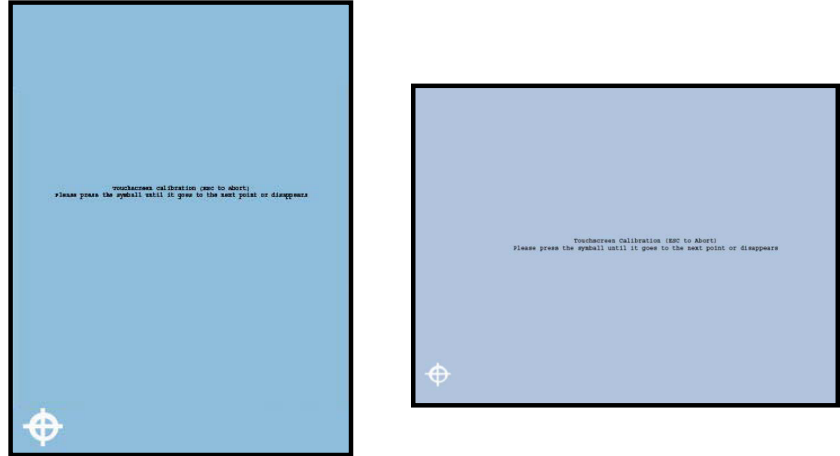
The Calibration Screen function will calibrate the OVO or OVI-VC's touchscreen. If the operator notices that the places touched on the screen do not match the active location on the screen,

the touchscreen needs to be re-calibrated. When this function is selected, the technician is asked to confirm the touchscreen calibration request.



OVO Touchscreen Calibration Screen OVI-VC Touchscreen Calibration Screen

When the technician confirms they want to perform the calibration (by touching either the YES button in the case of the OVO or the Calibrate button in the case of the OVI-VC), the next screen will be displayed.



OVO Calibration Test Screen OVI Calibration Test Screen

The system will then display four target circles (one at a time) in each corner of the screen (starting with the lower left corner of the display and progressing counterclockwise through the other three corners).

There is text in the middle of the screen describing the test. The technician must touch and hold each target circle before the next one is displayed. After all four target circles have been touched, the screen is calibrated and the application will exit back to the Diagnostics menu.

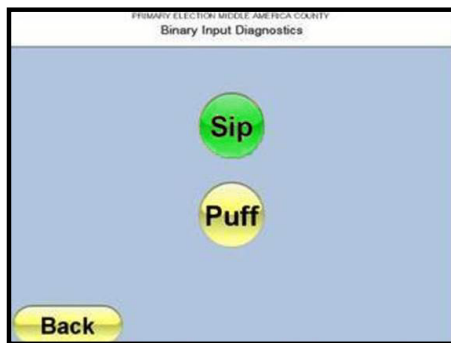
The touchscreen calibration screen has a timeout feature, where if the operator does not proceed on to the next target circle, touch it and hold it within the system time limit, the system will timeout. If the system times out, the OVO system will return to the Diagnostic Menu, while the OVI-VC system will return to the Touchscreen Calibration confirmation screen.

6.2.6 Test Binary Input (OVI-VC/FVT)

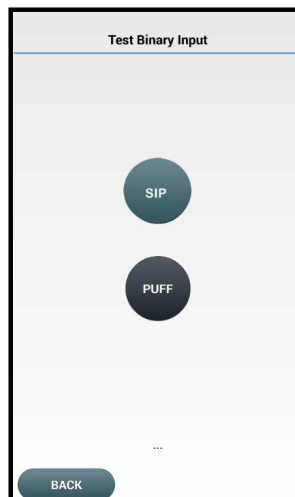
From the OVI-VC or FVT's Diagnostics Menu, select **Test Binary Input**. The Binary Input Diagnostic screen (illustrated below) is presented on the display. This screen enables testing of the Sip and Puff, as well as the Binary Input jack on the keypad.

The user can use the test buttons on the Sip and Puff device (circled in red) to perform this test.

When the user depresses one of these test buttons on the device, the corresponding graphical element on the screen should be highlighted, as illustrated below.



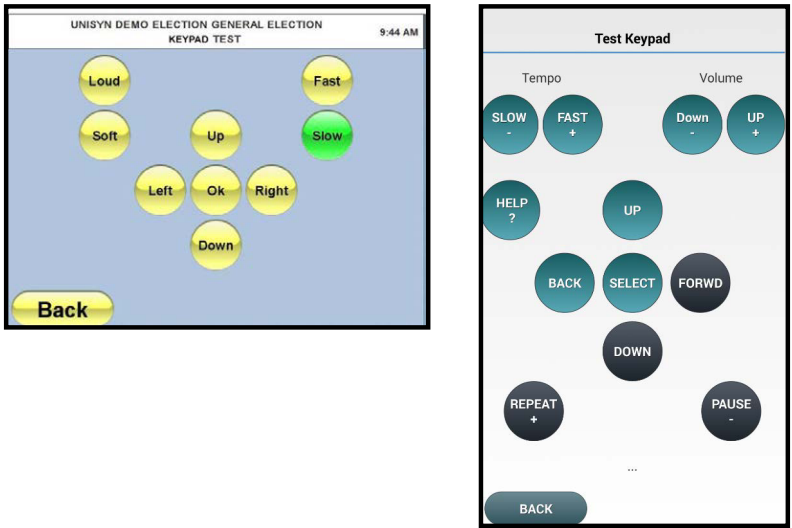
OVI Binary Test Screen



FVT Binary Test Screen

6.2.7 Test Keypad (OVI-VC/FVT)

From the OVI-VC or FVT's Diagnostics Menu, select **Test Keypad**. A keypad view appears onscreen. Touch each key on the keypad. The corresponding onscreen key is highlighted, as is illustrated below.



6.2.8 Test Audio (OVI-VC)

The audio test verifies delivery of sound to the headphones and allows the user to check the content and quality of the sound files on the OVI-VC and FVT.

IMPORTANT

If sounds files are not included in the Election files created by the Election Manager, that Election cannot be loaded on to the OVI-VC. Only the OVCS and OVO will be able to load those elections.

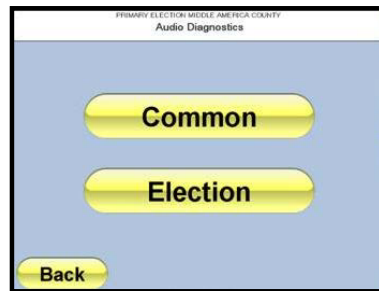
To run the test, put on the headphones (or use a self-powered speaker) and connect them to the ADA keypad.

Touch **Test Audio** on the Diagnostics Screen.

The first screen that will be presented asks for the type of sounds to be tested. There are two types:

- **Common.** Common sound files are the navigational prompts, letters and numbers that are used from election to election (e.g., "Vote for" and "One").
- **Election.** Election sound files present the contests for office and the measure contests, candidate names and descriptions, and the political parties associated with candidates and Primary elections.

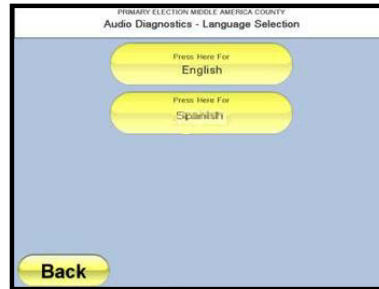
Touch the type of soundsto be tested.



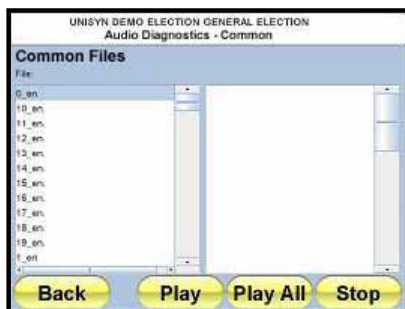
The next screen presented is the language selection screen. This choses the language used for the audio output.

Touch a language to test the audio in that language. If more than one language is being used for the election, a translation for each sound is typically recorded and included in the election sound file collection.

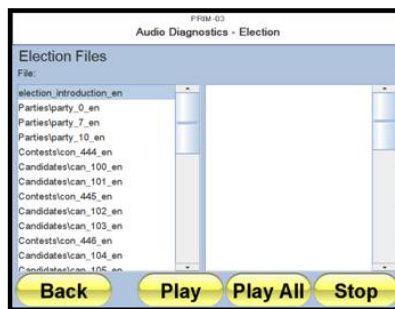
NOTE: If the loaded election uses English only, this screen does not appear.



Upon selection of the Language, the test screen will appear as illustrated below.



Common File Test



Election File Test

Note that the language is indicated in the last part of the sound filename. A two letter code represents each language. For example, in the language files shown above the language is English and have the code "en" in the file name.

Other language examples (using the common prompt "summary done") are:

- The English version of the first contest file: **summary_done_en.mp3**
- The Chinese version of the same file: **summary_done_zh.mp3**

- The Spanish version of the same file: **summary_done_es.mp3**

The two letter code that represents each language is:

EN	English
ES	Spanish
JA	Japanese
HI	Hindi
KO	Korean
TH	Thai
ZH	Chinese

The same two letter codes, representing the languages, are used in the *Election Manager User Guide*.

An audio script report (that is created by the Ballot Layout Manager) can be used to provide all of the sound files that are generated for the election. This can be used to identify the sound files and provide the script presented via the audio play back.

If an OVI-VC is used in the election, the required sound files for exporting include:

- All common sound files in English
- All candidate sound files in English
- All party sound files in English
- Election sound file (election_introduction_en.mp3) in English
- All contest sound files in English except contest description sound files

Contest description sound files are optional. Sounds in non-English languages are optional. It is the jurisdictions choice as to whether sound files beyond English are produced.

The buttons on the test display are:



The **Play** button will result in the currently selected sound file being played. Once the **Play** button is depressed, the **Play All** button will be disabled. The resulting status will appear in the right window.



The **Play All** button will result in all the sound files in that group (common or election) being played in sequential order. Once the **Play ALL** button is depressed, the **Play** button will be disabled. The results of this test will be displayed in the right window.



The **Stop** button will stop the current action (whether it is playing a single file or playing all files).

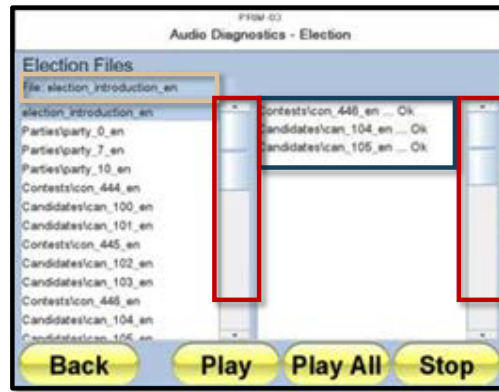


The **Back** button will return the system to the Type of Sounds screen or the Language screen (if the Language screen was displayed). The **Back** button will stop playing if Play or Play All is underway.

The layout of the test display is:

The file being played currently (or was last played) is listed in the top of the screen (outlined in tan).

There are scroll bars (outlined in red) on the left of each window that allow the user to scroll down the list of files. The user can select a file for individual playing from the left column and once played can review the list of played sounds from the right column.



To play the individual sound files scroll down to the desired file in the left window, touch the file name (which will result in that file being backlit in blue) and then touching the **Play** button. Once a file has played, it is listed in the right window (outlined in blue). If the file was played without an error, it is indicated with an **OK**, otherwise **ERROR** is displayed.

If there is a error in playing the files, or the wrong script is presented during testing, headquarters should be notified.

The technician performing the audio test verifies:

- Content and quality of all sound files in the required languages
- The sounds are set to an acceptable default level
- The sound is in the audible speech range of 315 Hz to 10 KHz
- If the voter increases the sound level, the sound returns to the default level on reset of ballot or of audio test
- Candidate names are pronounced as the candidate intends
- The speed of the audio can be controlled by the voter

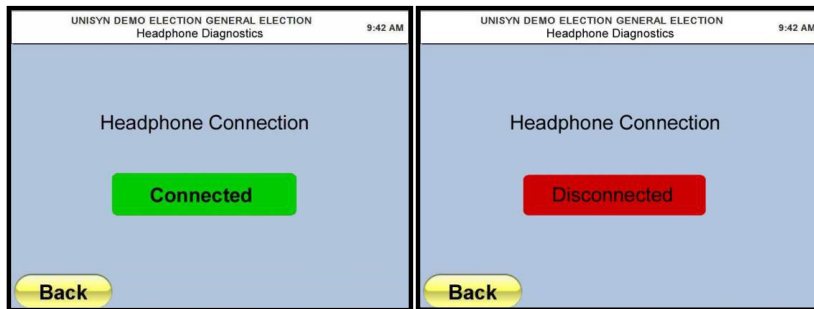
Make notes on sound files with poor quality, wrong contents or errors in playing. The election can be reloaded in an attempt to correct the problem prior to Election Day. If the problem persists on multiple OVI-VC units, the sounds can be re-recorded and uploaded to the Election Manager, where an Election TM with corrected sounds can be reproduced.

6.2.9 Headphones and Audio Test (FVT)

To test the Audio on the FVT, plug the headphones in to the tablet's audio port. Touch the Test Audio button on the Diagnostics menu. The user will hear an audio message verifying that the audio and the headphones work.

6.2.10 Test Headphones (OVI)

The OVI-VC's headphone test checks to see if the headphones plug is working on the keypad unit. When headphones are plugged in the screen will display 'Connected' in a green box (illustration on the left), when they are unplugged it will display 'Disconnected' in a red box (illustrated to the right).



6.2.11 Test Reader (OVO only)

The Test Reader is used to verify that the OVO's Ballot Reader is correctly scanning ballots. It displays the ballot selections on screen and matches each ballot inserted against the first ballot scanned. The test should only register a "mismatch" when a differently marked ballot is inserted. The goal is to verify that the reader is accurately reading marked positions.

Although the user may be provided with a special pattern ballot that tests all positions, they can use any ballot for this test. If the test fails, the reader may need repair or replacement.



IMPORTANT

Testing the Reader does not increase the Protective Count.

Both full page and BMD ballot pages can be utilized. The election loaded on the system will determine the length of the ballot expected; whether it is a 11" to 19" ballot. The number of rows is displayed at the top of the screen.

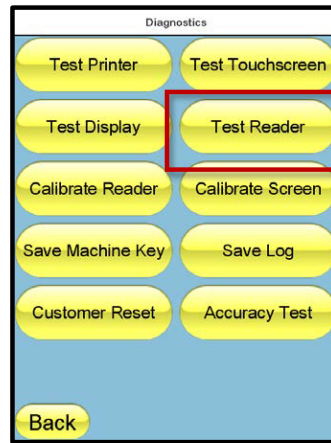


IMPORTANT

BMD ballot pages are the same size length as the full page ballots.

To access the Test Reader function login using the Maintenance password, this will bring up the Maintenance menu screen. On the Maintenance menu screen press the **Diagnostics** button to access the Diagnostics screen.

Press the **Test Reader** button on the Diagnostics menu. The Test Reader screen will display, similar to the one on the bottom right.

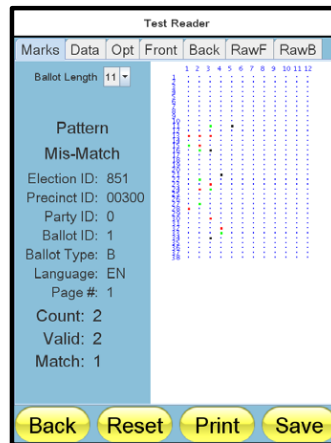


The Test Reader screen has a 'tabbed' layout. Along the top of the screen are seven tabs:

- The **Marks** screen tab is the default tab as shown to the right. This tab contains information regarding ballot marks.
- The **Data** screen tab contains specific ballot information.
- The Options or **Opt** screen tab contains options for the user to adjust the Test Reader's handling of the ballots.
- The **Front** tab shows the scanned image for the front of the ballot.
- The **Back** tab shows the scanned image for the back of the ballot.
- **RawF** displays the scanned raw front side of the ballot.
- **RawB** displays the scanned raw back side of the ballot.

Along the bottom are four buttons which appear on each tab:

- The **Back** button will leave the test and return to the Diagnostics menu. Upon exit of the Reader Test, an entry is written in the Admin log which shows the number of ballots read and the



number of matching ballot during the reader test.

- The **Reset** button will clear the counters and data on the screen, including the pattern ballot data and the scanned images. It will reset the 'Pattern' ballot to allow a new 'Pattern' to be inserted. This button allows the Technician to restart the Read test without exiting the screen. An entry is written in the Admin log before the data is cleared. The entry shows the number of ballots read and the number of matching ballot during the reader test. This will function will not clear or reset any values on the 'Options' (Opt) tab.

- The **Print** button will print the Reader Test report. The printed report has general information about the ballot scans performed by the Test Reader. The values printed are the current counts and options set when the report was printed. An Admin Log entry is written saying it is the Test Reader Print and includes the same information which was printed.

Reader Test

Current date:
Wed Aug 24, 2017 03:18:32

Machine Name: UN1000123
Protective Count: 126588

Total ballots read: 10
Number valid reads: 8
Number matchings: 8
Ballot length: 11 inch
Auto feed count: 6
Eject directions: Front

- The **Save** button will save the current Front, Back, Raw Front and Raw Back image files to the *TestImages* directory on the TM.

Each of the Test Reader tabs are explained in the following sections.

6.2.11.1 Marks Tab

The Marks tab is the default tab when the Test Reader screen first appears. The following is a breakdown of the screen:

Ballot Length

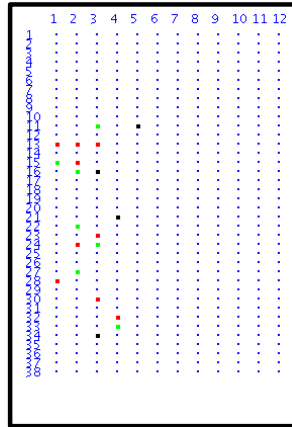
The Ballot length is set from a drop-down box on the Marks tab. This value is only used in the Test Reader and will be set back to the Election or default value upon exit from the Test Reader. When the length is changed, all data is cleared from the Test Reader screen tabs.

The screenshot shows a software interface with four tabs: 'Marks', 'Data', 'Opt', and 'F'. The 'Marks' tab is active. Below the tabs, there is a label 'Ballot Length' followed by a dropdown menu currently displaying the number '11'.

Graphics Updates

The graphic display on the scanned ballot data has been upgraded. The 'Pattern' ballot, which is the first one scanned, will display with all black marks. The 'Match' ballots, which are all ballots scanned after the 'Pattern' ballot, will display colored marks to designate the mark status (see the screen to the right). The colors are as follows:

- 1) Black marks –scanned ballot marks which match the Pattern ballot.
- 2) Green marks – scanned ballot marks which are found on this ballot but were not on the Pattern ballot.
- 3) Red Marks – scanned ballot marks which were on the Pattern ballot but are not found in this ballot.



Ballot Information

The panel on the left side of the screen contains ballot information and Test results. This includes whether the ballot was a match to in the initial ballot scanned, election information, ballot information and test information.

The screenshot shows a blue panel with the following text:

Pattern
Mis-Match
Election ID: 851
Precinct ID: 00300
Party ID: 0
Ballot ID: 1
Ballot Type: B
Language: EN
Page #: 1
Count: 2
Valid: 2
Match: 1

6.2.11.3 Data Screen Tab

The Data tab screen contains specific ballot information for both valid and invalid ballots.

Valid Ballot Display

The screen to the right shows the information provided on the Data tab for a ballot which was read successfully.

- **Error Message** box is the area at the top of the screen and will contain any read errors found.
- The **Slip ID** and message will specify if it is a two or three column ballot, one or two sided, and has left or right targets.
- **Ballot ID** is the internal translated ID.
- **Number of rows** of data read from the ballot.
- **First barcode** is the value scanned for the first (front) barcode.
- **Second barcode** is the value scanned for the second barcode, if the ballot contains one.
 - A full page ballot-the second barcode value would be the barcode on the back of the ballot.
 - A FVT ballot - the second barcode is the Retraction ID barcode. Not all FVT ballots contain a second barcode.
- **Positions** are the numbers read from the ballot. The Marks tab contains the graphic ballot marks, this field shows the related ballot position numbers.

The screenshot shows a 'Test Reader' interface with a tabbed menu at the top: Marks, Data (selected), Opt, Front, Back, RawF, RawB. Below the tabs is an 'Error Message' box containing 'No read error'. The main area is titled 'Ballot Data' and contains the following text: Slip ID: 49, Three column, Two sided, Right target, Ballot ID: 1003, Number rows: 38, First barcode: 85100300000100ENB0, Second barcode: 00010, and Positions: [13, 28, 51, 53, 62, 89, 92, 99, 106, 110, 135, 146, 163]. At the bottom are four yellow buttons: Back, Reset, Print, and Save.

The Test Reader provides results for both full page and BMD ballots. Below are examples of valid ballot reads for both the full page and BMD ballots.

Test Reader	
Marks	Data Opt Front Back RawF RawB
Error Message	
No read error	
Ballot Data	
Slip ID: 49 Three column, Two sided, Right target Ballot ID: 1003 Number rows: 38 First barcode: 85100300000100ENB0 Second barcode: 00010 Positions: [15, 21, 30, 54, 60, 65, 78, 87, 92, 100, 106, 110, 235, 249, 261, 268, 270, 277]	
<div>Back</div> <div>Reset</div> <div>Print</div> <div>Save</div>	

Full Page Valid Ballot Data

Test Reader	
Marks	Data Opt Front Back RawF RawB
Error Message	
No read error	
Ballot Data	
Slip ID: 51 BMD ballot Ballot ID: 1004 Number rows: 11 First barcode: 61700100000100END0 Second barcode: QWE12 Positions: [1, 13, 37, 39, 42, 58, 74, 87, 90, 92, 94]	
<div>Back</div> <div>Reset</div> <div>Print</div> <div>Save</div>	

BMD Valid Ballot Data

Invalid Ballot Display

When an invalid ballot is scanned, the Error Message box will provide a brief description of the error.

- If any other data can be read from the ballot, it will be displayed in the bottom panel on the 'Data' tab. In this example, it only has the ballot slip ID, all other values are blank.
- If a ballot validates as invalid, the raw ballot images will display on the 'Front' and 'Back' screen tabs.

Test Reader	
Marks	Data Opt Front Back RawF RawB
Error Message	
Invalid length	
Ballot Data	
Slip ID: 49 Three column, Two sided, Right target Ballot ID: Number rows: First barcode: Second barcode: Positions:	
<div>Back</div> <div>Reset</div> <div>Print</div> <div>Save</div>	

6.2.11.4 Opt Tab

The Option tab is a collection of ballot scanning settings that are made available on a single screen. The screen contains Option settings, Auto Feed settings and ballot ejection options.

A message is displayed at the top of the screen to warn the user not change the options while scanning ballots. If the user does make changes on this screen while scanning a ballot, it won't have any bad effect but data might not display correctly for the ballot being scanned.

The screenshot shows the 'Test Reader' application with the 'Opt' tab selected. At the top, there are tabs for 'Marks', 'Data', 'Opt', 'Front', 'Back', 'RawF', and 'RawB'. A red warning message reads: 'Make sure there are no ballots in the scanner while changing these settings'. The interface is divided into three main sections: 'Options', 'Auto Feed', and 'Eject direction'. The 'Options' section contains four checkboxes: 'Display image' (checked), 'Perform matching' (checked), 'Show Filtered' (checked), and 'RCV ballot' (unchecked). The 'Auto Feed' section has a 'Disabled' checkbox (checked) and three numeric input fields with values 10, 20, and 100. The 'Eject direction' section has 'Front' (checked) and 'Back' (unchecked) checkboxes. At the bottom, there are four yellow buttons: 'Back', 'Reset', 'Print', and 'Save'. The 'Auto Count' is displayed as 0, and 'Slow Mode' is an unchecked checkbox.

Options

The Options panel on the Options tab allows the user to set parameters for the Reader Test and the way the results are display on screen.

This is a close-up of the 'Options' panel from the previous screenshot. It shows a list of four settings, each with a checkbox: 'Display image' (checked), 'Perform matching' (checked), 'Show Filtered' (checked), and 'RCV ballot' (unchecked). The panel has a blue background and a black border.

Display Image

The Display image option allows the scanned ballot images to appear on the four image tabs. If the checkbox is selected, the scanned ballot images are displayed on the four image tabs (Front, Back, RawF and RawB). When deselected those four tabs have blank panels with the message 'Image display turned off'.

When running Auto Feed, the Display image checkbox will be deselected and disabled. When Auto Feed mode is turned off (by selecting the Disable checkbox), the Display image checkbox will be selected again and enabled.

Perform Matching

The Perform matching checkbox allows the user to turn on/off the ballot matching function when ballots are scanned. By default, this checkbox is selected. When this checkbox is selected then ballot matching is performed.

When this checkbox is deselected, ballot matching is not performed. When matching is turned off, the Match field on the Marks tab is cleared to zero and disabled. Only the current scanned ballot marks are shown in the graph. The marks are always black, no green or red comparison marks are displayed.

Show Filtered

The Show filtered checkbox allows the user to turn on/off filtering of marks. By default, this checkbox is selected. When this checkbox is selected and the inserted ballot's election ID matches the current loaded election files, the marks read from the ballot are matched against its ballotstyle and only valid marks are displayed.

When this checkbox is deselected and the above mentioned ballot is inserted, all marks read from the ballot are display, there is no filtering of marks for the ballotstyle.

RCV Ballot

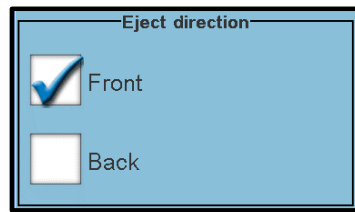
The RCV ballot checkbox allows the user to view all or filtered data columns. By default, this checkbox is deselected. If the checkbox is deselected, only the columns of data which are valid for a two column, non RCV ballot are displayed.

When this checkbox is selected, a user can view all columns of data for a two column ballot, which is usually for an RCV ballot.

Eject Direction

The Eject Direction panel gives the user the option to eject the inserted ballot to the front or to the back of the scanner. The default position is to eject to the front.

When a voting session is in the Open state, the 'Eject Direction' panel will be disabled and the 'Front' eject direction is used.



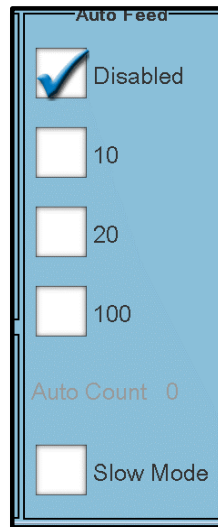
Auto Feed

The Auto Feed option allows ballots to run in Auto Feed mode. These are the setting in the Auto Feed panel:

- 1) Select the Disable checkbox to turn off Auto Feed mode.
- 2) Auto Feed allows setting of the number of times a ballot will be auto fed. Three default values are used: 10, 20 and 100 scans.
- 3) The Auto Count is incremented as each of the ballot is scanned after the auto feed is setup, this allows the user to see the progress.
- 4) The Slow Mode checkbox is the same as in the **Diagnostics->Reader Options** Auto Feed function. By selecting this box, when the ballot is fed and the data is processed, it will wait 30 seconds before ejecting the ballot and starting over again.

When running Auto Feed mode, the 'Display image' checkbox will automatically be deselected and disabled. This is done so that it doesn't have to process the display of the front and back images for the quickly scanned ballots. When Auto Feed mode is turned off (by selecting the Disable checkbox), the Display image checkbox will be selected again and enabled.

When a voting session is in the Open state, the Auto Feed panel will be disabled.

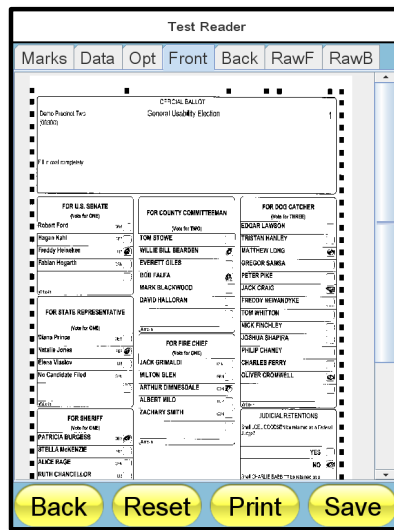


The screenshot shows a blue-tinted panel titled "Auto Feed". It contains a "Disabled" checkbox with a blue checkmark, three numeric input fields with values 10, 20, and 100, an "Auto Count" label with the value 0, and a "Slow Mode" checkbox.

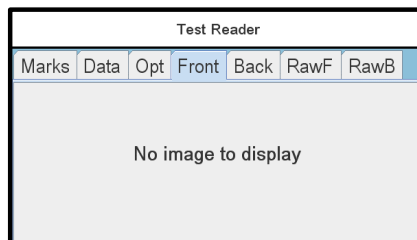
6.2.11.5 Front and Back Screen Tabs

The Front tab shows the scanned image for the front of the ballot, the Back tab shows the scanned image for the back of the ballot. If either of the image files is not found a **No image found** message will display on the tab's panel.

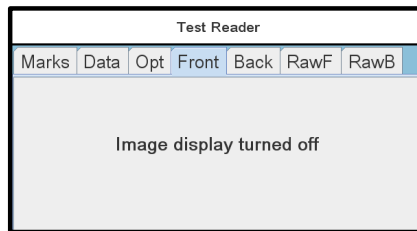
The **Display Image** option on the **Opt** (Options) tab must be selected to see the ballot images. By default this option is selected.



If either of the image files is not found a 'No image to display' message will display on the tab's panel.



If the **Display Image** option on the **Opt** tab is not selected, the 'Image display turned off' message will display on the tab's panel.



If the Auto Feed mode is turned on, the Test Reader screen will only show the Marks tab and no images tabs.

6.2.11.6 RawF' and 'RawB' Screen Tabs

The RawF tab will display the scanned raw front side of the ballot. The 'RawB' tab will display the scanned raw back side of the ballot. The raw images are the bmp files originally scanned by the PDI scanner before it has performed any processing on the image. The raw images are only saved for ballots scanned during the Diagnostics Test Reader.

If either of the image files are not found, a 'No image to display' message appears on the tab's panel, similar to the screens shown in the section above.

If the **Display Image** option on the **Opt** tab is not selected, the 'Image display turned off' message will display on the tab's panel, similar to the screens shown in the section above.

If the Auto Feed (shoeshine) mode is turned on, the Test Reader screen will only show the Marks tab and no images tabs.

6.2.11.7 Read Test Process

Follow the steps below to perform the Read Test:

1. Insert a ballot to set the pattern. The ballot selections are displayed onscreen and the ballot is ejected back out to the user. The onscreen pattern should match what is on the ballot that was inserted.



IMPORTANT

If the onscreen pattern does not match the pattern of the ballot inserted, there may be a problem with the reader.

2. The user may insert any other ballots, or re-insert the same ballot many times. All ballots inserted after the first that match that pattern will be indicated as "Pattern Matched". The number of ballots read and matched will increment.
3. If a differently marked ballot is inserted, "Pattern Miss-Match" is displayed. The number of ballots read is incremented but the number matched will not be increment.

Tip: Wait for the Reader Indicator LED light to turn green before inserting the next ballot.



IMPORTANT

If the ballot should match the set pattern, but the system indicates a "Mis-Match", there may be a problem with the Reader.

NOTE: If the ballot cannot be read, and “Invalid Read” (outlined in red) is displayed, the counts (ballots read or ballots matched) will not be incremented.

The screenshot shows the 'Test Reader' interface. At the top, there are tabs: Marks, Data, Opt, Front, Back, RawF, and RawB. Below the tabs, there is a 'Ballot Length' dropdown menu set to '14'. A red box highlights the 'Invalid Read' message. Below this message, there are fields for Election ID, Precinct ID, Party ID, Ballot ID, Ballot Type, Language, and Page #. At the bottom, there are four buttons: Back, Reset, Print, and Save. The 'Count' is 1, 'Valid' is 0, and 'Match' is 0.

4. To end the test and return to the Diagnostics menu, press the **Back** button.

Upon exit of the Reader Test, an entry is written in the Admin log which shows the number of ballots read and the number of matching ballot during the reader test.

6.2.12 Calibrate Reader (OVO only)

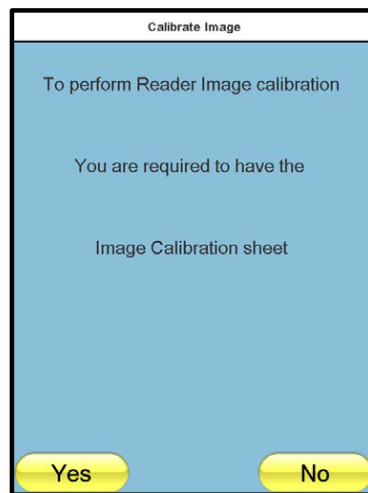
The Calibrate Reader function will allow calibration of the OVO scanner. The Calibrate Reader screen contains two function buttons, the **Calibrate Image** and **Calibrate Speed** buttons. The Back button returns the user to the Diagnostics screen.

The screenshot shows the 'Calibrate Reader' interface. At the top, there are two buttons: 'Calibrate Image' and 'Calibrate Speed'. At the bottom, there is a 'Back' button.

When either of the calibrate buttons is selected, the handling is similar. The first screen informs the technician of the specific calibration sheet which is required to complete this test. The technician should not continue with this test until they have the required calibration sheet. These calibration sheets are supplied by Unisyn.

If they select **No**, the function will exit back to the Calibrate Reader screen.

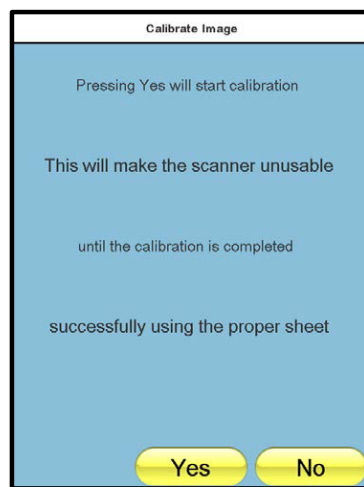
If they select **Yes**, a second confirmation screen appears.



The second screen is confirmation that the technician is ready to start the calibration process. It also provides the technician with a warning regarding the status of the scanner while the calibrating.

The **Yes** button has moved to the right to ensure the user is aware of the message contained on the screen.

NOTE: Once the test has started, the scanner cannot be used. Interrupting or not completing the test correctly renders the scanner unusable.



After the scanner has read the sheet, it will eject it back to the front of the scanner.

If the calibration is successful, a message will display on the screen and it will be logged in the Admin Log. Also, the date and time of the successful calibration will be saved to a file and will stay on the hard drive between elections.

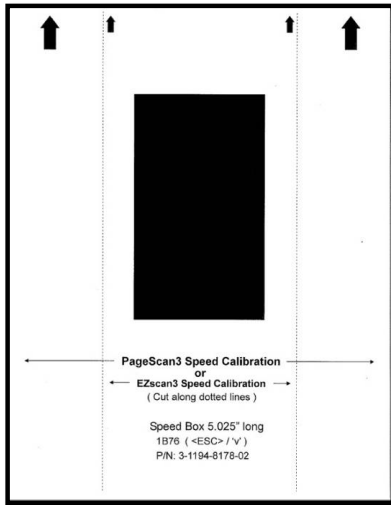
If the calibration is unsuccessful, an error message will display on the screen and it will be logged in the Admin Log. Also, the date and time value for the specified calibration function is cleared from the file so the application knows the calibration must be performed.

6.2.12.1 Calibration Paper

The Reader Calibration sheet for speed is provided by Unisyn or the vendor.

The Image Calibration sheet should be an unmarked sheet of white copier paper (8.5" x 11", 20 lb. / 75 g/m2 copier paper, with brightness of 92 U.S. / 104+ Euro).

The Speed Calibration sheet is shown below. Insert the speed calibration sheet in the reader so that arrows feed into the reader first. Ensure that both sheet feed straight into the reader.



Reader Calibration Sheet – Speed



Reader Calibration Sheet - Image

6.2.13 Accuracy Test (OVO)

The Accuracy test is NOT available when voting is open.

The **Accuracy Test** verifies the OVO hardware's ability to read, scan and tabulate votes on ballots. Use a specially marked ballot, or several specially marked ballots, and insert them repeatedly with the goal of matching the expected tally results (e.g., fifty counts for each odd-numbered ballot position after fifty ballots with all odd positions marked were inserted).

The vendor provides an Accuracy Test ballot with positions pre-marked with vote selections that leave a pattern of unmarked positions. This is only one example of an accuracy ballot; any marked ballot may be used. The goal is to match the Accuracy Test tally with the expected results.

No votes, tallies or counts from the Accuracy Test are retained on the system.

When the Accuracy test begins, a Zero Count report automatically prints, showing zeros for every position on the ballot.

Accuracy Test	
Report Printed: Fri Oct 2, 2009 09:30:53 AM Machine Name: UNI240021	
Number Ballot Cast	8
Position Number	
1	4 50.00%
2	4 50.00%
3	4 50.00%
4	4 50.00%

At the prompt (displayed to the right), begin inserting the pre-marked Accuracy ballot. Insert the number of ballots (or repeat insertions) needed for the expected results. The inserted ballots will be eject to the front after they are scanned. The test has no pre-set limits, as many or as few test ballots can be inserted.

Cancel exits the test unfinished and returns the user to the Diagnostic Menu.

Tip: Wait for the Reader's LED light to turn green before inserting the next ballot.

Accuracy Test

Please insert Accuracy Test ballot

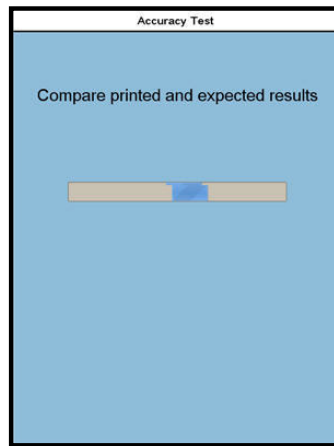
Number of valid ballots read

0

Insert card

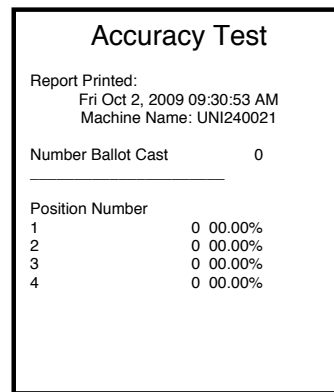
CancelEnd Test

Touch the **End Test** button at the bottom of the screen to end the test and wait as the results are tallied and a second Accuracy Test report is printed.



The tallied results print in the same format as the Zero Count report. The number of ballots read appears at the top of the report; and the tally for each position appears on the report.

End the test and return to the Diagnostics Menu by touching the **Back** button.

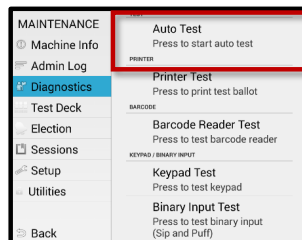


6.2.14 Auto Test (FVT Only)

The Auto Test functions will lead the technician through all of the Diagnostic tests on the FVT.

To begin the Auto Test:

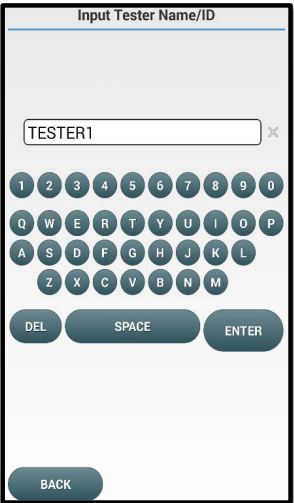
- Touch the Auto Test button.



- Enter the user name on the Input Tester Name/ID screen and press the **ENTER** button.

The Auto Test screen is displayed.

NOTE: To cancel the test, press the **BACK** button. The test can be cancelled at any time during the Auto Testing process.



The 'Input Tester Name/ID' screen features a text input field at the top containing 'TESTER1' with a clear 'X' button to its right. Below the input field is a numeric keypad (0-9) and an alphanumeric keypad (QWERTYUIOP, ASDFGHJKL, ZXCVBNM). At the bottom of the keypad area are three buttons: 'DEL', 'SPACE', and 'ENTER'. A 'BACK' button is located at the very bottom of the screen.

The Auto Test Screen Configuration

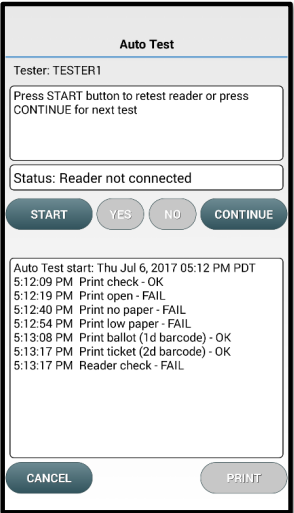
The instructions for performing each test appear in the top window.

The window beneath the instruction window will provide the status or results of some of the tests.

As the tests are completed, they are tracked in the window at the bottom of the screen.

The window displays:

- The time the test was performed
- The type of test performed
- The results of the test performed



The 'Auto Test' screen displays the tester's name 'Tester: TESTER1' at the top. Below this is an instruction box: 'Press START button to retest reader or press CONTINUE for next test'. A status box below the instruction shows 'Status: Reader not connected'. There are four buttons in a row: 'START', 'YES', 'NO', and 'CONTINUE'. At the bottom, there is a large text area showing a log of test results: 'Auto Test start: Thu Jul 6, 2017 05:12 PM PDT', '5:12:09 PM Print check - OK', '5:12:19 PM Print open - FAIL', '5:12:40 PM Print no paper - FAIL', '5:12:54 PM Print low paper - FAIL', '5:13:08 PM Print ballot (1d barcode) - OK', '5:13:17 PM Print ticket (2d barcode) - OK', and '5:13:17 PM Reader check - FAIL'. At the bottom of the screen are 'CANCEL' and 'PRINT' buttons.

- To begin the first test of the Auto Test series, press the **START** button.

The user will be guided through each of the test with a series of prompts, beginning with the Printer Test. Follow the step by step test instructions.

NOTE: Optional components, such as the Sip and Puff device, may not be included in the FVT's configuration. When their diagnostic test is presented press the **CONTINUE** button to skip the test.

Auto Test

Tester: TESTER1

Press START button to start auto test, press BACK button at any time to cancel Auto test

START YES NO CONTINUE

CANCEL PRINT

The Printer Test is the first test to be performed. This test is much more detailed than the Diagnostic's Printer Test button which simply prints out a BMD ballot and Test Barcode. The Auto Test's Printer Test will prompt the user to perform various tasks with the printer in order to verify the printer's ability to:

- Communicate with the Tablet
- Detect if the printer is open
- Determine if the printer is low on paper/out of paper
- Print an Auto Test report

The test results will appear in the bottom window after each step is completed.

Check the "PRINT AUTOTEST" report for print quality and clarity. Make sure the small fonts can be easily read.

When the Print Test is finished, the instruction window will prompt the user to press the **START** button to move on to the next test.

Auto Test

Tester: LEIGH

Remove paper, close printer lid and press the START button

START YES NO CONTINUE

Auto Test start: Fri Aug 4, 2017 09:02 AM PDT
9:02:42 AM Print check - OK
9:02:58 AM Print open - OK

CANCEL PRINT

Barcode Reader Test is the next test in the Auto Test function. A Test Barcode will print when the **START** button is pushed. Pass the barcode ticket under the scanner. It will emit a beep when the ticket is successfully read.

The Status window will state whether the test was successful and the test results will appear in the Test Tracking window.

Press the **CONTINUE** button to go to the next test. The Media test will test the TM and micro SD card installed in the FVT. To begin the test, press the **START** button.

The Tracking window will display the results of the test.

When the test is complete, the **PRINT** button is engaged and the user is directed to print the Auto Test Result report.

To print the report, press the **PRINT** button.

When the report has printed, press the **CANCEL** button to return to the Maintenance screen.

Auto Test

Tester: LEIGH

Scan 2D barcode on Test Ticket and check result or press the CONTINUE button for the next test

STARTYESNOCONTINUE

Auto Test start: Fri Aug 4, 2017 09:02 AM PDT
9:02:42 AM Print check - OK
9:02:58 AM Print open - OK
9:03:22 AM Print no paper - OK
9:03:24 AM Print low paper - OK
9:04:50 AM Print ballot (1d barcode) - OK
9:05:08 AM Print ticket (2d barcode) - OK
9:05:08 AM Reader check - OK

CANCELPRINT

Auto Test

Tester: TESTER1

Auto test complete, press PRINT button to print Auto test result

STARTYESNOCONTINUE

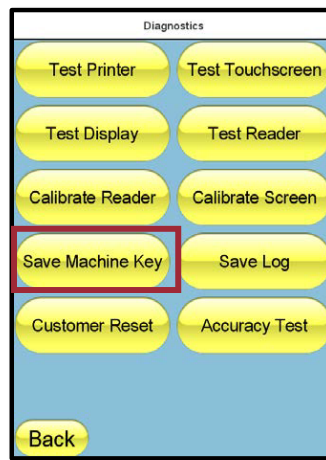
5:21:52 PM Print open - FAIL
5:21:56 PM Print no paper - FAIL
5:21:59 PM Print low paper - FAIL
5:22:09 PM Print ballot (1d barcode) - OK
5:22:16 PM Print ticket (2d barcode) - OK
5:22:16 PM Reader check - OK
5:22:19 PM Barcode reader data - SKIPPED
5:22:28 PM Headphone sound - OK
5:22:31 PM Keypad - SKIPPED
5:22:35 PM SIP/PUFF - FAIL
5:23:58 PM Battery - SKIPPED
5:24:00 PM Media Read/Write - FAIL
5:24:02 PM Auto test complete

CANCELPRINT

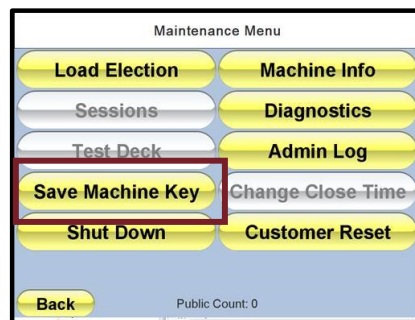
6.2.15 Save Machine Key

The **Save Machine Key** function will write the machine's public key file to the TM in the MachineKeys folder. The file is named with the machine type (OVO, OVI-VC, and FVT) and the machine's name. This file will be used by the Election Manager software to allow this machine to load elections.

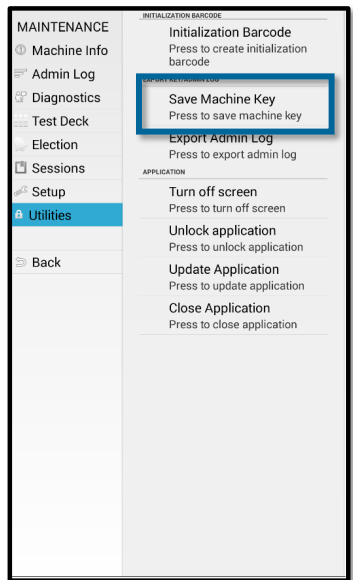
On the OVO, the **Save Machine Key** function is on the **Maintenance->Diagnostics** menu.



On the OVI-VC, the same function is on the **Maintenance** menu.



On the FVT, insert a TM in the USB hub, go to the **Utilities** menu and press **Save Machine Key**.



Remove the TM from the machine. Take it to the Election Manager and import all machine public keys for use with elections.



WARNING

If a machine’s public key is not imported to the Election Manager and assigned to an election, that machine will not be able to load the election!

6.2.16 Manufacturing Reset (FVT only)

The **Manufacturing Reset** function on the FVT will clear both the machine keystore and customer public key. This should only be done in extreme cases. The FVT will not be useable until a new machine keystore and customer public key are loaded. The FVT machine keys are normally installed during manufacturing of the FVT unit.



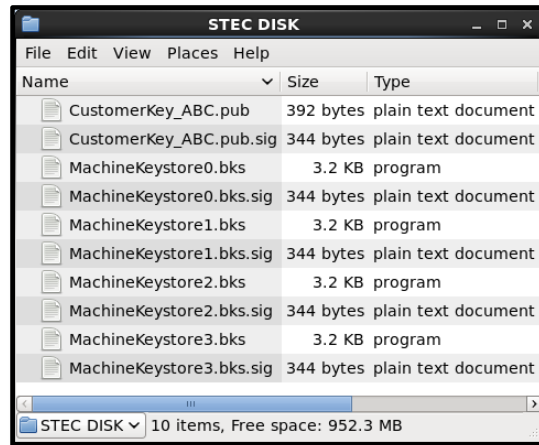
WARNING

There is almost never a case where it is necessary to remove the machine key and customer key from a machine. Please contact the Election Headquarters to verify before performing this function.

6.2.16.1 TM Key Setup

To load new keys on the system, verify the following file are on the TM prior to performing the Manufacturing Reset function:

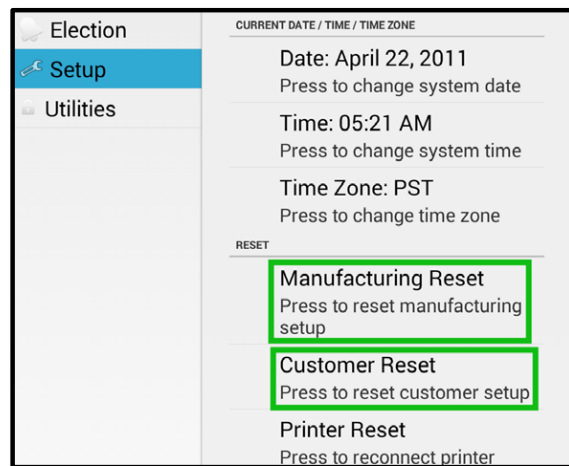
- One or more MachineKeystoreX.bks files with corresponding signature files
- One CustomerKeystore_xxx.pub file with its corresponding signature file.



Insert the TM in the USB hub in the machine.

6.2.16.2 Manufacturing Reset Function

Log in as Supervisor to enable the Manufacturing Reset function. Select the Manufacturing Reset function to clear the machine key and customer key.



Once cleared, the Manufacturing setup screen will load the new machine keys off of the TM.

If there is no TM installed, an error message will display. Insert the TM containing the files listed above and the Machine key file will automatically load.

Manufacturing Setup

Machine Name: ...

Machine IP: 192.168.0.1

Machine Key: Loaded



WARNING

Machine keystores must not be reused! This file uniquely identifies one voting machine. Ensure that each machine keystore is only ever loaded on one voting machine.

The next screen will allow the customer keystore to be loaded. Click the **Customer Acceptance** function, the customer key will automatically load from the TM.

Acceptance

Diagnostics

CUSTOMER

Customer Acceptance
Press to start customer setup

RESET

Manufacturing Reset
Press to reset manufacturing setup

Customer Setup

Time Zone: PST

Customer Key: Loaded

6.2.17 Customer Reset

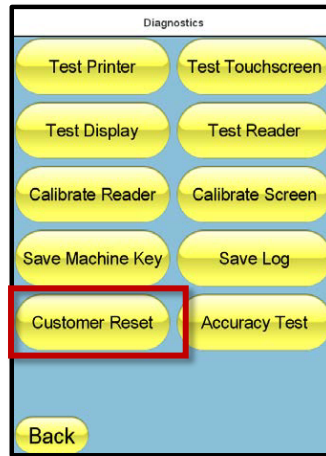
The **Customer Reset** function is used to remove the customer key from the machine. A screen will display to confirm to delete the customer key. Then it will ask again to confirm the deletion of the key, before the key is removed. When the customer key is removed, it will also delete vote, log and election files. The Customer Reset button is disabled when voting is open.



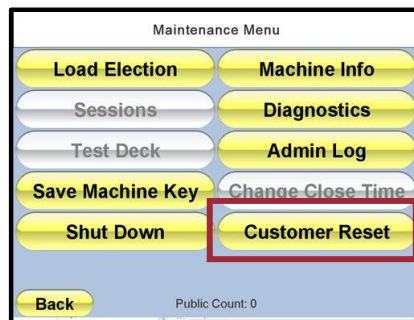
WARNING

There is almost never a case where it is necessary to remove the customer key from a machine. Please contact the Election Headquarters to verify before performing this function.

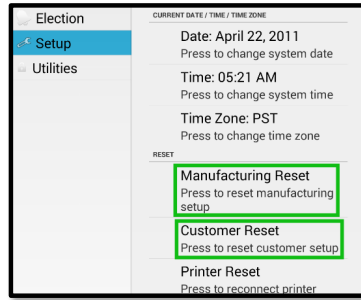
On the OVO, the **Customer Reset** function is on the **Maintenance->Diagnostics** menu.



On the OVI-VC the same function is on the **Maintenance** menu.



On the FVT, you must be logged in as a Supervisor, go to the Setup menu and press **Customer Reset**.



6.3 Test Deck (OVI-VC/FVT)

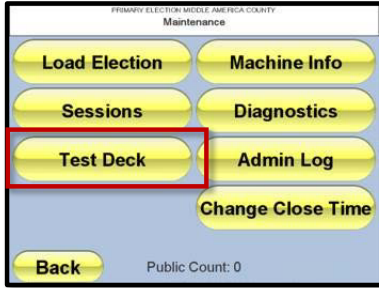
The Test Deck button prints a deck of pre-marked BMD ballots, with a known outcome, for use in Logic and Accuracy testing.

When casting the Test Deck ballots in the OVO system, the BMD Test Deck ballot will be handled according to the Election's configuration. For example, if the Election is configured with Full Review enabled, the Test Deck Ballot selections will be displayed on the OVO screen. If the Election is configured for Short Review mode only, the Test Deck Ballots will automatically be cast. In the case of a primary, a complete test deck is created for each political party supported by that precinct/ballotstyle.

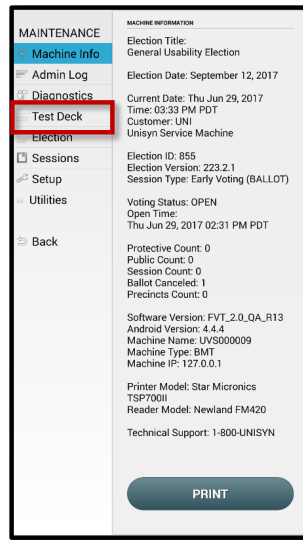
The ballots, when tabulated will have the results of the first candidate in a contest having one voter, the second two votes, etc. Straight ticket contests are not populated. The number of ballots in the deck is determined by the formula " $N \text{ factorial} + 1$ " where N is defined as the maximum number of candidates in a single contests as derived by number of candidates divided by vote for value. I.e. Vote for 1 with 12 candidates has 12 candidates for this formulate. Vote for 2 with 12 only has 6. The last ballot produced is always completely blank.

NOTE: A delay between printing ballots can be configured for additional diagnostic testing if necessary.

To create a Test Deck, access the Maintenance Menu screen and select the Test Deck button. This option is available only when voting is closed and it is NOT an Election Day.

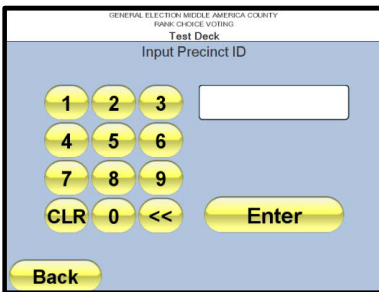


OVI Maintenance Screen

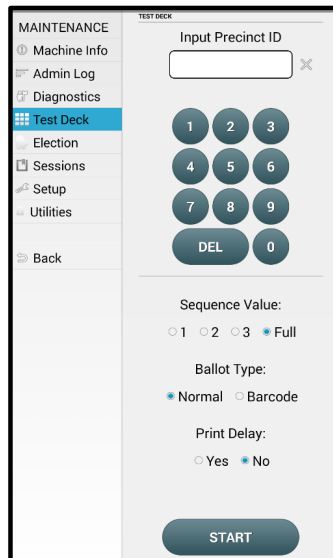


FVT Maintenance Screen

Enter the Precinct ID on the next screen. On the FVT's Test Deck screen the user can select the Sequence Value for each candidate, the ballot type (normal vs barcode), and if there is a delay in printing the test deck.

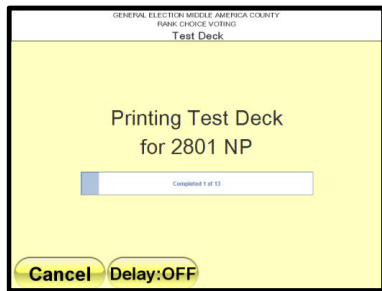


OVI Test Deck Screen

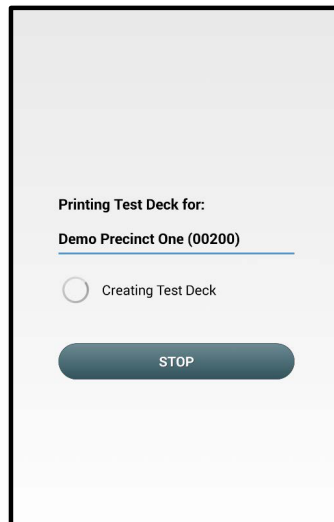


FVT Test Deck Screen

A tracking screen is displayed while the Test Deck is printing. Select **Cancel** on the OVI-VC or **STOP** on the FVT to end the Test Deck Session.



OVI Printing Test Deck Screen



FVT Printing Test Deck Screen

6.4 Run a Logic Test on the Election

A Logic Test uses real election data to test the system. This test allows the user to test the election data, the OVO functionality, the audio ballots and the system's ability to tabulate ballots correctly for this particular election.

A Logic Test differs from other voting modes in the following ways:

- All reports are marked "Logic Test" to distinguish the results from actual precinct results.
- Vote files from a Logic Test are automatically cleared when the OVO system is restarted. For normal election ballot processing, the vote files would be retained on the system. For example, the user can restart the system after a Logic Test and immediately begin Early Voting without "cleaning" the TM.
- If there is a power failure or a forced shut down, the OVO will not "recover" Logic Test voting data; the vote file is cleared and reset. The user would have to begin the Logic Test again. In the other voting modes, the OVO always recovers voting data to the last known state.

NOTE: The Logic Test is NOT available for a Training Election, nor is it available from the **Maintenance** Menu when accessed from the Election Application's Admin Menu. It is only available from Maintenance startup menu.

The Logic Test (LAT) is a flag that is set in the vote files. A session must be selected for the LAT, the session name is store just like all other sessions in the vote files. This means that there is not just a LAT session, it is either Early Voting – LAT, Absentee – LAT, Provisional – LAT, recount-LAT or Election Day – LAT. The system will not allow LAT to be run for Training or Override sessions.

6.4.1 Logic Test Session Setup

The following are the steps to setup a Logic Test (LAT) session:

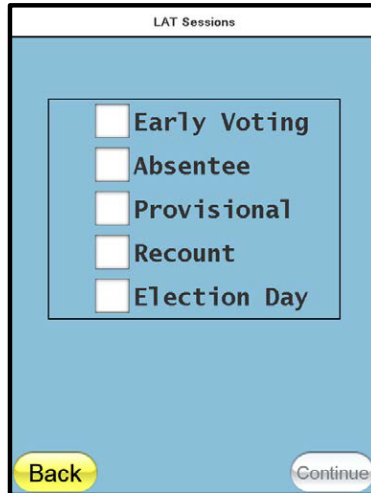
- 1) Vote files are closed and a clean TM has been inserted into the OVO
- 2) Select the **Logic Test** option from the **Sessions** menu on the Maintenance (non-election day) or Admin (Election Day) menus and press the **Continue** button.

The 'LAT Sessions' screen (shown to the right) is displayed.

- 3) Select the LAT session, this will enable the Continue button, press the **Continue** button.

The LAT Session types included are:

- Early Voting
- Absentee
- Provisional
- Recount
- Election Day



- 4) If setting up the LAT session from the Admin menu, the Maintenance Password entry is required.
- 5) Setup the **Ballot Type** and **User Validation** options, see section 11. If this is a Recount-LAT, refer to the session setup in section 11.3.3.
- 6) The Election Password entry is required.
- 7) The session is started.

6.4.2 Logic Test Ballots

The Logic Test verifies reading and tabulation of each candidate position for each ballot style in the actual election. To run the test, mark ballots that represents each unique ballot style (voting precincts and (for primaries) political party). Mark vote selections in the following predetermined pattern:

- First ballot: Mark the *first candidate* in each contest, *regardless of rotation*. For example, if John Smith is the first candidate on the first ballot style in which the contest appears (the base precinct for that contest), then John Smith will be voted first in each of the other ballot styles where the contest appears.
- Next two ballots (2-3): Mark the next two ballots with a vote for the *second candidate* in each contest. If Mary Brown is the second candidate in the base ballot style for that contest, then select Mary Brown for two ballots in each ballot style containing the contest.
- Next three ballots (4-6): Mark the next three ballots with a vote for the third candidate, if any, in each contest.
- Treat write-in positions as any other candidate position.
- For a “vote for two” contest, the first two candidates should each get one vote; the next two candidates should each get two votes and the third two candidate positions should each get three votes, etc.
- Once candidate positions are marked in a given contest, including any write-in positions, on the appropriate number of ballots, do not vote the contests on the remaining ballots. Leave them under-voted.
- Continue the pattern until the **contest with the most ballot positions** has a unique vote result for each candidate position, in ascending order (for example, a contest with 5 candidates has 1 vote for the first candidate, 2 for the second, 3 for the third, 4 for the fourth, and 5 for the fifth for a total of 15 voted ballots.)
- Once all the valid ballots have been marked for a given ballot style, add two more ballots for that style. One ballot should be over-voted in every contest. The second ballot should be totally blank.

6.4.3 Testing the OVI-VC Interface

Successful printing of a test ballot demonstrates that the BMD ballot is printed properly and is able to receive a marked vote from the system. In addition, a Logic Test session can be started on the OVI-VC system to test all functionality with the real election data installed.

- Start up the OVI-VC prior to Election Day. At the Maintenance Password entry prompt, select Logic Test.
- Wait for the system to open and enter the Supervisor password.
- When prompted, enter a precinct ID. This starts the voting interface for that precinct’s ballot style.
- The user makes the selections to comply with the Logic Test Plan using the visual, audio and tactile interfaces to navigate, select, review and correct the ballot.
- The ballot is marked as a Logic Test when printed.

This portion of the test verifies accurate marking of the ballot as requested by the voter using the various OVI-VC interfaces. The technician ensures:

- The vote response fields onscreen align with candidate names or choices.

- All contests and candidates are presented visually and aurally.
- Navigation works as specified with all interfaces.
- Onscreen selections results appear correctly marked on the printed ballot.
- Audio / keypad / Binary Input (sip and puff) selections appear correctly marked on the printed ballot.

The OVI-VC does not retain any voting data, so retention of Logic Test data is not an issue. The Administrative Log for the OVI-VC will show that a Logic Test Session took place.

6.4.4 Testing the OVO

When the Logic Test ballots have been marked, they are inserted and tallied by the OVO. The real election data, same as used by the OVI-VC to print ballots, is installed on the system.

- Start up the OVO prior to Election Day. At the Maintenance Password entry prompt, select Logic Test.
- Wait for the system to open and enter the Supervisor password.
- When prompted, insert ballot header cards as instructed in the *Election Day Poll Worker's Guide*. A Zero Count report prints for each ballot. Retain these reports for the test.
-

Insert the Logic Test deck one at a time. Make sure all voting functions are operating as expected, as selected in the Election Manager options. These include settings such as:

- Validation of undervotes on all, selected, or no contests
- Full or Short Ballot Review
- Automatic printing of Ballot Alert report
- Automatic printing of Voter Receipt

When the entire deck has been read, select **Close Voting**. An Election Summary report (tally tape) prints for each precinct that was tested.

Shut down the OVO.

Unlock the OVO front access door and remove the Transport Media. (Do NOT restart the OVO with the Logic Test Transport Media still inserted, because all voting data will be cleared and reset for the next session)

6.5 UPS Test

The UPS automatically test the battery's condition and will display the Bad Battery/Overload/Fault icon and sound the alarm. This alarm will be repeated until the batteries pass a self-test. If the battery is weak, bad or disconnected, the Bad Battery/Overload/Fault icon will display and the alarm will beep three times every thirty seconds until the battery is reconnected or replaced.

To test the UPS battery, turn the UPS unit on by pressing the **On/Off** button on the front of the unit. The unit's alarm will sound one beep and the UPS performs a five second internal self-test. Once the UPS has passed its internal self-test, the UPS will provide an output and the load (OVD attached to the unit) will be powered on. Press the **On/Off** button to turn the UPS off.

When the UPS is operating on its batteries, the Unit Status Indicator will show the battery is on and the audible alarm should sound once every five seconds. The alarm will stop once the UPS returns to the AC normal mode or the Alarm Silence Button is pushed.

The UPS will sound two beeps every five seconds when the battery reserve runs low. This condition will continue until AC return or the UPS shuts down from battery exhaustion.

It is recommended that the UPS be allowed to charge overnight before performing a battery test to confirm a Weak/Bad Battery condition.

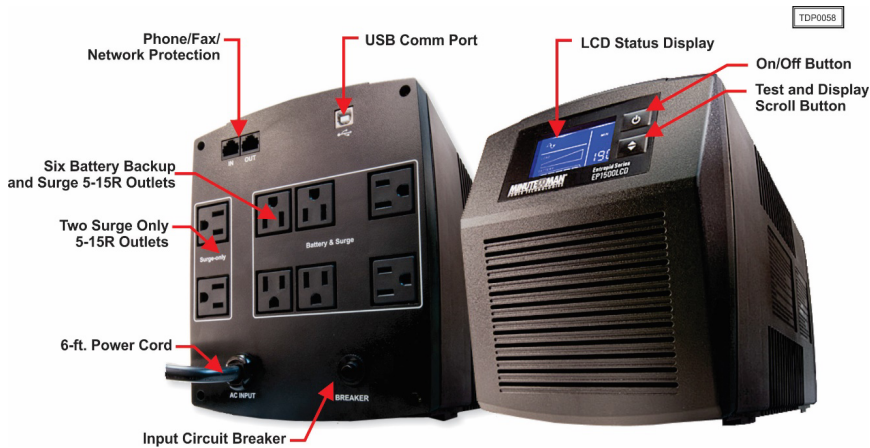


Figure 6-5. UPS Devices

6.6 Test Ballots – Election Day at Precincts

There are special Test Ballots, which can be used within a precinct on Election Day. The purpose of the Test Ballot is to check the Ballot Reader and the validation review process of the OVO system on an informal basis.

The barcode on Test Ballots contains a special Ballot Code ("T"), which designates them as Test Ballots. If a Test Ballot is inserted into the Ballot Reader of the OVO system while it is open for voting, the Full Review validation process is used even if the system is set to use the Short Review validation. The ballot selections will be displayed on the screen, the Ballot Alert report will be printed if there are errors, and the ballot will be held in the reader until the **Reject** button is pressed. The **Accept** button will always be disabled on this screen for the Test ballot type.

Section Seven

Preparing Poll Location Equipment

About 3 months before the election is when specially trained maintenance technicians prepare and configure the system for the election. The table below lists the activities that take place prior to Election Day.

Table 7-1. Pre-Election Activities Performed at the Polls

Days Prior	Activity	Personnel
120-90	Proof printed ballot pages for every precinct / language	Supervisor of Elections
90-80	Proof Audio at Election Manager	Audio Coordinator
90	Produce printed ballots (all types)	Supervisor of Elections
90	Produce Election TM	Supervisor of Elections
Any - 90	Upgrade OVO / OVI-VC software if necessary	Maintenance technicians
Any - 90	Readiness Testing, Diagnostics, Accuracy Testing	Maintenance technicians
90-60	Set up an Election Loading Network in warehouse	Maintenance technicians
90-60	Load Election onto OVO, FVT and OVI-VC systems	Maintenance technicians
60-50	Run a Logic Test through system	Maintenance technicians
40-30	Run Zero Counts	Maintenance technicians
30-20	Account for and tag all components for each poll location	Maintenance technicians
20-10	Package and coordinate delivery of components	Maintenance technicians

The days prior to the election provided above are generic guidelines. Each jurisdiction will establish their own guidelines depending upon their size and number of maintenance technicians.

Plan to have elections installed and testing completed on all OVO systems two weeks before Election Day.

Depending on the size of the jurisdiction, 4 to 5 weeks in advance of the election, assemble the poll location voting equipment and materials and mark them for individual precincts.

The following supplies are necessary to set up a poll location:

- Election Server(s) (Optional – not required if TM Election Load is the only method to be used)
- OVO and FVT or OVI-VC systems
- Network Switch or hub(s) and CAT-5E LAN cables (Required only if ES is to be used)

- Cleared Transport Media (USB) devices for each OVD system
- A maintenance password for the previously installed Election or Training Election
- Ballots for each precinct
- Standard and wheelchair-accessible voting booths
- Ballot boxes and precinct kit supplies
- Election TM for the new election
- Election and Maintenance passwords for the new election

7.1 Tag Equipment for Each Poll Location

Make sure to tag the equipment for each poll location if it is not already tagged. Each poll location requires at least one OVO unit, one FVT **or** OVI-VC, one wheelchair-accessible voting booth and a specified number of standard voting booths. Provide labels or tags as follows:

- All voting booths: label with the assigned poll location
- OVO/ballot box: label with the assigned poll location
- Transport Media: poll location
- Ballot package: Precinct ID/name and poll location.

7.2 Prepare a Technician's List for Each Poll Location

A Technician's List itemizes the equipment, security seal numbers and system counts (protective and public) to track for each precinct. The Inspector at the poll location uses the Technician's List to make sure the expected equipment has arrived, and that there has been no tampering. The list is prepared in the Election Warehouse, and can be prepared manually or via a computer software program such as Excel. A suggested format is provided below (the following list is an example of a precinct setup with an OVO/OVI configuration).

NOTE: Election Headquarters can provide Precinct IDs for the precincts voting at each location.

Table 7.2 - Technician's List for Each Poll Location

Poll Location	Precincts voting at this poll	4-digit Precinct ID				
Happy Valley Elementary	229900	9788				
	229910	9789				
	Security # or Count	Prep. Date	Diagnostics Passed?	Technician Signature	Rec'd Date	Inspector Signature
OVO	1 (#123998)	10/6/12	✓	KJ		
TM	1 (#123998)	10/6/12		KJ		
OVO Case Seal #1	#100678	10/8/12		KJ		
OVO Case Seal #2	#100679	10/8/12		KJ		
OVO Front Access Tag	#67949	10/8/12		KJ		
OVO Ballot Box Tag	#100773	10/8/12		KJ		
OVI Unit	#100779	10/8/12	✓	KJ		
OVI Seal	#100771	10/8/12		KJ		
OVI Tough Port Seal	#4000298	10/8/12		KJ		
OVI DVI-D Port Seal	#4000299	10/8/12		KJ		
Zero Count is Correct	OK	10/6/12		KJ		
Ballot Box Delivery Seal	#100682	10/8/12		KJ		
OVO Open Protective Count	277	10/6/12		KJ		
OVO Open Public Count	0	10/6/12		KJ		
OVO Close Protective Count	*					
OVO Close Public Count	*					
OVI Open Protective Count	77	10/6/12		KJ		
OVI Open Public Count	0	10/6/12		KJ		
OVI Close Protective Count	*					
OVI Close Public Count	*					

* The Inspector at the polls writes the Protective and Public Counts at the close of voting.

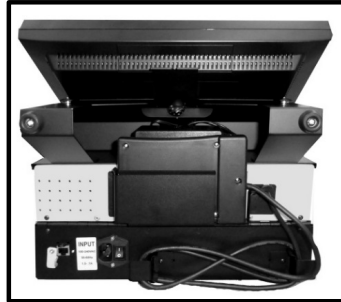
As diagnostics are completed for the OVO and OVI-VC units, the technician marks off the tests completed and their success or failure on the Warehouse Technician's List, which may vary from jurisdiction to jurisdiction.

7.3 OVI-VC, FVT, Ballot Box and OVO Packing for Storage

7.3.1 Packing the OVI-VC for Shipment

Remove the OVI-VC's power cord from the back of the unit. Place the power cord with the other precinct materials to be shipped to the precinct.

Ensure the ADA components are in their proper storage containers and ready for shipment. Make sure the keypad is properly placed in the compartment beneath the monitor and the cord is secured to the back of the OVI-VC.



If the OVI-VC has a hinged display, lower the display prior to placing it in the storage box.

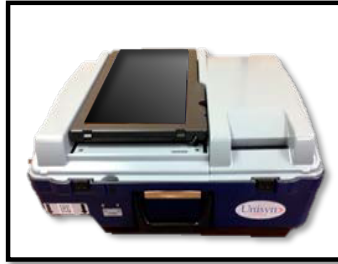
Return the OVI-VC to its storage box for shipment to the poll location.



7.3.3 Packing the FVT for Shipment

Inspect the FVT unit for any damage that may have occurred during the voting session. Locate the ADA equipment that was assigned to the FVT and prepare it for storage.

Remove the power cord from the back of the FVT and place it with the other power cords and precinct materials to be shipped to the precinct. Ensure that the ADA components used with the FVT are in their proper storage containers and ready for shipment. Lower the tablet to a fully reclined position. Ensure it is laid flat and that the kickstand is in the correct position.



Return the cover to the FVT unit and make certain that it is properly locked and sealed for shipment.



7.3.4 Packing the OVO and Plastic Ballot Box for Shipment

Inspect the ballot box for loose or non-attached security foam pieces (checking the top of the ballot box as well as inside the bottom of the ballot box). If a loose or non-attached security foam piece is found, reattach the foam.

- Attach the OVO to the top of the ballot box. The Ballot box has railing (along the top) that the OVO case is built to sit in.



- Once the OVO is attached to the top of the ballot box, lock the two locks on the top front of the ballot box (circled in green). This will lock the OVO in place and secure it on the front.
- Test the OVO to ensure a ballot is ejected smoothly into the ballot box.



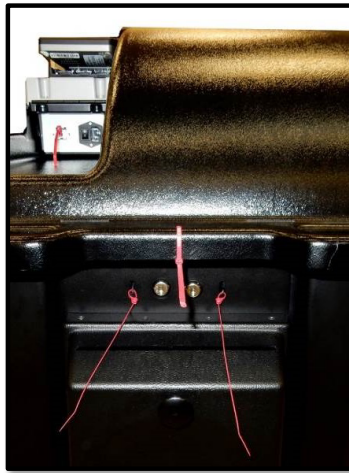
- Place label seals on the back door of the ballot box as shown to the right.



- Seal the OVO closed (circled in blue below) and attach a Seal to the secure OVO to the Ballot Box (circled in red).



- Seal the ballot box top to the ballot box bottom; as well as the two door access points to the ballot area (three seals indicated to the right with a blue circle).



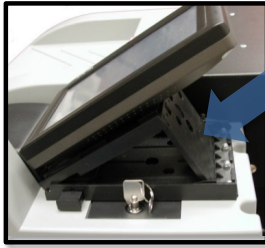
- Finally, make sure the OVO TM well door and rear jack door are sealed. If they are not, add seals at this time.



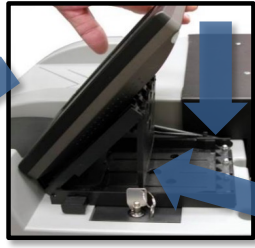
7.3.5 Setup OVO Display for Shipment

Set up the OVO for shipment to the precinct.

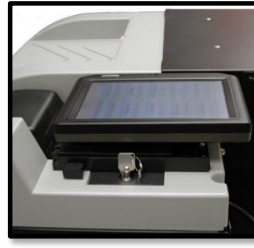
- Make sure the OVO is turned off.
- Lower the OVO display from its operating position to its shipping position.



Step 1) Display and kickstand are in operating position

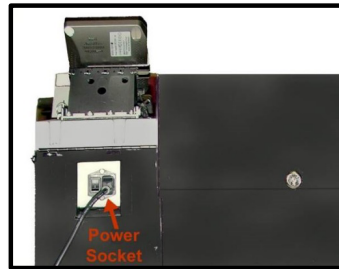


Step 2) Raise display, kickstand swings back, tuck it up to the back of the display and lower it to a reclined position



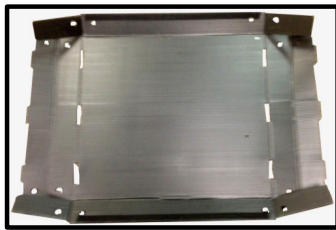
Step 3) Lowered display is now in shipping position

- Remove the OVO power cord from the back of the OVO unit (location illustrated below). Place the OVO cord with the OVI-VC cord and other precinct materials shipment to the precinct.

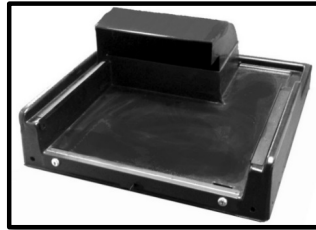


7.3.6 Portable Ballot Box

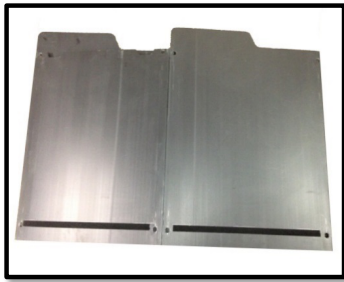
Ship the Portable Ballot Box components to the precinct unassembled with the OVO.



Bottom



Top

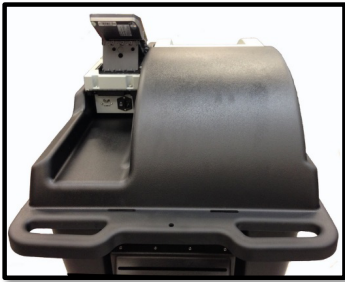


Walls



Seals

7.4 Moving the Ballot Box with OVO Attached



Make sure to disconnect and remove the power cord when moving the ballot box and OVO.

With the plastic ballot box, handles are supplied in the back of the unit for moving the ballot box via the casters on the bottom of the ballot box.

7.5 UPS Charging

Prior to the election, the UPS units should be fully charged.

The UPS will charge its internal batteries whenever it is connected to an AC source and there is an acceptable AC voltage present (90 – 150 VAC). It is recommended that the UPS's batteries be charged for a minimum of 4 hours before use, preferably overnight.

If the unit has been out of service or stored for a prolonged period of time, the batteries must be recharged for at least twenty-four hours every ninety days.



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Section Eight

Delivering the Voting Systems

When the election has been loaded and the systems tested, pack them up for delivery to the poll locations. Shut down the systems, using the **Shut Down** command on the Maintenance Menu. **Shut Down** closes the applications and shuts down the operating system. Power off the system by depressing the power switch on the OVO case exterior, and disconnect the power cables and lower the touch screen. For additional information regarding shutting down the system, refer to Section 2.5.

8.1 Pack up for Delivery

The rolling ballot box (the base of the system) is prepared for delivery as described in section 7.3.

OVD support hardware consisting of:

- UPS unit for each OVD device
- UPS power cord
- Surge Protector for the UPS
- OVO Power Cord
- OVI Power Cord(s) - One is required for 15" display
- FVT Power Cord
- Sip and Puff Device
- Magnification Device
- FVT or OVI-VC Headphones
- Disposable covers for headphones and Sip and Puff devices
- BMD paper rolls
- OVO paper rolls
- Additional Seals for ballot box and FVT or OVI-VC case

A standard kit should be prepared. The kit includes a **Precinct Results Envelope** used to store and deliver the Zero Count, Election Summary reports, and removed Transport Media device.

8.1.1 Equipment Check

In addition to those supplies required for the conduct of elections, generally the Election Official will supply to each precinct a sufficient quantity of the following:

- OVO ballot counting device.
- FVT or OVI-VC voting device.
- Ballot booths.
- Marking devices.
- Ballots of such form as required for tallying by the Unisyn OpenElect system, which can include precinct ballots and provisional ballots. In primary elections, ballots are to be appropriately tinted or otherwise identified for each political party and for nonpartisan voters, as directed by the Secretary of State.
- Secrecy envelopes in sufficient quantity to conduct the election. These envelopes entirely cover the ballot area on which voting marks are made.
- Provisional, Absentee, and Special Handling envelopes in sufficient quantity to conduct the election. The envelopes are used for ballots to be placed in the secondary slot of the ballot box.
- An auxiliary ballot box, where ballots are placed in the event the OVO is unable to accept ballots for a period of time.
- A ballot return box where voted and counted ballots are placed and sealed following the election.
- Containers or envelopes in which to enclose the following: (1) provisional ballots (2) absentee ballots; (3) spoiled, unused and cancelled ballots. At the option of the Election Official, the container provided may be used for all or part of this requirement.
- A Precinct Ballot Statement or appropriate form for reconciling ballots.
- Technician's List itemizing OpenElect Voting System equipment received with serial and security numbers.
- Other supplies necessary for the conduct of the election.

8.2 Verify/Attach Security Seals

Make sure to apply and provide the following security seals. Be sure to write the security numbers on the Technician's List for each poll location:

- **OVO**
 - Regular Ballot Door (back of ballot box)
 - Secondary Ballot Door (back of plastic ballot box)
 - OVO to Ballot box (left top front of ballot box and OVO)
 - TM compartment (under OVO display)
 - Front middle of OVO to secure OVO case closed
 - If a Portable ballot box is used, supply nine (9) security tie wraps (seals) plus spares for use at the precinct during preparation/assembly of the ballot box.

- **OVI**
 - Front middle of OVI-VC to secure OVI-VC case closed
 - LAN connector cover (back of unit)
- **FVT**
 - Front middle of FVT secure the FVT case closed
 - The interior cover over the printer has a seal in back, by the lock

8.3 OVI-VC Packaging

When shipping the OVI-VC with the hinged display, be sure to ship the unit in the box supplied.

8.4 Arrange for Delivery to Polls

When the OVO systems and poll location materials are tagged and secured for travel, move all equipment to a staging area in preparation for pick- up and delivery.

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Section Nine

Post-Election: Receiving Equipment

Following an election, warehouse personnel must receive and store all precincts voting equipment.

Have a plan for receiving returned equipment **before** the election starts.



IMPORTANT

The OVO Transport Media must be packed up with Election Summary reports and delivered in a sealed, **Precinct Results Envelope** to Election Headquarters by poll officials.

This chapter provides procedures to follow for receiving and storing equipment.

9.1 Receiving OVO Units

Have physical areas of the election warehouse ready for receiving equipment from specific precincts. The jurisdiction may require that election warehouse personnel assist poll officials in packing up the system and transport the systems back to the election warehouse themselves. The user should sign off on receipt of the precinct systems for which they are responsible.

9.2 Storing the System Equipment

Perform a few quick checks:

- Make sure OVO and FVT/OVI systems are packed correctly.
- Remove the Transport Media from the OVO for processing by the Tabulator applications.
- Remove the FVT/OVI TM for processing by the Election Manager application.
- Check for damage and missing components.
- Separate the OVO from the ballot box for separate storage.
- Separate equipment that may have been marked for repair.
- Remove the paper rolls from the OVO and FVT/OVI printers for storage.
- Place new seals on the OVO case, FVT case and the OVI-VC case prior to storing the units.



IMPORTANT

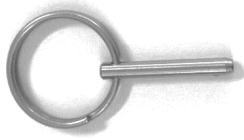
While the OVO, FVT and OVI-VC units are in storage they should remain sealed. The voting equipment should be stored in a location where the temperatures and humidity remain within normal ranges (see the System Maintenance Procedures).

9.2.1 Preparing the FVT System for Storage

When the FVT arrives at the warehouse it has been put in Sleep Mode by the poll workers. The FVT tablet must be completely powered down before it is stored.

Unisyn provides a pin tool to power down the tablet.

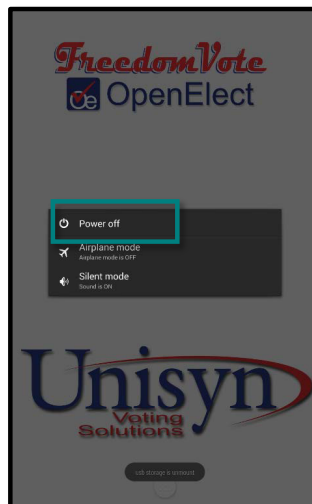
1. Insert the pin tool in the right-side bottom opening on the tablet enclosure and hold it until the power off screen appears.



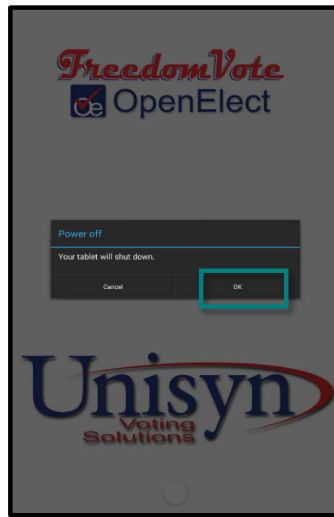
NOTE: If the tablet does not recover when the pin is inserted in the opening, plug the FVT into a power source and turn it on. Once the unit is powered on, insert the pin in the opening and hold it until the power off screen appears. Continue with the steps below.



2. Press the **Power off** button.



3. The **Power off** screen appears. Press the **OK** button to complete the power off process.



4. Depress the power switch on the back of the FVT to the shut down the power.



Remove the power cord from the back of the FVT and place it with the other power cords to be stored. Ensure that the ADA components used with the FVT are in their proper storage containers. Lower the tablet to a fully reclined position. Ensure it is laid flat and that the kickstand is in the correct position. If the security seal has not be replaced, do so now. Carefully replace the case cover, close the two front clasps and lock the cover in place.

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Section Ten

Election Audits

As part of standard election auditing, the user will need to understand the files and reports available with the OVO system. If issues arise following an election, they may be called on to assist in a mandatory recount or contest recount, which could require reports or use of an OVO system. This chapter helps the user understand data that is available on the OVO system and how to get at it.



IMPORTANT

Audits must occur before a new Election or Training Election is loaded on an OVO, FVT or OVI-VC system.

10.1 The Vote Files

At close of voting, the OVO writes the following files to three storage devices—Transport Media, Hard Disk Drive and a third USB storage device inside the unit. However, the **Images** directory is only written to the TM and Hard drive, not the backup storage.

Table 10-1. OVO Post Election Files

File	File Name	Purpose	Printed Report
Administrative header log	admin.log_h.xml	Contains log file information for the Admin log.	N/A
Administrative log	admin.log_c.xml	Logs events, activities and errors for the loaded election. Use to audit pre-election, Election Day and post-election activity.	Administrative Log Report
Tally file	tally.xml	Tallies contest results from the vote file when voting is closed on the system.	Election Summary Report
Vote header file	voteheader_h.xml	Contains election information for the voting session.	N/A
Vote file	voteheader_c.xml	Contains a ballot image for each ballot cast on the system.	Audit Trail Report (with ballots in random order)
Images directory	png type files for each scanned ballot	Scanned ballot images	Write-in Report

After a Logic Test session, when the OVO is restarted, these files are automatically cleared from all storage devices. After any other voting session, these files are retained on the storage devices.

10.1.1 Accessing Vote Files on the System

The OVO system always recovers votes from the Transport Media, when vote files are present on the TM. See Section 2 for a complete discussion of “Startup and Recovery.”

- If voting is closed, the user can view and print reports from the OVO. If voting was not closed (no tally file), the OVO recovers to the voting session in progress, and voting can continue.
- If the user inserts a TM with vote files into a “clean” OVO (with the same election loaded), the OVO recovers the vote files. The user can view and print reports from the OVO.



WARNING

The OVO system will not allow the user to load an election if vote files exist on the TM. The user must first “clean” the TM using the Election Manager.

10.2 Reviewing Voter Ballots Using the Audit Trail

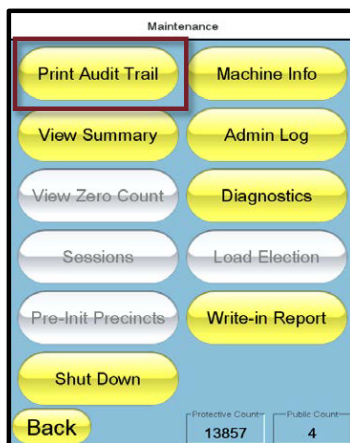
When voting starts, the system creates an encrypted vote content file and inserts the ballot data each time a vote is cast (the ballot is successfully read). The Audit Trail report retrieves information from this vote content file and prints each cast ballot selections, in random order.

Use the Audit Trail to:

- Manually recount ballot selections
- Retain a printed audit record of the election’s cast ballots

When voting is closed, log into the OVO using the Maintenance Password and select Print Audit Trail to print the Audit Trail report.

A printing message screen will be displayed while the report is printing. The user can cancel the report by touching the Cancel button on this screen. If this is done, CANCEL will be printed at the end of the truncated report.



The report will appear similar to the following if the printing is allowed to be completed (however typically it will contain many more ballots)

Audit Trail	
General Usability Election	
Election Date:	Tue Sept 12, 2017
Report Printed:	Thu Jun 29, 2017 05:00:17 PM PDT
Software Version:	2.0 T4c
OS Version:	OVO OS ver. 2.0 Oct. 8, 2013
Machine Name:	pb255255
Public Count	22
Protective Count	838
Open Poll	Thu Jun 29, 2017 05:00:17 AM PDT
Close Poll	Thu Jun 29, 2017 05:00:17 PM PDT
PID:2983 - 3 27 31 57	
PID:2983 - 3 28 30 124	
PID:4681 - 3 30 55 234 310	
PID:4681 - 3 26 147 299	
Report Print Complete	

Use the Audit Trail to:

- Manually recount ballot selections
- Retain a printed audit record of the election's cast ballots

To interpret each line of the report, use the Zero Count Report for the same precinct (Precinct ID), which shows the contests and candidate positions as ordered on the ballot. Each line in the Audit Trail (highlighted in RED above) contains:

- Precinct ID
- Ballot page number (in parenthesis)
- Ballot selections by position on ballot

The Audit Trail shows:

- Each ballot's Precinct ID (**PID**), which indicates ballot style. Ballots are ordered randomly on the report.
- Ballot page number (in parenthesis)

- The ballot selections are listed in order of contests on the ballot. See the Zero Count report to relate positions to a selected candidate.
- Contests without selections are not shown, resulting in cast votes from the same precinct having a different number of selections.
- If the voter did not vote for a contest, no selection appears.
- Write-ins appear only if write-in ballot positions were provided on the ballot (jurisdiction's option), and are identified by position number.

10.3 Reviewing Precinct Tallies Using the Election Summary

When the operator selects the **Close Voting** button, after a voting session, to close voting on the OVO the system creates a tally file. The tally gathers results for each precinct that has cast ballots on the OVO system. The tally file is used to print the Election Summary Report(s)—the results of votes cast on the OVO.

The Election Summary Report, in its "Full" version has the same format as the Zero Count report; it shows all contests in order. The Summary, however, shows candidates listed in order of vote totals rather than by position (however this can be set by parameters in the EM).

For Election Day voting, the Election Summary report shows contest results for each precinct (Precinct ID), totaled separately, with one precinct following the other on the report.

- For Absentee, Early Voting, Provisional, or Recount voting modes, the Election Summary report shows one set of contest results, consolidated from all precincts voting on the OVO. All contests from the precinct ballot styles appear in their ballot order.

The jurisdiction has the option of printing a complete or an abbreviated Election Summary report. The option to "Display Contest Results on Summary" is selected or cleared in the Election Manager before the Election TM is created. The jurisdiction may prefer to use the "short" report to limit information available at the polls.

10.3.1 Short Election Summary

The "short" Election Summary report shows only the OVO machine name, Protective/Public counts, and open and close voting times. The short report prints when voting is closed (for all voting modes), and is displayed from the Administrative Menu View Summary button.

The Short Summary Report shows:

- OVO machine name
- Public Count: number of ballot pages cast on this OVO for the election
- Protective count: number of ballot pages cast in the OVO's lifetime
- Date / time when polls were opened and closed
- Signature line for poll officials

Election Summary	
Liberty County General Election	
Tuesday, November 2, 2004	
County Name, State	
Report Printed:	
Jan 11 2008 09:53:02 AM	
Machine Name: pbc255255	
Public Count	377
Protective Count	841
Open Poll	
Thu Jan 11 08:36:27 AM	
Close Poll	
Thu Jan 11 08 04:36:27 PM	
Precincts	Ballots Cast
P-2983	377
Signatures:	

The Custom Text and Signature lines are on the Election Summary Reports printed at the end of the Close Voting process.

The Custom Text is setup in the Election Manager on the Print Options screen.

10.3.2 Full Election Summary

The "full" Election Summary report shows all the above information plus contest results. The full report is **always** available for viewing or printing from the Maintenance Menu **View Summary** button, regardless of the jurisdiction preference. However, if this option is selected for the election, the full report also prints at the polls and is available from the Administrative Menu. If Early Voting, Absentee, or Provisional voting mode has been used, the full Election Summary report shows contest results consolidated from all precincts.

The page counts in the header are group by precinct ID. Contests appear in contest order. If the election is a Primary, the report is organized by party ID and ordered by party name. Consolidated zero count reports has the report header information. A sample of the report's main body section looks like this:

Election Summary		
Liberty County General Election		
Tuesday, November 2, 2015		
County Name, State		
Report Printed:		
Mon Jan 11, 2015 08:31:59 AM		
Machine Name: pbc255255		
Public Count	377	
Protective Count	841	
Open Poll		
Mon Jan 11 08:36:27 AM		
Close Poll		
Mon Jan 11 04:36:27 PM		
P-2983		
Ballots Cast 523		
PRESIDENTIAL PREFERENCE		
Vote for 1		Total: 0
Abraham Lincoln	216	41.30%
Thomas Jefferson	199	38.04%
MEMBER, BOARD OF DIRECTORS		
Vote for 2		
Herman Munster	310	59.27%
Lucy Arnaz	102	19.50%
Steve Allen	88	16.82%
PROPOSITION 35		
Vote for 1		
AGAINST	299	57.17%
FOR	150	28.69%

With Percentages

Election Summary		
Liberty County General Election		
Tuesday, November 2, 2015		
County Name, State		
Report Printed:		
Mon Jan 11, 2015 08:31:59 AM		
Machine Name: pbc255255		
Public Count	377	
Protective Count	841	
Open Poll		
Mon Jan 11 08:36:27 AM		
Close Poll		
Mon Jan 11 04:36:27 PM		
P-2983		
Ballots Cast 523		
PRESIDENTIAL PREFERENCE		
Vote for 1		Total: 0
Abraham Lincoln	216	
Thomas Jefferson	199	
MEMBER, BOARD OF DIRECTORS		
Vote for 2		
Herman Munster	310	
Lucy Arnaz	102	
Steve Allen	88	
PROPOSITION 35		
Vote for 1		
AGAINST	299	
FOR	150	

Without Percentages

The candidate vote percentage is shown or not depending upon the Election Manager "Show Percentages" option setting.

The Full Election Summary Report shows:

- Public Count: number of ballot pages cast on this OVO for the election
- Protective count: number of ballot pages cast in the OVO's lifetime
- Date / time when polls were opened and closed
- Precincts voting
- Count of voters
- All contests in order
- All candidates, ordered from greatest to least tally results
- Count and percentage for each candidate (Percentage is Optional)
- Signature line for poll officials

The Custom Text and Signature lines are printed on the Election Summary Reports printed at the end of the Close Voting process.

The Custom Text is setup in the Election Manager on the Print Options screen.

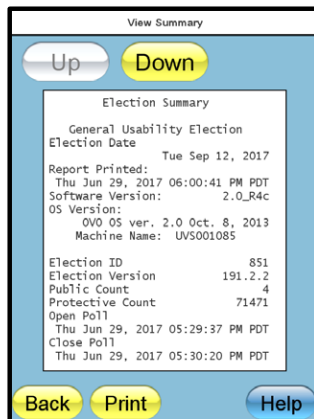
10.3.3 Accessing the Election Summary Report

Access the Election Summary after voting is closed from either the Administrative Menu or the Maintenance Menu. The Maintenance Menu always provides the “Full” Election Summary report, the full report should be retained as an audit record for the election.

Touch View Summary on the Maintenance Menu.
For the Election Day voting results, select the Precinct ID to view the report for the single precinct.



The Election Summary report appears (illustrated to the right above). Use the **Up** and **Down** buttons to page through the entire report. Press **Print** to print the report.



The Custom Text and Signature lines typically included on the Zero Count or Election Summary reports are not included on the reports when printed from the View Summary screen.

10.4 Reviewing System Events Using the Administrative Log File

The Administrative Log file (also known as the “machine log”) is created when a new election is loaded on the OVO. The file logs all events and activity on the system before, during and after voting. An Administrative Log includes the time the Election Application was started, user logins, errors, every cast ballot, the time voting was closed and the time the OVO was shut down. If the user is running a Training Election, the Administrative Log File is cleared and restarted when they reset the Training Election.

The OVO allows the user to view and/or print the Administrative Log from the Maintenance Menu **at any time** before, during or after voting. Print the log as needed, and retain the printed reports for election audit purposes.

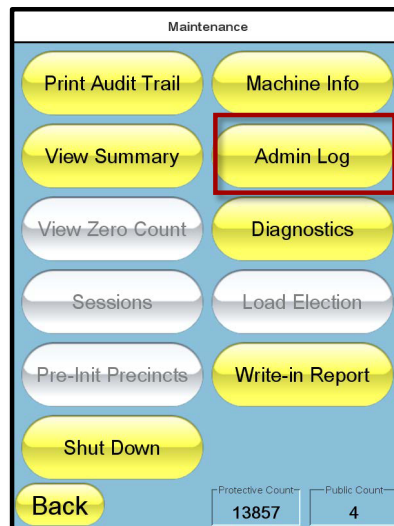
Use the log to verify:

- Administrative activities
- Startup versions and election status
- Voting activities
- Read / write events
- Errors and failures
- System recovery status
- Counts at close of voting

On the Maintenance Screen, touch **Admin Log**.

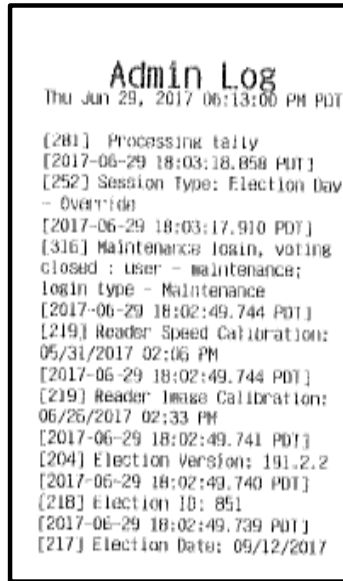
The most recent portion of the Admin Log is displayed. Press **Down** and to view the entire log to its beginning.

Press **Print** to print the currently displayed log information.



The Administrative Log report starts with the most recent activities. It records:

- System Code for activity or error (see Appendix A)
- Description of activity
- Date and time of activity



Notes on the Administrative Log:

- Any 900+ code is a system error that prevents casting votes on the system.
- Some activities reference the Compact flash (CF) or Backup USB— the compact flash USB device inserted in the back of the PC is the third storage device.
- The log is displayed starting at the most recent logs, each time the **Down** button is pressed the previous page of the log will display.
- Pressing **Print** will only print the portion of the log displayed on the screen. Due to the considerable amount of information contained in the Admin Log, the entire log is not printed.

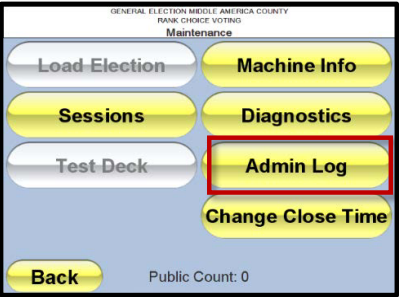
Notes on recovery to a new machine:

- The Administrative Log and all vote files from the Transport Media are copied to the Hard Disk and CF on the new machine.
- The TM will contain the information from the two machines in the log.
- If voting was in progress when a replacement was installed, the Public Count from the original OVO is transferred to the replacement OVO. The Protective Count on the OVO is always the count of ballot pages from the machine itself and will not change.

10.5 The OVI-VC and FVT Admin Logs

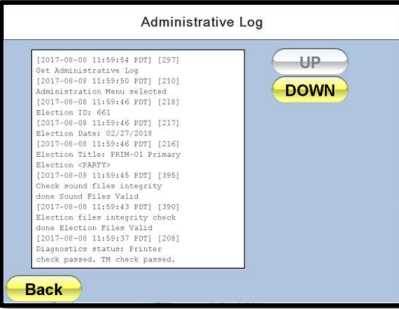
The OVI-VC and FVT also maintain Admin Logs that log all events and activities on the system before, during and after voting. The Admin Log function is accessed via the Maintenance Menu.

OVI-VC – To access the administrative log on the OVI-VC go to the Maintenance Menu and press the **Admin Log** button.

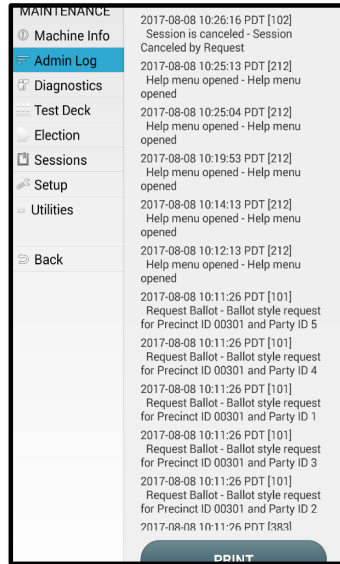


The Admin Log screen displays. Use the **UP** and **DOWN** buttons to move through the log. The Admin Log cannot be printed from the OVI-VC.

Press the **Back** button to return to the Maintenance menu.



FVT – To access the Administrative Log on the FVT go the Maintenance Menu screen and select **Admin Log**. The log records will be displayed in the panel to the right. Press the **Print** button to print the log.



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Section Eleven

Special Election Sessions

This chapter describes the procedures for processing ballots, outside precinct activities, using the OpenElect® Voting Devices. The types of sessions discussed are:

1. OVO Only Sessions
 - Provisional Tabulation
 - Absentee Tabulation
 - Recount
2. Early Voting (FVT, OVI-VC and OVO)

The barcode on the full page and BMD ballots contains the ballot type. These types include regular ballot – “B”, BMD ballots - “D”, Provisional ballots - “P”, Absentee ballots - “A” and Close ballots – “C”.

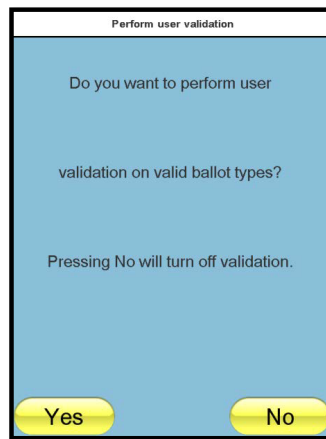
Absentee and Provisional ballot are not typically processed by an OVO during a normal voting session at a precinct or voting center. These ballots are A – Absentee and P – Provisional ballot types. These ballot types will cause the ballot to be ejected back to the voter if submitted during a normal voting session at a precinct, voting center or headquarters.

When this happens the first time, the election official will be presented with a screen asking “Do you want to accept all ballot types in this session?”

If **Yes** is selected, then **all ballot types** are allowed to be cast in the session.

If **No** is selected, then only the default ballot types will be initially allowed for the session. The user is also able to add ballot types from the main Voting screen for all session types.

If **Yes** is selected, to the **all ballot type** question above the add ballot type feature will not be available on the main Voting screen, because it isn’t needed.



The next screen allows selection of the ballot types which will require the voter's second chance validation to catch any overvote (and possibly undervote) error found on the scanned ballot.

If all ballot types were selected on the previous screen then all four ballot types will be shown on this screen. If only default ballot types were selected on the previous screen then it will show only the default ballot types for the selected session.

If no ballot type checkboxes are selected on this screen, then no second chance validation will be performed, the ballot will be casted as marked.

Press **Continue** when selections are completed.

Table 11-1. The Default Ballot Types and Validation for All Session Types

Session	Default Ballot Types	Default Validation
Election Day, ED-LAT	B, D	B-validate, D-*
Training	B, D	B-validate, D-*
Override	B, D	B-validate, D-*
Early Voting, EV-LAT	B, D	B-validate, D-*
Absentee, Absentee-LAT	A, D	No validation
Provisional, Provisional-LAT	P, D	No validation
Recount, Recount-LAT	B, D	No validation

*A parameter set in the EM is used to determine if validation is performed for these session types. If the parameter is set, the inserted BMD ballots will perform second chance validation on the OVO; if the parameter is off then BMD ballots will automatically cast when inserted into the reader.

These ballots are typically processed by either a Special Election Session on an OVO or by an OVCS unit. However, as noted, all session types can be changed (with approval) to accept all ballot types.



The STUB (optional) at the TOP of Full page ballots must be removed (if it exists) before a ballot is feed into an OVO – regardless of the mode the OVO is processing the ballot in.

11.1 Tabulation of Absentee Ballots (OVO)

The OVO system accommodates electronic tabulation of absentee ballots through its **Sessions** functionality, as well as at the precincts (depending upon the jurisdiction). Once voting is opened in this mode, scanning of ballots proceeds as normal, and on closing, results are removed on the TM and uploaded for Tabulation, just as in the normal Election Day voting mode.



The Tabulation of Absentee Ballots utilizing the OVCS is described in the OVCS User Guide.

11.1.1 Absentee Ballots

Absentee ballots are recognized by the system by a specific bar code printed on the ballot.

If an Absentee ballot is inserted in an OVO that has been initialized for normal Precinct Poll voting, the ballot is rejected with a message saying it is an absentee ballot. The Precincts are instructed to either have the absentee ballots inserted in the secondary (provisional) slot for process at Election Headquarters or enable the OVO to accept Absentee ballots during other types of sessions (see the Election Day Poll Workers guide for detailed instructions).

When Absentee Mode is started, only absentee ballots and BMD ballots are typically accepted by the system. Other ballot types are rejected as an “Invalid Ballot” type by the system. However, as described earlier, the Absentee session can be set up to accept all ballot types.

11.1.2 Absentee Procedure

Absentee ballot processing must be set up at a secure, locked Election Headquarters location. One or more OVOs are designated as “Absentee” machines and will be left **On** until all Absentee ballots have been processed. The machines cannot be used for any other type of voting.

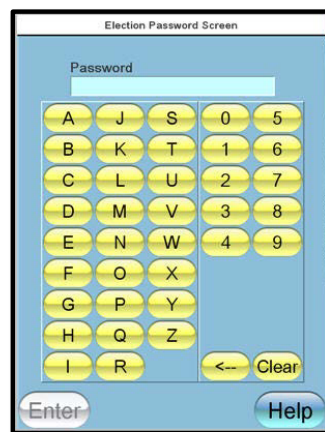
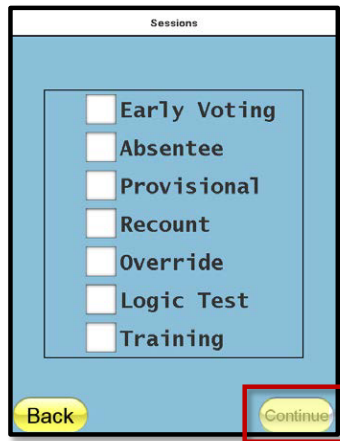


The Absentee machines cannot be used for any other type of voting while they are designated as Absentee OVOs.

If it is *not* Election Day, the Maintenance Menu appears when the OVO is started. Login using a Maintenance or Supervisor password. When the maintenance menu appears, select **Sessions**.

NOTE: The Sessions function is available only when there are no votes on the TM.

1. Touch **"Absentee"** on the Session screen (a check mark should appear) and then touch **"Continue"**.
2. If the user logged in previously with a Maintenance login, they will now be requested to log in with a Supervisor password.
3. The **Filter Ballot Type** screen will display, see section 11. If all ballot types are needed, select **Yes**, if only default ballot types are needed select **No**.
4. The perform User Validation screen will display, see section 11. Select the checkbox in front of the ballot type which requires voter's second chance validation.
5. The user will now be prompted to enter the Election Password.



Following successful entry of the election password, vote files are created and a consolidated Zero Count Report for the "Absentee" session will be printed on the OVO printer.

ZERO COUNT	
Absentee	
Primary Election	
Tues Nov 8, 2013	
Liberty County, CA	
Report Printed:	
Nov 9 2013	09:36:52 AM
Machine Name: pbcla_0001	
Diagnostics: passed	
Public Count	0
Protective Count	1001
Open Poll	
Wed Nov 09, 2013	08:36:27 AM
Consolidated	

All precincts are automatically initialized and voting is now open.

The voting screen displays "Absentee" in the lower right status area.

Insert the marked Absentee Ballots in the ballot reader slot, one at a time. If other ballot types were setup during the startup of the session, those type of ballots may also be inserted.

Ballot validation will only occur, if setup, during the startup of the session. The default setting is that no validation will take place and no Ballot Alerts will be printed.

GENERAL ELECTION COUNTY NAME, STATE	
Please insert	
paper ballot	
Absentee	Public Count 0

The ballot data is stored in the vote file and the ballot is dropped into the ballot box or out the back of the unit.

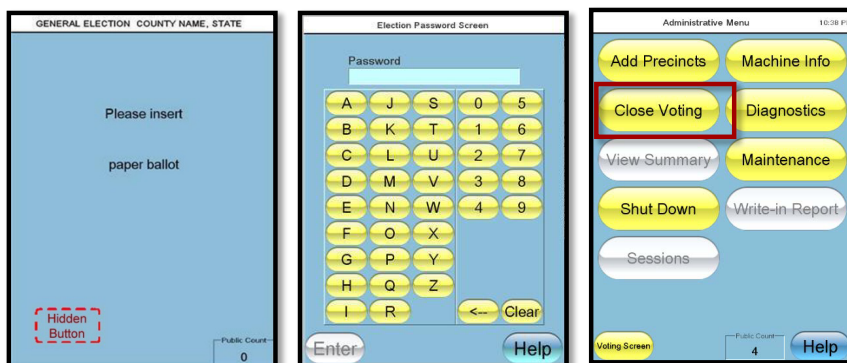
Do not close voting on the OVO until all Absentee ballots have been read. Once voting is closed, that session cannot be restarted. If processing takes more than one day, the user can either:

- Leave the OVO **On** in a locked room, or switch **Off** the OVO *without closing* voting and then switch it back **On** the next day and let it recover to the last known state – in this case Absentee Mode.
- Or, close that session, securely retain the processed TM, replace it with a clean TM and start a new session.



When all absentee ballots have been processed, close voting by either following the steps below or submitting a Close Ballot (ballot type "C").

To close the Absentee Session without a close ballot, press the hidden **Admin** button on the Welcome Screen. Enter the election password and selecting the **Close Voting** button.



The OVO will then print a consolidated Election Summary report for the Absentee session. Remove the Transport Media when voting is closed and the OVO is off. (Refer to Section 2.1.1.1 for removal of the TM).

11.1.3 Absentee Reports

Like Early Voting and Provisional Mode, in Absentee Mode, the Zero Count report is consolidated and shows all contests with candidates in order (and by position) rather than producing a zero report for each precinct. The Election Summary report, created when voting is closed, also consolidates the absentee votes into a single tally report. This prevents the need for an excessive number of reports.

If the Absentee session is closed before the assigned Election Day close voting time, the report will only show the header and no content. If the Absentee session is closed after the Election Day close voting time, it will print the full report.

The internal tally file, however, keeps the result data separated by precinct, as it normally does. On upload to the tabulation system, the data can be reported on by absentee status or by precinct, or by absentee precinct.

11.2 Tabulation of Provisional Ballots (OVO)

The OVO system accommodates electronic tabulation of provisional ballots through its **Sessions** functionality, as well as at the precincts (depending upon the jurisdiction). The Provisional Mode can only be initiated if a clean TM has been inserted into the OVO. A Supervisor password and the Election password must be entered to initiate the provisional session.

Once voting is opened in Provisional Mode, scanning ballots proceeds as normal. On closing, results are removed via the Transport Media and uploaded for Tabulation, just as in the normal Precinct Poll Mode.



IMPORTANT

The Tabulation of Provisional Ballots utilizing the OVCS is described in the OVCS User Guide.

11.2.1 Provisional Ballots

Provisional ballots are delivered from the polls in specially labeled privacy envelopes. Provisional ballots from the precincts can be either full page ballots or BMD ballots.

Provisional ballots have a special mark in the barcode on the paper ballot. Full page provisional ballots may also be indicated in the ballot code section. The code is found in the upper right corner of the ballot; the Ballot Code value will be "P" which designates it as a Provisional Ballot.

After provisional ballots go through the jurisdiction's approval process, they are inserted into the OVO, set in Provisional Mode and tabulated as a group.

An OVO designated for Provisional ballot counting (in Provisional Mode) typically is not used for Absentee or any other type of ballots (excluding BMD ballots, which are valid). Once a Provisional mode is started via the Maintenance menu, no other ballot types are typically accepted by the OVO for this session. However, as described earlier, the Provisional session can be enabled to accept all ballot types.

11.2.2 Provisional Mode Description

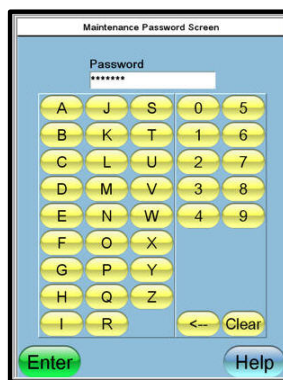
Provisional Mode operates the same as normal voting. It differs from Election Day voting mode in the following ways:

- Provisional Mode automatically initializes the system for all precincts.
- “PROVISIONAL” is displayed at the bottom of the screen and appears on all reports generated by the OVO.
- Overvotes and undervotes validation is suspended on provisional paper ballots. Contests with overvotes are not counted, and undervoted contests receive a count for any vote made.
- The system is kept open while Provisional voting is in progress. As soon as voting is closed, the results are tallied and voting cannot be re-opened. Officials can leave the system on in a locked room, or switch off the system without closing voting. In this case, the system will recover to the last known state with the Provisional Ballot session active and voting open.

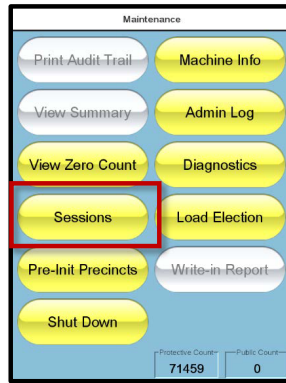
11.2.3 Provisional Procedure

Provisional ballot processing must be set up at a secure, locked Election Headquarters location. One or more specific OVOs are designated as Provisional machines and will be left **On** until all provisional ballots have been processed.

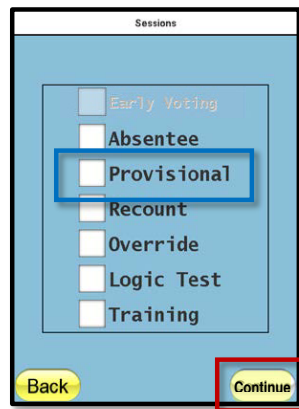
If it is *not* Election Day, the Maintenance Menu appears when the OVO is started. Login using a Maintenance or Supervisor password.



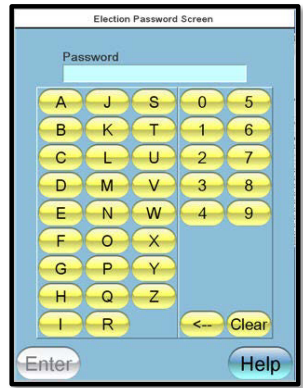
Select Sessions from the Maintenance menu. The Sessions function is available only on non-Election Days when there are no votes on the TM.



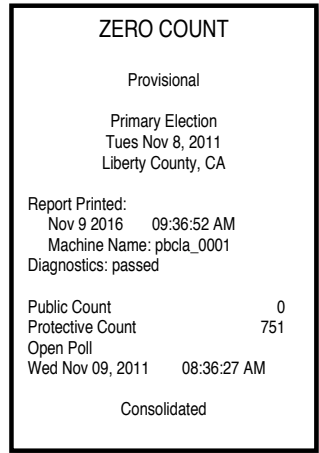
1. Touch **Provisional** on the Session screen (a check mark will appear) and then touch **Continue**.
2. If the user logged in previously with a Maintenance login, they will now be requested to log in with a Supervisor password.
3. The **Filter Ballot Type** screen will display, see section 11. If all ballot types are needed, select **Yes**; if only default ballot type are needed, select **No**.
4. The **Perform User Validation** screen will display, see section 11. Select the checkbox in front of the ballot type which require voter's second chance validation.



A screen will then appear requiring the Election Password.



Following successful entry of the password, vote files are created and a consolidated Zero Count Report for the "Provisional" session will be printed on the OVO printer.



All precincts are automatically initialized and voting is open. The voting screen displays **Provisional** in the lower right status area. Insert the voted Provisional Ballots in the ballot reader slot, one at a time. If other ballot types were setup during the startup of the session, those type of ballots may also be inserted.

Ballot validation will only occur if setup during the startup of the session. The default is that no validation takes place and no Ballot Alerts are printed. The ballot data is stored in the vote file and the ballot is dropped into the ballot box.

Do not close voting on the OVO until all Provisional ballots have been read. Once voting is closed, it cannot be restarted for that session. If processing takes more than one day, the user can either:

- Leave the OVO **On** in a locked room.
- Or, switch **Off** the OVO *without closing* voting and then switch it back **On** the next day and let it recover to the last known state – in this case Provisional Mode.
- Or, close that session, insert a clean TM and start a new session.

Election Summary	
Provisional	
General Election	
Sep 18, 2012	
Liberty County, CA	
Report Printed:	
09/21/2008	09:36:55 AM
Machine Name: UNI330001	
Public Count	3
Protective Count	841
Open Poll	
Thu Sep 20, 2006 08:36:27 AM	
Close Poll	
Thu Sep 20, 2012 10:36:27 PM	
Precincts	Ballots Cast
0001	3
Consolidated	

Procedurally, voting is not “closed” and tallied on these machines until all ballots have been processed and the session closed.

When all provisional ballots have been processed, close voting by either following the steps in section 11.1.2 for closing from the menus or submitting a Close Ballot (ballot type “C”).

The OVO will then print a consolidated Election Summary report for the provisional session. Remove the TM when voting is closed and the OVO is powered off. (Refer to Section 2.1.1.1).

On upload of the Provisional voting information to the Tabulator, Provisional ballots are consolidated with their appropriate precinct results.

11.2.4 Provisional Reports

Like Early Voting and Absentee Mode, in Provisional Mode, the Zero Count report is consolidated and shows all contests with candidates in order (and by position) rather than producing a zero report for each precinct. The Election Summary report, created when voting is closed, also consolidates the provisional votes into a single tally report. This prevents the need for an excessive number of reports.

If the Provisional session is closed before the assigned Election Day close voting time, the report will only show the header and no content. If the Provisional session is closed after the Election Day close voting time, it will print the full report.

The internal tally file, however, keeps the results data separated by precinct, as it normally does. On upload to the tabulation system, the data can be reported on by Provisional status or by precinct, or by Provisional precinct.

11.3 Recount

The OVO system accommodates a recount of marked ballot through its **Sessions** functionality. Once voting is opened in Recount Mode, scanning ballots proceeds as normal, and on closing, results are removed on the TM and uploaded for Tabulation where Recount Reports can be produced.



IMPORTANT

The Recount process utilizing the OVCS is described in the OVCS User Guide.

11.3.1 State of CA: One Percent Recount

Manually recount the ballots from at least one percent of the jurisdiction precincts, chosen at random, according to the guidelines described in section 15360 of the *California Elections Code*. Use the manual recount to verify the results from the central tabulation.

For other states, the OVO follows state statute.

11.3.2 Recount Ballots

For a recount, the voters' original voted ballots (full page and BMD ballots) must be available. The ballots are inserted into an OVO for scanning and tabulation.

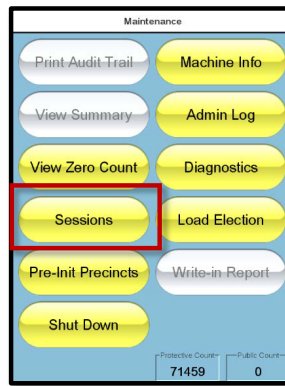
The Recount session will accept regular ballots and BMD ballots as a default. All ballot types can be selected during session setup.

11.3.3 Recount Procedures

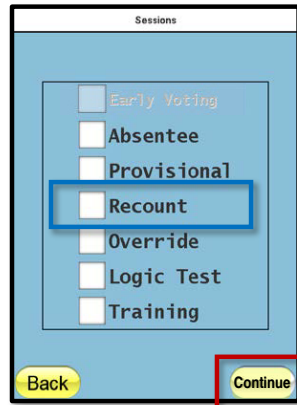
Recount ballot processing must be set up at a secure, locked Election Headquarters location. One or more specific OVOs that have the current election loaded but do not contain any voting results are designed as Recount machines and will be left **On** until all ballots have been recounted as required by the jurisdiction. The machines cannot be used for any other type of voting during this procedure.

If it is *not* Election Day, the Maintenance Menu appears when the OVO is started. Login using a Maintenance or Supervisor password. When the Maintenance menu appears, select **Sessions**.

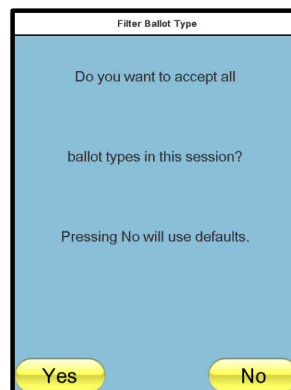
NOTE: The Sessions function is available only on non-Election Days when there are no votes on the TM.



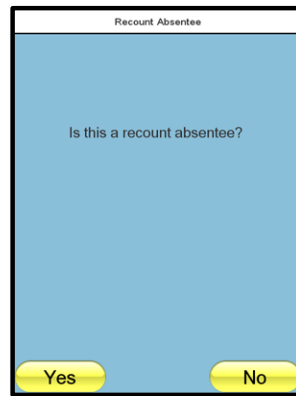
1. Touch **Recount** on the Session screen (a check mark will appear - see below) and then touch the **Continue** button.
2. If the user logged in previously with a Maintenance login, they will now be requested to log in with a Supervisor password.



3. The **Filter Ballot Type** screen will display, see section 11. If all ballot types are needed, select Yes; if only default ballot type are needed, select No

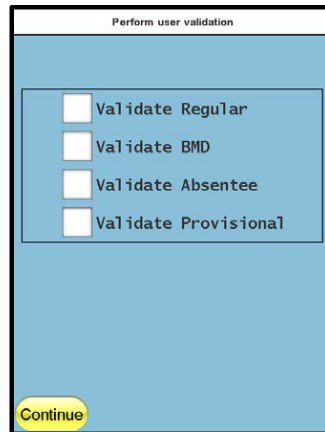


4. If this is an Absentee Recount, touch the **Yes** button, if it is not an Absentee Recount touch the **No** button.



5. Select the validation option for a recount session. There are three validation options are provided:

- **Validate Write-ins** - ballots with write-ins votes in the selected recount contests will be validated and returned to the operator with notification.
- **Validate Marks** - recount contest overvote (and/or undervote) condition(s) will be validated.
- **Allow Override** - the user can override any overvote, undervote or write-in warnings and force cast ballot. Allow override option is enabled only when “validate write-in” and/or “validate marks” options are selected.



When the Validate Write-in option is selected, the Validate Marks option is automatically selected. When the Validate Marks option is selected, it is up to the user whether to select the validate write-in option.

6. The user is then presented with a Contest Selection screen. The Contest Selection screen is displayed only for Recount sessions. The User chooses the contest(s) to be recounted.

For elections with straight ticket voting, the straight contest is automatically selected if a contest that allows straight ticket is selected for recount.

For an RCV contest, only the first rank is listed, but all other ranks will be automatically selected so that RCV calculations can be run on central tabulator.

Select Recount Contests	
<input type="checkbox"/>	President of the United States (REP)
<input type="checkbox"/>	President of the United States (DEM)
<input type="checkbox"/>	President of the United States (GRN)
<input type="checkbox"/>	President of the United States (SOC)
<input type="checkbox"/>	U.S. SENATOR (REP)
<input type="checkbox"/>	U.S. SENATOR (DEM)
<input type="checkbox"/>	U.S. SENATOR (GRN)
<input type="checkbox"/>	U.S. SENATOR (SOC)

Continue Print Clear All Select All

There are four buttons at the bottom of the Select Recount Contest screen:

Continue – This button is not enabled until at least one contest is selected. Once enabled, the session can continue.

Print – This button is not enabled until at least one contest is selected. Once enabled, a zero count report is printed.

Clear All - Clears all selected contests.

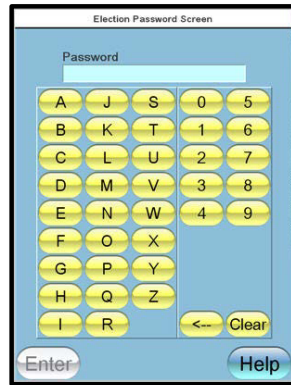
Select All - Selects all contests.

Write-ins, Overvotes, Undervotes

By default, the system will not validate inserted paper ballots for write-in, overvotes or undervotes. Contests with overvotes are not counted, and undervoted contests receive a count for any vote made. However, if the user selected the Validate Marks and/or Validate Write-in option(s) during the recount session setup, then the absentee ballots will require validation. If the user didn't select the Override option during the recount setup, the user cannot override and force cast ballots with overvote, undervote and/or write-in conditions if Validate Marks and/or Validate Write-in is selected during recount session setup. When checking for overvote, undervote, and/or write-in conditions, only contests selected for the recount session are checked.

Depending upon the number of contests and/or the length of the contest title, scroll bars will be automatically added to the right and/or bottom of the screen.

7. A screen will then appear requiring the Election Password.



Following successful entry of the password, vote files are created and a consolidated Zero Count Report for the Recount session will be printed on the OVO printer.

NOTE: This Zero Count report will only include the contests selected for this Recount session.

ZERO COUNT	
Recount	
Primary Election	
Tues Nov 8, 2011	
Liberty County, CA	
Report Printed:	
Nov 9 2011	09:36:52 AM
Machine Name: pbcla_0001	
Diagnostics: passed	
Public Count	0
Protective Count	751
Open Poll	
Wed Nov 09, 2011	08:36:27 AM
Consolidated	

If the election ballots are setup as 'by precinct', all precincts are automatically initialized. However, if the election ballots are setup as 'vote-by-ballotstyle', the user must go to the Admin menu, select the **Add Precinct** function and insert the precinct header card for each of the precincts that will be used in the OVO. Voting is open and the voting screen displays "Recount" in the lower right status area. Insert the voted Ballots in the ballot reader slot, one at a time. No validation takes place and no Ballot Alerts are printed. The ballot data is stored in the vote file and the ballot is dropped into the ballot box.

NOTE: A ballot style can only be assigned to one precinct on an OVO.

As with the other sessions, do not close voting on the OVO until all Recount ballots have been read. Once voting is closed, it cannot be restarted. If processing takes more than one day, the user can either:

- Leave the OVO **On** in a locked room, the next day switch **Off** the OVO *without closing* voting and then switch it back **On** and let it recover to the last known state – in this case Recount Mode.
- Or, close that session, insert a clean TM and open a new session the next day.

Procedurally, voting is not “closed” and tallied on these machines until all ballots have been processed.

When all ballots have been processed, close voting by pressing the hidden **Admin** button or inserting a Close Ballot. Then, enter the election password and selecting the **Close Voting** button.

The OVO will then print a consolidated Election Summary report for the Recount session.

NOTE: This Election Summary report will only include the contests selected for this Recount session.

Remove the Transport Media when voting is closed and the OVO is off. (Refer to Section 2.1.1.1).

On upload of the Recount voting information to the Tabulator, Recount ballots are consolidated with their appropriate precinct results.

Election Summary	
Recount	
General Election	
Sep 20, 2012	
Liberty County, CA	
Report Printed:	
Sep 26 2012 04:36:45 PM	
Machine Name: pbcla_0001	
Public Count 377	
Protective Count 841	
Open Poll	
Thu Sep 26 08:36:27 AM	
Close Poll	
Thu Sep 26 04:36:27 PM	
Consolidated	
Total Vote Count	523
PRESIDENTIAL PREFERENCE	
Vote for 1	Total: 0
Abraham Lincoln	216 41.30%
Thomas Jefferson	199 38.04%
MEMBER, BOARD OF DIRECTORS	
COMMUNITY COLLEGE	
Vote for 2	Total: 500
Herman Munster	310 59.27%
Lucy Amaz	102 19.50%
Steve Allen	88 16.82%
PROPOSITION 35	
Vote for 1	Total: 449
AGAINST	299 57.17%
FOR	150 28.69%

11.3.4 Recount Reports

Like Absentee and Provisional Mode, in Recount Mode, the Zero Count report is consolidated. However, it will only list the contests selected for this Recount session. The list of contests are in contest ID order and the candidates are in order by position. A consolidate report is printed rather than producing a zero report for each precinct. The Election Summary report, created when voting is closed, also consolidates the recount votes into a single tally report. Once again, the Election Summary report will only list the contests selected for this Recount session. This prevents the need for an excessive number of reports.

If the Recount session is closed before the assigned Election Day close voting time, the report will only show the header and no content. If the Recount session is closed after the Election Day close voting time, it will print the full report.

The internal tally file, however, keeps the results data separated by precinct, as it normally does. On upload to the tabulation system, the data can be reported on by Recount status or by precinct.

11.4 Early Voting

The procedures for early voting are similar to Election Day voting except that the OVO tally reports are consolidated.

The *Election Day Poll Workers Guide* should be referenced for details on handling Voters using the OVDs for Early Voting.

Since the early voting period may cover multiple days, there are two different procedures for storing the OVDs overnight:

1. The OVD units are powered down without closing voting and the units are locked in a secure environment. The next voting day the units are powered up and recovered to their previous state (open in Early Voting mode). Voting is continued.
2. *The OVD units voting session is closed and the resulting reports, closed TMs and ballots are taken to Election Headquarters for secure storage and subsequent processing Election Evening. New TMs are inserted in the OVO unit and the OVO is opened the on the next Early Voting day.*

11.4.1 OVO Early Voting Location Setup

Early Voting automatically initializes all precincts on the OVO for voting on startup. No ballot header card is required to activate a precinct for voting. As with Election Day voting on the FVT or OVI-VC, all precincts are available for voting.

- Like Absentee, Recount, and Provisional OVO ballot processing modes, the OVO Early Voting mode automatically initializes all precincts for voting on startup. No ballot header card is required. The Zero Count report consolidates all precincts in one report.
- All reports and data files are marked as "Early Voting." Results are consolidated with Election Day results by the OCS system grouped by precinct.

- Early Voting is held only at predetermined and secure locations. A Supervisor Password is required in order to conduct Early Voting from Maintenance Sessions.
- Typically, one or more specific OVOs are designed as Early Voting machines and will be left **On** until all ballots have been processed. If a session is closed on the OVO, then the TM should be removed and labeled. The TM is either read into the Tabulator Client or stored in a locked, secure location until it is tabulated Election Day. The OVO can be used for another session by inserting a clean TM prior to starting the next session

11.4.2 Early Voting Location Setup

The OVDs are setup in the Early Voting locations in the same manner as Election Day voting at the polls. The *Election Day Poll Workers Guide* should be referenced for details on setting up the OVD units for voting.

11.4.3 Opening Early Voting

Early Voting Mode can be opened before and during Election Day. The Early Voting session can be used for Election Centers. Like Absentee, Recount, and Provisional OVO ballot processing modes, the OVO Early Voting mode automatically initializes all precincts for voting on startup. No ballot header card is required. The Zero Count report consolidates all precincts in one report.

On startup of the OVO before Election Day, log in to the Maintenance Menu to select the Early Voting session. If it is Election Day, go to the Admin menu to select Early Voting session.

Typically, one or more specific OVOs are designed as Early Voting machines and will be left **On** until all ballots have been processed. If a session is closed on the OVO, then the TM should be removed and labeled. The TM is either read into the Tabulator Client or stored in a locked, secure location until it is tabulated Election Day. The OVO can be used for another session by inserting a clean TM prior to starting the next session.

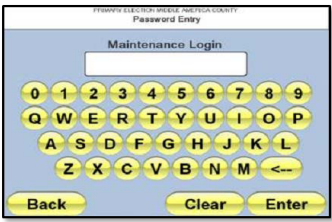
If it is **not** Election Day, the Maintenance Menu (illustrated below) appears when the OVO and OVI-VC are started. Login using a Maintenance or Supervisor password. The Maintenance menu appears on the FVT when the user scans the Maintenance barcode or enters the Maintenance password.



FVT Password Screen

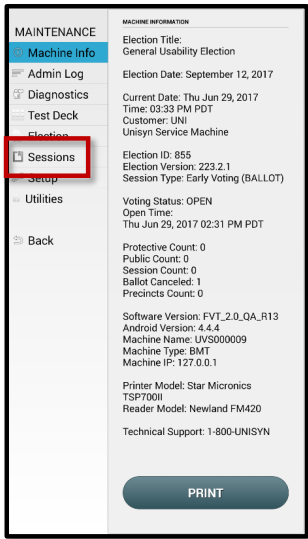


OVO Password Screen

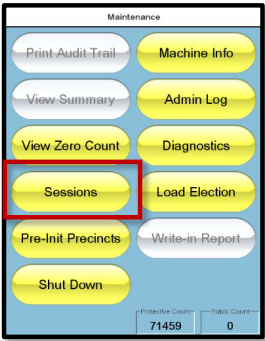


OVI Password Screen

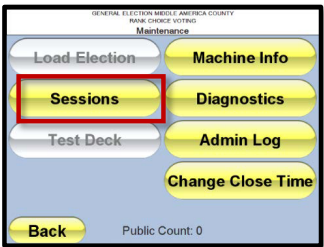
When the maintenance menu appears, select **Sessions**.



FVT Maintenance Screen

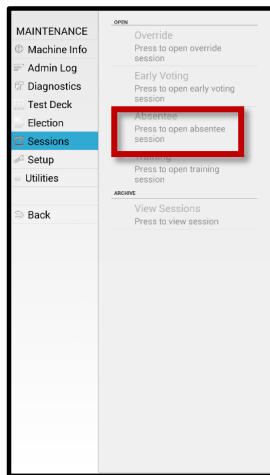


OVO Maintenance Screen

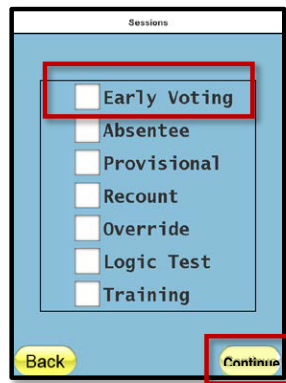


OVI Maintenance Screen

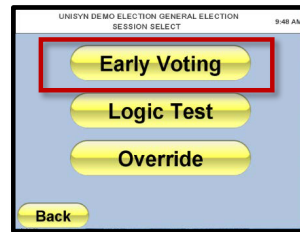
Touch **Early Voting** on the Session screen (a check mark will appear - see below) and then touch **Continue** for the OVO, and just touch the Early Voting button for the FVT or OVI-VC.



FVT Early Voting Selection



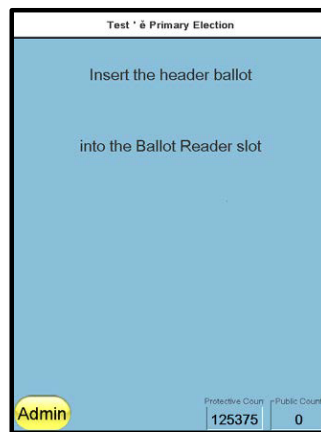
OVO Early Voting Selection



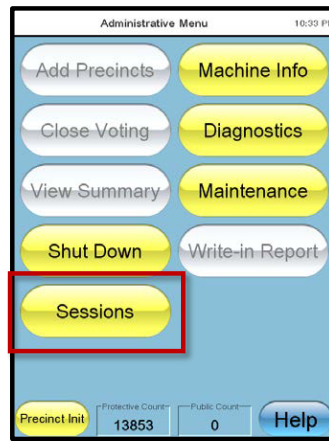
OVI Early Voting Selection

11.4.3.1 OVO: Accessing Early Voting On Election Day

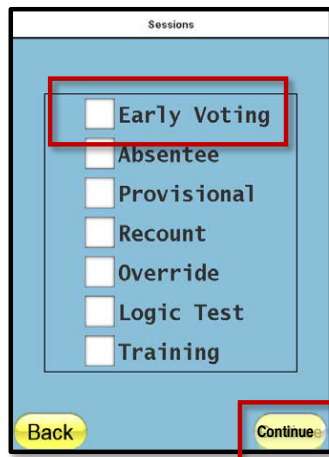
If it is Election Day, after bootup when the OVO displays the screen to insert the header ballot, press the **Admin** button, in the lower left side of the OVO display, and then enter the Election Password on the Password screen.



On the Administrative Menu, select the **Sessions** button.



1. Touch **Early Voting** on the Session screen (a check mark will appear) and then touch **Continue**.
2. The user is then required to log in with the Election password.
3. The **Filter Ballot Type** screen will display, see section 11. If all ballot types are needed, select **Yes**; if only default ballot type are needed, select **No**.
4. The **Perform User Validation** screen will display, see section 11. Select the checkbox in front of the ballot type which require voter's second chance validation.



Following successful entry of the password, vote files are created and a consolidated Zero Count report for the "Early Voting" session will be printed on the OVO printer. The Zero Count for Early Voting shows each contest only once, in the correct order for election, as a single, consolidated ballot style.

ZERO COUNT	
Early Voting	
Primary Election	
Tues Nov 8, 2011	
Liberty County, CA	
Report Printed:	
Nov 1 2011	09:36:52 AM
Machine Name: pbccla_0001	
Diagnostics: passed	
Public Count	0
Protective Count	100
1	
Open Poll	
Wed Nov 01, 2011	08:36:27 AM
Consolidated	

All precincts are automatically initialized and voting is then open. The OVO voting screen displays **Early Voting** in the lower right status area.

The OVO will handle Early Voting in the same manner as Election Day voting (as described in the *Election Day Poll Workers Guide*).

GENERAL ELECTION COUNTY NAME, STATE	
Please insert	
paper ballot	
Early Voting	Public Count 0

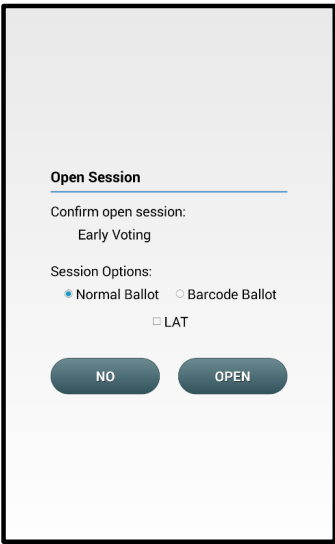
11.4.3.2 FVT and OVI-VC: Accessing Early Voting

For the OVI-VC, following supervisor password entry, confirm the Early Voting Session request.

Following confirmation, the OVI-VC will print an Open Report. The OVI-VC will handle Early Voting in the same manner as Election Day voting (as described in the *Election Day Poll Workers Guide*).



For the FVT, select the type of Early Voting session and the touch the OPEN button. The FVT will print the Open Report. The FVT handles Early Voting sessions in the same manner as Election Day voting. Refer to the *Election Day Poll Workers Guide* for a description of the process.



11.4.4 Closing Early Voting

Do not close voting on the OVDs until the Early Voting session has been completed. Once voting is closed, it cannot be restarted on a "closed" unit.

When Early Voting is closed, perform close voting on the OVDs in the same manner as Election Day Voting is closed. The *Election Day Poll Workers Guide* should be referenced for details on Closing Voting on the OVO, FVT and OVI-VC.



IMPORTANT

Procedurally, voting is not "closed" and tallied on these machines until Early Voting is closed.

The OVO will print a consolidated Election Summary report for the Early Voting session and the FVT/OVI will print a Close Report.

Remove the OVO Transport Media after voting is closed and the OVO is powered off. (Refer to Section 2.1.1.1 for removal of the TM). Place the TM and all resulting reports in the Precinct Results envelope. The TM is either read into the Tabulator Client or stored in a locked, secure location until it is tabulated Election Day.

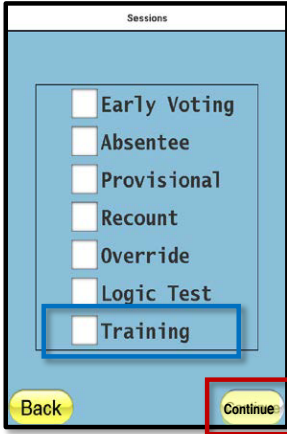
11.5 Training

The Training Session option allows the jurisdictions to perform a Training session on a current election loaded on the OVO.

NOTE: This differs from the Training Election which is loaded from the Election media. When the Training Election is loaded, it requires the user to reload a regular election before Election Day.

11.5.1 Training Session Setup

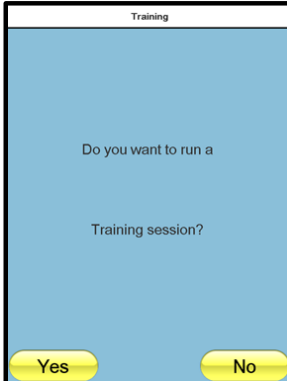
The Training session is only available from the Maintenance Sessions menu. Follow the steps previously described to access the Maintenance menu and select Training. A check mark will appear in the box next to the word Training. Press the **Continue** button.

A screenshot of a mobile application interface titled "Sessions". It features a list of seven options, each with an unchecked checkbox: "Early Voting", "Absentee", "Provisional", "Recount", "Override", "Logic Test", and "Training". The "Training" option is highlighted with a blue rectangular border. At the bottom of the screen, there are two yellow buttons: "Back" on the left and "Continue" on the right. The "Continue" button is enclosed in a red rectangular border.

When the Training session is selected and the **Continue** button is pressed, a confirmation screen will display to verify the user wants to run a Training session.

If the user selects **No** it will exit to the Maintenance menu, the session is not started.

If the user selects **Yes**, the current vote files will be deleted. The system creates a temporary file which denotes that the system is in Training session mode.

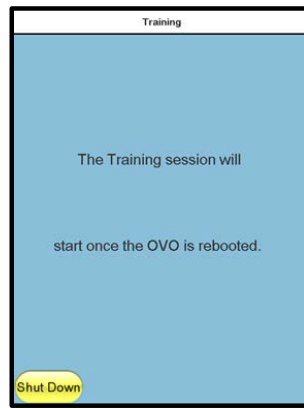
A screenshot of a mobile application interface titled "Training". The screen has a light blue background and contains the text "Do you want to run a" followed by "Training session?" on the next line. At the bottom of the screen, there are two yellow buttons: "Yes" on the left and "No" on the right.

The following screen will display:

Press the **Shut Down** button.

The user is forced to shut down the system in order to experience exactly what it will be like on Election Day. When the system is restarted, the user will go through the Election Day startup process, i.e. the boot screen messages, Header Card screen, etc.

NOTE: During setup of this session, the user will not be prompted to set up the Ballot type filters or Validation handling. This session will use the default values, just like an Election Day session.



11.5.2 Training Handling

Once the OVO has restarted, the training process is the same as the real Election Day process with a few minor differences:

- The displayed and printed reports will have the text 'Training' at the top.
- The bottom button panel on the screen will show 'Training' text to denote a training session.
- The Machine Info screen's **Mode** will show as 'Training'.
- In a Training session, the TM vote files are uploaded to a 'Training' run in the Tabulator.
- Since it is not Election Day, the user will not be able to display or train with the **Close Time** function during the Close Voting process.

If voting is left open in a Training session and the system is rebooted, the system will go to the Main Voting screen, just like a regular Election Day session. Voting will continue. If voting is closed for the Training session and the system is rebooted, the training vote files will be automatically deleted from the system. (Because it is a training session, there is no warning message to the user.) The system will start at the Maintenance Menu. If it is Election Day, the training vote files will be automatically deleted from the system (open or closed files), without a warning message to the user, and the normal Election Day session will run.

If the user is familiar with the Election Training process, that requires the Election CD to load the Training files, they will notice that it is almost the same as the Training Session discussed in this section. With the exception of:

- The Training session's Admin screen will not contain the **Training Reset** and **Training Options** functions.
- The Training Session's Maintenance menu does not have a **Reader Options** functions.

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Appendix A

OVD Administrative Log Error Codes

This Appendix lists all codes that may appear in the OVD system's Administrative Log. Some may also appear as an error on the OVD screen. The codes include both normal and error events, and some are internal status messages between the client and server interface. The right column lists possible actions to take for error conditions. See *Election Day Troubleshooter's Guide* for corrective steps during an election.

NOTE: If directed to contact the vendor, contact the vendor's Technical Support Representative, or a technical support person who has been trained by the vendor.

Table A-1. Administrative Log Error Codes

Code	Unit	Event	Description	Error / Action to Take
000	OVO / OVI-VC	GENERIC OK	Generic OK	N/A
101	OVO/OVI-VC/FVT	REQUEST BALLOT	The Reader requested a ballot in a particular precinct style. Ballot styles are cached in memory and this event occurs only when a new style is requested.	N/A
102	OVI / FVT	CANCEL SESSION	A voter's ballot entry session has been canceled.	N/A
103	OVI-VC / FVT	START SESSION	A voter's ballot entry session has been started.	N/A
111	OVO / OVI-VC	ERROR BALLOT	The requested ballot style was not found in election data. Invalid Ballot message displayed, ballot ejected	Error. Verify that ballot is valid for this election and has the correct ballot type with correct markings
200	OVO / OVI-VC	CLIENT STARTUP	The OVD application started	N/A
201	OVO/OVI-VC /FVT	MACHINE NAME	Name of this OVD	N/A

Code	Unit	Event	Description	Error / Action to Take
202	OVO/OVI-VC /FVT	SOFTWARE VERSION	Software version number was read from the internal file	N/A
203	OVO	READER VERSION	Reader version number was read from the reader hardware.	N/A
204	OVO/OVI-VC /FVT	ELECTION VERSION	Version of currently loaded election	N/A
205	OVO	READ TEST	The Diagnostic Reader test was performed. "Number of tickets read = <i>n</i> ; number matching = <i>n</i> "	N/A
206	OVO / OVI-VC	DIAG NO SERVER	On Startup: No server was connected on startup. The Diagnostics screen shows an error.	Verify the OVO has valid firmware installed. Check connections and PC hardware. Force a shut down and replace the OVO.
207	OVO / OVI-VC	DIAG SERVER	Election Server was connected on startup. Normal startup.	N/A
208	OVO / OVI-VC	DIAG STATUS	Status displayed on startup diagnostics screen. Lists hardware that passed / failed / not connected	N/A
209	OVO / OVI-VC	PRINTER VERSION	Printer version number was read from the printer hardware.	N/A
210	OVO / OVI-VC	ADMIN MENU	The Admin button was pressed.	N/A
211	OVO	AUTO FEED MODE	The Reader is NOW in auto feed mode. Only allowed for Training Elections.	None - Reader will read the in the input slot once every few seconds and eject it back out. Rebooting the OVO will stop the auto feed mode.
212	OVO	HELP FUNCTION	Help file not found for ...	Contact Unisyn for updated Help files, continue using the OVO.
213	OVO / OVI-VC	START ADMIN LOG	Start reading the log file.	N/A

Code	Unit	Event	Description	Error / Action to Take
214	OVO / OVI-VC	END ADMIN LOG	End reading of admin log file.	N/A
215	OVO / OVI-VC	OS VERSION	The OS Version was read from the internal OS file.	N/A
216	OVO / OVI-VC	ELECTION TITLE	Name of the Election	N/A
217	OVO / OVI-VC	ELECTION DATE	Date of the Election.	N/A
218	OVO / OVI-VC	ELECTION ID	Election ID for the election	N/A
219	OVO	READER CALIBRATION	Shows the date of the Reader calibration	N/A
220	OVO / OVI-VC	ERROR OPEN VOTING: WRONG DATE	On Startup: Displays the Maintenance Password prompt instead of normal open voting prompts. Voting cannot be opened because it is not Election Day.	The current system date is not recognized as Election Day. If the problem is not spread throughout the jurisdiction, log in with Maintenance password and check Machine Info to verify the election version. If the election version is correct, and if no votes are on the system (Zero Count can be verified), select Sessions and Override to start voting at the polls. The Election password will be required.
221	OVO / OVI-VC	NOT ELECTION DAY: LOAD ELECTION	The system detected the Election Server and Election File on startup. It is not Election Day; the auto-Load process begins.	None - Maintenance login required; respond as prompted to Load Election prompts.
222	OVO / OVI-VC	BEFORE ELECTION DAY	On Startup: Displays the Maintenance Password prompt instead of normal open voting prompts. Voting cannot be opened because it is before Election Day.	Follow the same steps to resolve 220. Login as Maintenance user, verify election version and Zero Count and use Override mode if the error is due to a faulty system date.
223	OVO / OVI-VC	AFTER ELECTION DAY	On Startup: Displays the Maintenance Password prompt instead of normal open voting prompts. Voting cannot be opened because it is past Election Day.	Follow the same steps to resolve 220. Login as Maintenance user, verify election version and Zero Count and use Override mode if the error is due to a faulty system date.

Code	Unit	Event	Description	Error / Action to Take
224	OVO	BEFORE ELECTION DAY ABSENTEE	It is before the Election Date and Absentee Mode has been selected.	None - Voting will open for Absentee processing
225	FVT	DIAGNOSTICS	Log of events during the Diagnostics Auto Test function.	N/A
226	OVI-VC	START DIAGNOSTICS	Start printing a Test Deck	N/A
227	OVI-VC	END DIAGNOSTICS	Finished printing a Test Deck	N/A
228	OVI-VC	CANCEL DIAGNOSTICS	Cancel printing a Test Deck	N/A
229	OVO / OVI-VC	LOADING ELECTION STARTUP	New Election is found (no votes on the system) and the Load Election process has started.	Ensure the election has loaded with no errors.
230	OVO	SAVE LOG FILE	When the Maintenance->Diagnostics->Save Log button is pressed, the application log file is written to the TM.	This function is only performed upon request by the Jurisdiction or Unisyn. Remove the TM from the system and send the file in the 'Logs' folder to the person requesting it.
231	OVO	ERROR SAVING LOG	Error occurred when saving the log file.	Make sure the TM is inserted and has room to store the log file.
232	OVO / OVI-VC	SAVE KEY FILE	Save the Machine's keystore file with the machine's public key to a file on the TM in the 'MachineKeys' folder. The save file will contain the machine's name.	This function is only performed upon request by the Jurisdiction. Remove the TM from the system and give the Machine Key files to the person requesting it.
233	OVO / OVI-VC	ERROR SAVING KEY	Error occurred when saving the machine's key file.	Make sure the TM is inserted and has room to store the log file.

Code	Unit	Event	Description	Error / Action to Take
234	OVO / OVI-VC	TALLY NEVER COMPLETED	The Tally report was not completed due to a system error.	Exit the error message. The system has timed out while tallying the votes, but has not failed. Force a shut down and restart to recover. Depending on the recovery state, Close voting or select View Summary from the Admin menu to print the Election Summary.
236	OVO/OVI-VC /FVT	LOAD ELECTION COMPLETE	A new election has been successfully loaded.	N/A
237	OVO/OVI-VC /FVT	LOAD ELECTION NEVER COMPLETED	Load Election was not completed. The OVD never received the complete election data.	Error. Attempt to Load Election again by selecting Load Election from the Maintenance Menu.
238	OVO	PRINT AUDIT TRAIL CANCELED	Printing of audit trail was aborted.	N/A
239	OVI-VC / FVT	AUDIO ADJUST	Adjusting the audio volume or tempo.	N/A
240	OVO / OVI-VC	CUSTOMER RESET	When a Supervisor user performs the 'Customer Reset' function, the customer key is cleared from the system.	N/A
241	OVO	CUSTOMER NAME	The customer name from the Machine's keystore file, usually this is a 3 character acronym	N/A
242	OVI-VC	AUDIO FILE MISSING	An audio file is missing.	Error. Check sound files in Election Manager and reload Election.
243	OVI-VC	AUDIO FILE BAD	An audio file is corrupted.	Error. Check sound files in Election Manager and reload Election.

Code	Unit	Event	Description	Error / Action to Take
244	OVO/OVI-VC /FVT	PRINTER FAILURE	Printer has failed.	Error. Check power and cables to Printer. Make sure the power button at the front of the printer is set to ON. Replace printer or OVD if necessary.
245	OVO / OVI-VC	PRINTER INIT FAILURE	Printer initialization failed.	Error. Check power and cables to Printer. Make sure the power button at the front of the printer is set to ON. Replace printer or OVD if necessary.
246	OVI-VC	AUDIO TEST	Admin log of the status while running the Diagnostics Audio test.	N/A
249	OVI-VC	PRINTER PROBLEM FIXED	The Ballot Printer problem was fixed.	N/A
250	OVO	IMAGE ERROR	Image file is not found or cannot be verified, will log the image file name.	The information is only needed if the Jurisdiction wants to check the image files.
251	OVO	INVALID IMAGE	The image files are found but the signature does not verify.	N/A
252	OVO / OVI-VC	SESSION TYPE	Type of session being run: Normal, Absentee, Early Voting, Provisional, Recount, Election Day - Override, Training, or Logic Test	N/A
253	OVO/OVI-VC /FVT	SIGNATURE VERIFICATION	This is a Unisyn service machine.	N/A
255	OVO/OVI-VC /FVT	OPEN VOTING	Voting was opened.	N/A
256	OVO	ISSUE TXN FAILED, VOTING NOT OPENED	"Voting not open." A voter transaction (request to cast ballot) could not be processed because voting was closed.	None - The ballot is ejected back to the voter. During voting, hold ballot for processing at headquarters or replace OVO.

Code	Unit	Event	Description	Error / Action to Take
257	OVO	MINIMUM SPACE REACHED	The minimum space allowed on the TM has been reached. The ballot cast image files are written to the TM during the session. When all files on the TM use most all the room on the TM this warning is displayed.	Shutdown and power off the system. Get a larger sized TM which is blank (only the Data .vol file) and insert it into the system. Boot up the system, it will recover all vote files from the hard drive onto the TM; this may take a while. For the smaller TM which had been removed, give to the Jurisdiction. This smaller TM should not be inserted into the TC, all of this vote data has been recovered on to the larger TM in the system.
259	OVO	TXN MAXLIMIT REACHED	The maximum limit for cast ballots has been reached. The OVO will not handle another transaction.	None - Voting must be closed on this OVO. A new OVO system will be needed to continue voting.
260	OVO	ISSUE TXN	A voter transaction number was successfully created for a cast ballot.	N/A
261	OVO	REMOVE BALLOT AT INPUT	Ballot is at the front input sensors of the scanner	The ballot must be removed from the front of the scanner before the ballot which is already in the scanner can complete its handling and drop the ballot into the ballot box.
263	OVO/OVI-VC /FVT	CHANGE CLOSE TIME	The close voting time has been changed.	N/A
264	OVO/OVI-VC /FVT	CLOSE VOTING	Close voting process has been started.	N/A
267	OVO/OVI-VC /FVT	CLOSE VOTING NOT DONE	Close voting process incomplete.	Error. Attempt to close voting again, then remove TM and attempt recovery on another OVD. Perform audit on system and contact vendor.

Code	Unit	Event	Description	Error / Action to Take
268	OVO / OVI-VC	CLOSE VOTING DONE	Close voting process is complete.	N/A
269	OVO / OVI-VC	CLOSE VOTING PROCESSING	Close voting is being processed.	N/A
270	OVI-VC	NO SOUND FILES	Election cannot be loaded because it does not contain sound files.	Error. If this election needs to be run on the OVI-VC then it must contain sound files. The sound files are input using the Election Manager application.
273	OVO	ACCURACY TEST RESULTS	An accuracy test was performed and results are printed and logged.	N/A
274	OVO	CANCEL ACCURACY TEST	An accuracy test was started and canceled	N/A
275	OVO / OVI-VC	RESET TRAINING	Operator requested to Reset Training; vote data was cleared, public count is set to 0.	N/A
276	OVO / OVI-VC	CLEAN SYSTEM NO FILES	There is no vote data to clear.	N/A
277	OVO	WRITEIN FAILED	An error occurred when extracting the write-in images for the Write-in Report.	Error. Try running the Write-in report again. If the error occurs again, shutdown the machine and bring it back up, try the report again.
279	OVO	WRITEIN CANCELED	The Write-in Report was canceled.	N/A
281	OVO	PRINT TALLY FILE	The original (automatic) copy of Election Summary report was printed.	N/A
282	OVO	PRINT TALLY FILE COPY	Operator requested to print an extra copy of the Election Summary report.	N/A
283	OVO	END TAB PRECINCTS	The system has finished tabulating votes for precincts.	N/A

Code	Unit	Event	Description	Error / Action to Take
284	OVO	INVALID REQUEST	An internal error occurred as the tally file was being created.	Error. Replace the OVO and recover the original TM. Contact the vendor.
285	OVO	START WRITEIN	The Write-in Report has been started.	N/A
286	OVO	WRITEIN NOT DONE	The Write-in Report is being processed.	N/A
287	OVO	WRITEIN DONE	The Write-in Report is done processing.	N/A
288	OVO	WRITEIN REPORT	The Write-in Report was successful, it was canceled by the user or there was an error reading or writing a file.	If the message displayed in the Admin Log after Write-in Report is success or cancel, then nothing needs to be done. If the message displayed is an error reading or writing a file, try rebooting the system and run the report again.
289	OVO	TALLY FAILED	View Summary function failed to display the tally of votes.	Error. Try View Summary again –the system may not have been ready. Contact the vendor.
290	OVO / OVI-VC	CLEAN SYSTEM	Vote data files were cleared from the system.	N/A
291	OVO/OVI-VC /FVT	LOAD ELECTION	Loading a new election is in progress.	N/A
292	OVO / OVI-VC	LOAD ELECTION NOT DONE	Load election was not complete.	Error. Attempt to Load Election again. Make sure TM has been cleared of previous data.
293	OVO / OVI-VC	LOAD ELECTION DONE	Election was loaded successfully.	N/A
294	OVO	START AUDIT TRAIL	An operator requested the Audit Trail (vote file) data.	N/A
295	OVO	GET AUDIT TRAIL	Getting Audit Trail data: part of the requested audit trail report is available and will be printed	N/A

Code	Unit	Event	Description	Error / Action to Take
296	OVO	END AUDIT TRAIL	Ending audit trail process. The last of the data for the requested audit trail has been processed.	N/A
297	OVO / OVI-VC	VIEW ADMIN LOG	Operator requested the Administrative Log; system retrieved a buffer from the admin.log file to display.	N/A
298	OVO / OVI-VC	LOAD ELECTION PROCESSING	Marks start of loading election data.	N/A
299	OVO / OVI-VC	SHUTDOWN	The system is being Shut Down.	N/A
300	OVO / OVI-VC	NEW PRECINCT	Added a new precinct to the location by inserting a ballot header card	N/A
301	OVO / OVI-VC	TM ANCHOR DATA	TM anchor file read, and the device is acknowledged as valid "TM"	N/A
302	OVO / OVI-VC	HD ANCHOR FILE	Hard drive is identified and verified as valid and functional.	N/A
303	OVO / OVI-VC	CF_ANCHOR FILE	Compact Flash (third storage device) is identified and verified as valid and functional.	N/A
304	OVI-VC	PROPERTY FILE ERROR	Error loading data from the session property file.	Error. Try rebooting the system and see if the problem still exists. If it does contact vendor for assistance.
310	OVO / OVI-VC	LOGIN NOT OPEN	Login was successful, voting is not open.	N/A
311	OVO / OVI-VC	LOGIN OPEN	Login was successful, voting is open.	N/A
312	OVO / OVI-VC	LOGIN CLOSED	Login was successful, voting is closed.	N/A
314	OVO / OVI-VC	MAINT NOT OPEN	Maintenance login was successful, voting is not open.	N/A
315	OVO / OVI-VC	MAINT OPEN	Maintenance login was successful, voting is open.	N/A

Code	Unit	Event	Description	Error / Action to Take
316	OVO / OVI-VC	MAINT CLOSED	Maintenance login was successful, voting has been closed.	N/A
317	OVO / OVI-VC	MAINT AFTER ELECTION	Maintenance login was successful, and it is after Election Day.	N/A
318	OVO / OVI-VC	PASSWORD NOT FOUND	Password not found in file or is not a valid password	None - Check with central technical support.
320	OVO	READ FAILURE	Error reading the Election TM.	Error. Attempt to Load Election again, then check network and, if necessary, obtain another Election Server or Election TM.
322	OVO / OVI-VC	LOGIN NOT ELECTION DAY	Election login was successful, but it is not Election Day	N/A
330	OVO/OVI-VC /FVT	INVALID ELECTION	"Invalid election file" - the Election data is not a valid.	Load election error - need new Election TM or Election data must be updates at the Election Manager and then reload the election on the OVD.
331	OVO / OVI-VC	MACHINE NAME NOT IN ELECTION	The machine's key is not include in the election which it is trying to load.	Tell the Jurisdiction, they can make sure the machine's key is included in the election.
334	OVO/OVI-VC	SET DATE TIME	After the election is loaded this Admin Log entry shows the current date and time on the system.	Verify the date and time is correct on the system.
335	OVO	SCANNER CALIBRATION	When performing OVO scanner image and speed calibration it will log the start and the success or failure of the test.	If scanner calibration fails, have the hardware checked.
340	OVO / OVI-VC	VOTING NOT OPEN	Requested a function which requires the voting to be opened.	N/A
341	OVO / OVI-VC	VOTING NOT CLOSED	Requested a function which requires the voting to be closed.	N/A

Code	Unit	Event	Description	Error / Action to Take
344	OVO / OVI-VC	VOTE FILES FOUND	Vote data has been found; a new election cannot be loaded until the vote data is cleared.	Loading error - Vote files must be closed, clean the TM and reinsert before loading the new election.
345	OVO / OVI-VC	BAD CONNECTION	Bad connection to the Election Server.	Loading error - Check the network cables and the Election Server to make sure it is connected and running.
347	OVO / OVI-VC	INVALID PRECINCT	The ballot inserted in the OVO has an invalid precinct; the ballot will be ejected to the front of the OVO.	Verify ballot is correct for the loaded election. Spoil the ballot and issue new ballot for voter.
349	OVO / OVI-VC	VALIDATE PASSWORD	Election password was entered and validated	N/A
350	OVO / OVI-VC	VALIDATE PASSWORD FAILED	Password was not found or is invalid.	Verify that the operator has the correct password. If not, try login with correct password. If the password is not correct, replace the system.
352	OVO / OVI-VC	STARTUP RECOVERY	Recovery after power down, voting is open. The system is in a recovery state with voting open.	N/A
354	OVO / OVI-VC	STARTUP RECOVERY TM EMPTY	System recovered with data on hard disk and third media to a blank TM.	N/A
355	OVO / OVI-VC	STARTUP RECOVERY FROM TM DATA	System recovered from TM data onto a clean system.	N/A

Code	Unit	Event	Description	Error / Action to Take
363	OVO	BALLOT JAMMED	A ballot jam has occurred while ejecting the ballot into the ballot box.	The Jurisdiction will have a procedure to perform in this case. Usually what will happen is after the ballot is removed from the OVO, the poll worker will set the ballot aside until the end of the night. After all ballots in the ballot bin have been manually counted and checked against the Public Count on the tally tape, if it is determined the ballot has been cast it can be included in the batch.
364	OVO / OVI-VC / FVT	INVALID XML DATA	There is invalid data in the election.xml file.	Error. Recreate election in Election manager and reload the election data.
365	OVO	NO AUDITTRAIL AVAILABLE	No audit trail found –no votes cast.	N/A
366	OVO	DUPLICATE	Ballot error: Ballot contained RCV contest duplicate.	N/A
367	OVO	INVALID READ	Displays "Invalid ballot style," or "invalid ballot." Reader was not able to read the ballot.	None - Check the ballot and precinct /party markings. During voting, the ballot is discarded and the voter votes again on a valid ballot.
368	OVO	INVALID BALLOT	Ballot was invalid and rejected. It is possible the ballot barcode is wrong or the ballot is incorrect for this election. This error could also mean the ballot read is an absentee or provisional ballot and cannot be cast for this OVO session.	None - Use ballots marked appropriately for the election. If absentee or provisional ballot, insert into secondary slot on ballot box.
369	OVO	OVER/UNDER VOTE	The ballot has over or under vote contests.	None - The voter can continue to cast their ballot or can eject their ballot back to them to make corrections.

Code	Unit	Event	Description	Error / Action to Take
370	OVO	NO SELECTION	The ballot read has no contests marked at all.	None - The voter can continue to cast their ballot or can eject their ballot back to them to make corrections.
371	OVO	TABULATE	Retrieve tabulation data from the vote tally file to create and print the Election Summary report.	N/A
372	OVO	START TALLY	Process to start tallying votes has begun.	N/A
373	OVO	TALLY NOT DONE	Tally file is still being processed.	N/A
374	OVO	TALLY DONE	Tallying votes is finished.	N/A
375	OVO	WRITE BALLOT	"Ballot Cast": Cast vote has been recorded to media	N/A
376	OVO/OVI-VC/FVT	WRITE BALLOT AUDIO	An OVI-VC ballot has been Printed (in the case of the OVI-VC) or Cast (in the case of the OVO)	N/A
377	OVO	WRITE BALLOT OVERRIDE	The ballot was cast with the voter overriding their errors to allow the cast.	N/A
378	OVO	BALLOT JAMMED AFTER CAST	After ballot data was written to the vote file and the ballot is being dropped into the ballot box a jam of the paper ballot occurred.	The already 'cast' ballot may be ejected back to the front of the OVO. Enter the Election password to clear the error. The error screen message says the ballot may have been cast and it should not be inserted back into the OVO, it should be handled manually. Voting can continue as normal.
379	OVO	REACHED MAX PRECINCTS	Reached maximum allowed precincts on this system.	N/A

Code	Unit	Event	Description	Error / Action to Take
380	OVO	ADDING PRECINCT FAILURE	Failure while adding a precinct.	Error. Verify that the ballot was valid but failed to initialize the precinct. Verify the ballot is for this election and the precinct ID is valid. Replace the OVO. Contact vendor.
381	OVO / OVI-VC	PROTECTIVE COUNT	The protective count value (ballot pages cast or printed in the lifetime of the machine) is written to the admin log on open voting and close voting.	N/A
382	OVO / OVI-VC	PUBLIC COUNT	The public count value (ballot pages cast or printed in an election session) is written to the admin log on open voting and close voting.	N/A
383	OVO/OVI-VC/FVT	PRECINCT FOUND	Ballot style found for given precinct.	N/A
384	OVO / OVI-VC	PRECINCT NOT FOUND	Ballot style not found for given precinct.	Insert ballot for a valid precinct for this election.
385	OVO	REQUEST TALLY PRECINCTS	Gets a list of all precincts which have an Election Summary report on this OVO.	N/A
386	OVO / OVI-VC	NO ELECTION FILE ON SERVER	No election found on the Election Server.	Error. Check the Election Server and the Election TM.
387	OVO / OVI-VC	ADMIN LOG CORRUPTED	The admin log file is corrupted; the system will attempt to read whatever it can of the file.	Error. Check the OVD to make sure someone has not tried to breach the system and corrupt the file.
388	OVO / OVI-VC	ADMIN LOG DELETE ERROR	The clear text admin log file could not be deleted from the Admin Log function.	N/A
389	OVO / OVI-VC	CHECK ELECTION FILE INTEGRITY	On boot up of system, it verifies the integrity of the election files.	N/A

Code	Unit	Event	Description	Error / Action to Take
390	OVO / OVI-VC	CHECK ELECTION FILE INTEGRITY DONE	Checking of the election file integrity is completed.	N/A
392	OVO / OVI-VC	CHECK PRECINCT FILE INTEGRITY ERROR	An error occurred when verifying the integrity of the precinct file.	Error. Files are in error on the OVD. The OVD should be replaced. The TM from the current OVD can be used to recover the data.
393	OVO	PRECINCT ALREADY ADDED	On the Add Precinct function screen the precinct ID from the inserted ballot has already been added to the list of valid precincts for this location.	N/A
394	OVI-VC	CHECK SOUND FILE INTEGRITY	On boot up of system, verify the integrity of the sounds files.	N/A
395	OVI-VC	CHECK SOUND FILE INTEGRITY_DONE	The checking of the sound file integrity is completed.	N/A
396	OVO	CHANGE BSID PID MAP	A request has been made to change the ballot style ID to precinct ID mapping.	N/A
397	OVO	PERFORM BSID PID MAP	Perform change of the ballot style ID to precinct ID mapping.	N/A
399	OVO / OVI-VC	NORMAL STATUS	Statuses from writing log file entries.	N/A
601	OVO / OVI-VC	FILE DOWNLOAD	File downloaded from Election Server.	N/A
602	OVO / OVI-VC	CURRENT TIME	Time set on OVO or OVI-VC as specified by Election Server.	N/A
701	OVO	ERROR DELETE INIT PRECINCT FILE	Error occurred when deleting the pre-init precinct file.	Error. Try rebooting the system and see if the problem still exists. If it does contact vendor for assistance.
702	OVO	DELETE INIT PRECINCT FILE	Successfully deleted the pre-init precinct file.	N/A

Code	Unit	Event	Description	Error / Action to Take
705	OVO	ERROR READ INIT PRECINCT FILE	Error reading the pre-init precinct file.	Error. Try rebooting the system and see if the problem still exists. If it does contact vendor for assistance.
706	OVO	READ INIT PRECINCT FILE	Successfully read the pre-init precinct file.	N/A
707	OVO	ERROR ADD INIT PRECINCT	Error adding a precinct to the pre-init precinct file.	Error. Try rebooting the system and see if the problem still exists. If it does contact vendor for assistance.
708	OVO	ADD INIT PRECINCT	Successfully added a precinct to the pre-init precinct file.	N/A
709	OVO	EXISTING INIT PRECINCT	The precinct already exists in the pre-init precinct list.	N/A
710	OVO	ERROR REMOVE INIT PRECINCTS	Error removing a precinct from the pre-init precinct file.	Error. Try rebooting the system and see if the problem still exists. If it does contact vendor for assistance.
711	OVO	REMOVE INIT PRECINCTS	Successfully removed a precinct from the pre-init precinct file	N/A
712	OVO	MAXIMUM INIT PRECINCTS	The maximum number of pre-init precincts have been entered	N/A
713	OVO	ERROR ADD BALLOT TYPE	Error when adding the new ballot type to the session.	Error. Can only add a new ballot type when voting is open. Try rebooting the system and see if the problem still exists. If it does contact vendor for assistance.
714	OVO	ADD BALLOT TYPE	The new ballot type has been added and is allowed to be cast for this session.	N/A

Code	Unit	Event	Description	Error / Action to Take
715	OVO	INIT PRECINCT LIST	Admin log entry which is written upon exit from the Pre-init Precinct function when precincts have been added or removed. It will list the current pre-init precinct list.	N/A
801	OVO	SCANNER DISCONNECT	The Ballot Reader has stopped functioning.	Error. The OVO should be replaced. The TM from the current OVO can be used to recover the data,
901	OVO / OVI-VC	HD WRITE FAILURE	Failure when writing file to Hard Disk.	Error. Check hard disk of the OVD. Replace the OVD (at the polls), insert the correct TM with vote data to recover the data, and restart the system.
902	OVO / OVI-VC	CF WRITE FAILURE	Failure when writing file to third storage device.	Error. Verify that the third storage device is not working correctly. Replace the OVD (at the polls), insert the existing TM with vote data to recover and restart the system.
903	OVO / OVI-VC	TM WRITE FAILURE	Failure when writing file to Transport Media.	Error. Verify that TM is not functioning. Insert another, cleared TM, restart system and recover from Hard Disk and third storage device vote data.
904	OVO / OVI-VC	HD MEDIA FAILURE	Failure when writing data to Hard Disk	Error. Check hard disk of the OVD. Replace the OVD (at the polls), insert the correct TM with vote data to recover the data, and restart the system.
905	OVO / OVI-VC	CF MEDIA FAILURE	Failure when writing data to third storage device	Error. Verify that the third storage device is not working correctly. Replace the device (at the election warehouse) or the OVD case (at the polls), insert the existing TM with vote data to recover and restart the system.

Code	Unit	Event	Description	Error / Action to Take
906	OVO / OVI-VC	TM MEDIA FAILURE OR INVALID APPLICATION STARTUP	This problem occurs when there is a Failure when writing data to Transport Media. This error code is also displayed when the system is unable to recover during initialization after a reboot.	Error. Force a shut down and reboot the OVD to recovery TM. If TM is not functioning, insert another, cleared TM, restart system and recover from Hard Disk and third storage device vote data. If the system is unable to recover, refer to section 3.1.1.8 for the procedure to clear the data files.
907	OVO / OVI-VC	COUNTER FILE FAILURE	Cannot read protective count file. The counter files are checked on startup, open voting, close voting, Reset Training, tally, and for every cast ballot page or ballot page printed. A fatal error occurred during one of these processes.	Error. Discontinue use of the OVD and contact the vendor. If necessary, replace OVD.
908	OVO	IMAGE DIR FAILURE	Error creating the required Image directory on the hard drive or on the TM, the log entry which identify which one had the problem.	If the problem is on the TM, replace the TM and reboot the system. If the problem is on the hard drive, the system will need maintenance.
910	OVO / OVI-VC	RECOVERY FAILURE	Failure during system recovery.	Error. Verify existence of vote files on the three media. Contact vendor. If necessary, replace OVD.
911	FVT	CRYPTING ERROR	Error decrypting the security keys	Error. Contact vendor. If necessary, replace OVD.
914	OVO / OVI-VC	LOGIN FAILED	Login failed.	Error. Verify all media are working, verify election file is correct; Contact vendor for assistance. If necessary, replace OVD.
925	OVO / OVI-VC	INVALID XML FILE	Data format is invalid in XML file.	Error. Check Election files to verify the required files. Create new Election TM/media. If necessary, replace OVD.

Code	Unit	Event	Description	Error / Action to Take
930	OVO / OVI-VC	ERROR READING LOG	Error reading admin.log file.	Error. Contact vendor for assistance. Verify admin.log file exists; check all three media. If necessary, replace OVD.
932	OVO	ERROR DURING STARTUP	Error during the startup of the application and reading the vote and election files. Check any message logged with this error code.	Error. Restart the system to see if that will correct the issue. Replace OVD.
933	OVO	ERROR CLOSE VOTING	Error during the close voting process.	Error. Restart the system to see if that will correct the issue. If the problem still exists, take the TM and recover it onto a clean system, then perform close.
934	OVO	ERROR CLOSE FILES	Error during the close voting process.	Error. Restart the system to see if that will correct the issue. If the problem still exists, take the TM and recover it onto a clean system, then perform close.
935	OVO	ERROR CLEANING VOTE FILES	Error while cleaning the vote files	Error. Restart the system to see if that will correct the issue. If the problem still exists, log in as a Maintenance user, select 'Pre-init Precinct' function, it will clean the vote files.
939	OVO / OVI-VC	XML FILE NOT FOUND	Required XML file was not found	Error. Check Election files to verify the required files. Create new Election TM/media. If necessary, replace OVD.

Code	Unit	Event	Description	Error / Action to Take
940	OVO	WRITE BALLOT FAILURE	Failure to cast a ballot. Failed while writing a vote to media.	Error. Save the ejected ballot, and place it in a special envelope to be reviewed at close. Check all three media to verify they are properly mounted. Reboot. If that does not correct the problem, attempt to recover vote files from the media. Replace TM with cleaned TM. Reboot. If that does not correct the problem, replace OVO. Count the ballots in the ballot bin and compare it to the Public Count value. If they match, the ejected ballot was not cast and needs to be given to the jurisdiction to be counted. If the Public Count value is higher than the ballot count by one, the ballot in the special envelope was cast; handle it like cast ballot.
945	OVO	PARTIAL WRITE BALLOT FAILURE	Ballot was cast but not written to all three media.	Error. Restart system without closing voting to recover with all media in synch. If necessary, replace OVO.
950	OVO / OVI-VC	ELECTION FILES INTEGRITY ERROR	The system was not able to verify the integrity of the election files.	Error. Check Election files to verify the required files. Create new Election TM/media. If necessary, replace OVD.
951	OVI	SOUNDS FILES INTEGRITY ERROR	The OVI-VC system was not able to verify the integrity of the election files.	Error. Check Election files to verify the required files. Create new Election TM/media.
955	OVO / OVI-VC	NO MAINTENANCE USER	The default Maintenance user was not found.	Error. Contact vendor for assistance.
960	OVO / OVI-VC	INVALID TM FILE	The TM has an invalid files(s) at startup.	Error. Insert another, cleared TM and restart the OVD.

Code	Unit	Event	Description	Error / Action to Take
970	OVO/OVI-VC	JAVA HOTSPOT	A Java created Hotspot file was found on the system during startup. The Admin log entry shows the file name. The hotspot file will be copied to the TM for review by the vendor.	Error. Retrieve the hotspot file from the TM and send it to the vendor with an explanation of what caused the issue.
999	OVO / OVI-VC	GENERIC ERROR	Fatal error occurred, no details provided. Internal error has occurred.	Error. Restart OVD to see if it will recover. Replace OVD unit at the polls. Contact vendor for audit and repair.