ES&S Model 650 System Operations Procedures

Firmware Version 2.2.2.0

Hardware Version 1.1 and 1.2

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Election Systems and Software, Inc.
Corporate Headquarters
11208 John Galt Blvd.
Omaha, Nebraska 68137
United States of America
Phone: (402) 593-0101
Toll Free Inside of U.S.: (877) 377-8683
Fax: (402) 593-8107
http://www.essvote.com
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ES&S Model 650 System Operations Procedures, ES&S, Omaha, NE

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Proprietary Document Section	Description

UNCERTIFIED FUNCTIONALITY NOTICE

This document is designated for use with the Unity 3.2.0.0 voting system, which has been tested to the *2002 Voting Systems Standards (VSS)* to include a limited system configuration and feature set. Please be advised that this system and associated documentation includes functionality and descriptions of functionality that have not been fully tested or certified to the *VSS*.

The products and/or system features designated below **HAVE NOT COMPLETED TESTING FOR CERTIFICATION BY THE ELECTION ASSISTANCE COMMISSION (EAC)** to the requirements of the *VVSG*:

UNCERTIFIED PRODUCTS

- System Hardware
  - Automated Bar Code Reader
  - iVotronic DRE Precinct Tabulator
  - Model 100 Precinct Ballot Counter
- System Software
  - Unity Data Acquisition Manager
  - Unity iVotronic Ballot Image Manager

UNCERTIFIED SYSTEM FEATURES

- Network Data Transmission
  - Including remote transmission of vote data and/or consolidated results data

If your jurisdiction requires Federal Voting System certification at the Federal level or you have questions about your jurisdiction's certification requirements, please refrain from using the products and system features listed above until you have received approval from your State Election Authority. **USE OF ANY OF THE UNCERTFIED SYSTEM FEATURES NOTED ABOVE WILL NEGATE THE UNITY 3.2 FEDERAL CERTIFICATION.**ES&S shall not be held responsible for any unauthorized use of the foregoing products and system features.

Please visit www.eac.gov for more information regarding United States Federal voting system certification requirements and procedures. Contact the Elections Authority for your jurisdiction with any questions about your local laws and requirements.

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Part 1: Model 650 Operator's Guide

Part 1 contains the following information

- Chapter 1: Introduction
- Chapter 2: Safety Information
- Chapter 3: Scanner
- Chapter 4: Pre-Election Day Tasks
- Chapter 5: Operate the Scanner

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Chapter 1: Introduction

The ES&S central count system combines decentralized pencil-and-paper voting with centralized automated ballot counting. The centerpiece of this system is the ES&S Central Ballot Scanner: a high-speed, computerized, optical mark reader.

Voting takes place at various locations within a precinct. After the polls close, poll workers put ballots into a locked ballot box. They take the boxes to the central vote-counting location and count them using ES&S Central Ballot Scanners.

Note: Jurisdictions can also use central count scanners in a system with precinct counters, to count early vote and absentee ballots.

Election laws and procedures vary from state to state. Use the information in this guide to develop election administration procedures for your jurisdiction.

Contact ES&S for Technical Support

This user's guide should aid you in accomplishing most tasks. However, if you need additional assistance, or if you encounter a processing problem or system error, ES&S's technical support staff can provide advice and help you resolve the situation.

When you contact ES&S for technical support, be near your equipment. In addition, be prepared to provide the following information to the support representative:

- The version number of the product you are using (for example, Model 650 version 2.2.1.0).
- The *exact* wording of any messages that appeared.
- A description of what happened when the problem occurred.

Support representatives are available Monday through Friday, between 8:00 A.M. and 5:00 P.M. central time.

Contact an ES&S Support Representative

Telephone:	877-377-8683 (USA & Canada)
	402-593-0101 (International)
Fax:	402-593-8107
Write:	Election Systems & Software
	11208 John Galt Blvd.
	Omaha, NE 68137 USA

ES&S's support services are subject to ES&S's prices, terms and conditions in place at the time the service is used.

Note: For issues related to the Okidata 520 printer contact Okidata. See your printer documentation for information about contacting Okidata.

Provisional Voting

In paper-ballot based systems, provisional balloting is handled by procedure. Voters are allowed to vote a paper ballot that is segregated from valid Election Day ballots. After the election, each provisional ballot envelope is authenticated against the appropriate criteria and either allowed or not allowed. Those ballots found to be valid are then opened and included in the Election Day totals according to processes defined your jurisdiction's requirements. For example, some jurisdictions may hand-count provisional ballots and manually enter them into ERM, while others may create a separate election group and scan them in using your Model 100, DS200, or Model 650 scanner.

Install Firmware on the M650

Installation procedures differ between M650s with green light sensors and those with red light sensors. The green light sensors require that the Mark Detection settings be changed to 3.0 after any change in firmware.

For more information about changing the Mark Detection settings see “Set Mark Detection Routine (Green Light)” on page 5.

To determine which sensor your M650 has power on the unit and lift the M650 read head. The sensors will be either red or green.

Warning: Contact an ES&S service technician for instructions to return your Model 650 to an earlier firmware version. Do not use a firmware update disk to revert a Model 650 firmware version back to an earlier version.

Install new firmware

1. With the scanner off, insert the zip disk containing the new Model 650 firmware into the zip drive of the scanner.
2. Turn the scanner on with the zip disk in the drive. The scanner will load the firmware automatically.

NOTE: Do not remove the zip disk during this process.

3. When the update is complete, a message will appear asking for an election definition.
4. Remove the zip disk.
5. Turn the scanner off.

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Set Mark Detection Routine (Green Light)

1. Turn on the scanner and load a valid Election definition onto the scanner.
2. Press and hold the ENABLE button and press the FORMAT button to enter the internal configuration screen options.

   Select Option Group: System Config *

   Stp/Strt -/+, Enable-Stp/Strt, Exit/Accept

NOTE: The following message appears under all menu choices. “Stp/Strt --/+, Enable – Stp/Strt Exit/Accept.”

   - Use the START and STOP buttons on the front of the scanner to rotate through the menu options and to change settings. Press START to cycle forward through the menu choices. Press STOP to cycle backward through the menu choices.
   - Press and hold the ENABLE button and press the START button to choose an option or press and hold the ENABLE button and press the STOP button to exit the configuration options.
3. Press the START button until the screen message “Select Option Group: Mark Detection” appears.

   Select Option Group: Mark Detection

   Stp/Strt -/+, Enable-Stp/Strt, Exit/ Accept

4. Press and hold the ENABLE button and press the START button until DTS 2.0 * displays.

   Mark Detection Setting: DTS 2.0 *

   Stp/Strt -/+, Enable-Stp/Strt, Exit/ Accept

5. Press the START button to change the setting to DTS 3.0.

Mark Detection Setting: DTS 3.0

Stp/Strt -/+, Enable-Stp/Strt, Exit/ Accept

6. Press and hold the ENABLE button and press the START button to save the setting. The following screen message appears:

   Mark Detection Changed

7. Power down and restart the Model 650 and verify on the log printer that the Mark Detection setting has been set.
8. Turn the scanner off. The firmware update is complete.

Operations Support Frequently Asked Questions

- How is the system purchased?

  Purchase a Model 650 scanner by contacting your ES&S representative.

Contact your ES&S representative by calling 877-377-8683 (USA & Canada) or 402-593-0101 (International).

- How is the system installed?

  Install new firmware to the M650 by following the steps in the ES&S implementation plan. Installation instructions are also included in the System Operations Procedures manuals.

Refer to Install Firmware on the M650 in Chapter 1: Introduction in this manual for instructions for installing Firmware on the M650.

- How is the system set up?

  Follow the steps in the ES&S implementation plan to set up the system. Setup instructions are also included in the System Operations Procedures manuals.

- How do you verify the system?

  You may verify the system in a variety of ways.

  - Compare the serial numbers on the hardware to the numbers on the purchase order.
  - Compare the firmware version in the to the version listed on the purchase order.

  Refer to the System Acquisition Procedures heading in this chapter for instructions about accessing the firmware version.

  - The Acceptance Checklist will aid in the verification of the system.
- What training is required?

  Training is determined at the time the system was purchased.

- What checklist should be followed?

  Use the Acceptance Checklist to ensure that the system has been delivered and is performing as expected.

System Acquisition Procedures

Once you have received your M650, make sure the firmware on the M650 matches the firmware listed on the purchase order. You can do this by turning on the M650 and viewing the firmware version that appears on Machine Readiness report that generates when the M650 is turned on. If an election is installed on the M650, the election name will also appear on this report.

Refer to the Machine Readiness heading in Chapter 6: Reports for more informationabout the Machine Readiness report.

Facilities, Furnishings and Fixtures Required for Model 650 Operation

The Model 650 is a central count tabulator. The following facilities, furnishings, and fixtures are required to operate the Model 650:

ES&S recommends using the metal cart available for the Model 650 for easier setup and movement of the machine.

The Model 650 is intended for indoor use only. The weight of the Model 650 is approximately 150 pounds.

During tabulation, ES&S recommends the Model 650 should be operated in a room measuring a minimum of 10 feet by 10 feet.

The Model 650 can be operated in any temperature controlled facility, with temperatures between 40 degrees fahrenheit and 100 degrees fahrenheit. Operational humidity during operations should be between 10 - 88 percent RH. The Model 650 is not protected against harmful ingress of moisture.

A standard 110V outlet must exist in the facility for power cord plug in. The Model 650's input rating is 120V~60/60 Hz 5A. The main supply voltage fluctuations are not to exceed plus or minus 10 percent of the rated supply voltage range. ES&S recommends that the unit is plugged directly into a power supply without the use of extension cords.

Storage Conditions
The storage temperature should be between -15 degrees Fahrenheit and 150 degrees Fahrenheit (between -26 degrees Celsius and 65 degrees Celsius).

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General Timeline for Election Preparation

90 Days	Submit site support request to ES&S
63 Days	All forms are due to ES&S (excluding Candidate forms)
56 Days	Candidate forms due to ES&S
46 Days	Last day to give ballot proofs to Counties (strictly for military or overseas voting).
45 Days	Absentee Voting begins
42 Days	Certification Deadline
28 Days	All ballot proofs must be signed off
21 Days	Last day to deliver Election Day ballots
20 Days	Advance or early voting begins
18 Days	Last day for ES&S to ship coding materials
10 Days	Software Installation for pre-election procedures
1 Day	Early voting ends

Refer to the Personnel Deployment and Training Requirements document for more information.

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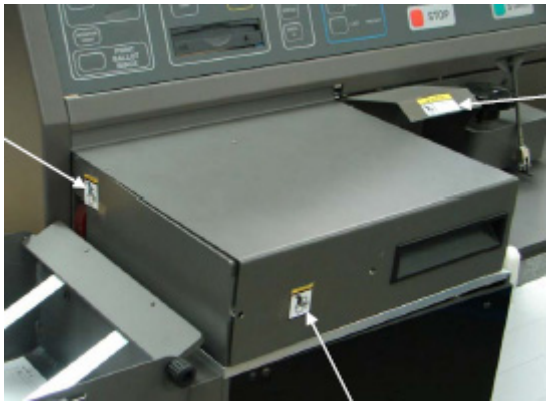
Chapter 2: Safety Information

When used properly, the Model 650 is safe and effective. The following symbols throughout this manual indicate when hazards may occur during normal operation of the scanner. Read the warnings and proceed with caution when you carry out potentially hazardous scanner operations.

Electrical Shock Danger: This symbol indicates a danger of electric shock. There are high voltages present inside the enclosure of the Model 650 scanner. To reduce the risk of fire or electric shock, do not attempt to open any enclosures or gain access to areas for which you have not trained. Only ES&S qualified personnel should open enclosed areas of the scanner.

User Caution: This user caution symbol indicates that damage to the scanner or injury to the user could occur if the proper procedures are not followed. Carefully follow all instructions and proceed with caution when this symbol is associated with a set of instructions.

CAUTION: Keep Fingers, Hands and Loose Clothing Clear of the Areas Where This Symbol is Displayed (i.e., two pinch rollers under the hinged Scanner-Head Assembly, and under the Pick-Belt Cover--see photo below).



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Important Safety Instructions

Please read all safety instructions before operating the Model 650 Central Scanner.

System Operations Procedures

Read this manual carefully before operating the scanner. Carefully follow all instructions and read all warnings.

Power Sources

Only operate this product from the type of power source indicated in the system operations procedures manual. Make sure that the installation complies with applicable sections of the National Electric Code. Consult your local building code before installing.

Ventilation

Slots and openings in the case of the Model 650 are included to provide adequate ventilation for the unit. These openings must remain clear. Do not block or cover any openings in the Model 650 case or the unit could overheat. Do not operate the Model 650 in an enclosed housing not approved by ES&S.

Water and Moisture

Caution: Do not place containers with liquids such as coffee, water or soda on or around the Model 650. Do not operate the equipment in an excessively wet environment. Store the Model 650 in a cool dry place

Cleaning

Follow instructions in the system operations procedures manual for cleaning the Model 650. Only use cleaning solutions approved by ES&S in the system operations procedures manual.

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Heating

Do not install this product near heat sources such as radiators, air ducts, areas subject to direct sunlight or other products that produce excessive heat.

Power Cord Protection

Route or install the power supply cord for this product in such a manner to protect it from being walked over or pinched. Make sure you power down the unit completely before connecting or disconnecting the power cord. Remove the power cord before moving the unit. Only plug the power cord in to an easily accessible unobstructed wall socket.

Servicing

Do not attempt to service the scanner unless specifically instructed to do so by ES&S. Do not attempt to gain access to areas of the unit where dangerous voltages are present. Only qualified ES&S technicians should service the Model 650.

Damage Requiring Service

Unplug the Model 650 and call ES&S to consult a qualified service technician under the following conditions:

- When the power cord is damaged.
- If liquid has been spilled into the scanner casing.
- Consult a technician if the scanner does not function normally while following instructions in the system operations procedures manual. Adjust only the controls specified in the system operations procedures manual. Improper adjustment of other controls may result in damage to the scanner and will often require work by an ES&S technician to restore the scanner to normal operating condition.
- If the product is damaged in any way.
- When the scanner displays a negative change in performance.

Specifications and Cautions

Indoor Use Only

Ordinary Protection (Not Protected Against Harmful Ingress of Moisture

The rear door of the Model 650 must be locked at all times during normal use. Store the key to the door in a secure location while you are using the Model 650 scanner.

Weight: 150 lbs (68 kg)

Electrical input rating: 120V~ 50/60Hz 5A

Mains supply voltage fluctuations are not to exceed ± 10 percent of the rated supply voltage range.

Pollution Degree 2 for the ambient environment

Operating relative humidity: 10%-88% RH, non-condensing

Operating temperature: 40 F - 100 F (4 C - 37 C)

Transport and storage conditions: -15 F to +150 F (-26 C to +65.5 C)

Maintenance: For applicable maintenance items, refer to the *Model 650 System Maintenance* manual.

Caution: The interior of the Model 650 is not accessible to the user. Service operations inside the electrical enclosure must be done by trained and authorized personnel.

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Battery disposal: Dispose of used batteries according to local regulations and conventions.

Chapter 3: Scanner

This chapter describes the functions of the ballot scanner. The chapter also contains diagrams and descriptions about the different parts of the scanner and the control panel. Review this section before Election Day in order to familiarize yourself with the parts and functions of the scanner. ES&S recommends running a ballot test deck so that you can correct scanner errors before the election.

For information about supplies needed to ensure that the scanner runs smoothly, pre-election maintenance and loading the election definition see Chapter 4: Pre-Election Day Tasks.

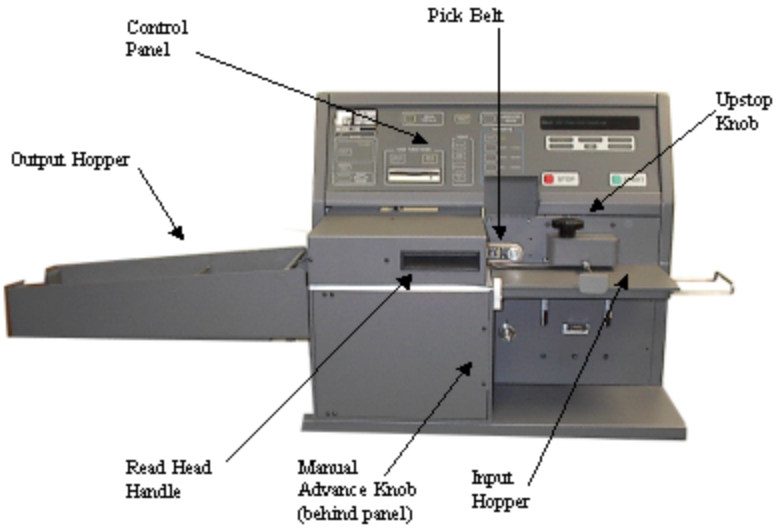
Scanner Functions

The Central Scanner performs the following functions:

- The scanner checks the pre-printed codes along the ballot edge to determine each ballot's precinct, split and type. For example, a primary election ballot from precinct five might be Republican, Democratic or Non-partisan.
- The scanner reads voter choices for candidates or issues. The entire reading process takes only a fraction of a second for each ballot.
- The scanner checks for ballot irregularities. For example, if a voter opts not to vote in one race, that choice is recognized and recorded. Alternatively, if the scanner detects a torn ballot, the machine stops and provides the operator with instructions for handling the ballot.
- The scanner tabulates votes in each race and tracks the race count by precinct. The scanner also counts total ballots by precinct.
- The scanner tracks absentee results by the method defined in the election definition.
- The scanner generates reports to show up-to-the-minute totals by individual precinct, city, or by county. Final reports serve as unofficial election night results. The scanner also generates a time/date stamped audit log of scanner activities on a separate printer.
- The scanner saves election results to a zip disk in order to make a permanent record of the election or to use as backup data.

External Scanner Parts

Each part of the Model 650 Central Scanner performs a specific function. The terminology used in this manual refers frequently to these parts; therefore, it is important to be familiar with them.



- **Pick Belt**. The pick belt looks like a very thick rubber band and is about four inches in diameter. The belt grabs the top ballot and moves it into the read area.
- **Retard Pad**. The retard pad is a rubbery, oval-shaped pad about one inch across. It is embedded in the metal plate directly beneath the pick belt. The pad slows the movement of all ballots except for the top one that the scanner is feeding through the transport.
- **Read Head Handle.** Use the read head handle to lift the read head and expose the pick belt and retard pad.
- **Control Panel.** The control panel contains all of the buttons necessary for operating the ballot scanner.

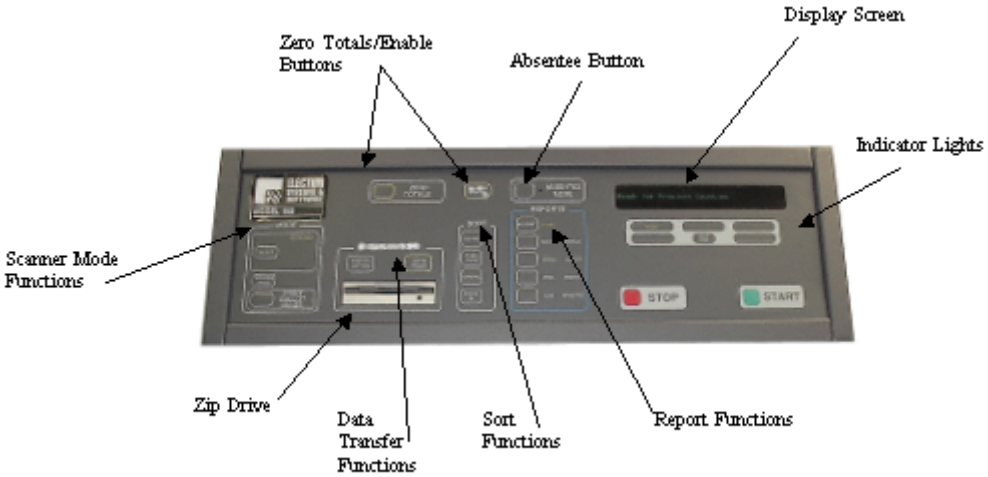
The Scanner Control Panel heading in this chapter describes each part of the control panel.

- **Input Hopper.** The input hopper holds the ballots in position for entry into the scanner.

- **Output Hopper.** The output hopper holds the ballots that the scanner has counted.
- **Up-stop Knob.** Use the up-stop knob to adjust the guide arm, which holds the ballots in place as the input hopper rises.
- **Manual Advance Knob.** The manual advance knob is located behind the front panel (which opens by applying pressure to the right edge). Turning the knob manually feeds the ballot through the read head.

Scanner Control Panel

The control panel consists of various buttons that set the scanner mode, start and stop the scanner, control sorting functions, and select reporting functions. The panel also has various lights that indicate the options chosen, operating status and a display screen for system messages.



Detailed descriptions of the panel's functions follow:

- **Mode:** Use the mode area to set the scanner to "on-line" for scanning ballots, or to various diagnostic modes. During the election, you should set the machine to "on-line." To set the mode to on-line, press the SELECT button until the on-line indicator light is on.

Refer to Chapter 7: Operational Modes for details on each diagnostic mode along with examples of printouts produced by the scanner

- **Zero Totals:** Press ZERO TOTALS and ENABLE at the same time to clear the scanner's volatile memory (memory that is erased when the system is turned off) and internal drive. The scanner erases all memory but data saved to the zip disk remains.
- **Data Transfer:** This area contains the SAVE and IMPORT RESULTS buttons. Press the SAVE button to save all ballot tabulation information to the internal drive. Press SAVE and ENABLE at the same time to save tabulation data on the internal drive to the zip disk. Press IMPORT RESULTS while holding down ENABLE to copy information from the zip disk to the internal drive.
- **Enable:** This button is included as a safety feature. You must press it simultaneously with either the ZERO TOTALS button or the IMPORT RESULTS button. Because this button has to be pressed simultaneously with either of the other two, the scanner operator cannot inadvertently change vote counts.
- **Absentee Mode:** This button changes the scanner's operating mode. When you turn the scanner on, the default on-line operating mode is "precinct mode." If you are counting absentee ballots as duplicate precincts, press this button to change the on-line operating mode to absentee mode.
- **Sort:** This area contains buttons that control ballot sort options: blank, over-vote, special, and write-in. When one of these buttons is pressed, the corresponding light indicates that the sort option is active. Refer to local procedures about using these options.
- **Reports:** Use the buttons in this area to generate results reports. Set the FORMAT button to either "short" or "long."

Refer to Chapter 6: Reports for explanations for and samples of each report.

- **Display Screen:** The display screen on the upper right side of the control panel is where the scanner displays system messages.
- **Indicator Lights:** The following lights are located under the display screen:
  - **READY:** indicates that the scanner is ready for operation.

- **BUSY:** indicates that the scanner is processing.
- **TEST:** indicates that the scanner is in diagnostic mode.
- **MULTIPLE:** indicates that there are multiple ballots in read area; the scanner stops operation until the problem is resolved.
- **MACHINE CHECK:** indicates a possible hardware error; call ES&S.
- **LAMP TEST:** Turns on all lights on the control panel to check that they are working.
- **RE-SCAN BALLOTS**: illuminates when defective ballots do not scan, including the following: sorted ballots, feed jams, multiple sheets and black check errors.

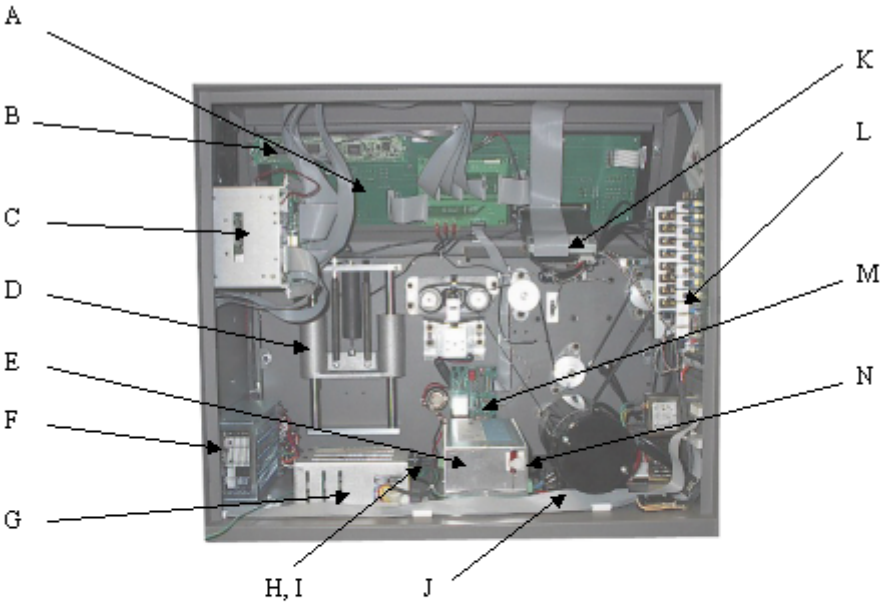
❖ **Stop:** This button stops the scanner's processing.

❖ **Start:** This button starts the scanner's processing.

Internal Scanner Parts

It is important to become familiar with the internal scanner parts, but the scanner operator should not adjust any controls inside the scanner without guidance from an ES&S technical associate.

Warning: Do not attempt to service this unit unless specifically instructed to do so. Do not attempt to gain access to areas of the unit where dangerous voltages are present. **Refer servicing to qualified ES&S service personnel**.



A. Backside of front switch panel.
B. Reset Button.
C. Program card cage.
D. Rear of Input Hopper Assembly.
E. Motor control power supply.
F. Main power supply.
G. Motor control relay module.
H. Fuse for motor control relays.
I. Fuse for motor control a/c.
J. Motor.
K. Rear of Zip drive.
L. Amplifier board.
M. PMS board.
N. Tuning Screwdriver.

Battery Information

A 3.6Vdc high energy lithium battery is connected to the program card cage. When you replace this battery, dispose of the discarded battery by following your local regulations and conventions.

Election Definition

Election coders program the election definition onto a zip disk for each election. It contains all the candidates, contests and ballot styles specific to the current election. In addition, the election definition contains various options, which control how the ballot scanner operates, and how the scanner reports results. Election definition options include (but are not limited to) the following:

- By style or by precinct tabulation.
- Inclusion of under-votes and over-votes on reports.
- Percentage included for under-votes and over-votes on reports.
- Inclusion of ballot positions on precinct reports.
- Tabulation of sorted write-in ballots.
- Duplicate absentee precincts.

Chapter 4: Pre-Election Day Tasks

This section describes the supplies needed to prepare the scanner for Election Day and provides instructions for performing the following preparatory tasks:

- Pre-election maintenance on the pick belt, retard pad, rollers and fiber optic sensors.
- Loading the election definition.
- Testing the election definition.

See Chapter 5: Operate the Scanner for more information about operating the scanner, including scanning the ballots and printing reports.

Supply Inventory

ES&S recommends keeping the following supplies on hand for each ballot scanner. You can order these items from ES&S. Please call us at (800) 247-8683 with any questions. Allow four weeks for delivery.

- **Pick Belts:** These are about four inches in diameter and look like very thick rubber bands. If ES&S is programming your election, these belts will be sent with the election definition. Only order from ES&S. **Quantity: two.**
- **Retard Pads:** These thin, oval, rubbery pads are about one inch wide. Only order from ES&S. **Quantity: two.**
- **8.5” x 11”, continuous feed, three-part paper:** ES&S recommends that the printer paper be carbonless to avoid smearing. If you will be using the Election Reporting Manager, one part paper may be used. **Quantity: two boxes.**
- **Pressurized air cans:** Used to clean the sensors. **Quantity: two.**
- **Cloth and Isopropyl rubbing alcohol:** Used to clean the rollers. **Quantity: one bottle.**
- **Small white adhesive labels, ½ inch wide:** Use these labels to cover stray marks on the ballots. Only use labels from ES&S. **Quantity: 12 sheets.**
- **Zip Disks:** These should be FAT16 formatted disks. **Quantity: three.**
- **Marking Devices:** The Model 650 is designed to handle many marking devices, however, ES&S recommends using either an ebony pencil or the Optech Ballot Marking Pen for best results.

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●Unity iVotronic Ballot Image Manager (iVIM) ●All functions related to netword data transmission

- **Spare printer ribbon:** Use this for a backup ribbon on your PC printer. Refer to the printer manual for the type of ribbon, or call ES&S. **Quantity: one per printer.**
- **Uninterruptible Power Supply (UPS):** ES&S provides an optional UPS Battery Backup for power loss situations. **Quantity: one**.

Maintenance

In order to keep the scanner in working order, perform routine maintenance before each election. It is important that you unplug the scanner before performing these tasks and that you raise the read head to avoid damaging the control panel.

Warning: The power supply cord for this product should be routed or installed in such a manner to protect it from being walked on or pinched. Make sure you power the unit down completely before connecting or disconnecting the power cable. Remove the power cord before moving the unit. Place the power cord near an easily accessible unobstructed socket outlet.

Replace the Pick Belt

Required Tools: None

Required Staff: Personnel trained by ES&S.

Estimated time to complete: 5 minutes

The pick belt grabs, or “picks,” the top ballot and moves it into the read area. As the belt becomes old and worn, multiple ballots may pass through the scanner at once, causing the scanner to jam and stop processing ballots. For the best results, replace the pick belt before each election.

1. Pull the worn belt off the right-hand roller, and then remove it from the left-hand roller.
2. Stretch out the new pick belt as you might stretch a balloon before inflating it.
3. Loop the belt around the left roller and then around the right roller until it fits into place.

Clean and Replace the Retard Pads

The retard pads should be light-colored and clean. The first retard pad is an oval pad found below the pick belt. The second pad is a square pad located on the input hopper tray. You should clean these pads regularly. If either pad is dirty or discolored, cleaning them may improve the performance of the scanner. Replace the retard pad below the pick belt if it appears worn or is not performing well.

Clean the retard pads

Required Tools: Dry cotton cloth and isopropyl alcohol (if necessary)

Required Staff: Personnel trained by ES&S

Estimated time to complete: 10 minutes

To clean either retard pad, wipe the area with a dry, cotton cloth to absorb any ink without smearing it. If more cleaning is necessary, apply isopropyl-rubbing alcohol to the cloth and clean again.

Replace the retard pad

Required Tools: Straight screwdriver

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Required Staff: ES&S certified technician

Estimated time to complete: 10 minutes

1. Use the small tuning screwdriver stored in the back of the scanner to lift the edge of the pad until it is above the metal surface.
2. Place the new pad into position beneath the pick belt with the flat surface down, and then pop it into place with the screwdriver.

Note: Make sure there are no exposed pad edges and that the pad is inserted flat surface down. Failure to properly insert the pad can cause ballots to jam and/or rip as the scanner feeds them through the transport.

Clean the Rollers

Required Tools: Dry cotton cloth, isopropyl alcohol

Required Staff: Personnel trained by ES&S.

Estimated time to complete: 5 minutes

The rollers move the ballots through the read area and into the output hopper. If the surfaces of the rollers are dirty or discolored, clean them.

To clean the rollers, apply isopropyl-rubbing alcohol to a cotton cloth and clean the visible surfaces of the rollers, turning them as you clean to expose most of the surface area of the rollers.

Clean the Fiber Optic Sensors

Required Tools: Dry cotton cloth, pressurized air can

Required Staff: Personnel trained by ES&S

Estimated time to complete: 5 minutes

The sensors are small devices (approximately 1/8 inch in diameter) that read ballots and detect paper jams. The sensors are embedded in metal plates in the read area.

To clean the fiber optic sensors, wipe them with a dry, cotton cloth or use a pressurized air can to clean out any debris or paper dust collected during scanner operation. It is important to hold the can upright so that you do not expel propellant onto the sensors.

Clean the Scanner

Required Tools: Soft cotton cloth, mild detergent solution

Required Staff: Personnel trained by ES&S.

Estimated time to complete: 5 minutes

Caution: If it should become necessary to clean the scanner, disconnect the unit from its power source. Do not use liquid cleaners, aerosols, abrasive pads, scouring powders or solvents, such as benzene or alcohol. Use a soft cloth lightly moistened with a mild detergent solution. Ensure that the surface cleaned is fully dry before reconnecting the power.

Connect the External Printer

Connect your printer(s) to the Model 650 to print reports on 8.5 x 11 sized paper.

Refer to the printer manual for specific instructions on operating the printer.

1. Plug the printer cable into the external parallel printer port located next to the on/off switch on the side of the scanner
2. Plug the other end of the printer cable into the parallel printer port on the back of the printer.
3. Connect the printer's electric cord to a wall outlet.

Note: The 650 has two parallel ports for connecting printers. ES&S configures the machine when built to either use one port (sending both audit and results data to a single printer), or to use two ports (sending audit data to one printer and results data to the other printer).

Load the Election Definition

Election coders create a new zip disk containing the current election information for every new election. If ES&S is coding your election, they will send the disk to you.

1. If the Model 650 is not plugged in, plug the scanner into a wall outlet.

Note: Make sure you plug the scanner into a grounded, three-prong electrical outlet and that you only plug one scanner into a single wall or floor outlet at a time. Do not use an extension cord with the scanner. Use the power strip (with 6' cord) that ES&S sent with your scanner.

Warning: The power supply cord for this product should be routed or installed in such a manner to protect it from being walked on or pinched. Power the unit down completely before connecting or disconnecting the power cable. Remove the power cord before moving the unit. The power cord must be placed near an easily accessible unobstructed socket outlet.

2. Turn on the printers. Verify that the printer paper is loaded properly, and that the print head is at the top of the page.

Refer to your printer instructions for guidance (the printer manufacturer's manual should always be kept in the drawer of the scanner stand).

3. Insert the zip disk with your election definition into the zip drive on the scanner. You must insert the disk *before* you turn the scanner on for the scanner to recognize that you are loading a new election definition.
4. Turn the scanner on. The message "Booting Model 650" appears.

   The message, "Press Stop to Keep (Election Name 1) Press Start to Initialize (Election Name 2)" appears after the machine boots.

5. Press **START** to transfer the election definition files from the zip disk to the scanner's internal drive. The message "Confirm: Initialize Election? Press Stop to Cancel, Start to Continue" appears.
6. Press **START** to transfer the election definition file from the zip disk to the internal drive. The message "Initializing Election Files" appears. The next message reads, "Printing System Ready Report," followed by a message which reads "Ready for Regular Counting."

   After you load the election definition, the "Ready" light illuminates, and the scanner is in on-line mode. The report format is automatically set to short when the scanner starts.

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7. Make sure the information on the Machine Readiness Report is correct.

Contact an ES&S support technician immediately if the printed information is not correct for the current election.

8. Remove the zip disk with the election definition and store it in a safe place.

Caution: Do not reuse the election definition disk to store election data. Use blank zip disks instead so that your election definition can be archived. The election definition will remain on the machine until a new election definition is loaded.

Note: When you save results to a zip disk, you can use that results disk to load the election definition onto additional scanners. Initialization of these machines will be faster than it was when the election definition was loaded onto the first scanner. Make sure that you zero totals on any scanners for which you load the election definition with a results disk.

Test the Election Definition

ES&S will provide a hand counted test deck for each election. A test deck is a stack of sample ballots that are marked and scanned at ES&S. The reports included with the test deck contain accurate results for the election definition sent to your jurisdiction.

Use the test deck to verify your election definition and to test scanner operation. Be sure to follow your local election laws regarding election testing. To test the election you will zero totals on the scanner and turn off the sort options, then run your test deck and check the result reports.

Zero Totals and Turn off Sort Options

Prepare the scanner before you run the test deck.

1. Turn on the printer. Make sure the paper is loaded properly and that the print head is at the top of the page.

2. Turn on the scanner. An underscore character will appear followed by the message “Booting Model 650.” If you have not loaded the election definition, follow the instructions in the previous section titled “Loading the Election Definition.” A Machine Readiness Report will print if an election definition is already loaded and the zip drive is empty. The message, “Ready for Regular Counting,” will appear.
3. Check the Machine Readiness Report for accuracy. Contact ES&S if any of the printed information is not correct.
4. Hold down the **ENABLE** button and press **ZERO TOTALS** to clear the scanner. The message, "Confirm: Zero Totals? Press Stop to Cancel, Start to Continue" appears.
5. Press **START** then press **STOP**. The message “Ready for regular counting” appears.
6. Turn off any active SORT options by pressing the buttons in the SORT area until all the lights are off.
7. Press **SELECT** until the “ON-LINE” lamp lights up in the Mode area.

Scan the Test Deck and Check Reports

Use the test deck sent by ES&S, or create your own test deck by marking ballots and hand-counting the results. Test at least one ballot from each ballot style.

1. Load the test deck in the input hopper.

For instructions on loading ballots, see the section of this manual titled Scan the Ballots.

2. Press **START** to scan the test deck.
3. Press **SAVE** to save your test results to the internal drive. A confirmation message indicating the number of ballots saved appears.
4. Print a Grand Totals Report (long format) and a Precincts Processed Report (long format).

For instructions on printing reports from the scanner, see the Print Results Reports section of this manual.

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5. Compare your reports to those sent from ES&S or to your hand count. If totals do not match, zero totals and scan the ballots again.

Contact ES&S immediately if totals still do not match.

6. If you are using Election Reporting Manager, insert a blank zip disk. Press SAVE to save the results to the internal drive. Press **SAVE** again while holding down the **ENABLE** button to transfer results to the zip disk. Press **START** to confirm that you want to save totals to the transfer disk.

Follow the procedures described in the *Election Reporting Manager System Operations Procedures* manual to load results from the zip disk and test reporting procedures.

7. Call ES&S after completing the test, even if the reports match.

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Chapter 5: Operate the Scanner

This chapter contains systematic instructions for the following tasks:

- Performing final readiness checks.
- Scanning ballots.
- Using headers.
- Scanning absentee ballots separately.
- Sorting over-voted, blank, and write-in ballots.
- Storing vote totals on a zip disk.
- Printing reports.
- Adding vote totals from a zip disk into the scanner.

The ballot scanner should be adequately prepared for election operations.

For preparation instructions including election definition installation, testing procedures and pre-election maintenance, see Chapter 4: Pre-Election Day Tasks.

Activate the Scanner

If you plan to use the uninterruptible power supply (UPS), make sure you connect it before you activate the scanner. To connect the UPS follow the instructions in the UPS manual.

Note: Make sure you follow the proper charging and maintenance instructions listed in the manual that came with your UPS.

Startup Conditions

It is important to be aware of the status of the scanner when you start it. The scanner will react differently dependent on the following start-up conditions:

Printers Off

If the printers are off when you turn the scanner, it will not initialize and an error message will appear. If you then turn the printers on, a confirmation message will appear and the scanner will continue to initialize.

No zip disk or zip disk without election definition inserted

If the zip drive is empty or a zip disk without an election definition is loaded when you turn on the scanner, it will use the election definition currently stored on the internal drive. The message “Reading Election Files,” will appear, followed by the message “Printing System Ready Report.” After the report is printed, the message, “Ready for Regular Counting,” will appear and ballot scanning can begin.

Zip disk with election definition inserted

If you insert a zip disk with an election definition and then start the scanner, the message “Press Stop to Keep (Election Name 1) Press Start to Initialize (Election Name 2)” appears. Pressing STOP will allow you to continue using the current election definition, whereas pressing START will load the new file.

Zip disk with election results inserted

When you insert a zip disk that contains saved results and then start the scanner, the election definition and the saved results will transfer from the disk to the scanner. Initialization of these machines will be faster than it was when the election definition was loaded onto the first scanner. Make sure that you zero totals on any scanners for which you load the election definition with a results disk, unless you want to include those totals with the ballots you scan.

Perform Final Readiness Checks

Perform a final check on Election Day to verify the scanner’s readiness.

Start the Scanner and Check the Ready Report

When you start the scanner, make sure it is on-line and the machine readiness report is correct.

1. Make sure the ballot scanner is off. Do not unplug the scanner at this time.

Note: Make sure that you have plugged the scanner into a grounded, three-prong electrical outlet and that you plug only one scanner into a single wall or floor outlet at a time. Do not plug the scanner into an extension cord. Use the power strip (with 6' cord) that ES&S sent with your scanner.

Warning: You should route or install the power supply cord for this product in such a manner to protect it from being walked on or pinched. Make sure you power down the unit completely before connecting or disconnecting the power cable. Remove the power cord before moving the unit. You must place the power cord near an easily accessible unobstructed socket outlet.

2. Turn on the printers. Verify that paper is loaded properly and that the print head is at the top of the page.

Refer to the printer manufacturer's instructions for guidance (the printer manufacturer's manual should always be kept in the drawer of the scanner stand).

3. Turn on the scanner. If you have previously loaded the election definition, do not insert a zip disk.

If you have not loaded the election definition, follow the instructions in the Load the Election Definition section in this manual.

The display will show an underscore character then the message "Booting Model 650" appears. The "Ready for Regular Counting" message will appear and the Machine Readiness Report will print.

4. Check the Machine Readiness Report for accuracy. Contact an ES&S technician if any of the printed information is not correct.
5. Check the MODE functions. Make sure the "ON-LINE" lamp illuminates. Press **SELECT** if necessary to put the scanner on-line.

Zero Totals and Run Zero Reports

Zero the scanner before you run Election Day ballots, and check your reports to ensure that all totals equal zero.

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1. Press **ZERO TOTALS** while holding down the **ENABLE** button to clear scanner totals. The message “Confirm Zero Totals? Press Stop to Cancel, Start to Continue” appears. Press **START** then press **STOP**. The message, "Ready for Regular Counting" appears after the scanner clears totals.
2. In the REPORTS section, press **FORMAT** until you select LONG, and then press **GRAND TOTALS** to generate a “zero report.”

   The message “Printing Grand Totals Report Summary (Long) Format” appears. The message, “Ready for Regular Counting” appears after the scanner prints the report.
3. Check the Grand Totals Report to make sure that all totals are zero.
4. In the REPORTS section, press **PRECINCTS PROCESSED**. No precincts should have been processed
5. If the totals do not equal zero, or if the precincts processed report shows scanned precincts, repeat steps 1 through 4.

Contact ES&S if the problem continues.

6. Set the SORT options for your election. You cannot change sort options after ballot scanning begins.

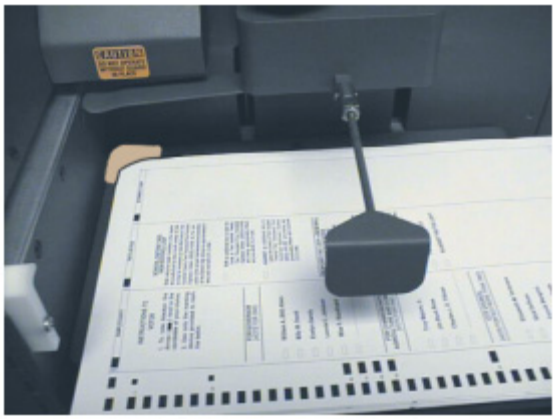
Note: If your jurisdiction counts sorted ballots immediately after the machine sorts them, be sure to turn on the appropriate sort option again ***before*** scanning the next precinct’s ballots to ensure that all ballots get sorted.

Scan the Ballots

You can scan ballots after all of the readiness checks are completed.

1. Push the input hopper tray down until it latches making sure to press down on the middle of the tray and not the edges.
2. “Jog” the ballots by gently shuffling them until the pages separate to reduce paper jams in the scanner.

3. Load the ballots face-up into the input hopper tray with the cut corners placed directly under the pick belt. Only one corner of each ballot is cut. When facing the front of a ballot, the cut corner is the upper-right corner. Lightly tap the ballots so that they are flush against the two metal sides of the input hopp.



4. Push the input hopper tray down until the latch releases, and then let the hopper rise.
5. Press **START** to begin scanning ballots.

   The scanner will not save ballot information until it moves the ballot all the way through the read area and deposits it in the output hopper.

If the scanner stops, read the error message on the display screen and consult Chapter 8: Troubleshooting to resolve the problem.

6. Press the **STOP** button to stop scanning if you need to stop the machine before the input hopper is empty. The number of ballots that the scanner has read in this batch shows in the bottom right-hand corner of the display screen.
7. Remove ballots from the output hopper when the hopper begins to fill and place the counted ballots in an appropriate location specified by local election procedures. **Separate the counted ballots from the uncounted ballots** so that you do not count ballots more than once.

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Note: If you suspect that you have mixed counted and uncounted ballots, print a Precincts Processed Report (long format) and compare it to the ballot accounting form.

Headers

A header looks similar to a ballot, except that it has special marks in the code channel. Run headers to send special commands to the scanner. You can use some headers at anytime, while you can only use others if the election definition allows that option. The model 650 can use the following headers:

Print Control Header

This header disables, or enables report printing. You can use it with any election to toggle the print status of the scanner. The first time you scan the header the message, “Report Printing Disabled,” will appear. None of the report buttons will function with the exception of the status report button. If you scan the print control header again, the message, “Report Printing Enabled” will appear and the report buttons will function again.

Precinct Identification Header

Use these headers to change the scanner’s active precinct. For example, when you are finished scanning precinct 1, run the precinct 2 header and begin scanning ballots for precinct 2. Two types of election use precinct identification headers.

By Style:

The first type of election that uses precinct identification headers is a by style election. In a by style election, the scanner looks at the code channel on each ballot to identify the races and candidates on that ballot and uses the precinct identification header to identify the precinct in which the ballots are tabulated. A precinct identification header must be run before a ballot can be counted, and only ballot styles assigned to a specific header in the election definition will be counted after the header is run.

Mixed Mode with Headers:

The second type of election that uses precinct identification headers is a mixed mode election. For this type of election, election coders define the election for mixed mode, but you can switch it to header mode by scanning a precinct identification header. The scanner starts in mixed mode and will initially use the ballot code channel to identify the races, candidates and the precinct where it will assign results. When you run a precinct identification header through the scanner, it switches to header mode. Now, the scanner uses the code channel on the ballot to identify the races and candidates, but uses the precinct identification header to identify where it will assign results. In order to return to mixed mode after running a header, you must scan a precinct ballot header.

Precinct Ballot Header

Use the precinct ballot header to switch the scanner from header mode back to mixed mode. This header does not work in an election defined as by style.

Precinct Flush Header

Use this header to clear totals for an entire precinct.

Refer to Chapter 9: Flushing Precincts for specific methods for using these headers.

Volatile Flush Header

Use this header to zero the totals in volatile memory.

Refer to Chapter 9: Flushing Precincts for the specific method used to run this header.

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Scan Absentee Ballots

The model 650 uses three methods to scan absentee ballots. You can mix absentee ballots with regular precinct ballots, you can run them as duplicate absentee precincts or you can tabulate them as a separate group to be loaded into Election Reporting Manager.

Absentees Mixed with Regular Precinct Ballots

This method of counting absentee ballots combines the absentees with regular Election Day ballots. The scanner does not create a separate absentee count. You can run absentee ballots before, after, or intermixed with regular precinct ballots.

Duplicate Absentee Precincts

This method of counting absentee ballots requires that the election coder programs the election definition for two counters. The message “Option: Dual (Regular/Absentee) Precinct Counters,” prints on the Ready Report if the definition is set up for two counters. In this scenario, the scanner keeps two separate counts for each precinct, one for absentee ballots and one for regular ballots. Use the following instructions to run duplicate precinct elections:

1. Load and test the election definition as described in Chapter 4: Pre-Election Day Tasks, and follow the instructions in the Perform Final Readiness Checks section of this Chapter.
2. Press the **ABSENTEE MODE** button. The absentee indicator light will go on and the message “Ready for Absentee Counting” will appear.
3. Scan the absentee ballots.
4. Print any reports you need by saving current totals, then pushing the appropriate report button.
5. Press the **ABSENTEE MODE** button again to disable the absentee mode. The message “Ready for Regular Counting” displays.
6. Scan the regular ballots and run any reports you require.

NOTICE OF UNCERTIFIED FUNCTIONALITY
The following products and/or system features HAVE NOT COMPLETED TESTING FOR CERTIFICATION BY THE ELECTION ASSISTANCE COMMISSION (EAC) to the requirements of the VSS:
●Automated Bar Code Reader (ABCR) ●iVotronic DRE ●Model 100 ●Unity Data Acquisition Manager (DAM) ●Unity iVotronic Ballot Image Manager (iVIM) ●All functions related to netword data transmission

Note: All reports combine absentee and regular totals, unless you hold down the Enable button when pressing the desired report button. If you use the enable button while the absentee mode is on, reports will show results for “Absentee Ballots Only.” If you use the enable button while the absentee mode is off, reports will show results for “Regular Ballots Only.”

Absentees as a Separate Group

Absentee ballots can be scanned like regular ballots with results kept as a separate group. You can then combine the absentee results with the regular results in Election Reporting Manager or on the scanner.

1. Load and test the election definition as described in Chapter 4: Pre-Election Day Tasks, and do the final readiness steps as described above in the section Perform Final Readiness Checks.
2. Scan the absentee ballots.
3. Press **SAVE** to save the results to the internal drive. Hold down the **ENABLE** button and press **SAVE** to transfer your totals to a zip disk. The message “Confirm Save Totals to Transfer Disk? Press Stop to Cancel, Start to Continue” appears. Press **START**. The message, "Totals copied to transfer disk" appears after the scanner copies the totals.
4. Remove the zip disk and label it “Absentee.” Store the disk in a safe place and run any necessary reports.
5. Hold down **ENABLE** and press **ZERO TOTALS** to zero the totals on the scanner. The message “Confirm Zero Totals? Press Stop to Cancel, Start to Continue” appears. Press **START**. The message, "Ready for Regular Counting" appears after the scanner clears totals.
6. Scan the regular ballots and save the totals to a zip disk.
7. Use Election Reporting Manager software to combine the absentee totals on the zip disk with the regular totals after you have completed scanning the ballots.

Refer to the *Election Reporting Manager System Operations Procedures* for more information on importing totals from the Model 650.

You can also use the scanner to combine the absentee totals with the regular totals. Insert the zip disk with absentee totals on it. Hold down the **ENABLE** button and press the **IMPORT RESULTS** button. A confirmation message appears after the scanner combines the absentee and regular totals.

Sort Blank, Over-vote, Under-vote, Crossover and Write-in Ballots

The ballot scanner can sort blank, over-voted, under-voted, crossover and write-in ballots from regular ballots. Be aware of your jurisdiction's rules for separating ballots before selecting a sort option.

The scanner does not tabulate blank, over-vote, under-voted and crossover ballots when they are sorted. The scanner will only tabulate sorted write-in ballots if the election definition contains the option to tabulate write-ins. The scanner lists this option on the ready report, which prints automatically when you start the scanner.

To sort blank, over-voted and write-in ballots use the following instructions.

1. Press the **BLANK, OVER-VOTE,** or **WRITE-IN** buttons in the SORT section of the control panel to sort those ballots. Press the **SPECIAL** button to sort crossovers. You may select any or all of the sort buttons.

   An indicator light will turn on next to the selected sort options. When a scanned ballot meets the selected sort criteria, the scanner stops and a message appears describing the type of ballot sorted.

2. Remove the top ballot from the output hopper and place it in an area you have designated for sorted ballots.

To sort undervoted ballots press the **Enable** and **Sort Blank** buttons simultaneously. The display screen indicates whether Sort Undervote is enabled or disabled. Sort Undervote and Sort Blank cannot both be enabled. Enabling Sort Undervote, however, will lead to the sorting of blank ballots.

Save Totals

You can save election data to the internal drive and to a zip disk. ES&S recommends that you save to the internal drive frequently as this prevents losing data if the scanner loses power or is turned off. Save to the zip disk as often as necessary to back-up results. Use the zip disk to transfer election results to Election Reporting Manager and to archive your results.

Caution: Do not reuse the election definition disk to store election data. Use blank zip disks instead so that results data is not corrupted. Zip Disks must be formatted with a FAT16 file system.

Save Results to the Internal Drive

Press **SAVE** to transfer vote totals from volatile memory to the internal drive. A confirmation message indicating the number of ballots scanned, saved and sorted appears after the scanner saves the data and then clears volatile memory.

Note: Results saved to the internal drive will be stored there until you zero the totals or flush a precinct.

Save Results to a Zip Disk

1. Insert a blank formatted disk into the zip drive.

   Caution: Do not reuse the election definition disk to store election data. Use blank zip disks instead so that results data is not corrupted. Zip Disks must be formatted with a FAT16 file system.

2. Hold down the **ENABLE** button and press **SAVE** to save from the internal drive to the zip disk. The message “Confirm Save Totals to Transfer Disk? Press Stop to Cancel, Start to Continue” appears. Press **START**. The message, "Totals copied to transfer disk" appears after the scanner copies the totals.

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Note: If you have not saved election data to the internal drive, a message indicating that tabulation is in progress will appear. You need to save vote counts to the internal drive before saving them to a zip disk. Press **SAVE,** and then repeat step two to store election results on the zip disk.

3. Remove the disk and label it with the date, time, election title, disk number and scanner number.

Print Results Reports

There are five ballot tabulation reports that can be generated directly from the ballot scanner – the Grand Totals Report, the Precincts Processed Report, the Precincts not Processed Report, the Totals by Precinct Report and the Last Precinct Report. You can use any of these reports to provide vote summary information to candidates and the media.

Refer to Chapter 6: Reports for descriptions and samples of these reports.

1. Press **FORMAT** in the REPORTS area of the control panel, to select either short or long format.
2. Press the button for the report that you want to print.

   If you have scanned ballots but not saved to the internal drive, the message “Tabulation in Progress Press SAVE” appears. Press **SAVE**, and then press the appropriate report button to print the report.

3. To stop printing a report, press and hold **STOP**. The message, “Operator Halting Report Printing” appears. The scanner cancels any portion of the report that has not yet spooled to the printer.

Note: Wait for the READY indicator light to appear before printing additional reports.

Add Totals to the Scanner from a Disk

You can reload the scanner with the last totals saved to disk if you need to restart counting from zero, if you mistakenly zero the totals on a scanner, if you are adding previously scanned absentees, or if you are adding totals from another scanner.

1. Insert a zip disk with previously saved totals into the disk drive.
2. Hold down the **ENABLE** button and press **IMPORT RESULTS**. The message “Confirm: Add Totals from Transfer Disk? Press Stop to Cancel, Start to Continue” appears. Press **START**. The message “Totals from Transfer Disk added to System” appears.

   The Ready indicator light will appear after the scanner has imported all totals.
3. Remove the disk from the scanner.

Part 2: Appendix

The Appendix contains the following information.

- Chapter 6: Reports
- Chapter 7: Operational Modes
- Chapter 8: Troubleshooting
- Chapter 9: Flushing Precincts
- Chapter 10: Install Model 650 Firmware
- Chapter 11: Model 650 Configuration Options
- Chapter 12: Configure the Scanner Network
- Chapter 13: Revision History

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Chapter 6: Reports

The Model 650 Central Scanner reports show election results, indicate system status or show system diagnostic results. Take the time to understand these reports and look over the examples provided on the following pages.

Refer to Chapter 7: Operational Modes for information about diagnostic reports.

Results Report Options

Election coders can program results report options into the election definition. The example reports shown below indicate the standard options used. You can print reports in either long or short format.

Report options include:

- Inclusion of over and under-votes.
- Total votes per race.
- Ranking candidates by number of votes received.
- Certification message.
- Over-vote and under-vote percentages.
- Inclusion of over-votes and under-votes in the vote total
- Candidate ballot positions on precinct level reports.
- Tabulation of sorted write-in ballots.

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Results Report Format

The report format you choose determines whether under-vote and over-vote totals show on your report. Long format reports show candidate vote totals, write-ins, under-vote and over-vote numbers. Short format reports show candidate vote totals and write-ins. When you run the Precincts Processed Report, a long format report shows the precincts that are processed, and a short format report shows the precincts that are not processed.

Results Report Types

There are four different results reports.

Grand Totals

This report provides a Jurisdiction wide vote total for each candidate and issue option on the ballot.

Note: The PRC CNTD field does not include absentee precincts, however the vote totals will include absentee results.

Note: Counts of cross over votes are for statistical use and are not included in the ballot totals.

Grand Totals Report—Long Format

3:48:31 11-July-2001

MODEL 650 DEMO BALLOT
ANY COUNTY USA
FEBRUARY 29, 2000

	Total	Percent
PRC CNTD (OF 7) – TOTAL	1	14.29
REGISTERED VOTERS – TOTAL	2,050	100.00
BALLOTS COUNTED – TOTAL	14	0.00
GOVERNOR		
VOTE FOR 1		
WILLIAM A. (BILL) ALLAIN	0	0.00
BILLY M. DAVIS	3	25.00
EVELYN GANDY	5	41.67
LONNIE C. JOHNSON	4	33.33
MIKE P. STURDIVANT	0	0.00
WRITE-IN	0	0.00
Total	12	100.00
Overvotes	0	
Undervotes	2	
COMMISSIONER OF AGRICULTURE AND COMMERCE		
VOTE FOR 1		
TROY MAJURE, JR.	0	0.00
JIM BUCK ROSS	0	0.00
CHARLES J. D. TILLMAN	0	0.00
WRITE-IN	9	100.00
Total	9	100.00
Overvotes	3	
Undervotes	2	
CITY COUNCIL		
VOTE FOR 2		
ELIZABETH M. VERTERANO	0	0.00
NICK DeROSA	0	0.00
CONNIE MANGINO	0	0.00
THOMAS P. COSTA	0	0.00
EUGENE DeCAPRIO	9	64.29
WRITE-IN	5	35.71
WRITE-IN	0	0.00
Total	14	100.00
Overvotes	6	
Undervotes	8	
SCHOOL DISTRICT 23 – HIGH SCHOOL LEVY		
VOTE FOR 1		
FOR	12	100.00

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Grand Totals Report—Short Format

Grand Totals Node 5

Page 1

3:48:31 11-July-2001

MODEL 650 DEMO BALLOT
ANY COUNTY USA
FEBRUARY 29, 2000

	Total	Percent
REGISTERED VOTERS – TOTAL	2,800	
BALLOTS COUNTED – TOTAL	6	0.21
GOVERNOR		
VOTE FOR 1		
WILLIAM A. (BILL) ALLAIN	0	0.00
BILLY M. DAVIS	1	20.00
EVELYN GANDY	2	40.00
LONNIE C. JOHNSON	2	40.00
MIKE P. STURDIVANT	0	0.00
WRITE-IN	0	0.00
COMMISSIONER OF AGRICULTURE AND COMMERCE		
VOTE FOR 1		
TROY MAJURE, JR.	0	0.00
JIM BUCK ROSS	0	0.00
CHARLES J. D. TILLMAN	0	0.00
WRITE-IN	4	100.00
CITY COUNCIL		
VOTE FOR 2		
ELIZABETH M. VERTERANO	0	0.00
NICK DeROSA	0	0.00
CONNIE MANGINO	0	0.00
THOMAS P. COSTA	0	0.00
EUGENE DeCAPRIO	4	66.67
WRITE-IN	2	33.33
WRITE-IN	0	0.00
SCHOOL DISTRICT 23 – HIGH SCHOOL LEVY		
VOTE FOR 1		
FOR	5	100.00
AGAINST	0	0.00
PROPOSED TAX LEVY – (RENEWAL)		
WESTERN RESERVE TRANSIT AUTHORITY		
VOTE FOR 1		
FOR THE TAX LEVY	4	80.00
AGAINST THE LEVY	1	20.00

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Precincts Processed

This report shows the precincts for which the scanner has counted ballots and the total number of ballots counted. The report breaks down tabulation results by precinct.

Precincts Processed Report

P R E C I N C T S P R O C E S S E D
Page 1
3:48:31 11-July-2001

MODEL 650 DEMO BALLOT
ANY COUNTY USA
FEBRUARY 29, 2000

Precinct :		Ballots Counted
0002	PRECINCT 2	2
0003	PRECINCT 3	3
	TOTAL	5

Precincts Not Processed Report

```
P R E C I N C T S   N O T   P R O C E S S E D
        Page     1
3:48:31  11-July-2001
                          MODEL 650 DEMO BALLOT
                          ANY COUNTY USA
                          FEBRUARY 29, 2000

Precinct  :
0001                PRECINCT 1
0004                PRECINCT 4
0005                PRECINCT 5
0006                PRECINCT 6
0007                PRECINCT 7
0008                PRECINCT 8
0009                PRECINCT 9
0010                PRECINCT 10
```

Totals by Precinct

This report provides a vote summary for each candidate and issue option on the ballot for every precinct.

Note: Counts of cross over votes are for statistical use and are not included in the ballot totals.

Totals by Precinct Report—Long Format

3:48:31 11-July-2001

MODEL 650 DEMO BALLOT
ANY COUNTY USA
FEBRUARY 29, 2000

	Posn	Total	Percent
Registered Voters – TOTAL		2,050	100.00
Ballots Counted – TOTAL		14	0.00
GOVERNOR			
VOTE FOR 1			
WILLIAM A. (BILL) ALLAIN	111	0	0.00
BILLY M. DAVIS	112	1	33.33
EVELYN GANDY	113	0	100.00
LONNIE C. JOHNSON	114	2	66.67
MIKE P. STURDIVANT	115	0	0.00
WRITE-IN	116	0	0.00
Total		3	100.00
Overvotes		0	
Undervotes		0	
COMMISSIONER OF AGRICULTURE AND COMMERCE			
VOTE FOR 1			
TROY MAJURE, JR.	121	0	0.00
JIM BUCK ROSS	122	0	0.00
CHARLES J. D. TILLMAN	123	0	0.00
WRITE-IN	124	2	100.00
Total		2	100.00
Overvotes		1	
Undervotes		0	
CITY COUNCIL			
VOTE FOR 2			
ELIZABETH M. VERTERANO	128	0	0.00
NICK DeROSA	129	0	0.00
CONNIE MANGINO	130	0	0.00
THOMAS P. COSTA	131	0	0.00
EUGENE DeCAPRIO	132	2	100.00
WRITE-IN	133	0	0.00
WRITE-IN	134	0	0.00
Total		2	100.00
Overvotes		2	
Undervotes		2	
SCHOOL DISTRICT 23 – HIGH SCHOOL LEVY			
VOTE FOR 1			
FOR	207	3	
100.00			

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Totals by Precinct Report—Short Format

0001 PRECINCT 1 Node 5

Page 1

3:48:31 11-July-2001

MODEL 650 DEMO BALLOT
ANY COUNTY USA
FEBRUARY 29, 2000

	Posn	Total	Percent
Registered Voters – TOTAL		2,050	100.00
Ballots Counted – TOTAL		14	0.00
GOVERNOR			
VOTE FOR 1			
WILLIAM A. (BILL) ALLAIN	111	0	0.00
BILLY M. DAVIS	112	1	33.33
EVELYN GANDY	113	0	100.00
LONNIE C. JOHNSON	114	2	66.67
MIKE P. STURDIVANT	115	0	0.00
WRITE-IN	116	0	0.00
COMMISSIONER OF AGRICULTURE AND COMMERCE			
VOTE FOR 1			
TROY MAJURE, JR.	121	0	0.00
JIM BUCK ROSS	122	0	0.00
CHARLES J. D. TILLMAN	123	0	0.00
WRITE-IN	124	2	100.00
CITY COUNCIL			
VOTE FOR 2			
ELIZABETH M. VERTERANO	128	0	0.00
NICK DeROSA	129	0	0.00
CONNIE MANGINO	130	0	0.00
THOMAS P. COSTA	131	0	0.00
EUGENE DeCAPRIO	132	2	100.00
WRITE-IN	133	0	0.00
WRITE-IN	134	0	0.00
SCHOOL DISTRICT 23 – HIGH SCHOOL LEVY			
VOTE FOR 1			
FOR	207	3	
100.00			
AGAINST	210	0	0.00
PROPOSED TAX LEVY – (RENEWAL)			
WESTERN RESERVE TRANSIT AUTHORITY			
VOTE FOR 1			

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Last Precinct

This report provides a vote summary for each candidate and issue option on the ballot for the last precinct scanned. The information in this report is the same as that in the Totals by Precinct Report, but the report only prints for the last precinct for which you scanned ballots.

System Report Types

Machine Readiness

This report shows current system settings and it prints automatically every time you turn on the scanner.

Machine Readiness
14:00:23 14-Apr-2003

GENERAL WITH STRAIGHT PARTY
G1LOST24
MAY 30, 2003

+=========* CHECK SOFTWARE CONFIGURATION *=========+

05 14:00:23 14-Apr-2003 System Name:
M650ALONE
05 14:00:23 14-Apr -2003 Firmware Version:
Version 1.2.0.0
05 14:00:23 14-Apr -2003 Program Installation:
Mar 25 2003 13:40:23
05 14:00:23 14-Apr -2003 Master Program Version Mar 25
2003 13:55:46
05 14:00:23 14-Apr-2003 Tabulator Version
Mar 25 2003 13:55:45
05 14:00:23 14-Apr-2003 Init Version
Mar 25 2003 13:56:07
05 14:00:23 14-Apr-2003 Scanner Version
Mar 25 2003 13:55:52

+=========* CHECK ELECTION OPTIONS *=========+

05 14:00:23 14-Apr-2003 OFC file: gilost24.ofc Mar 25
2003 14:46:08
05 14:00:23 14-Apr-2003 PRE file: gilost24.pre
Mar 25 2003 14:46:08
05 14:00:23 14-Apr-2003 RPT file: gilost24.rpt
Mar 25 2003 14:46:08
05 14:00:23 14-Apr-2003 Ballots numbered by:
Precinct
05 14:00:23 14-Apr-2003 Total Precincts:
7
05 14:00:23 14-Apr-2003 Ballot Size:
14” 36-row
05 14:00:23 14-Apr-2003 Background Level:
Ovals
05 14:00:23 14-Apr-2003 Ballot Sides:
Two
05 14:00:23 14-Apr-2003 Ballot Sort Tabulation: None
05 14:00:23 14-Apr-2003 Dual (Regular/Absentee) Precinct Counters

+=========* CHECK REPORT OPTIONS *=========+

05 14:00:23 14-Apr-2003 Lines per Page:
60
05 14:00:23 14-Apr-2003 Number of Columns:
1

Audit Log Report

This internal report tracks scanner functions from the time you turn the scanner on, until you turn it off. Different types of messages compose the audit log, including:

- Switch Log Messages - identify each action performed by the scanner.
- Ballot Count Log Messages - identify the number of ballots read, sorted and saved in each run.
- Event Log Messages - identify the near-actual time that each scanner event occurred, providing a crosscheck of major events such as the last precinct read or when a disk was last stored.

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Audit Log Report-Real Time

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10:17:01 07-Apr-2003
20 Operator Pressed START to Begin Scanning
10:17:54 07-Apr-2003
20 Ballot Hopper Empty – Scanning Halted
10:18:25 07-Apr-2003
20 0001 Saved 1 Ballots. Precinct Total 1
10:19:12 07-Apr-2003
20 Batch Ballots Scanned: 1 (1 Saved)
10:20:22 07-Apr-2003
20 Batch Sorted: 0
10:20:54 07-Apr-2003
20 Total Ballots Tabulated: 1
10:21:32 07-Apr-2003
20 Grand Totals Report Generated
10:21:33 07-Apr-2003
20 Copied Totals giloin24.pr to External Drive
10:21:34 07-Apr-2003
20 Status Report Generated
10:22:10 07-Apr-2003
20 Status Report Generated
10:22:24 07-Apr-2003
20 Operator Pressed START to Begin Scanning
10:10:15 07-Apr-2003
20 Ballot Hopper Empty – Scanning Halted
10:24:10 07-Apr-2003
20 Precinct ID 4 Undefined
10:24:45 07-Apr-2003
20 Operator Pressed START to Begin Scanning
10:25:14 07-Apr-2003
20 Ballot Hopper Empty – Scanning Halted
10:25:10 07-Apr-2003
20 Mixed Tabulation in Progress User Prompted to Save
10:26:33 07-Apr-2003
20 Grand Totals Report Generated
10:27:44 07-Apr-2003
20 0001 Saved 3 Ballots. Precinct Total 4
10:28:15 07-Apr-2003
20 Batch Ballots Scanned: 3 (3 Saved)
10:28:26 07-Apr-2003
20 Batch Sorted: 0
10:28:53 07-Apr-2003
20 Total Ballots Tabulated: 4
10:29:39 07-Apr-2003
20 Grand Totals Report Generated
10:31:14 07-Apr-2003
20 Blank Sorting Selected
10:31:22 07-Apr-2003
20 Blank Sorting Cancelled
10:31:43 07-Apr-2003

NOTICE OF UNCERTIFIED FUNCTIONALITY
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Machine Readiness Report

The most common items to validate on the Machine Readiness Report are the Firmware Version, OFC file name, and Ballot Size. The firmware version listed should match your state's certification version. You will need to verify the ballot size with the actual ballots being used in the election. The OFC file is the election loaded on the Model 650, and this information will be needed when placing a call to ES&S Technical Support.

Check the options on this report to make sure the proper election has been loaded.

Call ES&S Technical Support for any questions that arise about your Machine Readiness Report.

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●Unity iVotronic Ballot Image Manager (iVIM) ●All functions related to netword data transmission

Chapter 7: Operational Modes

The Model 650 Central Scanner has six different operational modes. ES&S technical support representatives use most of these modes for diagnostic testing, but it is important that you understand each mode before operating the scanner. Select a mode by pressing the mode selection button and scrolling through the mode choices.

On-line

When the scanner is “on-line,” it is ready to scan ballots. All scanning should take place in this mode unless otherwise directed by an ES&S technical support representative.

Feed Test

This display shows how fast the scanner is operating. The display screen shows samples (sensor readings) per ballot, and the number of ballots scanned. There is no printed report for this test.

Diag. 1

This diagnostic shows a continuous digital display of the analog to digital values of the timing track, code channel, columns A-F, and feed jam and multi-sheet sensors. Use these values to manually check the sensor readings on a ballot. You cannot scan ballots or print reports in this mode.

Diag. 2

This diagnostic displays the background value (BV) and flutter value (FV) for each response column (A-F) of a ballot after processing. The scanner calculates these values using only defined voting positions in the installed election definition. ES&S uses this diagnostic to ensure that the fiber optics are focused and functioning properly. A report prints automatically with this information if you press the Monitor Print button.

Diag. 3

When scanning ballots in this mode, the printer will automatically print numerical read levels for the timing track, whitest and darkest levels, noise allowance, corrected white, marginal level and black/white range for the timing track, code channel, and each voting column on the ballot. ES&S technicians use this report to tune the read channels.

Diag. 4

This diagnostic prints a raw data image of each ballot scanned. The report prints automatically and gives the digital reading for every sample taken on all eight read channels and the multi-sheet sensor.

Monitor Print

Use the monitor print button with Diagnostic 2 to print the display results. If you enable the Monitor Print button when you run Diagnostic 2, the diagnostic information prints for each ballot scanned.

You can use the Monitor Print button in on-line mode to print a complete copy of the Audit Log since the election definition was loaded.

Print Ballot Image

Use the Ballot Image as a troubleshooting tool to test the accuracy of the program chip and channel functionality. Data is provided on the light and dark color levels, background, mark threshold, and black and white range for the timing track, code channel, and each voting column on the ballot. In addition, a schematic prints showing the exact column and oval location of each voter mark on the ballot. When you press the Print Ballot Image button the report prints for the last ballot scanned.

NOTICE OF UNCERTIFIED FUNCTIONALITY
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Diagnostic Reports

Use the following diagnostic report examples to become familiar with the Model 650 diagnostic modes.

For assistance with interpreting the diagnostic reports, contact ES&S for technical support.

Diagnostic 2 Report

	-A-	-B-	-C-	-D-	-E-	-F-
BV:	2	0	0	1	1	1
FV:	8	9	7	8	8	7
BV:	1	1	1	1	2	1
FV:	7	7	7	7	9	6
BV:	1	1	1	0	0	2
FV:	8	7	6	7	9	8
BV:	1	1	0	1	1	1
FV:	7	7	7	6	10	7
BV:	1	1	1	0	1	1
FV:	7	8	8	8	9	7
BV:	1	1	1	1	1	1
FV:	10	8	7	9	8	8

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Diagnostic 3 Report

-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+ M650 Ballot Image -+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

	TT	CC	-A-	-B-	-C-	-D-	-E-	-F-
WHITEST LEVELS	100	199	202	200	200	199	202	201
WHITEST RESPONSE			193	195	193	195	194	192
MAXIMUM BACKGROUND			180	180	178	180	184	181
BACKGROUND LEVEL			195	189	192	193	192	200
MINIMUM BACKGROUND			180	179	179	178	180	181
INDETEMINATE THRESHOLD			183	181	183	182	185	183
MARK THRESHOLD			189	178	189	180	179	184
DARKEST LEVELS	60	93	92	94	97	94	96	105
BLACK/WHITE RANGE	170	106	110	106	103	105	106	96
BASE VALUE			9	9	9	10	9	9
BACKGROUND VALUE			1	0	1	1	1	1
FLUTTER VALUE			8	8	7	7	9	7

Diagnostic 4 Report

Raw Ballot Image Values Printout
Node 20 Aug-26-2003 10:02:43

Number of Readings = 5031
Number of Bands = 5∅9

Band	-TT-	-CC-	-A-	-B-	-C-	-D-	-E-	-F-	-MS-
0	210	211	215	204	210	205	194	200	220
1	210	211	215	205	210	206	194	199	220
2	209	211	215	205	210	206	193	199	221
3	209	211	215	205	210	206	193	199	220
4	208	211	215	205	210	206	193	199	220
5	208	211	214	204	210	206	193	199	221
6	208	212	214	205	209	206	193	199	220
7	207	212	214	205	209	206	193	199	220
8	207	213	214	205	209	206	192	200	221
9	206	213	214	205	209	206	192	200	221
10	206	212	214	204	208	206	192	200	221
11	206	212	214	205	209	205	192	200	220
12	206	211	214	205	209	206	193	200	220
12	206	211	214	205	209	206	193	200	220
13	206	211	214	204	210	206	193	200	220
14	207	211	213	204	210	205	193	200	220
15	208	211	212	202	207	204	192	199	220
16	205	205	191	177	179	179	172	177	220
17	181	174	154	143	142	144	138	141	219
18	144	136	118	114	109	108	106	110	207
19	109	107	108	103	105	101	97	102	218
20	104	104	108	103	105	101	97	102	217
21	103	104	108	103	106	101	97	102	217
22	103	104	108	104	108	101	97	104	217
10	104	116	126	127	136	125	118	127	218
24	128	153	162	161	173	161	153	165	219
25	167	189	198	189	205	193	185	194	220

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Audit Log Report-Monitor Print Button

<>	Sorted Ballots (Including Write-Ins) Are NOT Tabulated	10:16:53-26-Apr-2003
<>	Version 1.2.0.0	10:16:53-26-Apr-2003
<>	GENERAL WITH STRAIGHT PARTY	10:16:53-26-Apr-2003
<>	GILOST24	10:16:53-26-Apr-2003
<>	MAY 30, 2003	10:16:53-26-Apr-2003
20	Database Counters are Clear	10:16:54 26-Apr-2003
20	Ready to Tabulate Ballots: Entering On-line Mode	10:17:01 07-Apr-2003
20	Operator Pressed START to Begin Scanning	10:17:54 07-Apr-2003
20	Ballot Hopper Empty – Scanning Halted	10:18:25 07-Apr-2003
20	0001 Saved 1 Ballots. Precinct Total 1	10:19:12 07-Apr-2003
20	Batch Ballots Scanned: 1 (1 Saved)	10:20:22 07-Apr-2003
20	Batch Sorted: 0	10:20:54 07-Apr-2003
20	Total Ballots Tabulated: 1	10:21:32 07-Apr-2003
20	Grand Totals Report Generated	10:21:33 07-Apr-2003
20	Copied Totals giloin24.prto External Drive	10:21:34 07-Apr-2003
20	Status Report Generated	10:22:10 07-Apr-2003
20	Status Report Generated	10:22:24 07-Apr-2003
20	Operator Pressed START to Begin Scanning	10:10:15 07-Apr-2003
20	Ballot Hopper Empty – Scanning Halted	10:24:10 07-Apr-2003
20	Precinct ID 4 Undefined	10:24:45 07-Apr-2003
20	Operator Pressed START to Begin Scanning	10:25:14 07-Apr-2003
20	Ballot Hopper Empty – Scanning Halted	10:25:10 07-Apr-2003
20	Mixed Tabulation in Progress User Prompted to Save	10:26:33 07-Apr-2003
20	Grand Totals Report Generated	10:27:44 07-Apr-2003
20	0001 Saved 3 Ballots. Precinct Total 4	10:28:15 07-Apr-2003
20	Batch Ballots Scanned: 3 (3 Saved)	10:28:26 07-Apr-2003
20	Batch Sorted: 0	10:28:53 07-Apr-2003
20	Total Ballots Tabulated: 4	10:29:39 07-Apr-2003
20	Grand Totals Report Generated	10:31:14 07-Apr-2003
20	Blank Sorting Selected	10:31:22 07-Apr-2003
20	Blank Sorting Cancelled	10:31:43 07-Apr-2003
20	Overvote Sorting Selected	10:32:12 07-Apr-2003
20	Overvote Sorting Cancelled	10:33:33 07-Apr-2003
20	Log Report Generated	10:33:43 07-Apr-2003
20	Status Report Generated	10:34:13 07-Apr-2003
20	Precinct Report Generated	10:37:10 07-Apr-2003
20	Last Precinct Report Generated	10:37:44 07-Apr-2003
20	Absentee Button Pressed – 2 Counters not Defined	10:37:54 07-Apr-2003
20	Absentee Button Pressed – 2 Counters not Defined	10:38:11 07-Apr-2003
20	Copied Totals giloin24.pr to External Drive	10:39:54 07-Apr-2003
20	Write In Sorting Selected	10:39:54 07-Apr-2003
20	Write-In Sorting Cancelled	10:39:45 07-Apr-2003
20	Status Report Generated	10:40:21 07-Apr-2003
20	Cleared Totals for Current Batch	10:40:24 07-Apr-2003

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Print Ballot Image Report

-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+ M650 Ballot Image -+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-

	TT	CC	-A-	-B-	-C-	-D-	-E-	-F-
WHITEST LEVELS	100	199	202	200	200	199	202	201
WHITEST RESPONSE			193	195	193	195	194	192
MAXIMUM BACKGROUND			180	180	178	180	184	181
BACKGROUND LEVEL			195	189	192	193	192	200
MINIMUM BACKGROUND			180	179	179	178	180	181
INDETEMINATE THRESHOLD			183	181	183	182	185	183
MARK THRESHOLD			189	178	189	180	179	184
DARKEST LEVELS	60	93	92	94	97	94	96	105
BLACK/WHITE RANGE	170	106	110	106	103	105	106	96
BASE VALUE			9	9	9	10	9	9

TT	CC	A	B	C	D	E	F	TT	CC	-A-	-B-	-C-	-D-	-E-	-F-
X	X	X	X	X	X	X	X	103	104	108	103	106	102	97	102
X	X	0	0	0	0	0	0	102	104	212	202	210	205	193	201
X	0	0	0	0	0	0	0	102	211	214	204	209	206	193	201
X	0	0	0	0	0	0	0	103	211	215	177	210	207	192	200
X	0	0	0	0	0	0	0	102	211	215	165	210	206	193	199
X	0	0	0	0	0	0	0	103	210	212	157	210	205	193	201
X	X	0	0	0	0	0	0	103	105	212	191	210	206	193	201
X	0	0	0	0	0	0	0	104	210	211	108	210	206	194	200
X	0	0	0	0	0	0	0	103	210	203	206	210	207	195	201
X	0	0	0	0	0	0	0	102	212	214	205	210	207	195	200
X	0	0	0	0	0	0	0	103	211	214	197	210	207	195	200
X	0	0	0	0	0	0	0	104	212	205	206	210	206	194	200
X	0	0	0	0	0	0	0	103	212	205	205	211	206	193	199
X	0	0	0	0	0	0	0	104	212	112	205	211	206	194	199
X	0	0	0	0	0	0	0	102	212	204	172	211	206	194	200
X	X	0	0	0	0	0	0	103	105	206	205	211	206	193	201
X	X	0	0	0	0	0	0	102	104	205	204	211	206	193	201
X	X	0	0	0	0	0	0	102	105	213	187	210	207	192	200
X	X	0	0	0	0	0	0	103	104	188	166	210	206	192	200
X	0	0	0	0	0	0	0	102	211	200	158	210	206	191	201
X	0	0	0	0	0	0	0	102	211	213	163	210	205	190	200
X	0	0	0	0	0	0	0	103	211	202	168	210	206	191	199
X	0	0	0	0	0	0	0	103	211	204	205	210	206	194	199
X	0	0	0	0	0	0	0	103	212	111	109	210	205	192	198
X	0	0	0	0	0	0	0	103	212	203	196	211	206	192	200
X	0	0	0	0	0	0	0	102	211	187	205	211	205	193	199
X	X	0	0	0	0	0	0	102	112	178	205	211	206	193	198
X	0	0	0	0	0	0	0	103	178	212	204	210	206	194	200
X	0	0	0	0	0	0	0	104	210	206	206	210	206	193	199
X	0	0	0	0	0	0	0	103	210	205	204	209	206	193	199
X	0	0	0	0	0	0	0	104	211	202	206	209	205	193	199
X	0	0	0	0	0	0	0	101	211	203	205	209	205	192	198
X	0	0	0	0	0	0	0	103	211	113	204	205	209	194	198
X	0	0	0	0	0	0	0	103	210	114	205	209	205	196	200
X	0	0	0	0	0	0	0	104	212	203	205	210	205	195	199
X	0	0	0	0	0	0	0	103	212	214	205	210	205	196	200
X	0	0	0	0	0	0	0	103	211	214	205	210	205	195	200
X	X	X	X	X	X	X	X	104	104	107	102	106	100	95	101

BACKGROUND VALUE	1	0	1	1	1	1
FLUTTER VALUE	8	8	7	7	9	7

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Chapter 8: Troubleshooting

Throughout the operation of the ballot scanner, a number of system messages might appear. These messages can be indicators of trouble within the scanner, or could simply identify the current operational status of the scanner. The following alphabetical listing provides a brief description of each message, along with the prescribed action for responding to the message.

User Requested Report/Log Messages

Ballots cast exceeds the TRN threshold

This happens when the number of ballots counted in a precinct exceeds the number of registered voters coded into the election definition files for the precinct multiplied by the turnout percentage also coded into the election definition files for the precinct. It will stop the machine.

Action: Check for errors such as counting ballots twice. Press start to continue counting.

Ballots cast greater than number of registered voters

This happens when the number of ballots counted in a precinct exceeds the number of registered voters coded into the election definition files for the precinct. It will stop the machine.

Action: Check for errors such as counting ballots twice. Press start to continue counting.

Error reading index file

A storage device (internal flash drive or zip drive) failed.

Action: Try the action again. If there is still a problem, call ES&S.

I/O error in precinct file!

The system had problems reading/writing the elecname.pr file.

Action: Try the action again. The problem is probably a device failure so check the zip disk. If repeated action fails, call ES&S.

Unknown E-code

Either the election definition file contains an unknown tabulation instruction, the initialization file is corrupt or the initialization program failed.

Action: Try re-initializing the election. (Turn the scanner off and back on again with the election definition disk in the drive.) Check the election definition files for errors. If this does not resolve problem, call ES&S.

Vote totals back up failed.

A storage device (internal flash drive or zip drive) failed.

Action: Try the action again. If there is still a problem, call ES&S.

Scanner Process Messages

Arrows not Supported. Diagnostic Functions Only!

Ballots with arrow response areas are not supported by the unit or election definition.

Action: Check your election definition. Call ES&S Customer Service.

Back Door Open

Indicates that the back door is open preventing unit operation.

Action: Close the door.

Ballot BACKWARDS or UPSIDE-DOWN!

Ballot read from the input hopper was not properly oriented and has not been processed.

Action: Remove the ballot from output hopper and re-insert in the input hopper.

Ballot Detected Under Exit Sensor! Please Clear the Transport

A ballot has been detected under the exit sensor. The ballot was counted.

Action: Please remove the ballot from the transport path.

Ballot Length/Row Code not Supported. Diagnostic Functions Only!

The election definition does not support the length of ballot currently being run.

Action: Check your election definition. Call ES&S customer service.

Ballot too Short for This Election!

The election definition does not support the length of ballot currently being run.

Action: Check your election definition. Call ES&S customer service.

Cannot Find or Open Zip Disk!

There is a problem finding or opening the Zip Disk.

Action: Make sure that you have a disk in the drive on the front of the unit and that it is properly formatted.

Cannot Open Ballot Type (.tp) file. Diagnostic Functions Only!

The file containing the ballot type could not be found. The scanner will only run diagnostic functions.

Action: Call ES&S Customer Service.

Check Timing Track Sensor

Indicates that there is an error reading the timing track, or that the ballot may be upside-down or backwards.

Action: Check for torn ballots, or for ballots that may have been fed upside-down or backwards. Send to the resolution board for re-creation if necessary.

Clearing All Totals

Confirms that the clearing of stored totals is in process.

Action: No response required.

Copying Totals to Transfer Disk

The unit is currently busy copying the internal disk totals to the Zip drive for transfer.

Action: No action required.

Ballots Scanned: #(Number saved), Sorted:#(# Write-ins Saved).

This message indicates the number of ballots in the last batch that were saved, the number sorted, and the number of write-in ballots saved after the operator pressed SAVE.

Action: No response required.

ERROR: Cannot Copy Files from Transfer To the Internal Drive.

The unit was unable to copy the files from the Zip drive to the internal drive.

Action: Call ES&S Customer Service.

ERROR: Cannot Remove Existing Election From the Internal Drive.

The unit was unable to remove the existing election from the internal drive.

Action: Call ES&S Customer Service.

ERROR: Cannot Find or Open EMS files!

There is a problem finding or opening the EMS files.

Action: Call ES&S Customer Service.

ERROR: Cannot Find or Open Flash Drive!

There is a problem finding or opening the Flash Drive.

Action: Call ES&S Customer Service.

ERROR: Can't Open Printer Port LPT1! Contact ES&S Immediately!

There is a problem communicating with printer #1. Unit operation will not continue.

Action: Contact ES&S customer service.

ERROR: Can't Open Printer Port LPT2! Contact ES&S Immediately!

There is a problem communicating with printer #2. Unit operation will not continue.

Action: Contact ES&S Customer Service.

ERROR: Could Not Open Log Printer Port!

There is a problem communicating with the log printer. Unit operation will not continue.

Action: Check your printer connections; call ES&S customer service.

ERROR: Could Not Open Ready Report File!

There is a problem opening the Ready Report File.

Action: Call ES&S Customer Service.

Error Creating Log Report

There is a problem creating the Log report.

Action: Call ES&S Customer Service.

ERROR: Invalid Row count! Found (number of rows) Rows

The unit read an invalid number of rows on the ballot.

Action: Inspect the ballot for tears. Take to the resolution board for re-creation if necessary.

ERROR: Low Contrast ,Channel 'X' !

This indicates that something may be impeding the sensors.

Action: Clean sensors with air. Contact ES&S Customer Service if necessary.

ERROR: Missing Start Bar, Channel 'X'!

There are missing start marks on the ballot.

Action: Inspect the ballot for tears at the top. Call ES&S if problem persists.

ERROR: Missing Stop Bar, Channel 'X'!

There are missing stop marks on the ballot.

Action: Inspect the ballot for tears at the bottom. Call ES&S if the problem persists.

ERROR: No Election Files! Diagnostic Functions Only!

No election files were found. You are currently limited to using only the diagnostic functions of the unit.

Action: Turn off the scanner. Insert the zip disk with the election definition files into the drive on the front of the machine. Turn on the scanner and load the election definition.

ERROR: Printer Check Function Failed! Contact ES&S Immediately!

The internal check of printer connections failed.

Action: Contact ES&S Customer Service.

ERROR: Report Device not in Config! Contact ES&S Immediately!

The Configuration file is corrupt and does not contain a report printer designation. The unit will not operate.

Action: Contact ES&S Customer Service.

ERROR: Scanner Name Attach Failed

The internal processes cannot communicate with each other.

Action: Contact ES&S Customer Service.

ERROR: Single Sided Ballot not Allowed!

A ballot style has been scanned which should contain candidate positions on the back side of the ballot, but does not.

Action: Call ES&S Customer Service.

Error Writing Log Report!

The scanner could not write the Log report.

Action: Call ES&S Customer Service.

Feed Jam After Ballot Read

Indicates that a feed jam occurred after the ballot was read.

Action: Clear the jam and continue processing ballots.

Feed Jam Before Ballot Read

Indicates that there was a feed jam before the ballot could be read.

Action: Clear the jam and restart ballot reading.

Feed Jam in Read Area Or, Ballot too Long

Indicates that either there was a feed jam or the ballot is too long for the election definition. The ballot has not been read.

Action: Clear the jam and try rescanning the ballot.

Front Access Panel Open

Indicates that the Front Access Panel is open preventing unit operation.

Action: Close the Front Access Panel.

Confirm: Initialize Election? Press: Start to Continue Stop to Cancel.

The unit is ready to load a new election definition.

Action: Press **Start** to continue. If you do not want the election initialized press **Stop** to cancel the operation.

Initializing Election. Please Wait.

The unit is initializing the election.

Action: No action required.

Input Hopper Empty

Indicates that all ballots in the input hopper have been read and the unit has been halted.

Action: Add more ballots or end the precinct/batch.

Invalid Log Descriptor: No Log to Print!

The log descriptor is invalid and a log cannot be printed

Action: Call ES&S Customer Service.

Machine Cannot Process an Election. Diagnostic Functions Only!

The unit did not initialize properly and cannot count election ballots. The scanner will only operate in diagnostic mode.

Action: Call ES&S Customer Service.

Multiple Ballots in Read Head

Indicates that more than one ballot is in the read head area.

Action: Clear the ballots and rescan.

Operator Halt

Confirms that the operator manually stopped the ballot reading process.

Action: No response required.

Operator Halting Report Printing

The operator halted the report printing by pressing the Stop button.

Action: No action required.

Pick Failure

Indicates that the unit failed to pick the next ballot to be read.

Action: Straighten ballots in input hopper and press the Start Button to retry scanning. Call ES&S Customer Service if problem continues.

Press Stop to Keep 'Old Election Name' Press Start to initialize 'New Election Name'

The unit has found a previously loaded election definition in memory.

Action: Press **STOP** if you would like to keep the election that is currently in the system memory. Press **START** if you would like to load the new election definition.

Printing Grand Totals Report\Media (Short) Format

Confirms that the printing of this report has been initiated and is in process.

Action: No response required.

Printing Grand Totals Report\Summary (Long) Format

Confirms that the printing of this report has been initiated and is in process.

Action: No response required.

Printing Last Precinct Report\Media (Short) Format

Confirms that the printing of this report has been initiated and is in process.

Action: No response required.

Printing Log Report

Confirms that the printing of this report has been initiated and is in process.

Action: No response required.

Printing Last Precinct Report\Media (Short) Format

Confirms that the printing of this report has been initiated and is in process.

Action: No response required.

Printing Last Precinct Report\Summary (Long) Format

Confirms that the printing of this report has been initiated and is in process.

Action: No response required.

Printing Precinct by Precinct Report\Media (Short) Format

Confirms that the printing of this report has been initiated and is in process.

Action: No response required.

Printing Precinct by Precinct Report\Summary (Long) Format

Confirms that the printing of this report has been initiated and is in process.

Action: No response required.

Printing Precincts NOT Processed Report

The system is currently printing the Precincts NOT Processed Report.

Action: No action required.

Printing Precincts Processed Report

Confirms that the printing of this report has been initiated and is in process.

Action: No response required.

Printing System Ready Report

The unit is currently printing the System Ready Report.

Action: No action required

Reading Election Files.

The unit is reading election files.

Action: No action required.

Ready for Absentee Counting

Normal process message. Indicates the unit is ready to tabulate absentee ballots.

Action: No response required.

Ready for Diagnostic Functions!

The unit is ready to conduct diagnostic functions.

Action: No action required.

Ready for Regular Counting

Normal process message. Indicates the unit is ready to tabulate election day ballots.

Action: No response required.

Report or Log Printer on LPT1 or LPT2 is Off Line!

Your printer is off-line.

Action: Check your printer and make sure that it is on-line. If it is not press the SEL button on the front of your printer.

Report or Log Printer on LPT1 or LPT2 is Off or Not Connected!

There is a problem with the printer connection.

Action: Check your printer connections and make sure that your printer is turned on and that it is on-line.

Report or Log Printer on LPT1 or LPT2 is Out of Paper!

Your printer has run out of paper.

Action: Refill the printer paper. Follow the printer manual instructions.

Right Response Marks not Supported. Diagnostic Functions Only!

Ballots with the response area on the right are not supported by the unit or election definition.

Action: Check your election definition. Call ES&S Customer Service.

Start Button Pressed

Normal process message. Confirms the Start Button was pressed to initiate ballot reading.

Action: No response required.

This election requires precinct headers!

The election definition has not been coded to run in mixed precinct mode either due to the ballot code not containing precinct identification or an error in election definition setup.

Action: Contact ES&S customer service.

Totals Copied to Transfer Disk

The unit has completed copying the totals from the internal disk to the Zip drive for transfer.

Action: No action required.

Totals Have Been Set to Zero

Confirms that all stored totals have been cleared.

Action: No response required.

Totals Present in Database/Zero Totals or Press Start to Continue

Warns user that the unit currently has previously tabulated totals stored.

Action: Press the Start Button to continue tabulation retaining the previously stored totals or zero the totals to clear them before starting tabulation.

Tabulator Process Messages

Absentee Counters Not Programmed. Call ESS if Necessary.

The election was not programmed with duplicate absentee counters.

Action: Call ES&S Customer Service.

BLANK BALLOT

The ballot last processed is blank.

Action: Send the ballot to the resolution board for inspection and processing. This ballot has not been counted.

Confirm: Add Totals from Transfer Disk? Press Stop to Cancel, Start to Continue

Confirm the totals transfer.

Action: Press **Start** to continue. If you do not want to transfer totals from the zip disk to the 650, press **Stop** to cancel the operation.

Confirm Flush for Precinct 'X'. Re-scan Ballot or Header if Correct.

Confirm the flush for precinct 'X'.

Action: Re-scan the ballot or header if the precinct listed is the one you want to clear.

Confirm: Precinct to Flush

Confirm the flush for the precinct.

Action: Re-scan the ballot or header if the precinct listed is the one you want to clear.

Confirm: Save Totals to Transfer Disk? Press Stop to Cancel, Start to Continue

Confirm the totals transfer.

Action: Press **Start** to continue. If you do not want to transfer totals from the 650 to the zip disk, press **Stop** to cancel the operation.

Confirm: Zero Totals? Press Stop to Cancel, Start to Continue

Confirm that totals should be cleared.

Action: Press **Start** to continue. If you do not want to zero totals, press **Stop** to cancel the operation.

Could not Read Code Channel!

The unit was unable to read the code channel.

Action: Inspect the ballot, send to the resolution board for re-creation if necessary. Call ES&S Customer Service if unable to resolve the problem.

Could not Read .pr file

The unit was unable to read the .pr file.

Action: Call ES&S Customer Service.

Could not Read .pr File from Transfer Disk!

The unit was unable to read the .pr file from the transfer/zip disk.

Action: Call ES&S Customer Service.

Could not Read Shared Memory!

The unit was unable to read shared memory.

Action: Call ES&S Customer Service.

Could not Unlock .pr File!

The unit was unable to unlock the .pr file.

Action: Call ES&S Customer Service.

Could not Write .pr file

The unit was unable to write to the .pr file

Action: Call ES&S Customer Service.

E-Code Checksum Failure!

Program instructions for counting ballots are corrupt.

Action: Run the ballot again, if the error message is repeated call ES&S Customer Service.

Election Initialization Failure!

The unit was unable to initialize the election.

Action: Call ES&S Customer Service.

Election Set for ONE Sided Ballots!

This election was programmed for one-sided ballots and will not read two-sided ballots.

Action: Not action required if all ballots are one-sided. If your ballots are two-sided, call ES&S Customer Service.

Election Set for TWO Sided Ballots!

This election was programmed for two-sided ballots and will not read one-sided ballots.

Action: No action required if all ballots are two-sided. If your ballots are one-sided, call ES&S Customer Service.

Errant Ballot! Please Clear the Transport

The first ballot in a batch did not feed correctly and the scanner did not read it.

Action: Remove the ballot from the transport area and replace it in the input hopper.

ERROR: Background Low on Sensor 'X'!

One of the sensors is not giving adequate contrast.

Action: Clean the sensors with pressurized air. If the error message is repeated call ES&S Customer Service.

ERROR: Cannot map Precinct ID!

The scanner operator ran a header ballot in mixed mode that the scanner does not recognize. The precinct ID is undefined.

Action: Call ES&S Customer Service.

ERROR: Could not Run Shell!

This error occurs when trying to copy files between the zip drive and the internal drive. No totals can be transferred.

Action: Call ES&S Customer Service.

ERROR: Could not Run Copy Command!

The copy command could not be run when trying to copy files between the zip drive and the internal drive. No totals can be transferred.

Action: Call ES&S Customer Service.

ERROR: Disk is Missing or Not Formatted!

The Zip disk in the transfer slot is missing or not formatted.

Action: If the disk is missing, insert a Zip disk into the drive. If the disk is not formatted, please do so at this time using your PC.

ERROR: Improper E-code Instruction Call ESS if Necessary

The program instructions for counting ballots are corrupt.

Action: Scan the ballot again, if the error message is repeated call ES&S Customer Service.

ERROR: Possible Counterfeit Ballot

The scanner found possible counterfeit marks on ballots.

Action: Attempt to rescan the ballot if it appears genuine. If the error occurs again, send the ballot to the resolution board for inspection and processing. The scanner has not counted this ballot.

ERROR: Precinct ID is too Large!

The scanner operator ran a header ballot in mixed mode that has a sequence number larger than the scanner expects. The precinct ID is larger than the unit will process.

Action: Call ES&S Customer Service.

ERROR: Precinct ID is Undefined!

The scanner operator ran a header ballot in mixed mode that the scanner does not recognize. The precinct ID is undefined.

Action: Call ES&S Customer Service.

Flush Batch Canceled!

The flush batch has been canceled.

Action: No action required.

Flush Batch Complete!

The flush batch is complete.

Action: No action required.

Indeterminate Sensor Reading(s) on Channel(s) (list of channels)!

One or more of the sensors read a questionable mark on the ballot.

Action: Print a ballot image report and send with the ballot to the resolution board.

Invalid Ballot Style! Precinct ID Mismatch

The ballot style is invalid and does not match up with the precinct ID.

Action: Check that the ballot has been scanned after the correct header. If the problem still exists call ES&S customer Service.

Invalid Ballot Style! Split Code Mismatch

The ballot style is invalid and does not match the split code.

Action: Check that the ballot has been scanned after the correct header. If the problem still exists call ES&S Customer Service.

Invalid Ballot Style! Type Code Mismatch

The ballot style is invalid and does not match the type code.

Action: Check that the ballot has been scanned after the correct header. If the problem still exists call ES&S Customer Service.

Invalid Header Card!

The header card is invalid for this election.

Action: Inspect the header card for defects. Call ES&S Customer Service if unable to resolve.

Invalid Sequence Code!

The sequence code found on the ballot is invalid for this election.

Action: Inspect the ballot and send to the resolution board for re-creation if necessary. Call ES&S Customer Service if unable to resolve.

Invalid Split Code!

The split code found on the ballot is invalid for this election.

Action: Inspect the ballot and send to the resolution board for re-creation if necessary. Call ES&S Customer Service if unable to resolve.

Invalid Type Code!

The type code found on the ballot is invalid for this election.

Action: Inspect the ballot and send to the resolution board for re-creation if necessary. Call ES&S Customer Service if unable to resolve.

Mixed Tabulation in Progress! Press SAVE.

The user requested an action that requires totals, and ballots have been run through the unit but have not been saved to the internal drive.

Action: Press SAVE to store the results to the internal drive.

*Precincts identified by code channel

No Ballots Processed! Nothing to save.

The scanner operator pressed SAVE when no ballots have been processed since the last save.

Action: No action required.

No Ballots Processed since last machine startup.

There have been no ballots processed since the last machine startup.

Action: No action required.

No Batch in Progress. Nothing to Flush

There is no batch in progress therefore there is nothing in volatile memory to flush.

Action: No action required.

No Header to Start Precinct! Ballot in Hopper Not Counted

The header card corresponding to the current precinct has not been run and the ballot currently being processed could not be counted.

Action: Please run the corresponding header card before continuing.

No Valid Party Selection

No political party was selected on an open primary ballot.

Action: Send the ballot to the resolution board for inspection and processing. This ballot has not been counted.

Precinct Flush Cancelled!

The precinct flush was cancelled.

Action: No action required.

Precinct Flush Complete!

The precinct flush is complete.

Action: No action required.

Precinct Key Mismatched!

The .pr file is corrupted, or was initialized with a different election definition but matching election name.

Action: Call ES&S Customer Service.

Precinct Number Mismatched!

The .pr file is corrupted, or was initialized with a different election definition but matching election name.

Action: Contact ES&S Customer Service.

Precinct Over-voted! Ballot NOT Counted.

Precinct's total ballot count exceeds number coded into .pre file. The ballot was not counted.

Action: Call ES&S Customer Service.

Press Zero Totals to Flush Batch. Press Stop to Cancel

The last batch processed is ready to be flushed.

Action: To flush the last batch processed press **ZERO TOTALS**. Press **STOP** to cancel.

Report Params Copied from Transfer Disk!

The report control file has been copied.

Action: No action required.

Report Printing Disabled!

The user scanned the print control header and the report printing was disabled.

Action: No action required.

Report Printing Enabled!

The user scanned the print control header and the report printing was enabled.

Action: No action required.

Scan Ballot or Header for Precinct to Flush.

The ballot or header for the precinct you would like to flush needs to be scanned.

Action: Scan the ballot or header for the precinct you wish to flush.

Sort CROSSOVER

The ballot last processed contains a crossover.

Action: Send the ballot to the resolution board for inspection and processing. This ballot has not been counted.

Sort OVERVOTE

The ballot last processed contains an over-vote.

Action: Send the ballot to the resolution board for inspection and processing. This ballot has not been counted.

Sort WRITE-IN

The ballot last processed contains a write-in.

Action: Send the ballot to the resolution board for inspection and processing. The ballot was not counted unless the option to count it was programmed into the election definition.

Start up and Initialization Completed

The start up and initialization functions of the unit are complete.

Action: No action required.

Switched to HEADER Mode.

The user ran a precinct identification header while in mixed mode. The scanner switched to header mode.

Action: No action required.

Switched to MIXED Mode.

The user scanned a precinct ballot header while in header mode. The scanner switched to mixed mode.

Action: No action required.

Tabulation in Progress! Press SAVE.

User requested an action that requires totals to be saved first. Ballots have been run through the unit but have not been saved to the internal memory.

Action: Press SAVE to store the results to the internal drive.

Tabulator Process Failure!

The tabulation process could not begin.

Action: Call ES&S Customer Service.

This Election will NOT Run in Mix Mode!

This message is displayed when a by style election definition is loaded. The election can't be run in mixed mode.

Action: You must run this election using headers. Call ES&S Customer Service if necessary.

This Election will NOT Run in Mix Mode! Cannot Read Precinct Data!

This election will not run in mixed mode, because the unit cannot read the precinct data.

Action: Call ES&S Customer Service.

This Election will NOT Run in Mix Mode! Not Enough Memory!

This election will not run in mixed mode, due to a shortage of memory.

Action: Call ES&S Customer Service.

Turnout Rate Violation! Ballot NOT Counted.

There has been a turnout rate violation. The number of ballots counted exceeds the number of registered voters. The ballot was not counted.

Action: Call ES&S Customer Service.

Initialization Process Messages

Booting M650. . .

Indicates the machine is booting.

Action: No response required.

Cannot have Separate Absentee Precincts with 2 Sets of Totals

Cannot have separate absentee precincts with two sets of totals.

Action: Call ES&S Customer Service.

Common Report Code too Large

The common report code is too large.

Action: Call ES&S Customer Service.

Could not Create .log File

The system was unable to create .log file.

Action: Call ES&S Customer Service.

Could not Create .pr File

The .pr file could not be created.

Action: Call ES&S Customer Service.

Could not Create the .pc Filename

The .pc filename could not be created.

Action: Call ES&S Customer Service.

Could not Create .tp (Ballot Type) File

The .tp ballot type file could not be created.

Action: Call ES&S Customer Service.

Could not Open .ec File

The .ec file could not be opened.

Action: Call ES&S Customer Service.

Could not Open .ei File

The .ei file could not be opened.

Action: Call ES&S Customer Service.

Could not Open List File

The system was unable to open the list file.

Action: Call ES&S Customer Service.

Could not Open .ofc File

The .ofc file could not be opened.

Action: Call ES&S Customer Service.

Could not Open .pre File

The .pre/.pc file could not be opened.

Action: Call ES&S Customer Service.

Could not Open .pr File

The .pr file could not be opened.

Action: Call ES&S Customer Service.

Could not Open .re/.in File

The .re/.in file could not be opened.

Action: Call ES&S Customer Service.

Could not Open .rpt File

The .rpt file could not be opened.

Action: Call ES&S Customer Service.

Could not Read .ofc File

The .ofc file could not be read.

Action: Call ES&S Customer Service.

Could not Read .rpt File

The .rpt file could not be read.

Action: Call ES&S Customer Service.

Could not Resolve Rcode Counter Number

Unable to resolve the r-code counter number.

Action: Call ES&S Customer Service.

District Table Exceeded

There are too many districts for memory to handle.

Action: Call ES&S Customer Service.

Election Exceeds Maximum E-code Space

The election exceeds the maximum e-code space.

Action: Call ES&S Customer Service.

Error Reading Ballot Positions from .ofc File

There was an error reading the ballot positions from the .ofc file.

Action: Call ES&S Customer Service.

Error Writing to Log File

There was an error writing to the log file.

Action: Call ES&S Customer Service.

Error Writing to Output File

There was an error writing to the output file.

Action: Call ES&S Customer Service.

First Precinct in .pre File Must Have a MSK Entry

The first precinct in the .pre file must have a MSK entry.

Action: Call ES&S Customer Service.

Incorrect Hi Ofc Field in .rpt File

The .rpt field contains an incorrect Hi Ofc field.

Action: Call ES&S Customer Service.

Initialization Process Name Attach Failed

The initialization process name attach failed.

Action: Call ES&S Customer Service.

Insufficient Memory for Local Office Group

There are too many local offices for memory to handle.

Action: Call ES&S Customer Service.

Insufficient Memory for Precinct Local Office

There are too many local offices for memory to handle.

Action: Call ES&S Customer Service.

Insufficient Memory to Initialize

There is insufficient memory to initialize the unit.

Action: Call ES&S Customer Service.

Invalid Call or Return Made in Rcode

An invalid call or return was made in r-code.

Action: Call ES&S Customer Service.

Invalid Number of LIT Lines

There are an invalid number of LIT lines.

Action: Call ES&S Customer Service.

Local Office Group Missing

A local office group is missing.

Action: Call ES&S Customer Service.

Mismatched Counters in .rpt/.ofc Files

Files in .rpt and .ofc have mismatched counters.

Action: Call ES&S Customer Service.

Mismatch in .rpt/.ofc Contest

There was a mismatch found in .rpt/.ofc contest.

Action: Call ES&S Customer Service.

Multiple SP Statistic in OFC1

This error refers to straight party statistics found in the OFC1 file during scanner initialization.

Action: Call ES&S Customer Service.

New Local Office Expected

A new local office was expected.

Action: Call ES&S Customer Service.

Not enough memory for Mixed Mode! Precinct headers required.

There is insufficient memory to run in mixed mode.

Action: Call ES&S Customer Service.

Office Code Missing in .rpt File

The .rpt file has an office code missing.

Action: Call ES&S Customer Service.

Out of Memory Allocating Table

The unit is out of memory allocating table.

Action: Call ES&S Customer Service.

Overflow in District Name Table

There was an overflow in the district name table.

Action: Call ES&S Customer Service.

Partisan Office Appears Before Straight Party

A partisan office appears before the straight party.

Action: Call ES&S Customer Service.

Precinct ID Masks for All Precincts Must Match

The precinct ID masks for all precincts must match.

Action: Call ES&S Customer Service.

.pre File Format Error

The election will not run because the .pre file is corrupted.

Action: Call ES&S Customer Service.

Slate Office Found Before Slate Operation Code in .ofc File!

The .ofc file contained a slate office found before the slate operation code.

Action: Call ES&S Customer Service.

The Model 650 Firmware has failed. You must cycle power to resume.

The scanner has an internal malfunction.

Action: Shut the power off and then turn the machine on again. If this does not solve the problem call ES&S Customer Service.

Too Many Counters Defined in .ofc File

The .ofc file has too many counters defined.

Action: Call ES&S Customer Service.

Too Many Splits in Precinct

There are too many splits in a single precinct.

Action: Call ES&S Customer Service.

Too Many Table Entries

There are too many table entries.

Action: Call ES&S Customer Service.

Unable to Add Record to .pr File

The .pr file was unable to add a record.

Action: Call ES&S Customer Service.

Unexpected New Contest

There is an unexpected new contest.

Action: Call ES&S Customer Service.

Vote for More than 7 in Proportional Race

There is a vote for more than 7 in a proportional race.

Action: Call ES&S Customer Service.

Network Messages

Client <MachineID> Totals Transferred to Network Server.

Totals have been transferred to the server.

Action: No response required.

Copying Election Files from Server…

Displayed after selecting to load an election definition from the network.

Action: No response required.

Disk Read Error on Server. Press Start to check Zip drive.

Unable to read the server's disk. Press the Start button and the system will check the Zip drive for the file.

Action: Reboot server. Contact ES&S if problem persists.

Network Error: No Socket. Client <MachineID> Totals NOT Transferred

The connection to the server or another networked Model 650 has failed. The totals were not transferred to the server.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: No Route to Server. Client <MachineID> Totals NOT Transferred

Indicates the machine cannot find the server or another Model 650 on the network. The totals were not transferred to the server.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: Server Not Found. Client <MachineID> Totals NOT Transferred

The Model 650 is able to properly access the network; however, there is a problem in connecting to the server PC. The totals were not transferred to the server.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: Network Down. Client <MachineID> Totals NOT Transferred

No network activity has been detected. The totals were not transferred to the server.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: Receive Failed. Client <MachineID> Totals NOT Transferred

The Model 650 failed to receive files from the server. The totals were not transferred to the server.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: Transmit Failed. Client <MachineID> Totals NOT Transferred

Transmission of data failed over the network. The totals were not transferred to the server.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.

- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: No Route to Server. Press Start to check Zip drive.

No route has been found to the server. Press the Start button and the system will check the Zip drive for the file.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: No Socket. Press Start to check Zip drive.

The connection to the server has failed. Press the Start button and the system will check the Zip drive for the file.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: Server Not Found. Press Start to check Zip drive.

The server cannot be found on the network. Press the Start button and the system will check the Zip drive for the file.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: Network Down. Press Start to check Zip drive.

No network activity has been detected. Press the Start button and the system will check the Zip drive for the file.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: Receive Failed. Press Start to check Zip drive.

The Model 650 failed to receive files from the server. Press the Start button and the system will check the Zip drive for the file.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

NOTICE OF UNCERTIFIED FUNCTIONALITY
The following products and/or system features HAVE NOT COMPLETED TESTING FOR CERTIFICATION BY THE ELECTION ASSISTANCE COMMISSION (EAC) to the requirements of the VSS:
●Automated Bar Code Reader (ABCR) ●iVotronic DRE ●Model 100 ●Unity Data Acquisition Manager (DAM)
●Unity iVotronic Ballot Image Manager (iVIM) ●All functions related to netword data transmission

Network Error: Transmit Failed. Press Start to check Zip drive.

Transmission of data failed over the network. . Press the Start button and the system will check the Zip drive for the file.

Action: Check the following:

- Ensure the Model 650 Network Server is started on the server PC.
- Check the network setup of the server PC. Verify that the network addressing is correct. Pay close attention to the IP and gateway addresses.
- Ensure there are no other network devices on the sub-net that are using the IP address needed for the server PC.
- Contact ES&S if problem persists.

Network Error: No Memory. Press Start to check Zip drive.

The server has run out of memory. Press the Start button and the system will check the Zip drive for the file.

Action: Reboot server. Contact ES&S if problem persists.

Server Error: See Audit Log for details. Client <MachineID> Totals NOT Transferred

An error occurred in the transferring of files. This error is a general error. More information is sent from the server and printed on the Log Printer. Current messages and meanings are as follows:

1. The Model 650 has sent election totals for an election other than that loaded by the server.
2. The Model 650 has requested election files for an election other than the one loaded by the server.

Action: Verify the correct election is loaded.

Contact ES&S if problem persists.

Chapter 9: Flushing Precincts

Call ES&S before flushing precincts.

At times, you might find it necessary to clear the vote counts from a precinct. Situations where this occurs include accidentally counting the ballots for a given precinct twice (creating a double count); using the wrong precinct identification header when counting ballots (resulting in the vote counts being tabulated in the wrong precinct); and counting ballots from Election Day when the absentee mode is active (placing the tabulated votes in the wrong election group).

To clear the tabulated votes from a precinct, use the method that corresponds to the way you counted the ballots. You can use two methods.

Flush Method	Precinct Counting	
Method 1	Mixed mode	Precincts identified by code channel
Method 2	Headers	Precincts identified by header

The following pages describe how to use the “flush header” in combination with either standard ballots or precinct identification headers to clear a precinct. The instructions also indicate how to use a flush header to clear the volatile memory.

Method 1- Procedure to Flush a Precinct

This procedure explains how to clear a precinct on the ES&S Model 650 Central Scanner when the sequence number on the ballot identifies the precinct. If you counted absentee ballots in a duplicate set of precincts, each precinct flushed will clear both the Election Day and absentee ballot counts in that precinct. Please read these steps completely before using this procedure.

To ensure that you clear all the totals for the selected precinct, use this procedure on each central scanner in your system. You must use the procedure outlined below for each precinct that you wish to clear.

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●Automated Bar Code Reader (ABCR) ●iVotronic DRE ●Model 100 ●Unity Data Acquisition Manager (DAM)
●Unity iVotronic Ballot Image Manager (iVIM) ●All functions related to netword data transmission

Procedure to Clear (Flush) a Precinct

1. **Save**. Store the current vote counts on a zip disk. This way, you can return to the original vote tallies and repeat this procedure if you encounter a problem.
2. **Activate Flush Mode**. Place the flush control header on the input hopper. Press **START**. After the header is read the message “Scan Ballot or Header for Precinct to Flush” appears.
3. **Select Precinct**. Place a ballot from the precinct you want to clear on the hopper. Press **START**. After the ballot is read, the message, “Confirm Flush for (Precinct Name) Re-scan Ballot or Header if Correct” appears.

   OR: Abort Process. Place the flush header on the input hopper. Press **START**. After you scan the header, the message “Precinct Flush Cancelled!” appears.

4. **Confirm and Flush Precinct**. Place a ballot from the precinct you want to clear on the hopper a second time. Press **START**. After the ballot has been scanned, the display will read “Precinct Flush Complete!”.

Precinct totals are now cleared.

   OR: Change Precinct. Select a ballot from the correct precinct. Place the ballot on the input hopper. Press **START**. After the ballot has been scanned, the display will read “Confirm Flush for (Precinct Name) Re-Scan Ballot or Header if Correct.” Go to the beginning of step 4 to confirm the precinct.

   OR: Abort Process. Place the flush control header on the input hopper. Press **START**. After you scan the header, the message “Precinct Flush Cancelled!” appears.

5. **Resume Operation.** Continue scanning ballots using standard methods.

Method 2- Procedure to Flush a Precinct

This procedure explains how to clear a precinct on the ES&S Model 650 Central Scanner when the scanner identifies a precinct from a precinct identification header. If you counted absentee ballots in a duplicate set of precincts, each precinct flushed will clear both the Election Day and absentee ballot counts in that precinct. Please read these steps completely before using this procedure.

NOTICE OF UNCERTIFIED FUNCTIONALITY
The following products and/or system features HAVE NOT COMPLETED TESTING FOR CERTIFICATION BY THE ELECTION ASSISTANCE COMMISSION (EAC) to the requirements of the VSS:
●Automated Bar Code Reader (ABCR) ●iVotronic DRE ●Model 100 ●Unity Data Acquisition Manager (DAM) ●Unity iVotronic Ballot Image Manager (iVIM) ●All functions related to netword data transmission

To ensure that you clear all the totals for the selected precinct, use this procedure on each central scanner in your system. You must use the procedure outlined below for each precinct that you wish to clear.

Procedure to Clear (Flush) a Precinct

1. **Save.** Store the current vote counts on a zip disk. In this way, you can return to the original vote tallies and repeat this procedure if you encounter a problem.
2. **Activate the "Flush" mode.** Place the flush control header on the ballot hopper. Press **START**. After you scan the flush header, the message "Scan Ballot or Header for Precinct to Flush" appears.
3. **Select Precinct.** Select the precinct identification header, which identifies the precinct you want to clear. Place the identification header on the hopper and press **START**. After the header has been scanned, the display will read "Confirm Flush for (Precinct Name) Re-Scan Ballot or Header if Correct."

   OR: Abort Process. Place the flush control header on the ballot hopper. Press **START**. After you scan the flush header, the message "Precinct Flush Cancelled!" appears.

4. **Confirm and Flush Precinct.** Place the precinct identification header for the selected precinct on the hopper a second time. Press **START**. After the header has been scanned, the display will read "Precinct Flush Complete!"

Precinct totals are now cleared.

   OR: Change Precinct. Select the header for the correct precinct and place it on the hopper. Press **START**. After the header has been scanned, the display will change to "Confirm Flush for (New Precinct Name) Re-Scan Ballot or Header if Correct." Go to the beginning of step 4 to confirm precinct selection.

   OR: Abort Process. Place the flush control header on the ballot hopper. Press **START**. After you scan the flush header, the message "Precinct Flush Cancelled!" appears.

5. **Resume Operation.** Scan the precinct identification header for the precinct you wish to start tabulating. Continue scanning ballots using standard methods.

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Procedure to Flush Volatile Memory

This procedure explains how to clear the volatile memory on the ES&S Model 650 Central Scanner. The volatile memory holds counts from all ballots scanned since the last time you pressed the SAVE button. To check what counts you will clear when scanning the flush volatile header, review the audit log details.

1. Scan the Volatile Flush Header. The message “Confirm: Flush Batch? Press Stop to Cancel and Start to Continue” appears.
2. Press **Start**. The message, “Flush Batch Complete” appears.

   The scanner clears all counts tallied since the last time you pressed SAVE.

   OR: Abort Process. Press **STOP**. The message “Flush Batch Cancelled!” appears.

Note: If there are no counts in volatile memory when you scan the volatile flush header the message, “No Batch in Progress Nothing to Flush” will be displayed.

Chapter 10: Install Model 650 Firmware

Install Model 650 Firmware with Green Light Sensors

Use these instructions for version 2.1.0.0 and newer of the Model 650 with Green Light Sensors.

NOTE: To verify that the M650 has green light sensors, power on unit and lift M650 read head, the sensors should illuminate green.

Contact an ES&S service technician for instructions to return your Model 650 to an earlier firmware version. Do not use a firmware update disk to revert a Model 650 firmware version back to an earlier version.

1. With the scanner off, insert the zip disk containing the new Model 650 firmware into the zip drive of the scanner.
2. Turn the scanner on with the zip disk in the drive. The scanner will load the firmware automatically.

NOTE: Do not remove the Zip disk during this process.

3. When the update is complete, a message will appear asking for an election definition.
4. Remove the zip disk.
5. Turn the scanner off.

NOTE: M650s with green light sensors require that the Mark Detection settings be changed to 3.0 after any change in firmware. To set the Mark Detection a valid Election definition must be loaded on the scanner. Follow the instructions on the next page to change the Mark Detection setting.

Take the following steps to set the Mark Detection Routine.

1. Turn on the scanner and load a valid Election definition onto the scanner.

2. Press and hold the ENABLE button and press the FORMAT button to enter the internal configuration screen options.

   Select Option Group: System Config *

   Stp/Strt -/+, Enable-Stp/Strt, Exit/Accept

NOTE: The following message appears under all menu choices: “Stp/Strt --/+, Enable – Stp/Strt Exit/Accept.”

- Use the START and STOP buttons on the front of the scanner to rotate through the menu options and to change settings. Press START to cycle forward through the menu choices. Press STOP to cycle backward through the menu choices.
- Press and hold the ENABLE button and press the START button to choose an option or press and hold the ENABLE button and press the STOP button to exit the configuration options.

3. Press the START button until the screen message “Select Option Group: Mark Detection” appears.

   Select Option Group: Mark Detection

   Stp/Strt -/+, Enable-Stp/Strt, Exit/ Accept

4. Press and hold the ENABLE button and press the START button until DTS 2.0 * displays.

   Mark Detection Setting: DTS 2.0 *

   Stp/Strt -/+, Enable-Stp/Strt, Exit/ Accept

5. Press the START button to change the setting to DTS 3.0.

   Mark Detection Setting: DTS 3.0

   Stp/Strt -/+, Enable-Stp/Strt, Exit/ Accept

6. Press and hold the ENABLE button and press the START button to save the setting. The following screen message appears:

   Mark Detection Changed

7. Remove the zip disk.
8. Power down and restart the Model 650 and verify on the log printer that the Mark Detection setting has been set.
9. Turn the scanner off. The firmware update is complete.

Install Model 650 Firmware With Red Light Sensors

Use these instructions for version 1.2.0.0 and newer of the Model 650 with red light sensors.

NOTE: To verify that the M650 has red light sensors, power on unit and lift M650 read head, the sensors should illuminate red.

1. With the scanner off, insert the zip disk containing the new Model 650 firmware into the zip drive of the scanner.
2. Turn the scanner on with the zip disk in the drive. The scanner will load the firmware automatically.

NOTE: Do not remove the Zip disk during this process.

3. When the update is complete, a message will appear asking for an election definition.
4. Remove the zip disk.
5. Power down and restart the Model 650, and verify on the log printer that the firmware has been updated to the appropriate version.
6. Turn the scanner off. The firmware update is complete.

Contact an ES&S service technician for instructions to return your Model 650 to an earlier firmware version. Do not use a firmware update disk to revert a Model 650 firmware version back to an earlier version.

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Chapter 11: Model 650 Configuration Options

Access the Model 650 configuration options by pressing the Enable and Format buttons simultaneously. The options include **System Config**, **Report Format** and **Zone & Date/Time**. The following screen appears.

Selection Option Group screen

Select Option Group: System Config *
Stp/Strt -/+, Enable-Stp/Strt, Exit/Accept

Change internal configuration settings

1. Hold down the **ENABLE** button and press **FORMAT** to enter the internal configuration screen options.
2. Use the **START** and **STOP** buttons to change settings and to rotate through the options. Pressing **STOP** cycles you backward through the menu choices. Pressing **START** cycles you forward through the menu choices.
3. Hold down the **ENABLE** button and press **START** to choose an option or **STOP** to Exit.
4. After pressing **ENABLE** and **FORMAT** you can select the option group you wish to modify. The message, "Select Option Group: System Config" appears. If you wish to advance to “Report Format” or “Zone & Date/Time,” press **STOP** until you reach the correct menu option.

Note: The following message appears under all menu choices: “Stp/Strt --/+, Enable – Stp/Strt Exit/Accept.”

Configuration Options

Configuration Name	Options	Description
	System Config	
Background Level (temp)	Visible Ovals Invisible	The default value is automatically reset to Visible Ovals for background level when the scanner is powered up.
Machine ID	1-149	Use the Machine ID to identify the 650 on a network. This number will appear on report.

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Configuration Options *(continued)*

Configuration Name	Options	Description
	Report Format	
Lines Per Page	40-80	Use this option to set the number of lines per page for reports. Default value is 60.
Show Accumulated Totals	Yes No	Select **Yes** to show accumulated totals on reports. The default value is **No**.
Show Ballot Positions	Yes No	Select **Yes** to show ballot positions on reports. The default value is **No**.
Show Over/Under Percentages	Yes No	Select **Yes** to show percentages for over- and under-voted totals on reports. The default value is **No**.
Order Candidates by Rank	Yes No	Select **Yes** to order candidates according to their rank in total votes on reports. The default value is **No**.
	Zone & Date/Time	
Time Zone	Central + Daylight Mountain + Daylight Pacific + Daylight UTC (GMT) Indiana (Eastern) Arizona (Mountain) Hawaii Easter + Daylight	Use this option to set the local time zone.
Set Year		Select the current year
Set Month		Select the current month
Set Day of Month		Select the current day of the month
Set Hour Field		Select the current hour
Set Minute Field		Select the current minute

Chapter 12: Configure the Scanner Network

The Model 650 Central Scanner can be connected to a network, enhancing support of Election Results reporting. The networked scanner will be attached to a proprietary network program, SERVE650.EXE.

This allows loading of election definition files to the standard network election directory structure for access by the Central Scanner Network Server, SERVE650.EXE program. The SERVE650.EXE program will input these election definition files and create and download to the central scanners. Model 650 Central Scanner initialization files are required by the central scanners to tabulate the ballots.

The SERVE650.EXE program will transfer election results files from the central scanners to a standard network drive for access by the Election Reporting Manager pc workstations. You may setup your network using standard LAN configurations.

For information about setting up your router, refer to your router's documentation.

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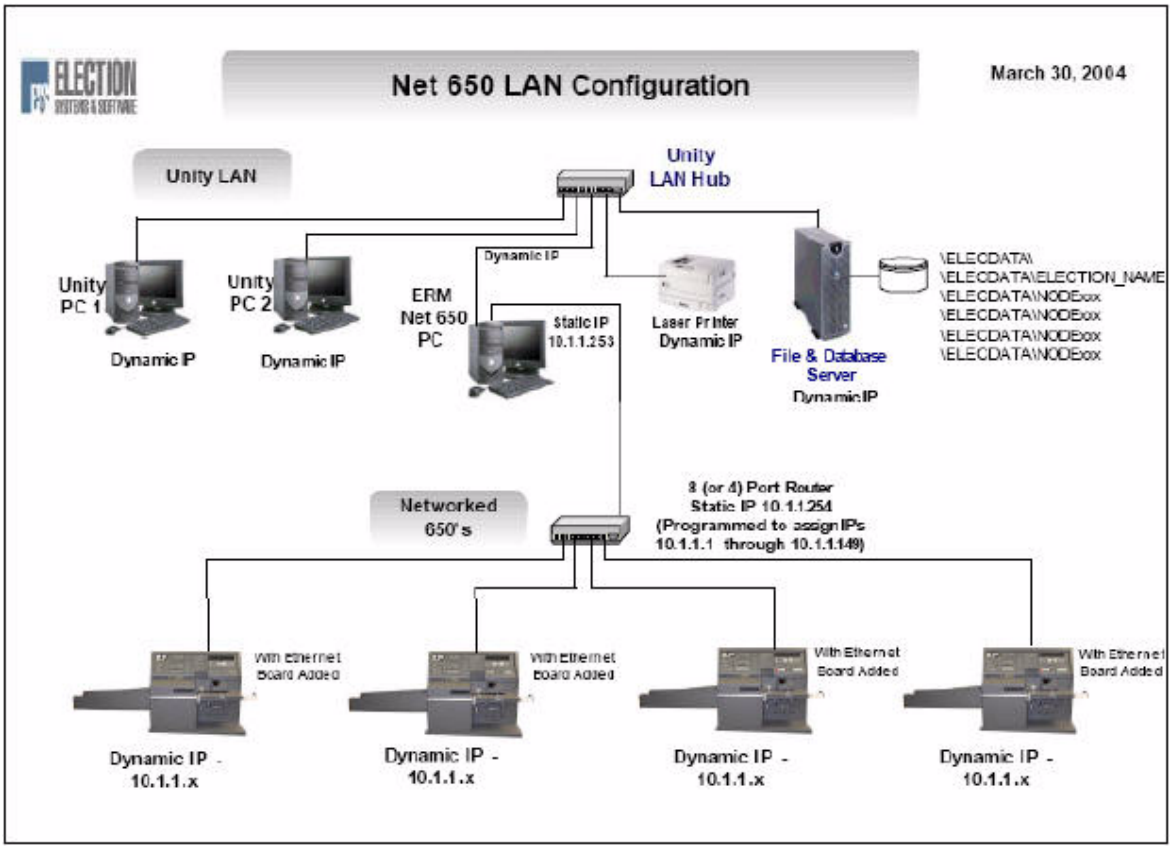

Import Model 650 Election Files to ERM

This option should be used only if ES&S has coded the election. Otherwise, you are required to move your election definition to another computer. If you have coded your election on the same computer that already has your elecdata folder, the files are available for the Model 650 to access. If you need to import the Model 650 election files, the following election definition files from the Zip Disk will be copied to the \Elecdata folder:

- <election name>.DAT
- <election name>.RPT
- <election name>.OFC
- <election name>.PRE
- <election name>.PRF

Import Model 650 Election Files

1. Open Election Reporting Manager (ERM).
2. Click **Tabulators, 650 Scanner**s, and select **Import 650 Election File**s.
3. Enter the letter of the drive where the Zip Disk is installed if it is not the same as the ERM drive.
4. The current election name will be displayed in the **Election Name** box. If necessary, make changes and chose **OK**.
5. Wait for the import to complete.

Configure the Scanner

In order to configure the scanner, networking must be enabled with a unique machine ID on each scanner.

Enable the network

1. Turn power on and wait for the machine to enter the Ready state. This may be Diagnostics Only if no election is loaded.
2. Press **ENABLE-FORMAT** to enter the Configuration screens.
3. Press **ENABLE-START** to select "System Config" options. This should be the default. If not, use **STOP/START** to rotate through the options until "System Config" is shown on the display.
4. Press **ENABLE-START** to accept the current Background Level setting without changing it.
5. Press **STOP/START** to get to the desired machine ID. Press **ENABLE-START** to accept/change the machine ID. A message appears for five seconds to indicate change if one is made.
6. Press **STOP/START** to toggle the Networking state to On. Press **ENABLE-START** to accept/change the networking state. A message appears for five seconds to indicate change if one is made.
7. Press **ENABLE-STOP** to exit the Configuration screens.

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8. If necessary, reboot the machine to load a new election. If an election is available over the network, the following message will display: 'Press Start to load [Election Name] (NETWORK). Press Stop to keep current election.' Press **Start** if you want to make the network election the active election on the Model 650.

The network must be isolated and set up as 10.1.1.x with a DHCP Server at 10.1.1.254 and the ERM machine at 10.1.1.253. The DHCP Server should be configured to serve IP addresses starting with 10.1.1.1 and progressing through 10.1.1.252.

Scan Ballots

During scanning operations, a central scanner without a client ID will operate as a normal (non-networked) central tabulator. A central scanner WITH a client ID, however, transmits its totals to the network server at 10.1.1.253 whenever the operator presses **SAVE** or the operator presses **ENABLE-ZERO TOTALS**. Whenever a scanner attempts to transmit totals to the network server, it will log and display a message informing the operator of either success, or failure with an associated error message. A scanner without a client ID will not attempt to connect to a server or display any network-related messages or log entries, except during boot up.

Note: Except as already noted, operation of a networked scanner is the same as a non-networked scanner.

Report Ballots

Totals on the machine are for ballots scanned on that machine only. Reports generated include counts for that machine only. Zip disk operations work exactly the same as non-networked scanners. If any network problem is encountered, the machine will inform the operator of the problem, but be fully functional and behave exactly as a non-networked scanner (aside from reporting network errors).

Chapter 13: Revision History

Model 650 v. 2.2.2.0 May 29, 2009

Chapter	Description	Project
Chapter 10: Install Model 650 Firmware	Added step to Firmware installation (red light), prompting the user to remove the zip disk.	#152
Chapter 10: Install Model 650 Firmware	Added step to Firmware installation (green light), prompting the user to power down, restart, and check the log printer to verify the firmware update.	#152
Chapter 8: Troubleshooting	Added verbiage regarding the Check Timing Track sensor being related to a backwards, or upside-down ballot.	#142

Model 650 v. 2.2.1.0 October 17, 2008

Chapter	Description	Project
Chapter 1: Introduction	Added a new heading, Operations Support Frequently Asked Questions, on page 4 providing information about the following. how the system is purchased how the system is installed setup of the system how a user can verify the system the training needed the checklist to be followed	#27
Chapter 1: Introduction	Added information under the Provisional Voting heading to clarify that provisional votes are tabulated according to jurisdiction regulations.	#372

Model 650 v. 2.2.1.0 August 22, 2008

Chapter	Description	Project
Title Page	Added Hardware version 1.2 to the page.	#477

Model 650 v. 2.2.1.0 August 22, 2008 *(continued)*

Chapter	Description	Project
Chapter 1: Introduction	Added System Acquisition Procedures section on Page 7.	#27
Chapter 1: Introduction	Added General Timeline for Election Preparation section on Page 9.	#27

Model 650 v. 2.2.1.0 July 25, 2008

Chapter	Description	Project
Chapter 2: Safety Information	A Caution table was added to warn users to keep clear of the pinch rollers, and a photo illustrates the areas to avoid.	
Chapter 10: Install Model 650 Firmware	Added information about how to install new firmware on the Model 650 in Chapter 10: Install Model 650 Firmware beginning on Page 107.	

Model 650 v. 2.2.1.0 May 19, 2008

Chapter	Description	Project
Chapter 1: Introduction	Added Install Firmware on the M650 section and removed Chapter 10: Install New Firmware. Page 4	
Chapter 1: Introduction	Added the Facilities, Furnishings and Fixtures Required for Model 650 Operation section. Page 8	
Chapter 4: Pre-Election Day Tasks	Added tables listing required tools, required staff and estimated time to complete to the following sections: • Replace the Pick Belt • Clean the retard pads • Replace the retard pad • Clean the Rollers • Clean the Fiber Optic Sensors • Clean the Scanner	

Model 650 v. 2.2.1.0 February 29, 2008

Chapter	Description	Project
Chapter 7: Operational Modes	Added a note to the Diagnostic Reports section in Chapter 7 stating that ES&S technical support should be contacted with regard to interpreting diagnostic reports.	309
Chapter 6: Reports	Added information in the Machine Readiness Report section.	310

Model 650 v. 2.2.0.0 November 16, 2007

Chapter	Description	Project
Chapter 12: Configure the Scanner Network	Add updated information to **Chapter 12: Configure the Scanner Network**. Page 113	

Model 650 v. 2.2.0.0 August 3, 2007

Chapter	Description	Project
	Added the following sentence to the Copyright page: Purchases that change, or modifications not tested and certified by the EAC, will void the EAC certification of the voting system.	
Chapter 1: Introduction	Added note stating "For issues related to the Okidata 520 printer contact Okidata. See your printer documentation for information about contacting Okidata." in the Contact ES&S for Technical Support section. Page 2	

Model 650 v. 2.2.0.0 May 11, 2007

Chapter	Description	Project
	Original publication	
Chapter 5: Operate the Scanner	Added information about setting the Model 650 to sort under-voted ballots. Page 32	NA

Model 650 v. 2.2.0.0 May 11, 2007 *(continued)*

Chapter	Description	Project
Chapter 8: Troubleshooting	System message was changed from “This election will NOT run in Mixed Mode” to “This election requires precinct headers.” Page 78	ENH06388
Chapter 8: Troubleshooting	Added error message “Not enough memory for Mixed Mode! Precinct headers required.” Page 95	ENH06388
Chapter 8: Troubleshooting	Added error message “No Valid Party Selection.” Page 86	ENH07724

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