DS850®
Operator's Guide

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Disclaimer

Proprietary Information

Proprietary Document Section	Description
N/A	N/A

Table of Contents

Part 1: Introduction

The Introduction contains the following chapters:

◆ Chapter 1: DS850 Overview
◆ Chapter 2: Safety Information
◆ Chapter 3: DS850 User Interface

Chapter 1: DS850 Overview

The ES&S DS850 is a high-speed, computerized, digital image-based scanner and tabulator with ballot sorting capabilities. The ES&S DS850 is designed to process all of the ballot types supported by the ES&S election management system, including folded (absentee) ballots.
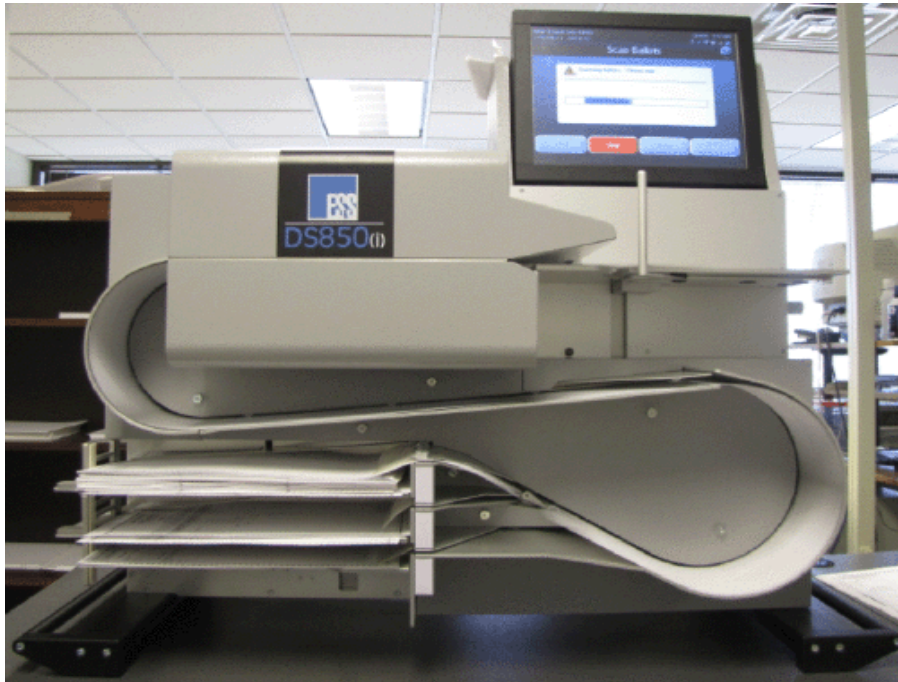
The DS850 accurately records all votes as marked by the voter and is capable of meeting or exceeding the 1.5 million mark test as stated in Volume 1, Section 2.1.1 of the 2005 VVSG. Voter accumulation records are saved on the machine's hard drive and can be transferred from the hard drive to a USB flash drive.

The DS850 is capable of supporting multiple election models. In a traditional central count model, voting takes place at various locations within a precinct, and when the polls close, the ballots are physically transported to a central location, then scanned and tabulated using the ES&S DS850. In a traditional precinct count model, ballots are scanned during election day on an ES&S precinct scanner and tabulated once the polls are closed. In this precinct-based model, the central count scanner is used to process early voting and absentee ballots by scanning the ballots in the days up to and including election day and subsequently tabulating them when the election is closed. In an all mail-in model, all ballots are physically collected via mail to one or more central locations and scanned up until the polls close on election day, at which time they are tabulated.

This manual and the *ES&S DS850 System Maintenance Guide* are intended to help you develop election procedures. However, election laws and procedures vary from state to state, and your procedures must be in compliance with the laws and procedures that apply to your jurisdiction.

ES&S Elections

Jurisdictional Nomenclature

Terminology for the lowest-level common geopolitical civil division differs by state and country. In this manual and other ES&S documentation, the entity is referred to as a precinct.

As a company with accounts across the country and around the world, ES&S recognizes that certain jurisdictions use terms other than precinct. Some examples of the terms used by other jurisdictions are Election District (or ED), Borough, Province, Division, and District. These terms and others may be substituted for precinct depending upon the particular jurisdiction. However, for consistency, ES&S uses the term precinct throughout its documentation.

Election Definition

Using ElectionWare, election coders program a custom election definition onto a USB flash drive for each DS850 used in your jurisdiction. An election definition contains all of the candidates, contests, and ballot variations that the scanner will process at the polling place. It also contains the user-defined codes that must be entered on the scanner to perform various functions. The election definition provides default values for configuration settings, some of which can be modified on the scanner after the election definition is loaded.

Note: Screen text that ends with an ellipsis (…) indicates that more characters were entered for the text in ElectionWare than the DS850 can display

Election Security

All ports for connecting USB and Ethernet devices are located behind lockable doors. Each of these locations contains a provision for a wire seal for an additional level of security. See Locks and Seals for information on the placement of the locks and seals.

Access to various system screens require entry of a code to prevent unauthorized access to certain system functions.

The DS850 records errors and major events and tags these incidents with the date and time the incident occurred based on the DS850's real-time clock settings. Audit log information can be exported to a USB flash drive inserted into a USB port on the DS850. The Zero Report, which is printed before polls are open on Election Day, is used to indicate no tampering has been done to the vote totals.

Election officials using the DS850 must provide physical security measures or implement procedures that limit access to the DS850 during the election period to authorized personnel only. The election period encompasses the time the election definition is loaded onto the system to the time final, official election results are produced and validated.

Provisional Voting

In paper ballot-based systems, provisional ballots are handled procedurally. 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 by your jurisdiction's requirements. For example, some jurisdictions may hand-count provisional ballots and manually enter them into Election Reporting Manager (ERM), while others may create a separate election group and scan the ballots using a precinct or central scanner such as the DS850.

Facilities, Furnishings, and Fixtures Required for DS850 Operation

The following facilities, furnishings, and fixtures are required to operate the DS850:

◆ ES&S recommends using the metal cart available for the DS850 for easier setup and movement of the machine, which weighs approximately 200 pounds. The metal cart weighs 190 pounds.

◆ The DS850 is intended for indoor use only. During tabulation, ES&S recommends the DS850 should be operated in a room measuring a minimum of 10 feet by 10 feet.

◆ The DS850 can be operated in any temperature controlled facility, with temperatures from 50 degrees Fahrenheit to 95 degrees Fahrenheit. Operational humidity during operations should be between 10 and 88 percent RH. The DS850 is not protected against harmful ingress of moisture.

◆ A standard 110V outlet must exist in the facility for power cord plug in. The DS850's input rating is 120V~50/60 Hz 8.0A single phase or 240V~50/60 Hz 8.0A dual phase. The main supply voltage fluctuations are not to exceed plus or minus 10 percent of the rated supply voltage range. To ensure 2 hours of uninterruptible power you must use an Uninterruptible Power Supply (UPS) with the DS850.

◆ The storage temperature for the DS850 is from -4 degrees Fahrenheit to 140 degrees Fahrenheit.

Reference: See Chapter 2: Safety Information for a complete list of the DS850 specifications and cautions.

Locks and Seals

ES&S recommends the lock and seal placements described below to physically lock down the DS850 and prevent system tampering.

The rear of the scanner is secured by locking both door locks. A tamper-evident tape seal can be used for additional security.
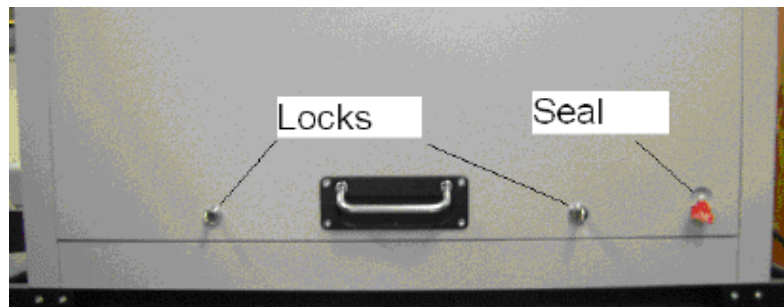
The DS850 data ports on the right side of the DS850 are all behind clear access doors that can be protected by both locks and seals.
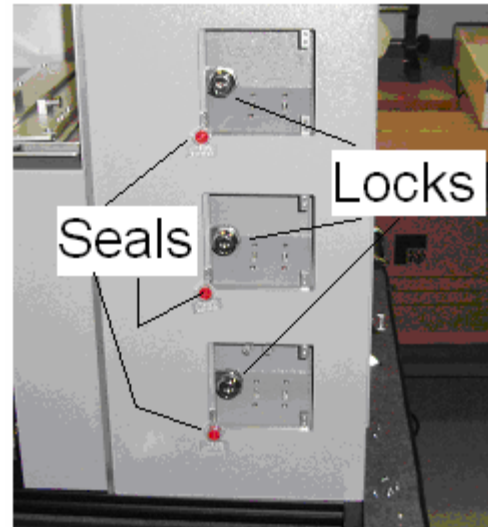
The DS850 data ports on the left side of the DS850 are all behind a clear access door that can be protected by both a lock and a seal.
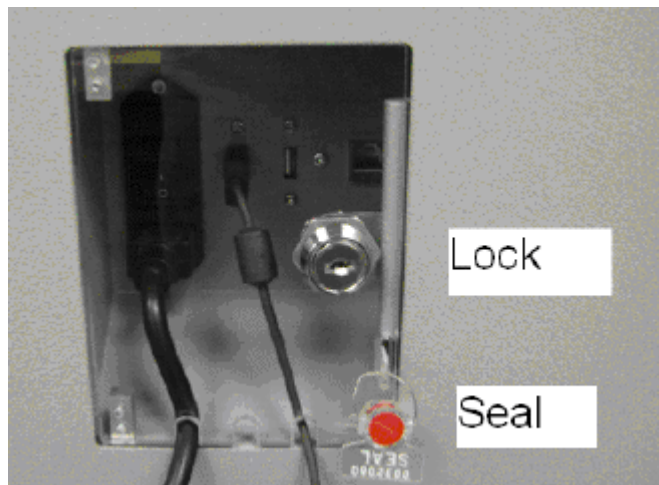
Note: See Election Security in this chapter for more information.

Using USB Media Devices

USB Media Devices are used to clear and initialize the DS850, load an election definition into the DS850, create an archive, and export data that has been saved to the DS850's internal memory. The ES&S EQC Media Device flash drive is used clear all data from the machine and load the encryption keys that are needed to load and run the election. The ES&S Election Definition Media Device flash drive is used to load the election definition into the scanner. ES&S Election Definition Media Device flash drives and blank ES&S Media Device flash drives and can be used to create an archive and to export data.

Reference: See Clearing and Initializing the Scanner, Loading the Election Definition, and Exporting Data for more information on these processes.

Note: If you choose to use USB Media Devices, it is strongly recommended that you use fully-formatted USB Media Devices rather than the Quick-formatted or cleared (all files deleted) flash drives. The fully-formatted flash drives work faster and are more reliable. If you have any questions about formatting your flash drives contact ES&S.

The picture on the right shows a typical USB flash drive.

Before inserting a USB flash drive, remove the protective plastic cap to expose the USB connector.

The ES&S EQC Media Device flash drive, the ES&S Election Definition Media Device flash drive, and a blank ES&S Media Device flash drive can be inserted into any one of the USB ports on the DS850. Never force a USB flash drive into a USB port.

Adjusting the DS850 Workspace

You can make several manual adjustments to the DS850 workspace to improve usability, including adjusting the tilt of the screen, changing the length of the input and output trays, and raising and lowering the side of the DS850's cart.

Adjusting the Tilt of the Screen

You can tilt the screen forward to achieve a potentially better viewing angle by gently pulling the top of the screen outward. The picture on the right shows a screen that has been pulled forward.

Adjusting the Input and Output Trays

You can adjust the length of the input and output trays to accommodate different sized ballots.

The input tray can be extended to provide a solid support for longer ballots. Use the round opening to pull the extension to the right for longer ballots. Slide the extension to the left for shorter ballots. The picture on the right shows the input tray extended for longer ballots.
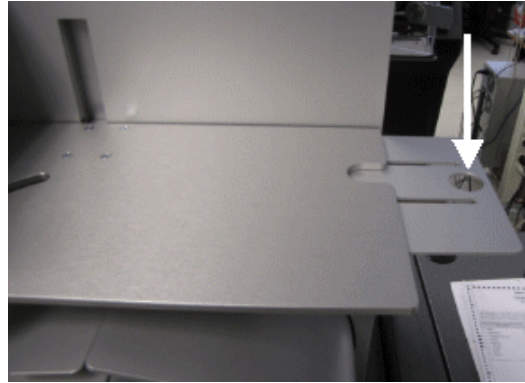
It is also important that the output trays (or bins) be adjusted to the proper length before the ballots are scanned. If the output trays are set for ballots that are longer than the ones being scanned, the ballots might overshoot the trays as they come through the transport. If the output trays are set for ballots that are shorter than the ones being scanned, the ballots will jam up in the trays.

Adjusting the output trays consists of changing the length of the trays and the position of the output tray paper stops. Each of the output trays, like the input tray, has an extension with a round opening in it. You can use the opening to pull the extension to the left for longer ballots, and you can slide the extension to the right for shorter ballots. There are markings on the output trays to help you adjust them to the correct length for the ballots. The picture on the right shows an output tray set for 17" ballots.
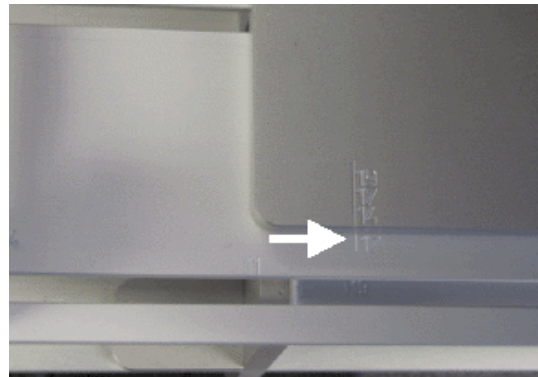
After you adjust the length of the output trays, set a sample ballot in each of them. Then slide the output tray paper stops so that there is approximately 10 mm between the stop and the end of the ballot. The picture at the right shows the output tray paper stops.

Raising and Lowering the DS850's Cart Extension

To use the DS850 cart extension, lift up on the extension until it is level and push up on the brackets on both sides (as shown in the picture on the right) until they lock into place.

To lower the extension, simultaneously press the release button on the inside of the bracket and press down on the hinge of the bracket. Repeat this process with the other bracket and carefully lower the extension. The extension must not be allowed to drop as to prevent damage to the extension and the cart.

Uninterruptible Power Supply (UPS)

You must use an Uninterruptible Power Supply (UPS) with the DS850. The UPS will provide continuous power to the machine and to prevent the DS850 and the attached printers from being damaged in case of a power surge. .

Note: The DS850 was certified using an external UPS to comply with electrical test requirements in the VVSG. The DS850 must be operated with an external UPS to be in a certified configuration.

Reference: See Chapter 5: Pre-Election Day Tasks for information on installing the UPS, attaching the DS850 and printers to the UPS, turning on the UPS, and checking that the UPS is communicating with the DS850.

Installing New Firmware

A certified ES&S Technician will usually install new firmware on the DS850. If you have been instructed to install the new firmware an ES&S Support Representative will assist you in the process.

Warning: Contact an ES&S Technician for instructions to return your DS850 to an earlier firmware version. Do not use an earlier firmware update Compact Flash card to revert a DS850 firmware version back to an earlier version.

Note: The Compact Flash card must be a minimum of 1 GB.

Contacting ES&S for Technical Support

This manual 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' 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.

◆ 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 7:00 P.M. CST.

Contact an ES&S Support Representative

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

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

Contacting ES&S for Supplies

ES&S recommends that you keep the supplies listed below on hand for each DS850. You can order these items from ES&S by calling (877) 377-8683. Allow four weeks for delivery.

◆ 8.5" x 11", continuous feed, one-part paper for the audit log printer: ES&S recommends that the printer paper be carbon-less to avoid smearing. If you will be using ERM the same type of one-part paper can be used for both the ERM and DS850 continuous-feed printers. **Quantity:** two boxes.

◆ **8.5" x 11", standard laser printer paper for the laser printer. Quantity:** two boxes.

◆ **Pressurized air cans:** Used to clean the sensors. **Quantity:** two.

◆ **Cloth and isopropyl 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.

◆ **USB flash drives:** These must be FAT32 formatted drives. Depending on the number of ballots processed, you may need multiple drives to transfer all of the ballot image data. Election results data will fit on a single drive. The minimum size is 1GB and the maximum is 8 GB. **Quantity:** 6

> **Warning:** The flash drives you use in the DS850 must be used for the election process only. Using the drives for anything other than the election process violates security practices.

◆ **Marking Devices:** Although the DS850 reads a wide variety of marking devices, ES&S recommends that you use the following devices:

VL Ballot Pen (ES&S part # 6100). The pen is a BIC Grip roller ball with black ink and a 0.7 mm tip.	
Absentee Pen (ES&S part #00500) Easily fits into an envelope for mailing.	
Absentee Pencil (ES&S part # 00540) Red, 0.125 point	

◆ Audit log printer ribbon (ES&S part # 4778)
   Quantity: 1 per printer

◆ Report Printer Toner Cartridge (ES&S part # 6826)
   Quantity: 1 per printer

◆ Touch screen cleaning kit.

General Timeline for Election Preparation

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

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

Operations Support Frequently Asked Questions

◆ How is the system purchased?

You can purchase the **DS850** by contacting your ES&S representative.

◆ How is the system installed?

You can install new firmware to the DS850 by following the steps in the ES&S implementation plan. See Installing New Firmware for more information.

◆ How can I verify the system?

You can verify the system in the following ways:

• Compare the serial numbers on the hardware to the numbers on the purchase order.

• Compare the firmware version to the version listed on the purchase order.

• The Acceptance Checklist will aid in the verification of the system.

◆ What training is required?

Training is determined at the time the system is 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

Use the Acceptance Checklist to ensure that the system has been delivered and is performing as expected. The following is a descriptive list of the DS850 acceptance testing criteria.

Visual Inspection

◆ Ensure that there are no scratches or gouges on any part of the unit.

◆ Verify that all labels are placed in their appropriate place and in their correct orientation.

◆ Check the wheel locks on the table to ensure the cart rolls freely in the unlocked position and does not when the wheels are locked.

◆ Inspect the table's folding extensions and drawer for proper operation.

◆ Verify all locks and doors have a smooth function and are locked.

◆ Open the rear door on the scanner and check for any loose connections or damaged parts.

◆ Ensure that all belts, transport rollers, and protective guards are in place.

Physical Inspection

◆ Install the UPS, connect the printers and the scanner to the UPS, set up the printers, and then turn on the UPS and the scanner. See Chapter 5: Pre-Election Day Tasks for instructions.

◆ Observe that both printers and the DS850 power on. If an election has been loaded, at the Login screen, enter the Election Code.

◆ Verify that the AC power icon is present in the upper right-hand corner of the screen and that it indicates that the power connection is plugged in.

◆ Verify that a red "X" is not displayed on the printer icons.

◆ Perform Touch Screen calibration by selecting the Hardware menu and then pressing **Screen Calibration**. Touch the circle in the upper left-hand corner. When the screen with a circle in the lower right-hand corner appears, touch that circle. Touch the next screen in multiple places to verify that the pointer (x) will follow the touch points. Then press the **Save & Exit** button.

◆ Verify that the DS850 firmware version matches the certified version for your jurisdiction. To do so, select the System menu and then press **Firmware**. COTS firmware versions that the system can report will also be displayed.

◆ Test each of the USB ports on the DS850 by using the following procedure:

  • Press **Election** to access the Election menu.

  • From the Election menu, press **Setup** to access the Setup screen.

  • On the Setup screen, press **Clear and Initialize**. This displays the *Searching for EQC Media Device* pop-up screen.

  • Insert the ES&S EQC Media Device flash drive into one of the scanner's USB ports. The previous pop-up screen is temporarily replaced by a *Detecting inserted device* pop-up screen. When the scanner recognizes the ES&S EQC Media Device flash drive, the Qualification Code screen appears.

  • Press **Cancel** and move the USB flash drive into another unused USB port.

  • Repeat the steps above for each unused USB port, except for the last one, to ensure that each USB port on the scanner is functioning correctly. On the last port, clear and initialize the scanner. See Clearing and Initializing the Scanner for instructions.

◆ Check the date and time displayed at the top of each screen to ensure the date and time are correct. If necessary, change the time and date. See Set Date/Time for instructions on modifying the scanner's system date and time.

◆ Load the election definition into the scanner. See Loading the Election Definition for instructions.

◆ Load the ES&S test deck of ballots onto the input tray of the scanner.

◆ Scan the test deck of ballots. See Scanning for instructions.

◆ Save the election results to a USB flash drive. See Exporting Data for instructions.

◆ Print the election results reports and compare them to the reports provided by ES&S to verify that the scanner is reading the ballot marks accurately. See Printing Election Reports for instructions on printing reports. See Chapter 8: Reports for more information and examples of the reports.

◆ Verify that the scanner can detect when power to the UPS is lost. See Checking the Connection Between the UPS and the Scanner for instructions on checking whether the scanner can detect when power to the UPS is lost.

◆ Power down both printers and the scanner, then power down the UPS. See Shut Down and Power Off the Scanner for instructions on how to shut down and power off the scanner. See Turn Off the UPS for instructions on turning off the UPS.

◆ Place the dust cover over the scanner, and ensure it is free of tears and rips.

Acceptance Checklist

Shown below is an example of the Acceptance Checklist for the DS850.

Chapter 2: Safety Information

When used properly, the DS850 is safe and effective. The following symbols, used 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.

Warning Icons

Symbol	Definition
	Electrical Shock Danger: This symbol indicates a danger of electric shock. There are high voltages present inside the enclosure of DS850 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 been trained. Only ES&S qualified personnel should open enclosed areas of the scanner.
	Warning: 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.

Important Safety Instructions

Please read all safety instructions before operating the DS850. Carefully follow all instructions and heed all warnings.

Power Sources

Operate this product only from the type of power source indicated in this manual. Make sure that the installation complies with applicable sections of the National Electric Code. Consult your local building code before installing. See Facilities, Furnishings, and Fixtures Required for DS850 Operation for more information.

Ventilation

Slots and openings in the case of the DS850 are included to provide adequate ventilation for the unit. These openings must remain clear. Do not block or cover any openings in the DS850 case; otherwise, the unit could overheat. Do not operate the DS850 in an enclosed housing not approved by ES&S.

Water and Moisture

Warning: Do not place containers with liquids such as coffee, water, or soda on or around the DS850. Do not operate the equipment in a damp environment. Store the DS850 in a cool, dry place.

Cleaning

Follow the instructions in the Pre-Election Maintenance section of this manual for cleaning the DS850. Use only the cleaning solutions approved by ES&S. Cleaning instructions are also provided in the **DS850 System Maintenance Manual**.

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. Before moving the unit, shut down and power off the DS850, and then turn off the UPS. The UPS should be unplugged from the wall outlet and safely stowed before moving. You should take care not to pinch the power cord when locking the power switch access door.

Servicing

Electrical Hazard: Electrical Shock Danger: 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 DS850.

Damage Requiring Service

Unplug the DS850 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.

◆ If the scanner does not function normally while following instructions in this manual.

◆   If the product is damaged in any way.

◆   When the scanner displays a negative change in performance.

> **Warning:** Adjust only the controls specified in this manual. Improper adjustment of other controls may result in damage to the scanner and could require work by an ES&S technician to restore the scanner to normal operating condition.

Radiation Protection

The DS850 meets or exceeds Federal Communication Commission standards for protection against generated or induced electromagnetic radiation, and no additional safety precautions are required.

Specifications and Cautions

	Indoor Use Only
	Ordinary Protection (not protected against harmful ingress of moisture)
	The rear door of the DS850 must be locked at all times during normal use. Store the keys to the door in a secure location while you are using the DS850.
	Warning: Weight: 200 lbs - **2 person lift.**
	Electrical input rating: 120V~ 50/60Hz 8.0A single-phase power or 240V~ 50/60Hz 8.0A dual-phase power. Consult a licensed electrical contractor for proper electrical connections.
	Pollution Degree 2 for the ambient environment
	Operating relative humidity: 10% to 88% RH, non-condensing
	Operating temperature: 50 degrees Fahrenheit to 95 degrees Fahrenheit
	Maintenance: For applicable maintenance items, refer to the *DS850 System Maintenance Guide*.
	Warning: The interior of the DS850 is not accessible to the user. Service operations inside the electrical enclosure must be done by trained and authorized personnel.
	Transport and storage conditions: -4 degrees Fahrenheit to 140 degrees Fahrenheit

Chapter 3: DS850 User Interface

This chapter describes the DS850 user interface. The screens that make up the DS850 user interface are displayed on the DS850 touch screen. The top-center line of text on each screen identifies the current screen. The menus for the DS850 user interface are listed below and described on the pages which follow.

◆   Scanning Menu

◆   Election Menu

◆   Reports Menu

◆   System Menu

◆   Hardware Menu

A menu can be displayed by selecting the corresponding tab along the left side of the screen. See Chapter 11: Menu Structure for diagrams showing the screen hierarchy for each of the menus. The diagrams are intended to help you quickly identify how to access a particular screen.

The date and time are displayed in the upper right-hand portion of each screen. Displayed below the date and time are the icons that indicate the operating status of the DS850. See Operating Status Icons for a description of each icon.

A help menu is available on the DS850. If **Help** is available for the screen that is being displayed, the button will be located in the upper right corner of the screen. Select the **Help** icon to display the help text for that screen and the functions that are performed from that screen.
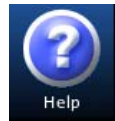
Unauthorized access to the user interface can be can be prevented by locking the scanner.

> **Reference:** See User Access and Locking the Scanner for more information on preventing unauthorized access to the user interface.

> **Note:** Make sure that the camera lid and rear panel are closed before you attempt to perform any function that engages the DS850's motors, such as scanning ballots, running hardware menu tests, and clearing the transport. The scanner does not allow functions that engage the motors to be performed when the camera lid or rear panel is open.

Operating Status Icons

Described below are the operating status icons that appear in the upper right-hand corner of the screens that are displayed on the scanner's touch screen.

Battery Power - This icon is used for the Uninterruptible Power Supply (UPS). If the scanner is not using a UPS, this icon is not displayed on the screens. If the scanner is plugged into the UPS, the UPS is plugged into a wall outlet, and the UPS is fully charged, then the solid green Battery Power icon appears on the screen. If the UPS is then unplugged from the wall outlet (or the wall outlet loses power,) then the scanner is running off the UPS Battery Backup System, and the icon will change color to indicate the extent to which the battery is charged: Green for 80-100 percent charged, Yellow for 60-80 percent charged, Orange for 40-60 percent charged, and Red for 20-40 percent charged. A message will also appear if the scanner is on/off battery, you will need to press **OK** to clear this message.

AC Power - This icon indicates whether the DS850 is connected to AC power. If the scanner is plugged into the UPS, the UPS is plugged into a wall outlet, and the UPS is fully charged, then the AC Power icon has its two connectors connected. If someone disconnects the UPS from the wall outlet, the AC Power icon has its two connectors separated.

Election Definition - This icon indicates whether an election definition is loaded onto the DS850. An orange check mark in the lower left-hand corner of the icon indicates that an election definition is loaded; a red "X" in the lower left-hand corner indicates that an election definition is not loaded.

Dot Matrix Printer - This icon indicates whether the DS850 is connected to a dot matrix log printer. If there is a red "X" in the lower left-hand corner of the icon, the printer is not connected; otherwise, it is connected.

Laser Printer - This icon indicates whether the DS850 is connected to a laser printer. If there is a red "X" in the lower left-hand corner of the icon, the printer is not connected; otherwise, it is connected.

Scanning Menu

Use the Scanning menu to scan ballots and to clear the ballot transport path.

◆ Press **Scan Ballots** to begin the ballot scanning process or to select your precinct. See Scanning for additional information on these processes.

◆ Press **Clear Transport** to clear the ballot transport path.

The following is an example of the Scanning menu.
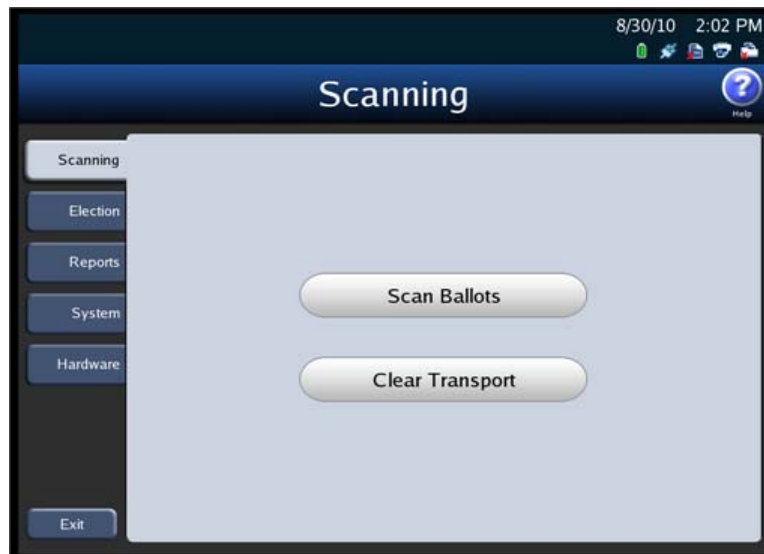
Election Menu

Use the Election menu to load an election definition, view election setup information, export election results, and to set your scanner configuration options.

The following is an example of the Election menu.

◆ Press **Configuration** to set your scanner's configuration options. See Configuring the Scanner for information on setting your scanner's configuration options.

◆ Press **Results** to access the Results screen. From the Results screen, you can export the poll place collection data, the election definition and the audit log. The Results screen is also used to clear election results. You can clear all election results or the election results for only a selected precinct.

Reference: See Exporting Data and Clearing Election Results for more information on the Results screen.

◆ Press **Setup** on the Election menu to view election setup and ballot count information, clear and initialize the scanner, and load an election definition.

Reference: See Clearing and Initializing the Scanner and Loading the Election Definition for more information on the Setup screen.

Reports Menu

Use the Reports menu to print or preview reports. See Chapter 8: Reports for additional information on the various reports that are available and for the steps to follow to preview or print the reports.

The following is an example of the Reports menu.
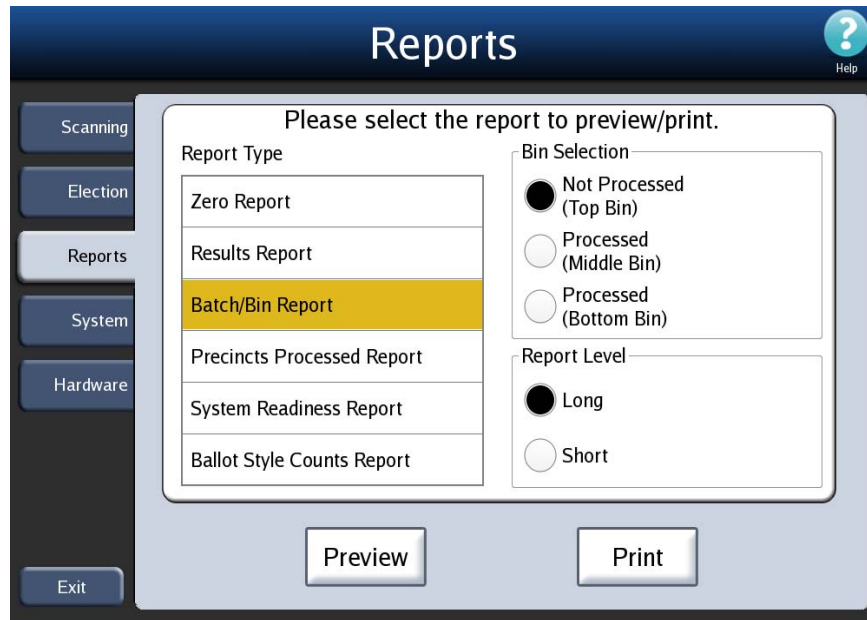
System Menu

The System menu lists the following options:

◆ Set Date/Time

◆ Firmware

◆ Antivirus

◆ User Access

The following is an example of the System menu.

Set Date/Time

The Set Date/Time option allows you to change the date, time, or both on the DS850.

> **Note:** The scanner's date and time settings cannot be changed when the scanner contains ballot data.

> **Reference:** See Set Date/Time for the steps that must be taken to change the scanner's system date and time.

Firmware

Press **Firmware** on the System menu to access the Firmware screen. On the Firmware screen, you can see the version of the firmware loaded onto the DS850 and other information about the machine.

> **Reference:** For detailed instructions on loading new firmware, refer to the *ES&S DS850 System Maintenance Guide.*

The following is an example of the Firmware screen.
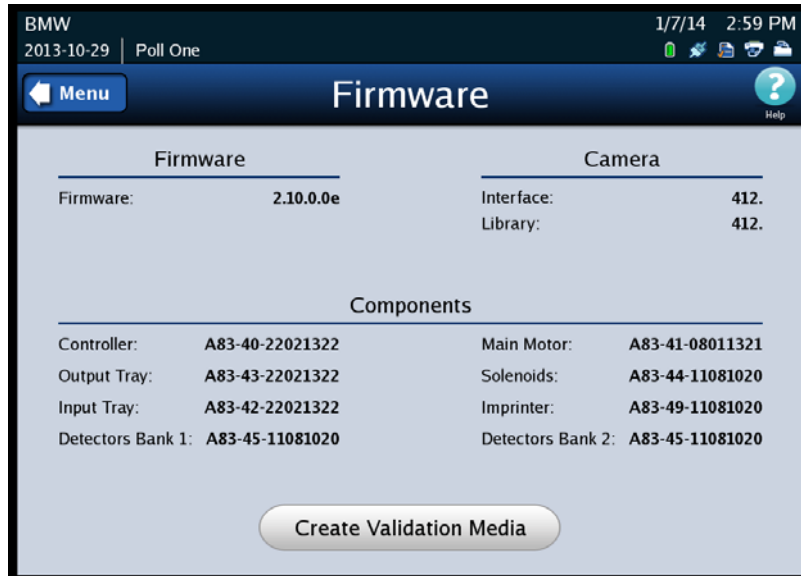
Note: The **Load** and **Validate** buttons refer to future functionality that is not currently available on the DS850.

Antivirus

Note: This section refers to future functionality that is not currently available on the DS850.

User Access

When an election definition is loaded into the scanner, the firmware on the DS850 sets the User Access feature to enabled. When User Access is enabled, a user can lock the scanner. When the scanner is locked, no function can be performed from the touch screen, such as modifying configuration settings or scanning ballots, until the Election Code is entered and the scanner is unlocked. Once an election definition has been loaded, you can disable the User Access feature from the User Access screen, if you wish to do so. When User Access is disabled, the scanner cannot be locked.

Reference: See Locking the Scanner for the steps that must be followed to lock the scanner.

If an election definition has been loaded, the User Access setting determines the screen that is displayed when the scanner is started. If an election definition has been loaded and User Access is enabled, the Startup screen is displayed when the scanner is started. If an election definition has been loaded and User Access is disabled, the Scan Ballots screen is displayed when the scanner is started. (If an election definition has not been loaded, the Setup screen is displayed when the scanner is started.)

Reference: See Starting the Scanner for the steps to follow to start the scanner.

Follow the steps listed below to change the User Access setting:

1. Press **User Access** on the System menu to display the User Access settings screen.

    > **Note:** If an election definition has not been loaded onto the scanner and you press **User Access** on the System menu, a pop-up screen will appear indicating that an election must be loaded in order to access this screen.
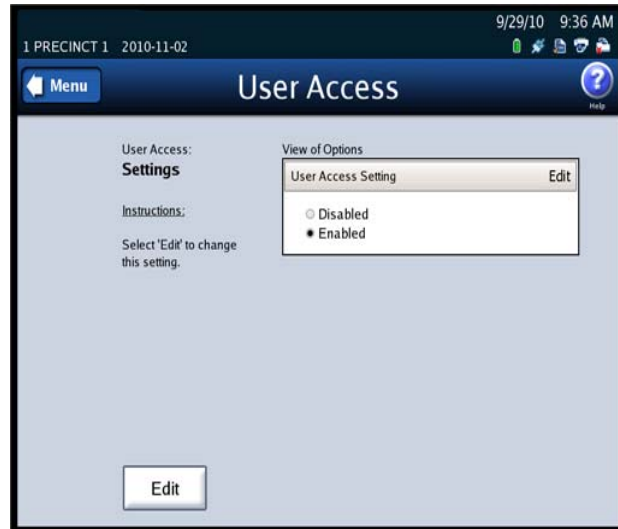
2. Press **Edit** on the User Access settings screen to change the user access setting.

3. When prompted, enter the Administration Code and press **Accept**.
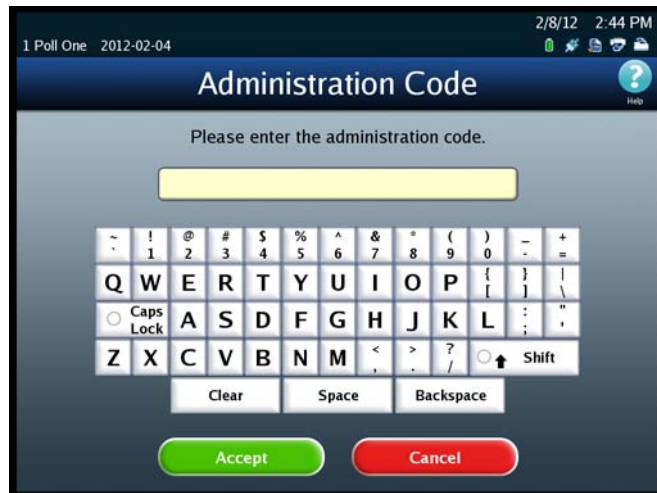
4. When the User Access selection screen appears, highlight the desired option (Disabled or Enabled) by pressing on it. Then press Save to save the change, or press **Cancel** to cancel it.

Hardware Menu

The Hardware menu lists the following options:

◆   Screen Calibration

◆   Printers

◆   Audio

◆   Camera

◆   Transport

The following is an example of the Hardware menu.

Screen Calibration

Press **Screen Calibration** to calibrate the scanner's touch screen.

Reference: Refer to the *ES&S DS850 System Maintenance Manual* for further information on calibrating the scanner's touch screen.

Printers

The Printers option on the Hardware menu allows you to print test pages on the report and log printers.

Follow the steps below to print test pages on these printers:

1.   From the Hardware menu, press **Printers**.

2. When the Printers screen appears, press either **Report Printer** or **Log Printer**.

If you select Report Printer, the Report Printer screen appears. On the Report Printer screen, press **Print** to print a test page on the report printer. When you are finished, press **Back**.
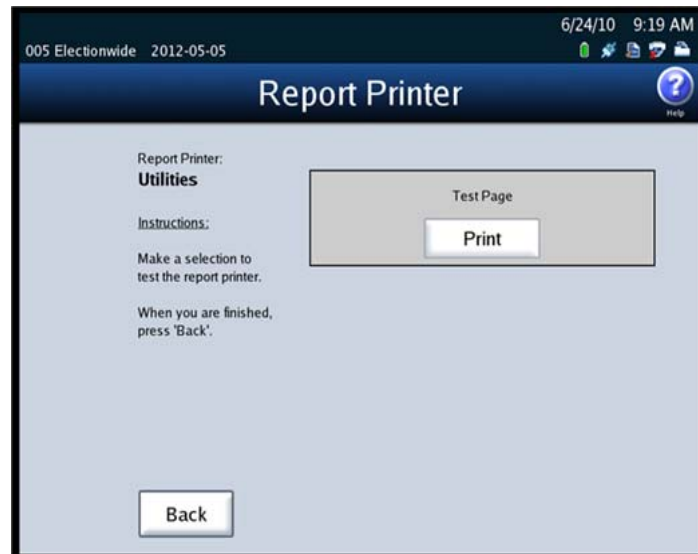
A test page, similar to the one below, prints from the report printer:

If you select Log Printer, the Log Printer screen appears. On the Log Printer screen, use the Form Feed and Line Feed buttons to advance the paper in the log printer to the point at which you want printing to begin. Then press **Print** to print the test report on the log printer. When you are finished, press **Back**.

A test page, similar to the one below, prints from the log printer:
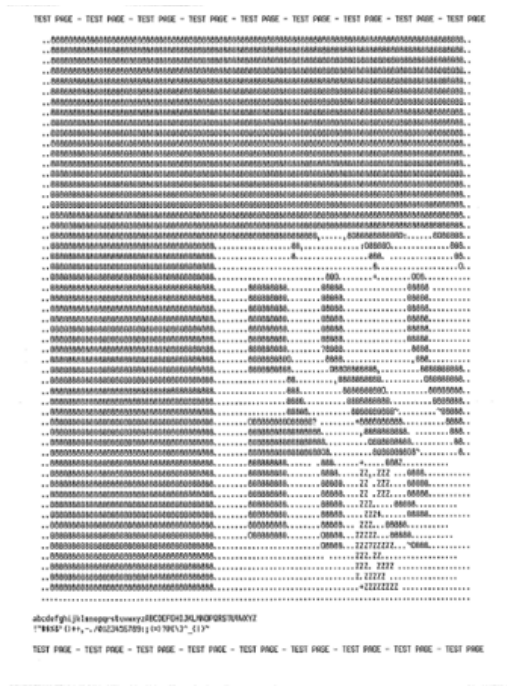
Audio

Note: This section refers to future functionality that is not currently available on the DS850.

Camera

From the Camera screen, you can calibrate the camera and adjust the camera's threshold, adaptive tolerance, and despeckle settings. These tasks should only be performed by trained personnel.

Reference: See the *ES&S DS850 System Maintenance Guide* for more information on the tasks that can be performed from the Camera screen.

Transport

From the Transport screen, you can set the ballot transport settings, as well as exercise individual components of the DS850 transport. The Transport screen lists the following options:

◆   Interface

◆   Command Entry

◆   Tests

◆   Pick Delay

> **Note:** If a hardware failure occurs, the scanner will be in a Limited Functionality mode and some features may not be available.

Follow the steps below to access the Transport screen:

1. Press **Transport** on the Hardware menu.

2. When prompted, enter the Administration Code.
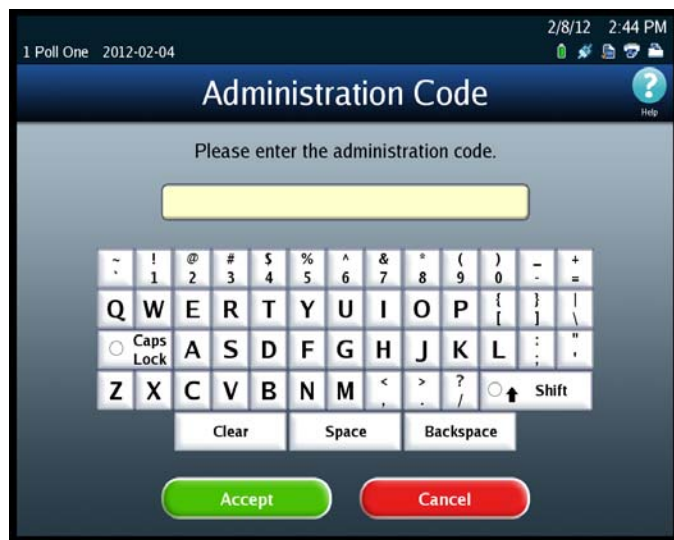
After you successfully enter the Administration Code, the Transport screen is displayed.

> **Warning:** Adjustments to ballot transport settings should only be made by trained technicians.
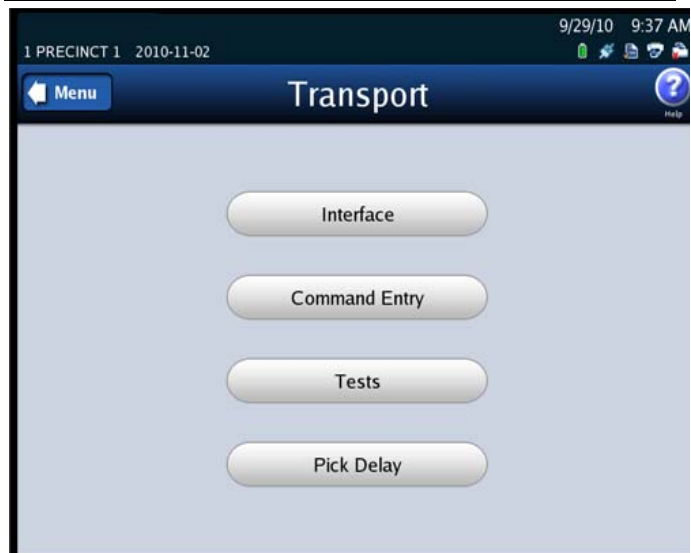
Pick Delay

The Pick Delay option is used to change the number of ballots that are picked for scanning in a given period of time. The value in the Pick Delay field specifies the number of seconds that the pick mechanism waits before grabbing the next ballot from the input tray. For example, if the pick delay is set to 15 seconds, only four ballots will be picked for scanning in one minute.

Increasing the pick delay value reduces the number of ballots that are picked for scanning in a given period of time; decreasing the pick delay value increases the number of ballots that are picked for scanning in a given period of time.

Follow the steps below to change the DS850's pick delay setting:

1. Press **Pick Delay** on the Transport screen.

2. When the Pick Delay settings screen appears showing the current pick delay setting, press **Edit**.
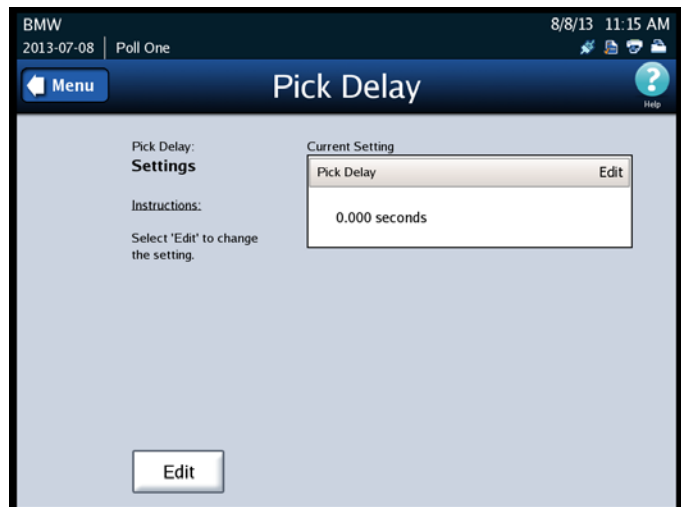
3. When the Pick Delay selection screen appears showing the current setting and the up and down arrows, press the up arrow to increase the pick delay, or press the down arrow to decrease the pick delay. The numbers change more quickly if you hold down on the up or down arrow. The maximum pick delay is 30 seconds.

4. After you select a new pick delay, press **Save** to save the new setting, or press **Cancel** to cancel the change.

Interface

The Interface screen lists the following options:

◆ Sensor Status

◆ Pick One Ballot

◆ Trays

◆ Motors

◆ Diverters

◆ Export Log

The following is an example of the Interface screen.

Sensor Status

Note: This section refers to future functionality that is not currently available on the DS850.

Pick One Ballot

Note: This section refers to future functionality that is not currently available on the DS850.

Trays

Use the Trays option to raise or lower the input tray or the bottom output tray. Press **Trays** on the Interface screen to display the Trays screen. Press the up arrow in the **Input Tray** field to raise the input tray, or press the down arrow in that field to lower it. Press the up arrow in the **Output Tray** field to raise the bottom output tray, or press the down arrow in that field to lower it. When you are finished, press **Back**. The DS850 will reset itself, which clears the paper path and returns the trays to their original positions.

The following is an example of the Trays screen.
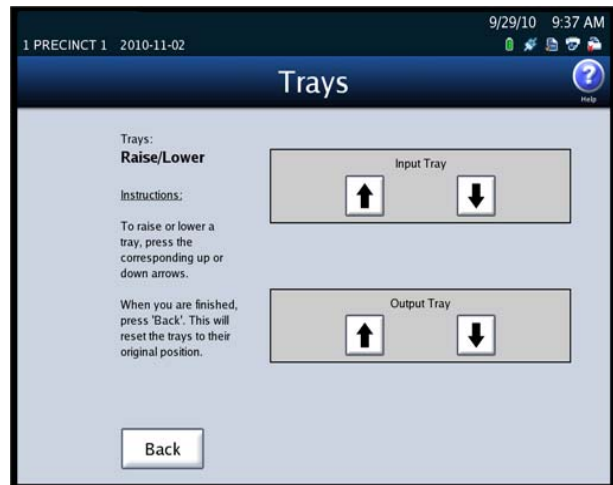
Motors

Use the Motors option to start and stop the DS850's transport motors. Press **Motors** on the Interface screen to display the Motors screen. In the **Transport Motors** field on the Motors screen, press **Start** to start the transport motors, or press **Stop** to stop the transport motors. When you are finished, press **Back**.

The following is an example of the Motors screen.

Diverters

Press **Diverters** on the Interface screen to display the Diverters screen. On the Diverters screen, press **Test** on the **Top Bin, Middle Bin,** and **Bottom Bin** fields to flip the position of the corresponding diverters. When you are finished, press **Back**. The DS850 will reset itself, which clears the transport path.

The following is an example of the Diverters screen.
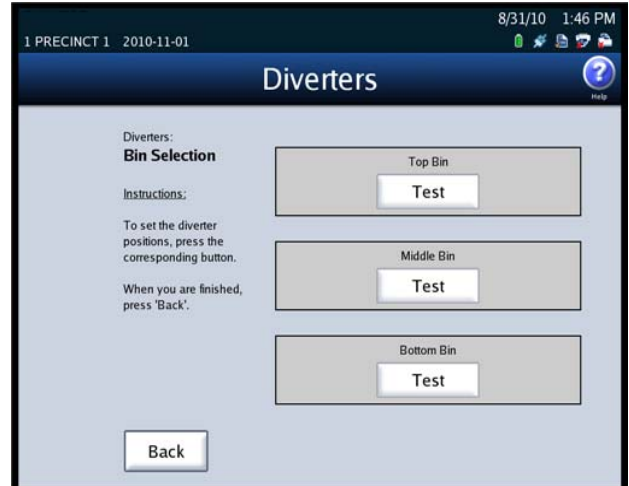
Export Log

Use the Export Log option to export the interface log to a blank ES&S Media Device flash drive, if this report is requested by ES&S Technical Support.

Note: The Export Interface Log is used by highly skilled engineers and technicians to analyze the operation of the BAP Image Systems (BAPis) interface to the camera on the DS850.

Follow the steps listed below to export the contents of the interface log to a USB flash drive:

1. Insert a blank ES&S Media Device flash drive into one of the USB ports on the DS850.

2. On the Interface screen, press Export Log. The following is an example of the screen that is displayed when the interface log has been exported successfully.

3. Remove the ES&S Media Device flash drive, and then press Done to close the Export Interface Log screen.

Command Entry

Use the Command Entry screen to manually send commands to the transport.

Follow the steps below to send a command via the Command Entry screen:

1. Press **Command Entry** on the Transport screen.
2. When the Command Entry screen appears, enter a Command code in the text box and press Send to manually send the command.

> ⚠️ **Warning:** Use of this screen should be limited to ES&S Certified Technicians. See the *ES&S DS850 System Maintenance Manual* for additional information.

The following is an example of the Command Entry screen.
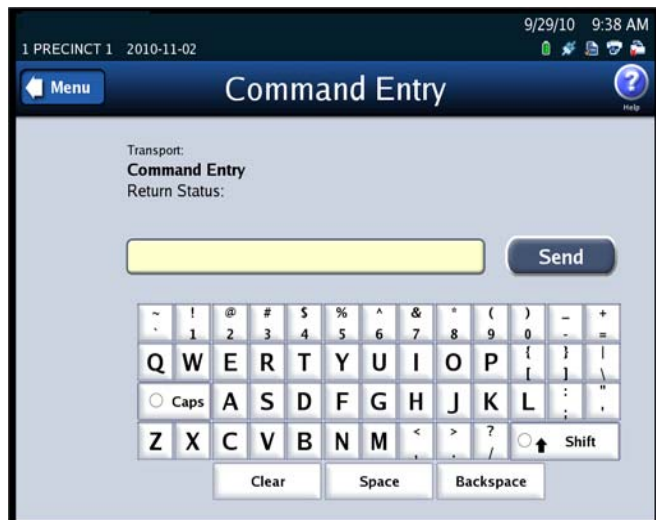
Tests

Use the Tests screen to display the last saved ballot and to print the Mark Code and Digital Readings reports. To access the Tests screen, press **Tests** on the Transport screen. The Tests screen lists the following options:

◆ Display Ballot
◆ Gate Flipper
◆ Reports

The following is an example of the Tests screen.

Display Ballot

Press **Display Ballot** on the Tests screen to display the last ballot scanned and saved on the DS850.

The following is an example of a displayed ballot.

▲ Hide Controls	Use the **Hide Controls** button to hide the **Flip Sides**, arrow, and zoom buttons. When you press the **Hide Controls** button, it becomes the **Show Controls** button. Press the **Show Controls** button to re-display the **Flip Sides**, arrow, and zoom buttons.
+ −	Use the button with a plus sign (+) to zoom in; use the button with a minus sign (-) to zoom out.
Flip Sides	Use the **Flip Sides** button to view the other side of the displayed ballot.
≪ ≫	Use the forward arrow to go to the next ballot and the back arrow to go to the previous ballot.
I≪ ≫I	Use the forward arrow to go to the last ballot in the batch and the back arrow go to the first ballot in the batch.
↖ ↑ ↗ ← ↓ →	Use the arrow buttons to position the ballot on the screen.
⬇ EXPORT CURRENT	Use Export Current to send the .tif image (front and back) for the currently displayed ballot, along with the associated Mark Code and Digital Reading reports, to USB media. (If using ExpressVote cards the Bar Code Report will be exported).
EXPORT BATCH	Use Export Batch to send the .tif images (front and back), for all ballots in the run in which the currently displayed ballot resides, along with the associated Mark Code and Digital Reading reports, to USB media. (If using ExpressVote cards the Bar Code Report will be exported).

Gate Flipper

Note: This section refers to future functionality that is not currently available on the DS850.

Reports

Use the reports option to print the following reports:

◆ **Mark Code** - contains the mark code data from the scanner's image processor for the last ballot scanned and saved on the scanner.

◆ **Digital Readings** - contains the reading data from the scanner's image processor for the last ballot scanned and saved on the scanner.

◆ **Barcode Report** - contains data from the scanner's image processor for the last card scanned and saved on the scanner. It converts the barcodes on the card to a series of digits.

Note: ES&S Technicians use these reports to analyze scanner performance.

Note: If the last ballot scanned was out-stacked, then the Mark Code and Digital Readings reports will not work because a ballot image was not saved for the last ballot scanned.

◆ Follow the steps below to print the reports:

1. Press **Reports** on the Tests screen to display the Reports screen.

2. On the Reports screen, highlight the desired report by pressing on the report title and then press **Print**.

> **Note:** The Zero, Results, Batch/Bin, Precincts Processed, and System Readiness reports are not available from this Reports screen. They are printed from the Reports menu. See for more information on accessing and printing those reports.
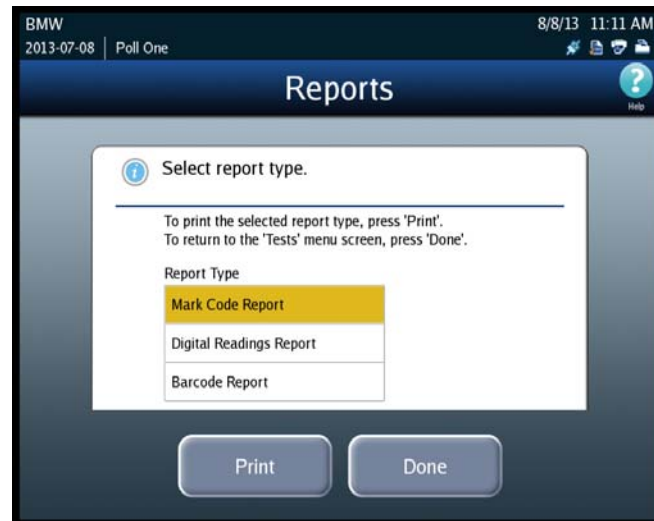
3. Press **Done** when you are finished printing reports.

```
Page 1 of 4
Ballot Number: 060700002
Rows: 91
Columns: 24
IMR Filter Values: 13, 120
```

Example:
Mark Code Report

Contact ES&S Technical Support with questions about this report.

Side 1	_1_	_2_	_3_	_4_	_5_	_6_	_7_	_8_	_9_	_10_	_11_	_12_
_1_	-	-	-	-	-	-	-	-	-	-	-	-
_2_	-	-	-	-	-	-	-	-	-	-	-	-
_3_	-	-	-	-	-	-	-	-	-	-	-	-
_4_	-	-	-	-	-	-	-	-	-	I-1	-	V99
_5_	I-1	-	-	-	-	-	-	-	-	-	-	-
_6_	-	-	-	-	-	-	-	-	-	-	-	-
_7_	I-1	-	-	-	-	-	-	-	-	-	-	-
_8_	-	-	-	-	-	-	-	-	-	V99	-	I-1
_9_	M9	-	-	-	-	-	-	-	-	-	-	-
_10_	-	-	-	-	-	-	-	-	-	-	-	-
_11_	-	-	-	-	-	-	-	-	-	-	-	-
_12_	-	-	-	-	-	-	-	-	-	-	-	-
_13_	-	-	-	-	-	-	-	-	-	-	-	-
_14_	-	-	-	-	-	-	-	-	-	-	-	-
_15_	-	-	-	-	-	-	-	-	-	-	-	-
_16_	-	-	-	-	-	-	-	-	-	-	-	-

M- Marginal
V- Vote
I - Ignore

-1 (No Mark)
99 - dark enough to be considered a mark.

```
Page 1 of 4
Ballot Number: 0607000002
Rows: 91
Columns: 24
IMR Filter Values: 13, 120
```

Example:
Digital Readings Report

Contact ES&S Technical Support with questions about this report.

Side 1	_1_	_2_	_3_	_4_	_5_	_6_	_7_	_8_	_9_	_10_	_11_	_12_	_13_
_1_	-	-	-	-	-	-	-	-	-	-	-	-	-
_2_	-	-	-	-	-	-	-	-	-	-	-	-	-
_3_	-	-	-	-	-	-	-	-	-	-	-	-	-
_4_	-	-	-	-	3	-	-	231	-	-	-	-	-
_5_	-	-	-	-	-	-	-	-	-	-	-	-	-
_6_	-	-	-	-	-	-	-	-	-	-	-	-	-
_7_	6	-	-	-	-	-	-	-	-	-	-	-	-
_8_	-	-	-	-	-	-	-	11	-	-	-	-	-
_9_	6	-	-	-	-	-	-	-	-	-	-	-	-
_10_	-	-	-	-	-	-	-	-	-	-	-	-	-
_11_	232	-	-	-	-	-	-	209	-	-	-	-	-
_12_	-	-	-	-	-	-	-	-	-	-	-	-	-
_13_	46	-	-	-	-	-	-	-	-	-	-	-	-

Number of black pixels found in the oval.

```
Page 1 of 1
Ballot Number: 06077017710
Barcodes: 33

Master Barcode:    152-44567050705-0-33

Selections:
_1_                          1-8-1-1
_2_                          1-37-1
_3_                          1-48-1-1
_4_                          1-55-1-1
_5_                          1-61-1-1
_6_                          3-73-1-1
_7_                          3-83-1-1
_8_                          11-5-1-1
_9_                          11-17-1-1
_10_                         11-54-1-1
_11_                         11-29-1-1
_12_                         11-42-1-1
_13_                         9-71-1-1
_14_                         3-11-2-1
_15_                         11-66-1-1
_16_                         3-49-2-1
_17_                         11-33-2-1
_18_                         19-44-1-2
```

Example:
Barcode Report
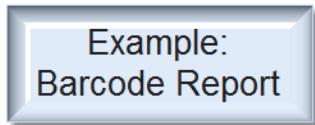
Ballot Number	DS850 assigned scan number
Barcode	Number of selection barcodes on the card
Master Barcode	<internal precint id><internal ballot id><write-in count><total selection barcode count>
Selections	each row indicates the position of the candidate/response on the corresponding ballot. <column><row><side><sheet number>

Locking the Scanner

If an election definition has been loaded on the scanner and if User Access is enabled, you can lock the scanner to prevent unauthorized users from modifying the scanner configuration or performing other scanner functions from the touch screen.

Follow the steps listed below to lock the scanner:

1. Press **Exit** in the lower left-hand corner of the screen to display the Exit screen.

2. From the **Exit** screen, press **Lock Scanner** to access the Lock Scanner screen

.
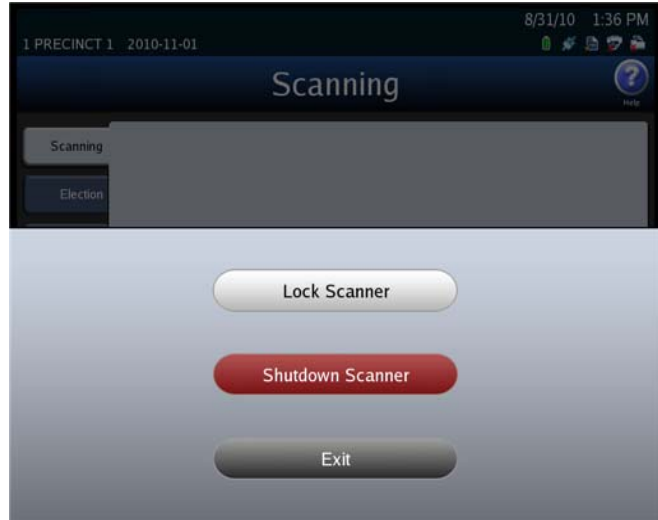
> **Note:** If an election definition is not loaded or if User Access is disabled, the Exit screen does not include the **Lock Scanner** button. See the User Access section for information on enabling and disabling User Access.

3. On the Lock Scanner screen, press **Lock** to lock the scanner, or press **Cancel** to leave the scanner unlocked. If you press Lock, the Scanner Locked screen appears. See the steps below for an example of the Scanner Locked screen.

Follow the steps below to unlock a locked scanner:

4. From the Scanner Locked screen, press **Unlock**.
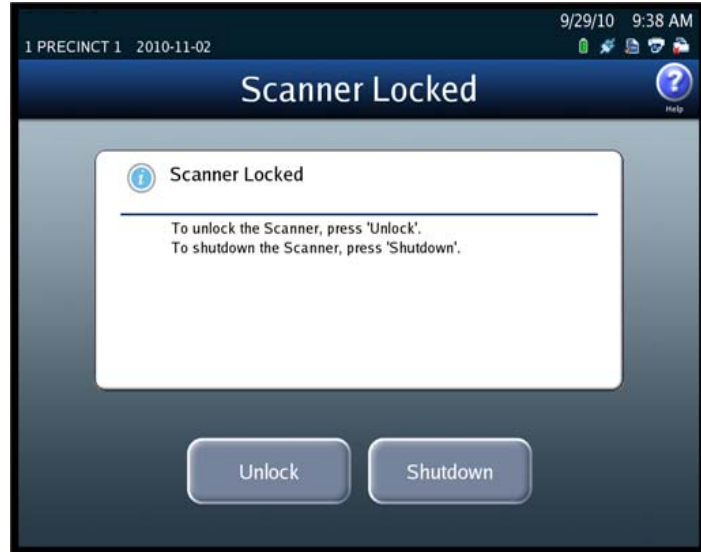
5. When prompted, enter the Election Code and then press **Accept**.

If you press **Exit** on the Exit screen, the Exit screen closes and the Scanning menu is displayed.

Reference: See Shut Down and Power Off the Scanner for an explanation of how the **Shutdown Scanner** button on the Exit screen is used.

Part 2: Election Tasks

This part of the manual contains instructions for the tasks that must be performed before, on, and after Election Day. It includes the following chapters:

◆ Chapter 4: DS850 Election Workflow

◆ Chapter 5: Pre-Election Day Tasks

◆ Chapter 6: Election Day Tasks

◆ Chapter 7: Post-Election Day Tasks

Chapter 4: DS850 Election Workflow

The following is the DS850 election workflow. Click on the hyperlinks to view additional information on the referenced steps.

1. Perform the Pre-Election Maintenance.

2. Install the UPS; see Installing the UPS.

3. Connect the scanner to the UPS; see Connecting the Scanner to the UPS.

4. Connect the printers to the scanner and the UPS; see Connecting the External Printers.

5. Set up the printers; see Setting Up the Audit Log Printer and Setting Up the Report Printer.

6. Turn on the UPS; see Turning On the UPS.

7. Power on the printers and the scanner; see Starting the Scanner.

8. Clear and initialize the scanner; see Clearing and Initializing the Scanner.

9. Load the election definition; see Loading the Election Definition.

10. Perform Logic and Accuracy Testing to verify that the DS850 properly reads ballot marks.

11. Make any desired modifications to the processing mode, bin sorting, audit log printing, and batch/bin reporting configuration options; see Configuring the Scanner.

12. Place the ballots on the input tray and begin scanning ballots; see Scanning.

13. After you have finished scanning the ballots, you can print reports; see Printing Election Reports. You can also export election results, ballot images, and the audit log; see Exporting Data.

14. When you are finished printing reports and exporting data, you can clear the election results; see Clearing Election Results

15. When the election results have been cleared, perform the post-Election scanner and UPS maintenance tasks; see Perform Scanner Maintenance and Perform UPS Maintenance.

16. When the post-Election maintenance tasks have been completed, shut down and power off the scanner; see Shut Down and Power Off the Scanner.

17. After the scanner has been shut down and powered off, turn off the UPS; see Turn Off the UPS.

Chapter 5: Pre-Election Day Tasks

This chapter describes the tasks that must be performed to prepare the UPS, printers, and scanner for scanning ballots on Election Day. It provides instructions for performing the following preparatory tasks:

◆ Pre-Election Maintenance

◆ Installing the UPS

◆ Connecting the Scanner to the UPS

◆ Connecting the External Printers

◆ Setting Up the Audit Log Printer

◆ Setting Up the Report Printer

◆ Turning On the UPS

◆ Starting the Scanner

◆ Checking the Connection Between the UPS and the Scanner

◆ Clearing and Initializing the Scanner

◆ Loading the Election Definition

◆ Setting the Date/Time

◆ Logic and Accuracy Testing

◆ Configuring the Scanner

Pre-Election Maintenance

In order to keep the scanner in working order, perform routine maintenance before each election. Before performing the following maintenance steps, ES&S recommends that the unit be fully powered off using the proper shutdown procedures. Maintenance to any component inside the scanner requires that the power plug be unplugged from the scanner. Such maintenance should be done only by trained technicians.

Warning: Make sure you power the scanner down completely and power off and unplug the UPS before connecting or disconnecting the power cable. Remove the power cord before moving the scanner. Place the power cord near an easily accessible unobstructed power outlet.

Clean the Rollers

Required Tools: Dry cotton cloth, isopropyl alcohol
Required Staff: Personnel trained by ES&S
Required Time: 30 minutes

The rollers move each ballot, picked from the input tray, over the transport path, through the scan area (upper and lower camera housing), and into one of the three output bins (the top, middle, or bottom bin). If the surfaces of the rollers are dirty or discolored, clean them.

To clean the rollers, apply isopropyl 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.

Caution: Keep fingers, hands, and loose clothing clear of the rollers.

Clean the Cameras

Required Tools: Dry cotton cloth, pressurized air can
Required Staff: Personnel trained by ES&S
Required Time: 5 minutes

To clean the cameras, 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 Case

Required Tools: Soft cotton cloth, mild detergent solution
Required Staff: Personnel trained by ES&S
Required Time: 5 minutes

Warning: Before cleaning the scanner case, disconnect the unit from its power source. Do **NOT** use full strength or harsh detergents, liquid cleaners, aerosols, abrasive pads, scouring powders, or solvents, such as benzene or alcohol. Liquids should never be applied directly to the scanner. Use a soft cotton cloth lightly moistened with a mild detergent solution. Ensure that the surface cleaned is fully dry before reconnecting the power.

Clean the Touch Screen

Required Tools: ES&S touch screen cleaning kit
Required Staff: Personnel trained by ES&S
Required Time: 5 minutes

Spray the cloth with the cleaning solution and gently wipe the screen until clean. Then use a dry section of the cloth to dry any remaining cleaning solution from the screen.

Installing the UPS

Installation of the UPS involves connecting the bottom battery connector to the top battery connector.

Follow the steps below to install the UPS:

1. Move the UPS so that the front panel of the UPS hangs over the edge of the table as shown in the picture on the right.

2. Press down on the front panel and then slide it off as shown in the picture on the right.

3. Insert the bottom battery connector into the top battery connector. The picture below on the left shows the two connectors before they are connected; the picture below on the right shows the two connectors after they have been connected.

4. Replace the front panel.

5. Move the UPS to the spot where you want it to be when the scanner is operating.

6. Plug the UPS into a power outlet.

Connecting the Scanner to the UPS

Plug one end of the DS850's power cord into the left side of the DS850, just below the power switch. Plug the other end of the power cord into one of the bottom receptacles on the UPS that provides battery backup. Connect the data communication cable to the UPS and one of the USB ports on the DS850. The data communication cable is used by the UPS to let the DS850 know when the UPS is operating on battery power.

Connecting the External Printers

The DS850 uses a dot matrix printer to print the continuous audit log and a laser printer for printing reports. Both printers can be attached to any USB connection on the side of the scanner. ES&S recommends that the printers be connected to the USB port next to the power switch on the left side of the scanner. This will allow the security door to be closed after connecting the printers. In addition, the audit log printer power cord should be connected to the battery backup power of the UPS, and the report printer power cord should be connected to the UPS power jack that has surge protection only. Connecting the laser printer power cord to the battery backup of the UPS will overload it.

Reference: Refer to the printer manuals for specific instructions on operating the printers.

Follow the steps below to connect the external printers:

1. Plug the printer cables into the external USB printer ports located next to the power switch on the left side of the scanner.

2. Plug the other end of the printer cables into the printer ports on the back of the printers.

3. Connect one end of the printer's power cords to the backs of the printers.

4. Connect the other end of the printers' power cords to the UPS as shown below.

Note: The power cord from the audit log printer should be connected to the battery backup power of the UPS, and the power cord from the report printer should be connected to the UPS power jack that has surge protection only.

Report (Laser) Printer Cord

Audit Log (Dot Matrix) Printer Cord
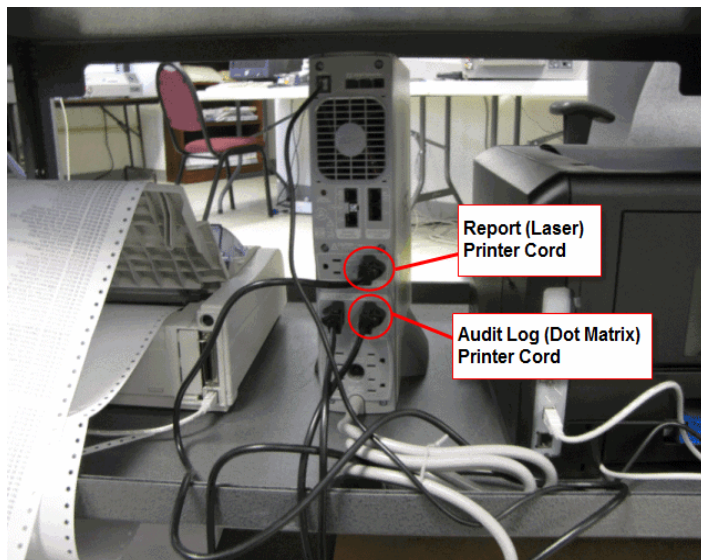
Setting Up the Audit Log Printer

The dot matrix printer is used to print the continuous audit log. Before using the printer, make certain that there is plenty of paper in the printer and that the printer is connected to the UPS and powered on.

The following is an example of a dot matrix printer.
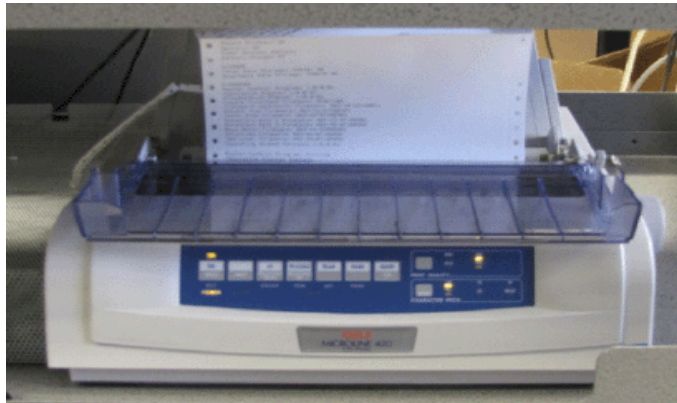
Follow the steps below to configure the dot matrix printer using the buttons on the front panel of the printer:

1. Verify that there is plenty of paper in the printer.
2. Verify that the printer is powered on.
3. Press and hold **SHIFT** and then press **SEL** to enable the menu.
4. Release **SHIFT**.
5. Press **LF**. The printer control emulation is displayed on the printer.
6. Press **TEAR** repeatedly until the "Epson FX" mode prints.
7. Press and hold **SHIFT**, and then press **SEL** to save the setting.

Setting Up the Report Printer

The laser printer is used to print reports. Before using the printer, make certain that the printer is connected to the power jack that has surge protection only on the UPS, there is paper in the printer and it is powered on.

The following is an example of a laser printer.

Turning On the UPS

Before turning on the UPS, make sure that the UPS is plugged into a power outlet. Then press the power switch, as shown in the picture below. The green light visible at the top of this unit indicates that the UPS is powered on and that utility power is powering battery backup outlets.

Note: The first time the UPS is powered up, it will take eight hours for it to reach its full charge.

Starting the Scanner

To start the scanner, flip the power switch on the left side of the DS850 to the on position. A pop-up screen will display telling you to touch the screen if you want to calibrate it. The next screen that displays depends on whether an election definition has been loaded into the DS850, and if an election definition has been loaded, whether User Access is enabled or disabled.

◆ If an election definition has not been loaded on the scanner, the screen that appears when the scanner is started is the Setup screen. The Setup screen allows you to either clear and initialize the scanner or load an election definition. The following is an example of the Setup screen.
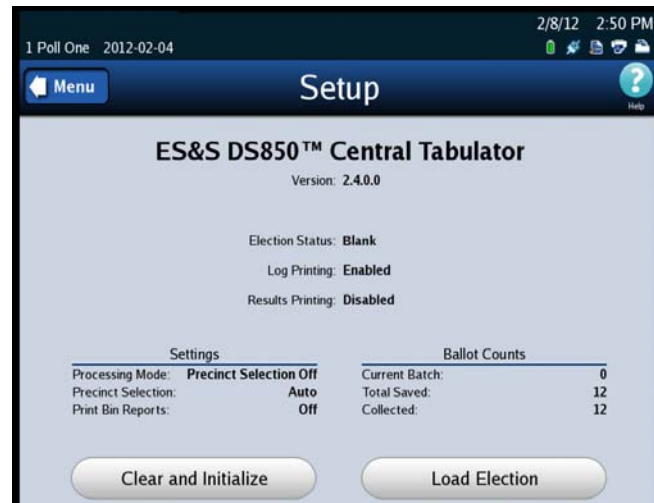
Reference: See Clearing and Initializing the Scanner and Loading the Election Definition for the steps to follow to perform these procedures.

◆ If an election definition has been loaded on the scanner and User Access is enabled, the screen that appears when the scanner is started is the Startup screen. From the Startup screen, press **Login** if you are ready to scan ballots for the loaded election, press **Setup** to load a different election definition, or press **Shutdown** to shut down the scanner. The following is an example of the Startup screen.

If you press **Login** from the Startup screen, you will be prompted to enter the Election Code. Enter the Election Code and then press **Accept**. The next screen that is displayed is the Scan Ballots screen.

◆ If an election definition has been loaded on the scanner and User Access is disabled, the screen that appears when the scanner is started is the Scan Ballots screen. If you are ready to scan ballots, place the ballots in the input tray and press **Start**. The following is an example of the Scan Ballots screen.
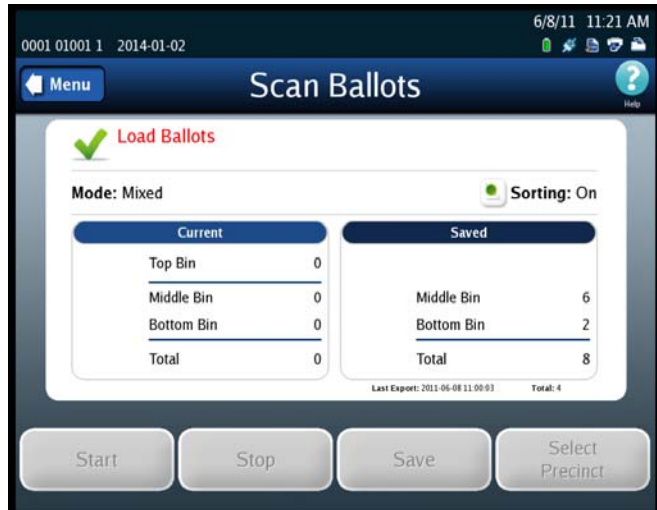
Note: If the election is **By Style** or if the Processing Mode is set to **Single Precinct**, you will have to select a precinct before you can begin scanning the ballots. See Select a Precinct for more information. If the Processing Mode is set to **Mixed Precinct**, you will not need to select a precinct before you can scan ballots. The **Select Precinct** button will be the only available button until you select a precinct.

Reference: See Scanning for the steps to follow to perform the procedure. See Select a Precinct for instructions on selecting a precinct.

Select a Precinct

If an election is **By Style** or if the Processing Mode is set to **Single Precinct**, you must select a precinct before you can scan ballots.

Follow the steps below to select a precinct:

1. Press **Select Precinct**
.

Reference: See Scanning for an example of the Scan Ballots screen showing the **Select Precinct** button.

2. Enter the precinct number or name and then press **Search** or just press **Search**.
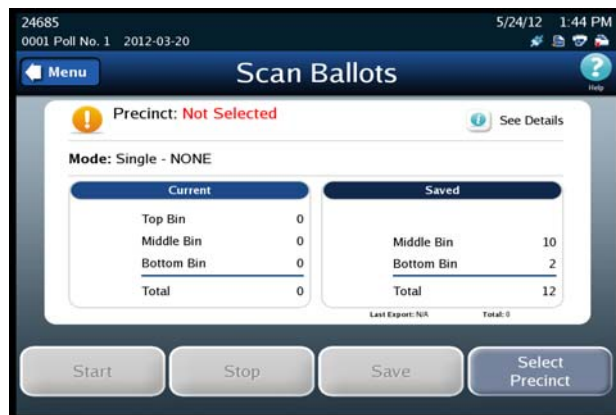
◆ You can enter the precinct name or the first few letters of the precinct to narrow your search. Use the keyboard to type in the first few letters, numbers or the precinct name then press **Search**. Then go to **Step 3**.
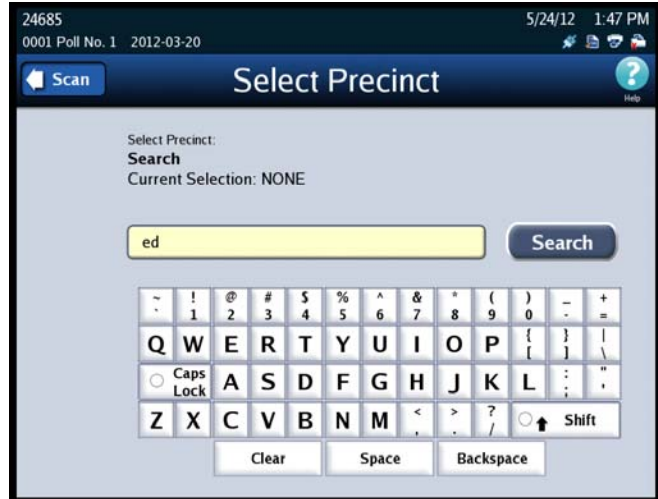
Note: You do not have to enter a precinct number or name in the search field in order to perform a search. You can leave the field blank and press **Search**. Entering a number in the field simply helps to narrow the search.

◆ You can also search the entire list of precincts on the DS850 by selecting **Search.** Then go to **Step 3**.
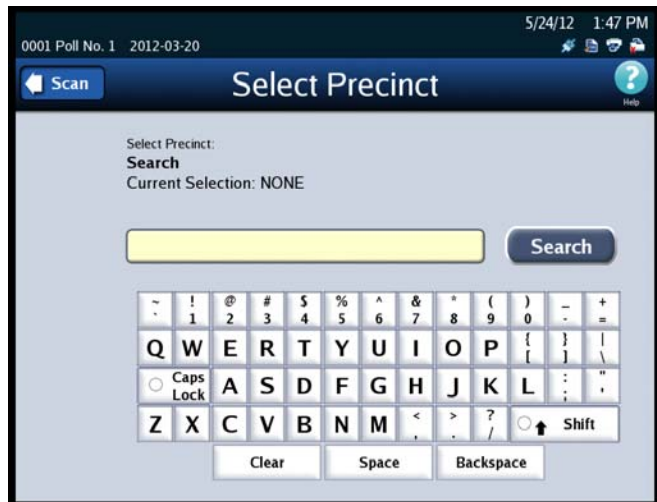
3. The Select Precinct results screen appears. Select the desired precinct by pressing on it and then press **Next**. If the precinct you want to select is not listed, press **Back** to perform another search.
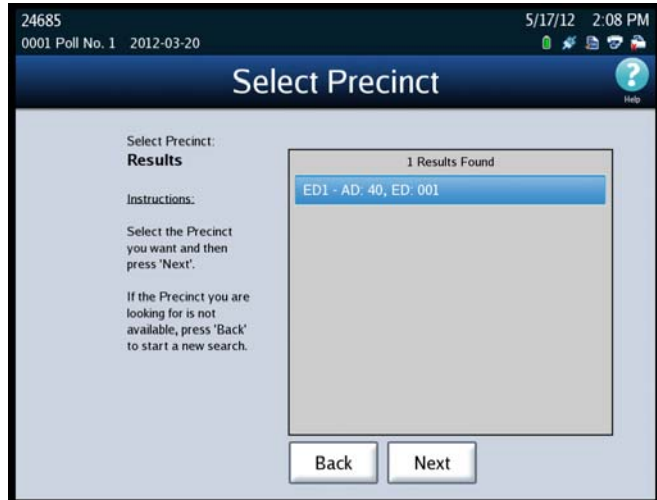
4. The Select Precinct confirmation screen appears, press **Next** to confirm your selection. If you are not satisfied with your selection, press **Back** to review the list of search results, or press **Search** to start a new search.
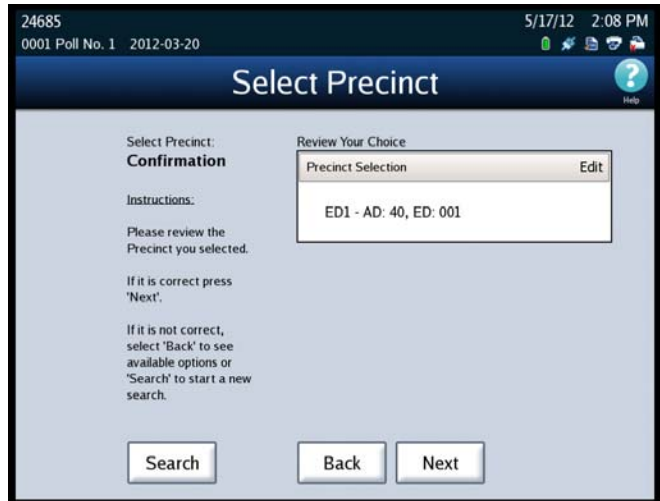
Once you have selected the correct precinct and pressed **Next**. You will be returned to the Select Precinct screen. Under Current Selection, it will show the precinct you selected. i
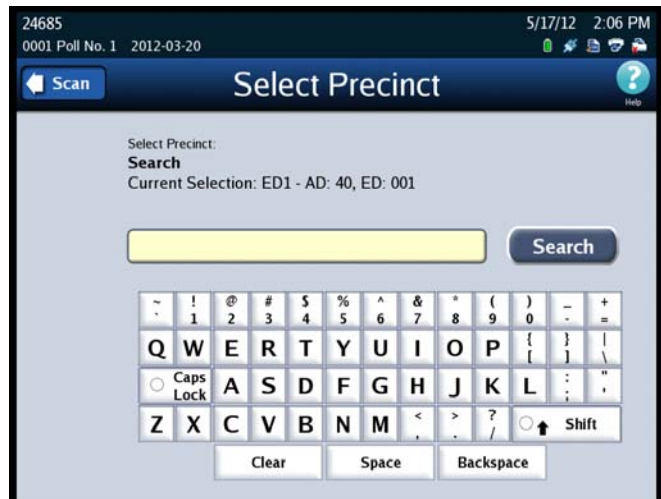
Checking the Connection Between the UPS and the Scanner

The DS850 uses a USB connection to the UPS so that the DS850 can detect when external power is lost to the UPS.

Follow the steps below to test the UPS:

Note: These steps assume that the scanner has been connected to the UPS, the UPS has been turned on, the scanner has been powered on, and the AC Power icon indicates that external power is being applied to the UPS.

Reference: See Connecting the Scanner to the UPS, Turning On the UPS, and Starting the Scanner to verify the assumptions listed in the note above.

1. Disconnect external power from the UPS.
2. Verify the DS850 screen indicates that external power has been lost. (The two connectors in the AC Power icon should be disconnected.)
3. Reconnect external power to the UPS.
4. Verify that the screen indicates external power has been applied. (The two connectors in the AC Power icon should be connected.)

Reference: See Operating Status Icons for more information on the AC Power icon.

Clearing and Initializing the Scanner

You must clear and initialize the DS850 prior to loading the election definition. The clear and initialize process clears all data from the machine and loads the necessary encryption keys to load and run the election.

Follow the steps below to clear and initialize the scanner:

1. Press **Election** to access the Election menu.

2. From the Election menu, press **Setup** to access the Setup screen.

3. On the Setup screen, press **Clear and Initialize**. This displays the *Searching for EQC Media Device* pop-up screen.

4. Insert a valid (for the election) EQC Media Device flash drive into one of the scanner's USB ports. The previous pop-up screen is temporarily replaced by a *Detecting inserted device* pop-up screen. Then, the Qualification Code screen appears.
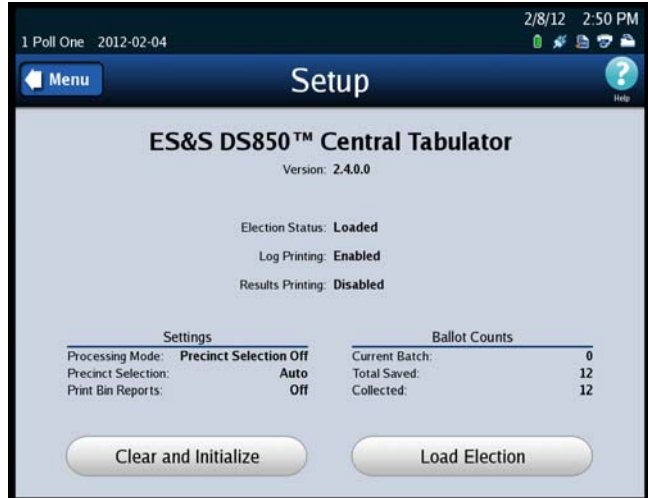
Reference: See Using USB Media Devices for instructions.

5. Enter the Qualification Code and then press **Accept**.
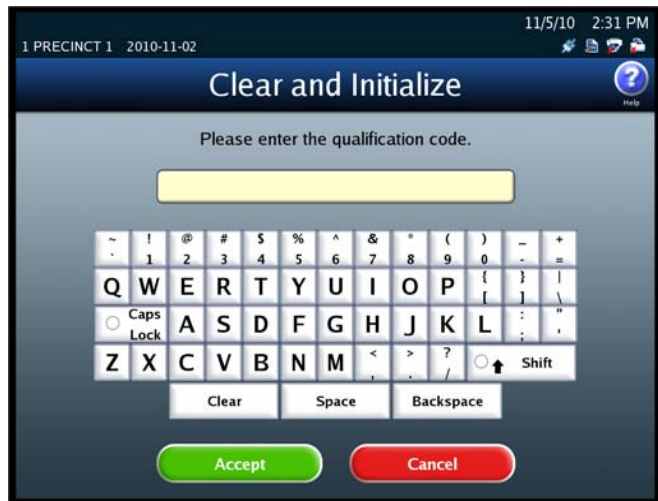
6. When the Clear and Initialize screen appears notifying you that the system has found valid EQC media for the election, press **Yes** to continue, or press No if you do not want to proceed. If you press Yes, a pop-up screen appears briefly to inform you that the DS850 is being cleared and initialized.
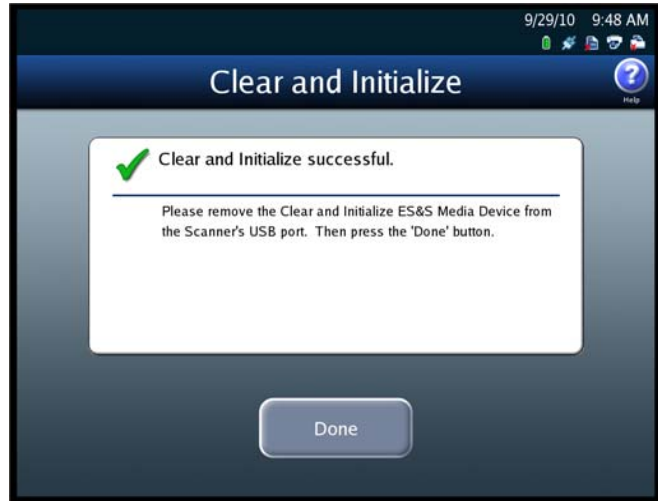
7. The following screen appears when the DS850 has been successfully cleared and initialized. Remove the EQC Media Device flash drive from the scanner's USB port and then press **Done**.
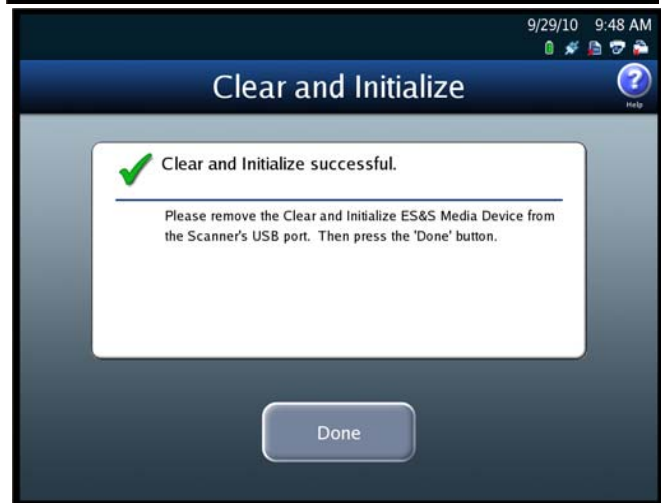
Loading the Election Definition

You must clear and initialize the DS850 prior to loading the election definition. The clear and initialize process clears all data from the machine and loads the necessary encryption keys to load and run the election.

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

Follow the steps below to load the election definition:

1. Press **Election** to access the Election menu.

2. From the Election menu, press **Setup** to access the Setup screen.

3. On the Setup screen, press **Load Election**. This displays the *Searching for Election Definition Media Device* pop-up screen.

4. Insert a valid (for the election) Election Definition Media Device flash drive into one of the scanner's USB ports. The previous pop-up screen is temporarily replaced by a *Detecting inserted device* pop-up screen. Then, the Election Code screen appears.
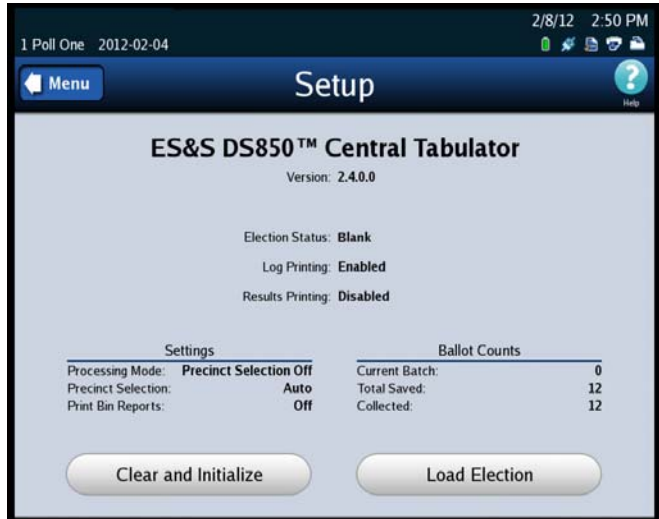
Reference: See Using USB Media Devices for instructions.

5. Enter the Election Code and then press **Accept**.

6. When the Load Election screen appears notifying you that the system has found valid Election Definition media for the election, press **Yes** to start the election definition load process, or press **No** to stop it. If you press **Yes**, a pop-up screen appears briefly to let you know that the election definition is being loaded.
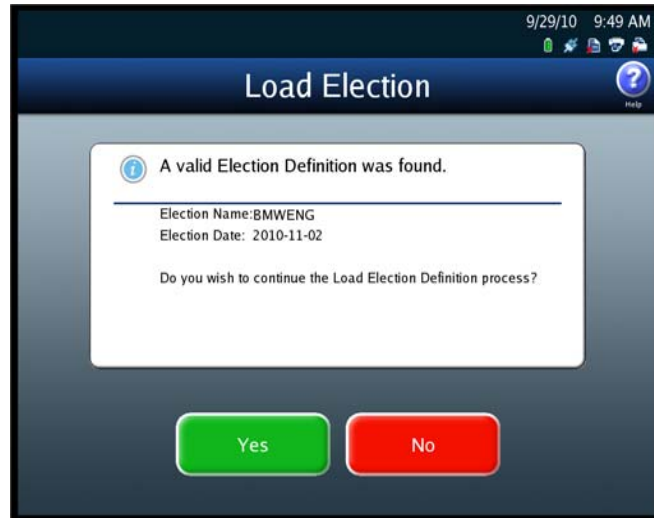
7. The following screen appears when the election definition has been loaded successfully. Remove the Election Definition Media Device flash drive containing the election definition and store it in a safe place. Then press **Done**.
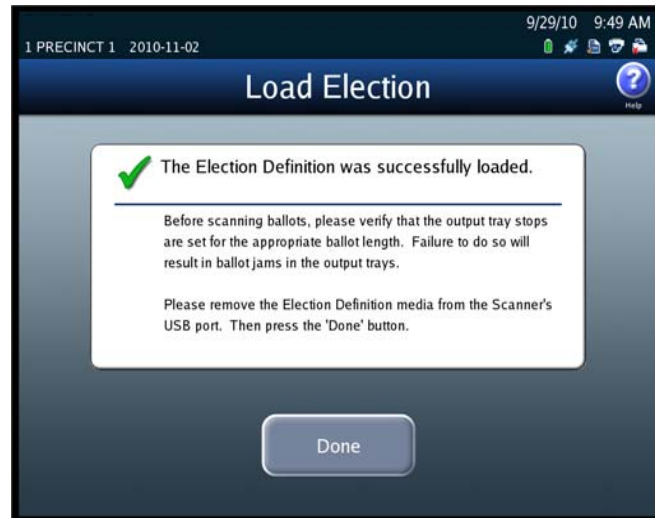
Setting the Date/Time

The Set Date/Time option allows you to change the date, time, or both on the DS850.

Note: The scanner's date and time settings cannot be changed when the scanner contains ballot data. Therefore, if the scanner's date and time are incorrect, change them before you begin scanning ballots.

Follow the steps listed below to change the date on the DS850:

1. Press **Set Date/Time** on the System menu to access the Date/Time screen.

2. Press **Change Date** to change the date on the scanner. The Set Date settings screen appears displaying the current system date.

3. Press **Edit** on the Set Date settings screen to change the current system date.
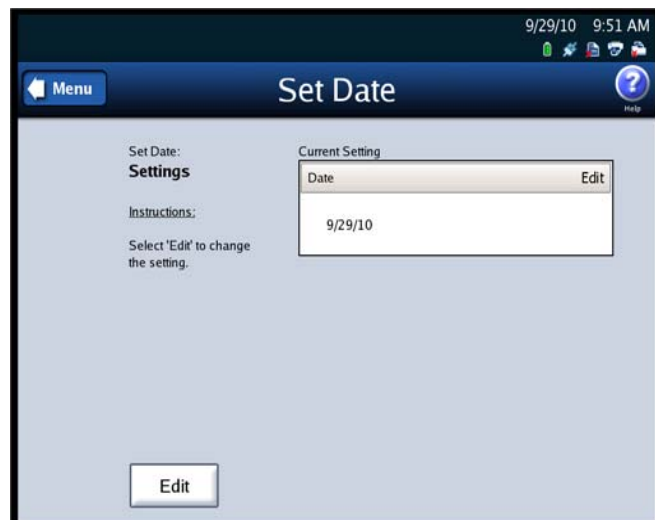
4. When prompted, enter the Administration Code and then press **Accept**.

5. When the Set Date selection screen appears, use the **up** and **down** arrows to modify the settings for month, day, and year.

6. After you have modified the system date settings, press **Next** to display the Set Date confirmation screen, or press **Cancel** to cancel the change.

7. On the Set Date confirmation screen, review your changes. Then press **Save** to save the new settings, **Cancel** to cancel them, or **Back** to return to the previous screen.

Follow the steps listed below to change the time on the DS850:

1. Press **Set Date/Time** on the System menu to access the Date/Time screen.

2. Press **Change Time** to change the time on the scanner. The Set Time settings screen appears displaying the current system time.

3. Press **Edit** on the Set Time settings screen to change the current system time.
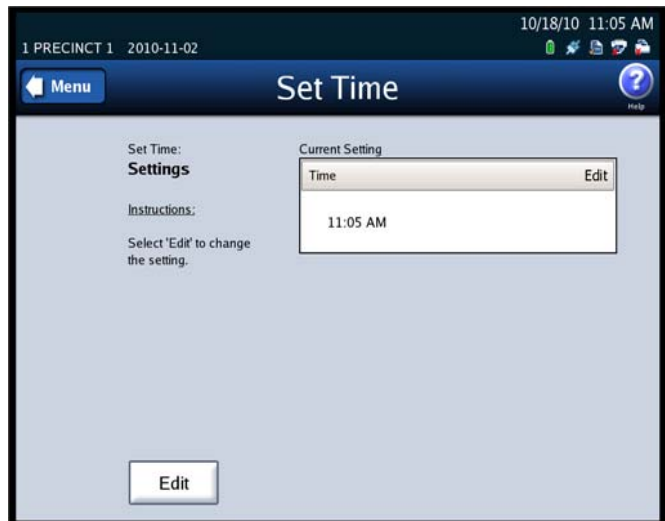
4. When prompted, enter the Administration Code and then press **Accept**.
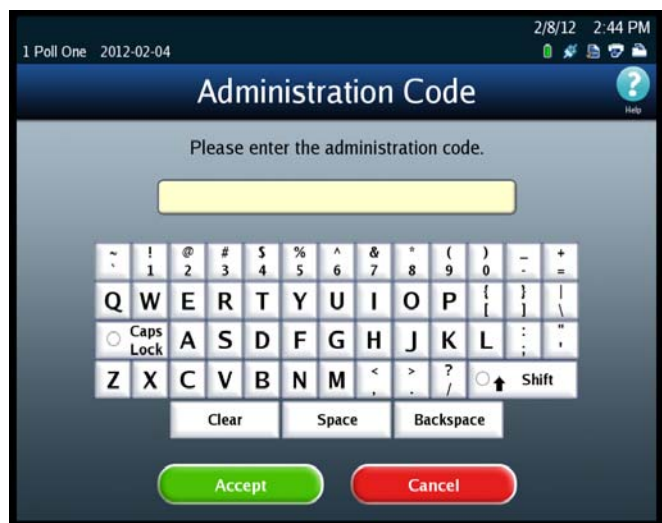
5. When the Set Time selection screen appears, use the up and down arrows to modify the settings for hours and minutes and to change the indicator to AM or PM.

6. After you have modified the system time settings, press **Next** to display the Set Time confirmation screen, or press **Cancel** to cancel the change.

7. On the Set Time confirmation screen, review your changes. Then press **Save** to save the new settings, **Cancel** to cancel them, or **Back** to return to the previous screen.
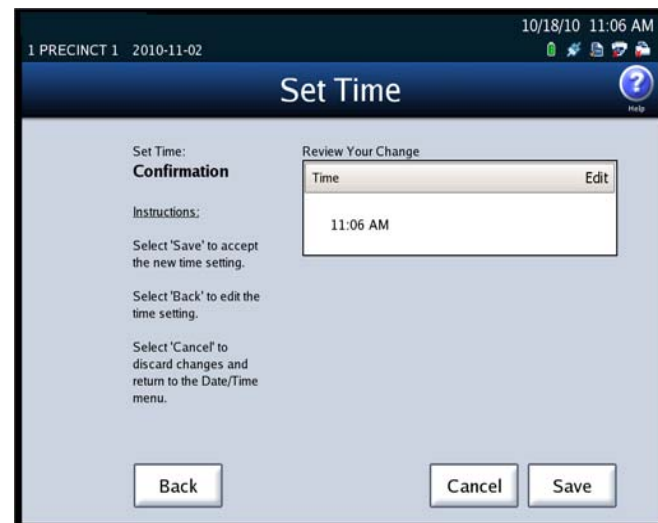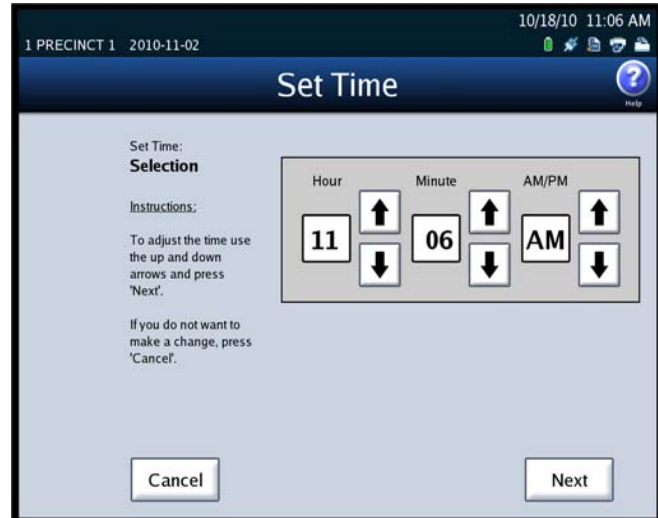
Logic and Accuracy Testing

Perform logic and accuracy testing as required by your jurisdiction's procedures and applicable laws. Logic and accuracy testing includes zeroing totals, scanning the ballot test deck, and checking reports.

A hand counted test deck for each election is available from ES&S. 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.

The steps listed below are provided as a guide to help you develop a procedure for logic and accuracy testing that meets the requirements of your jurisdiction.

1. Clear and initialize the scanner; see Clearing and Initializing the Scanner.

2. Load the election definition; see Loading the Election Definition.

3. Print the Zero Report to verify that ballot totals are all zeros.

4. Scan the test deck of ballots; see Scanning.

5. Print the Results Report.

6. Compare your reports to the ones provided by ES&S to verify that the scanner is operating properly.

7. Clear the election results; see Clearing Election Results.

8. Print the Zero Report to verify that ballot totals are all zeros.

> **Note:** If you turn off bin sorting for logic and accuracy testing, be sure to set the bin sorting options as required for your election after the testing has been completed. See Bin Sorting for information on turning off bin sorting.

> **Reference:** See Chapter 8: Reports for more information on the Zero and Results reports.

Configuring the Scanner

Use the Configuration screen to change the DS850's configuration settings from the default settings established in ElectionWare. This screen can be accessed by selecting **Configuration** from the Election menu screen. The following items are listed on the Configuration screen:

◆ Processing Mode

◆ Bin Sorting

◆ Audit Log

◆ Batch/Bin Reporting

◆ Results Access

◆ Precinct Labels

◆ Ballot Images

◆ Network

◆ Multifeed Stop

The following is an example of the Configuration screen.
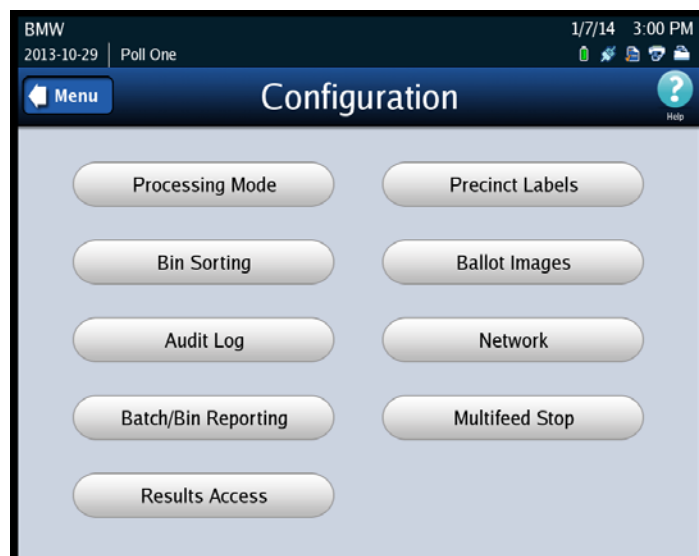
Processing Mode

Reference: Default settings for the processing mode are part of the Election Definition defined in ElectionWare. See the *ES&S ElectionWare User Guides* for information on modifying Election Definition settings.

Note: If the election definition from ElectionWare specifies a By Style election, the processing mode can only be changed in ElectionWare and there are no available options on the Processing Mode screen.

The two processing modes that can be used for an election are described below:

◆ **Precinct Selection Off**- Every ballot has the precinct information coded into the ballot ID.

◆ **Single Precinct** - Every ballot has the precinct information coded into the ballot ID. The user is prompted to enter the precinct number prior to scanning ballots. After the user enters the precinct number, the scanner diverts any ballot that is outside of that precinct to the top (out-stacked), Not Processed bin.

Follow the steps below to change the Processing Mode:

1. Press **Processing Mode** on the Configuration screen to access the Processing Mode settings screen.

2. Press **Edit** on the Processing Mode settings screen.
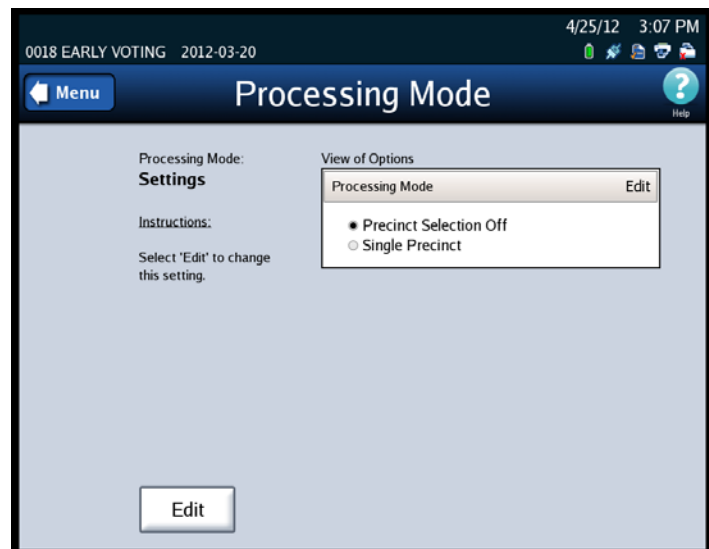
3. When prompted, enter the Election Code and then press **Accept**.

4. When the Processing Mode selection screen appears, highlight the desired Processing Mode by pressing on it. Then press **Save** to save the new Processing mode setting, or press **Cancel** to cancel the change.

Bin Sorting

There are two options on the Bin Sorting screen: Sort Settings and Scan Screen Sort Options.

Sort Settings

The Sort Settings option allows you to specify which output bin the ballots will be diverted to. It also allows you to specify whether undervotes, overvotes, crossovers, blank ballots, and ballots with unclear marks are to be processed.

Note: ElectionWare provides the ability to set bin sorting in the Election Definition. If you want to use settings that are different from the ones in the Election Definition, you can use the bin sorting screens to change the settings on the scanner.

If the Sorting on/off feature is enabled, you can override the default settings for bin sorting in the Election Definition, as well as any changes that have been made using the Bin Sorting screens, by turning sorting off from the Scan Ballots screens. When the Sorting on/off feature is enabled, there is a button on the scan ballots screens that allows the user to turn sorting on or off. The middle bin is not able to be changed and will always follow the ElectionWare defaults

Reference: See the *ES&S ElectionWare Volume IV: Deliver User's Guide* for additional information on ElectionWare.

See Scan Screen Sort Options for instructions on how to enable and disable the Sorting on/off feature.

See Sorting On/Off Feature for information on the impacts of turning sorting off.

Write-In	A write-in space appears on the ballot as a voting target next to a blank line that a voter uses to fill in the name of a write-in candidate. To vote for a write-in candidate, a voter writes the name of the candidate on the write-in line and marks the ballot target that corresponds to the line.
Overvote	Ballots having more than the allowed number of votes cast for one or more contests
Undervote	The election definition can designate one or more contests as an "undervote-contest". This option out-stacks any scanned ballot that has a designated undervote contest that was undervoted. This option does not out-stack blank ballots
Blank Ballots	This option out-stacks ballots that do not contain any votes, have been marked with a non-standard marking device for the DS850, or have been marked improperly (for example, the voter circled the candidate's name instead of filling in the appropriate oval).

Unclear Marks	Unable to interpret a mark in an oval position on the ballot.
Cross Over	In an Open Primary, this option out-stacks ballots with votes for any multiple party candidate.
Invalid ID	Sorts ballot that are not associated with the current election or a ballot style that is not associated with any of the election precincts.
Unreadable	Not able to read or interpret the ballot. **Example:** Marks on the code channel, torn ballot

When the DS850 scans a ballot, it gathers two images (front and back) and a cast vote record from the ballot. A ballot is normally scanned within a batch of ballots. The cast vote records of ballots diverted to the bins that have been processed are selected for inclusion in the collection process. The cast vote records of ballots diverted to the Not Processed bin are selected for exclusion from the collection process. These ballot images and cast vote records are then saved to the scanner's internal memory when the batch is saved.

Reference: See Exporting Data for information on exporting the vote results and ballot images to USB flash drives.

Follow the steps below to configure the sort settings:

1. Press **Bin Sorting** on the Configuration screen. The Bin Sorting options screen opens.

2. On the Bin Sorting options screen, press **Sort Settings**.
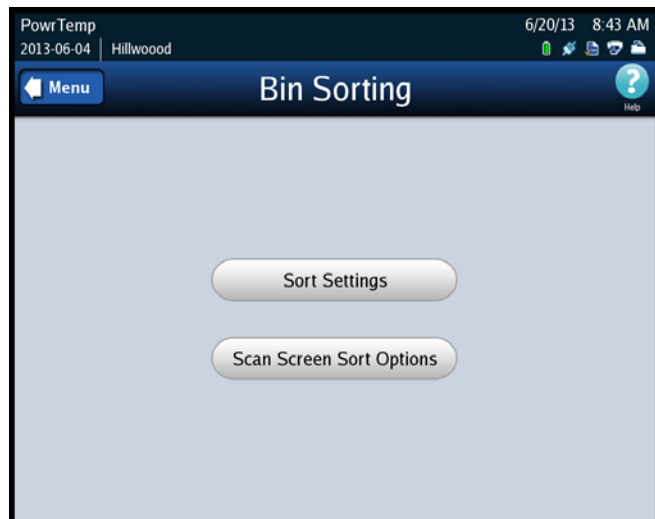
3. The Sort Settings screen will show the current selections, which were setup in ElectionWare for each bin. Press **Edit** to change the settings for each bin.

4. When prompted, enter the Election Code and then press **Accept**.
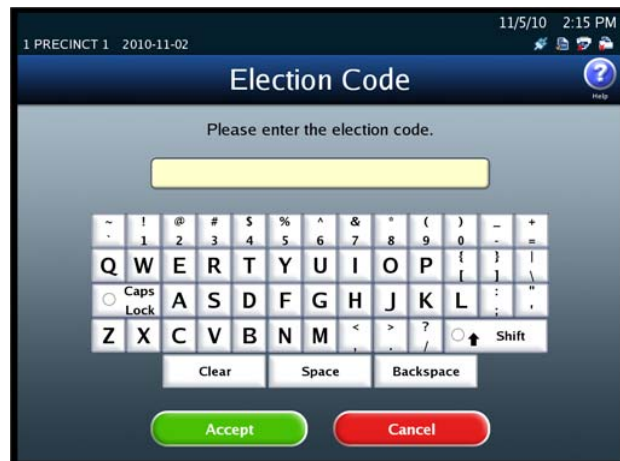
5. To change the options for the bin sorting, press the Option Button under each ballot exception to sort the ballots to the bin of your choice. You can only choose one bin per ballot exception. Press Save to save the settings and return to the Sort Setting View screen.
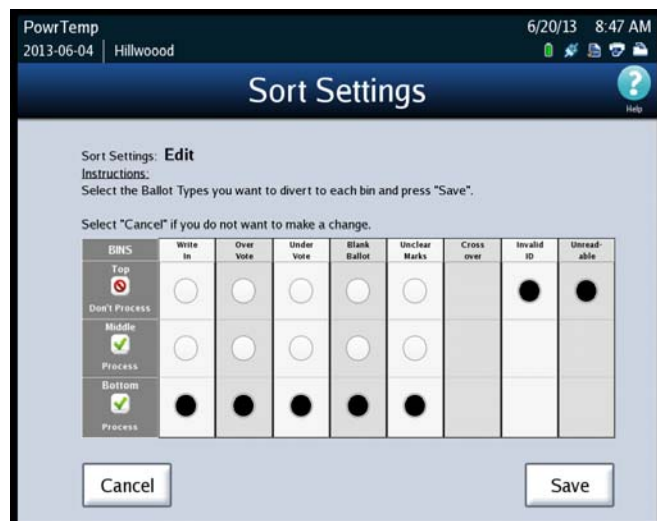
Note: The Cross Over option is only applicable for an open primary election.

Note: For Logic and Accuracy Testing, you may be required to turn off bin sorting prior to scanning the test deck. Bin sorting is turned off when the **Ballots With Write-ins** option is set to Process and none of the ballot types for the **Ballots Not Processed** option are selected. When logic and accuracy testing has been completed, make certain the bin sorting options are set as required for your election.

Scan Screen Sort Options

The Sort Option allows you to enable or disable the Sorting on/off feature. When the Sorting on/off feature is enabled, the Sorting on/off button is displayed in the top portion of the main scan ballots screen with Sorting On. When the Sorting on/off feature is disabled, the Sorting on/off button is not displayed on the main scan ballots screen, however Sorting remains on. By default, the Sort Option is disabled.

Reference: See Sorting On/Off Feature for information on the impacts of turning sorting off.

Follow the steps below to modify the Sort Option setting:

1. Press **Bin Sorting** on the Configuration screen. The Bin Sorting options screen opens.

2. On the Bin Sorting options screen, press **Scan Screen Sort Options**. The Scan Screen Sort Options settings screen is displayed.
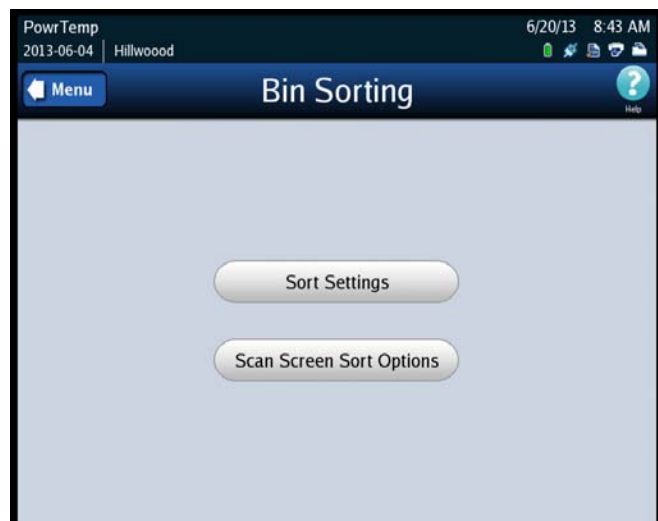
3. On the Sort Option settings screen, press **Edit**.

4. When prompted, enter the Administration code and then press **Accept**. The Sort Option selection screen is displayed.

5. On the Sort Option selection screen, highlight the desired option (Disabled On Scan Screen or Enabled On Scan Screen) by pressing on it. Then press **Save** to save the new setting, or press **Cancel** to cancel the change.

Audit Log

Activity on the DS850 is recorded to the audit log, and the DS850 prints the contents of the audit log to the attached dot matrix printer.

ElectionWare provides the settings for the audit log printing function in the election definition. There are settings that are provided which enable audit log printing and prevent the user from disabling it. The user also has the option to set the ability to enable or disable the Real Time Audit Log on the DS850.

Reference: See the *ES&S ElectionWare Volume IV: Deliver User's Guide* for additional information on ElectionWare.

Batch/Bin Reporting

The Batch/Bin Reporting screen allows you to change the number of copies of each Batch/Bin report to be automatically printed whenever a user saves a scanned batch of ballots. Together, the following three Batch/Bin reports identify the resulting bin disposition of each ballot within the saved batch:

- Not Processed
- Processed with Write-ins
- Processed

Note: ElectionWare provides the default settings for batch/bin reporting in the election definition. By default, no batch/bin reports are printed automatically when the user saves a scanned batch of ballots. If you want reports to print automatically when you save a batch of scanned ballots, you must use the Batch/Bin Reporting screen to specify the number of reports you want printed.

Reference: See the *ES&S ElectionWare Volume IV: Deliver User's Guide* for additional information on ElectionWare.

Reference: The Batch/Bin reports can also be printed from the Reports menu. See Chapter 8: Reports for instructions on how to preview and print the reports and for an example of a Batch/Bin Report.

Follow the steps below to change the number of copies to be automatically printed for each report:

1. Press **Batch/Bin Reporting** on the Configuration screen to access the Batch/Bin Reporting settings screen.

2. When the Batch/Bin Reporting settings screen appears, press **Edit** to modify the current settings.

3. When prompted, enter the Election Code and then press **Accept**.
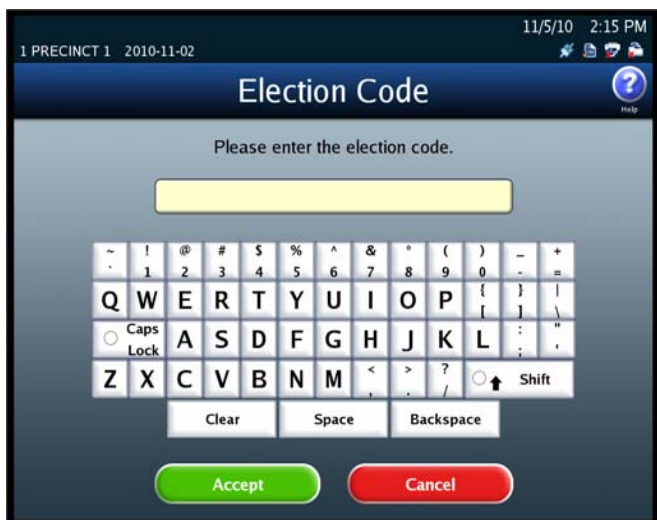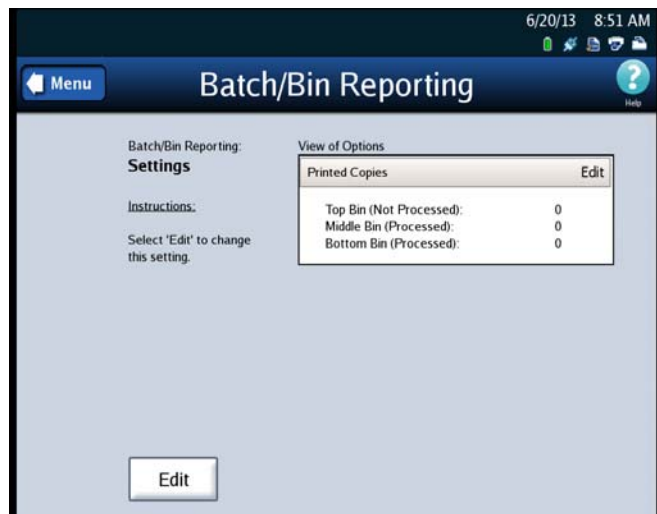
4. When the Batch/Bin Reporting selections screen appears, use the up and down arrows to change the number of copies to be printed for each report type: Top Bin, Middle Bin and Bottom Bin.

5. When you are finished, press **Save** to save the changes, or press **Cancel** to cancel the changes.

Results Access

The Results Access option will allow jurisdictions to restrict access to the Results Report and vote collection process before polls have closed. This option will restrict access to the following DS850 screens:

◆ Reports selection screen option - Results Report
◆ Results menu screen options
   • Export Results
   • Export Files
   • Backup menu screen option - Collection

1. From the **Election Menu** select **Configure**.
2. Select **Results Access**.

3. On the Results Access screen press **Edit** to update your option.

4. Enter the Administration Code.
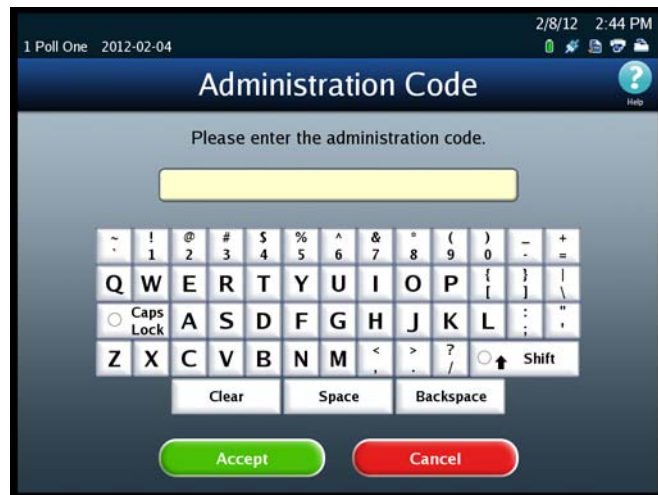
5. Select one of the following options:

* **Unlocked** - Results Report and vote process options are available.
* **Locked** - The following options are restricted from use:
    * ◆ The Reports selection screen option - Results Report
    * ◆ Results menu screen options
        * Export Results
        * Export Files
        * Backup menu screen option - Collection

Note: If the user attempts to use any of the locked functions they will receive a message informing them that these options are unavailable.

6. Press **Save** to save your current option.

Precinct Labels

The Precinct Labels section will allow you to change the name of how a precinct is labeled on the scanner. You will be able to change the name to your jurisdictions preference (example: borough, ward, etc...). For example, if you change the name to borough, it will replace "precinct" on the screens and reports.

1. Select **Precinct Label** on the Configuration screen to access the Precinct Labels settings screen.

2. When the Precinct Labels screen comes up, you will have the following choices:

◆ **Change Singular Label** - this will change any of the labels that are singular text.

◆ **Change Plural Label** - this will change any of the labels that are plural.

Singular Label

3. Press **Change Singular Label** to change the singular text.

4. Press **Edit** to change the text of the label.

5. Enter the preferred name into the field by using the on-screen keyboard. After you have completed entering the name press **Save**.

6. Confirm that the name is correct, if it is correct select the Menu button. This will return you to the Precinct Labels screen.

Change Plural Label

1. Press **Change Singular Label** to change the singular text.

2. Press **Edit** to change the text of the label.

3. Enter the preferred name into the field by using the on-screen keyboard. After you have completed entering the name press **Save**.

4. Confirm that the name is correct, if it is correct select the Menu button. This will return you to the Precinct Labels screen.
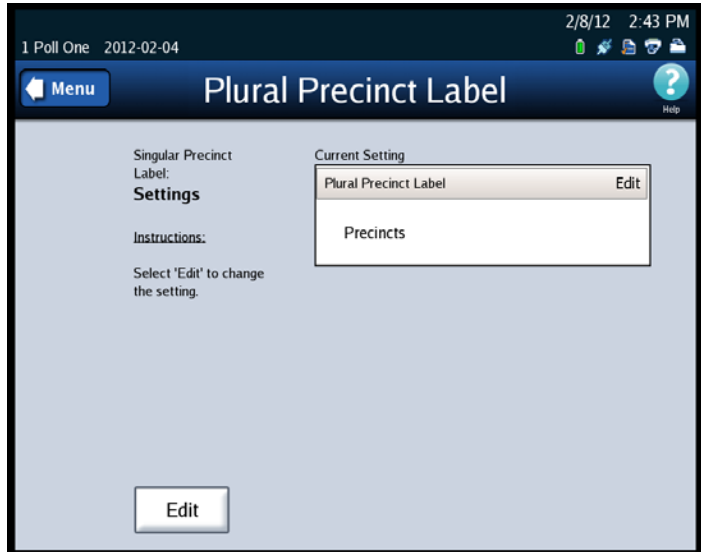
Ballot Images

1. Select **Ballot Images** on the Configuration screen to access the Ballot Images settings screen.

2. Press **Edit** to update the selections.

3. You will be able to select from one of the following options:
   - None
   - All Processed Images
   - Processed Write-In Images Only

4. After you make your selection, press **Save** to save your selection, or press **Cancel** to exit.
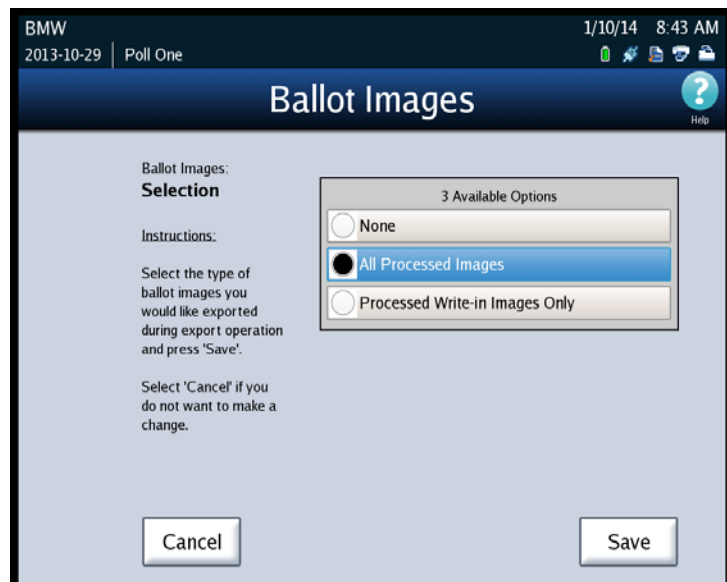
Network

Note: See Chapter 9: DS850 Network for instructions on using a network.

Multifeed Stop

1. Select **Multifeed Stop** on the Configuration screen to access the Ballot Images settings screen.

2. Press **Edit** to select you option to turn on or off the multifeed detection.

3. Press **On** or **Off** to select the option you would like. To save the selection press **Save**.

This is an example of the error screen you will see if you have the Multifeed Stop Option on. You will get this error when multiple ballots are fed through the scanner at the same time.
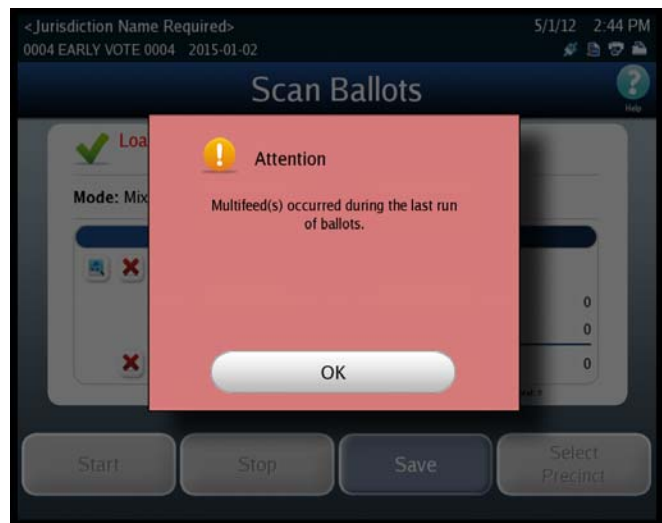
Chapter 6: Election Day Tasks

This chapter contains instructions for the following Election Day tasks:

◆ Scanning

◆ Printing Election Reports

◆ Exporting Data

◆ Clearing Election Results

Reference: Before you begin the Election Day tasks, see Chapter 5: Pre-Election Day Tasks to make certain that all pre-election tasks have been completed.

Special Instructions for Processing Folded Ballots

This section covers instructions on how to process folded ballots.

1. Remove the ballot from the envelope and unfold it.

2. Back fold the crease on each fold in the ballot.

3. Start running ballots by laying them flat in small stacks of about 25 to 50 ballot. Slowly increase the stack size if the scanner successfully processes smaller ballot batches without issues. Maximum stack size for folded ballots should not exceed 150 ballots.
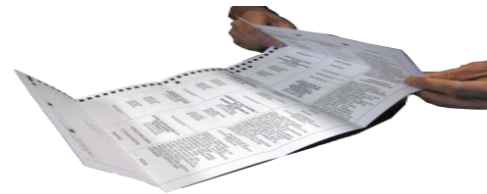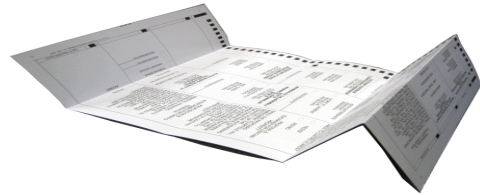
Scanning

This section covers the following:

◆ Scanning ballots

◆ Handling out-stacked ballots

◆ Saving a batch of ballots

◆ Deleting a batch of ballots

◆ Using the Sorting on/off feature

Scanning the Ballots/Cards

Warning: The ballot scanning process assumes that the scanner has been powered on, all pre-Election Day tasks have been completed, the election definition has been loaded, the user has the authority to scan ballots, and the scanner has been calibrated.

Note: Before you attempt to scan ballots/cards make sure that the camera lid and rear panel are closed. The scanner does not allow functions that engage the motors to be performed when the camera lid or rear panel is open.

1. On the touch screen, press **Scanning** to display the Scanning menu.
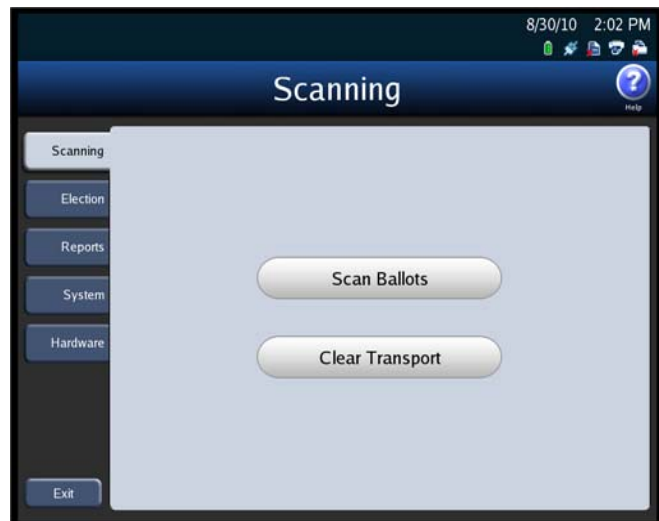
2. Press **Scan Ballots** from the Scanning menu. The *Load Ballots* screen appears. As shown below, in Mixed Precinct mode all of the buttons in the bottom portion of the screen are dimmed. However, in By Style and Single Precinct modes, the Select Precinct button would be available.

3. Load the ballots\cards as described below.

   a. Adjust the length of the input and output trays to accommodate the ballots.

   Reference: See Adjusting the Input and Output Trays for instructions on how to adjust the trays.

   b. Slide the ballot guide out of the curved opening in the input tray, as shown in the picture on the right.

   c. Place the ballots in the input tray. The ballots can be in any orientation.

   Note: ES&S recommends using a jogger to separate the ballots and to align the ballot stack before you place the ballots in the input hopper. If the ballot stack is slightly curved, place the stack in the input hopper with the convex side up. If the scanner cannot read a ballot because of its condition or because of the way in which it is fed into the scanner, the scanner will not process the ballot and will out stack the ballot to the Not Processed (top) bin.

d. Slide the ballot guide back toward the opening until it rests gently against the ballot stack as shown in the picture on the right.

5. Once the ballots have been loaded, the *Scan Ballots* screen appears. Press **Start** to begin scanning.

.

 Note: If you are required to select a precinct and have not yet done so, the **Start** button will be dimmed. The only button that you will be able to use is the **Select Precinct** button. Press **Select Precinct** and follow the steps listed in the Select a Precinct section to search for and select a precinct. After you have selected a precinct, you will be able to scan ballots.

While the ballots are being scanned, the *Scanning* screen is displayed. Only the **Stop** button is available on this screen; the other buttons are dimmed.

 Note: If you need to stop the machine before the input tray is empty, press **Stop** to stop scanning. The number of ballots that have been scanned will be displayed in the Current column.

After the ballots have been scanned, the *Scan Ballots* screen is re-displayed. This time, only the **Save** button is available; the other buttons are dimmed. The Current column on the screen indicates the number of ballots in each bin, as well as the total number of ballots scanned.

At this point, you can do any one of the following:

- Save the current batch; see Save the Current Batch.

Note: If ballots have been out-stacked to the top (not processed) bin, you have the option of generating the Not Processed Ballots report. You can also remove the ballots from the bin and reset the top bin quantity to zero, before you save the batch. The removed ballots can later be reviewed or re-scanned.

Reference: See Out-Stacked Ballots for additional information.

- Delete the current batch; see Delete the Current Batch.
- Load more ballots into the input tray. The *Scan Ballots* screen will be displayed. Press **Start** to scan the additional ballots. When the ballots have been scanned, the *Scan Ballots* screen will be displayed again, and the numbers in the Current column will be updated.

Warning: If any of the output hoppers are full or nearly full and you wish to scan more ballots into the batch, make sure that you keep any ballots you remove from the output bins segregated from other batches. Ballots removed but not yet saved as part of a batch must all be segregated by the bin from which the ballots were removed.

Out-Stacked Ballots

The following is an example of the Current column on the scan ballots screen, showing seven ballots out-stacked to the top (not processed) bin.

Note: The red "X" at the bottom of the column is used to delete the entire batch.

Reference: See Delete the Current Batch for instructions on deleting the current batch.

Press the button to the left of the top red "X" to generate and display the Not Processed Ballots report.

If you want to either review or re-scan the ballots out-stacked to the top bin, you can remove them and reset the count for the top bin to zero. To reset the count for the top bin, press the top red "X". You will be prompted to indicate whether you want to re-scan the ballots. If you select **Continue** the Top Bin count is zeroed out. If you select **Cancel** the Top Bin count remains unchanged.
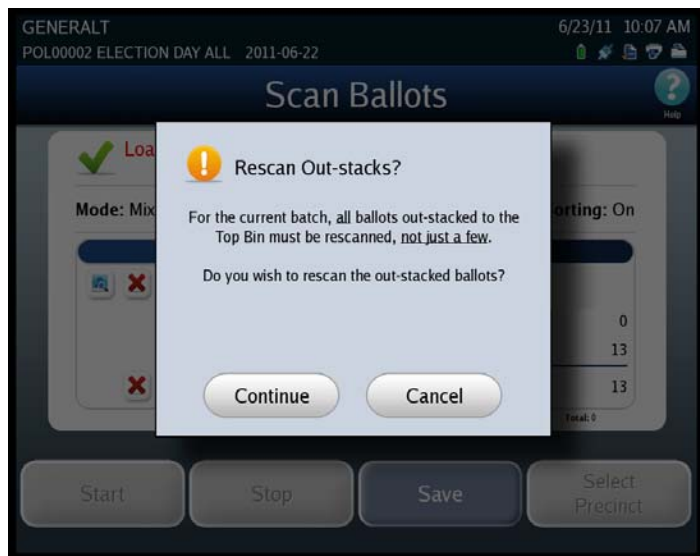
Note: Ballots that are outstacked for "Image Unreadable" or "Ballot Long" conditions and fail to read after a second scan should be reviewed and processed using the adjudication procedures established by your jurisdiction.

Save the Current Batch

Follow the steps listed below to save a batch of scanned ballots:

1. From the *Scan Ballots* screen, press **Save**.

2. When you are prompted to confirm that you want to save the batch, press **Save**.
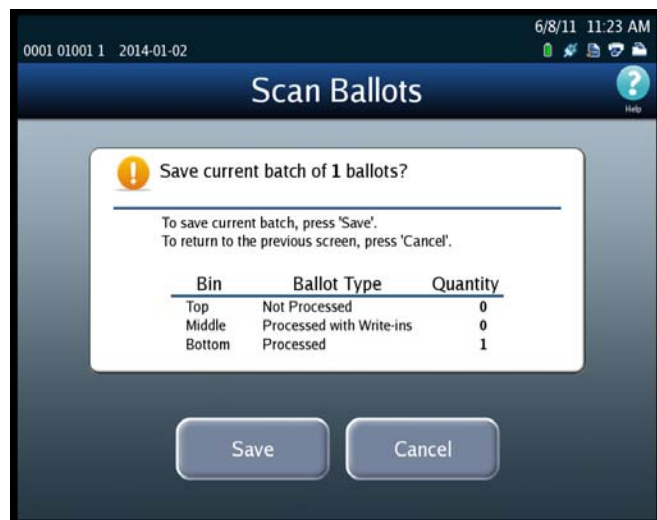
After you press **Save**, a popup screen containing the following message will display briefly: "The batch ballot data is being saved." After the data has been saved, the popup screen closes and a screen similar to the one shown below is displayed.

At this point, you can press **Done** or **Scan**. If you press **Done**, the Scanning menu is displayed. If you press **Scan**, the *Scan Ballots* screen is displayed, allowing you to scan another batch of ballots.
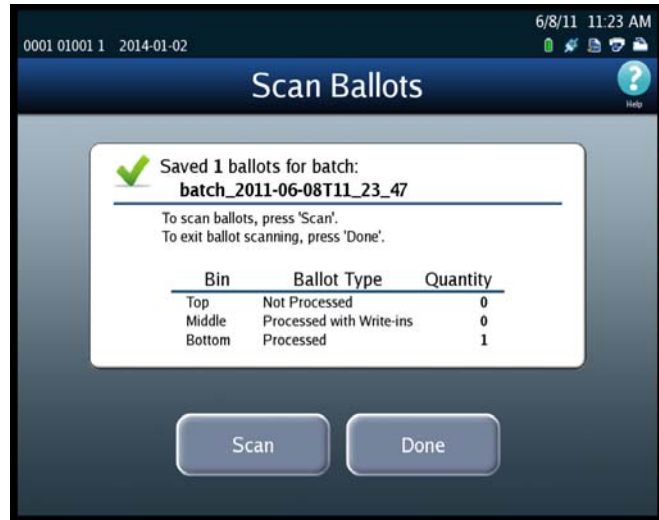
Note: If you press **Scan**, when the *Scan Ballots* screen opens, the quantities in the Current column will be all zeros, and the quantities in the Saved column will have been updated to include the quantities in the saved batch.

Delete the Current Batch

Follow the steps listed below to delete a batch of scanned ballots:

1. Press the red "X" to the left of the Total line in the Current column.
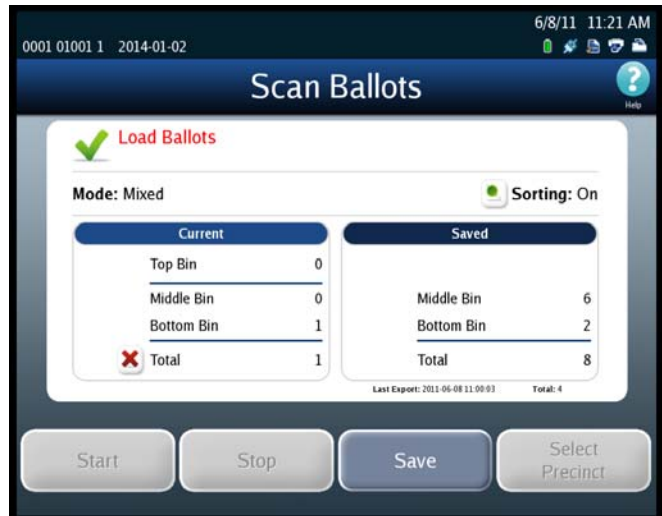
2. When prompted, enter the Election Code and then press **Accept**.
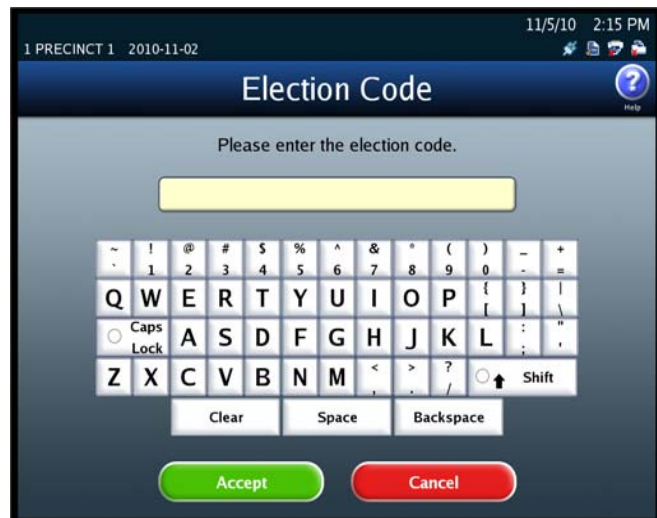
3. When you are prompted to confirm that you want to delete the batch, press **Delete**.
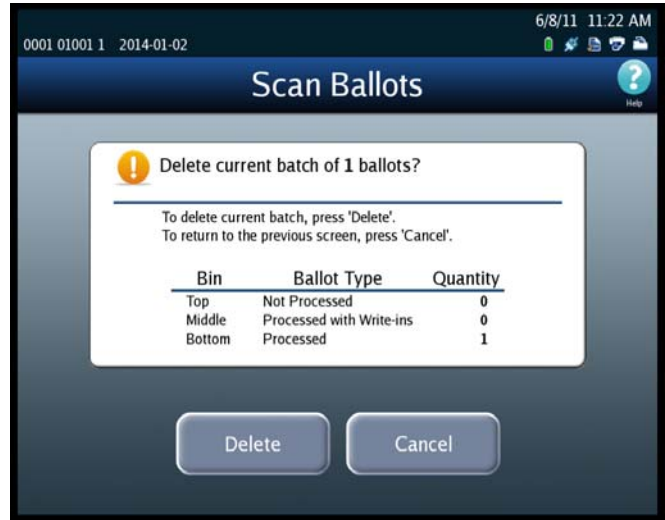
After you press **Delete**, a popup screen containing the following message will display briefly: "The batch ballot data is being deleted." After the data has been deleted, the popup window closes and a screen similar to the one shown below is displayed.
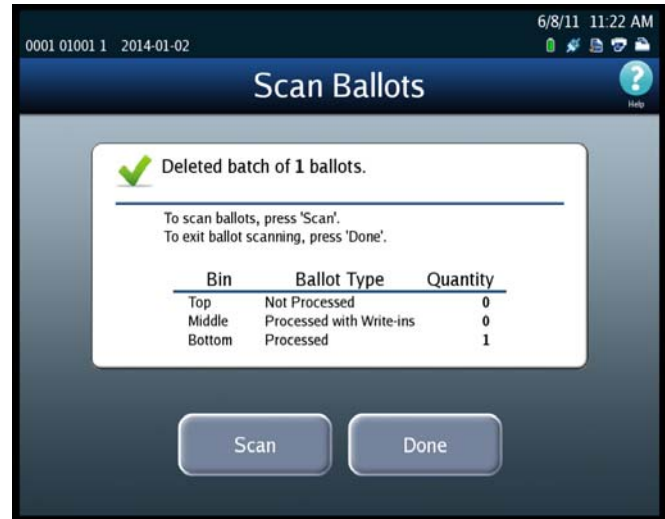
At this point, you can press **Done** or **Scan**. If you press **Done**, the Scanning menu is displayed. If you press **Scan**, the *Scan Ballots* screen is displayed.

Note: If you press **Scan**, when the *Scan Ballots* screen opens, the quantities in the Current column will have been reset to zeros.

Sorting On/Off Feature

By default, the Sorting on/off feature is disabled. You can, however, enable the feature by changing the Sort Option setting to enabled.

Reference: See Scan Screen Sort Options for instructions on how to enable and disable the Sorting on/off feature.

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Sorting On

The DS850 scanner diverts ballots to the following bins:

Processed (bottom bin)	All ballots that do not meet any of the sort criteria are diverted to this bin
Processed (middle bin)	If the middle bin is configured as 'Processed' then the ballot conditions that have selected for this bin will be diverted to the middle bin and should be Processed. By default, write-ins will be diverted to this bin. Ballots that cannot be processed such as Invalid Ballot ID, Unreadable ballot condition cannot be diverted to this bin.

Note: The saved cast vote records for ballots that are diverted to the Processed bin (bottom/middle bin) are marked for inclusion in the collection process.

Not Processed (middle bin)	If the middle bin is configured as 'Not Processed' then the ballot conditions that have selected for this bin will be diverted to the middle bin and will not be processed. By default, ballot conditions such as Write-ins, Overvotes, Undervotes, Blank, Unclear Marks and Crossovers will be diverted to this bin.
Not Processed (top bin)	By default, the ballot conditions such as Invalid Ballot ID and Unreadable Ballot will be diverted to this bin.

Note: The saved cast vote records for ballots that are diverted to the Not Processed bin are marked for exclusion from the collection process.

Sorting Off

The DS850 scanner diverts ballots to the following bin:

◆ All the ballot conditions except the following conditions will be diverted to the bottom bin for processing.

- Invalid ID
- Unreadable

Invalid ID and Unreadable ballots will not be processed and diverted to the top bin.

When loaded, the Election Definition establishes the sort settings for the election. An Operator may change these settings via the series of Sort Settings screens, previously described in this manual. Accordingly, the current, existing sort settings may not be those established by the Election Definition.)

If the Sorting button is set to OFF the following will occur:

- Write-Ins, Overvote, Undervotes, Blank, Unclear Marks and Crossover ballots are processed and diverted to the bottom bin.
- Invalid ID ballots are NOT processed and divert to the middle bin, if middle bin is set to Not processed and if the Invalid ID condition is configure to go to the middle bin.
- Unreadable ballots that cannot be read will divert to the top bin

If the Sort Option is set to Disabled, the Sorting on/off button is not displayed on the scan ballots screens. However, sorting is performed as if the Sort Option was set to Enabled and the Sorting on/off button was set to On.

Not Processed Ballot Report

The DS850 can generate a "Not Processed Ballots Report" for the ballots that were out-stacked to the Top Bin.

1. Select the "magnifying glass" next to the Top Bin line in the Current column.

The Not Processed Ballots Report will appear on the screen:
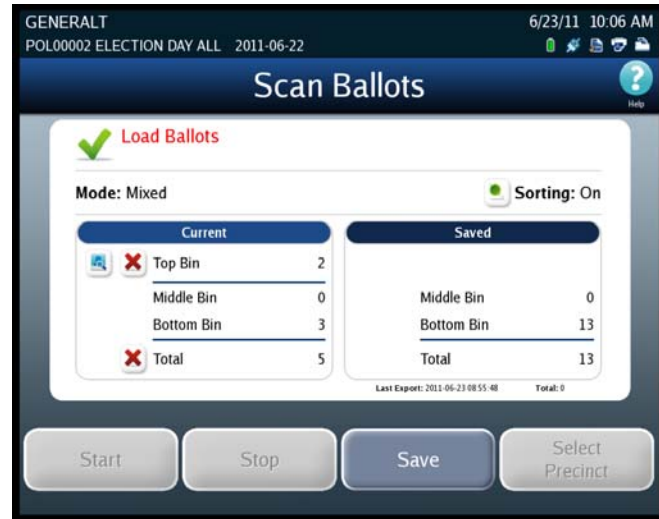
2. Press **Print** to print a copy of the report or press **Close** to go back to the Scan Ballots screen.

Printing Election Reports

The DS850 can generate a variety of results reports. You can manually select the desired reports from the Reports menu. Follow the instructions below to preview or print reports from the Reports menu.

Reference: See Chapter 8: Reports for information on the different report types and options that are available. The chapter also contains examples of the reports.

1. Select the desired report from the Reports menu.
2. If there are options associated with the selected report, set the desired options.
3. Press **Preview** to view the report on the touch screen, or press **Print** to print the report on the laser printer.

The following is an example of the Reports menu.
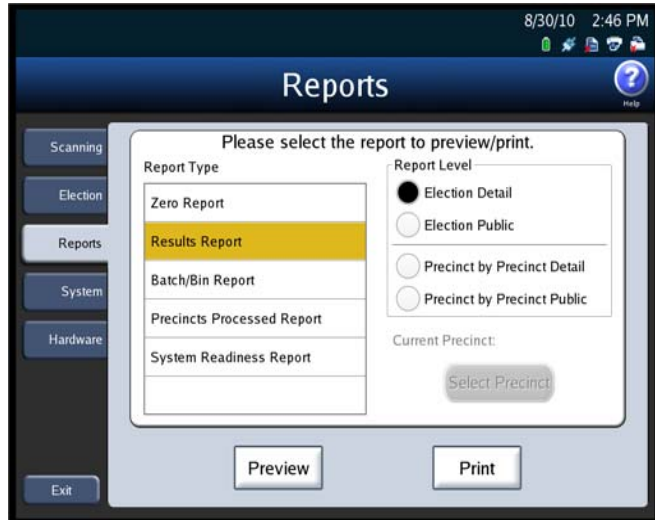
Exporting Data

Data saved to the scanner's internal memory can be exported to the Election Definition Media Device flash drive or to a blank USB flash drive. However, if a blank USB flash drive is used, it should be first fully formatted. Described below are the export functions that can be performed from the scanner.

> **Note:** If you choose to use USB media device, it is strongly recommended that you use fully-formatted USB media device flash drives rather than the Quick-formatted or cleared (all files deleted) flash drives. The fully-formatted flash drives work faster and are more reliable.

◆ **Export Results** copies the poll place collection data, the election definition, and the audit log to the Election Definition Media Device flash drive or a fully-formatted ES&S Media Device flash drive. All of the copied data, except for the audit log, is encrypted. The data can be pulled into the Election Reporting Manager (ERM) to be consolidated with vote data from other devices (e.g., DS200) to generate the election results. The data can also be used in ERM to generate reports.

> **Reference:** See Export Results for the steps to follow to perform this function.

◆ **Export Files** copies the poll place collection data, the election definition, the gathered ballot data (including ballot images) of any scanned ballot that was not out-stacked and the audit log to the Election Definition Media Device flash drive or a fully-formatted ES&S Media Device flash drive. All of the copied data, except for the audit log, is encrypted.

> **Reference:** See Export Files for the steps to follow to perform this function.

◆ **Backup** copies the gathered ballot data, marked for inclusion in the Election Definition, all the cast vote records, the election definition, and the audit log to the Election Definition Media Device flash drive or a fully-formatted ES&S Media Device flash drive. All of the copied data, except for the audit log, is encrypted.

> **Reference:** See Backup for the steps to follow to perform this function.

◆ **Export Audit Log** copies the audit log to the Election Definition Media Device flash drive or a fully-formatted ES&S Media Device flash drive. The audit log is not encrypted. If a problem occurs, or if there is a question about the exact sequence of events, the audit log copied to the flash drive can be examined on a PC.

> **Reference:** See Export Audit Log for the steps to follow to perform this function.

Export Results

Follow the steps below to perform the Export For Results function:

1. Press **Election** to display the Election menu.

2. From the Election menu, press **Results** to display the Results screen.

3. From the Results screen, press **Export Results**. This displays the *Searching for ES&S Media Device* pop-up screen.

4. Insert the Election Definition Media Device flash drive or a blank ES&S Media Device flash drive into one of the scanner's USB ports. The previous pop-up screen is temporarily replaced by a *Detecting inserted device* pop-up screen. Then, the Election Code screen appears.

Reference: See Using USB Media Devices for instructions.

5. Enter the Election Code and then press **Accept**.

6. Select where you would like to export the files.

  - **USB Media Device**
  - **Network Server Folder** - folder located on server

Press **Export** to export the files to your USB media device.

7. When the Export Results screen appears, press **Confirm** to confirm that you want to export the data, or press **Cancel** to cancel the process. If you press **Confirm**, the DS850 clears any existing data from the media device. Then it collects the saved cast vote records that were marked for inclusion in the collection process, generates the vote results, and exports those results to the USB flash drive, along with the election definition and the audit log. While this process is occurring, a pop-up screen will display indicating that the batch data is being collected and exported.

> **Note:** The saved cast vote records for ballots that are diverted to the Processed bin (bottom bin) and to the Ballots with Write-ins bin (middle bin) are marked for inclusion in the collection process. The saved cast vote records for ballots that are diverted to the Not Processed bin (top bin) are marked for exclusion from the collection process. See Bin Sorting for more information.

8. The Export for Results screen will indicate when the data has been successfully exported. Remove the flash drive. Then press **Done** to return to the Results screen.

Export Files

Follow the steps below to perform the Export Files function:

1. Press **Election** to display the Election menu.

2. From the Election menu, press **Results** to display the Results screen.

3. From the Results screen, press **Export Files** This displays the *Searching for ES&S Media Device* pop-up screen.

4. Insert the Election Definition Media Device flash drive or a blank ES&S Media Device flash drive into one of the scanner's USB ports. The previous pop-up screen is temporarily replaced by a *Detecting inserted device* pop-up screen. Then, the Election Code screen appears.

Reference: See Using USB Media Devices for instructions.

5. Enter the Election Code and
   then press **Accept**.

6. Select where you would like to
   export the files.
   - **USB Media Device**
   - **Network Server Folder** -
     folder located on server

7. Press **Export** to export the files
   to your USB media device.

8. When the Export Files confirmation screen appears, press **Confirm** to confirm that you want to export the data, or press **Cancel** to cancel the process. If you press **Confirm**, the DS850 clears any existing data from the media device. Then it collects the saved cast vote records that were marked for inclusion in the collection process, generates the vote results, and exports those results to the USB flash drive, along with the election definition, gathered ballot data (including ballot images) of any scanned ballot that was not out-stacked, and the audit log.

While this process is occurring, a pop-up screen will display indicating that the batch data is being collected and exported.

> **Note:** The saved cast vote records for ballots that are diverted to the Processed bin (bottom bin) and to the Ballots with Write-ins bin (middle bin) are marked for inclusion in the collection process. The saved cast vote records for ballots that are diverted to the Not Processed bin (top bin) are marked for exclusion from the collection process. See Bin Sorting for more information.

> **Note:** An option in the ElectionWare Deliver Module can be set to prevent images from being exported to a media device.

> **Reference:** See the *ES&S ElectionWare Volume IV: Deliver User's Guide* for additional information on ElectionWare.

9. The Export Files screen will indicate when the data has been successfully exported. Remove the flash drive. Then press **Done** to return to the Results screen.

Backup

Follow the steps below to perform the Archive Data function:

1. Press **Election** to display the Election menu.

2. From the Election menu, press **Results** to display the Results screen.

3. From the Results screen, press **Backup**. The Election Code screen appears.

4. Enter the Election Code and then press **Accept**.

5. When you have successfully entered the Election Code, the Backup selection screen appears.

6. Select from one of the following options:

   • Export

   • Collect

7. Insert the Election Definition Media Device flash drive or a blank ES&S Media Device flash drive that you want to use as the target media device. The *Detecting inserted device* pop-up screen is displayed briefly. The message in red on the Archive Data selection screen disappears, and the inserted flash drive is listed in the Media Devices field.

Reference: See Using USB Media Devices for instructions.

8. Select the target device from the list in the Media Devices field, by pressing it. When you press your selection, it is highlighted in blue, as shown below.

9. If you press **Confirm**, the Backup confirmation screen appears. Press **Cancel** to cancel the process.

While the process is occurring, a pop-up screen indicating that the data is being gathered and archived is displayed briefly.
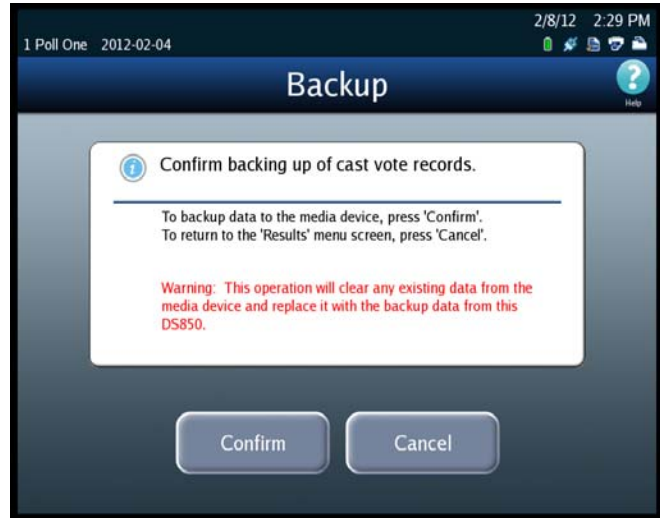
10. The Archive Data screen will indicate when the data has been archived successfully. Remove the flash drive. Then press **Done** to return to the Results screen.

Export Audit Log

Follow the steps below to perform the Export Audit Log function:

1. Press **Election** to display the Election menu.

2. From the Election menu, press **Results** to display the Results screen.

3. From the Results screen, press **Export Audit Log**. This displays the *Searching for ES&S Media Device* pop-up screen.

4. Insert the Election Definition Media Device flash drive or a blank ES&S Media Device flash drive into one of the scanner's USB ports. The previous pop-up screen is temporarily replaced by a *Detecting inserted device* pop-up screen. Then, the Election Code screen appears.

Reference: See Using USB Media Devices for instructions.

5. Enter the Election Code and then press **Accept**.
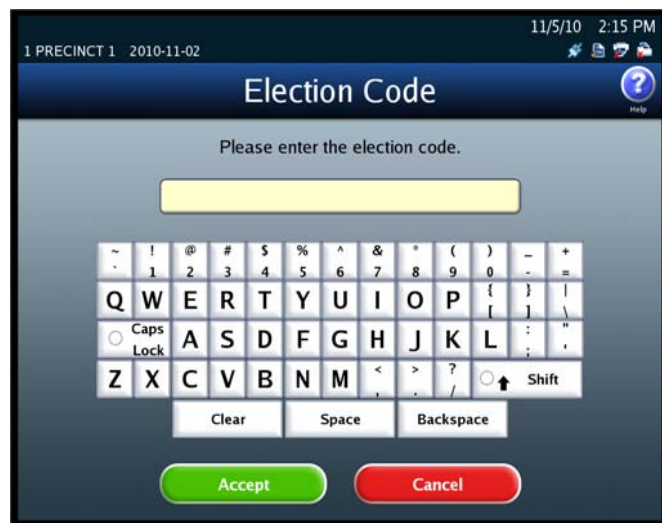
6. When the Export Audit Log screen appears, press Confirm to confirm that you want to export the audit log, or press Cancel to cancel the process. If you press Confirm, a pop-up screen will display indicating that the audit log is being exported.

7. The Export Audit Log screen will indicate when the audit log has been successfully exported. Remove the flash drive. Then press **Done** to return to the Results screen.

Clearing Election Results

You can choose to clear all election results or the election results for only a specified precinct.

Clear All Results

Follow the steps below to clear all election results.

1. Press **Election** to access the Election menu.

2. From the Election menu, press **Results** to display the Results screen.

3. On the Results screen, press **Clear All Results**.

4. When prompted, enter the Override Code and then press **Accept**.
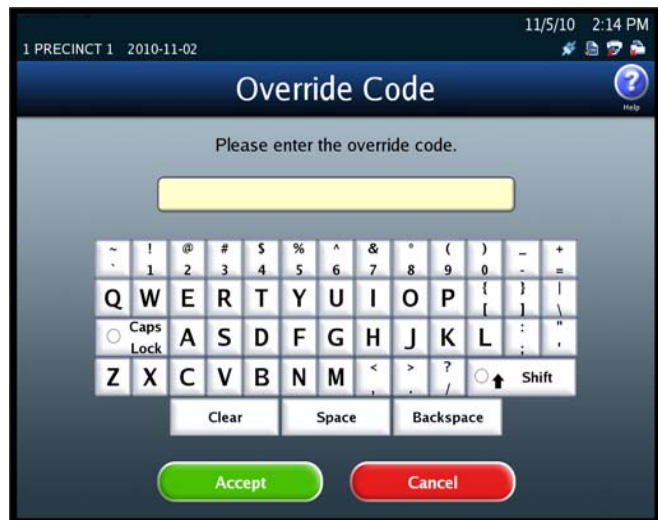
5. When the Clear All Results
confirmation screen appears,
press **Confirm** to clear all
election results, or press **Cancel**
to cancel the clear results
process.

6. If you press **Confirm**, a pop-up
screen will appear briefly to
indicate that the results are
being cleared. When the
results have been cleared
successfully, the following
pop-up screen will display.
Press **OK** to close the pop-up
screen.
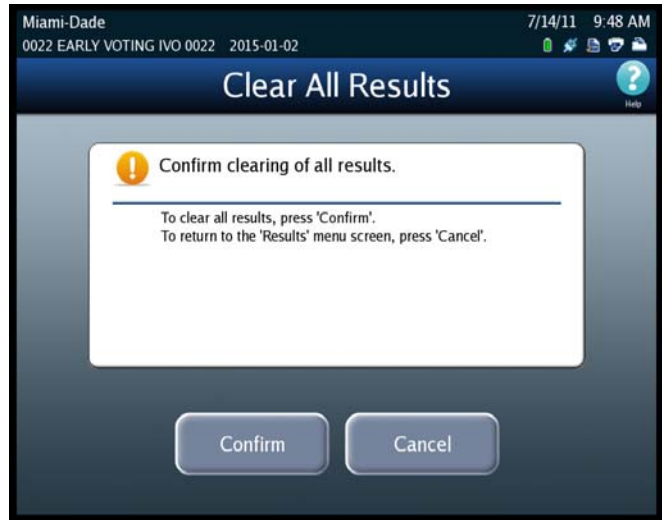
All counts displayed on the Main
Scan Ballot screen (including the
Last Export Total) are now
zeroed-out.
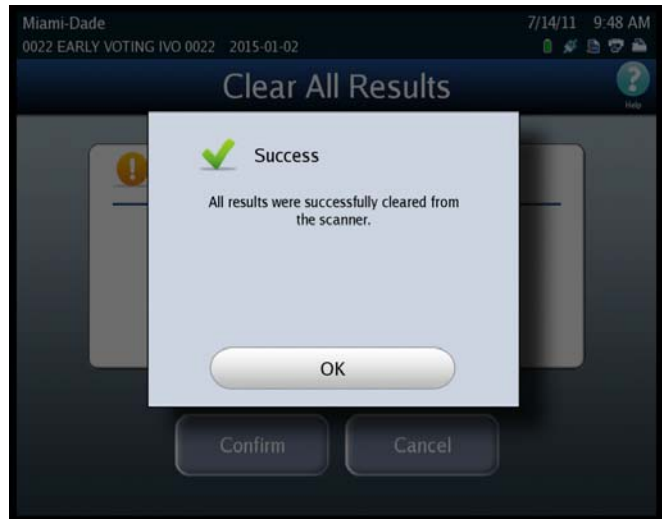
Clear a Precinct's Results

Follow the steps below to clear the election results for a single precinct.

1. Press **Election** to access the Election menu.
2. From the Election menu, press **Results** to display the Results screen.

3. On the Results screen, press **Clear A Precinct**.

4. When prompted, enter the Override Code and then press **Accept**. The initial Select Precinct screen is displayed.
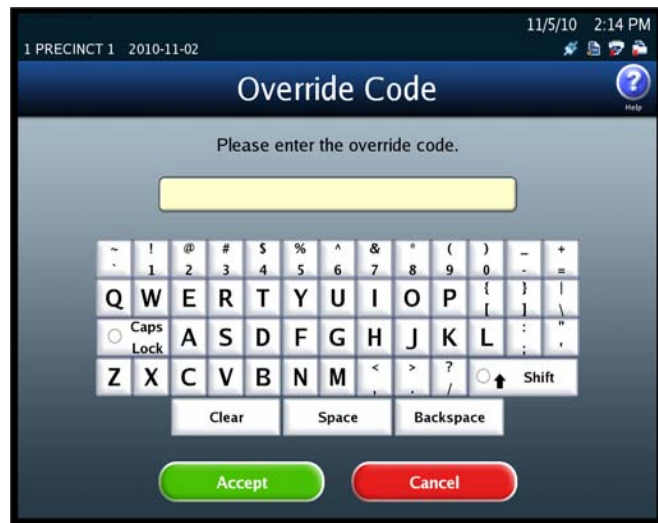
5. From the sequence of Select Precinct screens, search for and select the precinct whose election results you want to clear.

Reference: See the Select a Precinct section for the steps to follow to search for and select a precinct.

6. When the Clear A Precinct's
    Results screen appears, press
    Clear Results to clear the
    election results for the selected
    precinct, or press **Cancel** to
    cancel the clear results process.

7. If you press **Clear Results**, a
    pop-up screen will appear
    briefly to indicate that the
    precinct's results are being
    cleared. When the results for
    the specified precinct have been
    cleared successfully, the Clear A
    Precinct's Results screen is
    displayed with a message
    indicating that the results for the
    specified precinct have been
    cleared. Press **Done** to close the
    screen.
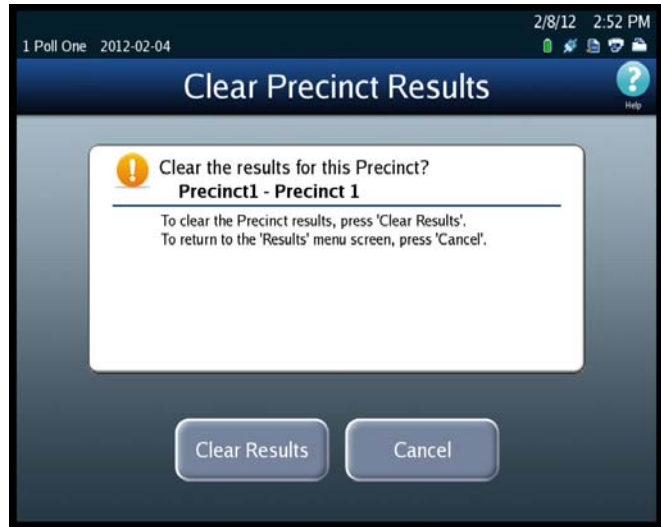
In the "Saved" column on the Main
Scan Ballots screen, any Middle or
Bottom Bin ballot counts
specifically for the cleared precincts
are subtracted from their respective
bin counts and added to Top Bin
(Not Processed) count.

Chapter 7: Post-Election Day Tasks

This chapter identifies the maintenance and other tasks that must be performed after the Election Day tasks have been completed.

Reference: See the *ES&S DS850 System Maintenance Manual* for additional information about scanner maintenance procedures.

Shut Down and Power Off the Scanner

After the post-election day maintenance has been completed, shut down and power off the DS850, and then prepare the machine for physical storage.

Follow the steps below to shut down and power off the DS850:

1. Press **Exit** in the lower left-hand corner of the screen to display the Exit screen.

2. From the Exit screen, press **Shutdown Scanner** to access the Shutdown Scanner screen.
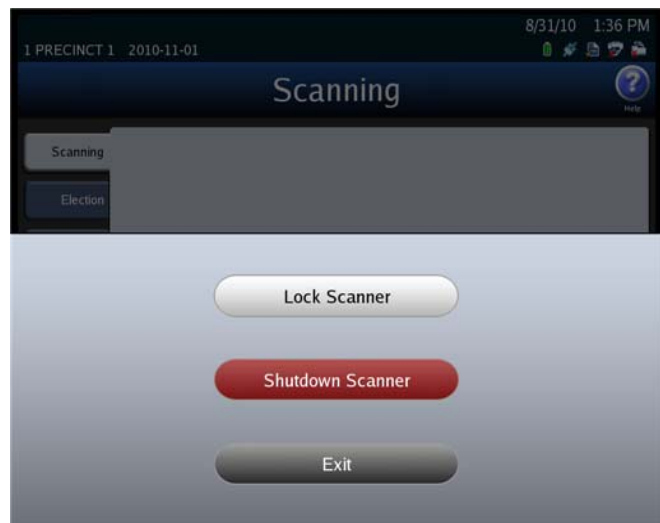
3. On the Shutdown Scanner screen, press **Shutdown** to shut down the scanner, or press **Cancel** to leave the scanner running.

4. If you press **Shutdown**, a message will display to let you know when it is safe to turn off the machine. When the message is displayed, flip the power switch to the off position. The power switch is located on the left side of the machine.

Turn Off the UPS

After you have shut down and powered off the scanner, press the power switch on the UPS to turn it off.

Perform Scanner Maintenance

After the Election Day tasks have been completed, perform the following maintenance tasks to keep your DS850 scanner in proper working order:

◆ Clean the rollers; see Clean the Rollers in Pre-Election Maintenance for instructions.

◆ Clean the cameras; see Clean the Cameras in Pre-Election Maintenance for instructions.

◆ Clean the scanner case; see Clean the Scanner Case in Pre-Election Maintenance for instructions.

◆ Clean the touch screen; see Clean the Touch Screen in Pre-Election Maintenance for instructions.

Perform UPS Maintenance

Ensure that the manufacturer's maintenance procedures are followed so that the UPS will perform as required on the next Election Day.

Recommended Steps to Prepare the DS850 for Storage

1. Print final copies of reports (if required).
2. Remove the election definition and results media.
3. Remove the paper audit report from the audit printer.
4. Zero the scanner.
5. Power off and unplug the scanner, printer and UPS.
6. Secure all power cords, spare parts and election materials in the drawer of the scanner cart. Store cords and spare materials in a manner that prevents them from becoming tripping hazards.
7. Perform Scanner Maintenance as listed above.
8. Inspect the equipment for damage.
9. Log any issues for follow-up with the ES&S Election Support team.
10. Secure the scanner output trays.
11. Lock and seal all panels and scanner doors.
12. Store the scanner in a secure physical location. At a minimum ES&S recommends storing the scanner in a locked room and enforcing access control on the room where the voting equipment is stored.
13. Store your election definition, audit log, final results reports, final results media and any other election artifacts, in accordance with the laws of your jurisdiction. Federal voting system guidelines do require storage of this material in a secure location for a minimum of 22 months.
14. Follow manufacturer recommendations for environmental storage conditions for all your election materials. (See Specifications and Cautions for storage requirements of the DS850).

Part 3: Appendix

The Appendix contains the following chapters:

Chapter 8: Reports

This chapter contains descriptions and examples of the report that can be generated on the DS850. Use the information in this chapter to become familiar with the types of reports available so that you can generate the proper reports for your jurisdiction.

The report types listed below are generated from the Reports screen, which is displayed when you select the Reports menu.

◆ Zero Report

◆ Results Report

◆ Batch/Bin Report

◆ Precincts Processed Report

◆ System Readiness Report

◆ Ballot Style Counts Report

> **Note:** The Digital Readings and Mark Code reports cannot be generated from this Reports menu. They are generated from a different Reports screen, which is accessed through the Hardware menu. See Chapter 3: DS850 User Interface for more information on the Digital Readings and Mark Code reports.

Zero Report

Use the Zero Report to ensure all of your contests have zero votes before you begin scanning ballots. The report displays zeros for all contests, indicating that no ballots have been scanned. You cannot print this report after ballots have been scanned on the DS850.

The following is an example of the screen that is displayed when the Zero Report is selected from the Reports menu.

Follow the steps below to preview or print the Zero Report:

1. From the Reports menu, press **Zero Report** in the **Report Type** field.
2. Press **Preview** to the view the report on the touch screen, or press **Print** to print the report on the laser printer.

The following is an example of the Zero report.

Zero Report

		BMW DEMO
Machine #: 8509 42001		BMW (English Only) DEMO
02/02/2010 16:02:25		11/02/2010 11:14:18

First Ballot Date Time:	Ballots Cast Total:	0
Last Ballot Date Time:		

Contest	Votes
BEST AUTOMOBILE MANUFACTURER	
(Vote For 1)	
BMW	0
MERCEDES	0
GENERAL MOTORS	0
HONDA	0
FERRARI	0
JAGUAR	0
FORD	0
VOLVO	0
Write-In	0
Over Votes	0
Under Votes	0
Total	0
BEST VOCAL ARTIST	
(Vote For 2)	
FRANK SINATRA	0
ELVIS	0
PATSY CLINE	0
JANIS JOPLIN	0
BUDDY HOLLY	0
BARRY WHITE	0
BILLIE HOLIDAY	0
STEVIE RAY VAUGHAN	0
"MAMA" CASS ELLIOT	0
Write-In	0
Write-In	0
Over Votes	0
Under Votes	0
Total	0
BEST ICE-CREAM FLAVOR	
(Vote For 1)	
CHOCOLATE	0
STRAWBERRY	0
VANILLA	0
Write-In	0
Over Votes	0
Under Votes	0
Total	0

Zero Report

		BMW DEMO
Machine #: 8509 42001		BMW (English Only) DEMO
02/02/2010 16:02:25		11/02/2010 11:14:18

First Ballot Date Time:	Ballots Cast Total:	0
Last Ballot Date Time:		

Contest	Votes
PROPOSITION 1	
(Vote For 1)	
YES	0
NO	0
Over Votes	0
Under Votes	0
Total	0
PROPOSITION 2	
(Vote For 1)	
YES	0
NO	0
Over Votes	0
Under Votes	0
Total	0

Results Report

The Results Report contains detailed election results and is available in multiple report levels. The following are the report level options for the Results Report:

◆ **Election Detail** - The report displays detailed contest totals for the whole election.

◆ **Election Public** - The report displays contest totals for the whole election without including overvote and undervote information.

◆ **Precinct by Precinct Detail** - The report displays detailed contest totals for the selected precinct.

◆ **Precinct by Precinct Public** - The report displays contest totals for the selected precinct without including overvote and undervote information.

You must specify a precinct if you select the **Precinct by Precinct Detail** or **Precinct by Precinct Public** report level.

The following is an example of the screen that is displayed when the Results Report is selected from the Reports menu.
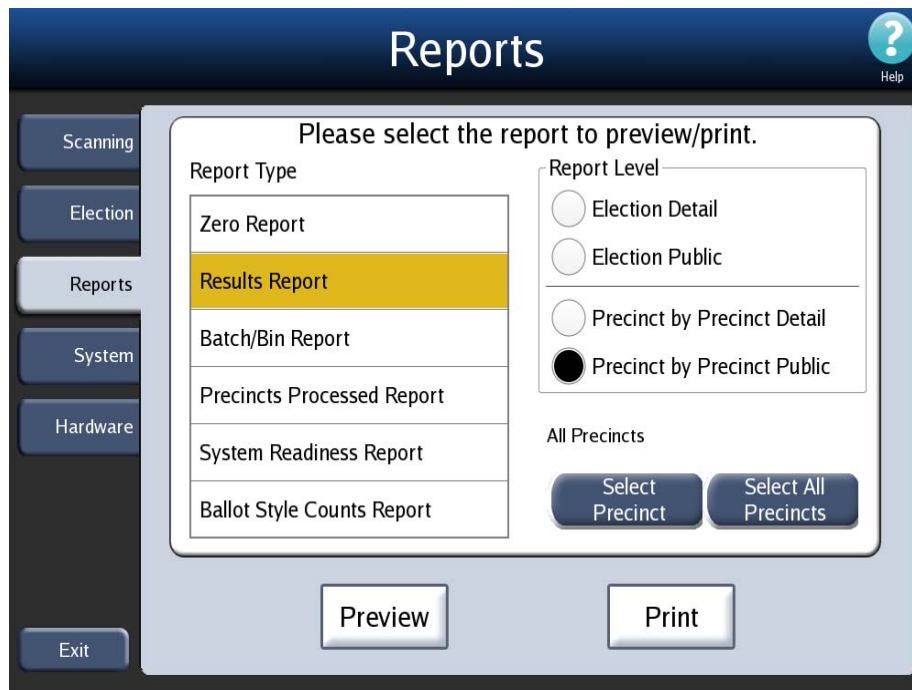
Follow the steps below to preview or print the Results Report:

1. From the Reports menu, press **Results Report** in the **Report Type** field.

2. Select the desired report level by pressing the option button to the left of the selection in the **Report Level** field.

3. If you selected the **Election Detail** or **Election Public** report level, skip to Step 4. If you selected the **Precinct by Precinct Detail** or **Precinct by Precinct Public** report level, a **Select Precinct** button is displayed. Press the **Select Precinct** button to select a precinct.

> **Reference:** See Select a Precinct for the steps to follow to select a precinct.

4. Press **Preview** to the view the report on the touch screen, or press **Print** to print the report on the laser printer.

The following is an example of the Results Report.

Detail Results

BMW DEMO
BMW (English Only) DEMO
02/02/2010 16:13:20   11/02/2010 11:14:18

| First Ballot Date Time: | 02/02/2010 16:11:51 | Ballots Cast Total: | 7 |
| Last Ballot Date Time: | 02/02/2010 16:12:08 | | |

Contest	Votes
BEST AUTOMOBILE MANUFACTURER	
(Vote For 1)	
BMW	1
MERCEDES	0
GENERAL MOTORS	1
HONDA	0
FERRARI	0
JAGUAR	1
FORD	0
VOLVO	1
Write-In	2
Over Votes	1
Under Votes	0
Total	7
BEST VOCAL ARTIST	
(Vote For 2)	
FRANK SINATRA	0
ELVIS	0
PATSY CLINE	1
JANIS JOPLIN	1
BUDDY HOLLY	0
BARRY WHITE	0
BILLIE HOLIDAY	0
STEVIE RAY VAUGHAN	2
"MAMA" CASS ELLIOT	0
Write-In	3
Write-In	4
Over Votes	0
Under Votes	3
Total	14
BEST ICE-CREAM FLAVOR	
(Vote For 1)	
CHOCOLATE	1
STRAWBERRY	2
VANILLA	1
Write-In	1
Over Votes	1
Under Votes	1
Total	7

PROPOSITION 1

Detail Results

BMW DEMO
BMW (English Only) DEMO
02/02/2010 16:13:20   11/02/2010 11:14:18

| First Ballot Date Time: | 02/02/2010 16:11:51 | Ballots Cast Total: | 7 |
| Last Ballot Date Time: | 02/02/2010 16:12:08 | | |

Contest	Votes
(Vote For 1)	
YES	3
NO	3
Over Votes	0
Under Votes	1
Total	7
PROPOSITION 2	
(Vote For 1)	
YES	4
NO	2
Over Votes	0
Under Votes	1
Total	7

Batch/Bin Report

The Batch/Bin reports contain ballot totals for the last batch that was saved. The totals are provided for the selected bin and report level. The following are the bin options:

◆ **Not Processed (Top Bin)** - The report contains totals for ballots that have not been processed and that have been diverted to the top bin.

◆ **Processed with Write-ins (Middle Bin)** - The report contains totals for ballots containing write-in votes that have been processed and diverted to the middle bin.

◆ **Processed (Bottom Bin)** - The report contains totals for all processed ballots that have been diverted to the bottom bin.

The following are the report level options:

◆ **Long** (detailed)

◆ **Short** (summary)

> **Note:** ElectionWare provides the default settings for batch/bin reporting in the election definition. By default, no batch/bin reports are printed automatically when the user saves a scanned batch of ballots. If you want reports to print automatically when you save a batch of scanned ballots, you must use the Batch/Bin Reporting screen to specify the number of reports you want printed. See Batch/Bin Reporting for more information on that screen.

> **Reference:** See the *ES&S ElectionWare Volume IV: Deliver User's Guide* for additional information on ElectionWare.

The following is an example of the screen that is displayed when the Batch/Bin Report is selected from the Reports menu.

Follow the steps below to preview or print the Batch/Bin Report:

1. From the Reports menu, press **Batch/Bin Report** in the **Report Type** field.

2. Select the desired bin by pressing on the option button to the left of it in the **Bin Selection** field.

3. Select the desired report level by pressing on the option button to the left of it in the **Report Level** field.

4. Press **Preview** to the view the report on the touch screen, or press **Print** to print the report on the laser printer.

The following is an example of a Batch/Bin Report.

Precincts Processed Report

The Precincts Processed report allows you to see which precincts have been processed and which have not been processed. The options for this report are:

◆ **Precincts Processed** - The report contains a list of the precincts that have been processed and the ballot counts for each.

◆ **Precincts NOT Processed** - The report contains a list of the precincts that have not been processed.

The following is an example of the screen that is displayed when the Precincts Processed Report is selected from the Reports menu.
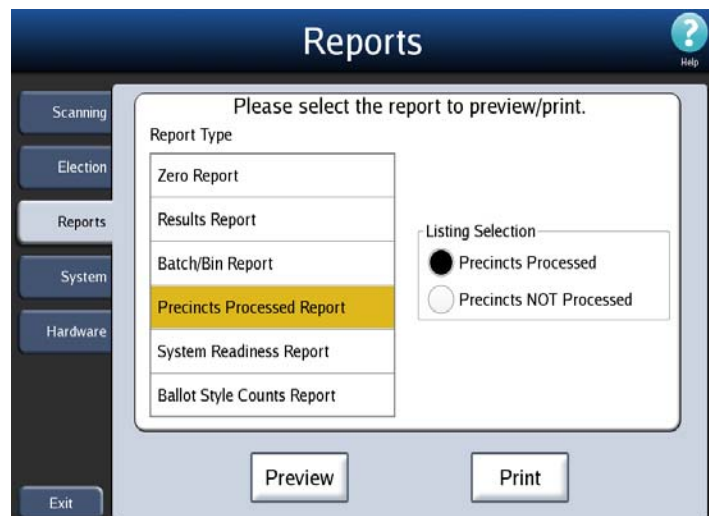
Follow the steps below to preview or print the Precincts Processed Report:

1. From the Reports menu, press **Precincts Processed Report** in the **Report Type** field.

2. Select the desired report option by pressing on the option button to the left of it in the **Listing Selection** field.

3. Press **Preview** to the view the report on the touch screen, or press **Print** to print the report on the laser printer.

The following is an example of the Precincts Processed Report.

Precinct Processed Report

1 of 1

BMW DEMO
BMW (English Only) DEMO

02/02/2010 16:14:31   11/02/2010 11:14:18

Total:	7		
First Ballot Time:	02/02/2010 16:11:51		
Last Ballot Time:	02/02/2010 16:12:08		

Code	Election District		Count
0001	PRECINCT 1		7

System Readiness Report

The System Readiness report is a descriptive list of system settings that you can use to verify that the DS850 is ready to begin ballot processing. The report prints automatically when the DS850 is powered on. The options for this report are:

The following is an example of the screen that is displayed when the System Readiness Report is selected from the Reports menu.

Follow the steps below to preview or print the System Readiness Report:

1. From the Reports menu, press **System Readiness Report** in the **Report Type** field.
2. Select the desired report option by pressing on the option button to the left of it in the **Report Options** field.
3. Press **Preview** to the view the report on the touch screen, or press **Print** to print the report on the audit log printer.

The following is an example of the System Readiness Report.

```
*** SYSTEM READINESS REPORT ***
12:10:50 Tue Dec 21 2010
Unit Serial Number: 0304050607

VOTING DEVICE INFORMATION

HARDWARE CONFIGURATION
Current Time Date: 12:10:50 Tue Dec 21 2010
Time Zone: America/Chicago
Processor: : Intel(R) Core(TM)2 Duo CPU     E6400  @ 2.13GHz
Total RAM: 4009 MB
Available RAM: 3841 MB
RAM Test Status: OK
Camera Interface: OK
Touch Screen: OK
Report Printer: OK
Battery: OK
Power Source: AC
Battery Charge: 100


STORAGE
Total Data Storage: 938901 MB
Available Data Storage: 890987 MB
Data Storage Device Status: OK

FIRMWARE
DS850 Firmware Version: 2.1.0.0j

Master Control Program: Running
Tabulation Engine: Running
Presentation Engine: Running

Protected Count: 15164

ELECTION LOADED

ELECTION STATUS
Election Name: VARINSTR
Election Date: 2006-01-16
Election EQC: Secret

*** END OF REPORT ***
```

Ballot Style Counts Report

The Ballot Style Counts Report provides the count of each ballot style (sequence, type, and split) within a precinct. The options for this report are:

◆ **Precinct** - The report provides the count of each ballot style within a precinct organized by precinct.

◆ **Ballot Style**- The report provides the count of each ballot style within a precinct organized by ballot style.

The following is an example of the screen that is displayed when the Ballot Style Counts Report is selected from the Reports menu.
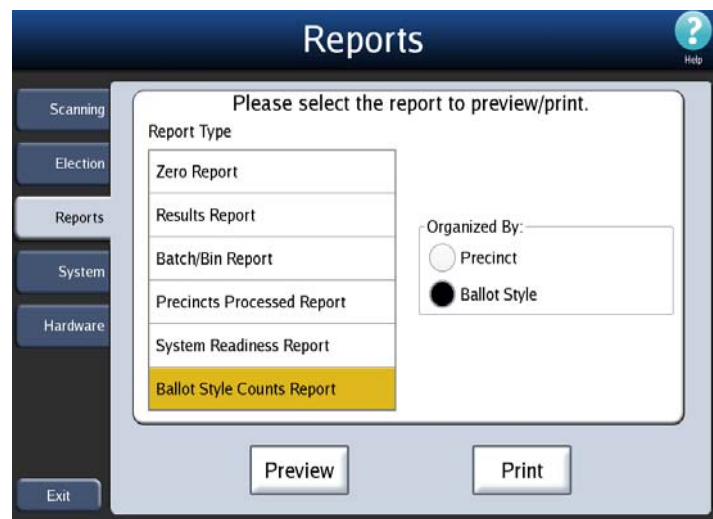
Follow the steps below to preview or print the Ballot Style Counts Report:

1. From the Reports menu, press **Ballot Style Counts Report** in the **Report Type** field.

2. Select the desired report option by pressing on the option button to the left of it in the **Organized By** field.

3. Press **Preview** to the view the report on the touch screen, or press **Print** to print the report on the laser printer.

The following is an example of the Ballot Style Counts Report.

Ballot Style Counts

Machine #: 0304050607

NOV08GEN

12/17/2013 15:53:52   12/05/2013

First Ballot Date Time:	12/17/2013 15:28:34	Total Sheets Processed:	7
Last Ballot Date Time:	12/17/2013 15:29:09	Total Ballots Cast:	7
		Blank Sheets Cast:	2

Ballots Cast

BAY VILLAGE -01-A

Seq:00001 Typ:01 Spl:01   7

BAY VILLAGE -01-B

BAY VILLAGE -01-C

Page 1 of 42   ➡

Chapter 9: DS850 Network

View, Set and Test Network IP Address and Folder Path

The network option will allow the user to send the results directly from the DS850 to process the election results.

1. Select **Configuration** on the Election screen to bring up the Configuration screen.
2. Select **Network** and you will be prompted to enter the Election Code.
3. Enter your Election Code in the entry field then press **Accept**.

The Network setting screen will appear and this will display the Server IP Address, Folder Path and it will also show the IP Address for the scanner.

Note: The system will assign an initial default of "1" for the scanner's last address number.

4. To edit the IP Address for the scanner select **Edit.**

5. Type a number in the **Address Digit-box** for the scanner. Then select **Save** to save your changes or press **Cancel** to exit the screen without making any changes.

6. Once your IP Address is set then you can test the connection to the server, by pressing **Test**. The DS850 will test the folder path and IP address for the server. You will receive a message if it has been successful, then select **OK** to return to the Configuration screen.

GEN TEST
0018 EARLY VOTING   2012-03-20

4/25/12   2:44 PM

Network

Help

NOTE: These numbers are loaded from the Election Definition and cannot be changed on the DS850. They can only be changed in ElectionWare and the USB media reburned.

This Scanner's current IP Address: 10.0.0.79

10.0.0. 79

1	2	3
4	5	6
7	8	9
0	←	

To keep your changed address, press 'Save'. To avoid changing the current address, press 'Cancel'. The 'Network Settings' screen is redisplayed with either button press.

NOTE: The number can be used to uniquely identify the DS850 scanner on the network. If the number was previously assigned/saved then that number will appear. Otherwise, it will show the initial default of "1".

Cancel   Save

Note: If the test was not successful check to make sure the path and IP addresses are correct.

Note: To export results to the network server see Exporting Data section in Chapter 6: Election Day Tasks

Chapter 10: System Messages

This chapter contains a list of all system messages. If you require assistance to resolve an issue related to a system message, contact your Election Administrator to schedule technical service or a back-up machine. Election Administrators can contact ES&S support at 877-377-8683.

Viewing Messages

Printed system messages can be seen on the continuous-feed print-outs from the Audit Log Printer. The Audit Log Printer must be connected to the DS850, enabled and properly configured (paper loaded, plugged-in, turned on, etc.). See *Chapter 5: Pre-Election Day Tasks*, Audit Log for more information.

Logged system message can be seen within the exported audit.log file. To create this file from the DS850, first insert a blank ES&S Media Device into one of the unit's USB ports. Then, select 'Election=> Results=> Export Audit Log'. Once the audit log is successfully written to the ES&S Media Device, insert the device into a PC. The Audit log file is located in the 'Log' folder on the Device. To view the file, open the file with an application such as WordPad™.

System Error Recovery

In the event that a critical error occurs that prevents further operation of the machine, an error number and error message are displayed, as well as the **Shutdown** button. Use the following procedure to restart the system and continue scanning ballots:

1. Write down the error number and message so that you can report that information to the appropriate personnel (i.e., an election official, system administrator, and/or support technician).

2. Press the **Shutdown** button on the touch screen and wait for a message to display indicating that it is safe to power off the machine.

> **Note:** If the touch screen does not respond when you press **Shutdown** after 1 minute, or if the message indicating that it is safe to power off the machine does not appear after 5 minutes, proceed to step 3.

3. Flip the scanner's power switch to the off position.

4. Wait 30 seconds.

5. Flip the power switch to the on position to restore power to the entire machine.

6. On startup, make sure that any ballots for which data was lost are removed from the output bins and then re-scanned.

Numeric Messages

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009001 - Unknown communications error.	X			X	This message appears if some unknown communication problem occurs with the User Interface.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, a an ES&S Service Technician will need to be contacted.
1009002 - The connection was refused by the MCP.	X			X	This message appears when the Master Control Program will not accept a connection to the User Interface.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted.
1009003 - The MCP closed the connection.	X			X	This message appears when the Master Control Program terminates its connection with the User Interface.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted.
1009004 - The UI message server was unable to be started.	X			X	This message appears when the Master Control Program is unable to start the Property Bank Message Server for the User Interface.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Customer Service Representative will need to be contacted.

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009005 - MCP command syntax error.	X			X	This message appears when a command, sent from the User Interface to the Master Control Program, cannot be understood by the Master Control Program.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Customer Service Representative will need to be contacted.
1009006 - The client connection to MCP timed out.	X			X	This message appears when the connection of the User Interface to the Master Control Program is terminated due to the lack of response from the User Interface when the Master Control Program queries it over a limited period of time.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Customer Service Representative will need to be contacted.
1009007 - The system has too many open sockets.	X			X	This message appears when the Master Control Program detects that there are so many unused communication link end-points, for its connection to the User Interface, that it can no longer effectively communicate with the User Interface.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Customer Service Representative will need to be contacted.
1009008 - MCP command unknown.	X			X	This message appears when a command, sent from the Master Control Program to the User Interface, cannot be understood by the User Interface.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Customer Service Representative will need to be contacted.

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009020 - MCP was unable to connect to the tabulation engine.	X			X	This message appears when the User has selected a collect results command (e.g. 'Export for Results') and the Master Control Program cannot access the tabulation engine to perform the command.	Write down the error message and notify an appropriate election official. Try the command again. If the problem persists, shutdown the Scanner, wait 30 seconds, restart the Scanner, and try the command again. If the problem still remains, an ES&S Customer Service Representative will need to be contacted.
1009021 - No response from the tabulation engine.	X		X	X	This message appears when the User has selected a collect results command (e.g. 'Export for Results') and the Master Control Program sends the command to the tabulation engine. However, the tabulation engine does not acknowledge that it has received the command from the Master Control Program.	Write down the error message and notify an appropriate election official. Try the command again. If the problem persists, shutdown the Scanner, wait 30 seconds, restart the Scanner, and try the command again. If the problem still remains, an ES&S Customer Service Representative will need to be contacted.
1009022 - MCP was unable to send a command to the tabulation engine.	X		X	X	This message appears when the User has selected a collect results command (e.g. 'Export for Results') and the Master Control Program attempts but fails to send the command to the tabulation engine.	Write down the error message and notify an appropriate election official. Try the command again. If the problem persists, shutdown the Scanner, wait 30 seconds, restart the Scanner, and try the command again. If the problem still remains, an ES&S Customer Service Representative will need to be contacted.

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009050 - Unknown tabulator error during {1} command	X		X		This message appears when the User has selected a collect results command (e.g. 'Export for Results') and the tabulation engine received the command, but an error occurs during tabulation with the "{1}" process command. Note an actual process command appears in place of the "{1}".	Write down the error message and notify an appropriate election official. Try the command again. If the problem persists, shutdown the Scanner, wait 30 seconds, restart the Scanner, and try the command again. If the problem still remains, an ES&S Customer Service Representative will need to be contacted.
1009500 - Camera Interface - Initialization failed.	X		X	X	This message appears at start-up when the system initialization of the BAPis Image Processor Board fails.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the processor is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009501 - Camera Interface - Undefined error	X		X	X	This message appears when the BAPis Image Processor encounters an undefined error.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the processor is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009502 - Camera Interface - No connection	X		X	X	This message appears when the Master Control Program cannot communicate with the BAPis Image Processor Board through the MCP/BAP Interface.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the processor is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009503 - Camera Interface - Not implemented	X		X	X	This message appears when the Master Control Program cannot communicate with the BAPis Image Processor Board because the MCP/BAP Interface is not operating.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the processor is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009504 - Camera Interface - No image data	X		X	X	This message appears when a ballot is scanned but no image data is collected through the MCP/BAP Interface.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

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1009505 - Camera Interface - Bad CRC	X		X	X	This message appears upon initialization of the BAPis Image Processor Board when the Master Control Program receives a bad CRC (cyclic redundancy check) from the board, indicating there is a problem with the accuracy of data transmitted through the MCP/BAP Interface communication link.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009506 - Camera Interface - Configuration not accepted	X		X	X	This message appears upon initialization of the BAPis Image Processor Board when the system configuration parameters, provided through the MCP/BAP Interface are not accepted by the board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009507 - Camera Interface - Wrong device IDD	X		X	X	This message appears upon initialization of the BAPis Image Processor Board when board's returned device ID is not the one expected by the Master Control Program.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

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1009508 - Camera Interface - Parameter not supported	X		X	X	This message appears upon initialization of the BAPis Image Processor Board when a system configuration parameter, provided through the MCP/BAP Interface is not supported by the board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009509 - Camera Interface - Image ID out of range	X		X	X	This message appears when a ballot is scanned but its resulting image ID is outside the range expected by the Master Control Program.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009510 - Camera Interface - Error memory allocation	X		X	X	This message appears upon initialization of the BAPis Image Processor Board when the board cannot allocate the minimum amount of memory required to collect the ballot images.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009511 - Camera Interface - Error cropping	X		X	X	This message appears when a ballot is scanned, but the BAPis Image Processor Board cannot properly crop the scanned image(s).	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009512 - Camera Interface - Buffer overflow	X		X	X	This message appears when a ballot is scanned and its resulting image data overflows the buffer of the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009513 - Camera Interface - Timeout	X		X	X	This message appears when the interaction between the BAPis Image Processor Board and the Datawin board requires a timeout to complete one or more processing steps.	Write down the error message and notify an appropriate election official. Hopefully the timeout is brief, so normal operations can resume without any User intervention. If the timeout lasts over 10 minutes, and if it is possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If long timeouts continue to occur, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009514 - Camera Interface - DMA Controller	X		X	X	This message appears if there is a problem with the DMA Controller on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009515 - Camera Interface - SRAM Memory controller	X		X	X	This message appears if there is a problem with the SRAM Memory Controller on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009516 - Camera Interface - Binarization module error	X		X	X	This message appears if there is a problem with the Binarization Module on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009517 - Camera Interface - Skew engine error	X		X	X	This message appears if there is a problem with the Skew Engine on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009518 - Camera Interface - FPGA JPEG encoder module error	X		X	X	This message appears if there is a problem with the FPGA JPEG Encoder Module on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009519 - Camera Interface - ADV2x2 JPEG 2000 module error	X		X	X	This message appears if there is a problem with the ADV2x2 JPEG 2000 Module on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009520 - Camera Interface - G-Link PCI error	X		X	X	This message appears if there is a G-Link PCI error on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009521 - Camera Interface - FPGA self test failed	X		X	X	This message appears if the FPGA self test failed on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009522 - Camera Interface - SDRAM self test failed	X		X	X	This message appears if the SDRAM self test failed on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009523 - Camera Interface - SRAM self test failed	X		X	X	This message appears if the SRAM self test failed on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

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1009524 - Camera Interface - Image buffer exceeding maximum	X		X	X	This warning message appears when a ballot is scanned and its resulting image data exceeds the maximum limit of the image buffer on the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. Since a "buffer overflow" (see message 1009512) did not occur, the system should allow normal operations to resume. However, if normal operations are not allowed to resume, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009525 - Camera Interface - Document queue corruption detected	X		X	X	This message appears if the BAPis Image Processor Board detects corruption of the Document Queue.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009526 - Camera Interface - Image queue corruption detected	X		X	X	This message appears if the BAPis Image Processor Board detects corruption of the Image Queue.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009527 - Camera Interface - Image format not supported	X		X	X	This message appears if the BAPis Image Processor Board does not support the format of the scanned ballot image.	Write down the error message and notify an appropriate election official. Attempt to rescan the ballot in a different orientation (e.g. back of ballot facing up). If that does not work, set that ballot aside, with an appropriate note attached, for an election official to examine later. Then resume normal operations. If this error repeatedly occurs, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Customer Service Representative will need to be contacted.

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1009528 - Camera Interface - Reset mode not supported	X		X	X	This message appears if the system cannot reset the BAPis Image Processor Board to its initialized state.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009529 - Camera Interface - Missing end of image interrupt	X		X	X	This message appears if a ballot is scanned and the BAPis Image Processor Board cannot detect the interrupt signal that indicates the end of the image has been reached.	Write down the error message and notify an appropriate election official. The system should allow normal operations to resume. If this error repeatedly occurs, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009530 - Camera Interface - Camera does not support TLK RGB pattern	X		X	X	This message appears if a ballot is scanned and one or both of the scan-cameras transmits the ballot image to the BAPis Image Processor Board in the form of a TLK RGB pattern, which the board cannot process.	Write down the error message and notify an appropriate election official. One or both of the scan-cameras will need to be adjusted to transmit in a different image format, so an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to make the adjustment(s).

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009531 - Camera Interface - Cannot communicate with Virtex FPGA	X		X	X	This message appears if the BAPis Image Processor Board failed to communicate with a Virtex FPGA (field-programmable gate array) device.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, the Virtex FPGA may need to be replaced. Contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to fix the problem.
1009532 - Camera Interface - Cannot communicate with Spartan FPGA	X		X	X	This message appears if the BAPis Image Processor Board failed to communicate with a Spartan FPGA (field-programmable gate array) device.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, the Spartan FPGA may need to be replaced. Contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to fix the problem.

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009533 - Camera Interface - UART failed	X		X	X	This message appears if the BAPis Image Processor Board's UART (Universal Asynchronous Receiver/ Transmitter) Module failed to transmit data.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, the UART may need to be replaced. Contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to fix the problem.
1009534 - Camera Interface - USB failed standard command	X		X	X	This message appears if a standard command fails to be transmitted between the BAPis Image Processor Board and the ES&S Motherboard via a USB (Universal Serial Bus) connection.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009535 - Camera Interface - USB failed vendor specific command	X		X	X	This message appears if a "vendor specific" (ES&S) command fails to be transmitted between the BAPis Image Processor Board and the ES&S Motherboard via a USB (Universal Serial Bus) connection.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009536 - Camera Interface - USB function not supported	X		X	X	This message appears if data transmission capability is lost between the BAPis Image Processor Board and the ES&S Motherboard via a USB (Universal Serial Bus) connection.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009537 - Camera Interface - Processing started without image	X		X	X	This message appears if the BAPis Image Processor Board started processing without a scanned image being present.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009538 - Camera Interface - Image lost	X		X	X	This message appears if the BAPis Image Processor Board started processing with a scanned image, but somehow the image was lost before the processing was completed.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009539 - Camera Interface - Virtex FPGA generated empty interrupt	X		X		This message appears if the Virtex FPGA (field-programmable gate array) device's communication with the BAPis Image Processor Board generated an unexpected, empty interrupt.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, the Virtex FPGA may need to be replaced. Contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to fix the problem.
1009540 - Camera Interface - Error in image processor FLASH memory	X		X		This message appears if an error occurs within the FLASH Memory of the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009541 - Camera Interface - Unsupported camera command protocol	X		X		This message appears if the BAPis Image Processor Board receives an unexpected command (out of the established sequence of camera commands) to issue to the camera(s).	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009542 - Camera Interface - Invalid camera UART	X		X		This message appears if the BAPis Image Processor Board receives an invalid transmission from one of the camera UART (Universal Asynchronous Receiver/Transmitter) Modules.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, the UART may need to be replaced. Contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to fix the problem.
1009543 - Camera Interface - Camera did not acknowledge command	X		X		This message appears if the BAPis Image Processor Board issues a camera command, but the camera does not acknowledge receipt of the command.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009544 - Camera Interface - Illegal character from camera	X		X		This message appears if one of the cameras issues an illegal character in its response to a command from the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009545 - Camera Interface - Transport Error	X		X		This message appears if the Datawin Board relays a transport error, which effects the camera interface, to the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since both the BAPis and Datawin Boards are "COTS" (Commercial Off The Shelf) products, the ES&S Technician may have to contact a BAP or Datawin Technician to diagnose the problem.
1009546 - Bad mode	X		X	X	This generic message appears if the BAPis Image Processor Board receives a "bad mode" indication from either the Datawin Board or one of the two cameras.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since both the BAPis and Datawin Boards are "COTS" (Commercial Off The Shelf) products, the ES&S Technician may have to contact a BAP or Datawin Technician to diagnose the problem.

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009547 - Camera not responding to Camera Interface board	X		X	X	This message appears if one of the Camera Interface Boards is receiving commands from the BAPis Image Processor Board, but the corresponding camera itself is not responding to those commands.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since both the Camera Interface and BAPis Boards are "COTS" (Commercial Off The Shelf) products, the ES&S Technician may have to contact a BAP or Datawin Technician to diagnose the problem.
1009548 - No cameras responding to Camera Interface board	X		X	X	This message appears if both Camera Interface Boards are receiving commands from the BAPis Image Processor Board, but the cameras are not responding to those commands.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since both the Camera Interface and BAPis Boards are "COTS" (Commercial Off The Shelf) products, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009549 - Cannot open file to write image from Camera Interface board	X		X	X	This message appears if the image file, provided by the Camera Interface Board, cannot be opened by the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) products, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009552 - Unable to send file to Camera Interface board	X		X	X	This message appears if the BAPis Image Processor Board is unable to send a file to a Camera Interface Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Service Technician. Since both the Camera Interface and BAPis Boards are "COTS" (Commercial Off The Shelf) products, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009553 - Invalid Ballot Key for Camera Interface config INI file	X		X	X	This message appears at start-up when the system attempts to initialize a Camera Interface Board using an invalid ballot key for the Board's config INI file.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the Camera Interface Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009554 - Camera Interface thread not started	X		X	X	This message appears at start-up when the Master Control Program attempts to start a task-execution-thread for the Camera Interface process, but fails.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Customer Service Representative will need to be contacted.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009555 - Error setting ballot size	X		X	X	This message appears when an election is loaded and the BAPis Image Processor Board fails to set the ballot size.	Write down the error message and notify an appropriate election official. Repeat the Clear-Initialize and Load Election steps. If the same error reappears, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Customer Service Representative will need to be contacted.
1009565 - Camera Interface - No space for image	X		X	X	This message appears when a ballot is scanned and there is no room within the buffer of the BAPis Image Processor Board to store the image.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the BAPis Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009566 - Camera Interface - Error sending image	X		X	X	This message appears when a ballot is scanned and the Camera Interface Board fails to send the image to the BAPis Image Processor Board.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since both Camera Interface and the BAPis Boards are "COTS" (Commercial Off The Shelf) products, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009567 - Camera Interface - Camera no response	X		X	X	This message appears when the Scanner attempts to scan a ballot, but the Camera Interface Board(s) senses that there is no response from one or both of the cameras.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the Camera Interface Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009568 - Camera Interface - Transporter no response	X		X	X	This message appears when the Scanner attempts to scan a ballot, but the Camera Interface Board(s) senses that there is no response from the Ballot Transporter.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since the Camera Interface Board is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a BAP Technician to diagnose the problem.
1009700 - Input Tray: Empty	X				This message appears on the initial 'Scan Ballots' screen, just prior to scanning, when the Input Tray has no ballots to scan.	Put a stack of ballots, for the loaded election, into the Input Tray.
1009701 - Input Tray: Pick Error	X		X		During scanning, when the Scanner has trouble picking a ballot from the Input Tray, ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Select either 'Scan More' or 'Done' from the error screen and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path).

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009702 - Input Tray: Double Pick	X				During scanning, when the Scanner picks more than one ballot from the Input Tray, ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Select either 'Scan More' or 'Done' from the error screen and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path).
1009703 - Bottom Bin: Full	X				During scanning, when the Scanner diverts so many ballots to the Bottom Output Bin that they are about to exceed the maximum ballot capacity of the bin, ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Select either 'Scan More' or 'Done' from the error screen and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path).
1009704 - Middle Bin: Full	X				During scanning, when the Scanner diverts so many ballots to the Middle Output Bin that they are about to exceed the maximum ballot capacity of the bin, ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Select either 'Scan More' or 'Done' from the error screen and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path).
1009705 - Top Bin: Full	X				During scanning, when the Scanner diverts so many ballots to the Top Out-stack Bin that they are about to exceed the maximum ballot capacity of the bin, ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Select either 'Scan More' or 'Done' from the error screen and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path).

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009706 - Transport: Ballot Jam	X				During scanning, when a ballot jams within the Transport Path, ballot scanning stops and an 'OK' popup screen appears, identifying the ballots left in the Transport Path. Pressing 'OK' dismisses the popup and this error message appears on a 'Scan Ballots' error screen.	Select either 'Scan More' or 'Done' from the error screen and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path). Selecting 'Scan More' will also provide on-screen steps for rescanning the ballots, which were left in the Transport Path.
1009707 - Transport: Ballot Length	X				During scanning, when the Scanner encounters an unexpected ballot length, ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Select either 'Scan More' or 'Done' from the error screen and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path).
1009708 - Diverter: Decision Late	X		X		During scanning, when the timing of the decision to divert a ballot to a specific output bin is too late to activate the proper diverter(s), ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Carefully read the 'Scan Ballots' error screen. Then select either 'Scan More' or 'Done' and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path). Selecting 'Scan More' will also provide on-screen steps for rescanning the stack of ballots for the Current Batch.
1009709 - Diverter: Wrong Bin	X		X		During scanning, when a ballot is diverted to the wrong output bin, ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Carefully read the 'Scan Ballots' error screen. Then select either 'Scan More' or 'Done' and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path). Selecting 'Scan More' will also provide on-screen steps for rescanning the stack of ballots for the Current Batch.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009710 - Main Motor: Error	X		X		During ballot scanning, when the Main Transport Path Motor encounters an error, ballot scanning stops and this message appears on an error screen.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, an ES&S Service Technician will need to be contacted. Since this motor is a "COTS" (Commercial Off The Shelf) product, the ES&S Technician may have to contact a Datawin Technician to diagnose the problem.
1009711 - Hopper Drive: Error	X		X		During scanning, when the mechanical drive for raising/lowering the ballot stack support plate (for either the Input Tray or the Bottom Output Bin) encounters a problem, ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Select either 'Scan More' or 'Done' from the error screen and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path).
1009712 - PRECINCT LABELS: NOT SELECTED	X				This message appears on the initial 'Scan Ballots' screen, just prior to scanning, when the election Processing Mode is "By Style" and "NONE" appears in the Precinct Label field. **Note:** An actual name (e.g. Precinct, Borough, etc.) will appear in the place of "Precinct label.	Press the screen's 'Precinct Label' button and follow the on-screen instructions to select a precinct.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009713 - Safety: Service Panel Open	X				During scanning, when the large Service Panel is opened on the back of the Scanner, ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Close the Service Panel. Carefully read the 'Scan Ballots' error screen. Then select either 'Scan More' or 'Done' and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path). Selecting 'Scan More' will also provide on-screen steps for rescanning the stack of ballots for the Current Batch.
1009714 - Safety: Camera Open	X				During scanning, when the hinged, upper camera housing is opened, revealing upper the Transport Path, ballot scanning stops and this error appears on a 'Scan Ballots' error screen.	Close the upper camera housing. Carefully read the 'Scan Ballots' error screen. Then select either 'Scan More' or 'Done' and follow the on-screen instructions for clearing the error (which includes clearing the Ballot Transport Path). Selecting 'Scan More' will also provide on-screen steps for rescanning the stack of ballots for the Current Batch.
1009715 - Report Printer: Out Of Paper					Occurs when the Report Printer runs out of paper. The control panel on the Report Printer gives the only indication that the printer is out of paper.	Add paper to the Report Printer's paper tray.
1009716 - Report Printer: Not Detected					Occurs when the Report Printer is either not on or the USB cable connection between the Printer and Scanner is disconnected.	Make sure the Report Printer is turned on. Make sure the Printer's USB cable is securely connected to the Printer and to a USB port on the Scanner.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009717 - Log Printer: Out Of Paper	X	X	X		Occurs when the Scanner attempts to access the Log Printer and the Printer has run out of paper. An 'OK' popup screen indicates that the Printer cannot be accessed or has run out of paper. This temporarily stops scanning, but does not result in a "system halt, which requires the DS850 to be rebooted.	Select 'OK' to dismiss the popup and add paper to the Log Printer's paper tray.
1009718 - Log Printer: Not Detected	X				Occurs when the Scanner attempts to access the Log Printer and the Printer's USB cable has been disconnected from the Scanner. An 'OK' popup screen indicates that the Printer cannot be accessed or has run out of paper. This temporarily stops scanning, but does not result in a "system halt, which requires the DS850 to be rebooted.	Select 'OK' to dismiss the popup and make sure the Printer's USB cable is securely connected to the Printer and to a USB port on the Scanner.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009719 - Power: On Battery	X		X		Occurs AC power from the wall outlet to the UPS (Uninterruptible Power Supply) battery backup system is lost. The system brings the Scanner to a gentle-stop: stops picking ballots, finishes scanning picked ballots, and clears the Transport Path. An 'OK' popup screen indicates that the Scanner is on battery power, additional ballots cannot be scanned, and a forced shutdown will occur if AC power is not restored. An "open power plug" icon on the upper right side of the screen also indicates that AC power has been lost.	Select 'OK' to dismiss the popup. Select 'Done' on the 'Scan Ballots' screen and either save or delete the Current Batch. Check the power cord connecting the UPS system to the wall outlet to make sure all connections are secure and in place. Make sure the wall outlet has power; a fuse may have blown, a breaker tripped, or the outlet itself may be bad. If necessary, switch to a good, powered wall outlet. If AC power cannot be restored, eventually a forced shutdown of the Scanner will occur. If a forced shutdown does occur, notify an appropriate election official.
1009720 - Light Barrier: #02 Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, one or more of these numbered "Light Barrier Blocked" messages will appear along with the "Safety: Camera Open" and/or "Light Barrier: Camera Blocked" messages on the initial 'Scan Ballots' screen. Each numbered light barrier represents a different transmitter-receptor device under the camera housing.	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009721 - Light Barrier: #03 Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, one or more of these numbered "Light Barrier Blocked" messages will appear along with the "Safety: Camera Open" and/or "Light Barrier: Camera Blocked" messages on the initial 'Scan Ballots' screen. Each numbered light barrier represents a different transmitter-receptor device under the camera housing.	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.
1009722 - Light Barrier: #04 Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, one or more of these numbered "Light Barrier Blocked" messages will appear along with the "Safety: Camera Open" and/or "Light Barrier: Camera Blocked" messages on the initial 'Scan Ballots' screen. Each numbered light barrier represents a different transmitter-receptor device under the camera housing.	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009723 - Light Barrier: #05 Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, one or more of these numbered "Light Barrier Blocked" messages will appear along with the "Safety: Camera Open" and/or "Light Barrier: Camera Blocked" messages on the initial 'Scan Ballots' screen. Each numbered light barrier represents a different transmitter-receptor device under the camera housing.	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.
1009724 - Light Barrier: #06 Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, one or more of these numbered "Light Barrier Blocked" messages will appear along with the "Safety: Camera Open" and/or "Light Barrier: Camera Blocked" messages on the initial 'Scan Ballots' screen. Each numbered light barrier represents a different transmitter-receptor device under the camera housing.	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009725 - Light Barrier: #07 Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, one or more of these numbered "Light Barrier Blocked" messages will appear along with the "Safety: Camera Open" and/or "Light Barrier: Camera Blocked" messages on the initial 'Scan Ballots' screen. Each numbered light barrier represents a different transmitter-receptor device under the camera housing	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.
1009726 - Light Barrier: #08 Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, one or more of these numbered "Light Barrier Blocked" messages will appear along with the "Safety: Camera Open" and/or "Light Barrier: Camera Blocked" messages on the initial 'Scan Ballots' screen. Each numbered light barrier represents a different transmitter-receptor device under the camera housing.	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009727 - Light Barrier: #09 Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, one or more of these numbered "Light Barrier Blocked" messages will appear along with the "Safety: Camera Open" and/or "Light Barrier: Camera Blocked" messages on the initial 'Scan Ballots' screen. Each numbered light barrier represents a different transmitter-receptor device under the camera housing.	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.
1009728 - Light Barrier: #10 Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, one or more of these numbered "Light Barrier Blocked" messages will appear along with the "Safety: Camera Open" and/or "Light Barrier: Camera Blocked" messages on the initial 'Scan Ballots' screen. Each numbered light barrier represents a different transmitter-receptor device under the camera housing.	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009729 - Light Barrier: #11 Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, one or more of these numbered "Light Barrier Blocked" messages will appear along with the "Safety: Camera Open" and/or "Light Barrier: Camera Blocked" messages on the initial 'Scan Ballots' screen. Each numbered light barrier represents a different transmitter-receptor device under the camera housing.	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.
1009730 - Light Barrier: Camera Blocked	X				Prior to scanning, if the hinged, upper camera housing is partially or fully opened, this message, one or more numbered "Light Barrier Blocked" messages, and the "Safety: Camera Open" messages may appear on the initial 'Scan Ballots' screen.	Close the upper camera housing. If ballots are in the Input Tray, the "Ready to Scan Ballots" heading should appear on the screen. If you press the 'Start' button, a Clear Transport Path process will automatically occur before ballot scanning starts.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009731 - Storage: Disk Space Low	X		X		When 'Save' is pressed to save the Current Batch, if the available memory space is low for storing data on the Scanner's internal hard drive, this error will occur and a related 'OK' popup screen will appear.	Write down the popup's error message and notify an appropriate election official. Select 'OK' to dismiss the popup. If this is the first time you have seen this popup, the save procedure should continue and be completed successfully. Go to the 'Results' menu screen, select 'Archive Data' and follow the on-screen information to export archive data to a selected Target Media Device. Once you have successfully archived the data, select 'Clear All Results' from the 'Results' menu screen. This should free-up enough memory space to allow the scanning and saving of Current Batches to continue for quite some time.
1009750 - Syslog process terminated	X			X	This message appears if the System's process of logging messages suddenly stops.	Write down the error message and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Customer Service Representative for assistance.
1009751 - Unable to determine filesize for {1}	X		X		This message appears if the System is attempting to use (e.g. allot space for, save, write to, read from, etc.) a file of undetermined size. Note the actual name of the file appears in place of the "{1}".	Write down the error message and notify an appropriate election official. If this error occurred in response to an action taken on one of the DS850 screens (e.g. saving the Current Batch), attempt to repeat the action. If the problem persists, contact an ES&S Customer Service Representative for assistance.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
1009752 - File missing	X		X		This message appears if the System is attempting to access a file that should exist but cannot be found. Note: If it is a UI file that cannot be accessed then no message is logged.	Write down the error message and notify an appropriate election official. If this error occurred in response to an action taken on one of the DS850 screens (e.g. saving the Current Batch), attempt to repeat the action. If the problem persists, contact an ES&S Customer Service Representative for assistance.
1009753 - Camera Calibration failed with error code {1}	X		X	x	This message appears when the process of calibrating the cameras fails. Note the actual calibration error code appears in place of the "{1}".	Write down the error message and notify an appropriate election official. Attempt to redo the Camera Calibration process from the 'Hardware' menu screen. If the problem persists, contact an ES&S Customer Service Representative for assistance.
1018202 - ABNORMAL SHUTDOWN: Possible Interrupted Process	X	X	X		This message appears upon power-on start-up of the DS850 when the System detects that the previous shutdown was not a normal, user-controlled shutdown. Which means, something other than the user pressing the 'Shutdown' button happened when the previous shutdown occured.	Select 'OK' to acknowledge receipt of this message and to dismiss the screen. Then resume normal Scanner operations.
7001001 - Improper input parameter.	X				This is a programming error, which is not intended for the Scanner Operator.	This needs to be resolved by a skilled ES&S Programmer. This error should never occur on a Scanner in the field, at a customer's site. If you suspect that this error has occurred, contact an ES&S Customer Service Representative.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
7001011 - Ballot image allocation failed.	X		X	X	This is error message appears when the System attempts, but fails to allocate (set aside) a portion of memory for processing ballot images. This type of error is more likely to happen upon startup-initialization, but it could happen at anytime. It forces a machine shutdown, which may or may not include a displayed shutdown screen.	If a shutdown screen does appear, write down the displayed error message before pressing the 'Shutdown' button. Notify an appropriate election official. Shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Customer Service Representative for assistance.
7001015 - Memory allocation failed.	X		X		This is a generic error message that appears whenever the System attempts, but fails to allocate (set aside) a portion of memory to perform some operation. This type of error is more likely to happen upon startup-initialization, but it could happen at anytime. It forces a machine shutdown, which may or may not include a displayed shutdown screen.	If a shutdown screen does appear, write down the displayed error message before pressing the 'Shutdown' button. Notify an appropriate election official. Shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Customer Service Representative for assistance.
7001016 - Ballot ID party ID mismatch.			X		When a ballot is scanned, this error is logged if its ID does not match the expected Party ID.	The Scanner should divert such a ballot to the Top Out-stack Bin, identifying it as "unknown".
7001020 - Invalid choice ID.	X		X		When an invalid precinct ID is entered on the 'Select Precinct' screen and 'Search' is pressed, this error occurs. This displays an 'OK' error popup screen.	Select 'OK' to dismiss the popup. Leave the screen's entry field empty and press 'Search'. A multi-page list of all the valid precinct IDs is made accessible, so you can page to and then select the desired precinct from the list.

System Messages

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Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
7001066 - Invalid scanned ballot id.			X		When a ballot is scanned, this error is logged if the ballot has an invalid ballot identification.	The Scanner should divert such a ballot to the Top Out-stack Bin, listing it as "ballot ID invalid".
7001165 - Ballot processing failed.	X		X		During the 'Export For Results' process, to run poll place collection and copy the results to a Target Media Device, if the System could not successfully complete ballot processing, then this message appears on an 'OK' error popup screen.	Select 'OK' to dismiss the popup. Try the same 'Export' process again. If the error recurs, write it down and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Customer Service Representative for assistance.
7003002 - Candidate data missing.			X		When a ballot is scanned, this error is logged if required candidate data is missing from the ballot.	The Scanner should divert such a ballot to the Top Out-stack Bin, identifying it as "unknown".
7003003 - Contest data missing.			X		When a ballot is scanned, this error is logged if required contest data is missing from the ballot.	The Scanner should divert such a ballot to the Top Out-stack Bin, identifying it as "unknown".
7003004 - Election data missing.			X		When a ballot is scanned, this error is logged if required election data is missing from the ballot.	The Scanner should divert such a ballot to the Top Out-stack Bin, identifying it as "unknown".
7003005 - PollPlace data missing.			X		When a ballot is scanned, this error is logged if required poll place data is missing from the ballot.	The Scanner should divert such a ballot to the Top Out-stack Bin, identifying it as "unknown".
7003006 - PRECINCT LABEL data missing.			X		When a ballot is scanned, this error is logged if required precinct label is missing from the ballot. **Note:** An actual name (e.g. Precinct, Borough, etc.) will appear in the place of "Precinct label.	The Scanner should divert such a ballot to the Top Out-stack Bin, identifying it as "unknown".

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
7003007 - Invalid PRECINCT ID.			X		When a ballot is scanned, this error is logged if the ballot has an invalid precinct identification. **Note:** An actual name (e.g. Precinct, Borough, etc.) will appear in the place of "Precinct label.	The Scanner should divert such a ballot to the Top Out-stack Bin, identifying it as "unknown".
7003008 - Ballot data missing.			X		When a ballot is scanned, this error is logged if required ballot data is missing from the ballot.	The Scanner should divert such a ballot to the Top Out-stack Bin, identifying it as "unknown".
7003009 - Invalid ballot ID.			X		When a ballot is scanned, this error is logged if the ballot has an invalid ballot identification.	The Scanner should divert such a ballot to the Top Out-stack Bin, listing it as "ballot ID invalid".
7003010 - Ballot style data missing.			X		When a ballot is scanned, this error is logged if required ballot style data is missing from the ballot.	The Scanner should divert such a ballot to the Top Out-stack Bin, identifying it as an "unknown".
7003012 - Ballot image data missing.	X		X		When the 'Export Files' process cannot locate expected ballot image data on the Scanner, this error occurs.	Select 'Export Files' again. If this error keeps recurring, contact an ES&S Customer Service Representative for assistance.
7003013 - Business data missing.	X		X		When one of the export processes (e.g. 'Export Results'), selected from the 'Results' menu screen, cannot locate the related business data (e.g. eba.hdr file) for export, this error occurs.	Select the same export process again. If this error keeps recurring, contact an ES&S Customer Service Representative for assistance.
7003014 - Ballot data not loaded.	X		X		When loading an election from the 'Setup' screen, this error will occur if the related ballot data was not loaded as part of the Election Definition.	From the 'Setup' screen, clear and initialize the Scanner and then attempt to load the election again. If this error occurs again, a new ES&S Election Definition Media Device may be needed. Contact an ES&S Customer Service Representative for assistance.

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

| Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
7003017 - Could not store ballot.	X		X		When a ballot is scanned, this error occurs if the System could not store the ballot's data in memory. This stops ballot scanning and displays an error screen.	Write down the screen's error message and notify an appropriate election official. Follow the screen directions to clear the error. Go to the 'Results' menu screen, select 'Archive Data' and follow the on-screen information to export archive data to a selected Target Media Device. Once you have successfully archived the data, select 'Clear All Results' from the 'Results' menu screen. This should free-up enough memory space to allow the scanning and storing of ballot data to continue for quite some time.
7003018 - Could not clear votes.	X		X		When either 'Clear All Results' or 'Clear A Precinct' is selected from the 'Results' screen, this error occurs if the system could not clear the vote data. This displays an 'OK' error popup screen.	Write down the popup's error message and notify an appropriate election official. Select 'OK' to dismiss the popup. Try the same 'Clear' operation again. If the error occurs again, contact an ES&S Customer Service Representative for assistance.
7003019 - Could not clear election.	X		X		When 'Clear and Initialize' is selected from the 'Setup' screen, this error occurs if the system could not clear the currently loaded Election Definition from the Scanner. This displays an 'OK' error popup screen.	Write down the popup's error message and notify an appropriate election official. Select 'OK' to dismiss the popup. Try the 'Clear and Initialize' operation again. If the error occurs again, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the error persists when you try 'Clear and Initialize' again, contact an ES&S Customer Service Representative for assistance.

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

| Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
7003025 - Could not open report file.	X		X		When a report is selected for preview or print from the 'Reports' screen, this error will occur if the System could not open the report file. This displays an 'OK' error popup screen.	Select 'OK' to dismiss the popup. Try to preview or print the report again. If the problem reoccurs, try to preview or print a different report. If the problem persists, contact an appropriate election official. You may need to contact an ES&S Customer Service Representative for assistance.
7003039 - There was a problem accessing the ESS Memory Device. If the ESS Memory Device has been removed, please re-insert the ESS Memory Device and try again.	X		X		This error can occur for any function (e.g. 'Export For Results') requiring the insertion of an ES&S Memory Device (flash-drive / stick) into one of the Scanner's USB ports. The inserted device had been detected but it was then either removed or the System is just having trouble reading/writing to it. This displays a 'Cancel' error popup screen, with the same basic text as the error message above.	There are three options: 1). Reinsert the ES&S Memory Device; 2). Insert a different ES&S Memory Device; or 3) Select 'Cancel' to abort the function.
7003067 - Ballot layout data missing.			X		When a ballot is scanned, this error is logged if required ballot layout data is missing from the ballot.	The Scanner should divert such a ballot to the Top Out-stack Bin, identifying it as an "unknown".
7003068 - Could not create batch data.	X		X		When 'Save' is selected from a 'Scan Ballots' screen, to save the Current Batch of scanned ballots, if the System could not create the batch data, then this message appears on an 'OK' error popup screen.	Select 'OK' to dismiss the popup. Select 'Save' again, to save the batch. If the error recurs, write it down and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Customer Service Representative for assistance.

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
7003069 - Could not create resolve manifest data.	X		X		During the 'Export Files' process, to copy the scanned ballot images to a Target Media Device, if the System could not create the manifest data for the ballot images, then this message appears on an 'OK' error popup screen.	Select 'OK' to dismiss the popup. Try the same 'Export' process again. If the error recurs, write it down and notify an appropriate election official. If possible, shutdown and then turn off the Scanner. Wait 30 seconds and then turn the Scanner back on. If the problem persists, contact an ES&S Customer Service Representative for assistance.
7101004 - Clear operation requested using improper ESS Memory Device.	X		X		This error occurs if the Operator attempts to 'Clear and Initialize' the Scanner using an ES&S Media Device other than the required, valid ES&S EQC Media Device.	Replace the inserted ES&S Media Device with a valid ES&S EQC Media Device. Allow the Scanner to detect the inserted replacement device (as indicated by a temporary popup screen), then attempt the 'Clear and Initialize' process again. If you do not have a valid ES&S EQC Media Device, contact an appropriate Election Official. They in turn may need to contact an ES&S Customer Service Representative for assistance.
7101012 - EQC data invalid or missing.	X		X		This error occurs if the Operator attempts to 'Clear and Initialize' the Scanner using an ES&S EQC Media Device, that is either missing data or contains invalid data.	Replace the inserted ES&S EQC Media Device with a valid ES&S EQC Media Device. Allow the Scanner to detect the inserted replacement device (as indicated by a temporary popup screen), then attempt the 'Clear and Initialize' process again. If you do not have a valid ES&S EQC Media Device, contact an appropriate Election Official. They in turn may need to contact an ES&S Customer Service Representative for assistance.

System Messages

NOTE: A System Halt is a condition which <u>requires the DS850 to be shutdown</u>. It is not a condition which prevents the scanning of ballots.

Message Text	Message Displayed	Message Printed	Message Logged	Results in a System Halt	Cause	Resolution
7101013 - Authentication data invalid or missing.	X		X		This error occurs if the Scanner Operator attempts to either 'Clear and Initialize' or 'Load Election' using an ES&S Media Device, that is either missing authentication data or contains invalid authentication data.	Replace the inserted ES&S Media Device with the proper, valid ES&S Media Device. Allow the Scanner to detect the inserted replacement device (as indicated by a temporary popup screen), then attempt the 'Clear and Initialize' or 'Load Election' process again. If you do not have the proper, valid ES&S Media Device for the desired process, contact an appropriate Election Official. They in turn may need to contact an ES&S Customer Service Representative for assistance.

Chapter 11: Menu Structure

This chapter contains illustrations showing the Scanning, Election, Reports, System, and Hardware menus and the screens that can be accessed from each of those menus. The boxes for screens that are not currently available are shaded.

Scanning Menu
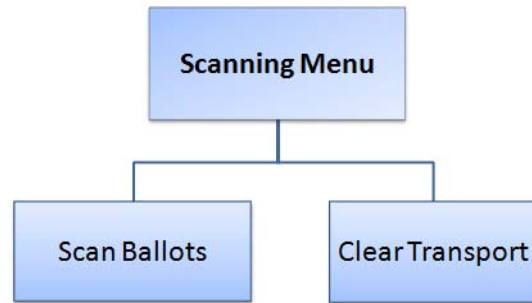
Election menu
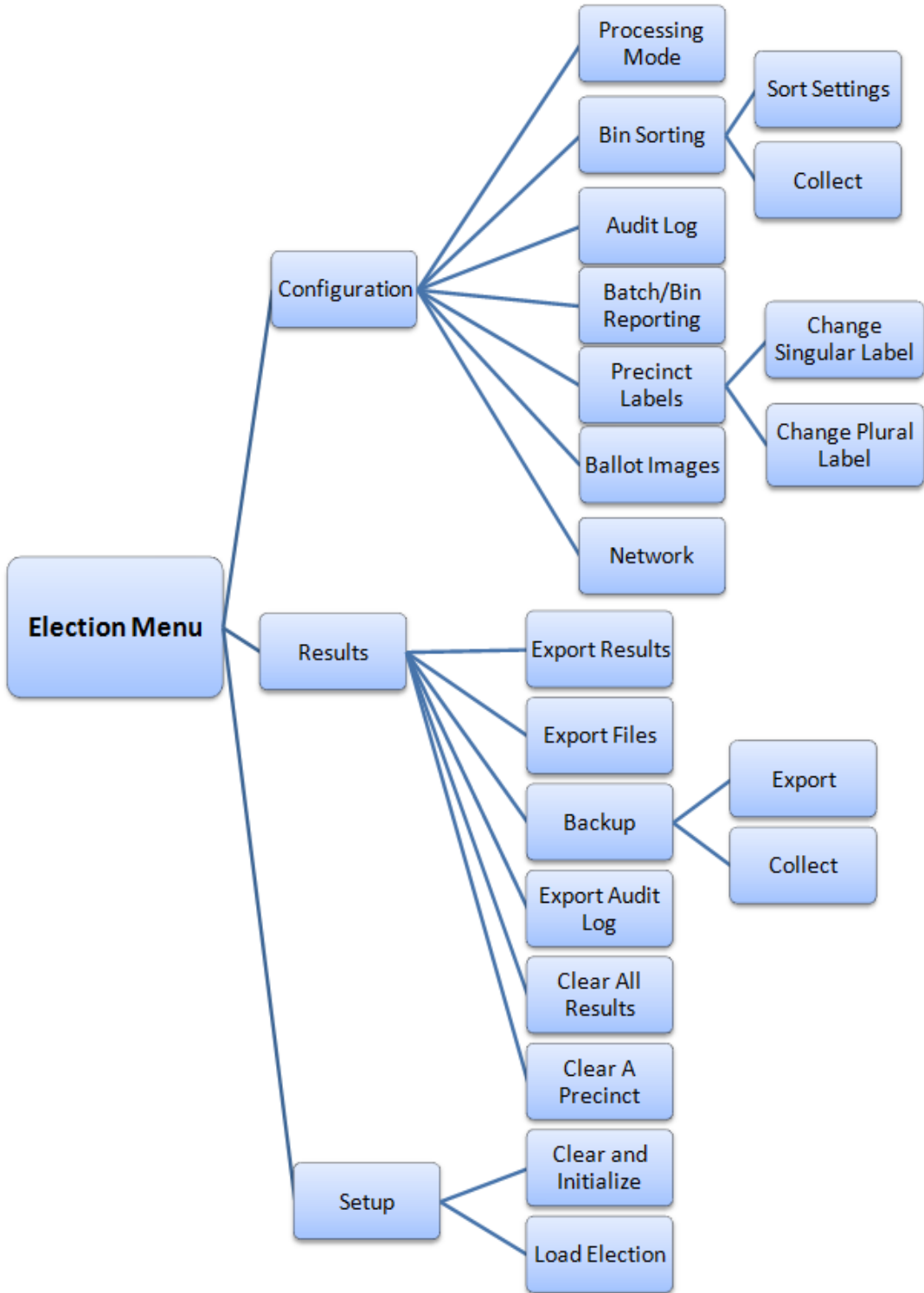
Reports menu
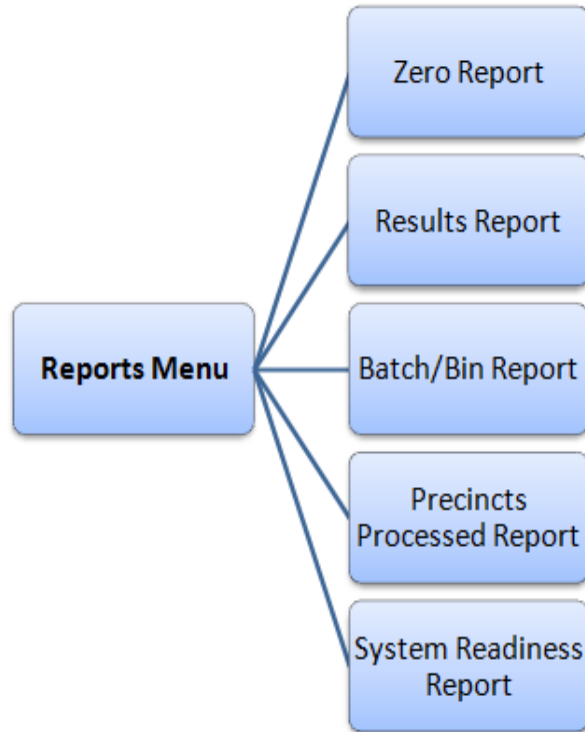
System menu
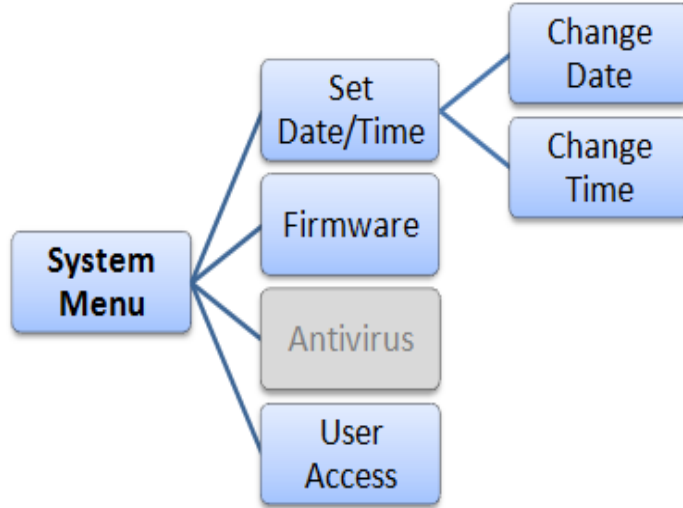
Hardware menu
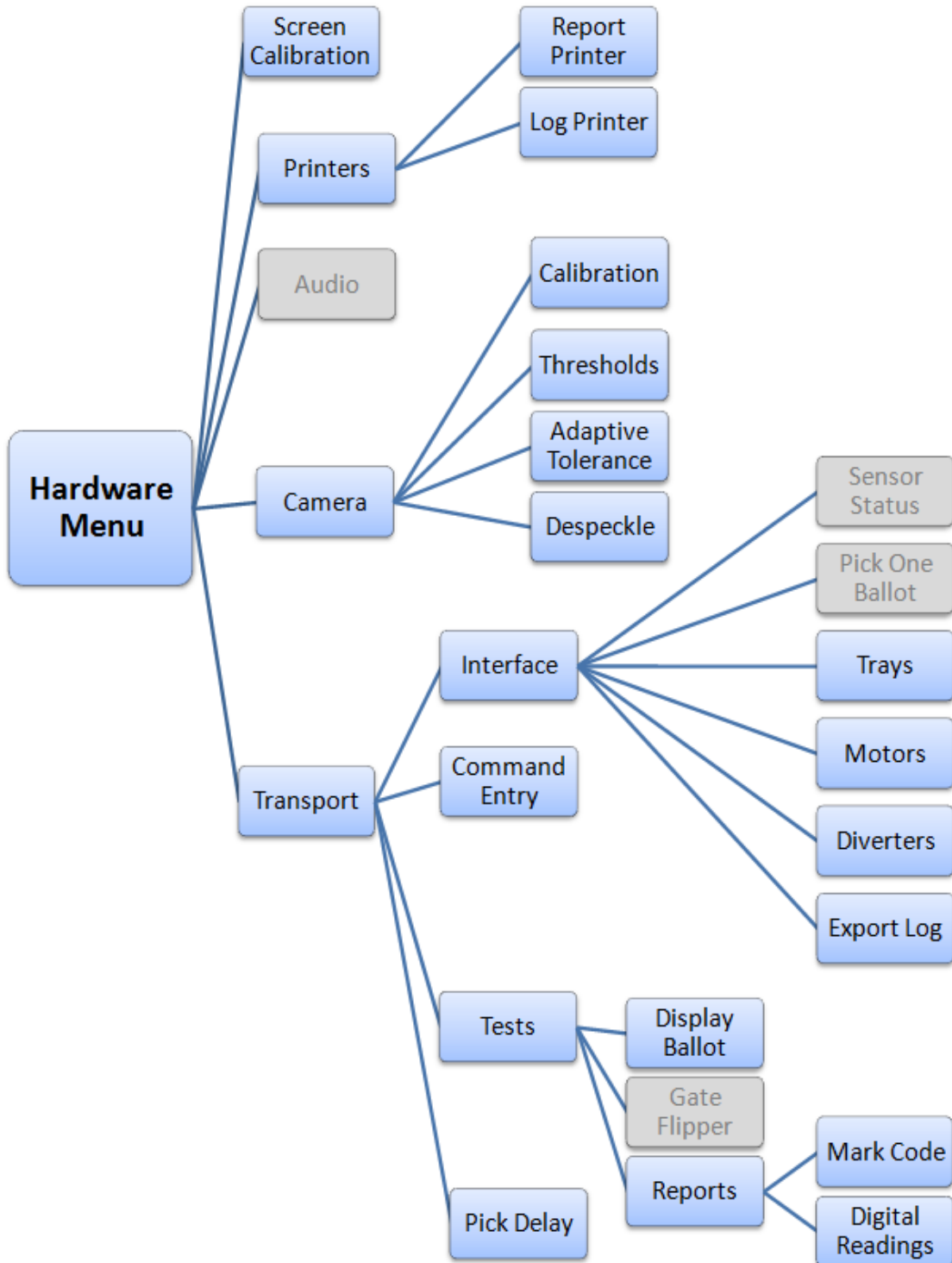
Chapter 12: Troubleshooting

This chapter provides instructions for the steps to take for some common issues that may occur with the DS850. If these issues persist after you have attempted the troubleshooting steps, please contact your ES&S representative.

The following issues are covered in this section:

◆   Abnormal Scan Termination
◆   Loss of Power To the Facility

Abnormal Scan Termination

If an abnormal scan termination occurs, the scanner will use a predefined set of criteria to determine the scan error type. After the scanner determines the scan error type, it will display instructions for correcting the error. Carefully follow the displayed instructions.

Loss of Power To the Facility

In the event that the power to the facility is lost, the UPS will repeat a series of 4 beeps and will provide battery power long enough for you to finish scanning the current batch of ballots, save or delete the batch, and perform a controlled shutdown. If you do not shut down the system, and the UPS reaches a critically low battery level, the DS850 will initiate a controlled shutdown to prevent the system from being corrupted by an uncontrolled shutdown. When this occurs, all unsaved ballot data will be lost, and the ballots will need to be re-scanned. Scanning is not allowed while on battery power, but all other functions are available. When power to the facility is restored, scanning can resume normally.

Chapter 13: Revision History

DS850 v2.10 System Operating Procedures

Document Version 4.0
February 26, 2014

Chapter	Description	Project
All	Updated footer format.	EVS 5.2.0.0

Document Version 3.0
January 10, 2014

Chapter	Description	Project
Chapter 13: Revision History	Updated Project column.	EVS 5.2.0.0
Chapter 3: DS850 User Interface	Updated Export Batch description under Display Ballot. Updated Firmware and Reports screen images. Updated Export Current description.	EVS 5.2.0.0
All	Made all footers consistent.	EVS 5.2.0.0
Chapter 6: Election Day Tasks	Text edit (should to will).	EVS 5.2.0.0
Chapter 5: Pre-Election Day Tasks	Updated all Configuration Menu screen images and updated second Ballot Images screen	EVS 5.2.0.0
Chapter 8: Reports	Added section on Ballet Style Counts Report.	EVS 5.2.0.0

DS850 2.10
Document Version 2.10
December 11, 2013

Chapter	Description	Project
All	Updated look of Guide.	EVS 5.2.0.0
Chapter 5: Pre-Election Day Tasks	Added Results Access section.	EVS 5.2.0.0

DS850 System Operations Procedures v2.10
Document Version 1.0
October 15, 2013

Chapter	Description	Project
All	Initial Document	EVS 5.2.0.0

Index