



# ES&S

## Model 100

# System Operations Procedures

Firmware Version 5.4.4.5

Hardware revision 1.3

December 7, 2010

Election Systems and Software, Inc.  
Corporate Headquarters  
11208 John Galt Blvd.  
Omaha, Nebraska 68137  
United States of America  
Phone: (402) 593-0101  
Toll Free Inside of U.S.: (877) 377-8683  
Fax: (402) 593-8107  
<http://www.essvote.com>  
Copyright 2010 All Rights Reserved

© 2010 by Election Systems & Software, 11208 John Galt Blvd., Omaha, NE 68137-2364.

All rights reserved. Printed in the USA

ES&S Model 100 System Operations Procedures, ES&S, Omaha, NE

This document, as well as the product described in it, is furnished under license and may be used or copied only in accordance with the terms of such license. The content of this document is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Election Systems & Software, Inc. Election Systems & Software, Inc., assumes no responsibility or liability for any errors or inaccuracies that may appear in this document. Except as permitted by such license, no part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of Election Systems & Software, Inc.

### *Disclaimer*

Election Systems & Software does not extend any warranties by this document. All product information and material disclosure contained in this document is furnished subject to the terms and conditions of a purchase or lease agreement. The only warranties made by Election Systems & Software are contained in such agreements. Users should ensure that the use of this equipment complies with all legal or other obligations of their governmental jurisdictions.

All products described in this document are registered trademarks of Election Systems & Software Inc. All other products mentioned are the sole property of their respective manufacturers.

### *Proprietary Information*

ES&S has identified and appropriately marked relevant portions of this document, which it considers confidential and proprietary. We request confidential treatment by the EAC of such information and would expect that such information is exempt from required disclosure. In the event that a third party requests disclosure of information which ES&S considers confidential and proprietary, we would ask that the EAC notify ES&S of such requested disclosure in order to provide us with an opportunity to seek exemption from disclosure.

The document sections referenced below contain Election Systems and Software, Inc. (ES&S) confidential information, which is provided for the sole purpose of permitting the recipient, to evaluate the ES&S Voting System submitted herewith. The following sections are designated as "Proprietary and Confidential" by Election Systems & Software.

Proprietary Document Section	Description
N/A	N/A

## UNCERTIFIED FUNCTIONALITY NOTICE

This document is designated for use with the Unity 3.2.1.0 EAC voting system, which has been tested to the standards of the *2002 Voting Systems Standards (VSS)* to include a limited system configuration and feature set. Please be advised that this system and associated documentation includes functionality and descriptions of functionality that have not been fully tested or certified to the VSS.

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

### UNCERTIFIED PRODUCTS

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

### UNCERTIFIED SYSTEM FEATURES

- ❖ Network Results Transmission
  - Including remote transmission of vote data and local networking of central tabulators. Local networking of Election Management System workstations and reporting workstations is supported.

If your jurisdiction requires Federal Voting System certification at the Federal level or you have questions about your jurisdiction's certification requirements, please refrain from using the products and system features listed above until you have received approval from your State Election Authority. **USE OF ANY UNCERTIFIED SYSTEM FEATURES NOTED ABOVE WILL NEGATE THE UNITY 3.2.1.0 FEDERAL CERTIFICATION.** ES&S shall not be held responsible for any unauthorized use of the foregoing products and system features.

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



# Table of Contents

<b>Chapter 1:Introduction</b> .....	<b>1</b>
Provisional Voting .....	1
Contact ES&S for Technical Support .....	2
Operations Support Frequently Asked Questions .....	2
System Acquisition Procedures.....	4
Facilities, Furnishings and Fixtures Required for Model 100 Operation .....	4
General Timeline for Election Preparation .....	5
<b>Chapter 2:Safety Information</b> .....	<b>6</b>
Important Safety Instructions .....	6
Read the System Operations Procedures .....	6
Power Sources .....	6
Ventilation .....	7
Water and Moisture .....	7
Cleaning .....	7
Heating .....	7
Power Cord Protection .....	7
Service .....	8
Damage Requiring Service .....	8
Battery Information .....	8
Battery Replacement Warning .....	8
Specifications and Cautions .....	9
<b>Chapter 3:Description of the Model 100</b> .....	<b>10</b>
Ballot Box .....	11
PC Card .....	12
Tabulator Controls .....	12
Menu Display .....	13
Operating Modes.....	14
Diagnostic Testing Mode .....	14
Polls Open Mode .....	14
Polls Closed Mode .....	15
Election Definition .....	15
<b>Chapter 4:Install Model 100 Firmware</b> .....	<b>16</b>
<b>Chapter 5:Pre-Election Day Tasks</b> .....	<b>17</b>
Recommended Supplies .....	17
Assemble the Ballot Box .....	18
Assemble the Nested Ballot Box .....	18
Attach the Model 100 to the Ballot Box .....	21
M100 Security Locks and Seals .....	25

Prepare the Tabulator - - - - -	27
Check the Battery Charge - - - - -	27
Load the Election Definition - - - - -	27
Check the Election Definition for Accuracy - - - - -	28
Diagnostic-Test Menu - - - - -	28
Change Date and Time Settings - - - - -	29
Connect an External Printer - - - - -	30
Connect an External Modem - - - - -	31
Connect the Internal Modem - - - - -	31
Test the Election Definition - - - - -	32
Scan a Ballot Test Deck - - - - -	32
Print Ballot Test Reports - - - - -	33
Repeat a Diagnostic Test - - - - -	33
Enable Multiple Precincts for Testing - - - - -	34
Pre-Voting Checklist - - - - -	35
<b>Chapter 6: Election Day Tasks - - - - -</b>	<b>36</b>
Open the Polls - - - - -	36
Scan Ballots - - - - -	38
Close the Polls - - - - -	38
Using the Model 100 During Early Voting - - - - -	40
Reopen the Polls - - - - -	41
Uncounted Ballots - - - - -	41
Print Election Reports - - - - -	42
Transfer Results - - - - -	43
Transfer Results with a Modem - - - - -	43
Transfer Results with the PC Card - - - - -	43
<b>Chapter 7: Disassemble and Pack the Ballot Box - - - - -</b>	<b>45</b>
Remove the Tabulator from the Ballot Box - - - - -	45
Dismantle the Nested Ballot Box - - - - -	46
<b>Chapter 8: Maintain the Tabulator - - - - -</b>	<b>49</b>
Clean the Tabulator - - - - -	49
Clean the Ballot Box - - - - -	50
Internal Printer Maintenance - - - - -	51
Replace the Paper Roll - - - - -	51
Advance the Paper - - - - -	52
Battery Maintenance - - - - -	52
Battery Cautions - - - - -	53
Charge the Battery - - - - -	53
Remove and Replace the Battery - - - - -	53
Replace a Model 100 Fuse - - - - -	54
Test the Multi-Sheet Sensor - - - - -	54
<b>Chapter 9: Reports - - - - -</b>	<b>55</b>

Report Format- - - - -	55
Report Types - - - - -	55
Status Report - - - - -	55
Precinct Report - - - - -	56
System Reports - - - - -	56
Diagnostic Reports - - - - -	56
Configuration Report - - - - -	57
Debug Report - - - - -	57
System Report - - - - -	57
<b>Chapter 10: Understanding System Messages - - - - -</b>	<b>65</b>
System Error Recovery - - - - -	65
Understanding Text Messages - - - - -	65
Verification Messages - - - - -	84
Understanding Numeric Messages - - - - -	85
<b>Chapter 11: Understanding System Menus - - - - -</b>	<b>93</b>
Diagnostic Test Mode - - - - -	93
Accessing the Diagnostic Test Menu (with a PC card Loaded) - - - - -	93
Accessing the Diagnostic Test Menu (without a PC Card) - - - - -	94
The DIAGS Menu - - - - -	94
The Ballot Diagnostics menu - - - - -	95
Sample Scan Report and Description - - - - -	97
Sample Marks Tally Report and Sample Ballot - - - - -	100
Graphics Print Table - - - - -	101
Diagnostic Report Menu - - - - -	101
The System Settings Menu - - - - -	101
Date/Time Menu - - - - -	102
The Election Test Menu - - - - -	102
Election Test Menu - - - - -	103
Election Test Insert Ballot - - - - -	103
Election Reports Menu - - - - -	104
Print Reports Menu - - - - -	104
Using the Ballot Auto-read Option - - - - -	104
Polls Open Mode- - - - -	105
Insert Ballot Screen - - - - -	106
Polls Closed Mode- - - - -	107
Polls Closed Menu - - - - -	107
Model 100 Menu Flow Charts - - - - -	109
Start-up Menu - - - - -	109
Diagnostic Menu - - - - -	110
System Settings - - - - -	111
Calibration Menu - - - - -	112
Election Test Menu - - - - -	113
Opening and Closing Polls Menu - - - - -	114

<b>Chapter 12: Troubleshooting</b> .....	<b>115</b>
Using the Temporary Ballot Storage Bin .....	115
Recovering or Replacing the Tabulator .....	116
<b>Chapter 13: Combining Model 100 and iVotronic Results at the Precinct</b> .....	<b>117</b>
Using the PEB with the Model 100 .....	117
Pre-election day setup .....	118
Enable or disable the PEB reader .....	118
Test the PEB setup .....	118
Election Day Task .....	119
Open polls .....	119
Close polls .....	119
Reports .....	120
<b>Chapter 14: Revision History</b> .....	<b>124</b>

## Chapter 1: Introduction

The Model 100 tabulator reads marks on both one and two-sided ballots. Administrators can request custom ballot acceptance criteria, which ES&S programs onto the tabulator's election definition PC card. For example, if a jurisdiction prohibits counting blank ballots, ES&S election coders can program the Model 100 sort blank ballots out of the general ballot count until jurisdiction officials can review the ballots. With each acceptable ballot counted, the Model 100 increases the running vote totals for each race included on the election definition.

A standard 120-volt AC power cord supplies electricity to the tabulator. If a power outage occurs, the Model 100 contains an internal back-up battery that can run the tabulator for one to three hours, depending on tabulator activity. The tabulator stores accumulated totals to internal tabulator memory (DRAM) and to a removable PC card.

The Model 100 can generate reports and store election results in the following formats:

- ❖ Paper reports produced from the tabulator's internal, thermal printer or by an external printer connected to the tabulator.
- ❖ A removable PC card that you can use to transfer tabulator results to Election Reporting Manager after the polls close.
- ❖ Data transferred by modem directly from the tabulator to a PC running Election Reporting Manager.

## Provisional Voting

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

## Contact ES&S for Technical Support

This manual contains comprehensive instructions for using the tabulator and descriptions of all tabulator functions. If you require additional assistance or encounter a processing problem or system error, contact the ES&S technical support staff for advice or assistance.

Stay close to your tabulator when you contact ES&S for support. Also, be prepared to provide the following information to the ES&S support representative:

1. The model number of your tabulator.
2. The version number of the firmware installed on the tabulator.
3. The exact wording of any messages displayed by the tabulator.
4. A description of what happened to cause the problem.

Support representatives normally answer calls Monday through Friday between 8:00 A.M. and 5:00 P.M. central time.

### Contact an ES&S Support Representative

---

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

---

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

## Operations Support Frequently Asked Questions

- ❖ How is the system purchased?  
Purchase a Model 100 scanner by contacting your ES&S representative.



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

❖ How is the system installed?

Install new firmware to the M100 by following the steps in the ES&S implementation plan. Installation instructions are also included in the System Operations Procedures manuals.



Refer to [Chapter 4: Install Model 100 Firmware](#) in this manual for instructions for installing Firmware on the M100.

❖ How is the system set up?

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

❖ How do you verify the system?

You may verify the system in a variety of ways.

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



Refer to the [System Acquisition Procedures](#) heading in this chapter for instructions about accessing the firmware version.

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

❖ What training is required?

Training is determined at the time the system was purchased.

❖ What checklist should be followed?

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

## System Acquisition Procedures

Once you have received your M100, make sure the firmware on the M100 matches the firmware listed on the purchase order. You can do this by turning on the M100 and viewing the firmware version that appears on initial state report that generates when the M100 is turned on. If an election is installed on the M100, the election name will also appear on this report.



Refer to the [Initial State Report](#) heading in [Chapter 9: Reports](#) for more information about the initial state report.

## Facilities, Furnishings and Fixtures Required for Model 100 Operation

The Model 100 is a precinct count tabulator. Small jurisdictions can use the Model 100 as a central count system. The weight of the Model 100 is about 25 pounds. The weight of its carrying case is about 10 pounds. The following facilities, furnishings, and fixtures are required to operate the Model 100:

- ❖ The Model 100 is intended for indoor use only.
- ❖ The Model 100 can be operated in any temperature controlled facility, with temperatures between 60 degrees Fahrenheit and 100 degrees Fahrenheit (between 15 degrees Celsius and 37 degrees Celsius).
- ❖ At the polling place, place the Model 100 on top of its ballot box. Leave a minimum of 36 inches to each side of the Model 100 for wheelchair accessibility.
- ❖ A standard 110V outlet must exist in the facility for power cord plug in. The Model 100's input rating is 120V~50/60Hz 2A. The main supply voltage fluctuations are not to exceed plus or minus 10 percent of the rated supply voltage area. It is recommended that the unit is plugged directly into a power supply without the use of an extension cord.
- ❖ The Model 100 needs to be stored and operated in a Pollution Degree 2 environment.



**Storage Conditions:** The storage temperature should be between 32 degrees Fahrenheit and 104 degrees Fahrenheit (between 0 degrees Celsius and 40 degrees Celsius).

## General Timeline for Election Preparation

---

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

---



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

## Chapter 2: Safety Information

The following symbols appear in the *Model 100 System Operations Procedures* next to the descriptions for any procedure that, if improperly executed, could cause harm to the operator or damage to the tabulator. Read all of the warnings in this manual and use extra caution when you carry out any task that may pose a physical danger to yourself or the Model 100 tabulator.



**Electrical Shock Danger:** This symbol appears next to procedures that could expose the operator to a risk of electric shock. Any operation that requires opening the Model 100 enclosure exposes users to dangerously high voltages. To reduce the risk of fire or shock, do not attempt to open the Model 100 enclosure unless you receive proper training from an ES&S technician.



**User Caution:** The user caution symbol appears next to procedures that could cause damage to the tabulator or injury to the operator if improperly executed. Carefully read all warnings and proceed with caution if you choose to carry out these tasks.

### Important Safety Instructions

**Important:** Read and follow the safety recommendations in this section of the *Model 100 System Operations Procedures* manual to maintain proper safety measures when operating the tabulator.

### Read the System Operations Procedures

Carefully read this manual before you attempt to operate the tabulator. Carefully follow all instructions and read all warnings contained in the *Model 100 System Operations Procedures* manual.

### Power Sources

- ❖ Only use the type of power source indicated on the ID label of your Model 100 to power the tabulator.
- ❖ Make sure that you install the tabulator in compliance with all applicable sections of the National Electric Code.
- ❖ Consult your local building code before you install any ballot-scanning equipment.

## Ventilation

The case of the Model 100 tabulator contains slots and openings that provide the ventilation for the unit.

- ❖ To prevent the Model 100 from overheating, do not block or cover any of the tabulator's openings during operation.
- ❖ Do not operate the Model 100 in an enclosed housing unless ES&S approves the container.
- ❖ Use only the integrated ballot box supplied by ES&S as a ballot container for the Model 100.

## Water and Moisture

Operational humidity during operations should be between 10 - 88 percent RH.



**Caution:** Do not place containers with liquids such as coffee, water or soda on or near a Model 100 terminal. Do not operate the tabulator in an excessively wet environment. Store the Model 100 in a cool dry place. The Model 100 is not protected against harmful ingress of moisture.

## Cleaning

Follow instructions under the [Clean the Tabulator](#) heading in [Chapter 8: Maintain the Tabulator](#) to properly maintain the Model 100. Use only the cleaning solutions approved and specified by ES&S to clean the tabulator.

## Heating



**Caution:** Do not install the Model 100 near heat sources such as radiators, air ducts, areas subject to direct sunlight or other products that produce excessive heat.

## Power Cord Protection

After you plug the tabulator into an approved outlet, route or install the power cord for the Model 100 in such a manner to protect it from being walked over or pinched. Turn the tabulator key to the off position before connecting or disconnecting the power cord. Remove the power cord before you move the unit. Only plug the power cord in to an easily accessible unobstructed wall socket.

## Service

Do not attempt to service the tabulator unless specifically instructed to do so by ES&S. Do not attempt to open the tabulator case or perform internal maintenance unless you receive proper training from ES&S.

## Damage Requiring Service

Some situations require an ES&S technician to resolve. Unplug the Model 100 and call ES&S to schedule service with a technician for the following conditions. Do not attempt to repair the tabulator without first contacting ES&S.

- ❖ When the power cord is damaged
- ❖ If liquid is spilled into the tabulator casing
- ❖ If the product is physically damaged in any way
- ❖ When the tabulator displays a negative change in performance

Additionally, seek assistance from ES&S if the tabulator does not function according to the descriptions in this manual. Unless you receive specialized training from ES&S, do not attempt to adjust advanced settings that are not described in the *Model 100 System Operations Procedures*. Improper adjustment of advanced controls may result in damage to the tabulator and often require service by an ES&S technician to restore the tabulator.

## Battery Information

The Model 100 contains a lithium battery on the motherboard and uses a 12V lead-acid battery. Dispose of used batteries according to local regulations and conventions.

## Battery Replacement Warning



**Electrical Shock Danger.** Improperly replacing the terminal battery exposes the operator to a risk of explosion. Only qualified ES&S technicians should replace Model 100 tabulator batteries.

## Specifications and Cautions

Indoor Use Only

Ordinary Protection (Not Protected Against Harmful Ingress of Moisture)

**Weight:** Model 100 tabulator: 25 lbs

Metal ballot box: 103 lbs without a diverter, 107 lbs with a diverter

**M100 electrical input rating:** 120V ~ 50/60Hz 2A



Mains supply voltage fluctuations are not to exceed  $\pm 10\%$  of the rated supply voltage range.

**Pollution Degree 2** for the ambient environment



**Operating relative humidity:** 5%-95% RH, non-condensing



**Operating temperature:** 40 F to 100 F (4 C - 38 C)



**Transport and storage conditions:** 32 F - 104 F (0 C - 40 C)



**Maintenance:** For applicable maintenance items, refer to the *Model 100 System Maintenance* manual.



**Caution:** The interior of the M100 is not accessible to the user. Service operations inside the electrical enclosure must be done by trained and authorized personnel.



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



## Chapter 3: Description of the Model 100

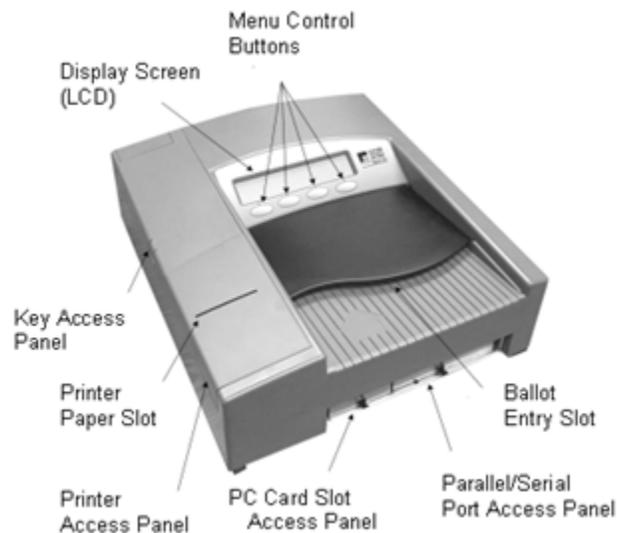
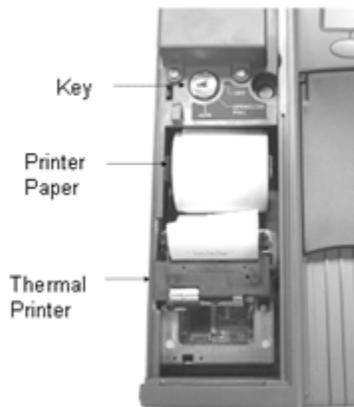
Use the diagrams and descriptions in this chapter to become familiar with Model 100 tabulator components and functions. Always scan a ballot test deck before your election to test the tabulator for accuracy and to correct any functional errors before you count official ballots.

The Model 100 tabulator reads marks on both one and two-sided ballots. Administrators can request custom ballot acceptance criteria, which ES&S programs onto the tabulator's election definition PC card. For example, if a jurisdiction prohibits counting blank ballots, ES&S election coders can program the Model 100 sort blank ballots out of the general ballot count until jurisdiction officials can review the ballots. With each acceptable ballot counted, the Model 100 increases the running vote totals for each race included on the election definition.



Refer to the [Recommended Supplies](#) heading in [Chapter 5: Pre-Election Day Tasks](#) for a list of recommended polling place supplies and instructions for assembling and testing the Model 100.

### The Scanner



A standard 120-volt AC power cord supplies electricity to the tabulator. If a power outage occurs, the Model 100 contains an internal back-up battery that can run the tabulator for one to three hours, depending on tabulator activity. The tabulator stores accumulated totals to internal tabulator memory (DRAM) and to a removable PC card.

The Model 100 can generate reports and store election results in the following formats:

- Paper reports produced from the tabulator's internal, thermal printer or by an external printer connected to the tabulator.
- A removable PC card that you can use to transfer tabulator results to Election Reporting Manager after the polls close.
- Data transferred by modem directly from the tabulator to a PC running Election Reporting Manager.



See [Chapter 8: Maintain the Tabulator](#), for instructions on performing routine maintenance on the tabulator.

## Ballot Box

Model 100 ballot boxes store ballots and house the tabulator at the polling place. ES&S supplies one of two styles of ballot box (metal or nested) with each Model 100 tabulator. The Model 100 feeds scanned ballots directly into the ballot box, which sorts the ballots according to criteria programmed in the election definition with an internal diverter. The ballot box also has a compartment that poll workers can use to temporarily store uncounted or contested ballots in the event of a power failure or tabulator error.

**Metal Ballot Box**



**Nested Ballot Box**



## PC Card

The Model 100 uses PC cards to store the tabulator's election definition, audit log and other election-specific information. Data on the PC card exists in one sequential block, which is updated each time the Model 100 scans a ballot. Use PC cards with a memory capacity of 512KB (kilobytes).

**NOTE:** The PCMCIA card does not require it to be formatted. The card uses a block memory device and does not have to be formatted or erased as it is overlaid with a block of data with a defined length. You will need ES&S proprietary software and hardware to write, modify and read the PCMCIA card.



- ❖ HPM is used to write the election definition onto the PCMCIA card.
- ❖ The M100 reads the election definition from the PCMCIA card, modifies the results and status area as ballots are tabulated and writes log entries as appropriate.
- ❖ ERM is used to read the results from the PCMCIA card



**NOTE:** Use PC cards with a memory capacity of 4MB or 6MB for early voting.



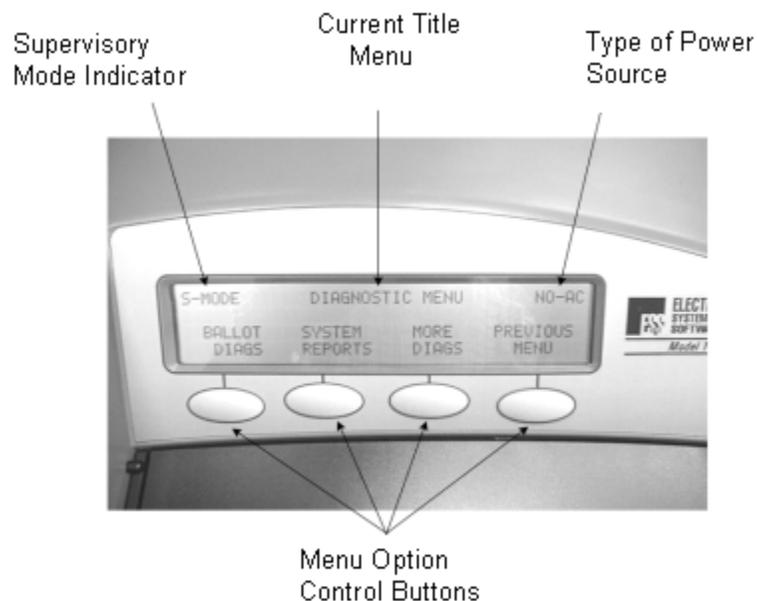
## Tabulator Controls

The four external buttons below the Model 100 LCD message screen control all tabulator functions. Push the button below a menu option on the display screen to navigate Model 100 system menus.

## Menu Display

The Model 100 display screen contains four message areas.

- ❖ The top-center line of text on the screen identifies the current menu.
- ❖ The message in the top left corner identifies the status of the tabulator. For example, “S-MODE” indicates that the operator has turned the tabulator control key to the OPEN/CLOSE POLL position and the Model 100 is in supervisor mode.
- ❖ The message on the top right of the screen displays the tabulator’s battery status. The message “NO-AC” indicates that the tabulator is using battery power.
- ❖ The lower line of text identifies available menu options. Press the button below a command to select a menu option.



Operators access most menu options through a series of sequential steps, while other options are only available while the tabulator key is in the OPEN/CLOSE POLL position. The far right control button usually functions as a “Previous Menu” key that navigates backwards through Model 100 menus.



Refer to [Chapter 11: Understanding System Menus](#) for a list of menu commands and functions.

## Operating Modes

The Model 100 operates in three separate modes. Operators open the tabulator in diagnostic mode to calibrate and test the tabulator. In polls open mode, the Model 100 actively scans ballots and tabulates results, and, in polls closed mode, the tabulator prints poll reports and transfers election results.

### Diagnostic Testing Mode

Open the tabulator in diagnostic testing mode to load system firmware, calibrate the tabulator and test your election definition.

Election officials should load system programs and test Model 100 election definitions before delivering tabulators to polling places. Complete the following tasks to prepare a tabulator for an election:

1. Load the election definition into the tabulator.



Refer to the [Load the Election Definition](#) heading in [Chapter 5: Pre-Election Day Tasks](#).

2. Test the election definition and the tabulator to ensure accuracy.



Refer to the [Prepare the Tabulator](#) heading in [Chapter 5: Pre-Election Day Tasks](#) for more information on testing the tabulator.

3. If necessary, lock out system functions after testing the tabulator.



Refer to the [Prepare the Tabulator](#) heading in [Chapter 5: Pre-Election Day Tasks](#) for more information about locking down the system.



**NOTE:** Locking out system functions keeps protects the Model 100 from tampering but still allows access to election testing functions.

### Polls Open Mode

Open the polls to begin regular Election Day functions such as scanning ballots and tabulating vote totals.

Poll workers should monitor the tabulator during an election, but the Model 100 requires minimal operator involvement during voting. The operator's main responsibility during voting is responding to system messages.

## Polls Closed Mode

Close the polls at the assigned time to print reports or transfer tabulator totals to election headquarters. Available Model 100 reports include Status Reports, Poll Reports, Precinct Reports, Certification Reports and the Audit Log report. After the polls close, operators can also transfer results to a central site using the tabulator's modem.

## Election Definition

Election coders program a custom election definition onto a PC card for each Model 100 used in your jurisdiction. An election definition contains all of the candidates, contests and ballot variations that the tabulator will process at the polling place. The election definition also contains customizable program options that control how the tabulator operates and reports results. Customizable options include (but are not limited to):

- ❖ Automatic Election Day results transferred by modem. Early voting results cannot be transferred by modem.
- ❖ Ability to re-open the polls
- ❖ Grouping of undervotes and overvotes on reports
- ❖ Automatic certification report printing when polls are closed
- ❖ Automatic results report printing when polls are closed
- ❖ Rejection, acceptance or query the voter when a tabulator detects an overvoted, cross-voted or blank ballot

## Chapter 4: Install Model 100 Firmware

Use a PCMCIA firmware update card to install new firmware on the Model 100.



**NOTE:** Before attempting to insert the M100 firmware card into the M100, remove any cards currently in the tabulator.

1. With the tabulator off, insert the PCMCIA card containing the new Model 100 firmware into the tabulator.
2. Turn the tabulator on with the PCMCIA card inserted. During the start process, several drivers are loaded and displayed on the screen. After several seconds the tabulator's current firmware version appears briefly on the screen.
3. When the start process finishes, the message displays: "Reprogram flash memory, the firmware version loaded on the inserted PCMCIA card, and 'Load flash?'"
4. Press **Yes** to load the flash memory, with the firmware version displayed. Press **No** if you do not wish to load the displayed firmware version.



**NOTE:** Do not remove the PCMCIA card during this process.

5. After you have successfully loaded the firmware, a confirmation message will appear on the display screen.
6. Turn off the M100.
7. Remove the PCMCIA card.



If you encounter problems while installing firmware on the M100 or have questions, call 1-877-377-8683.

## Chapter 5: Pre-Election Day Tasks

Use the equipment list and the procedures included in this chapter to prepare your Model 100 tabulator for a live election. Always perform routine maintenance on your voting equipment and test your ballot tabulators before you open the polls on Election Day.



Refer to [Chapter 6: Election Day Tasks](#) for instructions for opening and closing the polls, operating the tabulator during an election and printing or transferring results.

### Recommended Supplies

ES&S recommends maintaining a supply of the following items for each Model 100 used in your jurisdiction. All of the listed items are available for order from ES&S. Contact ES&S customer service at (877) 377-8683 with any questions or orders. Allow four weeks for delivery.

#### Paper Spools

The printer uses NRC 2.25" by 165' thermal paper rolls. The NCR part number is 856704.

Recommended Quantity: 1 full roll per tabulator

#### PC Cards

Battery backed PC cards that store the tabulator's election definition and ballot count. The standard memory capacity for Model 100 PC cards for Election Day is 512k. The standard memory capacity for Model 100 PC cards for early voting is 4MB.

Recommended Quantity: 1 per tabulator

#### Marking Devices

ES&S recommends and supplies the Bic Round Stic (Black) medium point pen for voters to mark ballots. The Bic pen is the only marking device approved by ES&S for the use with the Model 100.

## Pressurized Air Cans

Use pressurized air to clean the tabulator.

Recommended Quantity: 2 cans per tabulator

## Assemble the Ballot Box

ES&S delivers each Model 100 tabulator with either a nested ballot box (made of hard plastic) or a metal box. The metal ballot box does not require assembly. If your jurisdiction uses metal boxes, skip to the [Attach the Model 100 to the Ballot Box](#) heading of this chapter.

Use the instructions in the following paragraphs to prepare ballot boxes at your polling places if your jurisdiction uses nested ballot boxes.

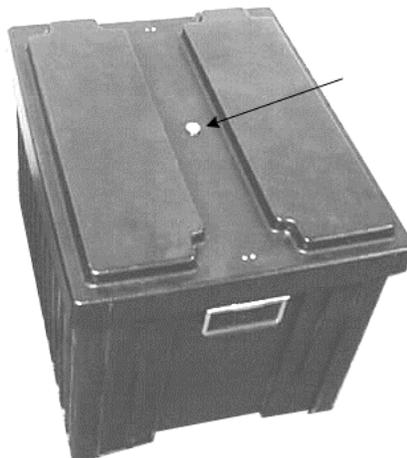
### Assemble the Nested Ballot Box

ES&S delivers the nested ballot box and tabulator in two containers. A carrying case that holds the tabulator and power cord and a cube that assembles into the ballot box. Keys for the tabulator and ballot box accompany the equipment. Completely assemble the ballot box before you mount the tabulator.

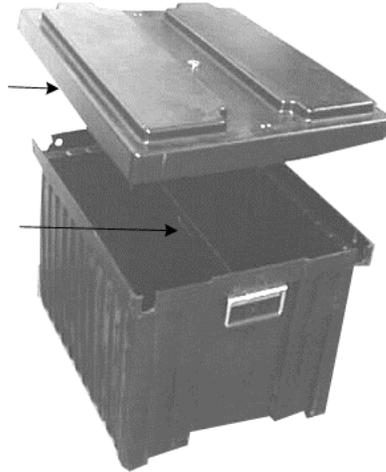


**NOTE:** Although the ballot box can be assembled by only one person, ES&S recommends a second poll worker assist with separating the top half of the box from the bottom half and with attaching the two halves during assembly.

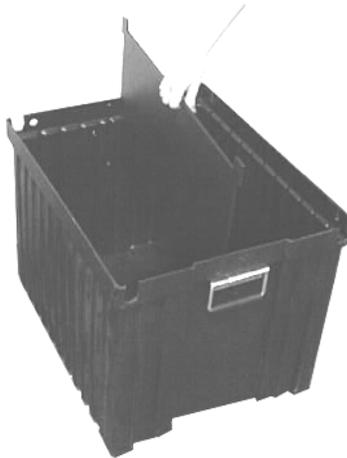
1. Unlock the cover of the ballot box with the key provided (one key fits the lock for all nested boxes).



2. Lift the box cover straight up and off the box and then set the cover aside.



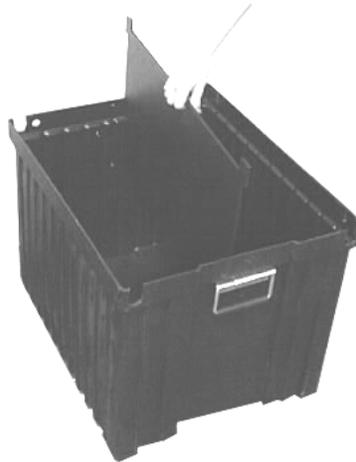
3. Remove the divider, which looks like a flat piece of plastic with a cutout handle, from inside the box and set the divider aside.



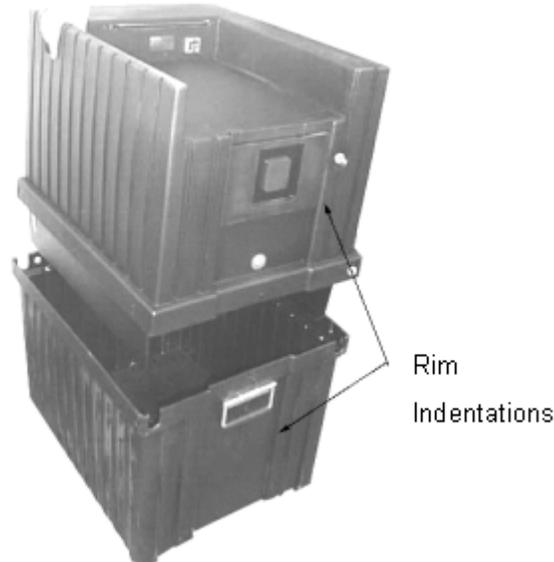
4. Swing the two handles up from inside the ballot box. Pull up on the handles until the top section of the box separates from the bottom section and then set the top section to the side.



5. Align the edges of the divider with the vertical grooves inside the bottom section of the box. Insert the divider until it locks into the tab at the bottom of the box.



6. Flip the top section of the box upside down so that the swinging handles hang down. Position the top section of the box over the bottom section. Make sure that the indentations on the front of both boxes face the same direction.



7. Lower the top section of the box until it fits inside the bottom. The handles on the top section should fit snugly inside of the bottom section. Use your ballot box key to lock the two locks on the front and the back of the box.
8. Slide the latch on the top section of the ballot box through the hole in the side of the bottom section.

## Attach the Model 100 to the Ballot Box

The metal box and nested box are equipped with different types of tabulator access doors. Other than the access door, the process for mounting the tabulator to either ballot box is the same.

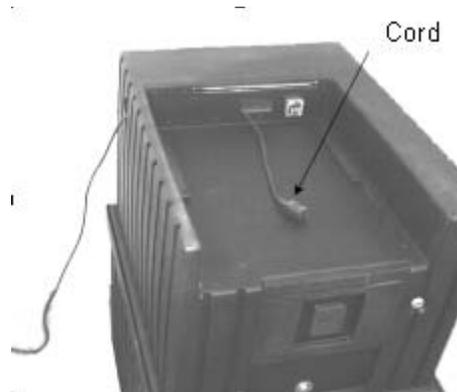
### Set Up the Power Cord

1. Before you mount your tabulator to the top of a ballot box, inspect the power cord for damage.



**Warning:** If the cord appears damaged, discard it and contact ES&S for a new cord.

2. Insert the female end of the cord through the opening on the outer left side of the ballot box.
3. Thread the cord through the outside opening on the back of the box until the cord appears on the inside of the opening at the top recessed area.



4. Pull the cord through the opening until it extends a few inches into the recessed area of the ballot box. Then, remove the tabulator from the carrying case.
5. Place the tabulator about one-third of the way into the recessed area and slide it onto the mounting rails until it sits about four or five inches from the back of the recessed area.

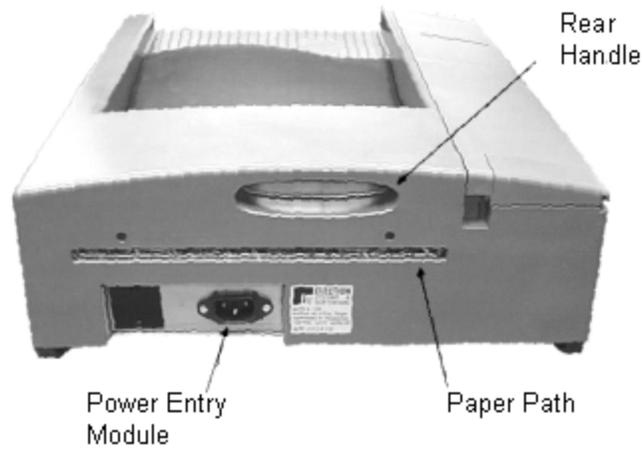


**Warning:** Only plug the Model 100 tabulator into a grounded, three-pronged electrical outlet. Plug only one tabulator into each available outlet. ES&S does not recommend using an extension cord.

6. Plug the female end of the power cord into the Power Entry Module on the back of the tabulator and then plug the male end of the cord into a wall outlet. Arrange your voting equipment to make sure that no one trips on the cord or accidentally unplugs the tabulator on Election Day.



**NOTE:** The message, “NO-AC,” appears on the tabulator’s display screen if the tabulator is not receiving power through the power cord. Check your connections and the wall outlet if this message appears on your tabulator’s display screen.

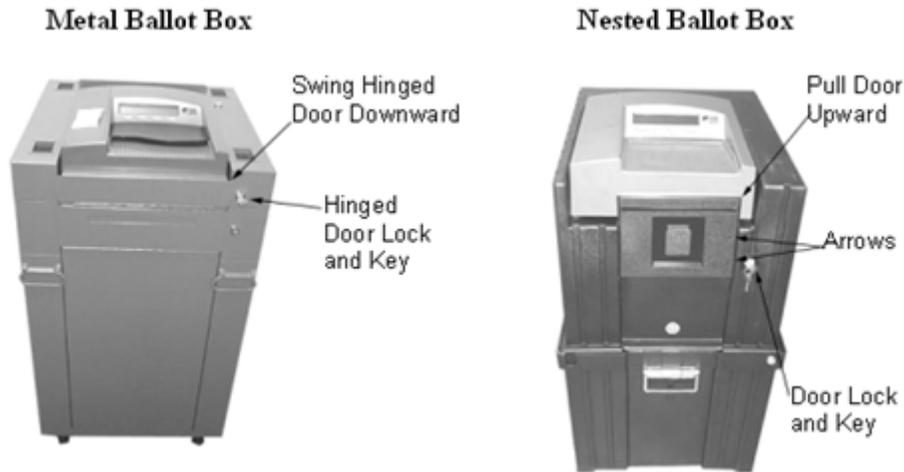


### Attach the Tabulator to the Ballot Box



**NOTE:** The front access door on the nested ballot box slides up and down, while the door on the metal box is a hinged panel. Both doors lock to limit access to the tabulator’s PC card. See [M100 Security Locks and Seals](#) for more information on locks and seals.

1. Swing the Front Hinged Door downward. Ensure that the Ballot Exit Flap is unlocked and up to prevent ballot jams.
2. Slide the tabulator against the back of the ballot box. Make sure the diverter connector at the back of the tabulator locks into the slot on the ballot box.
3. Lock the M100 into place then lift the Front Hinged Door



4. If you use a nested ballot box, align the bottom arrow on the door with the center of the lock and lock the door into place.

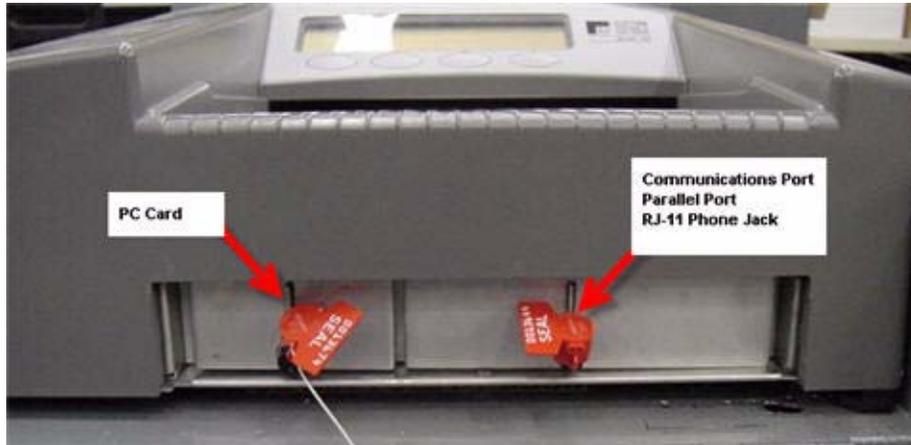
OR

If you use a metal ballot box, align the hole in the access door with the bracket on the box and lock the hinged panel into place. Test the door to make sure the lock properly engages.

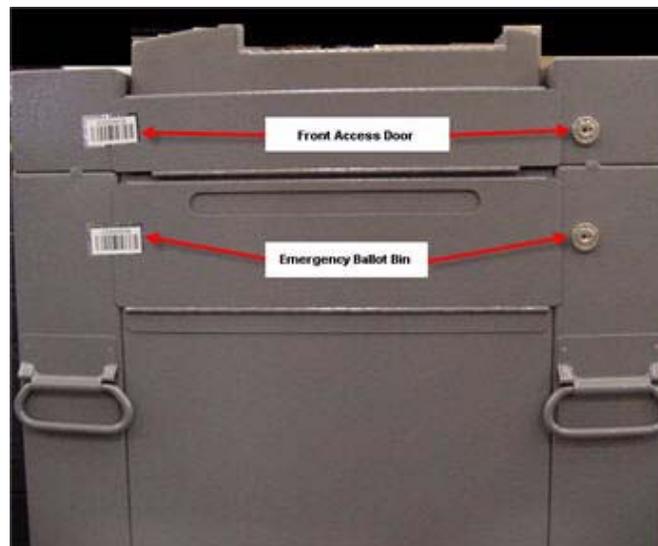
5. Insert the tabulator key into the control panel turn it to OPEN/CLOSE POLL position to start the Model 100 and generate an Initial State Report.

## M100 Security Locks and Seals

There are a variety of security methods than can be used for the M100.



After you have inserted the PC Card the front of the M100 must be secured to prevent access to the PC Card slot. Place a seal as shown through the latch and secure tightly. A lock or seal must be placed to prevent access to the additional external ports.



Close and lock the access door. Then place a tamper evident seal on the front access door. The emergency ballot bin must also be locked and sealed until it is needed. Please see the [Uncounted Ballots](#) section for further information.



A tamper evident seal must be placed on the Key Access Panel after the M100 has been opened for voting and the key removed.



The side doors of the ballot box must be locked and a tamper evident seal place on it.

## Prepare the Tabulator

After you mount the tabulator to the ballot box, there are a number of tasks that you must complete before you open the polls. Because the proper operation of the counter depends on performing the following tasks, it is important to carefully review this section before every election.

### Check the Battery Charge

The Model 100 uses a backup battery to ensure that tabulator operations continue without interruption during a power failure. Plug the tabulator in and turn the power on for twelve hours to fully charge the battery. If you charge multiple Model 100 precinct counters, do not connect more than 40 tabulators per 15-amp circuit.

1. Turn the tabulator key to the OPEN/CLOSE POLL position to power up the tabulator and open the **DIAGNOSTIC-TEST** menu. Select **DIAGS** to open the DIAGS menu and select **MORE DIAGS**.
2. From the **MORE DIAGS** menu, select **BATTERY STATUS** to check your tabulator's battery charge.



Refer to the [Battery Maintenance](#) heading in [Chapter 8: Maintain the Tabulator](#) for more information about the battery.

### Load the Election Definition

Model 100 precinct tabulators use election definitions programmed on PC cards to recognize ballot marks and tabulate results. Make sure the tabulator key is in the OFF position when you load an Election Definition.

1. Lift the access door on the front left of the tabulator to access the Model 100 PC card slots. Insert the card programmed with your election definition into either card slot.
2. Turn the key to the OPEN/CLOSE POLL position to start the tabulator. The Model 100 automatically loads the election definition and prints an initial state report. The **S-MODE** prompt should appear in the upper left corner of the Model 100 display screen.



**NOTE:** An arrow on the PC card label shows which end of the card you should insert into the tabulator. After the card is inserted, the eject button to the right of the card slot sticks out. Install the card in either the top or the bottom slot. If one slot does not accept the card, try the other. Do not force the card into a slot.

## Check the Election Definition for Accuracy

The Model 100 automatically generates an Initial State report when you start the tabulator. Check the report for the following information:

- ❖ **System Values:** Make sure the date and the time appear correctly on the report. If the information is not correct, change date and time from the **DIAGNOSTIC-TEST** menu.



Refer to the [Change Date and Time Settings](#) heading in this chapter for more information about changing the date and time settings for the tabulator.

- ❖ **Election Information:** Make sure that the jurisdiction name, polling place, and the number of precincts listed on the report are correct.

## Diagnostic-Test Menu

After you insert an election definition and start the tabulator, the message, “ELECTION CARD INSERTED, OPEN POLLS NOW?” appears on the display screen. Press the first and third buttons on the control panel to access the tabulator’s diagnostic test options.



Press both buttons at once to select the Diagnostic -Test menu

Access the following menus from the **DIAGNOSTIC-TEST** menu:

- ❖ **DIAGS:** Select **DIAGS** to open the **DIAGNOSTIC** menu. Select **MORE DIAGS** to access the **BATTERY STATUS** and **PEB SETUP** options and check the charge for the backup batter.

Only ES&S technicians should select the **MOTOR CONTROL, BALLOT DIAGS** and **SYSTEM REPORTS** commands.

- ❖ **SYSTEM SETTINGS:** Access the **SYSTEM SETTINGS** and select **THRHLDS** to perform system tests such as the multi-sheet test



Refer to the [Test the Multi-Sheet Sensor](#) heading in this chapter for information about how to perform the multi-sheet test.

Select **DATE TIME** to change the tabulators date and time settings



Refer to the [Change Date and Time Settings](#) heading in this chapter for information about how to change the date and time.

Only ES&S technicians should select **CALIBRATE DACS**.

- ❖ **ELECTION TEST:** Select the **ELECTION TEST** menu to test your tabulator and election definition.



Refer to the [Test the Election Definition](#) heading in this chapter for information about testing your tabulator.



**NOTE:** The Model 100 does not allow you to open the tabulator for voting unless you install a PC card programmed with an election definition. If you start the Model 100, without installing a PC card first, only the diagnostics menu will be accessible.



Refer to [Chapter 11: Understanding System Menus](#) for a description of the menu options available without an election definition.

## Change Date and Time Settings

Daylight savings or a power failure can throw off Model 100 date and time settings. Use the **DATE/TIME** option from the **SYSTEM SETTINGS** menu to reset the tabulator's date and time settings.

1. Access the **SYSTEM SETTINGS** menu from the **DIAGNOSTIC-TEST** menu and select **DATE TIME**.
2. Select **SET DATE** or **SET TIME**, depending on which setting you want to change.
3. In either mode, press **SELECT** to scroll through number positions and then select **PLUS** or **MINUS** to increase or decrease the values.



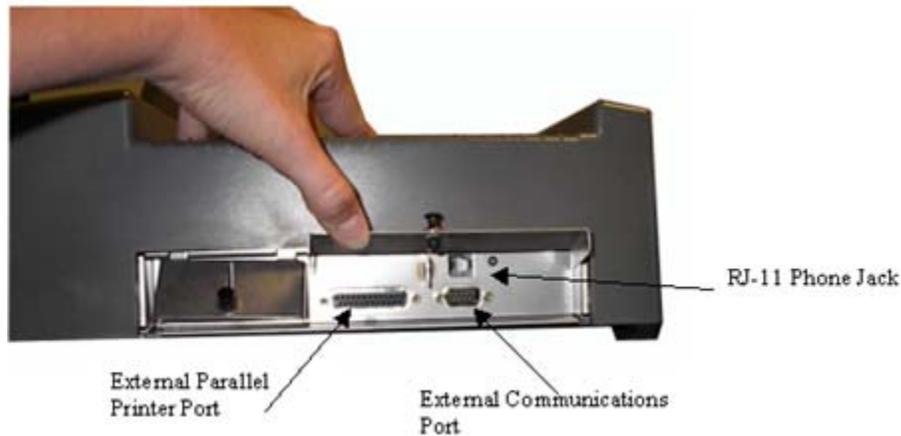
**NOTE:** The **SET ZONE** option is the time zone setting based on Greenwich Mean Time. The **DAYLIGHT SAVINGS** option sets the date that the internal clock automatically changes for daylight savings. ES&S sets the **TIME ZONE** and **DAYLIGHT SAVINGS** options before shipping the tabulator, and you should not adjust them.

4. After you correct the tabulator's date and time settings, select **PREVIOUS MENU** twice to return to the **DIAGNOSTIC-TEST** menu. The message, "LOCK OUT SYSTEM SETTINGS?" appears.
5. Select **YES** to remove the **SYSTEM SETTINGS** option from the **DIAGNOSTIC-TEST** menu. Select **NO** to retain access to the tabulator's system settings. If you lock out the tabulator's system settings, the option will not be available unless you install new election definition PC card into the tabulator.

## Connect an External Printer

You can connect an external printer to the Model 100 in order to print tabulator reports on 8.5 x 11-inch paper. The tabulator automatically sets the external printer as the default report destination once you attach a printer to your Model 100.

To connect an external printer, plug the printer cable into the parallel printer port located behind the right, front door of the tabulator.



## Connect an External Modem

If your Model 100 is not equipped with an internal modem, connect an external modem to the tabulator to transfer Election Day results directly from your polling place to election headquarters.

1. Connect the serial cable for your modem to the external communications port under the Model 100's right, front panel.
2. Connect the other end of the modem cable to the RS-232 port on the modem.
3. Connect the telephone line at your polling place to the RJ-11 telephone jack on the modem.
4. Plug the modem into an electrical outlet.

## Connect the Internal Modem

If your Model 100 tabulator is equipped with an internal modem, use the telephone cord that came with your tabulator to connect the Model 100 to a telephone jack.

1. Connect one end of the telephone line to the RJ-11 telephone jack behind the front, right access door on the tabulator.
2. Connect the other end of the telephone line to a telephone jack at the polling place.

## Test the Election Definition

Test the election definition for each of your tabulators before you deliver Model 100s to your polling places. To test a Model 100 election definition, scan the ballot test deck supplied by ES&S with your election definition PC card and compare the results to the test reports supplied by ES&S.

Test the tabulator only after you install the election definition and configure the Model 100. If your jurisdiction programs its own election definitions, create a test deck that includes at least one ballot for each precinct enabled for your tabulator and maintain accurate records of your test ballot selections. After you scan the test ballots, generate a results report and compare the tabulator report to your ballot records. If the results do not match, make sure that the marks on your test ballots are dark and clean and then scan the test ballots again.



**NOTE:** The following ballot test is not accurate if you modify the **TARGET COUNT** setting from the **AUTOREAD SETTINGS** menu.

## Scan a Ballot Test Deck

1. Start the tabulator and access the **DIAGNOSTIC-TEST** menu, select **ELECTION TEST** to open the **ELECTION TEST** menu.
2. From the **ELECTION TEST** menu, select **TEST BALLOT** to open the **BALLOT TEST** menu.
3. From the **BALLOT TEST** menu, select **FEED BALLOTS** to open the **ELECTION TEST INSERT BALLOT** menu.
4. Insert test ballots into your tabulator one at a time. The public counter on the Model 100 message display screen should increase by one for each ballot the tabulator processes. The Model 100 can scan ballots inserted in any orientation.



**NOTE:** If you programmed the Model 100 to tabulate ballots for multiple precincts, you must enable the additional precincts before scanning your ballots.



Refer to the [Enable Multiple Precincts for Testing](#) heading in this chapter for more information about scanning ballots for multiple precincts.

## Print Ballot Test Reports

1. After you finish scanning test ballots, select **PREVIOUS** to open the **BALLOT TEST** menu. From the **BALLOT TEST** menu, select **PREVIOUS MENU** to return to the **ELECTION TEST** menu.
2. From the **ELECTION TEST** menu, select **REPORTS** to open the **ELECTION REPORTS** menu.
3. From the **ELECTION REPORTS** menu, select **REPORTS** to open the **PRINT REPORTS** menu.
4. From the **PRINT REPORTS** menu, access the following reports to view test results for your tabulator:
  - Select **STATUS REPORT** to generate a report that includes the number of ballots processed by your tabulator. Verify that the number of ballots counted matches the number of ballots in your test deck.
  - Select **PRECINCT REPORT** or **POLL REPORT** to generate test results reports. Compare the tabulator reports to your test ballot records to make sure that the totals match.
5. Verify your results and then select **PREVIOUS MENU** three times to exit the **ELECTION TEST** menu. The third time you select **PREVIOUS MENU** the message “Clear Election Test Results and Leave Election Test Menu?” appears. Select **YES** to clear test results and return to the **DIAGNOSTIC TEST** menu. If your tabulator results and test records do not match, review your test ballots for errors and repeat the test.



Contact ES&S for customer support if the results are not correct after running the test a second time.

## Repeat a Diagnostic Test

1. Beginning in the **PRINT REPORTS** menu, press **PREVIOUS MENU** twice to open the **ELECTION TEST** menu.
2. Select **ZERO TOTALS** to clear the tabulator totals from your previous test. The message “Counters are set to zero” appears when the tabulator memory is clear. Press **OK** to continue.
3. Select **TEST BALLOT** and repeat the testing process described under the [Test the Election Definition](#) heading in this chapter.



Contact ES&S for customer support if the results are not correct after running the test a second time.

## Enable Multiple Precincts for Testing

The Model 100 can process ballots for up to 18 precincts for Election Day voting. This feature is useful for the following reasons:

- ❖ System redundancy and backup
- ❖ Absentee ballot/early voting ballot counting, (ES&S can program a “dummy” precinct that allows you to view absentee/early voting ballot totals separately from Election Day totals.)



**NOTE:** A Model 100 tabulator can support up to 450 precincts for early voting.

- ❖ Processing ballots for multiple precincts on a single tabulator



**NOTE:** When you create a ballot test deck for a tabulator programmed to read ballots for multiple precincts, create and scan at least one ballot for each precinct the tabulator will process on Election Day.



**NOTE:** All precincts are automatically enabled for early voting.

1. Use the instructions under the [Test the Election Definition](#) heading of this chapter to access the ballot test menu. Feed one test ballot into the tabulator and then press the far left button on the tabulator’s control panel under the **ELECTION TEST INSERT BALLOT** menu to open the **ENABLE PRECINCTS** menu.
2. Select **NXT-PREC** to cycle through the available precincts.
3. Select **ENABLE** for each precinct that you want to open on your tabulator. Selected precincts remain enabled for the duration of your ballot test. The tabulator defaults to original precinct settings after you complete the test.
4. Select **PREVIOUS** to return to the **ELECTION TEST INSERT BALLOT** menu.
5. Resume your ballot test and print your test reports.



Refer to the [Test the Election Definition](#) heading for more information about testing your tabulator.

6. After you open the polls, enable precincts by turning the key to the **OPEN/CLOSE** polls position and pressing the button furthest to the left on the control panel. Once you enable a precinct, you cannot disable it.

## Pre-Voting Checklist

Review the following list before you open the tabulator for voting:

- Have you anticipated all potential special voting conditions, such as overvotes and absentees, and included those conditions in the election definition?
- Have you charged the tabulator's back-up battery?
- Is there a sufficient paper supply for the printer? If you use an external printer, have you recently changed the ribbon? Is a backup ribbon readily available?
- Have properly completed setup and test procedures?
- Do ballots contain the correct precinct identification number(s)? Does the identification number on the PC card match the number on your ballots?

After completing all pre-election preparations, turn the key on the Model 100 to the OFF position. Remove the key, close the key access panel and prepare the tabulator for transportation to the polling place.

## Chapter 6: Election Day Tasks

This chapter contains instructions for the following Election Day tasks:

- ❖ [Open the Polls](#)
- ❖ [Scan Ballots](#)
- ❖ [Close the Polls](#)
- ❖ [Reopen the Polls](#)
- ❖ [Uncounted Ballots](#)
- ❖ [Print Election Reports](#)
- ❖ [Transfer Results](#)

### Open the Polls

Before your polling location opens for voting, retest and check the system configuration for each of your tabulators.



Refer to [Chapter 5: Pre-Election Day Tasks](#) for more information about testing and configuring tabulators.



See [M100 Security Locks and Seals](#) for more information about securing the tabulator and ballot box.

After you test and configure your tabulators, load the PC cards with the tabulator election definitions and turn the Model 100 control key to the OPEN/CLOSE POLL position on each tabulator at the polling location. Then, use the instructions in this section to prepare the tabulators for voting.

1. After you start the tabulator with the control key, the system initializes and the message “ELECTION CARD INSERTED: OPEN POLLS NOW?” appears. Select **YES** to open the polls.
2. After you open the polls, the message “PLEASE TURN KEY/SWITCH TO VOTE” appears on the tabulator display screen. Turn the key to the VOTE position to initialize the following tabulator functions:

- The tabulator checks available memory and scans election definition for errors.
- Depending on options set for your election definition, the Model 100 prints a Status Report, a Zero Totals Report and/or a Zero Certification Report on activation. Select **CANCEL** at any time during printing to cancel the current report and all following reports.



**Important:** If you are using the Model 100 for early voting, you will receive the following message when you turn the key to the VOTE position when you open the poll: Which zero report do you wish to print?

- Select **Totals Only** to print a summary report that will only contain the grand totals.
- Select **All Precincts** to print a summary precinct-by-precinct breakdown report.



**Caution:** Depending on the number of precincts in your district, it may take several hours to print the **All Precincts** report.

3. After the Model 100 finishes printing the startup reports, make sure the tabulator key is in the VOTE position, and then remove the key and close the access panel.
4. After you remove the key, you can open the tabulator for live voting. Make sure that the public counter on the Model 100 display screen increases by one with each ballot cast but do not make any further adjustments to the tabulator unless a system message appears.

If you need to review a tabulator's function history, you can print a system audit report at any time while the polls are open. Take the following steps to print an audit report.

1. Open the tabulator's access panel.
2. Insert the control key and turn the key to the OPEN/CLOSE POLL position.
3. Select **AUDIT LOG REPORT** from the tabulator control panel to print the report.

You can cancel the report at any time by pressing **CANCEL**.

4. After you finish printing, turn the key to the **VOTE** position and close the key access panel to re-open the tabulator for voting.

## Scan Ballots

The Model 100 can scan ballots inserted in any direction or orientation. Depending the options set for your election definition, the Model 100 will use one of the following methods for accepting or rejecting blank ballots, overvotes, and crossover votes:

- ❖ **Unconditional acceptance:** The tabulator accepts and tabulates results for all ballots. The tabulator automatically sorts questioned ballots without storing results from those ballots. While scanning the ballot, the message `PROCESSING BALLOT - PLEASE WAIT...` will appear. Once the ballot is scanned, the message `THANK YOU FOR VOTING` appears. Then the message `INSERT BALLOT - NUMBER OF VOTERS:` appears.
- ❖ **Unconditional rejection:** The Model 100 automatically rejects crossover, overvoted or blank ballots. Voters must review and correct ballot selections before the tabulator will accept the ballot.
- ❖ **Query the voter for correction:** The Model 100 returns a questioned ballot to the voter and displays a screen message that describes the problem and prompts the voter to either review and edit the ballot or cast the ballot as it is. The voter presses **RETURN BALLOT** to correct the ballot or presses **COUNT AS MARKED** to cast the ballot without editing selections. Once **COUNT AS MARKED** is pressed, the message `PROCESSING BALLOT - PLEASE WAIT...` will appear. Once the ballot is scanned, the message `THANK YOU FOR VOTING` appears. Then the message `INSERT BALLOT - NUMBER OF VOTERS:` appears.

Poll workers should closely monitor system messages during voting.



Refer to [Chapter 10: Understanding System Messages](#) for descriptions of system messages and recommended actions.



Contact election headquarters or ES&S technical support if you encounter a problem that you cannot correct.

## Close the Polls

Close your polling place for voting at the assigned time and then, use the Model 100 control key to prepare tabulator results for processing. You cannot print reports, transfer results or process vote totals from the tabulator's PC card until you properly close the polls.

You can print election, event, and audit log reports after you close the tabulator for voting. You can also transfer results to combine your tabulator totals with the final vote tallies from other polling places at a central counting location.

If you are using iVotronic terminals with Model 100s, connect the PEB reader to the Model 100 when you are ready to close polls.



Refer to the [Enable or disable the PEB reader](#) heading in [Chapter 13: Combining Model 100 and iVotronic Results at the Precinct](#) for more information about connecting the PEB reader to the Model 100.

1. Check the ballot auxiliary bin for sorted, uncounted ballots.

Study your jurisdiction's procedures for handling uncounted ballots before Election Day.



Refer to the [Uncounted Ballots](#) heading in this chapter for information about removing and processing sorted ballots.

2. Open the Model 100 Key Access Panel, insert your control key and turn the key to the OPEN/CLOSE POLL position to access the **CLOSE POLLS** command.
3. Press **CLOSE POLLS** to officially close the polls. Depending on your election configuration, the tabulator may automatically print one or more of the following reports: Status report, Race Results report, Certification report and/or Audit Log report. Select **CANCEL** to stop printing a report at any time. The **POLLS CLOSED** menu appears after the tabulator finishes printing.



**NOTE:** If you configured the Model 100 election definition to automatically transmit results over a network connection to a central PC, the data transfer begins at this time.

An early voting station will not be able to use a modem to transmit totals.

4. To print additional Audit Log Reports, select **AUDIT – LOG REPORT** from the tabulator control panel. Select **CANCEL** to stop printing at any time.
5. From the **POLLS CLOSED** menu, select **SEND RESULTS** to manually transmit election results over a network connection. After the Model 100 attempts to send results, the tabulator displays a message that indicates whether data transfer was successful. If the transfer fails, the Model 100 automatically attempts to send results again. Deliver the PC card to election headquarters if the transfer fails.



Refer to the [Transfer Results](#) heading in this chapter for more information about transferring Model 100 results.

## Using the Model 100 During Early Voting

If you are using the Model 100 over a period of days for early voting, follow the same “Opening the Polls” and “Scanning Ballots” procedures defined in this chapter. When you are prompted to print a zero report, the **Totals Only** report will print a summary report that will only contain the grand totals. The **All Precincts** zero report will print a summary precinct-by-precinct breakdown report. Depending on the number of precincts in your district, it may take several hours to print an **All Precincts** zero report. ES&S recommends opening the polls prior to the first day of voting and closing the polls only at the end of the last day of voting.

Take the following steps to power down the Model 100 machine at the end of each day of early voting:

1. Open the Model 100 Key Access Panel and insert the key.
2. Turn the key to the OFF position.
3. Remove the key, close the access panel and secure the key.

Take the following steps to power up the Model 100 at the start of each day and resume early voting:

1. Open the Model 100 Key Access Panel and insert the key.
2. Turn the key to the OPEN/CLOSE POLL position.
3. Wait for the Model 100 to load your election (if your election size is large, this may take a few minutes).
4. Press the CONTINUE VOTING button when the message appears.
5. Turn the key to the VOTE position.
6. Remove the key, close the access panel and secure the key.



**Caution:** ES&S does not recommend closing the polls at the end of each day because this increases the risk of clearing election totals and printing election results before Election Day.

## Reopen the Polls

If you discover voted ballots mistakenly left in voting booths after the polls close or, if you must close the tabulator for voting before the assigned time, you can reopen the Model 100 to scan uncounted ballots.



**NOTE:** Some jurisdictions do not allow reopening of the polls after the assigned closing time. Your jurisdiction must specifically request the option to reopen the polls from ES&S election programmers or include the option on the election definition PC card in order to reopen polls.

1. Turn the tabulator control key to the OPEN/CLOSE POLL position to access the **POLLS CLOSED** menu. Select **MORE** to open the **MORE SELECTIONS** menu. From the **MORE SELECTIONS** menu, press **RE-OPEN POLLS**, to open a password selection screen.
2. Contact your election administrator or ES&S customer support for the tabulator password. Press the outside-left button on the control panel to cycle through the numeral positions. Use inside-left button to increase the selected number and inside-right button to decrease the number.
3. Press the button labeled **ENTER** after you input the password. The message, “CLEAR ELECTION DAY TOTALS,” appears if your password is correct. Select **YES** to clear tabulator totals or **NO** to add the totals from any scanned ballots to the stored results.



**NOTE:** Do not select **YES** under the “CLEAR ELECTION DAY TOTALS” heading unless you want to erase *all* vote totals from tabulator memory. If you accidentally press **YES**, you must rescan all of the ballots cast on the tabulator.

4. The message, “ELECTION CARD INSERTED, OPEN POLLS NOW?” appears after you clear or retain tabulator results. Simultaneously press the first and third buttons on the control panel to access the **DIAGNOSTIC-TEST** menu from this screen. Select **YES** and then turn the key back to the **VOTE** position to re-open the polls.

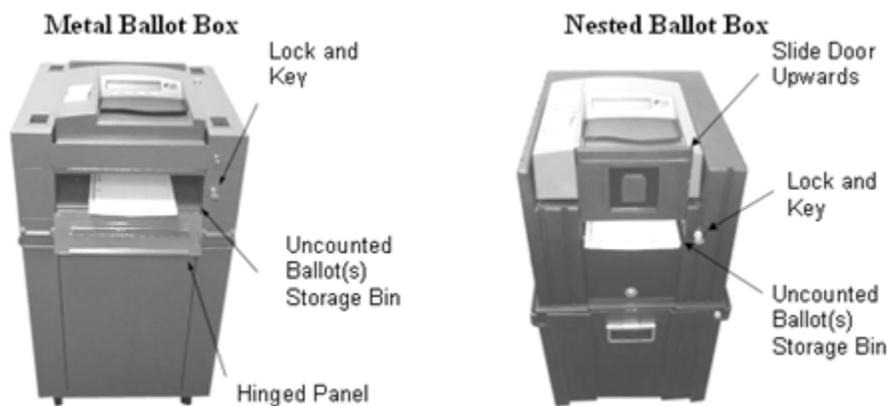
## Uncounted Ballots

Save any ballots that were uncounted during voting due to, sorting, power failure or tabulator problems in the temporary ballot storage bin. After you close the polls, remove and scan the uncounted ballots to add the totals to your tabulator’s memory. Study your jurisdiction’s regulations for handling uncounted ballots before you remove and scan stored ballots.

If your jurisdiction uses metal ballot boxes, unlock the ballot access panel on the left side of the ballot box to remove stored write-in ballots.

### Access the Emergency Ballot Storage Bin

1. Unlock the sliding door on the front of the nested ballot box or the bottom door on the front of the metal ballot box.
2. If you use the nested ballot box, slide the bin door upward and away from the storage bin to access your uncounted ballots. If you use the metal ballot box, swing the hinged door on the front of the box down to access the uncounted ballot storage bin.



3. Inspect the uncounted ballots and then feed them into the tabulator.



**NOTE:** Double-check the back of the bin to make sure that no ballots remain uncounted.

## Print Election Reports

The Model 100 generates a variety of results reports after the polls close. Depending on the options configured for your election definition, the tabulator may automatically print reports when you close the polls or you can manually select reports from the **POLLS CLOSED** menu.

1. Close the polls to access the **POLLS CLOSED** menu and select **RESULTS REPORT** to reprint any automatic reports generated by the polls closed. The types of reports generated depend on your election definition settings.

2. To print additional reports, return to the **POLLS CLOSED** menu and select **MORE** to access additional commands. Press **MORE REPORTS** to access additional report formats.



**NOTE:** You can configure your election definition to require a password to access the report menus.

3. Select **CHANGE TYPE** to toggle between Media and Summary report formats.



Refer to [Chapter 9: Reports](#) for descriptions and examples media and summary reports.

4. From the **REPORT SELECTION** menu, select a report to begin printing. Press **CANCEL** to stop printing at any time.



Refer to [Chapter 9: Reports](#) for descriptions and examples of each Model 100 report.

## Transfer Results

If your jurisdiction uses Election Reporting Manager to generate election reports, transfer results from your precinct counters to the PC running the reporting software.

### Transfer Results with a Modem

1. Select **SEND RESULTS** from the **POLLS CLOSED** menu. The Model 100 automatically searches for a modem and dials the phone number programmed into the election definition. The tabulator displays a confirmation message if the data transfer is successful.
2. If the transfer fails, try to send results a second time. If the transfer fails again, deliver the tabulator's PC card to election headquarters and load tabulator results directly to Election Reporting Manager.

### Transfer Results with the PC Card

1. Unlock the access door on the front of the ballot box.

2. Push the eject button and remove the PC card from the tabulator.
3. Deliver the PC card to election headquarters.

Deliver all write-in ballots to your election administrator as soon as possible after the polls close. Separate all of the write-in ballots from regular ballots.



Follow the instructions under the [Uncounted Ballots](#) heading of this chapter for instructions about how to remove write-in ballots from the ballot box.

## Chapter 7: Disassemble and Pack the Ballot Box

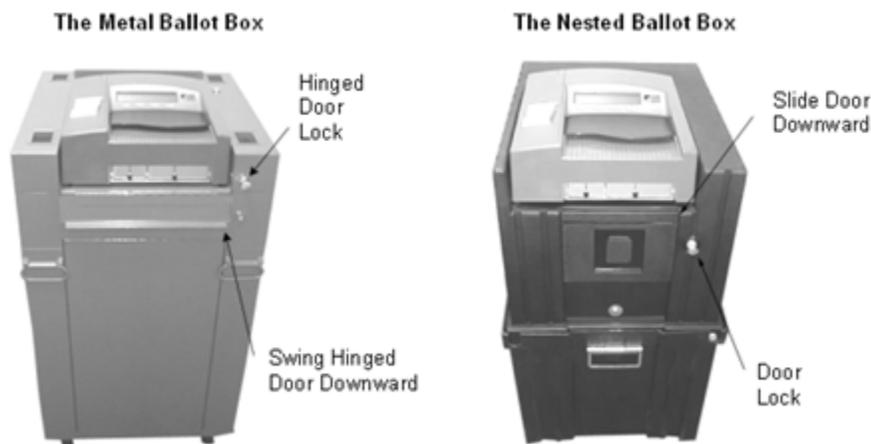
Carefully pack the tabulator and ballot box for storage. Disassemble the Nested Ballot Box after you remove uncounted ballots from the ballot storage bin. The Metal Ballot Box requires no disassembly.

### Remove the Tabulator from the Ballot Box

1. If you use the nested box, unlock the small sliding door on the front ballot box and slide the door down until it no longer covers the front of the tabulator.

OR

If you use the metal box, unlock the top hinged panel on the front of the ballot box and swing it down to expose the front of the tabulator.



2. Turn the tabulator control key to the **OFF** position, remove the key, and give it to the Election Administrator.



**NOTE:** Close the Key Access Panel and Printer Access Panel before you continue.

3. Pull the tabulator forward about four to five inches and disconnect the power cord from the back of the terminal. Thread the cord through the back of the ballot box and unplug it from the wall outlet.
4. Slide the tabulator forward until it clears the mounting rails and remove the tabulator from the ballot box.

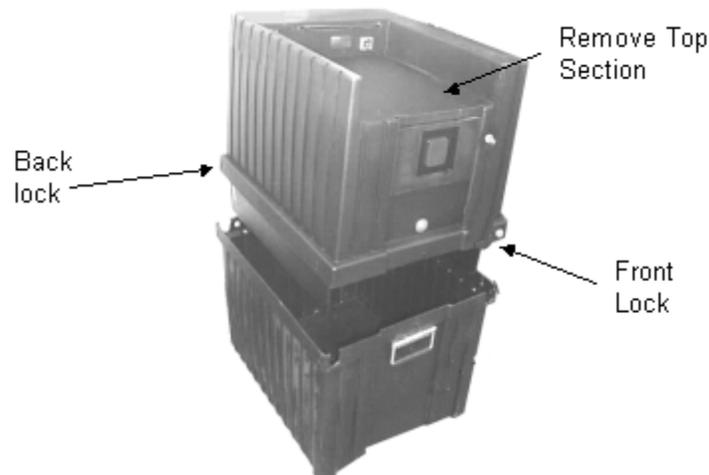


**NOTE:** Lock and secure all of the ballot box doors before you place the metal box in storage.

5. Place the tabulator and its power cord into the tabulator carrying case.

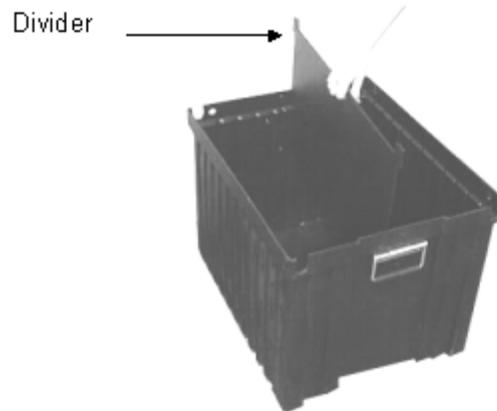
## Dismantle the Nested Ballot Box

1. Unlock the front and back locks that secure the two halves of the ballot box. Then, remove the top section of the box and set it aside.

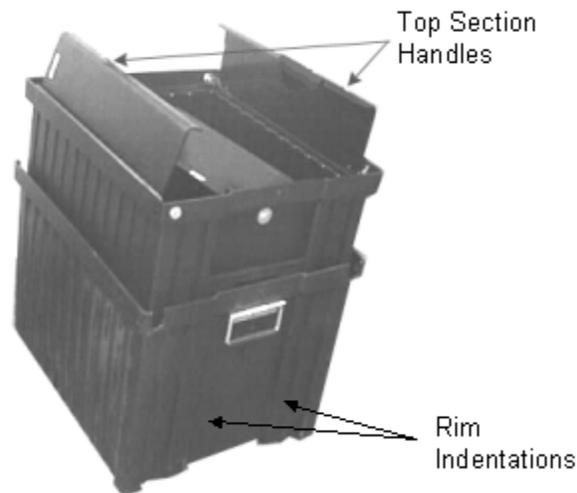


2. A plastic divider separates write-in ballots from the rest of the stored ballots in the box. The Model 100 diverts write-in ballots to the right side of the box and sends regular ballots to the left side. Keep the write-in ballots separated and remove all of the ballots from the box.
3. Pack the regular and write-in ballots into separate, secure cases and transport them to your election headquarters.

4. Remove the plastic divider from inside the box.



5. Turn the top section of the box so that the tabulator compartment rests on the floor.
6. Lift the top section and align the indentations on the front of the top and bottom of the ballot boxes.



7. Lower the top half of the box into the bottom half.
8. Slide the divider into the left side of the top section until the top of the divider rests below the top rim of the box. Do not force the divider into the box. If you encounter any resistance when you slide the divider into the box, you are attempting to place the divider on the wrong side of the box.

9. Locate the ballot box cover and align the front of the rim (the side with the indentation) with the front edge of the ballot box.
10. Place the cover onto the ballot box.
11. Firmly press on the lid to engage the locks on the top of the cover at the front and back of the nested box.

## Chapter 8: Maintain the Tabulator

Use the instructions in this chapter to perform routine maintenance and clean the Model 100 after the polls close. Post-election maintenance ensures that your tabulator will be usable for many elections.



**NOTE:** See [Chapter 3: Description of the Model 100](#) for more information on the M100.

Perform the following maintenance tasks to keep your Model 100 tabulator in proper working order:

- ❖ [Clean the Tabulator](#)
- ❖ [Clean the Ballot Box](#)
- ❖ [Internal Printer Maintenance](#)
- ❖ [Battery Maintenance](#)
- ❖ [Test the Multi-Sheet Sensor](#)

### Clean the Tabulator

Clean your tabulator before and after each election.

1. Turn off the tabulator and unplug the power cord.



**Electrical Shock Danger.** Always unplug the AC power cord, turn the tabulator's key to the OFF position and remove the key before you clean a Model 100 tabulator.

2. Clean the ballot entry and exit slots with a can of pressurized clean, dry air or inert gas, which is available for order from ES&S. Aim the air can's spray tube into the ballot entry slot and blow out all the debris.
3. Clean the ballot exit slot in the same way.
4. Repeat the entire procedure and inspect the entrance and exit slots with a flashlight.
5. Use pressurized air to remove dust and debris from around the menu display.
6. Use a soft cloth and water, or a mild solution of water and soap, to wipe down the tabulator. Dampen, do not soak, the cloth with the cleaning solution. Do not spray cleaning solution directly onto the tabulator.

7. Clean the menu display window with the damp cloth. Be careful not to scratch the display panel.
8. Clean the control panel buttons and the area around the buttons.
9. Use the cloth and cleaning solution to clean the tabulator's outer case. Start at the top and work down to the base.
10. Clean the tabulator's stainless steel base plate with the cleaning solution. Wipe all traces of the cleaning solution off the tabulator after you finish cleaning.

## Clean the Ballot Box

Clean your Model 100 ballot boxes either before or after each election. You must disassemble the nested box for cleaning. The metal box requires no disassembly.

1. If you use the nested ballot box, separate the box into its two halves.



Refer to [Chapter 7: Disassemble and Pack the Ballot Box](#) for instructions for disassembling the nested ballot box.

2. Use a cloth dampened with cleaning solution to clear dust and debris from the ballot box.



Refer to the [Clean the Tabulator](#) heading in this chapter for mixing the cleaning solution.

3. Remove the divider from the lower ballot bin before you clean the bottom section of the ballot box.
4. Clean the inside of the bin first and then the outside. Wipe down the interior ballot divider and the box cover. Remember to periodically rinse the cleaning cloth.
5. Stand the ballot box upright to clean the recessed, tabulator housing.



**Important:** Make sure the power cord and the diverter motor connector are not damaged or dirty.

6. Turn the mounting pedestal upside down and clean the inside of the box. Use a soft cleaning brush or feather duster to clear dust and debris.
7. Use a brush to clean the diverter vane, the diverter motor and the controller circuit board for the ballot diverter. Do not to bend or damage any of the sensitive components contained in the diverter motor assembly.
8. Use a brush to clean debris and dust from the ballot chute assembly. Do not use liquids to clean the inside of tabulator mounting pedestal.
9. Re-assemble the unit after you finish cleaning.

## Internal Printer Maintenance

Open the door on the left side of the tabulator to access the internal printer.

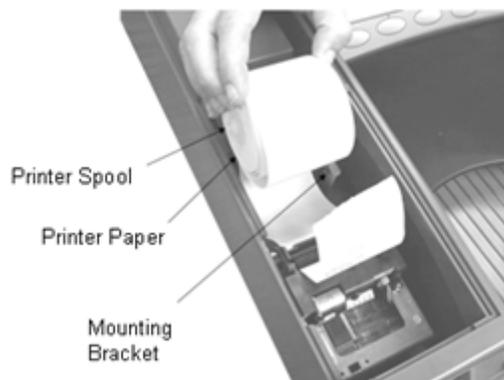
### Replace the Paper Roll

Check the Model 100 printer and change the paper roll, if necessary, for Election Day.

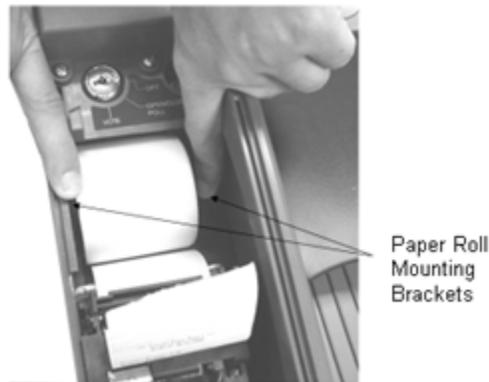


**NOTE:** A “time out waiting for paper” message may appear when the internal printer is out of paper.

1. Depress the mounting brackets on each side of the empty paper roll and lift the roll out of the tabulator.



2. Remove the white plastic paper spool from the center of the empty paper roll and insert it into a new roll.
3. Press out on the paper mounting brackets and insert the new roll into the printer.



4. Manually feed the paper or select **PAPER FEED** from the **ELECTION TEST** menu to position the printer paper.

## Advance the Paper

Use the following instructions to place blank space on the paper between reports or to advance the paper if the printer jams.

1. From the **DIAGNOSTIC-TEST** menu, select **ELECTION TEST**.
2. Select **REPORTS** in the **ELECTION TEST** menu.
3. Select **PAPER FEED** to advance the printer paper.

OR

1. From the **POLLS CLOSED** menu, select **MORE**.
2. Press **PAPER FEED** to advance the printer paper.

## Battery Maintenance

The Model 100 uses a 12-volt, 7-amp lead acid battery to power the tabulator in case of an electrical power failure. Depending on the age of your tabulator, the battery is either an *Exide NP7-12* or *Powersonic PS-1270*. A fully charged battery can power an “active” tabulator for up to one hour and an “idle” tabulator for up to three hours. The machine is “active” when counting ballots or printing reports. Estimated battery life is five years.

To check the charge for your backup battery, open the **DIAGNOSTIC-TEST** menu and select **DIAGS**, then **MORE DIAGS**, and then select **BATTERY STATUS**. Refer to the following instructions for more information.

## Battery Cautions



**Important:** You can use the backup battery under normal operating conditions, in any orientation without danger of leaking. Removing the battery from the tabulator exposes it to risks that are not present under normal operating conditions.



**Warning:** Shorting the battery terminals together is especially hazardous even if the battery is “discharged” or “dead.” Shorting the terminals can create sparks, melt wires, and possibly start a fire. Use extreme caution when handling the backup battery.



**NOTE:** The Model 100 battery may be recycled. Please dispose of the battery properly.

## Charge the Battery

Plug the power cord into the tabulator and turn the power on for at least 12 hours to fully charge the battery. Check the condition of your power cord if the message “NO-AC” appears in the upper right quarter of the menu display after you turn the tabulator on.

## Remove and Replace the Battery



**Warning:** Do not attempt to replace the battery in the Model 100 tabulator. Only qualified ES&S technicians should replace the battery for this machine.

**Warning: *Electrical Shock Danger.*** Make sure that you unplug the AC power cord, turn the tabulator key to the OFF position and removed it before replacing the battery.



Because you must remove the external cover of the Model 100 before you can replace the battery, you should not attempt to replace the battery without proper training from ES&S. Removing the cover exposes the tabulator’s internal circuitry to damage. Always contact ES&S technical support before you attempt to replace a Model 100 backup battery.



Refer to the *ES&S Model 100 System Maintenance Manual* for instructions for removing and replacing the battery.

## Replace a Model 100 Fuse



**Warning: Electrical shock danger.** Do not replace the fuse for the Model 100 tabulator unless you receive proper training from ES&S. Only qualified ES&S technicians should attempt to replace the tabulator fuse.

## Test the Multi-Sheet Sensor



Refer to the *ES&S Model 100 System Maintenance Manual* for instructions for removing and replacing the fuse on the Model 100.

The Model 100's multi-sheet sensor prevents multiple ballots from passing through the tabulator's read area at the same time. Test the multi-sheet sensor to verify that your tabulator does not accept multiple ballots.

1. From the **SYSTEM SETTINGS** menu, select **THRHLDS** to access the **THRESHOLDS** menu.
2. Select **MULTI SHEET** to open the **MULTI SHEET DETECTION** menu.
3. Place one test ballot on top of another and push the stacked ballots halfway into the ballot entry slot. The message, "DETECT TRUE," appears if the tabulator recognizes the presence of more than one ballot in the read area. The message, "FALSE," appears if the tabulator fails to detect multiple ballots.
4. If the multi-sheet sensor functions properly, press **PREVIOUS** to return to the **THRESHOLDS** menu. From the **THRESHOLDS** menu, press **PREVIOUS MENU** to return to the **SYSTEM SETTINGS** menu.



**NOTE:** If your tabulator fails to detect multiple ballots, try the test again. Make sure that you feed the ballots at least halfway into the read area. If the sensor fails repeatedly, contact ES&S customer service for assistance.

## Chapter 9: Reports

The Model 100 generates a variety of election results reports. This chapter contains descriptions and examples of each available report. Become familiar with the available report formats and types to generate the proper reports for your jurisdiction.

Select from the following report formats and types to configure reports for your jurisdiction.

### Report Format

ES&S or your jurisdiction's election programmer hard code available report formats into the Model 100 election definition. You can select either the media or summary format.

- ❖ Reports printed in media format display candidate names, candidate vote totals and write-in totals.
- ❖ Reports printed in summary format display candidates, candidate vote totals, write-ins, undervote and overvote totals.

The report formats that you select affect the Poll Reports and Precinct Reports generated directly from the Model 100.

### Report Types

Select from the following report types.

#### Status Report

The status report lists the number of ballots accepted by the tabulator and categorizes the ballots by type. This report also displays the ballot counts each active precinct and the totals for your polling place.



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

## Precinct Report

The precinct report displays the results for every contest voted on the tabulator broken down by precinct.

## System Reports

The Model 100 can generate the following system reports.

### Initial State Report

The initial state report is a descriptive list of system settings that automatically generates when you turn on the tabulator. The report includes a list of election configuration settings if the election definition is loaded when you turn on the tabulator.

### Audit Log Report

The audit log lists all of the tabulator events that occur from the time you load your election definition PC card into the tabulator to the time you remove the card after your election is complete. The audit log also displays the total number of write-in votes counted by the tabulator as well as the number of accepted and rejected blank ballots, the number of overvoted ballots and the number of crossover ballots scanned.



**NOTE:** The user will be able to choose to print or not print the audit log after the log has reached its capacity.

### Certification/Zero Report

The certification report, or zero report, prints automatically when you open the polls for voting. The zero report lists the date and time that the polls open followed by the vote count for all of your contests and blank signature lines for poll worker certification. The Model 100 allows you to print an additional certification report immediately after printing a results report.

## Diagnostic Reports

The Model 100 prints the following diagnostic report types.

## Configuration Report

The configuration report lists system and election configuration settings along with scanning parameters and cell window locations.

## Debug Report

The debug report displays low-level system settings. ES&S technical support uses the debug report to diagnose problems with the Model 100.

## System Report

Select the System Report to print a System Audit Log.

## Status Report

```

***Status Report***
10:57:34 06/19/2002
Wisconsin Certification
Wisconsin Open Primary 17/41
0001 POLLING PLACE 1 0001
Election Date: July 4, 2002
WARD 1

```

```

Ballot Types:
DEMREP  WIS  LIB  NON  XRV
-----  -
0  1    0    0    0    0
Total: 1

```

WARD 2

```

Ballot Types:
DEMREP  WIS  LIB  NON  XRV
-----  -
0  1    0    0    0    0
Total: 1

```

WARD 4

```

Ballot Types:
DEMREP  WIS  LIB  NON  XRV
-----  -
0  1    0    0    0    0
Total: 1

```

WARD 5

Ballot Types:

DEMREP	WIS	LIB	NON	XRV
0	1	0	0	0
Total: 1				

Grand Total

Ballot Types:

DEMREP	WIS	LIB	NON	XRV
0	1	0	0	0
Total: 1				

### Precinct Report—Summary Format

\*\*\* Voting Results Report \*\*\*  
 10:48:54 06/19-2002

Wisconsin Certification  
 Wisconsin Open Primary 17/41  
 0001 POLLING PLACE 1 0001  
 Election Date: July 4, 2002  
 Total Number Voting: 4

Precinct Voting Report

WARD 1

Total Ballots1  
 Ballots for Code00001-01-01

#### PARTY PREFERENCE

DEMOCRAT0  
 REPUBLICAN1  
 WISCONSIN GREEN0  
 LIBERTARIANO

Over Votes 0  
 Under Votes 0

.....

Total Votes 1

#### (REP) GOVERNOR

CHUCK HALE1

Write In 0  
 Over Votes 0  
 Under Votes 0

.....

Total Votes 1

## (REP) LIEUTENANT GOVERNOR

## MICK FLEETWOOD0

Write In	0
Over Votes	0
Under Votes	1

.....	
Total Votes	1

## NONPARTISAN JUDICIAL RACE

## JUDICIAL CANDIDATE 11

Over Votes	0
Under Votes	0

.....	
Total Votes	1

**Initial State Report**

10:57:25 06/19/2002

ELECTION DEFINITION LOADED UNIT: 3159

CPU 386 QNX\_speed 361  
 CPU total memory 3712K  
 Application Memory 2496K  
 Communication utilities available  
 PCMCIA modems supported  
 TCP/IP based communications supported

\*\*\* Initial State Report \*\*\*

10:57:25 07/15/2003

Firmware Version: 5.1.0.0  
 Machine ID: 3159  
 Wisconsin Certification  
 Wisconsin Open Primary 17/41  
 0001 POLLING PLACE 1 0001  
 Election Date: July 4, 2006  
 Maximum Number of Types: 6  
 Number of Precincts: 4  
 Number of Ballot Face Styles: 24  
 Audit Log Entries: 34/21043

System Configuration:  
 Election Results Printing: Enabled  
 Election Results Transferred: YES  
 Diverter Installed: YES  
 Unreadable Marks Setting: Accept  
 Report Type: SUMMARY  
 Ability to ReOpen Polls: YES  
 Report Format: Poll Report  
 Report By Rotation: NO

Election Configuration:  
 Ballots by Style: NO  
 Overvoted Ballots: Query  
 Blank Ballots: Query  
 Cross-over Ballots: Query  
 Single Over-Vote: NO  
 Divert Blanks to Writein Bin: NO  
 Response Type: OVAL  
 Use Separate Non Party Type: YES  
 Ballot Size: 14 Inches by 36 Rows  
 Ballot Sides Defined: 2

Modem Info  
 Modem Phone #: 555-5555  
 Server IP: 192.168.1.5  
 M100 IP: 192.168.2.11  
 MAC (EID): 0060 D618 OABE

## Audit Log Report

\*\*\* Audit Log Report \*\*\*  
 11:08:09 06/19/2002

System Events  
 Clock Changed To: 15:10:11 12/18/2001  
 Last Power On: 11:02:49 06/19/2002  
 Last Polls Open: 11:04:16 06/19/2002  
 Number of System Halts: 62

Ballot Accounting  
 Precinct:  
 WARD 3  
 Total Blank Accept:0  
 Total Blank Reject:0  
 Total Overvote Accept:0  
 Total Overvote Reject:0  
 Total Crossover Accept:0  
 Total Crossover Reject:0  
 Total Marginal Accept:1  
 Total Marginal Reject:0  
 Total Write-ins: 0  
 Total Undervote Accept:0  
 Total Undervote Reject:0

Master Accounting:  
 Total Blank Accept:0  
 Total Blank Reject:0  
 Total Overvote Accept:0  
 Total Overvote Reject:0  
 Total Crossover Accept:0  
 Total Crossover Reject:0  
 Total Marginal Accept:1

Total Marginal Reject:0  
 Total Write-ins: 0  
 Total Undervote Accept0  
 Total Undervote Reject0

11:02:49 06/19/2002  
 ELECTION DEFINITION LOADED UNIT: 3159

11:03:05 06/19/2002  
 User Event: Open Polls

11:03:09 06/19/2002  
 SUPERVISOR SWITCH DISENGAGED

11:03:09 06/19/2002  
 DIAGNOSTICS CHECK COMPLETED

11:03:10 06/19/2002  
 COUNTERS CLEARED

11:04:16 06/19/2002  
 Polls Opened

11:04:53 06/19/2002  
 FIRST BALLOT PROCESSED

## Zero/Certification Report

\*\*\* Zero Totals Report \*\*\*  
 11:03:10 06/19/2002

SAMPLE COUNTY  
 TEST ELECTION  
 POLLING PLACE 1  
 Election Date: November 11, 2000  
 Total Number Voting: 0

Poll Voting Report

GOVERNOR

WILLIAM A. (BILL) ALLAIN0  
 BILLY M. DAVID0  
 EVELYN GANDY0  
 LONNIE C. JOHNSON0  
 MIKE P STURDIVANT0

Write In 0  
 Over Votes 0  
 Under Votes 0  
 Total Votes 0

AGRICULTURE AND COMMERCE COMMISSIONER

TROY MAJURE, JR.0

JIM BUCK ROSS0  
 CHARLES J.D. TILLMAN0  
 Write In 0  
 Over Votes 0  
 Under Votes 0  
  
 Total Votes 0  
 CITY COUNCIL  
 Number to Vote For: 0  
 ELIZABETH M. VERTERANO0  
 NICK DeROSA0  
 CONNIE MANGINO0  
 THOMAS P. COSTA0  
 EUGENE DeCAPRIO0  
 Write In 0  
 Over Votes 0  
 Under Votes 0  
 Total Votes 0

WE, THE UNDERSIGNED, DO HEREBY CERTIFY  
 THAT THE ABOVE RESULTS ARE A TRUE AND  
 ACCURATE ACCOUNT OF ALL BALLOTS COUNTED  
 AND THAT ALL COUNTERS WERE ZERO (0)  
 WHEN THE POLLS OPENED AND THAT THE  
 ELECTION WAS HELD IN ACCORDANCE WITH  
 THE LAWS OF THE STATE.

ELECTION JUDGE

ELECTION JUDGE

ELECTION JUDGE

ELECTION JUDGE

## Configuration Report

\*\*\* Configuration Report\*\*\*

11:10:10 06/19/2002

Firmware Version: 5.1.0.0  
 Machine ID: 3161  
 Wisconsin Certification  
 Wisconsin Open Primary 17/41  
 0002 POLLIN PLACE 2 0002  
 Election Date: July 4, 2002  
 Maximum Number of Types: 6  
 Number of Precincts: 1  
 Number of Ballot Face Styles: 6  
 Audit Log Entries: 14/20857

System Configuration:

Election Results Printing: Enabled  
Election Results Transferred: NO  
Diverter Installed: YES  
Unreadable Marks Setting: Reject  
Report Type: Summary  
Ability to Reopen Polls: YES  
Report Format: Poll Report  
Report by Rotation: NO

Election Configuration:  
Ballots by Style: NO  
Overvoted Ballots: Query  
Blank Ballots: Query  
Cross-over Ballots: Query  
Single Overvote: NO  
Divert Blanks to Writein Bin: NO  
Response Type: OVAL  
Use Separate Non Party Type: YES  
Ballot Size: 14 Inches by 36 Rows  
Ballot Sides Defined: 2

Modem Information:  
Modem Phone #: 333-4576  
Server Phone #: (if applicable)  
Modem MAC: (if applicable)  
Modem Server IP address: (if applicable)

Scanning Parameters:

Top DAC Value: 80  
Bottom DAC Value: 80

Ballot Size: 14 Inches x 36 Rows

## Debug Report

\*\*\* DEBUG REPORT \*\*\*  
11:09:48 06/19/2002

Program Version: 5.1.0.0  
OS Version: 4.22  
Errno: 35  
Errno String: No message of desired type  
Memory Available: 2860  
Largest Mem Block: 2844  
Heap Check: Good Heap

Counter Size: 2252 Bytes  
Election Definition Size: 6308 Bytes

## System Audit Log Report

\*\*\* System Audit Log \*\*\*  
11:10:29 06/19/2002

Clock Changed To: 15:10:11 12/18/2001  
Last Power On: 11:02:49 06/19/2002  
Last Polls Open: 11:04:16 06/19/2002  
Number of System Halts: 62

## Chapter 10: Understanding System Messages

This chapter lists all system messages. In addition to the message itself, the tabulator beeps to provide an audible cue that a message requires attention from a poll worker. If you find your message in this chapter and still require assistance, please contact your election administrator to schedule technical service or a back-up machine. Election administrators may contact ES&S at 1-800-247-8683.

### System Error Recovery

If you encounter the 'SYSTEM ERROR' message, use the following process to continue counting ballots.

1. Turn the key to the OFF position to turn off the tabulator, and then remove the PC card.
2. Make a duplicate copy of the PC card.
3. Send the duplicate card with the Model 100 to ES&S for testing.
4. Replace the Model 100 with the back-up Model 100 tabulator assigned to your polling place.
5. Insert the original PC card with the election definition
6. Turn the key to OPEN/CLOSE POLL and reopen the polls to continue counting ballots.

### Understanding Text Messages

#### Accept Ballots For Precinct

**Cause:** The "Accept Ballots For Precinct" message appears when the Model 100 enables a precinct that has been programmed in the election definition card, but marked as inactive.

**Solution:** Ballots for the enabled precinct are counted and cannot be canceled. No response required.

#### Attempt Send Results

**Cause:** This message appears when the Model 100 locates a TCP/IP protocol, CDPD, or landline network attempts to send election results.

**Solution:** No response required.

### Audit Log Full

**Cause:** This message appears if audit log is full. There is a limited capacity for audit log entries stored to the PC card. Exceeding this limit either: 1) prevents the tabulator from entering Polls Open mode, or 2) causes the tabulator to stop counting ballots. If the Audit Log exceeds its capacity during voting, the tabulator defaults to a read-only mode. This means that no additional information is added to the PC card; the Polls Open mode is not allowed.

**Solution:** A new PC card is required to continue counting ballots. Select **Previous** to return to the Main menu. Remove the original PC card and insert a new card programmed with a duplicate election definition. Return to the menu and function where the error occurred and contact your system administrator.

### Ballot Jammed. Ballot Counted

**Cause:** This message appears if a ballot becomes trapped in the tabulator's read area and the ballot is tabulated.

**Solution:** Check the back of the tabulator to make sure that nothing blocks the ballot path. Do not rescan the ballot. Contact ES&S for assistance if you cannot resolve the problem.

### Ballot Jammed. Ballot Not Counted

**Cause:** This message appears if a ballot becomes trapped in the tabulator's read area and the ballot is not tabulated.

**Solution:** Check the back of the tabulator to make sure that nothing blocks the ballot path. Rescan the ballot. Contact ES&S for assistance if you cannot resolve the problem.

### Blank Ballot Accepted

**Cause:** This message appears after the tabulator accepts a blank ballot.

**Solution:** No response required.

### Blank Ballot Returned

**Cause:** This verification appears when the tabulator returns a blank ballot to the voter.

**Solution:** No response required.

### Blocked Sensor Continuous

**Cause:** This message appears if the tabulator detects an obstruction on part of the CCD array Read-Head, or a contiguous vertical line on the ballot.

**Solution:** First, make sure the machine is not in vote mode. Then try feeding clean, blank ballots into the tabulator to remove any possible obstruction. If the error continues, contact your election administrator to schedule technical service and a back-up machine.

### Cannot Access Supervisor PEB

**Cause:** While attempting to print a report the Model 100 cannot access the supervisor PEB in the PEB reader.

**Solution:** Ensure that the PEB reader is connected to the Model 100 and a power source and the supervisor PEB is properly inserted into the PEB reader. If the message continues, contact your election administrator.

### Counter Block Failed CRC

**Cause:** This message appears if the counter block fails a cyclic redundancy check (CRC). As the election progresses, data is copied to the PC card in “counter blocks” of data. The CRC is a safety check that the tabulator performs to ensure proper copying of data to the card.

**Solution:** The PC card may be corrupt. Try a different card. If the message continues, contact your election administrator to schedule technical service.

### Counters Are Full

**Cause:** This message appears if the tabulator blocks on the PC card are full and there is no room to write further election data to the card. Results from the ballot currently inserted in the machine are not added to the tabulator’s running total.

**Solution:** The system halts when counters are full. Turn the power switch OFF and then back ON to reboot the system. Keep the PC card loaded in the tabulator. If the error continues, contact your election administrator to schedule technical service.

### Counters Are In Overflow

**Cause:** The counter has exceeded its storage limit. If this error occurs, the election results stored to the tabulator’s DRAM are corrupt, although the tabulator values on the card may be correct.

**Solution:** This error causes a system halt. Reboot the system by turning the power switch OFF and then back ON. Keep the PC card loaded in the tabulator. If the error persists, contact your election administrator to schedule technical service and locate a backup tabulator.

### Counters Cannot Hold Next Count

**Cause:** There is not enough space left within the counters to store the count for the current race.

**Solution:** This condition causes a system halt. Reboot the system by turning the power switch OFF and then back ON. Leave the PC card loaded in the tabulator. If the error persists, contact your election administrator to schedule technical service and request a backup tabulator.

### Counters Cleared

**Cause:** This message appears after the DRAM counters are successfully cleared in the election definition.

**Solution:** No response required.

### Cross Voted Ballot Accepted

**Cause:** This is a verification message that confirms that a cross-voted ballot has been accepted by the Model 100.

**Solution:** This message only appears with straight party or pick-a-party ballots, when a voter has voted in more than one party. No response required.

### Cross Voted Ballot Returned

**Cause:** This message appears when the tabulator returns a cross-voted ballot to the voter.

**Solution:** This message only appears with straight party or pick-a-party ballots, when a voter has voted in more than one party. Return the ballot to the voter for review or verification.

### Diverter Control Error

**Cause:** This message appears if the tabulator fails to change the diverter position after a ballot has been fed.

**Solution:** Retry and contact ES&S if the problem persists.

### Diverter Not Detected

**Cause:** The tabulator cannot detect the diverter on a second attempt.

**Solution:** Contact your election administrator to schedule technical service and request a backup tabulator.

### Diverter Not Found

**Cause:** This message appears if the election definition loaded into the Model 100 is programmed for a ballot box with a diverter unit, but no diverter unit is detected.

**Solution:** Contact your election administrator to schedule technical service and request a backup tabulator.

### DRAM Counter Space Bad

**Cause:** This message appears if the tabulator encounters a problem with the DRAM memory section that stores the election results.

**Solution:** Contact your election administrator to schedule technical service and request a backup tabulator.

### Early Vote Card Does Not Support PEB's. Please Remove Card from Slot.

**Cause:** PCMCIA cards used for early voting cannot be set to combine iVotronic and Model 100 results.

**Solution:** Use a PCMCIA card that is not set to combine iVotronic and Model 100 results.

### Election Card Recovered In The Machine

**Cause:** This verification message indicates that the inserted card has been opened and removed from another machine, while still in vote mode.

**Solution:** No response required.

### Election Certified – Card In Rom Mode

**Cause:** The election has been certified and the card is closed. You may remove the card from the tabulator after viewing this message.

**Solution:** No response required.

### Election Definition Failed CRC

**Cause:** This message indicates that the election definition failed the CRC.

**Solution:** The PC card may be corrupt and a new PC card is required. If the message continues, contact your election administrator to schedule technical service.

### Election Load Failed

**Cause:** Election data from the inserted PCMCIA card has failed to load.

**Solution:** Attempt to reinstall firmware. If problem continues contact ES&S for assistance.

### Election Totals Cleared

**Cause:** This verification message indicates that election totals are set to zero.

**Solution:** No response required.

### EQC Verify Failed

**Cause:** The Model 100 failed to verify the Election Qualification Code for the PEB. This error only occurs when the election is set to use the iVotronic and Model 100 combination feature.

**Solution:** Contact your election administrator for assistance.

### Error Accessing NVRAM

**Cause:** This message appears if the tabulator encounters a problem accessing the NVRAM (Non-Volatile Random Access Memory).

**Solution:** Contact your election administrator to schedule technical service and request a backup tabulator.

### Error Getting Machine ID

**Cause:** This message appears if the tabulator has a problem retrieving the machine identification number from FLASH memory.

**Solution:** Contact your election administrator to schedule technical service and request a backup tabulator.

## Error Getting CRC

**Cause:** Failed to read firmware CRC value from inserted PC card.

**Solution:** Check the PC card for proper installation. If the card is installed properly, the card may be defective or another hardware fault may have occurred. If the problem continues, contact your election administrator to schedule technical service and request a backup tabulator.

## Error-invalid election. The early vote option does not support ballot-by-style. Please remove PCMCIA card

**Cause:** The PCMCIA card has been programmed as an early vote card with ballots-by-style.

**Solution:** This card cannot be used for this election. Contact ES&S technical support for assistance.

## Error Reading Ballot Retry Ballot Black Check - <code> (x)

**Cause:** This message appears if the tabulator cannot read one of the black boxes printed at the top and bottom of each ballot column. The displayed <code> will be one of the following: UT – ballot fed face up, top first; UB – ballot fed face down, bottom first; DT – ballot fed face down, top first; DB – ballot fed face down, bottom first. The (x) indicates the letter, A-F, that appears in the error message and identifies which black check the tabulator failed to read.

**Solution:** Feed the ballot into the tabulator in a different orientation. If the mark still does not register, use compressed air to clean the Model 100 optical sensors. If the tabulator still does not read, manually darken the black check mark with a sharpie and scan the ballot again.

## Error Reading PCMCIA Card

**Cause:** This message appears if the tabulator encounters a problem reading a block of data from the PC card. The election results stored to the tabulator's DRAM may be corrupt.

**Solution:** This condition causes a system halt. Reboot the system by turning the tabulator OFF and then back ON with the PC card inserted. If the error continues, attempt to restart the tabulator with a new PC card. If there are still problems, contact your election administrator to schedule technical service and request a backup tabulator.

### Error Reading System Audit Log

**Cause:** This message appears if an error occurs while the tabulator reads the system Audit Log in NVRAM (Non-Volatile Random Access Memory).

**Solution:** Allow the system to initialize the System Audit Log with default values. The system automatically initializes the log to default settings and displays a status message.

### Error Seeking On PCMCIA Card

**Cause:** This message appears if the tabulator encounters a problem while seeking a specific offset on the PC card.

**Solution:** This condition causes a system halt. Reboot the tabulator by turning it OFF and then back ON with the original PC card inserted. If the error persists, attempt to reboot the system with a new PC card. Turn the system off and insert a new card programmed with a duplicate election definition. Turn the system back on. If the continues, contact your election administrator to schedule technical service and request a backup tabulator.

### Error Setting Real Time Clock

**Cause:** This message appears if you encounter a problem setting the real-time clock.

**Solution:** Contact your election administrator to schedule technical service and request a backup tabulator.

### Error Writing PCMCIA Card

**Cause:** This message appears if the tabulator encounters a problem while writing data to the PC card. This condition can corrupt election results if the error occurs while your tabulator is open for voting.

**Solution:** This error causes a system halt. Turn the tabulator OFF and then back ON, without removing the PC card, to re-initialize your election. If the error continues, try to reboot the system using a new PC card with a duplicate election definition. If there are still problems, contact your election administrator to schedule technical service and request a backup tabulator.

### Error Writing System Audit Log

**Cause:** This message appears if an error occurs while the tabulator is writing the system audit log in NVRAM (Non-Volatile Random Access Memory).

**Solution:** Allow the system to initialize the System Audit Log with default values. The system automatically initializes the log to default settings and displays a status message.

### Error Writing To The Print Device

**Cause:** This message displays if the system encounters a printer processing error.

**Solution:** Contact your election administrator to schedule technical service and request a backup tabulator.

### Event Log Failed CRC

**Cause:** The Event Log failed the Cyclic Redundancy Check (CRC). A CRC is a safety check the counter performs to ensure that data is being copied properly.

**Solution:** This condition indicates that your PC card may be corrupt; either reprogram the same PC card or try a different card programmed with a duplicate election definition. If the error continues, contact your election administrator to schedule technical service and request a backup tabulator.

### Factory Parameters Corrupt-Reset

**Cause:** The factory parameter values in NVRAM do not match the CRC calculation. This error only occurs during the boot process.

**Solution:** Contact your election administrator for assistance.

### Firmware Install Failed

**Cause:** Firmware install failed.

**Solution:** Attempt to reinstall firmware. If problem continues contact ES&S for assistance.

### Firmware Install Success

**Cause:** Successful firmware installation.

**Solution:** No response required.

### Flash Data CRC Bad

**Cause:** CRC value for inserted firmware card do not match the computed value.

**Solution:** Use another firmware updated PC Card. If problem continues contact ES&S for assistance.

### Incompatible PCMCIA Card Format

**Cause:** This message indicates that the PC card format is incompatible with the current application code version.

**Solution:** Contact your election administrator to schedule technical service.

### Incompatible System Log Format

**Cause:** This message indicates that the System Log format is incompatible with the current application code version.

**Solution:** Contact your election administrator to schedule technical service.

### Invalid Instruction

**Cause:** This is an internal error message.

**Solution:** Contact your election administrator to schedule technical service.

### Invalid Memory Reference

**Cause:** This is an internal error message.

**Solution:** Contact your election administrator to schedule technical service.

### Invalid Parity Error

**Cause:** This is an internal error message.

**Solution:** Contact your election administrator to schedule technical service.

### Invalid Seq-Type-Split (X-X-X)

**Cause:** This message indicates that the Sequence-Type-Split code on an inserted ballot does not match the codes defined in the election definition. The 'X' values will be the Sequence-Type-Split code of the scanned ballot.

**Solution:** Insert a ballot with the correct Sequence-Type-Split code. If the error occurs again, contact your election administrator to schedule technical service.

### Invalid Sub Routine

**Cause:** This is an internal error message.

**Solution:** Contact your election administrator to schedule technical service.

### Key & EQC Verify Failed

**Cause:** The Model 100 failed to verify the encryption key and the Election Qualification Code for the PEB. This error only occurs when the election is set to use the iVotronic and Model 100 combination feature.

**Solution:** Contact your election administrator for assistance.

### Key Verify Failed

**Cause:** The Model 100 failed to verify the encryption key for the PEB. This error only occurs when the election is set to use the iVotronic and Model 100 combination feature.

**Solution:** Contact your election administrator for assistance.

### Memory Allocation Error

**Cause:** This message indicates that the tabulator did not successfully allocate system memory.

**Solution:** This condition may halt the system. Even if the tabulator does not halt, contact your election administrator to schedule technical service and request a backup tabulator.

### Menuing System Error

**Cause:** This message appears when the tabulator encounters a system error.

**Solution:** This condition may halt the system. Even if the tabulator does not halt, contact your election administrator to schedule technical service and request a backup tabulator.

### Missing Precinct Counter Block

**Cause:** This message appears if the tabulator cannot locate the race counter block for a given race.

**Solution:** Contact your election administrator to schedule technical service.

### More than one party has votes. Votes In Party Contests Will Be Ignored

**Cause:** This condition only occurs during an open primary election. This message indicates that a party preference selection could not be established and the voter marked contests affiliated with more than one party,

**Solution:** If you programmed your election definition to “Query upon Occurrence” of a cross-voted ballot, the poll worker is responsible for accepting or rejecting the ballot. If you programmed the election definition to “Always Reject” cross-voted ballots, the voter must re-mark and resubmit the ballot. If the error continues, contact your election administrator to schedule technical service.

**Note:** This error message does not appear if you programmed the Model 100 to “Always Accept” cross-voted ballots.

### NO BACK IMAGE DETECTED/Please See Election Official

**Cause:** The tabulator displays this message if the Model 100 does not detect a contest on the back of the ballot when the ballot’s sequence-type-split code indicates that information should appear on the back of the ballot.

**Solution:** Contact your election administrator.

### One Contest Has Too Many Votes

**Cause:** This message appears if the number of valid marks detected in the voting area for a contest exceeds the number of votes allowed for that contest.

**Solution:** If you programmed your election definition to “Query” of an overvoted ballot, the poll worker must review the ballot and then decide whether to accept or reject the voter’s selections. If you programmed the election definition to “Always Reject” overvoted ballots, the voter must edit and resubmit the ballot. If this message appears for a ballot that does not contain an overvoted contest, contact your election administrator to schedule technical service.

**Note:** This error message does not appear if you programmed the Model 100 to “Always Accept” overvoted ballots.

### One Contest Has Too Many Votes (RACE TITLE)

**Cause:** This message appears if the number of valid marks detected on the ballot for a contest exceeds the number of votes allowed for that contest. This message appears if you program the election definition to display the contest title along with the error condition.

**Solution:** If you programmed your election definition to “Query upon Occurrence” of an overvoted ballot, the poll worker must review the ballot and then decide whether to accept or reject the voter’s selections. If you programmed the election definition to “Always Reject” overvoted ballots, the voter must edit and resubmit the ballot. If this message appears for a ballot that does not contain an overvoted contest, contact your election administrator to schedule technical service.

**Note:** This error message does not appear if you programmed the Model 100 to “Always Accept” overvoted ballots.

### (X) Races Have Too Many Votes

**Cause:** The Model 100 displays this message if the number of valid marks detected for more than one contest on the ballot exceeds the number allowed votes for each of those contests.

**Solution:** If you programmed your election definition to “Query upon Occurrence” of an overvoted ballot, the poll worker must review the ballot and then decide whether to accept or reject the voter’s selections. If you programmed your election definition to “Always Reject” overvoted ballots, the Model 100 returns the ballot to the voter who must edit and resubmit the ballot. If the error appears for a ballot that does not contain an overvoted contest, contact your election administrator to schedule technical service.

**Note:** This error message does not appear if you programmed the Model 100 to “Always Accept” overvoted ballots.

### (X) Races Have Too Many Votes Including RACE TITLE

**Cause:** This message appears if the number of valid marks detected for more than one contest exceeds the number of votes allowed for each of those contests. This message appears if you program the election definition to display the contest title along with the error condition.

**Solution:** If you programmed your election definition to “Query upon Occurrence” of an overvoted ballot, the poll worker must review the ballot and then decide whether to accept or reject the voter’s selections. If you programmed your election definition to “Always Reject” overvoted ballots, the Model 100 returns the ballot to the voter who must edit and resubmit the ballot. If the error appears for a ballot that does not contain an overvoted contest, contact your election administrator to schedule technical service.

**Note:** This error message does not appear if you programmed the Model 100 to “Always Accept” overvoted ballots.

### OS Shell Command Fail

**Cause:** This message appears if system call in the Model 100 code fails to function correctly.

**Solution:** This condition may cause a system halt. Even if the system remains in operation, contact your election administrator to schedule technical service and request a backup tabulator.

### Overvoted Ballot Accepted

**Cause:** This verification message appears when the tabulator accepts a ballot that contains an overvoted contest.

**Solution:** No response required.

### Overvoted Ballot Returned

**Cause:** The Model 100 displays this message when the tabulator returns a ballot that includes an overvoted contest to the voter.

**Solution:** No response required.

### Party Preference Race Missing

**Cause:** This message appears if the tabulator processes a ballot that includes a party preference contest and the selected party preference is not detected in the election definition.

**Solution:** You may require a new election definition. Contact your election administrator for assistance.

### PCMCIA Card Not Inserted

**Cause:** This message appears if the PC card is removed while the tabulator attempts to access the card.

**Solution:** This condition causes a system halt and may corrupt the data stored to the PC card. Attempt to re-initialize the card by turning the system off, re-inserting the card, and turning the power back on. If this action fails, you may require a new PC card. Try the same procedure with a different PC card programmed with a duplicate election definition. If the error continues, contact your election administrator to schedule technical service and request a backup tabulator.

### PCMCIA Card Removed

**Cause:** PCMCIA card had been removed.

**Solution:** No response required.

### PCMCIA Driver Missing

**Cause:** The message appears if the tabulator cannot access the QNX/PC card driver.

**Solution:** This condition causes a system halt. Contact your election administrator to schedule technical service and request a backup tabulator.

### PCMCIA Header Section Failed CRC

**Cause:** This message appears if the header section of the PCMCIA card fails the CRC.

**Solution:** This message indicates that your PC card may be corrupt. Try a different card. If the error continues, contact your election administrator to schedule technical service.

### PEB Test Failed

**Cause:** The Model 100 was unable to read the PEB during the PEB Test.

**Solution:** Check the connection between the Model 100 and the PEB reader and ensure that the power cord is connected to the PEB reader. If the problem continues, contact the election supervisor.

### Possible Bad Sensor

**Cause:** This message appears if the tabulator detects an unacceptably long vertical line on a ballot.

**Solution:** Retry the ballot. If the problem continues, contact the election supervisor.

### Possible Blocked Sensor

**Cause:** This message appears if the tabulator detects an intermittent obstruction on part of the Read-Head, an intermittent fault in the CCD array Read-Head, or a non-contiguous vertical line on the ballot.

**Solution:** Make sure that your tabulator is not in the vote mode and then attempt to scan entering clean, blank ballots to remove possible obstructions. If the error continues, contact your election administrator to schedule technical service and request a backup tabulator.

### Printer Driver Missing

**Cause:** This message appears if the Model 100 fails to detect the printer driver.

**Solution:** Contact your election administrator to schedule technical service and request a backup tabulator.

### Race Results Cross-Check Fail

**Cause:** The Model 100 displays this message if the race result counters fail the system cross-check (between the precinct and master counters). This condition indicates that the election results stored in the system's DRAM are corrupt. The vote count results stored on the PC card may be corrupted.

**Solution:** This condition causes a system halt. Reboot the system by turning the power switch OFF and then back ON to re-initialize the PC card. If the system reads the card correctly, continue with the election process. If the error continues, contact your election administrator for a new card.

**Note:** The Model 100 does not record results from the ballot scanned when this error occurs. You must remove and rescan the ballot.

### Status Results Cross-Check Fail

**Cause:** This message appears if the status counters fail the cross-check (between the precinct and master counters). This condition indicates that the election results stored in DRAM are corrupt.

**Solution:** This condition causes a system halt. Reboot the system by turning the power switch OFF and then back ON to re-initialize the PC card. If the system reads the card correctly, continue with the election process. If the error appears again, contact your election administrator for a new card.

**Note:** You must remove and rescan the ballot that was in the tabulator when the error occurred.

### System Audit Log Failed CRC

**Cause:** This message appears if the System Audit Log stored to NVRAM fails the CRC. The software attempts to initialize the log with default values. If this operation is unsuccessful, the system shuts down.

**Solution:** Allow the system to initialize the System Audit Log using default values. If the initialization shuts down the system using default values, contact your election administrator to schedule technical service and request a backup tabulator.

### System Halted - Use Key to Power Down.

**Cause:** The system has halted.

**Solution:** Restart the counter by turning the tabulator key to the OFF position and then back ON. If the tabulator does not restart, contact your election administrator to schedule technical service and request a backup tabulator.

### Unable To Initialize Scanning System-System Halted

**Cause:** This message indicates that an error occurred when your Model 100 attempted to automatically initialize the machine tabulator board.

**Solution:** Contact ES&S.

### Unable To Load Keypad Server-System Halted

**Cause:** This message appears if the tabulator fails to detect the keypad server.

**Solution:** Contact ES&S.

### Unable To Load Signal Handlers-System Halted

**Cause:** This message appears if the tabulator fails to detect signal handlers.

**Solution:** Contact ES&S.

### Unable To Load Speaker Server-System Halted

**Cause:** This message appears if the tabulator fails to detect the speaker server.

**Solution:** Contact ES&S.

### Unable To Update Counters

**Cause:** This message appears if the tabulator software fails to update the counters after you scan a ballot.

**Solution:** This condition causes a system halt and requires a new PC card to resolve. Turn off the tabulator, insert a new PC card with a duplicate election definition and turn the tabulator back on. If the problem continues, contact your election administrator to schedule technical service and request a backup tabulator.

### Unable To Close Election

**Cause:** This message appears if tabulator software fails to access the PC card when you attempt to close the election.

**Solution:** Check the PC card for proper installation. If the card is installed properly, the card may be defective or another hardware fault may have occurred. If the problem continues, contact your election administrator to schedule technical service and request a backup tabulator.

### Unable to Read Card

**Cause:** Failed to read the inserted PCMCIA card.

**Solution:** Check the PC card for proper installation. If the card is installed properly, the card may be defective or another hardware fault may have occurred. If the problem continues, contact your election administrator to schedule technical service and request a backup tabulator.

### Unable To Read PCMCIA Counter Block

**Cause:** This message appears if the system software fails to read the PC card counter block.

**Solution:** Check the PC card for proper installation. If the card is installed properly, the card may be defective or another hardware fault may have occurred. If the problem continues, contact your election administrator to schedule technical service and request a backup tabulator.

### Unidentified Mark – Check Your Ballot

**Cause:** This message appears if the tabulator detects a mark that meets the minimum threshold for recognition by the system, but is not dark enough for the tabulator to read as a valid vote.

**Solution:** Re-mark or darken the marks and rescan the ballot.

### Unknown Error

**Cause:** This message appears if the Model 100 detects an internal system error.

**Solution:** Contact your election administrator to schedule technical service.

### Voltage Too Low

**Cause:** This message appears if the tabulator's battery voltage falls below the acceptable operating level.

**Solution:** Plug the terminal into a 120-volt A/C outlet. For more information about charging the tabulator battery, see "Charging the Battery" in Chapter 2. If the problem persists, contact your election administrator to schedule technical service and request a backup tabulator.

### Voting Continued Prev Unit

**Cause:** This verification message appears if you successfully transfer a PC card from one Model 100 to another during active voting. The Model 100 also displays the machine ID for the tabulator that was previously using the card.

**Solution:** No response required.

### Warning-The unit is on Battery Power

**Cause:** This message appears if the AC connection in the back of the machine has been unplugged or if the tabulator's outlet fails to receive power.

**Solution:** Check the power cord connections to the tabulator and wall outlet. Contact the supervisor for your polling place if the tabulator continues to run on battery power after you properly plug it in.

### Working Parameters Corrupt-Reset

**Cause:** This message appears if the working parameter values stored to the tabulator's NVRAM do not match those calculated during the CRC. This error can only occur during the tabulator's boot sequence.

**Solution:** Contact your election administrator to schedule technical service and request a backup tabulator.

### Wrong PEB Type, not a KeyPEB

**Cause:** No encryption key exists on the PEB. This error only occurs when the election is set to use the iVotronic and Model 100 combination feature.

**Solution:** Contact your election administrator for assistance.

## XBIN Directory Not Found

**Cause:** This message appears if a required XBIN directory does not exist because the binary executable image block required for TCP/IP or PSMCIA modems was not programmed to the election definition card, or the card could not be started successfully by the resource manager.

**Solution:** Contact your election administrator to schedule technical service and request a backup tabulator.

## Verification Messages

The following verification messages are self-explanatory, descriptive messages that the Model 100 displays in response to a specific action. Verification messages do not require action from a poll worker.

- ❖ Aborted Printing
- ❖ Ballot Cast
- ❖ Counters Cleared
- ❖ Current Unit
- ❖ Diagnostic Check Completed
- ❖ Election Definition Loaded
- ❖ Election Definition Unloaded
- ❖ Election Results Sent
- ❖ Entered Ballot Test Mode
- ❖ Exited Ballot Test Mode
- ❖ First Ballot Processed
- ❖ Key & EQC Already Loaded
- ❖ Key & EQC Updated Successful
- ❖ Key & EQC Verify Successful
- ❖ No Election Card
- ❖ Opening Polls
- ❖ PEB Test Completed
- ❖ Polls Closed
- ❖ Polls Opened
- ❖ Power On

- ❖ Real Time Clock Set
- ❖ Scanning Ballot in Progress... Please Wait.
- ❖ Switched to AC Power
- ❖ Switched to Battery Power
- ❖ Total Ballots Accepted
- ❖ Voting Enabled
- ❖ Your Ballot Was Accepted. Thank You for Voting.

## Understanding Numeric Messages

### 100 – MISSED ORIENTATION MARKS/Turn Ballot Over and Try Again

**Cause:**The tabulator failed to detect the orientation of a ballot.

**Solution:** Remove the ballot from the tabulator and attempt to feed the ballot in a different orientation. If the error continues, contact your election administrator to schedule technical service and request a backup tabulator.

### 101 – MISSED TIMING MARKS/ Turn Ballot Over and Try Again

**Cause:**The tabulator failed to detect one or more marks that appear in the ballot's timing track.

**Solution:** Remove the ballot and reinsert it into the tabulator. If the error persists, contact your election administrator to schedule technical service and request backup tabulator.

### 102 – NO DATA FOUND/Please Re-insert Ballot After Beeps

**Cause:**The tabulator failed to locate the leading edge of an inserted ballot.

**Solution:** Remove and reinsert the ballot. If the error continues, contact your election administrator to schedule technical service and request a backup tabulator.

### 103 – SYSTEM ERROR/Please See Election Official

**Cause:**The tabulator encountered an unrecoverable error occurred in the operating system.

**Solution:** Contact your election administrator to schedule technical support and request a backup tabulator.

### 104 – ORIENTATION SKIP ERROR

**Cause:**The tabulator failed to read the black checks on the leading edge of a ballot.

**Solution:** Remove and reinsert the ballot. If the error persists, contact your election administrator to schedule technical service and request a backup tabulator.

### 105 – SYSTEM ERROR/Please See Election Official

**Cause:**The tabulator encountered an unrecoverable error in the operating system.

**Solution:** Contact your election administrator to schedule technical support and request a backup tabulator. Do not use the tabulator until an ES&S service technician identifies and repairs the problem.

### 106 – MISSED TIMING MARKS/ Turn Ballot Over and Try Again

**Cause:**The tabulator failed to properly read one or more marks from a ballot's timing track.

**Solution:** Remove and reinsert the ballot. If the error persists, contact your election administrator to schedule technical service and request a backup tabulator.

### 107 – BALLOT ERROR: INVALID CC SEQUENCE

**Cause:**The tabulator failed to read the correct sequence code from a ballot.

**Solution:** Remove and reinsert the ballot. If the error persists, contact your election administrator to schedule technical service.

### 108 – BALLOT ERROR: INVALID CC TYPE

**Cause:**The tabulator failed to recognize the type code for a ballot.

**Solution:** Remove and reinsert the ballot. If the error persists, contact your election administrator to schedule technical service.

### 109 – BALLOT ERROR: INVALID CC SPLIT

**Cause:**The tabulator failed to recognize a ballot's split code.

**Solution:** Remove and reinsert the ballot. If the error persists, contact your election administrator to schedule technical service.

#### 110 – SYSTEM ERROR/Please See Election Official

**Cause:**The tabulator encountered an unrecoverable error in the operating system.

**Solution:** Turn off the tabulator and remove it from the polling area. Contact your election administrator to schedule tabulator maintenance. Do not use the tabulator again until an ES&S technician repairs the Model 100.

#### 111 – SYSTEM ERROR/Please See Election Official

**Cause:**The tabulator encountered an unrecoverable error in the operating system.

**Solution:** Turn off the tabulator and remove it from the polling area. Contact your election administrator to schedule tabulator maintenance. Do not use the tabulator again until an ES&S technician repairs the Model 100.

#### 112 – SYSTEM ERROR/Please See Election Official

**Cause:**The tabulator encountered an unrecoverable error in the operating system.

**Solution:** Turn off the tabulator and remove it from the polling area. Contact your election administrator to schedule tabulator maintenance. Do not use the tabulator again until an ES&S technician repairs the Model 100.

#### 113 – SYSTEM ERROR/Please See Election Official

**Cause:**The tabulator encountered an unrecoverable error in the operating system.

**Solution:** Turn off the tabulator and remove it from the polling area. Contact your election administrator to schedule tabulator maintenance. Do not use the tabulator again until an ES&S technician repairs the Model 100.

#### 114 – SYSTEM ERROR/Please See Election Official

**Cause:**The tabulator encountered an unrecoverable error in the operating system.

**Solution:** Turn off the tabulator and remove it from the polling area. Contact your election administrator to schedule tabulator maintenance. Do not use the tabulator again until an ES&S technician repairs the Model 100.

### 115 – MISSED BACK ORIENTATION MARK/Turn Ballot Over and Try Again

**Cause:**The counter failed to read an orientation mark on one side of the ballot.

**Solution:** Turn the ballot over and reinsert it into the tabulator. If the tabulator still cannot read the orientation mark, contact your election administrator to schedule technical service and request a backup Model 100.

### 116 – SYSTEM ERROR/Please See Election Official

**Cause:**The tabulator encountered an unrecoverable error in the operating system.

**Solution:** Turn off the tabulator and remove it from the polling area. Contact your election administrator to schedule tabulator maintenance. Do not use the tabulator again until an ES&S technician repairs the Model 100.

### 117 – SYSTEM ERROR/Please See Election Official

**Cause:**The tabulator encountered an unrecoverable error in the operating system.

**Solution:** Turn off the tabulator and remove it from the polling area. Contact your election administrator to schedule tabulator maintenance. Do not use the tabulator again until an ES&S technician repairs the Model 100.

### 118 – SYSTEM ERROR/Please See Election Official

**Cause:**The tabulator encountered an unrecoverable error in the operating system.

**Solution:** Turn off the tabulator and remove it from the polling area. Contact your election administrator to schedule tabulator maintenance. Do not use the tabulator again until an ES&S technician repairs the Model 100.

### 119 – MULTIPLE BALLOTS DETECTED/Please Re-insert One Ballot After Beeps

**Cause:** The Model 100 detected more than one ballot in the tabulator read area.

**Solution:** Remove ballots from the read area and reinsert them one at a time. If the error occurs repeatedly, contact your election administrator to schedule technical service and request a backup tabulator.

### 120 – DIVERTER NOT INITIALIZED

**Cause:** The Model 100 failed to initialize the ballot box diverter. The tabulator does not sort write-in ballots properly if the diverter fails.

**Solution:** Make sure the tabulator is correctly mounted to the ballot box. If the error persists, contact your election administrator to schedule technical service and a back-up machine or ballot box.

### 121 – DIVERTER DETECTION ERROR

**Cause:** The tabulator failed to stop the diverter motor in the ballot box from running after scanning a ballot.

**Solution:** Contact your election administrator to schedule technical service.

### 122 – DIVERTER NOT DETECTED

**Cause:** The tabulator failed to detect the ballot diverter during a diverter test.

**Solution:** Contact your election administrator to schedule maintenance.

### 123 – UNABLE TO READ TIMING BAND/Turn Ballot Over and Try Again

**Cause:** The tabulator detected a problem with a ballot's alignment as it passed through the read area.

**Solution:** Remove and reinsert the ballot in a different orientation. If the system continues to reject the ballot, contact ES&S technical support for assistance.

### 124 – BALLOT DRAGGED/Turn Ballot Over and Try Again

**Cause:** The ballot did not enter the feed mechanism smoothly, which caused misalignment during scanning.

**Solution:** Remove and reinsert the ballot. If the system continues to reject the ballot, contact ES&S technical support for assistance.

### 125 - BALLOT TOO LONG/Please See Election Official

**Cause:** The length of an inserted ballot was greater than the ballot length specified in the tabulator's election definition.

**Solution:** Contact ES&S technical support for assistance.

### 126 - BLACK CHECK: FACE DOWN HEAD EDGE/Turn Ballot Over and Try Again

**Cause:**The tabulator failed to read one or more of the orientation marks that appear at the top and bottom of each ballot column.

**Solution:** Remove and reinsert the ballot in a different orientation. If the Model 100 fails to read the ballot a second time, clean the tabulator's optical sensors with compressed air. If the tabulator continues to fail, darken the black check marks with a black sharpie.

### 127 - BLACK CHECK: FACE DOWN TAIL EDGE/Turn Ballot Over and Try Again

**Cause:**The tabulator failed to read one or more of the orientation marks that appear at the top and bottom of each ballot column.

**Solution:** Remove and reinsert the ballot in a different orientation. If the Model 100 fails to read the ballot a second time, clean the tabulator's optical sensors with compressed air. If the tabulator continues to fail, darken the black check marks with a black sharpie.

### 128 - BLACK CHECK: FACE UP HEAD EDGE/Turn Ballot Over and Try Again

**Cause:**The tabulator failed to read one or more of the orientation marks that appear at the top and bottom of each ballot column.

**Solution:** Remove and reinsert the ballot in a different orientation. If the Model 100 fails to read the ballot a second time, clean the tabulator's optical sensors with compressed air. If the tabulator continues to fail, darken the black check marks with a black sharpie.

### 129 - BLACK CHECK: FACE UP TAIL EDGE/ Turn Ballot Over and Try Again

**Cause:**The tabulator failed to read one or more of the orientation marks that appear at the top and bottom of each ballot column.

**Solution:** Remove and reinsert the ballot in a different orientation. If the Model 100 fails to read the ballot a second time, clean the tabulator's optical sensors with compressed air. If the tabulator continues to fail, darken the black check marks with a black sharpie.

### 130 - POSSIBLE FOLDED BALLOT/ Turn Ballot Over and Try Again

**Cause:** The tabulator detected a ballot that is either folded, or shorter than the ballot length specified in the tabulator's election definition.

**Solution:** Remove and reinsert the tabulator. If the problem persists, contact the election supervisor for assistance.

### 131 –BALLOT READ ERROR-Please See Election Official

**Cause:** The tabulator detected possible counterfeit marks on the ballot.

**Solution:** Remove and examine the ballot. Attempt to rescan the ballot if it appears to be genuine. If you detect a problem with the ballot, pass it on to your jurisdiction's review board. If this error message continues to appear as the tabulator reads valid ballots, contact your election administrator for assistance.

### 132 - - TOP SCANBAR HAS BLOCKED SENSORS/Please See Election Official.

**Cause:** The tabulator has detected a particle blocking one of its top sensors or a sensor failure.

**Solution:** Clean the tabulator's optical sensors with compressed air. If the error persists, contact your election administrator to schedule technical service.

### 133 - BOTTOM SCANBAR HAS BLOCKED SENSORS/ Please See Election Official

**Cause:** The tabulator has detected a particle blocking one of its bottom sensors or a sensor failure.

**Solution:** Clean the tabulator's optical sensors with compressed air. This is done by spraying the compressed air at the Ballot Entry Slot (lift the security flap) and at the Paper Path on the back of the machine. If the error persists, contact your election administrator to schedule technical service.

### 134 - BOTH SCANBARS HAVE BLOCKED SENSORS/Please See Election Official

**Cause:** The tabulator has detected a particle blocking one of its sensors or a sensor failure.

**Solution:** Clean the tabulator's optical sensors with compressed air. This is done by spraying the compressed air at the Ballot Entry Slot (lift the security flap) and at the Paper Path on the back of the machine. If the error persists, contact your election administrator to schedule technical service.

### 135 - UNKNOWN ERROR, CODE: XXX

**Cause:**The tabulator detected an undefined error during the scanning routine.

**Solution:** Remove and reinsert the ballot. If the error persists, contact your election administrator to schedule technical service and request a backup tabulator.

### 136 - UNKNOWN ERROR, DECODE: XXX

**Cause:**The tabulator encountered an undefined error while attempting to decode a ballot.

**Solution:** Remove and reinsert the ballot. If the error persists, contact your election administrator to schedule technical service and request a backup tabulator.

### 137 – BALLOT TOO SHORT: XXX

**Cause:**The length of an inserted ballot was less than the ballot length specified in the tabulator's election definition.

**Solution:** Contact ES&S technical support for assistance.

## Chapter 11: Understanding System Menus

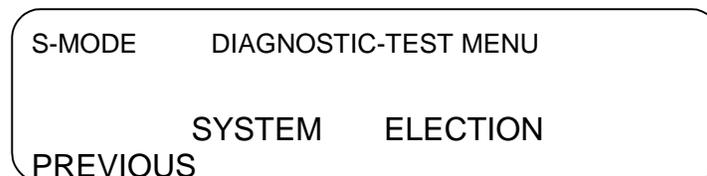
This chapter contains diagrams and descriptions of Model 100 menu functions. Which menu selections are available depend on what operating mode you activate for the Model 100. For example, if you turn the control key to the OPEN/CLOSE POLL position, Model 100 POLLS OPEN options are not accessible.

The Model 100's three operating modes are DIAGNOSTIC-TEST, POLLS OPEN, and POLLS CLOSED. You can only activate one mode at a time.

### Diagnostic Test Mode

Perform diagnostic tests before you open the tabulator for voting. Model 100 diagnostic test functions include processing a test deck, setting the system time, calibrating the tabulator, and auto-reading ballots. After you open the polls, the **DIAGNOSTIC-TEST** menu is not available unless you reopen the polls after closing the tabulator for voting. To access the **DIAGNOSTIC-TEST** menu, start the Model 100 with a PC card loaded, wait until the automatic reports print and then press the first and third buttons from the left on the control panel simultaneously. You can also access the **DIAGNOSTIC-TEST** menu by starting the Model 100 without installing a PC card.

### Accessing the Diagnostic Test Menu (with a PC card Loaded)



#### To access the **DIAGNOSTIC-TEST** menu (with a PC Card loaded)

1. Insert the PC card with the election definition and turn the tabulator on. The tabulator powers up and the message "ELECTION CARD INSERTED: OPEN POLLS NOW?" appears.
2. Press the first and third buttons from the left to access the **DIAGNOSTIC-TEST** menu.



3. The three selections under the **DIAGNOSTIC-TEST** menu are **DIAGS** (diagnostics), **SYSTEM SETTINGS**, and **ELECTION TEST**.

### Accessing the Diagnostic Test Menu (without a PC Card)



#### To access the **DIAGNOSTIC-TEST** menu (without a PC Card)

Do not insert a PC card into the tabulator and turn the tabulator key to OPEN/CLOSE POLL. **DIAGS** is the only menu selection available when no PC card is loaded in the Model 100.

### The **DIAGS** Menu

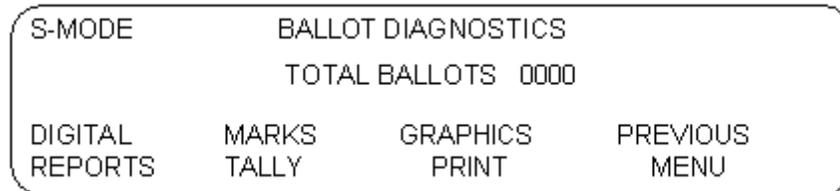
Select **DIAGS** from the **DIAGNOSTIC-TEST** menu to test the tabulator's accuracy and print reports that detail the current machine status. The three options available from the **DIAGS** menu are **BALLOT DIAGS**, **SYSTEM REPORTS**, and **MORE DIAGS**.

Select **BALLOT DIAGS** to test your tabulator's accuracy. The two options available from the **BALLOT DIAGS** menu are **FEED BALLOTS** and **RECYCLE SET**. Select **RECYCLE SET** to select the number of times that the tabulator will read the next ballot inserted into the Model 100.

### To test the tabulator

Select **FEED BALLOTS** and insert ballots into the tabulator. If the tabulator successfully reads the ballot, the ballot emerges from the back of the tabulator and drops into the ballot box. If the tabulator detects ballot irregularities, the tabulator rejects the ballot and a system error message appears.

## The Ballot Diagnostics menu



After scanning test ballots, use the report options available under the **BALLOT DIAGNOSTICS** menu to check the tabulator's accuracy. **BALLOT DIAGNOSTICS** options print reports that describe the last ballot scanned. Available options include: **DIGITAL REPORTS**, **MARKS TALLY**, and **GRAPHICS PRINT**.

### To print diagnostics reports

1. Select **DIGITAL REPORTS** and then select **DIGITAL TABLE** to generate a report that shows how many pixels the tabulator reads in each oval location.
2. Select **MARK CODE** from the **DIGITAL TABLE** menu to generate a report that shows the different types of marks recognized by the tabulator in each response area. Four different kinds of readings are displayed:
  - ❖ A dash (-) appears if the tabulator detects a blank response area.
  - ❖ An I (ignore) code appears if the tabulator detects too few pixels in the response area to register a valid mark.
  - ❖ A V (vote) code appears if detects a valid voting mark in the specified area.
  - ❖ An E (error) code appears if the tabulator reads detects a mark but cannot read the mark as a valid vote.

A number representing the variations in darkness (the thickness) of the mark follows the vote codes.

### Mark Code Table

*** Mark Code Table ***							
10:37:01 03/20/2001							
Orientation: FACE UP, HEAD FIRST							
ROW	CODE	-A-	-B-	-C-	-D-	-E-	-F-
001	12	V4	V4	V4	-	-	-
002	000	V1	V1	E2	-	-	-
003	000	-	-	-	-	-	-
004	000	-	-	-	-	-	-
005	000	-	-	V2	-	-	-
006	138	-	V6	-	-	-	-
007	000	-	V6	-	-	-	-
008	000	-	-	-	-	-	-
009	000	-	V5	V5	-	-	-
010	000	V6	-	-	-	-	-
011	000	V6	-	V6	-	-	-
012	000	-	-	-	-	-	-
013	000	-	-	-	-	-	-
014	000	-	-	V3	-	-	-
015	309	V6	-	-	-	-	-
016	308	-	-	V6	-	-	-
017	319	-	-	-	-	-	-
018	160	V6	-	-	-	-	-
019	000	-	-	-	-	-	-

- From the **DIGITAL REPORTS** menu, select **SCAN REPORT** to produce a report that assists you with diagnosing ballots with a high scan error rate.

## Sample Scan Report and Description

\*\*\* Scanned Ballot Information \*\*\*

Orientation: FACE UP, HEAD FIRST (Orientation determined by the scanning algorithm)

Ballot Sides Defined: 2  
 (Number of ballot sides defined on the Election Definition PCMCIA card: 1 or 2)

Ballot Sides Determined: 2  
 (Number of sides the ballot has: 1 or 2)

FRONT OF BALLOT

Black Checks Info:

Mark:	Left Edge	Right Edge	Size
TT:	008,	027,	<u>152</u>

Black Check Information	
Mark:	The black check mark types on the ballot; TT, A, B, C, D, E, F
Left Edge:	Millimeter measurement from the left edge of the ballot to the left edge of the specified black check mark
Right Edge:	Millimeter measurement from the left edge of the ballot to the right edge of the specified black check mark
Size:	Number of pixels that exist horizontally within the specified black check mark

A:	034,	040,	<u>048</u>
B:	092,	098,	<u>046</u>
C:	151,	157,	048

Vertical skew: 1

(Difference in scans when finding the left edge and right edge of the leading edge of the ballot; caused by the user inserting the ballot at an angle)

Timing Track Info:

(Number of timing tracks found on the target side)

<p style="text-align: center;"><b>Number of Timing Bands</b></p> <p>(Number of black check marks (timing bands) vertically on the ballot; the number of white bands should match the number of bands of the Election Definition where a 14/36 ballot should have a value of 36)</p>
---

Number of timing bands: 036

<p style="text-align: center;"><b>Number of White Bands</b></p> <p>Number of white spaces between the timing bands vertically on the ballot; the number of white bands should match the number of bands of the Election Definition where a 14/36 ballot should have a value of 36)</p>
--

Number of white bands: 036

<p style="text-align: center;"><b>Number of horizontal adjustments</b></p> <p>(Number in millimeters that the timing track shifted during the scanning of the ballot; -4 to +4 where negative values determine a left shift and positive values a right shift)</p>
--

Number of horizontal adjustments: -1

## BACK OF BALLOT

## Black Checks Info:

Mark:	Left Edge	Right Edge	Size
D:	012,	018,	<u>048</u>
E:	071,	077,	<u>048</u>
F:	129,	<u>135</u>	<u>048</u>
TT:	201,	207,	050

Vertical skew: 4

## Timing Track Info:

Number of timing bands: 036

Number of white bands: 036

Number of horizontal adjustments: 2

SUCCESSFUL SCAN (0)

4. Select **PREVIOUS MENU** and then **MARKS TALLY** from the **BALLOT DIAGNOSTICS** menu to generate a report that identifies the number of marked ovals, by row, detected on both sides of the ballot. The report heading shows how many ballots the Model 100 scanned and the report itself shows the ballot position of marks read by the tabulator.

A zero on the **MARKS TALLY** report identifies an oval that failed to register on the tabulator. A number (001, for example) indicates a scanned oval and identifies the row/column position of the oval. The value of the number indicates how many scanned ballots registered a valid mark in the specified ballot position. For example, if the value 003 appears in row one, column A, three scanned ballots contain a valid mark in the specified oval position.

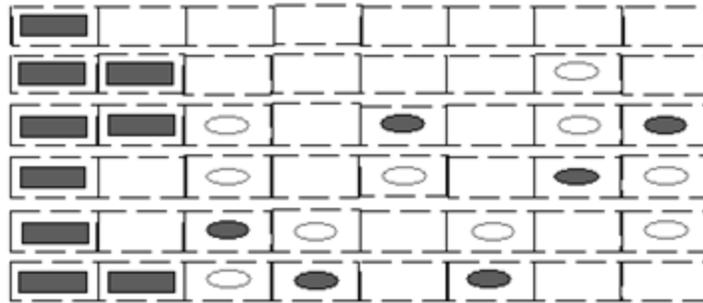
## Sample Marks Tally Report and Sample Ballot

Ballot Position Totals Report					
Total ballots Scanned: 001					
Row	-A-	-B-	-C-	-D-	-E- -F-
1	000	000	000	000	000 000
2	000	000	000	000	000 000
3	000	000	000	000	000 000
4	000	000	000	000	000 000
5	001	000	000	000	000 000
6	000	000	000	000	000 000
7	000	000	000	000	000 000
8	000	000	000	000	000 000
9	000	000	001	000	000 000
10	000	000	000	000	000 000
11	000	000	000	000	000 000
12	000	000	000	000	000 000
13	000	000	000	000	000 000
14	000	001	000	000	000 000
15	000	000	000	000	000 000
16	000	000	000	000	000 000
17	000	000	000	000	000 000
18	000	000	000	000	000 000
19	000	000	000	000	000 000
20	000	000	000	000	000 000
21	000	000	001	000	000 000
22	000	000	000	000	000 000
23	000	000	000	000	000 000
24	001	000	000	000	000 000
25	000	000	000	000	000 000
26	000	000	000	000	000 000
27	000	000	000	000	000 000
28	000	000	000	000	000 000
29	000	000	000	000	000 000
30	000	000	000	000	000 000
31	000	001	000	000	000 000
32	000	000	000	000	000 000
33	000	000	000	000	000 000
34	000	000	000	000	000 000

**Note:** The oval threshold setting determines whether the tabulator can read a mark.

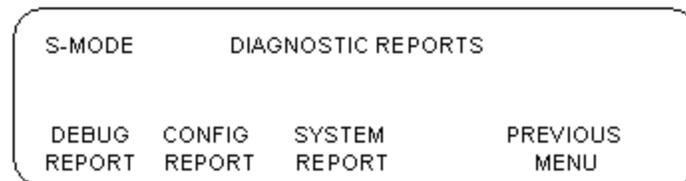
5. Select **GRAPHICS PRINT** from the **BALLOT DIAGNOSTICS** menu to print a graphic display of what the tabulator reads within each “cell” window. Each black dot on the printout represents a marked dot on the ballot with a dashed line dividing each row and cell.

## Graphics Print Table



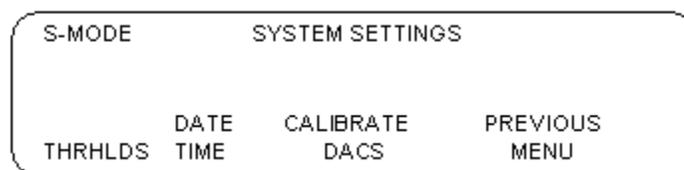
- Press **PREVIOUS** to navigate backward through Model 100 menus until you reach the **DIAGNOSTIC** menu. From the **DIAGNOSTIC** menu, select **SYSTEM REPORTS**. Use the **SYSTEM REPORTS** options check the status of the tabulator and identify system problems. The three system reports available are: **DEBUG REPORT**, **CONFIG REPORT**, and **SYSTEM REPORT**. See [Chapter 9: Reports](#) for explanations and examples of Model 100 system reports.

## Diagnostic Report Menu



## The System Settings Menu

Use **SYSTEM SETTINGS** options to calibrate the tabulator and set the system clock. You must install your election definition PC card before you activate the tabulator to alter scanning options.



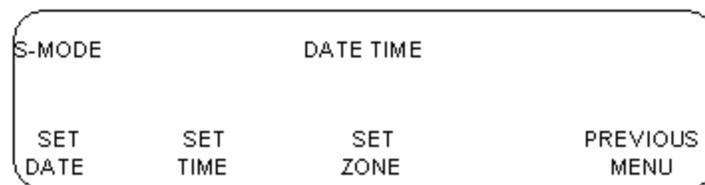
1. Select **THRHLDS** to access the **MULTI SHEET** option, which you can use to test the tabulator's multi-sheet sensor.

**Note:** The multi-sheet sensor prevents the tabulator from accepting two ballots at the same time. For more information about testing the multi-sheet sensor, see Chapter 4.

2. Select **DATE TIME** and select from the following options to adjust the system time, date, and time zone.
  - ❖ **Set Date:** sets the current date according to the current time zone.
  - ❖ **Set Time:** sets the current time according to the current time zone.
  - ❖ **Set Time Zone:** sets the time zone for the polling site.

## Date/Time Menu

3. Only qualified, ES&S technical support staff should select the **CALIBRATE DACS** option.



## The Election Test Menu

Use options from the **ELECTION TEST** menu to verify the election definition and check the system counting logic. The Model 100 does not store results for any of the ballots scanned during the election test and the tabulator clears any existing election totals when you enter the **ELECTION TEST** menu. The tabulator restores any existing, official results to the PC card after you exit the **ELECTION TEST** menu. The three options available in the **ELECTION TEST** menu are **TEST BALLOT, REPORTS**, and **ZERO TOTALS**.

## Election Test Menu

S-MODE	ELECTION TEST MENU		
TEST		ZERO	PREVIOUS
BALLOT	REPORTS	TOTALS	MENU

1. From the **ELECTION TEST** menu, select **TEST BALLOTS** to open the **BALLOT TEST** menu. From the **BALLOT TEST** menu, select **FEED BALLOTS**, and then insert test ballots into the tabulator as you would for a normal election.

## Election Test Insert Ballot

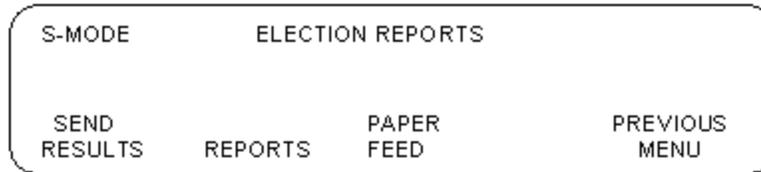
S-MODE	ELECTION TEST INSERT BALLOT
NUMBER OF VOTERS: 0	
	PREVIOUS

2. After you finish scanning test ballots, select **PREVIOUS** to navigate backwards through Model 100 menus until you return to the **ELECTION TEST** menu. From the **ELECTION TEST** menu, select **REPORTS** to open the **ELECTION REPORTS** menu. Use the three options available from the **ELECTION REPORTS** menu (**SEND RESULTS**, **REPORTS**, and **PAPER FEED**) to generate test reports from the Model 100.



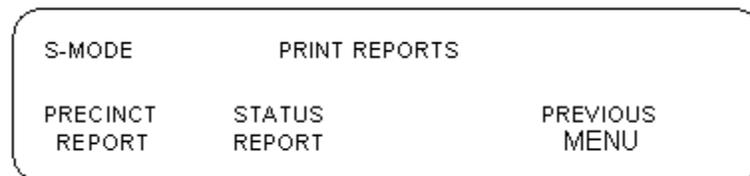
**NOTE:** For more information about using the **PAPER FEED** command, see [Chapter 8: Maintain the Tabulator](#).” For information about transferring election results over a network, see [Chapter 6: Election Day Tasks](#)

## Election Reports Menu



- From the **ELECTION REPORTS** menu, select **REPORTS** to open the **PRINT REPORTS** menu. From the **PRINT REPORTS** menu, you can generate a Poll Report, a Precinct Report or a Status Report. For samples and descriptions of the available reports, see [Chapter 9: Reports.](#)

## Print Reports Menu



- From the **ELECTION TEST** menu, select **ZERO TOTALS** to set the test totals stored in system memory to zero.

## Using the Ballot Auto-read Option

Use the Model 100 auto-read option for diagnostic purposes to select the number of times the tabulator reads a single ballot. You can run a series of ballots and change the number of times the tabulator processes each ballot.

### To activate the auto-read option

- From the **DIAGNOSTIC-TEST** menu, select **ELECTION TEST** to open the **ELECTION TEST** menu.
- From the **ELECTION TEST** menu, select **TEST BALLOT** to open the **BALLOT TEST** menu.

3. From the **BALLOT TEST** menu, select **AUTOREAD SETTINGS** to open the **AUTOREAD SETTINGS** menu. Use **AUTOREAD SETTINGS** options to set the number of times the Model 100 automatically scans the next inserted ballot. You can also configure the tabulator to process ballots multiple times based on ballot style. For example, you can select a ballot style and enter a number to direct the tabulator to process the next ballot it detects that falls within the specified style the number of times that you specify.
4. Press **SELECT DIGIT** to specify the number of times the Model 100 will scan the selected ballot. Press **PLUS** or **MINUS** to increase or decrease the number.
5. Press **PREVIOUS MENU** to navigate back to the **TEST BALLOT** menu and press **FEED BALLOTS** to open the **AUTOREAD** menu.
6. Insert the ballot that you want to scan. The Model 100 automatically scans the ballot the number of times that you specified in the **AUTOREAD SETTINGS** menu.
7. Press **STOP** to cancel ballot processing. Re-insert the ballot to restart the scanning process. Press **RESET** to clear the **CURRENT COUNT**. Press **PREVIOUS** to return to the **BALLOT TEST MENU** when you finish processing ballots.

**Note:** From the **BALLOT TEST MENU**, press **AUTOREAD SETTINGS** to change the number of scan cycles for each ballot that you want to scan.

## Polls Open Mode

Open the polls to begin scanning official ballots on Election Day.

### To open the polls

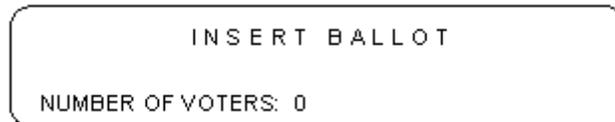
Press **PREVIOUS** to navigate backwards through Model 100 menus until you see the message “ELECTION CARD INSERTED OPEN POLLS NOW?” on the display screen. Press **YES** and turn the key to VOTE to open the polls.

The tabulator performs a series of internal system checks and displays the results. If any of the checks fail, the tabulator rejects the loaded election definition and defaults to the main menu.

If the system checks out, the Model 100 automatically sets election totals to zero and prints a Status Report and then a Zero Totals report. The Zero Report lists all active races, and shows the current vote count for all of the contests and issues included on the ballot. The tabulator automatically shuts down if it fails to properly clear votes from system memory. If necessary, you can generate multiple zero reports with certification statements.

After the tabulator completes its automatic checks and prints initial reports, the message, "INSERT BALLOT" appears on the display screen. Voters can now insert ballots into the tabulator and the Model 100 saves the results to the inserted PC card.

## Insert Ballot Screen



### To print an audit log report with the polls open

1. To print a log report without closing the tabulator, open the Key Access Panel and turn the control key to the OPEN/CLOSE POLL position. The **AUDIT LOG-REPORT** option appears next to the **CLOSE POLLS** option.
2. Select **AUDIT-LOG REPORT** to print the log.
3. Turn the key back to the **VOTE** position after the report prints to enable voting.

### To enable additional precincts with the polls open

1. To enable additional precincts without closing the tabulator, open the Key Access Panel and turn the key to the OPEN/CLOSE POLL position. The **AUDIT LOG-REPORT** option appears next to the **CLOSE POLLS** option.
2. Press the far left button on the control panel (it does not have a label) to open the **ENABLE PRECINCTS** menu.
3. Select **NXT-PREC** to advance through a list of available precincts.
4. Select **ENABLE** for each precinct that you want to activate. After you enable a precinct, the precinct remains active for the duration of the election or ballot test. If you activate a precinct for testing, the tabulator reverts to the previous settings after you exit the test menu.
5. Select **PREVIOUS** navigate backwards through Model 100 menus until you reach the **CLOSE POLL** option, and then turn the key to the VOTE position to activate the tabulator for voting.

### To close the polls

1. At your jurisdiction's assigned closing time, turn the tabulator control key to OPEN/CLOSE POLL position to access the **CLOSE POLLS** option.

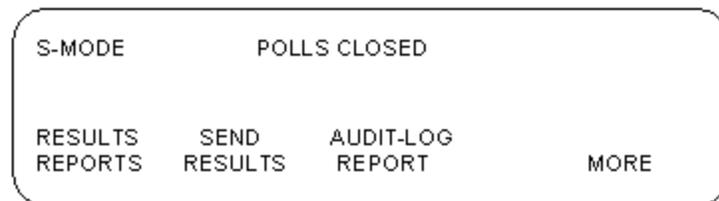
2. Press **CLOSE POLLS** to close the Model 100 for voting. The tabulator does not save any ballot totals to the PC card after you close the polls.

**Note:** Depending on how you configured your election definition, the tabulator may automatically print a results report and a certification report after you close the polls. Press **CANCEL** to abort the printing. You can print additional copies of any automatic reports from Polls Closed mode.

## Polls Closed Mode

Activate POLLS CLOSED mode to generate results reports, print the system audit log and to transfer election results to your reporting software.

### Polls Closed Menu



1. Open the key access panel and turn the control key to the OPEN/CLOSE POLL position to access the **POLLS CLOSED** menu.
2. The options available from the **POLLS CLOSED** menu include: **RESULTS REPORT**, **SEND RESULTS**, **AUDIT-LOG REPORT** and **MORE**. For more information about all of the commands available on this menu, except the **MORE** option, see “The Election Test Menu” earlier in this chapter.
 

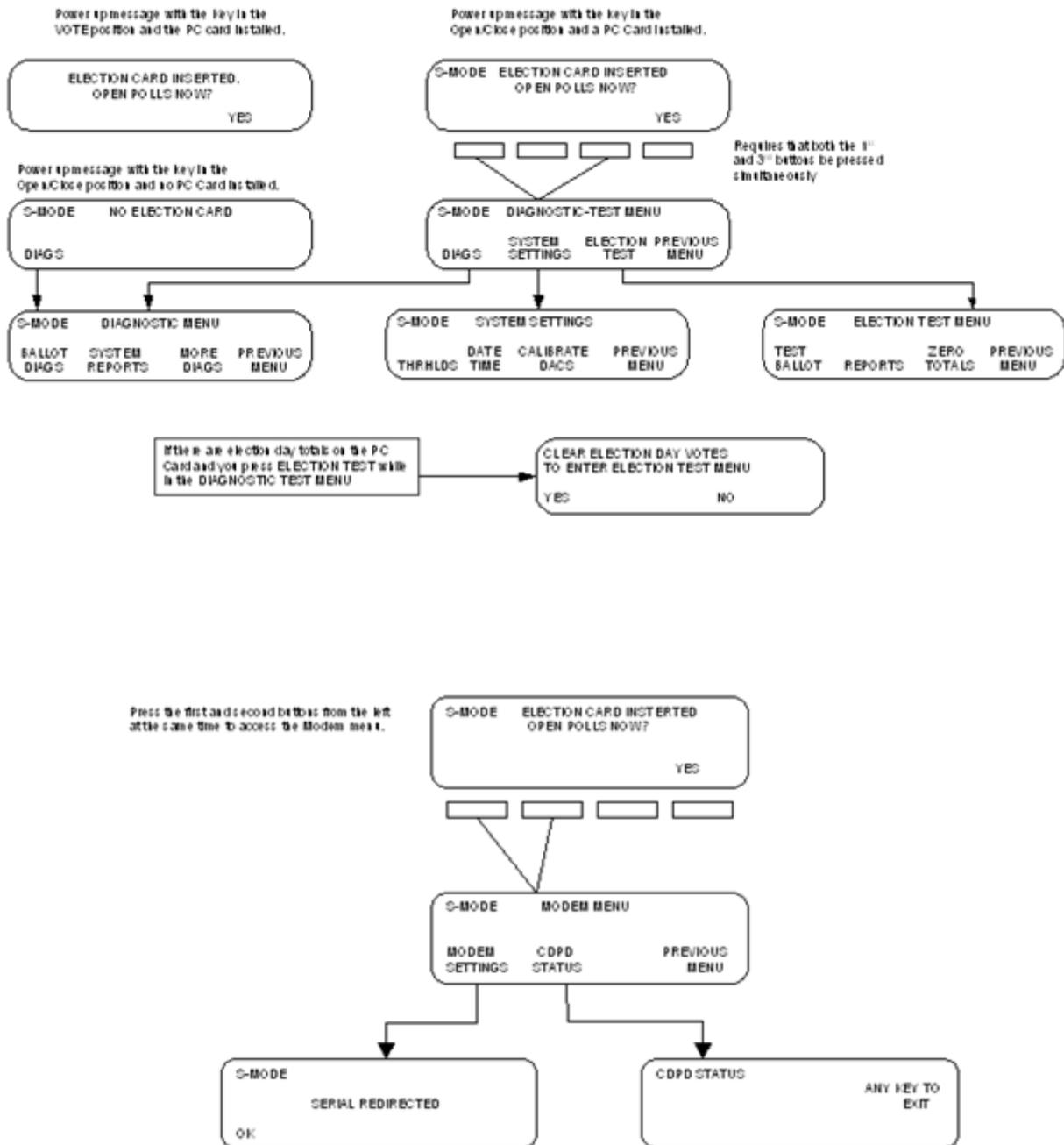
**Note:** For more information about the **SEND RESULTS** option see “Closing the Polls” in Chapter 5. Use the **SEND RESULTS** option to transfer results over a network to a computer running election reporting software at your election headquarters.
3. Select **MORE** to open the **MORE SELECTIONS** menu. Options available from the **MORE SELECTIONS** menu include: **RE-OPEN POLLS**, **MORE REPORTS** and **PAPER FEED**. Select **PAPER FEED** to advance the printer paper by one line. For more information about the **RE-OPEN POLLS** option, see Chapter 5, “Election Day Tasks.”
4. Select **MORE REPORTS** and enter a password (if necessary) to open the **MORE REPORTS** menu. The three options available in the **MORE REPORTS** menu include: **CHANGE TYPE**, **PRECINCT REPORTS** and **POLL REPORT**.

5. Select **CHANGE TYPE** to select either media or summary as the report type. See [Chapter 9: Reports](#), for more information about report types.
6. Select **PRECINCT REPORTS** to print a 'precinct by precinct report.' For more information and examples of report types, see [Chapter 9: Reports](#).
7. Select **POLL REPORT** to print an election poll report. For more information and examples of report types, see [Chapter 9: Reports](#).

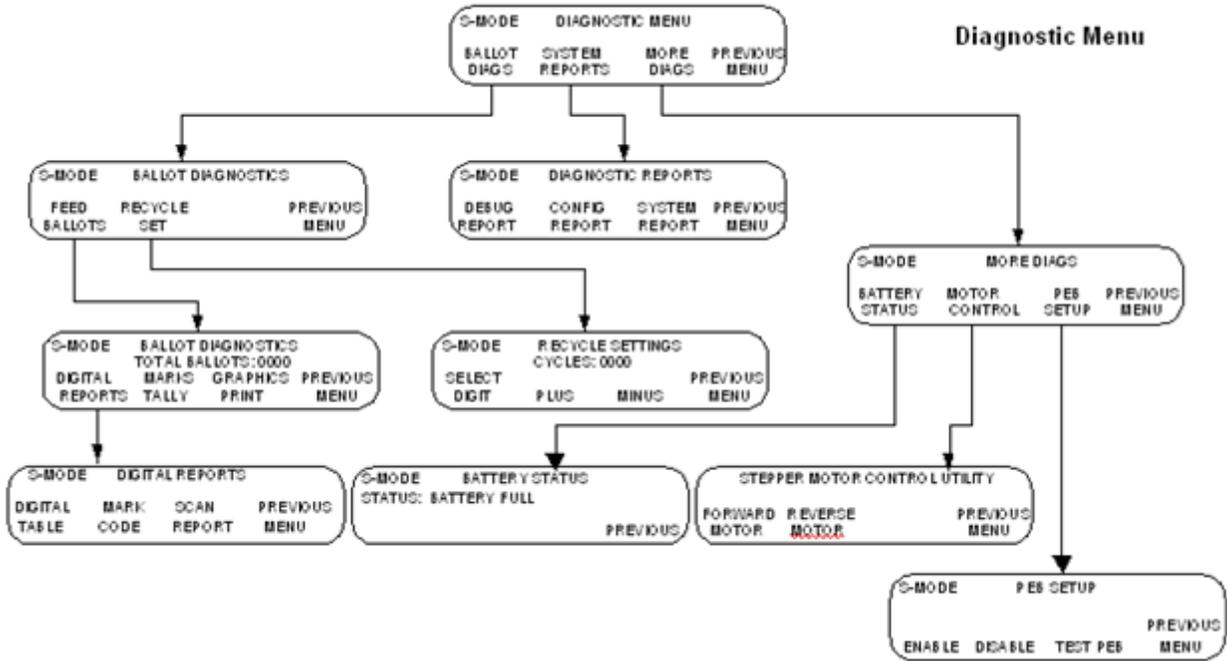
# Model 100 Menu Flow Charts

## Start-up Menu

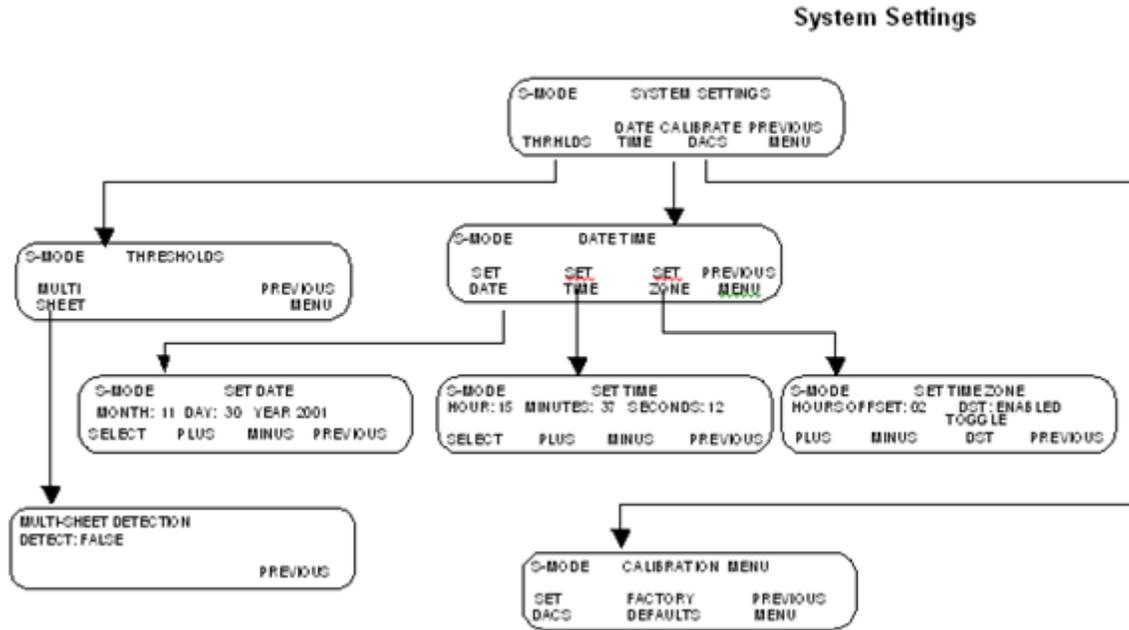
Model 100 Start-up Menu



## Diagnostic Menu

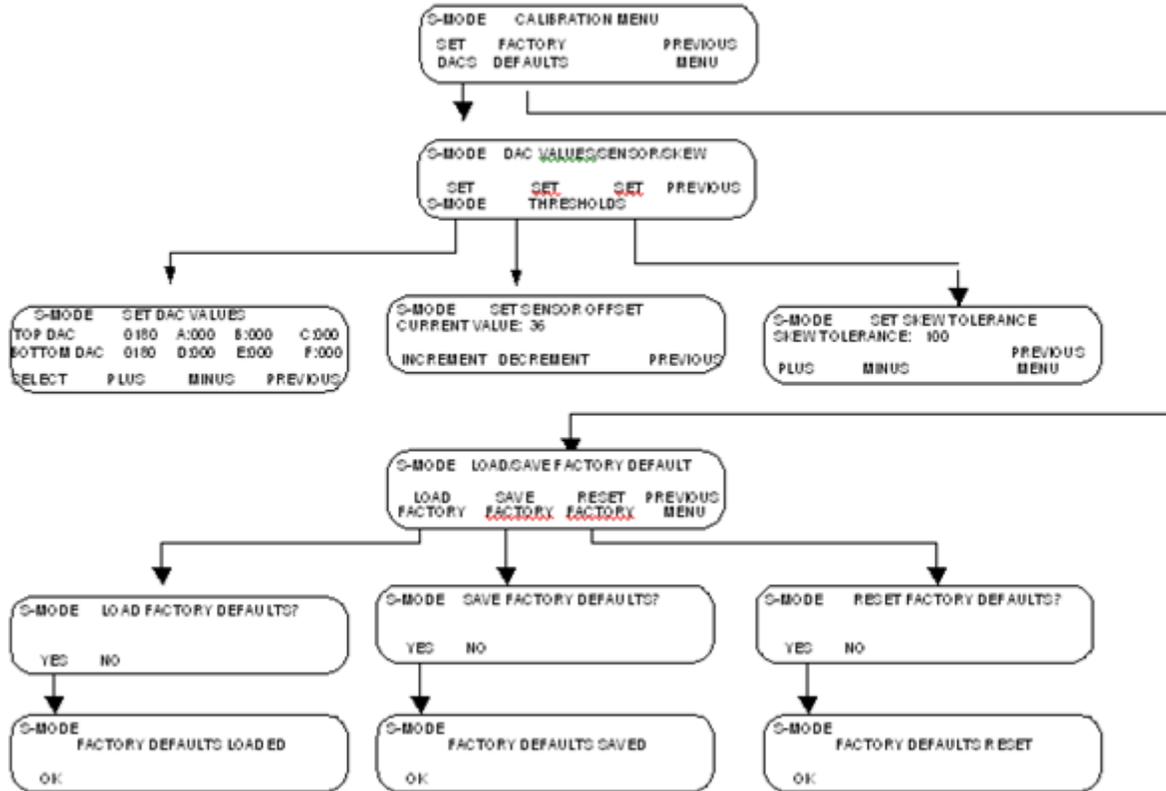


## System Settings

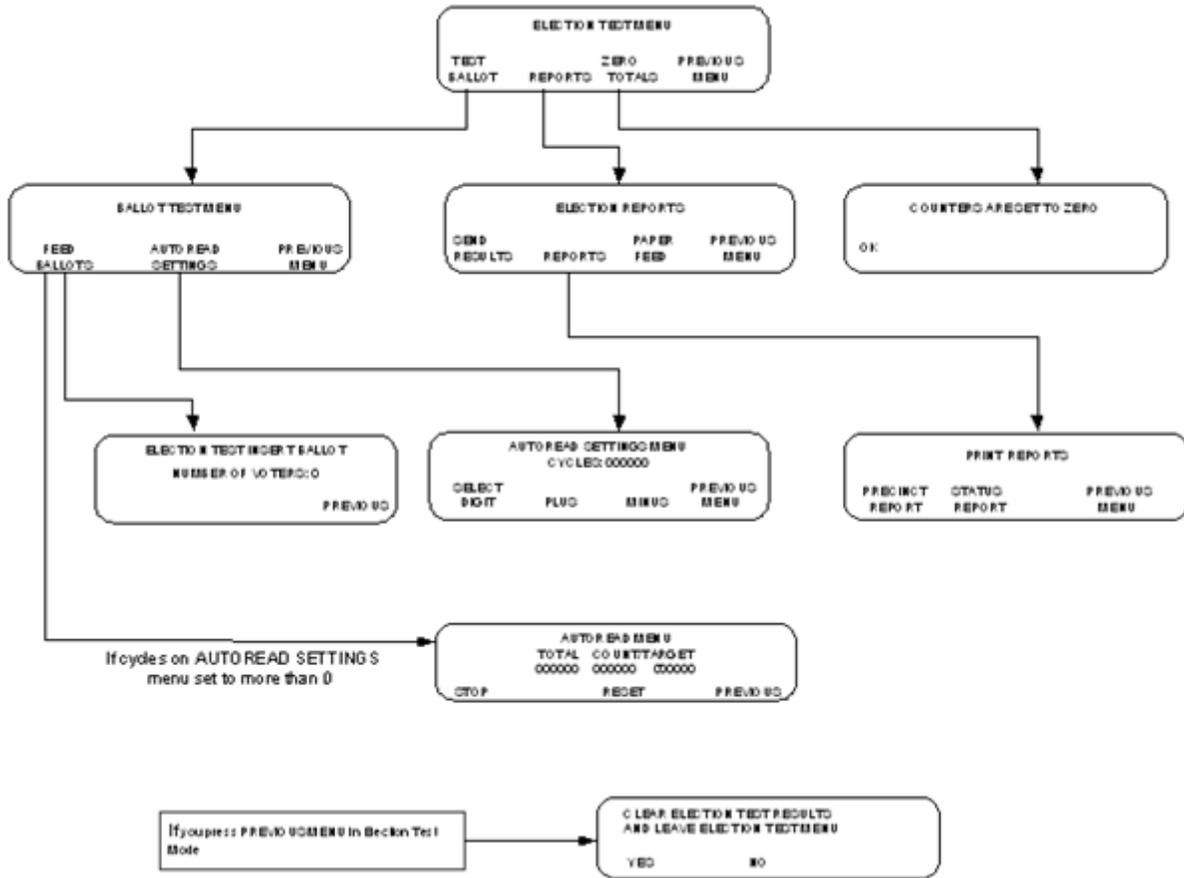


# Calibration Menu

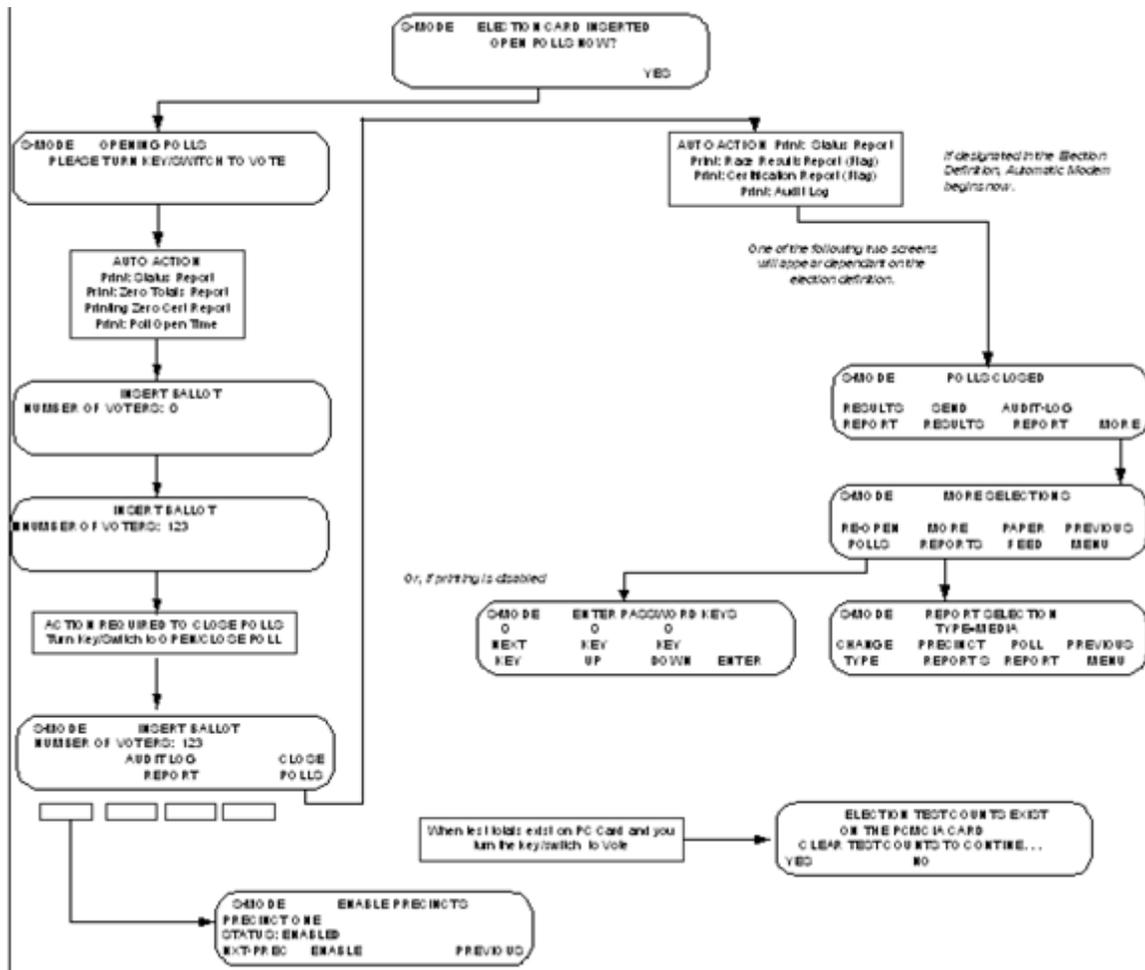
Calibration Menu



## Election Test Menu



## Opening and Closing Polls Menu



## Chapter 12: Troubleshooting

Use the following procedures if there is a power outage or tabulator failure.

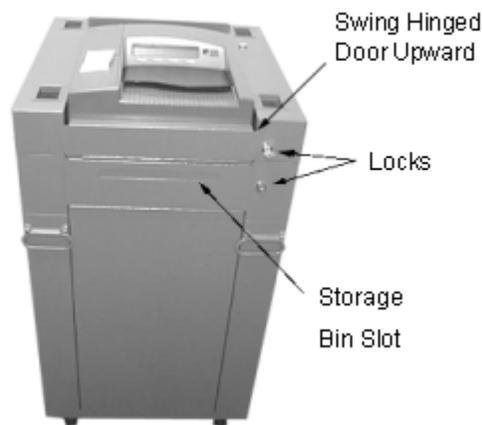
### Using the Temporary Ballot Storage Bin

If the Model 100 fails during an election, use the following procedure to store ballots in the temporary bin until you can repair or replace the tabulator.

#### To store ballots in the temporary bin

1. Unlock the sliding door on the front panel of the ballot box.
2. If your jurisdiction uses nested ballot boxes, slide the door down until it no longer holds the tabulator in place. Lock the sliding door open.
3. If your jurisdiction uses metal ballot boxes, open the door to the emergency bin and lock the top hinged panel on the front of the ballot box in the raised position. Open the lower hinged panel and rotate the inside cover on the lower hinged panel to gain access to the storage bin slot. Swing the panel back up and lock in place.

**The Metal Ballot Box**



**The Nested Ballot Box**



4. Voters may now insert ballots into the newly exposed slot for temporary storage. Store uncounted ballots in the emergency bin until you can repair or replace the tabulator.

## Recovering or Replacing the Tabulator

If one of your tabulators fails and must be replaced, turn the malfunctioning tabulator off and remove the election definition PC card from the slot. Insert the PC card into a replacement tabulator and turn the replacement tabulator on. The new tabulator automatically recovers the vote totals and election information from the previous tabulator.

For more information about resuming tabulator operations after a single recovery, see, [Reopen the Polls](#) in [Chapter 6: Election Day Tasks](#).

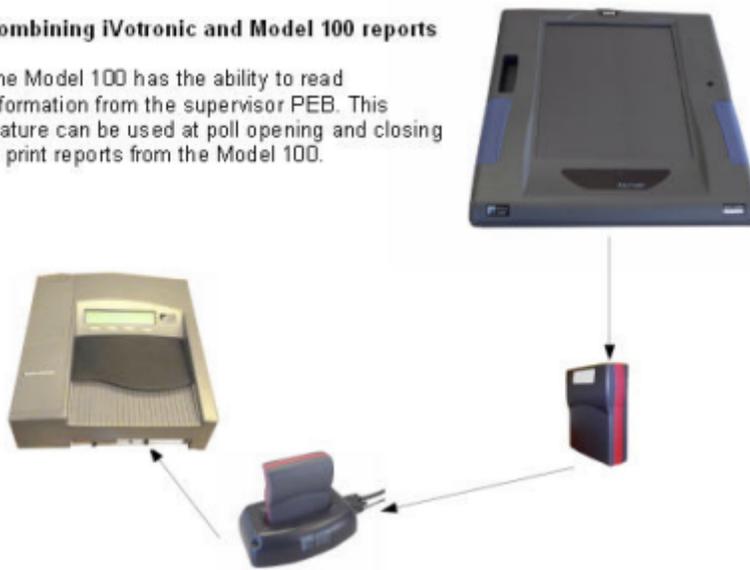
## Chapter 13: Combining Model 100 and iVotronic Results at the Precinct

The Model 100 has the ability to read information from contained in an iVotronic supervisor PEB.

- ❖ When the polls are opened, you may generate a zero report that reflects the zero counter condition of the supervisor PEB.
- ❖ After the polls are closed, the Model 100 printer generates combined tabulation reports for the Model 100 and the supervisor PEB.

### Combining iVotronic and Model 100 reports

The Model 100 has the ability to read information from the supervisor PEB. This feature can be used at poll opening and closing to print reports from the Model 100.



**NOTE:** Results from the PEB cannot be transmitted via Model 100 modem.

### Using the PEB with the Model 100

If you want the results from your supervisor PEB to be combined with your Model 100 results on the Model 100 tape, the election loaded on the PCMCIA card and the supervisor PEB must be compatible.

- ❖ The results are only combined on the paper tape, not the memory devices bring both the PCMCIA card and the supervisor PEB into the collection sites and load them separately in order to bring the results into Election Reporting Manager.
- ❖ The Poll Report Level Option in Hardware Programming Manager must not be selected when coding an election if the iVotronic support option is enabled.
- ❖ You must select Precinct Reporting as your Results Report Type in Election Data Manager if you use this option.

## Pre-election day setup

Prior to Election Day, enable the Model 100 to read the supervisor PEB.

### Enable or disable the PEB reader

1. Connect the PEB reader to the COM port on the Model 100 .
2. Insert the supervisor PEB programmed for the election into the PEB reader.
3. Insert a PCMCIA card that contains the election definition.
4. Turn the tabulator control key from **OFF** to **OPEN/CLOSE POLLS**.
5. When the screen displays “Election Card Inserted Open Polls Now?” press the first and third menu buttons. The Diagnostic – Test Menu will appear.
6. Select **DIAGS** to open the Diagnostic Menu.
7. Select **MORE DIAGS** to open the More Diags menu.
8. Select **PEB SETUP** to open the PEB Setup screen. This screen will display whether the PEB is enabled or disabled.
9. Select **ENABLE** or **DISABLE** to enable or disable the PEB reader.

Prior to Election Day test the PEB and PEB reader.

### Test the PEB setup

1. Connect the PEB reader to the COM port on the Model 100 and insert the supervisor PEB programmed for the election.
2. Insert a PCMCIA card that contains the election definition.
3. Turn the tabulator control key from **OFF** to the **OPEN/CLOSE POLLS**.
4. When the screen displays “Election Card Inserted Open Polls Now?” press the first and third menu buttons. The Diagnostic – Test Menu will appear.

5. Select **DIAGS** to open the Diagnostic Menu.
6. Select **MORE DIAGS** to open the More Diags menu.
7. Select **PEB SETUP** to open the PEB Setup screen.
8. Select **TEST PEB**.
9. The message “Please Connect the PEB Reader then Insert the Supervisory PEB” appears. Select **CONTINUE**.
10. If the test completes successfully the messages “PEB Test Completed” displays. Select **CONTINUE** to return to the More Diags menu.



**NOTE:** If the PEB Test results in a “PEB Test Failed” error check all connections.

## Election Day Task

Take the following steps on Election Day if you use the Model 100/iVotronic feature.

### Open polls

1. Open the iVotronic(s) with the supervisor PEB as described in *The iVotronic Voting System Operations Procedures*.
2. Open the Model 100 using the instructions in “*Chapter 5: Performing Election Day Tasks*” in this manual.
3. Insert the supervisor PEB into the PEB reader connected to the Model 100.
4. When the message “Please Connect the PEB Reader then Insert the Supervisory PEB” appears. Select **CONTINUE**. Zero reports will print.
5. Remove the supervisor PEB from the PEB reader when the INSERT BALLOT screen appears.

### Close polls

1. Close the polls on the iVotronic(s) with the supervisor PEB as described in *The iVotronic Voting System Operations Procedures*.
2. Close polls on the Model 100 using the instructions in “*Chapter 5: Performing Election Day Tasks*” in this manual.
3. Insert the supervisor PEB into the PEB reader connected to the Model 100.

4. When the message “Please Connect the PEB Reader then Insert the Supervisory PEB” appears. Select **CONTINUE**. Combined election reports will begin printing.

## Reports

You can print the following reports on the Model 100:

- ❖ iVotronic Zero report
- ❖ Combined iVotronic/Model 100 Zero report
- ❖ Combined iVotronic/Model 100 Precinct report



**NOTE:** Results are combined only on the paper tape, not the memory devices.



### Zero/Certification Report (iVotronic only)

*** Zero Report iVotronics Only ***	03001	
***System Zero Report ***	Ballot Counted:	0
11:03:10 06/19/2006		
SAMPLE COUNTY	GOVERNOR	
TEST ELECTION		
0025 PRECINCT 25	WILLIAM A. (BILL) ALLAIN	0
Election Date: November 11, 2006	BILLY M. DAVID	0
	EVELYN GANDY	0
PEB Serial Number: 133988	LONNIE C. JOHNSON	0
Polling Place Public Count: 0000	MIKE P STURDIVANT	0
Total Ballots Counted: 0000	Write In	0
Number of terminals 0001	Under Votes	0
Serial Number 5112922	.....	
Polling Place Public Count: 0000	Total Votes	0
Protective Count: 113194		
OPENED 13:55:45 6/18/2006	CITY COUNCIL	
NOT CLOSED	Number to Vote For:	0
Terminal Ballots Counted 0000	ELIZABETH M. VERTERANO	0
	NICK DeROSA	0
*** Precinct Zero Report ***	CONNIE MANGINO	0
11:03:13 06/19/2006	THOMAS P. COSTA	0
SAMPLE COUNTY	EUGENE DeCAPRIO	0
TEST ELECTION	Write In	0
0025 PRECINCT 25	Under Votes	0
Election Date: November 11, 2006	.....	
<b>(continued in next column)</b>	Total Votes0	

### Zero/Certification Report (iVotronic/Model 100 combined)

\*\*\*System Zero Report \*\*\*  
11:03:10 06/19/2006

SAMPLE COUNTY  
TEST ELECTION  
0025 PRECINCT 25  
Election Date: November 11, 2006

Model 100  
Total Number Voting: 0

iVotronic  
PEB Serial Number: 133988  
Polling Place Public Count: 0000  
Total Ballots Counted: 0000

Number of terminals 0001  
Serial Number 5112922  
Polling Place Public Count: 0000  
Protective Count: 113194  
OPENED 13:55:45 6/18/2006  
NOT CLOSED  
Terminal Ballots Counted 0000

\*\*\* Precinct Zero Report \*\*\*  
11:03:13 06/19/2006

SAMPLE COUNTY  
TEST ELECTION  
0025 PRECINCT 25  
Election Date: November 11, 2006  
03001

Model 100  
Total Number Voting: 0  
Total Ballots 0  
Ballots for Code 00004-01-01 0

iVotronic  
Ballots Counted: 0

GOVERNOR

WILLIAM A. (BILL) ALLAIN 0  
Model 100 0  
iVotronic 0

BILLY M. DAVID 0

(continued in next column)

Model 100 0  
iVotronic 0

EVELYN GANDY 0

Model 100 0  
iVotronic 0

LONNIE C. JOHNSON 0  
Model 100 0  
iVotronic 0

MIKE P STURDIVANT 0  
Model 100 0  
iVotronic 0

Write In 0

Model 100 (Names on ballot) 0  
iVotronic (Names below) 0

Over Votes (M100 only) 0  
Under Votes 0

.....  
Total Votes 0

Model 100 0  
iVotronic 0

CITY COUNCIL

ELIZABETH M. VERTERANO 0  
Model 100 0  
iVotronic 0

NICK DeROSA 0  
Model 100 0  
iVotronic 0

CONNIE MANGINO 0  
Model 100 0  
iVotronic 0

THOMAS P. COSTA 0  
Model 100 0  
iVotronic 0

EUG

ENE DeCAPRIO 0  
Model 100 0  
iVotronic 0

Write In 0  
Model 100 (Names on ballot) 0  
iVotronic (Names below) 0

Over Votes (M100 only) 0  
Under Votes 0

.....  
Total Votes 0

Model 100 0  
iVotronic 0

## Chapter 14: Revision History

### Model 100 v. 5.4.4.5 December 7, 2010

Chapter	Description	Project
All	Updated version to 5.4.4.5	
<a href="#">Chapter 9: Reports</a>	Updated the Audit Log Report and System Audit Log Report.	

### Model 100 v. 5.4.4.4 October 29, 2010

Chapter	Description	Project
All	Updated version to 5.4.4.4	

### Model 100 v. 5.4.4.3 August 27, 2010

Chapter	Description	Project
<a href="#">Chapter 10: Understanding System Messages</a>	Added message to <a href="#">Verification Messages</a> section. <ul style="list-style-type: none"> <li>Ballot Cast</li> </ul>	

### Model 100 v. 5.4.4.2 May 19, 2010

Chapter	Description	Project
All	Updated version to 5.4.4.2	

### Model 100 v. 5.4.4.0 May 19, 2010

Chapter	Description	Project
<a href="#">Chapter 6: Election Day Tasks</a>	Updated query messages to RETURN BALLOT and COUNT AS MARKED	

### Model 100 v. 5.4.4.0 February 26, 2010

Chapter	Description	Project
All	Updated version to 5.4.4.0	

### Model 100 v. 5.4.3.0 February 17, 2010

Chapter	Description	Project
<b>M100 Security Locks and Seals</b>	Updated security from “should” to “must”	

### Model 100 v. 5.4.3.0 February 12, 2010

Chapter	Description	Project
<b>Install Model 100 Firmware</b>	Removed reference to version number for installing new firmware.	115
<b>M100 Security Locks and Seals</b>	Added this section to the manual	78,79, 104
<b>Chapter 11: Understanding System Menus</b>	Added error codes	56, 57, 116
<b>All</b>	Version updated to 5.4.3.0	

### Model 100 v. 5.4.2.0 January 8, 2010

Chapter	Description	Project
<b>All</b>	Updated Version number to 5.4.2.0	

### Model 100 v. 5.4.0.0 October 29, 2009

Chapter	Description	Project
<b>Chapter 8: Maintain the Tabulator</b>	See Chapter 3: Description of the Model 100 for more information on the M100.	5
	Moved Test Multi-Sheet Sensor section to this chapter from Pre-Election Task	96
<b>Chapter 3: Description of the Model 100</b>	Put note in to refer to Chapter 8 for information on Maintaining the tabulator.	5
<b>Chapter 1: Introduction</b>	Updated information on PC Cards, took out text “larger sizes available”	

### Model 100 v. 5.4.0.0 October 16, 2009

Chapter	Description	Project
<b>Chapter 11: Understanding System Menus</b>	Added error message & solution for: Error-invalid election. The early vote option does not support ballot-by-style. Please remove PCMCIA card	63

### Model 100 v. 5.4.0.0 September 18, 2009

Chapter	Description	Project
<b>Chapter 3: Description of the Model 100</b>	Updated information on the size of PCMCIA card that can be used, 512KB is the supported size.	31
<b>Chapter 5: Pre-Election Day Tasks</b>	Page 17 updated PCMCIA card size to 512k	
<b>Chapter 5, page 32: Enable Multiple Precincts for Testing</b>	Updated precinct limit on PCMCIA card, changed to 18 precincts.	24

### Model 100 v. 5.4.0.0 August 28, 2009

Chapter	Description	Project
<b>Chapter 3: Description of the Model 100</b>	Under PC Card section, put in note in on page 12 about the PCMCIA card.	12
<b>Chapter 11: Understanding System Menus</b>	Updated Note on page 100, to reference correct chapters.	5

### Model 100 v. 5.4.0.0 August 11, 2009

Chapter	Description	Project
	Initial Document	

# Index

## A

- Accessing the Diagnostic Test Menu (without a PC Card) 94
- Advance the Paper 52
- Assemble the Ballot Box 18
  - Attach the Model 100 to the Ballot Box 21
  - Nested Ballot Box 18
- Assemble the Nested Ballot Box 18
- Attach the Model 100 to the Ballot Box 21
- Audit Log Report 56, 64
- Audit Log Report 60

## B

- Ballot Box 11
- Ballot Diagnostics menu 95
- Battery Cautions 53
- Battery Maintenance 52
  - Battery Cautions 53
  - Charge the Battery 53
  - Remove and Replace the Battery 53
  - Replace a Model 100 Fuse 54
- Battery Replacement Warning 8

## C

- Certification/Zero Report 56
- Charge the Battery 53
- Check the Battery Charge 27
- Check the Election Definition for Accuracy 28
- Clean the Ballot Box 50
- Clean the Tabulator 49
- Cleaning 7
- Close polls 119
- Close the Polls 38
- Configuration Report 57
- Configuration Report 62
- Connect an External Modem 31
- Connect an External Printer 30
- Connect the Internal Modem 31
- Contact ES&S for Technical Support 2

## D

- Damage Requiring Service 8
- Date and Time Settings 29
- Date/Time Menu 102
- Debug Report 57
- Debug Report 63
- Description of the Model 100 10
  - Ballot Box 11
  - Election Definition 15
  - Menu Display 13
  - Operating Modes 14
  - PC Card 12
  - Scanner Controls 12
- Diagnostic Report Menu 101
- Diagnostic Reports 56
- Diagnostic Testing Mode 14
- Diagnostic-Test Menu 28
- Disassemble and Pack the Ballot Box 45
  - Dismantle the Nested Ballot Box 46
  - Remove the Tabulator from the Ballot Box 45
- Dismantle the Nested Ballot Box 46

## E

- Election Day Task 119
- Election Day Tasks 36
  - Close the Polls 38
  - Open the Polls 36
  - Reopen the Polls 41
  - Scan Ballots 38
  - Transfer Results 43
  - Uncounted Ballots 41
  - Using the Model 100 During Early Voting 40
- Election Definition 15
- Election Reports Menu 104
- Election Test Insert Ballot 103
- Electrical information 9
- Enable 118
- Enabling Multiple Precincts for Testing 34

## F

- Frequently Asked Questions 2

## G

- General Timeline for Election Preparation 5

Graphics Print Table 101

## H

Heating 7

## I

Important Safety Instructions 6  
    Battery Replacement Warning 8  
    Cleaning 7  
    Damage Requiring Service 8  
    Heating 7  
    Power Cord Protection 7  
    Power Sources 6  
    Read the System Operations Procedures 6  
    Service 8  
    Ventilation 7  
    Water and Moisture 7  
Initial State Report 56  
Initial State Report 59  
Insert Ballot Screen 106  
Install Model 100 Firmware 16  
Internal Printer Maintenance 51  
    Advance the Paper 52  
    Replace the Paper Roll 51

## L

Load the Election Definition 27

## M

M100 Security Locks and Seals 25  
Maintain the Tabulator 49  
    Battery Maintenance 52  
    Clean the Ballot Box 50  
    Clean the Tabulator 49  
    Internal Printer Maintenance 51  
Menu Display 13  
Model 100 Menu Flow Charts 109

## N

Numeric Messages 85

## O

Open polls 119

- Open the Polls 36
- Operating humidity 9
- Operating Modes 14
  - Diagnostic Testing Mode 14
  - Polls Closed Mode 15
  - Polls Open Mode 14
- Operating temperature 9
- Overview
  - Operations Support Frequently Asked Questions 2

## P

- PC Card 12
- PEB reader 118
  - Disable 118
- Polls Closed Menu 107
- Polls Closed Mode 15, 107
- Polls Open Mode 14, 105
- Power Cord Protection 7
- Power Sources 6
- Precinct Report 56
- Precinct Report—Summary Format 58
- Pre-Election Day Tasks 17
  - Assemble the Ballot Box 18
  - Prepare the Tabulator 27
  - Pre-Voting Checklist 35
  - Recommended Supplies 17
  - Test the Election Definition 32
- Prepare the Tabulator 27
  - Change Date and Time Settings 29
  - Check the Battery Charge 27
  - Check the Election Definition for Accuracy 28
  - Connect an External Modem 31
  - Connect an External Printer 30
  - Connect the Internal Modem 31
  - Diagnostic-Test Menu 28
  - Load the Election Definition 27
  - Test the Multi-Sheet Sensor 54
- Pre-Voting Checklist 35
- Print Ballot Test Reports 33
- Print Reports Menu 104
- Printing Election Reports 42
- Provisional Voting 1

## R

- Read the System Operations Procedures 6

- Recommended Supplies 17
- Recovering or Replacing the Scanner 116
- Remove and Replace the Battery 53
- Remove the Tabulator from the Ballot Box 45
- Reopen the Polls 41
- Repeat a Diagnostic Test 33
- Replace a Model 100 Fuse 54
- Replace the Paper Roll 51
- Report Format 55
- Report Types 55
  - Precinct Report 56
  - Status Report 55
- Reports 55
  - Report Format 55
  - Report Types 55
- Revision History 124

## S

- Safety Information 6
  - Important Safety Instructions 6
- Sample Marks Tally Report and Sample Ballot 100
- Sample Scan Report and Description 97
- Scan a Ballot Test Deck 32
- Scan Ballots 38
- Scanner Controls 12
- Service 8
- Specifications and Cautions 9
- Status Report 55, 57
- Storage conditions 9
- System Audit Log Report 64
- System Error Recovery 65
- System Report 57
- System Reports 56
- System Settings Menu 101

## T

- Test the Election Definition 32
  - Enabling Multiple Precincts for Testing 34
  - Print Ballot Test Reports 33
  - Repeat a Diagnostic Test 33
  - Scan a Ballot Test Deck 32
- Test the Multi-Sheet Sensor 54
- Test the PEB setup 118
- The Election Test Menu 102
- Timeline for Election Preparation 5

Transfer Results 43  
    Modem 43  
    PC Card 43  
Transfer Results with a Modem 43  
Transfer Results with a PC Card 43  
Troubleshooting 115

## U

Uncounted Ballots 41  
Understanding System Menus 93  
Understanding System Messages 65  
Understanding Text Messages 65  
Understanding Warning Symbols 6  
Using the Ballot Auto-read Option 104  
Using the Model 100 During Early Voting 40

## V

Ventilation 7  
Verification Messages 84

## W

Water and Moisture 7

## Z

Zero/Certification Report 61