

## Chapter 1

### Voting Equipment Testing

Purpose: To set minimum statewide standards for voting equipment testing.

Contents	Page
Voting Equipment Testing General Procedures	1-1
Optical Scan	
Sample Test Script	1-3
M100 Logic & Accuracy Test	1-4
M100 Check Log	1-6
Voting Equipment Testing General Procedures DRE	1-7
Logic & Accuracy Testing – iVotronic	1-8
Logic & Accuracy iVotronic Checklist	1-12
AutoMark™ Pre-election/L&A/Post-test Procedures	1-13
AutoMark™ Check Log Pre-election/L&A/Post-test Procedures	1-18

## Voting Equipment Testing General Procedures: Optical Scan

### Preparing test scripts & test decks

**Test Script:** A Test Script is the instructions in a test program. It defines the actions and pass/fail criteria. For example, if the action is "to enter a valid vote for a candidate," the expected result is that the candidate will receive a vote. Entering votes greater than the number allowed for an office should yield no votes for that office.

Properly prepared Test Scripts should always contain:

1. Enough voted ballots to insure that each candidate in every race has received one vote.
2. At least one blank ballot.
3. A voted ballot for write-in candidates, if applicable. It is recommended that the entire alphabet be input as the write-in candidate's name as a method to test the calibration and functionality of the screen's keypad.

1. Every ballot position must be tested.
2. Test scripts should be written before testing is performed. Scripts must be compared to final results. If script and final results do not match, test must be performed again or script must be reviewed.
3. In order to test the ability of the tabulator to accurately tally votes for each candidate or question, the test script should give each candidate or question a different ballot count.
4. Prepare a test deck of ballots with predetermined vote combinations, according to test script.
5. Test decks should include the following types of ballots:
  - Ballots prepared using ADA marking devices (AutoMARK™)
  - Blank ballots
  - Ballots containing overvoted & undervoted contests
  - Ballots containing write-ins
  - Ballots containing straight party & crossover votes (if applicable to election)
  - Ballots containing stray marks or incorrect marking locations.

### Testing tabulators

1. Each tabulator should be tested in election mode. Protective and public counters should be recorded before and after test.
2. All ballots to be voted on Election Day must be tested on each tabulator.
3. Generate results under election day conditions and compare results to expected totals (test script). If transmitting results by modem, compare those results to both actual result tapes and test script.
4. Tests must be conducted with the same kind of paper ballots that will be used on Election Day.

5. Test each tabulator to be used at a polling place during one-stop voting, Election Day and post-election processes.
6. Test over voted ballots for expected tabulator performance. (Does tabulator query the voter?)
7. Test ballots with write-in candidates for expected tabulator performance. (Is ballot sorted in correct bin?)
8. When testing individual precincts, test the election definition's ability to recognize a ballot style that is not appropriate for that precinct.
9. Test ballots with stray marks or incorrect marking location. (Does tabulator return ballot to voter?)
10. Test tabulator feed by attempting to feed multiple ballots at one time.  
**(NOTE:** If the tabulator does allow multiple ballots to be fed, discontinue use immediately and call vendor for repair.)
11. Test a sufficient number of backup tabulators so that they are ready to be deployed to a polling place in case of emergency. This testing should occur **BEFORE** Election Day or one-stop opens.

### **Completing the Logic and Accuracy Testing Process**

1. All documentation, test scripts, test decks and other materials should be retained and properly secured for the period designated by the NC Records & Retention schedule.
2. Determine that all tabulators meet expected performance and security for delivery to assigned polling place.
3. If required, tabulator media should be used to test reporting software and/or to conduct mock elections as instructed.
4. Prior to delivery to polling places, all media should be cleared of any test votes and ballot boxes cleared of any test ballots.

## Sample Test Script

OFFICE	CANDIDATE	Voter							Straight Party		Total
		1	2	3	4	5	6	7	Blank	8	
Gen. - Burke County											
US Congress - Dist. #A	(DEM) Candidate	1	1							1	3
Vote for 1	(REP) Candidate			1	1	1	1			1	5
NC Senate - Dist. #A	(REP) Candidate	1	1	1	1		1			1	6
Vote for 1											6
NC House - Dist. #A	(DEM) Candidate			1				1		1	3
Vote for 1	(REP) Candidate	1		1	1	1				1	5
District Attorney - Dist. #A	(DEM) Candidate	1	1	1	1	1	1			1	7
Vote for 1											0
County Commissioner	(DEM) Candidate 1	1		1	1					1	4
Vote for 2	(DEM) Candidate 2	1	1			1				1	4
	(REP) Candidate 1						1			1	2
	(REP) Candidate 2			1		1	1			1	4
Sheriff	(DEM) Candidate	1		1						1	3
Vote for 1	(REP) Candidate		1		1	1	1			1	5
Clerk of Superior Ct.	(REP) Candidate				1	1	1			1	4
Vote for 1											
Supreme Ct. Justice	Candidate A			1	1						3
Vote for 1	Candidate B	1		1		1					3
Assoc. Justice of Supreme Ct.	Candidate A			1	1		1	1			4
Vote for 1	Candidate B			1		1					2
Assoc. Justice of Supreme Ct.	Candidate A			1	1						2
Vote for 1	Candidate B	1			1	1	1				4
Assoc. Justice of Supreme Ct.	Candidate A	1	1	1	1						2
Vote for 1	Candidate B					1	1				2
Court of Appeals	Candidate A	1		1							2
Vote for 1	Candidate B		1		1	1	1				4
Court of Appeals	Candidate A			1							2
Vote for 1	Candidate B		1		1	1	1				4
District Court Judge	Candidate A	1	1	1	1	1	1				6
Vote for 1											
District Court Judge	Candidate A	1	1	1	1	1	1				6
Vote for 1											
Soil & Water Dist. Supv.	Candidate A	1			1						2
Vote for 2	Candidate B		1				1				2
	Candidate C	1					1				2
	Candidate D		1					1			2
	Candidate E			1	1						2
	Candidate F				1			1			2
Total each voter		17	16	17	17	17	18	0	6	7	

## M100 Logic and Accuracy Test

### STEP 1



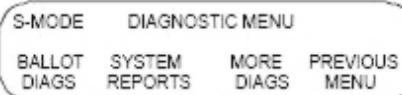
- Verify the ballot box is empty.
- Unlock left bin door, right bin door and emergency bin door look inside for ballots. Remove if found.
- Lock all 3 ballot bin doors.

### STEP 2



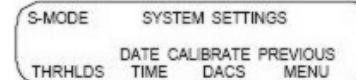
- Unlock door on front of scanner.
- Insert the PCMCIA card into the top slot. Seal the PCMCIA card.
- Close and lock panel in up position.
- Turn key to Open/Close Polls.
- Wait for system to start.

### STEP 3



- Press the 1<sup>st</sup> and 3<sup>rd</sup> buttons from left at same time to access the Diagnostic Test Menu.
- Press DIAGS then MORE DIAGS.
- Press BATTERY STATUS.
- If not FULL, charge battery.
- Press PREVIOUS 3 times.

### STEP 4



- Press SYSTEM SETTINGS.
- Press DATE TIME.
- Set Date and Time.
- Press PREVIOUS MENU.
- Press SET ZONE.
- Verify DST enabled.
- Press PREVIOUS until "LOCK OUT SYSTEM SETTING" appears.
- Press NO.

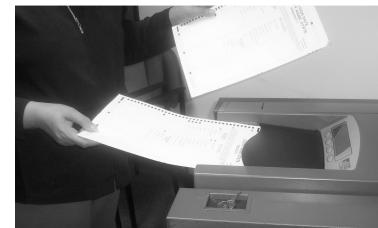
### STEP 5

ELECTION CARD INSERTED.  
OPEN POLLS NOW?

YES

- Press PREVIOUS until "ELECTION CARD INSERTED, OPEN POLLS NOW?" appears.
- Press YES.
- Message appears PLEASE TURN KEY/SWITCH TO VOTE.
- Turn key to VOTE.
- Zero tape will print.

### STEP 6



- Run Test deck of ballots.
- Turn key to OPEN/CLOSE POLLS.
- Press Close Polls.
- Reports will print automatically.
- Remove ballots from ballot box.

### STEP 7

- Compare M100 tape to test desk spread sheet.
- If correct, choose MORE then MORE SELECTIONS from POLLS CLOSED MENU.
- Press RE-OPEN POLLS.
- Enter password, press Enter.
- When "CLEAR ELECTION DAY TOTALS?" appears, press YES to clear the totals.

### STEP 8

INSERT BALLOT  
NUMBER OF VOTERS: 0

- Turn off scanner then run through open polls procedure to verify zero tape and LCD has 0 voters.
- Clear Election Day totals again.
- Follow your county board of elections procedure regarding PCMCIA card.
- With CBE approval your L&A certification is complete.

M100 Check Log		Edition Date: 8/4/2006									
Election	Test Date	Precinct	Serial #	Precinct	Serial #	Precinct	Serial #	Precinct	Serial #	Precinct	Serial #
<u>Ballot Box</u>	Clean diverter and bins										
<u>Diagnostics</u>	Battery check										
<u>Diagnostics</u>	Date / Time check										
<u>Diagnostics</u>	DST Enabled (Day Light Savings)										
<u>Run Zero Tape</u>											
<u>Run Test Deck – All</u>	results must match										
<u>Test all orientations</u>											
<u>Close/reopen/ CLEAR ELECTION</u>											
<u>Turn off / Turn on Verify Zeros</u>											
<u>Change paper to new roll</u>											
<u>Add labels to ballot box</u>											

## **Voting Equipment Testing General Procedures: Direct Recording Electronic- touch screen unit (DRE)**

### **Preparing test scripts & test decks**

1. Every candidate/question must be tested.
2. Test scripts should be written before testing is performed. Scripts must be compared to final results. If script and final results do not match, tests (manual & automated) must be performed again or script must be reviewed.
3. In order to test the ability of the terminal to accurately tally votes for each candidate or question, the test script should give each candidate or question a different ballot count.
4. Prepare a test script with predetermined vote combinations and include the following types of ballots:
  - Blank ballots
  - Ballots containing overvoted & undervoted contests
  - Ballots containing write-ins
  - Ballots containing straight party & crossover votes (if applicable to election)
  - Ballots containing stray marks or incorrect marking locations.

**Every terminal, Personal Election Ballot (PEB) audio ballot MUST be tested to verify functionality.**

**At minimum for each ballot style in all precincts, develop a manual test script which includes the following:**

1. Vote enough ballots to insure that each candidate in every race has received one vote.
2. Vote at least one blank ballot.
3. Vote a ballot for write-in candidates, if applicable. It is recommended that the entire alphabet be input as the write-in candidate's name as a method to test the calibration and functionality of the screen's keypad.

**To effectively conduct a manual test:**

1. Vote the test script making the pattern selections exactly the same on each machine.
2. "Clear & test" the terminal and PEB before conducting the manual test script to insure there are no recorded votes prior to the test. (**NOTE:** Printing of a zero tape is not required for testing purposes, since the audit log and test results would indicate if the terminal was not cleared & tested properly.)
3. The clear & test process should also be conducted at the completion of the manual test to prepare the terminal and PEB for the election.
4. Print results to the printer/communication pack to test the pack's functionality and to check the results against the test pattern. Retain these print-outs for verification of manual testing having been conducted.

## Logic & Accuracy Testing - iVotronic

**Purpose:** To test the election on the iVotronic Direct Record Electronic voting unit to verify that the ballots and equipment are properly prepared.

**Procedure:** Test the election with manual logic and accuracy (L&A) tests. If test results indicate error(s), perform automated tests. (**NOTE:** If the automated tests indicate error(s), then report the terminal for repair; if the automated tests do not indicate error(s), then the manual test must be performed again.)

**NOTE:** The L&A Test option is only available on the Terminal Menu if the terminal has been cleared and tested. Clear and Test all terminals and clear supervisor PEB vote totals after the test so that the equipment is ready to use in the actual election. Steps for these processes are included in this document.

### Manual Test

This test is a controlled, uniform test conducted for each ballot style. All test votes should be executed in accordance with the "Test Vote" which is designed by each county based on the current ballot. A "Sample Test Vote" is provided with this document.

1. On a blue voter terminal, insert the Master Personal Electronic Ballot (PEB).
2. Follow the instructions on your Pollworker Checklist to open the polls.
3. When the terminal is open for voting, insert a supervisor PEB, vote the "Test Vote" pattern and press the VOTE button. Check the "Test Vote" with the totals tape for accuracy.
4. When finished voting, you will need to close the polls by inserting the master PEB while pressing the VOTE button. The Terminal Menu is displayed.
5. Select the "Election Services" option. Enter the Service Menu password and press OK.
6. Select "Close Terminal Early". A question will be displayed, "Do you want to close the terminal early?" Press Yes.
7. When prompted, enter the override password and press OK.
8. Votes will be collected to the PEB, please wait. The next screen will prompt you to remove the PEB. Remove the PEB. If a flash card is installed, the audit data will be copied to the flash card.
9. When closing and data collection is complete, the screen will prompt to "Touch the screen to exit." Touch the screen and the terminal will power down. (**NOTE:** If more than one voter terminal was used for this test election, each voter terminal must be closed using the Master PEB.)

10. Clear the test vote totals from the terminal and PEB by following the instructions described in the section below titled “Clearing the Terminal and PEB after L&A Testing.”

### **Automated Vote for One Test**

#### **(Performed if errors occur during manual test)**

The total number of ballots cast for this test will be one greater than the number of candidates in the largest contest on the Ballot. In other words, if the largest number of candidates in a contest is six, seven ballots will be cast. One vote is recorded for each candidate (including write-ins) and one blank ballot is cast. For contests with fewer than six candidates, each candidate will still get one vote, one blank ballot is cast and the remaining votes for that contest are recorded as under votes.

1. Access the Terminal Menu of a blue voter terminal by inserting the supervisor PEB containing the ballots you want to test and pressing the VOTE button simultaneously.
2. Select the “Logic and Accuracy” option.
3. Enter the “Service Menu” password and Press OK.
4. Select the “L&A Vote for One Test”. A screen is displayed indicating “Touch the VOTE button to continue” or “Touch the screen to cancel this test.”
5. Press the “VOTE” button. The terminal executes the Vote for One Test and when complete, the message “Logic and Accuracy Test Finished” is displayed. “Press the screen to continue ...” appears.
6. Press the screen to return to the L&A Test menu.
7. Print and check your results using the print options on this menu and described in the section below titled “Printing Results for Automated Logic and Accuracy Tests.”
8. Clear the test vote totals from the terminal and PEB by following the instructions described in the section below titled “Clearing the Terminal and PEB after L&A Testing.”

### **Automated Multi-Vote Test (performed if errors occur during manual test)**

This test gives the first candidate one vote, the second candidate two votes, the third candidate three votes and each successive candidate in a race one more vote. For instance, if the largest number of candidates in a contest is six, the iVotronic casts 22 ballots (1+2+3+4+5+6+ a blank ballot). The terminal records votes for each candidate including write-ins and casts one blank ballot. For contests with fewer than six candidates, each candidate will still get the appropriate number of votes, with the remaining votes for that contest recorded as under votes.

1. Access the “Terminal Menu” with a supervisor PEB that contains the ballots you want to test vote.
2. Press “Logic and Accuracy.” Enter the “Service Menu” password and press OK. The “L&A Tests” menu appears.

3. Select the “L&A Multi Vote Test.” A screen is displayed indicating “Touch the VOTE button to continue” or “Touch the screen to cancel this test.”
4. Press the “VOTE” button. The terminal executes the Multi-Vote Test and when complete, the message “Logic and Accuracy Test Finished” is displayed. “Press the screen to continue ...” appears.
5. Press the screen to return to the L&A Tests menu.
6. Print and check your results using the print options on this menu and described in the section below titled “Printing Results for Automated Logic and Accuracy Tests.”
7. Clear the test vote totals from the terminal and PEB by following the instructions described in the section below titled “Clearing the Terminal and PEB after L&A Testing.”

### **Printing Results for Automated Logic and Accuracy Tests**

A printed copy of the results is required and should be filed for verification and proof of testing.

1. Meets Printing Requirement:
  - a. Select the “Print L&A Vote Totals” option. Votes are collected. The screen displays “Print L&A totals now?” Press YES. Instructions for preparing the Communications Pack will be displayed. Follow these instructions to connect the communications pack and then press the Print button. Vote totals will print. If you want to print another report, press YES when the “Do you want to print another?” message appears. Otherwise press NO, and you will be prompted to turn the Communication Pack off and press the screen to continue. Then press the screen again to return to the L&A Tests menu.
2. Optional Methods for Viewing Totals:
  - a. Select “Display L&A Totals” to display your test election totals on the iVotronic touch screen.
  - b. Select “Upload L&A Results to PEB” to save your totals to a PEB. Use Election Reporting Manager to download the results into your PC and print election reports.
  - c. Select “Upload L&A to Compact Flash” to download the results to a compact flash card.

### **Clearing the Terminal and Personal Election Ballot (PEB) after Logic & Accuracy Testing (L&A)**

You cannot run a second L&A test until you Clear and Test the terminal and clear the PEB of vote data using the PEB Services Menu on the supervisor terminal.

**To Clear and Test the terminal:** You cannot exit the L&A test screen until you clear and test the terminal.

1. Clear the test vote totals from the terminal by selecting the “Clear and Test Terminal” option. The message “TERMINAL WILL BE CLEARED” appears. Press the “VOTE” button to clear. “Press screen to return to L&A menu” is displayed.

2. Press the “VOTE” button. The message “Testing and Clearing Memory Storage Areas” appears and the screen returns to the Service Menu when the process is complete.

**To erase votes from the Personal Election Ballot (PEB):**

1. Insert the “supervisor PEB” containing the test votes into a red “supervisor terminal.”
2. Press the “Election Administration” option on the Terminal Menu. Enter the “Election Central Menu” password. The “Election Administration Menu” appears.
3. Select the “PEB Services” option. The “PEB Services menu” appears.
4. Select “Clear Supervisor PEB” of Vote Totals. This function will clear out all vote data from the test election without deleting the ballot stored in that PEB.
5. “Clear ALL votes stored on this PEB?” is displayed. Press Yes.
6. When finished, touch the screen to continue. Take out the PEB and either put in another PEB to be cleared or press the “VOTE” button to power down the terminal. Complete this process for all PEBs used to collect votes for the test.
7. You must complete this step to bring the PEB back to a pre-election condition. The PEB is then ready for delivery to its polling place for normal election operation.

**NOTE:** Clear the vote totals but do not qualify the supervisor PEB you used in your test election. **Qualification clears and locks the supervisor PEB.**

**QUALIFY PEB:** A selection on the iVotronic Service Menu that permanently clears PEBs of all previous election data and issues the PEB a new election-specific Qualification Code. All PEBs must be qualified before a new election. PEBs that are not qualified will not properly activate iVotronic terminals.

## Logic & Accuracy iVotronic Checklist (Complete for each terminal)

Machine #:	Test Results: <input type="checkbox"/> Pass <input type="checkbox"/> Fail
County:	Election Date:
Machine Technician:	Date:

**Procedure:** Follow the steps outlined in the sections titled “Logic & Accuracy Testing–iVotronic” (previous pages) and “Guidelines for iVotronic Manual Test Script” (previous pages (8-11)). Utilize this checklist to ensure that all steps have been completed for each machine prior to Election Day.

### Manual Test (effective Primary 2006):

- Follow the Pollworker Checklist to open blue voter terminal and conduct “Test Vote” pattern
- Print and check results
- Clear & Test terminal and supervisor PEB

### Automated Vote for One Test (performed if errors occur during manual test):

- Access Terminal menu with supervisor PEB and conduct Logic & Accuracy Vote for One Test
- Print and check results
- Clear & Test terminal and supervisor PEB

### Automated Multi - Vote Test (performed if errors occur during manual test):

- Access Terminal menu with supervisor PEB and conduct Logic & Accuracy Vote for One Test
- Print and check results
- Clear & Test terminal and supervisor PEB

## AutoMARK™ Pre-election/ L&A/ Post-test Procedures

### Installing the Compact Flash Card (Machine is OFF)

1. Using the access door key provided, unlock the access door containing the compact flash card.
2. Remove the current compact flash card from the slot, replacing it with the compact flash card containing your new election files. The back of the card has a tab on it. When inserting the compact flash card, ensure the tab is pointing towards the right of the unit.

**NOTE: The compact flash card must be installed before ballots can be processed using the ES&S AutoMARK™.**

3. Close and lock the compact flash access door.

### Installing the Test Ink Cartridge (Machine is OFF)

The test ink cartridge is a regular inkjet cartridge that is used only for testing prior to Election Day. This ink cartridge must be replaced on Election Day at the polling place before the unit is turned on.

1. Open the rear access door and insert the test ink cartridge.
2. Close the rear access door.
3. Insert the brass key and turn to the **Test** position to access the Test Menu.

**NOTE: The screen will remain blank for approximately one minute after the key is turned to the Test position. The screen will display the Main Menu once the unit is finished downloading the data from the compact flash card.**

### Checking the Battery Status (Machine is in TEST Mode)

Check the battery status to ensure that the battery is fully charged.

1. Press the **Battery Status** button.
2. Confirm the power source is **External** and the battery strength is **Good**.
3. The power source is external when the unit is operating on power from the wall outlet. The power source is battery when the unit is operating on power from the internal battery.
4. Press **Done**.

**NOTE: If the battery needs to be charged, refer to *Charging the Battery* at the end of these instructions.**

### **Setting Date and Time (Machine is in TEST Mode)**

1. Select “**System Maintenance**.”
2. Enter the “System Password” and press **OK**.
3. Select “**Set Date/Time**.”
4. Confirm “**Date**” is selected from the menu.
5. If the date is NOT correct, press **CLEAR**.
6. Using the keypad enter the correct date in the MM-DD-YY format and press **Apply**. A message will state “Change was successfully applied.” If you enter the date in the wrong format and press apply, this error message will appear “**ERROR! Format: MM-DD-YY**.” Press **CLEAR** and re-enter the date in the correct format.
7. Select “**Time**” from the menu.
8. If the time is not correct, press **CLEAR**.
9. Using the keypad enter the correct time in the HH:MM AM or PM format and press **Apply**. A message will state “Change was successfully applied.” If you don’t select AM or PM, the system will automatically select AM.
10. Press “**Done**” to exit and return to the **System Maintenance** screen. Press “**Done**” again to return to the main menu screen.

### **Calibrating the Touch Screen (Machine is in TEST Mode)**

1. Select “**Calibrate Touch Screen**.”
2. Press the “**Calibrate**” button to start the calibration.
3. Carefully press and briefly hold the stylus on the center of the target, then release. Repeat as the target moves around the screen.
4. **Tap** the screen to save your calibration settings. If you make a mistake, just wait 30 seconds and your settings will not be saved.
5. Press “**Done**” after you complete the calibration. If you skip this step, the settings may not be remembered when the system is re-booted.

**THE NEXT STEP IS OPTIONAL AND SHOULD BE USED IF THERE IS AN EXTREMELY LARGE AMOUNT OF DATA CONTAINED ON THE FLASH CARDS.**

### **Selecting Precincts and Ballots for each machine (Machine is in TEST Mode)**

Each AutoMARK™ flash card is programmed with all possible ballot styles in the current election. Counties may find it helpful to pre-select those precincts and ballots to display on the AutoMARK™ for the specific polling location in which the machine will be used to prevent delays in displaying ballots on the screen.

Please remember though, you must pre-select all precincts and ballots that may possibly be used with that ES&S AutoMARK™. If a voter has a ballot that is not pre-selected, then the ES&S AutoMARK™ will be unable to recognize the ballot and will therefore reject the ballot.

1. Press the **Select Available Precincts** option.
2. You will see a list of all available precincts/ballots on the left. On the right is the list of selected precincts/ballots. Select a precinct/ballot from the list on the left by touching the item to highlight it and use the right arrow button to move the selected precinct/ballot to the right list (list of precincts to display on this terminal.)
3. If there are any precincts/ballots that you do not want to be available, select the precinct/ballot from the list on the right by touching it on the touch-screen and press the left arrow button to remove it from the selected list.
4. When you are done creating your list of selected precincts/ballots (on the right), press **“Done”** before exiting from this screen.

### **Conducting the Ballot Print Test (Machine is in TEST Mode)**

The Ballot Print Test is conducted to test the accuracy of the election definition and the accuracy of the print on the ballot once it is marked. All ovals/arrows are filled in and the candidate names are printed on the ballot.

If the ovals are not filled in properly, adjustments should be made as recommended by the AutoMARK™. Do not attempt a manual calibration without contacting ES&S for technical support!

1. Press **“Test Ballot Print”** on the screen.
2. Select the **“Enable Calibration Suggestions”** box.
3. Insert an unmarked ballot being used in this election into the ballot feed tray.
4. Once the ES&S AutoMARK™ prints and ejects the ballot, confirm the ES&S AutoMARK™ filled all ovals/arrows and printed the name of each candidate next to the oval/arrow. If the machine detects no problems with the printer calibration, you will receive the following message, “No calibration suggestions are available.”
5. Repeat steps 1 and 4, inserting the ballot in all possible orientations (right-side up, upside down, inserted front-wards, inserted backwards).
6. Confirm the ES&S AutoMARK™ filled all ovals/arrows and printed the name of each candidate next to the oval/arrow. The test printed candidate names may appear just below the names printed on the ballot. Some variation is normal and to be expected.
7. Press **“Done.”**

### **Logic & Accuracy Testing for the ES&S AutoMARK™ (Machine is ON)**

Multiple blank copies of your current election's ballot will be needed to test the printer. Please ensure that ballots for precincts stored on your compact flash card are being used. Prior to testing, a test script will need to be created using the following guidelines:

- All candidates should be voted at LEAST once. Remember, this is basically a big printer. You are not shooting for a certain result, but visual proof that what you touched on the screen is reflected in the marked ballot.
- All contests and candidate names are spelled correctly on the screen. Also check that the "You may vote for \_\_\_\_\_" phrases are correct in number.
- Audio should be checked for all ballot styles. Pay close attention to the contest and pronunciation of the candidate's names. If you note a problem, call ES&S immediately and ask for software support.
- All Americans with Disabilities Act (ADA) compliant features such as contrast and zoom are functioning on each machine. Votes should be cast using the keypad and headphones to verify that both function properly.
- Write-ins (if applicable) are printed correctly. A great way to test that all letters on the screen are functioning are to type your ABCs. Verify on the marked ballot that the write-in appears under the correct contest name.
- Overvotes are not permitted.

### **Instructions for voting on the AutoMARK™ are set out below:**

1. Turn the mode switch key to the **ON** mode position.
2. The **Insert Your Ballot** screen should be displayed.
3. Using a ballot from your current election, insert an unmarked ballot into the ballot feed tray.
4. Test all buttons at the bottom of the touch screen to ensure proper operation (**Back, Zoom In/ Out, High Contrast, Exit Return Ballot, Next**).

### **To Write-In a candidate using the Touch Screen**

1. On the contest screen, select "**Write-In.**" (**NOTE:** Press the **Cancel** button to close the write-in screen without entering a candidate and return to the contest screen.)
2. On the write-in pop-up screen type the name of your write-in.
3. Confirm your write-in on the top of the write-in screen.
4. Press "**OK**" to accept your write in and return to the previous screen.
5. Review summary screen once all races are voted. Press **NEXT**.
6. Press the "**MARK BALLOT**" button.
7. Remove marked ballot. The "Insert Your Ballot" screen will appear.

### To Write-In a candidate using the Keypad

1. On the contest screen, select “**Write-In.**” (**NOTE:** Press the **LEFT Arrow** on the keypad to close the write-in screen without entering a candidate and return to the contest screen.)
2. On the write-in pop-up screen, use your keypad to press **UP** and **DOWN** to hear each letter read. Once you hear the letter you want, press **“Select.”**
3. Confirm your write-in on the top of the write-in screen.
4. Use your keypad to press the **RIGHT Arrow Key** to accept your write-in and return to the previous screen.
5. Review “**Summary Screen**” once all races are voted.
6. Press the “**MARK BALLOT**” button.
7. Remove marked ballot. The “Insert Your Ballot” screen will appear.

### Conducting the Ballot Read Test

1. Insert the marked ballot into the ES&S AutoMARK™ paper tray.
2. The paper feed mechanism should feed your ballot into the ES&S AutoMARK™. If the test is successful, the ES&S AutoMARK™ scans the ballot and displays the “**Voter Instruction**” screen followed by the “**Verification Summary**” Screen. If the test is not successful, the ES&S AutoMARK™ will eject the ballot or display an error message. If this happens, continue on to the troubleshooting section at the end of the maintenance manual. This manual can be found on the CD provided to all county boards in March 2006 (Chapel Hill Training Seminar)
3. After reviewing the ballot, Press “**Next.**”
4. After all preparation and testing is completed, simply turn the key to **OFF** position.

### Cleaning the ES&S AutoMARK™

Use alcohol wipes to clean the outside panels and screen of the ES&S AutoMARK™ unit. Ensure the unit is dry before turning it on.

### Charging the Battery

1. Plug the power cord into the rear panel of the ES&S AutoMARK™ VAT.
2. Plug other end of power cord into your local power outlet.
3. The power meter on the rear panel of the ES&S AutoMARK™ indicates the battery power level. The battery can be fully charged in approximately 2-3 hours.
4. Once the battery is charged: turn the mode switch key to **Test** position.
5. From the main menu, select **Battery Status**.
6. Confirm that the Strength is **Good** and that the power source is **External**.

**NOTE: The power source indicating External when the ES&S AutoMARK™ is plugged into an outlet confirms the power supply cord is in good working condition.**