

ELECTION SYSTEMS HANDBOOK



CURRENT POLICY & PROCEDURES GOVERNING SUSSEX COUNTY ELECTIONS

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OVERVIEW OF THE ELECTION PROCESS

PREPARATION

Once the County Clerk certifies the election petitions, a list is prepared of the candidates and their slogans for each office, and the Clerk's office enters this information into the Election Systems & Software (ES&S) portal. ES&S enters this information into a program called Election Data Manager (EDM) that creates the election files for two separate programs: Hardware Programming Manager (HPM) and Ballot Image Manager (BIM).

The County Clerk will certify to the Board of Election that all the information on the ballot is correct.

HPM programs the equipment to run the election including the 650 Optical Scanner, Personal Electronic Ballots (PEBs), compact flash (CF) cards and the iVotronic (iVo) voting machines.

ES&S uses BIM to produce screen shot images of the ballots and sends them to the County Clerk for approval. After approval, a PDF is created and sent to the printing company who will print and deliver the paper test deck to the Board of Election (BOE) and the Sample Ballots, Mail-in, Absentee, Provisional, Military, Emergency, and Overseas ballots to the County Clerk for distribution.

ES&S then uses HPM to make the programming disk for the 650 Optical Scanner and generates an in-house tested sample test deck which they send to BOE. BOE technicians use this test deck to verify the results after running them through the 650 to make sure the results are identical to the results supplied by ES&S.

Once the election files arrive at the BOE, the voting equipment is then programmed and BOE begins the myriad of testing to ensure that the programming will run as expected on Election Day. All testing meets or exceeds the criteria established by the State of New Jersey Division of Elections.

A representative from the County Clerk's office verifies that the audio files are correct for each ballot style used in the election.

Testing and certification for the iVos begins by creating a new security code unique to each election. This security code is loaded onto the PEBs through a supervisor terminal. The supervisor terminal qualifies the PEBs with the new code and erases all other data from the previous election. It also tests the PEB to insure that all of the memory spots on the chip are reading and writing correctly.

The PEBs are then used to clear and test the iVos. This "Clear & Test" process clears off the old election code and replaces it with the new one, erases the votes stored and then tests the memory spots on the iVo. If a terminal does not pass the "Clear and Test" process it is not used in the election.

The Pre-election Validation process verifies the date and time settings and tests the audio and calibration to ensure 100% accuracy and performance on Election Day. The final step before initiating the state-mandated Security Protocol involves the printing of a Master PEB Zero Tape and a Terminal Zero Tape as final verification that no votes reside on any of the equipment prior to Election Day.

The week before each election, the BOE holds a Public Test where the current ballot is programmed into a representative sample of iVos. The public is invited to vote in the standard 1-2-1 pattern to prove that they are working correctly. The BOE also updates the Election Day Technicians (Runners) with any new procedures and prepares their supplies. Finally, the BOE prepares the office for tabulation of election night results.

ELECTION DAY

The Poll Workers' day begins at 5:15 am when they arrive at their polling location. Current BOE training recommends they concentrate on opening their iVos first, then they proceed to unpack the roster books and other necessary paperwork necessary for Election Day.

Throughout their busy day, Poll Workers confirm all voters' registration using the roster books and issue them a numbered ticket from the Voting Authority Log (VAL). Voters then take that VAL ticket to another Poll Worker who guides them to an iVo to vote.

Election Technician Runners trained and employed by the BOE visit each polling place to make sure polls are set up correctly, check the equipment and seal integrity, and assist Poll Workers with any issues that arise. Every BOE staff member is available beginning at 5:00 am to assist voters, Poll Workers, technicians and municipal clerks on the Help Desk phone line. Technicians are dispatched to any polling place that needs more assistance than the Help Desk can offer.

Throughout Election Day, the 650 Optical Scanner is utilized to count the paper ballots.

ELECTION NIGHT

At the end of the night, the BOE Help Desk is available to assist Poll Workers as they close the iVos using their Master PEB. Once the iVos are closed, all the equipment is delivered to either the BOE office or their Authorized Remote Collection Site. Technicians are stationed at these collection sites to accept the equipment and modem the district results through their remote site laptops into the BOE's computers using software called DAM (Data Acquisition Manager). In the event any Poll Workers are unable to successfully close their iVos, technicians are ready to collect the results manually when the equipment arrives at the BOE.

Immediately after the polls close, the BOE tabulates the Mail-In and Military ballots using the 650 Optical Scanner. As local PEBs arrive, those results are read directly into the tabulation software called ERM (Election Reporting Manager) and are displayed almost instantly to the press & public through a computer with a scrolling screen in the County Clerk's office. Simultaneously, the remaining PEB results are received through DAM as all the iVos, PEBs, Provisional Ballots and other supplies are trucked back to the BOE.

As the equipment arrives at the BOE, the Print Totals Team uses the Master PEBs from each district to print a report that shows the iVos that were opened and closed with that PEB and also the total vote count. This information is compared to the district pink sheets to verify that every iVo was accounted for and the total machine vote count equals the number of voting authority slips issued for that district. If any discrepancies are found, the BOE Administrator immediately investigates and resolves the discrepancy before any results are published. During this time, BOE staff separate Provisional ballots for Commissioners' review and the iVos are unpacked as security-trained technicians begin the seal validation process.

Once all the iVo vote totals are tabulated in ERM, all Mail-In, Military and Emergency ballots are added to the vote totals. At this point, a preliminary district summary report is printed, checked for discrepancies, and unofficial results are distributed and posted on the County Clerk's website. Within three days of the election, all valid Provisional ballots are added to the vote totals and the election results are very carefully scrutinized for accuracy. The iVo audit chips are downloaded into ERM and those vote totals are compared to the unofficial election night totals as a final verification that the election data is accurate. When the BOE is certain that the election data is 100% accurate, official results are printed and delivered to the County Clerk for certification.

Starting a New Election Cycle

- 1) Clean, Label, and Assign security seals as needed
 - a) Clean iVos
 - i) Remove any old labels with Goo Gone.
 - ii) Wipe down all sides and touch screen with ammonia-free window cleaner.
 - iii) Let dry for at least 30 minutes.
- 2) Label iVos
 - a) If any iVo needs a new district label or barcode, affix it in the proper location.
- 3) Assign security seals
 - a) If either the left or right side white seal needs replacement, follow the instructions in the Asset Tracking Manual to assign new security seals on the iVo.
 - b) Assign a red compact flash seal to each iVo by following the instructions in the Asset Tracking Manual.
 - c) Using the Access database, assign 1 PEB blue seal for each iVo and place in the corresponding iVo folder jacket.
 - d) Using the Access database, assign 1 black bag seal for each iVo and place in the corresponding iVo folder jacket.
 - e) Using the Access database, assign 1 blue bag & 2 red bag seals for each district and place on table for insertion into red bags.

Start a New EQC Code

- 1) This is only done ONCE for each election.
- 2) Go to a Supervisor iVo terminal.
- 3) Hold the red vote button down with your right hand and insert a blank PEB into the Supervisor terminal.
- 4) Once the iVo has beeped for about two seconds, let go of the red vote button.
- 5) Select "Election Administration".
- 6) Password is "ECAECA"
- 7) Select "Start Election Qualification Trail".
- 8) Password is "EQCEQC".
- 9) Follow the screen instructions to create a new EQC code.
- 10) Write down the new EQC Code - very important - you will use this code on many documents for this election!

Qualify PEBs for New Election

1. Hold the red vote button with your right hand and insert the PEB into the Supervisor terminal.
2. Once iVo has beeped for about two seconds, release the red vote button.
3. When menu appears, select "Election Administration".
4. Enter Password "ECAECA".
5. Select "PEB Services".
6. Select "Qualify PEB".
7. Press the Vote button to qualify the PEB.
8. When the PEB is finished qualifying, the screen will show the last four digits of the Qual Code. Make sure this is the same number you created for this election.
9. The screen will also indicate the PEB battery strength. Only use the PEB if the battery is greater than 3.4. If battery is less than 3.4, the PEB could malfunction on Election Day. It should not be used until ES&S replaces the battery.
10. Insert the next PEB and follow the screen instructions until all the PEBs have been qualified - each district receives one Master and two District PEBs.

Prepare a Clear & Test PEB

The clearing and testing (C&T) process does exactly what it sounds like - it clears and tests the internal hardware and software to ensure that everything is working properly and nothing is left behind from previous elections. It also loads the new election data into the machine. Once the iVo has completed the C&T process, it is empty except for the new EQC code and can be used in any district.

Very Important

***Never Clear & Test an iVo with valid votes on it during Election Day!
These votes will be erased and they cannot be brought back!***

- 1) Hold down the red vote button with your right hand and insert a PEB into the Supervisor terminal.
- 2) Once the iVo has beeped for about two seconds, release the red vote button.
- 3) At the Main Menu, select "Election Administration".
- 4) Enter Password "ECAECA".
- 5) Select "PEB Services".
- 6) Select "Prepare PEB for Clear & Test".
- 7) Select "Yes"
- 8) Follow the screen instructions - for small elections, you only need one C&T PEB - for the Primary and General elections, you will need two or three.

Make sure the EQC Code that is programmed onto the PEB is the same EQC Code you created for the current election!

Loading Election Files into Unity

- 1) Bring the ES&S supplied CD to the "Update Results" computer and place it into the CD disc drive.
- 2) Right click on the Desktop Start Menu and select "Explore".
- 3) Right click on the election folder that is on the CD drive.
- 4) Select "Extract All" and specify drive Q: /
- 5) Your election files are now in the proper location for the Election software.
- 6) At the ERM main menu, select "Election", then "Change".
- 7) Select the election that you just downloaded the files for.
- 8) At the Main Menu, select "Election", then "Create Results Database".
- 9) At the Main Menu, select "Miscellaneous", then "Add/Change Groups".
- 10) Verify that your groups are as follows: Election Day (VTR), Mail-In (650), Provisional (650), Military (650), Emergency (650).
- 11) At the Main Menu, select "Reports", then "Election Summary". Display this report to verify that database is empty. No votes should be reported.

Preparing HPM for New Election

- 1) Go into Hardware Programming Manager (HPM).
- 2) At the Main Menu, select "Election", then "Change".
- 3) Choose correct election.
- 4) At Main Menu, select "Tabulator Controls".
 - a) Jurisdiction
 - b) Election Specification
 - c) Certification

*Most of this information is pre-set,
but you need to check its accuracy as compared to the images below.*

Change Jurisdiction Master

Jurisdiction Title: SUSSEX COUNTY, NEW JERSEY

State: NJ

Tabulator: Model 100/150/550/650

System Type: Both

Vote for Selection: All

Vote for Sequence: After

Vote for Text: VOTE FOR

Edit District Codes ...

OK Cancel

Election Specification

Election Information

Election Type: Closed Primary

Election Title: PRIMARY ELECTION

Election Date: June 07

Ballot Information

Ballot Format: 14" - 36 targets per column

Header ID: Precinct ID/None

Special Contests: Person Ballot Type:

Flotation

Print Candidates in Vote Order

Polling Place Mode

One Sided Ballot

Target Side: Left Right

Target Shape: Oval Arrow

Types Description/Include in Total Voting?			
Description	Include	Description	Include
1: REP	<input checked="" type="checkbox"/>	2: DEM	<input checked="" type="checkbox"/>
3:	<input type="checkbox"/>	4:	<input type="checkbox"/>
5:	<input type="checkbox"/>	6:	<input type="checkbox"/>
7:	<input type="checkbox"/>	8:	<input type="checkbox"/>
9:	<input type="checkbox"/>	10:	<input type="checkbox"/>
11:	<input type="checkbox"/>	12:	<input type="checkbox"/>
13:	<input type="checkbox"/>	14:	<input type="checkbox"/>
15:	<input type="checkbox"/>	16:	<input type="checkbox"/>
17:	<input type="checkbox"/>	18:	<input type="checkbox"/>
19:	<input type="checkbox"/>	20:	<input type="checkbox"/>
21:	<input type="checkbox"/>	22:	<input type="checkbox"/>
23:	<input type="checkbox"/>	24:	<input type="checkbox"/>
25:	<input type="checkbox"/>	26:	<input type="checkbox"/>
27:	<input type="checkbox"/>	28:	<input type="checkbox"/>
29:	<input type="checkbox"/>	30:	<input type="checkbox"/>

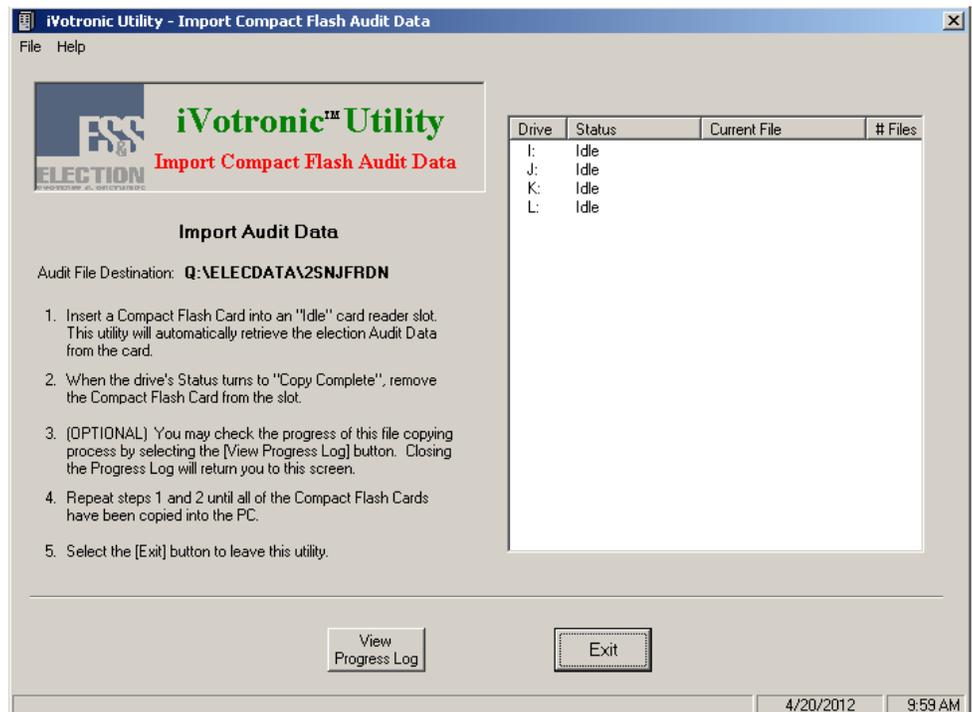
Model 100 Scanner Options ... Model 150/550/650 Scanner Options ...

OK Cancel Apply

5. The last step in preparing HPM is to go back into "Tabulator Controls and click on the following menu choices:
 - a. Create final database,
 - b. Create Tabulator Parameters (enter numbers based on type of election)
 - c. Create DAM Precinct List.

Program Compact Flash Cards

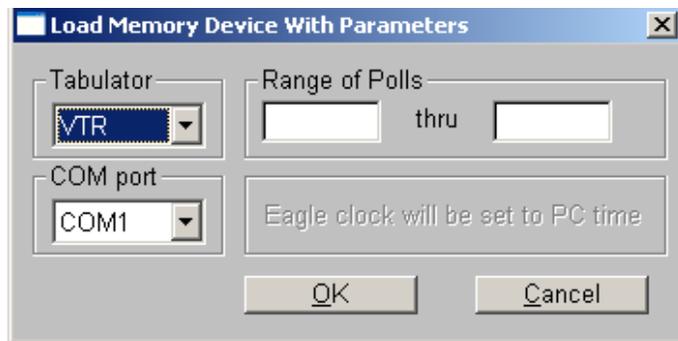
- 1) Go into the Unity System on the "Update Results" computer. Note: All computers use the same password to login - "elect".
- 2) Select "Hardware Programming Manager (HPM)".
- 3) Verify that you are working in the current election (upper left corner near the menu, it will list the election you are working in).
- 4) Select "Create Tabulator Data".
- 5) Select "Prepare Election Compact Flash".
- 6) Insert a compact flash into the flash drive reader carefully so the pins do not bend or break.
- 7) At the screen that asks "Do you want to include the audio files?" Say "Yes".
- 8) Select the drive location where the compact flash is located.
- 9) Select "Format" to clear the card of all data.
- 10) When that is complete, select "Continue" to program the flash card for the current election.
- 11) This process takes 3-4 minutes. When complete, you need to exit out of the screen and repeat steps 4-10 until all flash cards have been programmed.



Program PEBs

- 1) Make sure the Supervisor terminal is completely plugged into a power supply and rainbow cable is correctly plugged into the COM Port.
- 2) Hold the red vote button with right hand and insert the PEB into the PEB slot.
- 3) Once the iVo has beeped for about two seconds, release the vote button.
- 4) At the Main Menu, select "Election Administration".
- 5) Enter Password "ECAECA".
- 6) Select "PEB Services".
- 7) Select "Prepare PEB for Polling Location".
- 8) Wait until you see "Linking to PC0" on the bottom of the iVo screen.
- 9) Go into the Unity System on the "Update Results" computer.
- 10) Select "Hardware Programming Manager (HPM)".
- 11) Verify that you are working in the current election (upper left corner near the menu, it will list the election you are working in).
- 12) Select "Create Tabulator Data".
- 13) Select "Load Memory Device with Parameters".
- 14) A box will appear. Enter the following information:

- a. Tabulator: VTR
- b. COM Port: COM1
- c. Range of polls:
(See box on next page)



- Ranges will change depending on the election. The Sequence Code master list starts with Andover Boro 0001, Andover Twp 0002, and so on to Wantage 8 being 0119.
- If you input a range of 1-119, you will be burning every PEB for every district in the county.
- If you only have to program for a few towns for a smaller election, then only input those numbers.
- The sequence codes will change for smaller elections also. For example, if there is a Sparta only election, the range becomes 1-14 because there are 14 districts.
- You can burn individual districts by inputting the district range only (*i.e.* 45 – 54).
- The Master Sequence Code list can be found at the end of this document.

15) Once your parameters are set, click OK.

16) Once you click OK, HPM begins talking to the Supervisor iVo. The iVo screen will download the ballot - this takes a few minutes. A message will appear stating which district information is being downloaded. Make sure that HPM is downloading the correct district information.

17) When the process is complete, the iVo will prompt you to do the following:

- i) Remove PEB if complete - choose this option if you are finished burning that particular district.
- ii) Press the VOTE button before removing the PEB to program another PEB for the same district - choose this option if you need to burn another PEB for the same district.

18) Repeat the above steps until all three PEBs are programmed for all 119 districts.

Paperwork and Documentation

Validation (Technician) Sheets
L&A Testing Sheets (PEB/ballot Testing)
Pink (Poll Worker) Sheets
Yellow (Runner) Sheets
Green/Blue (Audit) Sheets

1. All security seals must be assigned prior to printing any paperwork. You will assign one blue seal for each municipal blue bag, one white seal for each iVo black bag, and two red seals (one outgoing and one incoming) for each district red bag. In addition, one blue PEB seal must be assigned.
2. Once all the security seals have been assigned and the PEBs have been Qualified, make all necessary changes to the Access database. When all information is correct, print out the Validation reports for each iVo and the L&A Testing Sheets.
3. After validation is complete and all last minute changes to equipment are updated, you will print out the Pink Sheets. These Pink Sheets, along with the other required materials, will be placed inside the Red Bags for distribution to the polling locations.
4. Verify that the Contact Poll Workers are correct in the database and print out the Yellow ESR Sheets and the Green/Blue Audit Sheets. The Yellow ESR sheets will be placed inside the Runner binders and the Audit Sheets will be set aside for election night use.

Overview of the Paper Test Deck Process

Each election is tested in a multi-vote sequence which involves testing the paper ballot tabulator. The BOE Administrator along with the Senior Election Technician will determine the manner in which the test deck is marked based on the total number of candidates for each race. A Test Deck Guide will be created to reflect the necessary ballot testing.

Basic Paper Test Deck Guide

First candidate - 1 vote
Second candidate - 2 votes
Third candidate - 3 votes
Fourth candidate - 4 votes

Public questions (for both the paper ballot and the iVotronic test) are handled in the following manner:

Ballot #1 - Vote Yes
Ballot #2 - Vote No
Ballot #3 - Vote No

This guide can be adjusted or adapted for districts that have more candidates in any contest by adding additional ballots. To represent an "under-vote", one complete set of election ballots will not be marked (tested "blank") and one blank ballot will be cast for the Master PEB validation. On the paper test deck, one complete set of ballots will be marked with every candidate to represent an over-voted ballot.

You DO NOT need to have a separate test deck for Military, Provisionals or Emergency ballots. They are identical to the Mail-In ballots but have a different header stamped on the top by the Printer before distribution. You do need to be VERY careful about keeping the groups separated during all counting processes because the 650 Optical Scanner does not know the difference between groups.

All test results must be reviewed and signed by the Technician, Senior Election Technician and Administrator at the completion of the test.

Once the paper test deck is completed and results are checked for accuracy, they must be saved to a zip disk and imported directly into ERM, mimicking election tabulation procedures.

PAPER TEST DECK Marking the Paper Test Deck

The BOE Administrator along with the Senior Election Technician will determine the manner in which the test deck is marked based on the total number of candidates for each race. A Test Deck Guide will be created to reflect the necessary ballot testing.

The first step is to stamp each test ballot with a red "Test Deck" stamp. This will prevent any confusion between the test deck and live paper ballots.

Using a black marker or pen, manually mark (vote) the candidate and question choices according to that election's test deck guide.

Follow instructions for running the test deck through the 650 Ballot Scanner to verify the results.

PAPER TEST DECK

Compiling Test Deck Results in the 650 Optical Scanner

1. Insert the ES&S supplied election program disk into the 650 Optical Scanner.
2. Turn on the 650.
3. On the 650, hold down the "Enable" button and press "Zero Totals" button.
This will clear the memory and zero out any ballots that were previously stored on the machine.
4. Select "Reports-Grand Totals (Short Format) to print a zero report.
5. Insert the Test Deck ballots and press "Start". The paper ballots will move through the machine and the votes will be recorded.
6. As you are scanning ballots, the printer that is connected to the 650 will simultaneously print-out confirmation that the ballots are being processed correctly.
7. When all the ballots have been processed, verify that the number of ballots you processed equals the number of ballots on the paper printout from Step 7.
8. Select "Reports - Grand Totals (short format)" to print the results from the paper ballots. Carefully examine this report to verify that the specific vote totals are consistent with the manner in which the test deck was marked.
9. All test results must be verified and signed by the Technician, Senior Election Technician and the Administrator at the completion of the test.
10. File both the zero report and the results report in the election file when complete.
11. Label a formatted zip disk with the election name and "BOE TEST DECK".
12. Insert this floppy disk into the 650 and press "Import Results".
13. Once complete, bring the disk to the tabulation computer and follow the instructions to Process the Test Deck Results.

PAPER TEST DECK Processing the Test Deck Results

1. On the tabulation computer, insert the zip disk containing the paper test deck results.
2. Start the Election Reporting Manager (ERM) Software.
3. Select "Miscellaneous".
4. Select "Add/Change Groups".
5. Change Group 5 to read "TEST DECK".
6. On the menu, choose "Update".
7. Select "Load model 650 results".
8. Double click on the group "BOE TEST".
9. Click OK.
10. At the next screen, Select "Read Scanner Disk".
11. Click OK.
12. When finished, select "All Disks Read, update ERM".
13. Go into ERM main menu and choose "Update".
14. Select "Run Precinct Results Accumulation Program". (This updates the reporting to reflect the 650 data).
15. Double click on the "TEST DECK" group.
16. Click OK.
17. Print out an "Election Summary with Group Detail" report to verify that the data imported and reported correctly.
18. All test results must be reviewed and signed by the technician, Senior Election Technician, and the Administrator at the completion of the test.

Logic and Accuracy Ballot Testing

Every district ballot is tested using a machine-generated multi-vote test sequence and a "Results" tape is printed to verify that the test-voting is accurate. All test results are reviewed and signed by the Technician, Senior Election Technician and the Administrator.

If the Senior Election Technician and the Administrator determine that a ballot has more than one contest with identical number of candidates, further testing is necessary to allow an opportunity for vote total discrepancies to appear. This testing method must conform to the State of New Jersey Division of Elections "Mandatory Pre-Election Testing Protocols - iVotronic Voting Machines" guidelines.

The procedures outlined in this manual represent a comprehensive testing protocol for the iVotronic, 650 Optical Scanner and the Election Reporting Software. These procedures, combined with the thorough verification process which includes three individual and escalating supervisory review, is a reasonable and appropriate validation of the election programming.

iVo Test Deck / Public Test

The voting machines that are used for the Test Decks are also used for the Public Test and the DAM Remote Test. These iVos and Compact Flash Cards should be programmed in the same manner as for the other equipment for the election. An "All County" PEB is used for these testing procedures. This test is performed as part of the Public Test requirement one week prior to Election Day.

Basic iVo Test Deck Guide

First candidate - 1 vote
Second candidate - 2 votes
Third candidate - 3 votes
Fourth candidate - 4 votes

Public questions (for both the paper ballot and the iVotronic test are handled in the following manner:

Ballot #1 - Vote Yes
Ballot #2 - Vote No
Ballot #3 - Vote No

This guide can be adjusted or adapted for districts that have more candidates in any contest by adding additional ballots. All district ballots are tested for each election in accordance with the State of New Jersey Division of Elections "Mandatory Pre-Election Testing Protocols - iVotronic Voting Machines" guidelines.

Once you have manually voted each ballot style, a "Print Results" tape is printed and compared against the test deck guide to verify that the vote totals are accurate. The votes on these Test Deck master PEBs are saved for performing the DAM test. All results must be reviewed and signed by the Technician, Senior Election Technician and Administrator at the completion of the test.

These results are then imported into the tabulation software via DAM host or DAM remotes, depending on the download method used on Election Day. The representative sample used for this test is as follows:

Andover (DAM host)	Hoptacong (DAM remote)
Byram (DAM remote)	Sparta (DAM remote)
Frankford (DAM remote)	Vernon (DAM remote)
Hardyston (DAM remote)	Wantage (DAM remote)

Preparing the iVos & PEBs

1. Working one district at a time, validate each terminal using the procedures outlined on the validation sheets. There is one validation sheet for each iVotronic to be used in the election.
2. Validation includes three separate steps.
 - a. Seal Validation - Check the iVotronic serial number, PEB seal number, CF # and all PEB serial numbers.
 - b. Clear and Test the terminal - wipes the terminal memory and installs the current election.
 - c. Pre-Election Equipment Verification - multi-step process that verifies the terminal settings are accurate and prepared for Election Day. The audio and calibration are also tested at the end of this process.
3. Open the terminal and print a "Terminal Zero Tape". This ensures that the terminal contains zero votes. Close the terminal and perform a final Clear & Test.
4. The Master PEB will then be taken for Logic and Accuracy Ballot Testing. (page 20)

Preparing the Remote Laptops

This is to be done after DAM Hosts are set up and modems are on

Setting up Remote

Open laptop (Correct time in BIOS, if necessary)

1. Open Remote Setup
2. In remote setup, select 'Get Setup'
3. Select 'For Remote Configuration'
4. Press enter to select 'DAM.CFG' which is the default
5. Arrow down to Election & press Enter
6. Change Election to correct election name (ex. 5GNJSUSS)
7. Make sure District # is correct, change if necessary
8. Arrow to Save Setup
9. Select 'For Remote Configuration'
10. Select 'Quit'
11. Quickly press 'F3' to exit

Testing Remote

1. Open Remote (NOT Remote Setup)
2. Press any key to continue
3. Press F3 to select the election
4. Plug in phone jack to modem
5. Change phone number if needed
6. Press F5 to dial
7. Once connected, Press 'Shift' and 'Tab' once
8. Press F9 to build district (precinct) list
9. Press Y when prompted and you will have to restart the DAM Remote software
10. Open Remote and dial back in
11. Press 'Shift' and 'Tab' until you see the District List
12. Confirm list is correct
13. 'Shift' and 'Tab' until you get back to the screen that reads PEBs
14. Insert PEB and Press Enter
15. Make sure all PEBs were read and sent on remote and received by Host

Clearing Data From Remote (THIS IS VERY IMPORTANT!!!!)

1. While in the Dam Remote press 'Shift' and 'Tab' until you are at the screen that will not allow you to read PEBs.
2. Press F9 to build district (precinct) list
3. Press Y when prompted and restart the DAM Remote software
4. Reenter DAM software and press 'Shift' and 'Tab' until you see that the list has been cleared
5. Shut down laptop and pack up laptop, power cord, reader and directions

DAM Testing

1. Go into the "Remote Status" computer.
2. Open DAM Start.
3. All three modules to the program should open on the screen. Go into each one individually, click on the "Setup" menu, and change the election to the current election name.
4. In one of the modules, there will be a option to "Reset Files" and "Create SPS file" on the lower left corner of the screen. Perform both these operations. Exit all programs, then reload DAM Start.
5. Set-up the laptops in the front office, connect the fax line, and begin transmitting PEB results from the Test Deck PEB to see if the DAM is working properly.
6. Follow previous instructions to Change Group name from Provisional to DAM TEST, then "Run Precinct Results Accumulation Program" for that group.
7. Verify that the results are correct based on testing sequence used to test vote.
8. Clear all votes from DAM and ERM files when test is concluded.
9. Verify that the "AC2" file is also deleted from the election subfolder in both the "M" and "Q" drives.

Scrolling Screen Set-Up

Contact the county IT department one week prior to the election and arrange for someone in their department to come over on Election Day and set-up the scrolling screen laptop in the main conference room and also in the County Clerk's conference room.

Updating Voter Registration

After the Close of Registration (21 days prior to the election), the "Total Registered Voters" must be added to the election files.

Setting up the Registered Voters Import File

Open a file in Notepad in the "Update Results" computer. Add the information as shown in the illustration below. Save the file in the computer hard drive - c:\voter_registration directory under that election name.

District #	Total Reg. Voters	Total Republican	Total Dems
# # # #	T T T T T	1 1 1 1 1	2 2 2 2 2

Importing the file into ERM

Select "Miscellaneous" from the file menu, then "Update Voter Registration".
Select "Using Import File" from the window and click OK to open the next window.
Enter the name of the voter registration file that you are importing. You must give the full path and file name (*i.e.* c:\voterreg\4pnjsuss.txt).

Election Day Activities

After the opening rush of HELP line telephone calls dwindle, you can begin preparations for election night reporting.

1. 650 Optical Scanner
 - a. Turn on 650 and attached printer.
 - b. Clear the memory and print a zero report. (see next page)
 - c. File this report in the election box.
2. HPM
 - a. Go into HPM and make sure the current election is correct.
3. ERM
 - a. Verify the current election is available for all online functions.
 - b. Correct the date and time.
 - c. Check that all the election settings are accurate including the reporting groups.
 - d. Reset all precincts and zero out all precincts.
 - e. Verify that the AC2 file is absent from the directory as outlined on page 24 of this manual.
 - f. Print a "Zero Report" by choosing Election Summary with Detail and changing the heading to read "Zero Report".
 - g. After printing, reset heading to read "Unofficial Results".
4. DAM
 - a. Go into DAM on the Remote Status computer.
 - b. Load all three DAM programs so they are ready and waiting for data.
 - c. Verify that all three programs are in the current election.
 - d. Check that all modems are turned on and operational (all runners should test their laptop connections between 12:00 pm and 3:00 pm on election day)
 - e. Reset all files and create a new SPS file.

Election Night Reporting - Processing Paper Ballots

(Mail-In, Provisional, Military & Emergency)

1. Turn on 650 optical scanner and attached printer.
2. Hold down the "Enable" button and press the "Zero Totals" button. This will clear the memory and zero out any ballots that were previously stored on the machine.
3. Select "Reports - Grand Totals (short format)" to print a zero report. File this entire printout in the election filing box.
4. Install a new rubber belt (Pick belt). Remove the old one by stretching and pulling towards you until one side comes off. Install the new one in the same manner - one side at a time.
5. If the retard pad looks worn, pry it out with a flat-head screwdriver and place a new one - make sure that the new one is installed correctly.
6. Clean the machine and remove any debris that may be present -
 - a. Use compressed air to blow away debris and dust from all exposed surfaces - pay special attention to the "optical eyes" that read the ballot.
 - b. Use rubbing alcohol on a towel and gently wipe all surfaces that the ballots touch.
7. Insert the paper ballots and press "start". The paper ballots will move through the 650 and the votes will be recorded.
8. When all ballots are read, verify that the number of ballots you processed equals the number of ballots on the paper printout.
9. Select "reports - Grand Totals (long format)" to print a report of the paper ballots cast. File this entire printout in the election filing box.
10. Using one of the computers, format a zip disk and label it with the election name and type of ballots you have just scanned.
11. Insert this zip disk into the 650 and press "Enable" and "Save" to transfer the results to the zip disk.

Transferring 650 Results into Election Database

1. Once all district PEBs are tabulated, you can upload the paper ballot results. Do not upload the paper ballots until all remote and local results have been read and tabulated by ERM.
2. Put the zip disk that contains the results from the 650 into the "Update Results" computer's zip disk drive.
3. Go into ERM.
4. On the main menu, select "Update".
5. Then select "Load Model 650 results".
6. Double click on the group you are trying to update (Mail-In, Provisional, Military, Emergency)
7. Click OK.
8. At the next screen, select "Read Scanner Disk".
9. Click OK.
10. When finished, select "All Disks Read, Update ERM".
11. Go to ERM main menu and select "Update".
12. Select "Run Precinct Results Accumulation Program".
13. Double click on the group you are trying to update.
14. Click OK.
15. Follow these instructions for all paper ballots received for this election.

Processing Local Read PEBs

Most of the PEB votes are sent directly to the ERM system by remote modem.

However, there are a few local districts (Andover Boro, Andover Twp, Fredon, Green, Hampton, Lafayette, Newton and Stillwater) that bring their PEBs to Election Headquarters and these results must be downloaded into the election database.

1. The local-read laptop must be configured in the same manner as the remote laptops and tested before Election Day.
2. Insert the Master PEB into the PEB reader attached to the designated laptop. The process takes about 3 seconds. These results are being loaded into Drive Q.
3. Follow the instructions on the following page to update ERM with these results.
4. Very important! DO NOT update ERM with the Drive Q until all the "Remote" results from Drive M are completely updated.
5. Forward the Master PEB to Print Totals team for tally verification.

Drive Q is for the locally read PEBs. Drive M is for the remote sent PEBs. When you update ERM, you must update first from Drive M – once all these districts are read, then you will update from Drive Q to transfer votes from all processed PEBs into your election files.

Processing Remote Sent Votes through DAM

Most of the votes for a typical election are modemed through the DAM system from the Runners in seven (7) remote locations throughout the county.

- 1) On the Remote Status computer, open DAM Start.
- 2) Open all 3 modules of DAM. Check each one for the correct election.
- 3) Turn on all modems.
- 4) As the polls close and the runners begin transmitting results, you will see the status of which districts have been sent and which ones are still pending.
- 5) When the polls close, go into Unity, ERM on the "Update Status" computer.
- 6) Select "Update" then "Run Precinct Results Accumulation Program".
- 7) Select Group 2 - Election Day.
- 8) Replace Mode - Beginning with First.
- 9) Pack Drive M.
- 10) Check "Dynamic Precinct Reports - All precincts.
- 11) At this point, the system will be waiting for the DAM results and the screen will say "Waiting for Packs" until all precincts are in.
- 12) When all the precincts have been received, this segment is complete.

Running Reports

Before you run reports you must verify the following:

- NO DISTRICTS were suspended before running reports.
- All districts have been reported and all districts have votes in them.
- The election night audit was completed and the ERM District Totals equal the Print Totals from the Master PEBs.

Once you have confirmed that the election night vote totals are accurate, release "Unofficial" results to the County Clerk's office. Save an HTML version and email to the webmaster (tcarlson@sussex.nj.us) for immediate release to the county website.

Post Election Audit

The Post Election Audit is performed the day after the election using the compact flash (CF) cards from the back of each iVo.

- 1) At main menu and select "Miscellaneous".
- 2) Select "Add/Change Groups".
- 3) Change Group #6 from "Emergency" to "Audit".
- 4) Change Equipment from "650" to "VTR".
- 5) Click OK.
- 6) Open ERM and at the main menu screen, select Tabulators.
- 7) Select "iVotronic/DRE".
- 8) Select "Import Compact Flash Audit Data".
- 9) A screen pops up with a list of the available drives to insert the CF into.
- 10) Insert the first CF into the card reader - this should be Drive "I".
- 11) ERM will automatically import the audit data - and it only takes about 2 seconds. When the screen indicates that it is complete, remove that CF and insert the next one. Continue with this step until all CF have been imported.
- 12) Go back to main menu and select "Tabulators", "iVotronic/DRE".
- 13) Select "Collect Audit Data". From "Specified Drive".
- 14) Change directory to correct election name.
- 15) A list of files should appear. Highlight all the files, counting them to make sure you have the same amount of files as iVo compact flashes that were imported.
- 16) Click OK. The audit data will be processed.
- 17) At main menu, select "Tabulators", "iVotronic/DRE".
- 18) Select "Consolidate Audit Data".
- 19) Click OK. An SPP file should be created.
- 20) At main menu - select "Tabulators", "iVotronic/DRE"
- 21) Select "Update Precinct Results from Audit Data".
- 22) Double Click on Group #6 - Audit.
- 23) Click "Update Groups".
- 24) Click OK.
- 25) Go to "Reports".
- 26) Select "Election Summary w/Detail" and "Precinct Summary w/Detail".
- 27) Change the Headings - Right Edge to read "AUDIT".
- 28) Print out these reports.

The Audit column numbers should match exactly with the Election Day column.

When the Audit is complete, the numbers are exact and you don't need the audit anymore, go back to your groups and change "Audit" back to "Emergency".

- ✓ Main Menu - "Tabulators".
- ✓ Select "iVotronic/DRE".
- ✓ Select "Clear Audit Data".
- ✓ Go into main menu - Update"
- ✓ Select "Reset Counted Precincts"
- ✓ Select "Reset All Precincts"
- ✓ At next menu option, de-select every group except for "Emergency".
- ✓ Click OK.
- ✓ Run official reports.

Appendix A

Sequence Codes			
0001	Andover Boro	0081	Sparta Township 12
0002	Andover Township 1	0082	Sparta Township 13
0003	Andover Township 2	0083	Sparta Township 14
0004	Andover Township 3	0084	Stanhope Boro 1
0005	Andover Township 4	0085	Stanhope Boro 2
0006	Andover Township 5	0086	Stanhope Boro 3
0007	Andover Township 6	0087	Stillwater Township 1
0008	Branchville Boro	0088	Stillwater Township 2
0009	Byram Township 1	0089	Stillwater Township 3
0010	Byram Township 2	0090	Sussex Boro
0011	Byram Township 3	0091	Vernon Township 1
0012	Byram Township 4	0092	Vernon Township 2
0013	Byram Township 5	0093	Vernon Township 3
0014	Byram Township 6	0094	Vernon Township 4
0015	Frankford Township 1	0095	Vernon Township 5
0016	Frankford Township 2	0096	Vernon Township 6
0017	Frankford Township 3	0097	Vernon Township 7
0018	Frankford Township 4	0098	Vernon Township 8
0019	Franklin Boro 1	0099	Vernon Township 9
0020	Franklin Boro 2	0100	Vernon Township 10
0021	Franklin Boro 3	0101	Vernon Township 11
0022	Fredon Township 1	0102	Vernon Township 12
0023	Fredon Township 2	0103	Vernon Township 13
0024	Fredon Township 3	0104	Vernon Township 14
0025	Fredon Township 4	0105	Vernon Township 15
0026	Green Township 1	0106	Vernon Township 16
0027	Green Township 2	0107	Vernon Township 17
0028	Green Township 3	0108	Vernon Township 18
0029	Green Township 4	0109	Vernon Township 19
0030	Hamburg Boro 1	0110	Vernon Township 20
0031	Hamburg Boro 2	0111	Walpack Township
0032	Hampton Township 1	0112	Wantage Township 1
0033	Hampton Township 2	0113	Wantage Township 2
0034	Hampton Township 3	0114	Wantage Township 3
0035	Hampton Township 4	0115	Wantage Township 4
0036	Hardyston Township 1	0116	Wantage Township 5
0037	Hardyston Township 2	0117	Wantage Township 6
0038	Hardyston Township 3	0118	Wantage Township 7
0039	Hardyston Township 4	0119	Wantage Township 8
0040	Hardyston Township 5		
0041	Hardyston Township 6		
0042	Hardyston Township 7		
0043	Hopatcong Boro 1		
0044	Hopatcong Boro 2		
0045	Hopatcong Boro 3		
0046	Hopatcong Boro 4		
0047	Hopatcong Boro 5		
0048	Hopatcong Boro 6		
0049	Hopatcong Boro 7		
0050	Hopatcong Boro 8		
0051	Hopatcong Boro 9		
0052	Hopatcong Boro 10		
0053	Hopatcong Boro 11		
0054	Hopatcong Boro 12		
0055	Lafayette Township 1		
0056	Lafayette Township 2		
0057	Lafayette Township 3		
0058	Montague Township 1		
0059	Montague Township 2		
0060	Montague Township 3		
0061	Newton 1		
0062	Newton 2		
0063	Newton 3		
0064	Newton 4		
0065	Newton 5		
0066	Newton 6		
0067	Ogdensburg Boro 1		
0068	Ogdensburg Boro 2		
0069	Sandyston Township 1		
0070	Sparta Township 1		
0071	Sparta Township 2		
0072	Sparta Township 3		
0073	Sparta Township 4		
0074	Sparta Township 5		
0075	Sparta Township 6		
0076	Sparta Township 7		
0077	Sparta Township 8		
0078	Sparta Township 9		
0079	Sparta Township 10		
0080	Sparta Township 11		

Appendix B Troubleshooting

RECOLLECTING TOTALS

- 1) Insert (Master) PEB.
- 2) Any of the following may occur:
- 3) If the iVo was closed properly, but perhaps to the wrong PEB, the 'Recollect Totals' option will appear. In this case, recollect all totals to the designated PEB.
- 4) If the iVo was NOT closed properly, the 'Close the Polls', 'Exit this Menu' option will appear. In this case, select 'Close the Polls'.
- 5) If the iVo had incorrect time and could not be closed, time will either be significantly behind or a ballot will appear. If the option to close is present, close the iVo to correct the PEB. If option to close is not available, cancel the ballot and follow the directions to close iVos early.
- 6) If the machine is 'dead' (unresponsive) or cannot be closed, try everything possible to troubleshoot.
 - a) Start by resetting iVo
 - b) Plug iVo into reliable power source
 - c) Check rechargeable battery connection and replace battery if possible
 - d) Try a different PEB
 - e) Gently shake iVo to see if something is loose inside of case
 - f) Try firmly, but gently (!), lean on case while inserting PEB. If screen lights up at all call ES&S Techs for assistance
 - g) If machine still is unresponsive and all troubleshooting has been unsuccessful, OR IF SCREEN DECLARES THAT THERE HAS BEEN AN INTERNAL MALFUNCTION, call ES&S and notify them that you will be performing V-Recover in order to recover the votes stored on that iVo. Do not attempt a V-Recover without consultation with ES&S.
- 7) Once totals are recollected, make sure that they are re-read into ERM if necessary, and give PEB to Print Totals Team for completion.