



ELECTION
SYSTEMS & SOFTWARE

Better Elections Every Day

California Election Procedures Manual for Optech IV-C Central Ballot Scanners

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State of California

PROCEDURES

Required for Use of the Optech IV-C Voting Systems

These procedures have been adopted by the Secretary of State pursuant to Elections Code sections 19100 and 19205 and shall regulate and govern the use of the Optech IV-C Voting Systems at all elections governed by the California Elections Code.

These procedures shall be effective beginning October 22, 2004, and shall be used in conjunction with all other statutory and regulatory requirements. Insofar as feasible, all procedures prescribed herein shall be carried out in full view of the public.

These procedures constitute a minimum standard of performance. They are not intended to preclude additional steps being taken by individual elections officials to enhance the security and reliability of the electoral process.



Our Mission

Our Mission is to support democracy worldwide by providing proven, accurate, and innovative election systems and services to voters and election officials.

Our Vision

Our Vision is to continuously improve and grow our integrated total election solutions that provide "Better Elections Every Day." We will accomplish this vision with an uncompromising commitment to customer satisfaction and integrity within the election process.

Who We Are

ES&S is a company of dedicated people building integrated systems and developing solutions for the election official's total management needs:

- Election and voter registration management software
- Ballot counting and tabulation hardware
- Election information management software

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FCC Compliance:

Central scanners comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Table of Contents

Chapter 1: Introduction.....	1
Contacting ES&S.....	1
Understanding Central Count Systems	2
Scanner Functions	2
Chapter 2: Understanding Ballots	5
Voting Targets	5
Machine-Readable Marks.....	6
Understanding Ballot Data.....	6
Audit Information.....	6
Ballot Information.....	6
Voter Marks.....	6
Ballot Contents	7
Identifying Ballots.....	7
Sample Ballots	7
Ballot Shortages.....	8
Reserve Ballots	8
Chapter 3: Pre-Election and Testing Requirements	9
Checking the System.....	9
Testing Ballots and Equipment	10
Testing Central Scanners	11
Chapter 4: Election Procedures.....	14
Performing Final Readiness Checks	14
Preliminary Test	15
Public Logic and Accuracy Test	15
Pre-Tabulation Test.....	15
Elements of the Test	15
Other Useful Tests	16
Conducting the Tests.....	17
Preliminary Test	17
Public Logic and Accuracy Test	17
Pre-Tabulation Test.....	18
Creating an OPTECH Test Deck	19
Processing the Optech Test Deck.....	22
Proofing the Optech Test Deck	23
Polling Place Procedures	24
Opening the Polls	24
Election Procedures	24
Closing the Polls.....	24

Processing Ballots	25
Election Night	25
Post-Election Test.....	28
Completing the Election.....	28
Guidelines for Processing Central Count Ballots	29
Assigning Election Boards	32
Scanning Ballots from Early Voting.....	34
Scanning Absentee Ballots.....	34
Processing Provisional Ballots.....	34
Storing Totals on a Disk	35
Using the OPTECH IV-C and Election Reporting Manager	35
Printing a Zero AERO Report	35
From the AERO Menu Select Option 01 - "Run - 4C Results Update Program".....	36
Updating Election Results Manually	37
Printing AERO Reports.....	37
Handling Unofficial Totals	38
Post-Tabulation Test.....	38
Conducting the Post Election Test.....	38
Chapter 5: Post-Election Procedures	39
Understanding the Official Canvass.....	39
Official Canvass Guidelines from the Elections Code	39
Completing the Official Canvass	40
Ballot Security and Reporting Results.....	41
Retaining Election Materials	42
Chapter 6: Election Security.....	43
Optech IV-C Security.....	46
Chapter 7: Certification Requirements.....	48
Biennial Certification of Hardware	48
Hardware Certification and Notification.....	48
Logic and Accuracy Tests	48
Escrow of Ballot Tally Source Code.....	49

Chapter 1: Introduction

The *California Election Procedures Manual for Optech IV-C Ballot Scanners* contains guidelines for following election procedures adopted by California's Secretary of State according to the state Elections Code sections 19100 and 19205. Use the information in the *California Procedures Manual* to conduct all elections governed by the California Elections Code when you use ES&S central scanners (Models 550 and 650).

Follow the guidelines in the *California Procedures Manual* along with all other statutory and regulatory requirements. Whenever possible, carry out all of the procedures described in this manual in full view of the public.

The procedures described here constitute a minimum standard of performance and are not intended to preclude additional measures implemented by individual election officials to enhance security and reliability for the election process.

Consult the California Elections Code for the exact election requirements in your jurisdiction. Contact California's Secretary of State or go online to www.leginfo.ca.gov/cgi-bin/calawquery?codesection=elec&codebody=&hits=20 for a copy of the California Elections Code.

Contacting ES&S

Contact ES&S with any scanner or procedural questions. Support representatives are available between 8:00 a.m. and 5:00 p.m. Central Standard Time with extended support hours during election periods.

Telephone: 800-247-8683 (USA & Canada) or
402-593-0101 (International)

Fax: 402-593-8107

Mail: Election Systems & Software
11208 John Galt Blvd.
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Understanding Central Count Systems

Jurisdictions that use central scanners transport ballots from polling places to a central count location where election officials scan the ballots.

Jurisdictions save ballot data from central count scanners, such as the Optech IV-C, to 3.5-inch disks or zip disks every half-hour. The jurisdiction loads the totals disks into Reporting Manager and produces results reports while continuing to scan ballots. The jurisdiction produces a final election report after loading the last scanner disk into Reporting Manager.

When selecting the installation location of the central scanner one should consider the physical security within the surrounding and the location of the installation.

Ballot counting should be performed in public view, but the location selected should still be secure to prevent unauthorized access to the tabulation equipment. All authorized personnel should be clearly identified, by some type of visual identification such as an identification badge.

Scanner Functions

Central scanners perform the following functions:

- Authenticate ballot stock.
- Check the pre-printed codes along the ballot edge to determine the precinct, split, and type of each scanned ballot.
- Read voter choices for candidates or issues. The entire reading process takes only a fraction of a second for each ballot.
- Check for ballot irregularities. For example, if a voter opts not to vote in one race, the scanner recognizes and records that choice. Or, if the scanner detects a torn ballot, the scanner stops and provides the operator with instructions for handling the ballot.
- Tabulate votes for each race and track the race count by precinct, as well as tracking the total ballots counted by precinct and by ballot type.
- Track absentee results in several ways:

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Tallied with the regular precinct totals

Tallied separately from the regular precinct totals

Tallied as a duplicate precinct set

If using ERS, tallies votes as a separate group within ERS

- Generate reports to show up-to-the-minute totals by individual precinct, city, or by county. Final reports serve as unofficial election night results. The scanner also generates a date stamped audit log of scanner activities.
- Save election results to disk, in order to save a permanent record of the election or to use as backup data.

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Chapter 2: Understanding Ballots

The OPTECH ballot may be 3", 6" or 9" in width and up to 18" in length and accommodates more than 500 voting positions in easy to read type. The OPTECH IV-C will count ballots marked with virtually any writing instrument.

The OPTECH IV-C processes ballots at the rate of 400 ballots per minute - twice as fast as other marksense systems. The OPTECH IV-C counts ballots in any orientation, reading the back and front of the ballot simultaneously. The OPTECH IV-C will outstack mis-reads, write-ins and over-votes without stopping the count. These unread ballots are returned to the operator for review. Counted ballots are automatically deposited in a re-usable ballot box that may be locked and sealed for storage. Ballots from multiple precincts or ballot styles may be intermixed. The OPTECH IV-C will internally sort by precinct or style and print the appropriate report.

Ballot paper and punch cards used by any jurisdiction holding an election governed by California law are tinted, watermarked or overprinted with a design furnished by the Secretary of State of California. ES&S prints ballots to ensure that the watermark or overprint is clearly visible.

Voting Targets

Voting targets (arrows) appear to the right of each ballot selection and voters use special, machine-readable pencils to fill in the ovals to indicate ballot selections. Scanners cannot read the ink used to print the actual ovals or ballot text (such as contest descriptions and candidate names). Machine-readable ink is black and ink that the scanner cannot read is a shade of gray or another color. The six possible column positions for ovals correspond to fiber-optic sensors on the scanner.

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Machine-Readable Marks

Other than voter marks, the machine-readable marks on the ballot include the ballot header codes. The header codes are the rows of black boxes that appear at the top of an Optech ballot. Scanners read the header code to determine the precinct, split, type and style of a ballot.

Understanding Ballot Data

Scanners draw three types of data from scanned ballots: audit information, ballot information and voter marks.

Audit Information

The scanner reads ballot code for audit information. The scanner rejects ballots with damaged or misprinted marks. The scanner reads black checks to calibrate sensors. ES&S prints all of the audit marks on a ballot in machine-readable ink.

Ballot Information

Scanners read the header code for ballot precinct, type, split and style information. The header code relays ballot information that matches the ballot sequence number, the party designation of the ballot (ballot type), and ballot split information.

Voter Marks

The scanner reads and records voter marks, combines the selections for each voter and produces election results based on the combined totals. The scanner reads properly marked arrows.

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Ballot Contents

The ballots for ES&S central scanners contain the following information in accordance with section 13103 of the California Elections Code:

- The title of each office arranged to conform to the Elections Code.
- The names of all qualified candidates with exceptions outlined in the California Elections Code.
- Titles and summaries of measures submitted for voter approval.

Candidate and party names appear on ballots according to the guidelines in section 13105-13108 of the California Elections Code.

Contest order adheres to the guidelines in section 13109 of the Elections Code. Additional ballot formatting also adheres to the guidelines in Division 13, Chapter 3 of the Elections Code.

Identifying Ballots

The precinct name appears on most Optech ballots. Use the precinct name to verify that scanned ballots belong to the correct precinct.

Sample Ballots

Use the guidelines from Division 13, Chapter 4 of the California Elections Code to create and send sample ballots to each registered voter in the jurisdiction that displays the ballot that will be used.

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Ballot Shortages

Remind polling place workers to contact election central long before the polling place runs out of a particular ballot style. If your jurisdiction completely runs out of ballots and you do not have ballot-on-demand to print additional ballots on ES&S code stock which requires a separate certification by the Secretary of State, you can photocopy ballots. Hand-count the copied ballots when the ballots are returned to the central count location. The County Clerk or a designated election official should initial, stamp or mark each photocopied ballot to designate each copied ballot as a valid ballot that can be hand-counted or reproduced as duplicated ballots.

Note: Consult the California Elections Code for laws and regulations regarding the duplication of ballots.

Reserve Ballots

Keep copies of each ballot used in your jurisdiction at the central count location. If a polling place runs out of ballots, duplicate ballots at the central location, if necessary, and deliver the ballots to the correct polling place. Also keep copies of absentee ballots at the central location.

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Chapter 3: Pre-Election and Testing Requirements

Use the procedures in Chapter 3 to prepare and send absentee ballots, test your equipment and prepare your polling place for an election. Follow the guidelines in the California Elections Code sections 19320 to 19323 to prepare your scanners for an election. Use your central scanner operator's guides and maintenance guides to perform the following pre-election maintenance on your scanners:

Pre-Election Hardware Maintenance

Use the procedures described in your central scanner's maintenance manual to perform any necessary pre-election tests and maintenance.

Checking the System

- Send written notice of the testing location and the testing time of your scanners to the chairperson of the county central committee of at least two political parties participating in your election. Allow one representative from each political party in your election to view your scanner tests. Party representatives verify that the scanners tabulate accurately and that county officials set all of the scanner's counters to zero before the election. Lock and seal the scanners after you prepare and test your equipment. Store your scanners at the central count location for your jurisdiction.

Proofing the System

Verify the correctness of all of your election preparations, including the following:

- Make sure you assign each ballot type to the correct jurisdiction.
- Make sure each of your precincts receives the correct ballot type.
- Verify the ballot contents for each ballot type. Make sure contests and candidates appear on ballots for the correct precinct. Verify the ballot sequence and ballot code numbers.
- Proofread ballot instructions, contest titles, candidate names and all other ballot text. Make sure each ballot element appears in the correct location on the ballot.

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- Verify the sample ballots for each of your polling places. Make sure that the sample ballot is correct and matches the official ballot for the polling place.
- Examine other ballot elements such as print quality, perforations, folds and ballot codes. Make sure each element appears correctly.
- Make sure that the voting target positions on the ballot match the positions programmed into your election definition.
- Verify the voter registration data for the active precincts in your election.

Testing for Error Conditions

Make sure your scanner responds properly to error conditions.

Note: Consult your Operator’s Guide for a complete list of scanner errors.

Testing Ballots and Equipment

Use the ballot test deck provided by ES&S to test your scanners and your election. A ballot test deck is a set of marked ballots used to check ballot scanners and tabulation software for accuracy. Test decks include sample ballots for every precinct, split and rotation in a jurisdiction. ES&S marks each voting position on the ballot and audits the test deck for elections coded at ES&S. Code your own test deck if you code your own elections. Prepare your test deck according to the California Elections Code sections 19320 to 19323.

Note: Clearly mark your test ballots so that you can distinguish test ballots from your official election ballots.

Follow sections 15000 to 15004 in the California Elections Code to test your ballots and equipment. The Elections Code requires you to adhere to the following testing guidelines.

- Test each of your central scanners no later than seven days prior to an election.
- Deposit a copy of the “computer vote count program” for a statewide election or a state special election to fill vacancies with the Secretary of State no later than 5:00 p.m. seven days before the election. If the program changes in the seven days leading up to the election, submit a new copy of the program to the Secretary of State no later than noon the day after the change. Read section 15001 of the Elections Code for additional rules regarding the count program.

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Testing Central Scanners

Use the following resources to test your ballot scanners:

- Have test ballots for each ballot type that your scanner counts on Election Day.
- Test Data from ES&S. ES&S scans and audits the test ballots for your election and provides summary and status reports with the correct totals for your test deck. Check your totals against those provided by ES&S after you test your ballots.
- Use the marked test deck from ES&S to test your scanners. The test deck contains ballots with valid votes, over-voted ballots and blank ballots to test the logic of your scanners for each ballot mark.

Use the following instructions as a general guideline to test each of your central scanners before an election. Use the instructions in your central scanner operator's and maintenance manuals as well as the rules in the California Elections Code to thoroughly test your scanner.

To test the scanner

1. Establish a Logic and Accuracy board to observe the test and send a test certification to the Secretary of State no later than seven days before your election. The Logic and Accuracy Board observes the logic and accuracy tests for your scanners and software and certifies your test and testing equipment.
2. Erase all of the totals from your scanner and turn off any activated ballot sorting options.
3. Load your ballot test deck into the input hopper and scan the deck. Read your central scanner operator's manual for ballot scanning procedures.
4. Print a summary report and a status report.
5. Compare your reports to the reports that ES&S supplied with the test deck. The report totals should match.

Note: Run the test again if your totals do not match the totals from ES&S. Contact ES&S if the totals do not match after the second test. Also, run the test a second time if you encounter an unreasonable number of scanning errors (pick

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failures, sensor read errors, etc.) during the test run. Recalibrate your scanner and repeat the test.

6. Zero your totals and run another summary report and status report to verify that your scanners do not have totals stored in memory. Keep your test deck, your summary report and your zero report for as long as you store ballots for the election.

Note: According to the California Elections Code section 15004. “The county central committee of each qualified political party may employ, and may have present at the central counting place or places, not more than two qualified data processing specialists or engineers to check and review the preparation and operation of the tabulating devices, their programming and testing, and have the specialists or engineers in attendance at any or all phases of the election.”

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Chapter 4: Election Procedures

Follow the procedures outlined in the California Elections Code Division 14, Chapter 3 to distribute and receive central scanner ballots. Follow the guidelines in Division 15 of the Elections Code to count ballots and produce final elections reports. Use the instructions in this chapter of the *Election Procedures Manual* as general guidelines for collecting ballots and counting votes on a central scanner. Consult the Elections Code for specific regulations regarding ballot tabulation in your jurisdiction.

Chapter 3 of the *Election Procedures Manual* contains instructions for the following tasks on Election Day:

- Performing final readiness checks
- Polling Place Procedures
- Closing the Polls
- Processing Ballots
- Storing vote totals on a disk
- Adding vote totals from a disk to a scanner
- Printing reports

Read the operator's manual for your central scanner for specific instructions for performing each of the tasks above.

Performing Final Readiness Checks

Perform a final readiness check before you count ballots on Election Day.

To check the scanner's readiness:

Election Authorities should prepare and conduct four tests on the tabulation system prior to tabulation on election night. The purpose of these tests is to make sure the election coding is accurate, to ensure public confidence and to verify the counting program on election night. The four tests are: the Preliminary Test, the Public Logic and Accuracy Test, and the Pre-Tabulation Test.

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Preliminary Test

This test must be conducted before the Public Logic and Accuracy Test. The purpose of the Preliminary Test is (1) to determine prior to the Public Logic and Accuracy Test that the system is functioning properly, (2) to detect actual or potential problems in time to correct them, and (3) to verify accuracy of ballot printing and election coding. During this test, every ballot combination in each precinct must be tested and verified. If errors are detected during this test, caution must be taken to ensure that the proper corrections are made either to the test decks or to the coding, and all related materials that may be affected. If the test decks require changes, the manual count must be corrected to reflect those changes.

The Preliminary Test must be conducted on the same equipment to be used for the Public Logic and Accuracy Test and on election night.

Public Logic and Accuracy Test

The purpose of the Public Logic and Accuracy Test is to demonstrate that the system is tabulating ballots correctly. The Public Logic and Accuracy test deck(s), reports, and where appropriate, the ballot counting program must be sealed and preserved following the Public Logic and Accuracy Test.

Pre-Tabulation Test

Conduct this testing just before the tabulation of ballots begins on election night using the same test ballots as used at the Public Logic and Accuracy Test. The purpose of this test is to demonstrate that the voting system is functioning properly, that the ballot-counting program is the same one used at the Public Logic and Accuracy Test and that the program has not been altered.

Elements of the Test

A thorough voting system test should include all offices and issues in each ballot style. For the Public Logic and Accuracy Test, ES&S recommends testing, at a minimum, a precinct for each ballot style or 10% of the total number of precincts, whichever is greater. All precincts must be tested during the Preliminary Test.

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The test for each precinct should contain the following:

- Test of the vote for every candidate and question on the ballot. The vote totals for each voting position within an office should vary.
- A test of valid and invalid security codes. This test checks acceptance of the valid code(s) for each precinct and rejection of invalid codes in each precinct. If there is a straight party provision in the law, a test to ensure vote distribution to party candidates must be done. This test includes straight party votes and individual votes for every partisan candidate.
- A test of over-votes for every office and question.
- A test of under-votes for every office and question.
- A test of non-voting positions (extraneous marks or punches).
- A blank or un-voted ballot.
- A test to prove that a precinct cannot be counted more than once (unless its recount is purposeful and noted and explained on the Computer Operator's Log).
- A test to ensure that votes are tabulated for federal offices only (when applicable).
- A test to ensure that votes are recorded for President and Vice President only (when applicable).
- A test to demonstrate correct ballot rotation assignment of votes (when applicable).

The test for each precinct should include all the above applicable tests.

Other Useful Tests

- Test the "zeroing out" process. Counting a precinct twice with differing totals and "zeroing out" or "replacing results".
- Test the recovery procedure (if a precinct is not counted).
- Test the voting system restart procedure.

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The voting system test also includes printing reports that will be used election night. It is important to review these reports for format and/or content, accuracy, and completeness.

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They may include:

- Precinct reports
- Final accumulated results
- Jurisdictional canvasses
- Press reports and summaries
- Other appropriate reports

Conducting the Tests

Preliminary Test

Testing the voting system and coding is the most important testing done. If the voting system performs well during this testing, chances of problems arising are minimized. Test all on-site equipment used for tabulation during this test. The purpose of this test is to enable the Election Authority to determine that the voting system is functioning properly and that the election coding is complete and accurate.

Once the Preliminary Test is completed, careful auditing and comparison with the test deck edit listing is of the utmost importance. The cause of any discrepancies must be determined and resolved. If there is a discrepancy, check the test ballots to be sure they are properly voted and the edit listing for accuracy. Verify the accuracy of the precinct totals, generate reports and proof them. Remember, any error or omissions in the ballot composition or the election coding must be detected at this time.

Public Logic and Accuracy Test

This test is open to the public, including the news media. Public notice is required. An effort should be made to secure the presence and involvement of political party representatives. Arrange for the Public Logic and Accuracy Test at the earliest possible time. The Public Logic and Accuracy Test is held at the time required by state statutes, but never less than five days before the date of the election. Notify the

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local political party chairperson(s) of the location, date, and time scheduled for this test.

Describe to the observers what the test will demonstrate and the procedures or "ground rules" for the test. Make preparations well in advance, and prepare a step-by-step agenda. Conducting an accurate and efficient test will build confidence in the Election Authority and in the system's ability to perform election night.

Be sure all materials required to conduct the tests are readily available. Following the test, encourage observers to compare test results with the Election Authority's predetermined results. Careful auditing and comparison of the Public Logic and Accuracy Test printouts are very important. Though the audit of the Preliminary Test may have been flawless, the official witnesses must verify the Public Logic and Accuracy Test results.

Verify the results are accurate, complete Test Verification Forms, sign and affix to the official test printouts. In the presence of witnesses, the Election Authority will place the official test deck(s), edit listing, the printouts, and the tabulating program and, depending on the system used the precinct header cards in a secured container. Seal the secured container and have the witnesses sign and date the seal so that if the container is opened, the signatures are obviously no longer intact.

Place the container in a secure location. The secured container will remain undisturbed until witnesses arrive to observe the Pre-Tabulation Test on election night. If for some unforeseen reason the container must be opened before election night, the political party representative(s) should be present. Record a full explanation, the date, time, and the action taken. This statement is witnessed by representatives in attendance. Under no circumstances should the Election Authority open the container or allow it opened without witnesses officially observing. The observers will witness the resealing of the container and sign the seal in the same manner as the Public Logic and Accuracy Test. Place the statement of explanation in the secured container before resealing.

Pre-Tabulation Test

(IMMEDIATELY BEFORE TABULATION): On election night, at a predetermined and announced time, conduct the Pre-Tabulation Test. This test is a repeat of the Official Public Logic and Accuracy Test, and the results of this test must be identical with the Public Logic and Accuracy Test. Allow sufficient time to complete this test, and its audit, before the closing of the polls.

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As with the Public Logic and Accuracy Test, the purpose of this election night Pre-Tabulation Test is to build public confidence in the integrity of the system. The more open the conduct of this test, the better that goal is achieved. Show test observers that the seal and signatures on the security container are intact.

Unseal the Public Logic and Accuracy Test materials. Print a "Zero" accumulated totals report to show that vote counters are zero. The procedures for conducting the Pre-Tabulation Test are the same as those used at the Public Logic and Accuracy Test. Review the test procedures again with observers. Observers should note that the Public Logic and Accuracy Test was held, audited, and verified as correct. Be aware that the Pre-Tabulation Test is important in assuring the press, the voters, and the candidates that the ballots will be counted accurately.

After the Pre-Tabulation Test is completed, and the results checked with the Public Logic and Accuracy Test results and verified as in agreement, complete and sign a Pre-Tabulation Test Certification Form and attach it to the printouts. Return the printouts and all the test material to the secured container. Reseal the container, sign the seal, and place in a secure location.

Creating an OPTECH Test Deck

State election laws require a Public Logic and Accuracy Test of the tabulating equipment prior to the official count on election night. Preparation must be made to begin the Preliminary Testing of the OPTECH(S), software, coding and ballots prior to the scheduled Public Logic and Accuracy Test and Election Day tabulation.

A test deck is created using ballots for each ballot style in the election. A ballot style is defined as a unique ballot or a unique rotation of candidates listed on a ballot. If multiple ballot styles are being used in a specific election, create a different test deck for each ballot style represented.

As the test deck(s) are created, a manual tally of each vote is recorded on the Edit Listing. The test deck(s) are then processed through the OPTECH(S) and a totals tape generated. The OPTECH totals for each candidate position and question on the ballot is compared with the manual totals on the Edit Listing. All totals must match.

A completed sample Edit Listing is found at the end of this document.

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To create an Optech Test Deck:

- A. Use the VOTE FOR column on the Edit Listing to manually record the maximum number of votes allowed for each contest, followed by each candidate's name. Then record each question listed on the ballot. Include the appropriate number of write-in lines, as well as one line each for over-votes and under-votes.
- B. Number the ballots consecutively as you mark them. Use the Edit Listing to manually record EVERY vote marked on a test ballot.
 - 1. Record each vote by placing a "1" under the column identifying the ballot number and the horizontal row established for the candidate, question, write-in or under-vote.
 - 2. Record an "X" if the office or question is over-voted; i.e., the ballot contains more than the allowed number of votes for a candidate or question.
 - 3. Offices that are not voted will be tallied as under-votes.
- C. Include the following information in the test deck.
 - 1. Vote the first candidate position in each office on the first ballot. If an office specifies a "Vote for Two", vote the first two positions. Set ballot aside when complete. Fill out the Edit Listing for ballot 1.
 - 2. Vote the second candidate position in each office on two ballots (ballots 2 and 3). If the office specifies a "Vote for Two", vote the second two positions. Only those offices that have a second candidate position should receive a vote. These two ballots should be voted identically. Set ballots aside when complete. Update the Edit Listing for ballots 2 and 3.
 - 3. Vote the third candidate position in each office on three ballots (ballots 4, 5, and 6). Only those offices that have a third candidate position should receive a vote. Offices that list only one or two candidates on the ballot would not be voted. These three ballots should be voted identically and set aside when complete. Update the Edit Listing for ballots 4, 5, and 6.

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Be sure to include a tally for any under-voted offices on the under-votes line.

4. Continue numbering and voting ballots until all candidates have received at least the number of votes equal to their numerical positions in the office for which they are running; i.e., the fourth candidate listed for an office should have four votes. Update the Edit Listing for each.
5. When write-in votes are applicable, mark each write-in position on one ballot and complete the Edit Listing. Write-in votes are identified on the Edit Listing with a "W".

Confirm that each ballot with a write-in position marked is out-stacked to the write-in compartment of the ballot box.

6. Over-vote each office and question on one ballot. Do not over-vote any office where an over-vote cannot be created; an office that has only a write-in, for example. Over-votes should be identified on the Edit Listing with an "X". This alerts the person conducting the test not to include this vote in the totals, but to update the over-vote tally.
7. Be certain all candidates in special districts; i.e., county board, school, etc., have been voted and manually tallied on the Edit Listing.
8. Include one blank ballot in the test deck to test under-votes. Identify this on the Edit Listing.
9. Include one cross-voted ballot for primary elections (if applicable).
10. Include test ballots for Straight Party voting (if applicable) when testing for the General Election. When a Straight Party ballot is voted, all candidates for that political party will automatically tally votes. The voter does NOT need to vote for the individual candidates. However, if the voter crossvotes a Straight Party ballot by casting a vote for a candidate of a different political party, the ballot will be accepted by the OPTECH (not rejected) and will tally the votes according to the Straight Party rules in your state.

Please refer to the enclosed Sample Edit Listing for specific examples of Straight Party tallying.

- D. When all ballots have been numbered, voted, and recorded on the Edit Listing, record the totals for each candidate, question, write-in, over-vote and under-vote in the "Total Votes" column of the Edit Listing.
 1. Over-votes are tallied when a particular office or question receives more than the allowed number of votes. The number of over-votes to tally for an office or question is determined by the number of votes allowed for that particular office or question. For example, if the ballot instructs the voter to

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"Vote for Two", but the voter votes for three candidates, then two over-votes are tallied because the voter was instructed to "Vote for Two". If the ballot instructs the voter to "Vote for One", but again the voter casts three votes, then 1 over-vote is tallied because the voter was instructed to "Vote for One".

2. Under-votes are determined by subtracting the number of votes cast for a particular office or question, from the number of votes allowed. For example, if the voter should "Vote for One", but the voter refrains from voting for that particular office or question, 1 under-vote is tallied. If the ballot instructs the voter to "Vote for Two", but again no votes are cast, then 2 under-votes are tallied. However, if the ballot instructs the voter to "Vote for Two", but the voter only votes for one, then 1 under-vote is tallied for that office.
- E. If you are an OPTECH III-P user, verify the dipswitches are set appropriately before testing begins. OPTECH III-P Eagle users do not have dip switches.

Processing the Optech Test Deck

To Process The Optech Test Deck:

- A. The test deck is now ready for tabulation. Verify that the correct MemoryPack is in the OPTECH. Blank ballots and ballots with over-votes may or may not be returned. OPTECH III-P users determine this based on the dip switch settings. OPTECH III-P Eagle users had this information coded into the MemoryPack.
- B. Process the test deck through the OPTECH four times. This is a test of all the read heads. Each time the test deck should be inserted in a different orientation as described below.
 1. Ballot face up, insert top of ballot into OPTECH.
 2. Ballot face up, insert bottom of ballot into OPTECH.
 3. Back side up, insert top of ballot into OPTECH.
 4. Back side up, insert bottom of ballot into OPTECH.
- C. Confirm that each ballot with a write-in position marked is deposited to the designated write-in compartment of the ballot box.

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- D. Confirm that over-voted ballots are rejected. Then override it to accept the ballot.
- E. Print the totals.

Proofing the Optech Test Deck

To proof the Optech test deck:

- A. Compare all manual totals on the Edit Listing to the totals printed on the OPTECH results tape.
 - 1. Compare all Under-votes on the Edit Listing to the totals printed by the OPTECH.
 - 2. Compare all over-votes on the Edit Listing to the totals printed by the OPTECH.
- B. Verify the correct Precinct/Ward number is printed on the results tape.
- C. Check the contests and candidates for correct spelling.
- D. Verify that the manual totals on the Edit Listing match the totals printed on the OPTECH results tape. All over-votes and under-votes must be accurately accounted for.
 - 1. If a discrepancy should occur, each marked ballot and manual tally must be checked. Check the ballots that had votes cast for the total in question. A mistake was probably made in recording the votes on the Edit Listing. If necessary, make a new manual tally of each valid vote created.
 - 2. If, after double checking, there is still a discrepancy, report this to ES&S.

THE MANUAL COUNT AND OPTECH COUNT MUST AGREE!

When the manual totals on the Edit Listing match the totals printed on the OPTECH results tape, this pre-marked deck of ballots become the Official Test Deck to be used for the Public Logic and Accuracy Test before election day.

THESE PROCEDURES SHOULD BE PREPARED FOR EACH MemoryPack AND BALLOT STYLE.

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Polling Place Procedures

Use the following procedures at the polling place.

Opening the Polls

1. Follow the guidelines in section 12321 of the Elections Code to complete the oaths of office and declarations of intention to faithfully discharge their duties as required of precinct inspectors and other members of the precinct boards.
2. Set up your voting booths with the display materials required by the Elections Code.
3. Post your sample ballots in a location accessible to your voters.
4. Open the Polls.

Election Procedures

1. Follow the guidelines in Division 14, Chapter 3 of the California Elections Code to verify voter qualifications and distribute ballots.
2. Assist voters and instruct voters on how to mark ballots properly.

Closing the Polls

Perform all of the tasks required for closing the polls in plain view of the public.

1. Follow the guidelines in Division 14, Chapter 4 of the California Elections Code when you close the polls.
2. Verbally declare that the polls are closed at the proper closing time.

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3. Allow any voters remaining in line to vote, but turn away any voters that arrive at the polling place after the official closing time.
4. Package all of your unused ballots according to the guidelines in the Elections Code.

Processing Ballots

Refer to the California Elections Code, Division 15, for the regulations that govern scanning and tabulating ballots. Use the instructions in the “Scanning Ballots” section of the *Election Procedures Manual* as a general guideline for scanning your ballots. Consult the operator’s manual for your central scanner for more detailed instructions for scanning ballots.

Use the same procedures provided for processing a ballot test deck to process Election Day ballots.

Election Night

- A. Conduct Pre-Tabulation Test
- B. Zero Test Results
 1. Select F7 - UTILITY COMMANDS
 - a. Select F4 - Set vote totals to zero for specified precincts.
 - b. Type ALL and press ENTER.
 - c. Confirm with a "Y" for YES
 - d. The BALLOT COUNTING screen will return
- C. Approximately one hour before the polls close, a zero totals report must be printed.
 1. Select F5 - Accumulated Totals.
 2. Type PRE-TABULATION ZERO REPORT.
 3. A Canvass Report can also be generated by pressing F9 and typing the report title.

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D. Select F7 - UTILITY COMMANDS

1. Select F10 - Ballot reading mode options.
2. Review and highlight desired options.
3. Select F 10 - Make current option settings the default and press ENTER.

E. Select F6 - REPORT FORMAT OPTIONS

1. Review Options
2. Highlight defaults and press ENTER.

F. Process all precincts as they come into the counting center.

1. Place the header card for the appropriate precinct into the feed hopper.
Select F8 -Start Reader.
2. Place the ballot cards for this precinct into the feed hopper and Select F8 Start Reader.
3. If any ballots outstack to the "OUTSTACK BIN" take them out, turn them in a different orientation and process them again.
 - a. Select F6 - Retry Outstacks and confirm with a Y.
 - b. Select F8 - Start Reader.
4. If they still outstack, Select F11 - Outstack Report. This report will give you the reason each ballot was outstacked. Send this report along with the outstacked ballots to the Duplication team. They can be processed later.
5. Press F4 - Add Outstacks and press Y to confirm.
6. Press F 10 - End Precincts and confirm with Y.
7. Record the "Write-In Ballots" on the appropriate Write-In Tally Form.
8. Continue with the next precinct.

G. When the duplicated ballots are returned for tabulation they need to be processed into the system for final vote totals. To do that:

1. Select F7 - UTILITY COMMANDS.
2. Select F 10 - Ballot reading mode options.
3. Select F8 - Permanent outstack handling and highlight CLEANUP.
4. Select F10 - Make current option settings the default and press ENTER.
5. Insert appropriate header card into the feed hopper and Select F8 - Start Reader.
6. Insert the duplicated ballots into the feed hopper and Select F8 - Start Reader.
7. All the duplicated ballots will now be processed.

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8. Select F 10- End Precinct and confirm with Y.
 9. Your final Precinct Report will print for that precinct. Have the precinct election officials sign the Certification at the end of the report.
 10. When a precinct report is final, the "Total Ballots Counter" must equal the number of ballots certified by the pollworkers.
 11. REMEMBER TO CHANGE BACK TO THE "NORMAL TALLY" MODE BEFORE PROCESSING A NEW PRECINCT.
 - a. Select F7 - UTILITY COMMANDS.
 - b. Select F 10 -Ballot reading mode options.
 - c. Select F8 - Permanent outstack handling and highlight NORMAL.
 - d. Select F10 - Make current option settings, default, and press ENTER.
- H. Periodically, a backup of the election results should be made to diskette.
1. Select 7 - UTILITY COMMANDS.
 2. Place a formatted diskette in drive "A."
 3. Select F3 - Make a backup copy of vote totals.
 4. Press ENTER to accept the default election filename.
- I. During the counting process, you may run additional precinct reports or accumulated totals for the media or posting.
1. Select F5 - REPORTING COMMANDS
 2. Select F4 - Precinct Reports, enter the precinct number(s) and press ENTER or
 3. Select F5 - Accumulated Totals or
 4. Select F6 - Accumulated Totals or Specified Precincts.
- J. When all precinct/wards are completely processed, run the final Accumulated Totals report and the Canvass (Statement of Votes Cast) report.
1. Select F5 - REPORTING COMMANDS.
 2. Select F5 - Accumulated Totals, type the report title and press Enter. The report will be generated.
 3. Select F9 - Canvass (Statement of Votes Cast).
 4. Type FINAL CANVASS and press ENTER.
 5. Any additional precinct reports or accumulated totals for specified precincts can also be run at this time.
- K. Make two final backups of the election results before proceeding with the next step!
1. Select F7 - UTILITY COMMANDS.
 2. Place disk in the "A" drive.

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3. Select F3 - Name a backup copy of vote totals.
4. Make one additional copy of results by following the procedures above.
5. Label diskette "Final Results" and include election filename and date.

Post-Election Test

- A. Set totals to zero. (ONLY AFTER FINAL BACKUP TO DISKETTE IS MADE!)
 1. Select F7 - UTILITY COMMANDS.
 2. Select F4 - Set vote totals to zero for specified precincts.
 3. Type ALL, press ENTER, and confirm with Y.
- B. Run Accumulated Totals
 1. Select F5 - REPORTING COMMANDS
 2. Select F5 - Accumulated Totals.
 3. Type POST ELECTION ZERO REPORT.
 4. Conduct Post Election Test

Completing the Election

- A. To End the Process
 1. Select F7 - UTILITY COMMANDS.
 2. Select F9 - Stop all ballot processing and reporting.
 3. Confirm with Y.
 4. Print Election Log? Type Y.
- B. If additional report printing is needed, restore the final election results from a backup diskette.

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1. From the BALLOT COUNTING screen. Select F7 - UTILITY COMMANDS.
2. Place the backup diskette in the "A" drive.
3. Select F5 - Restore vote totals from backup copy.
4. Run additional reports as required.

Guidelines for Processing Central Count Ballots

Use the following guidelines from the California Elections Code sections 15200 to 15213 when you transport and count ballots at a central count location:

- **15200.** If paper ballots are used in conjunction with this system, counting shall be as provided in Article 5 (commencing with Section 15270) and Article 6 (commencing with Section 15290).
- **15201.** (a) As soon as the polls are closed, the precinct board shall, in the presence of the public do all of the following: (1) Seal the container used to transport voted ballots and insure that the precinct number is designated on the ballot container. (2) Certify, sign, and seal the several packages or envelopes as directed by the elections official. (3) By not less than two of their number, deliver the ballot container and packages to the elections official at the central counting place in the manner prescribed by the elections official. The ballot container and packages shall remain in their exclusive possession until delivered to the elections official. (b) This section also applies to ballots counted manually pursuant to Article 6 (commencing with Section 15290).
- **15202.** If the ballots are to be counted at a central counting place, no fewer than two precinct board members shall, following the close of the polls, deliver

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the ballots, in a sealed container, to the central counting place or a designated receiving station. There may be two or more central counting places.

- **15203.** The vote tabulating device may be located at any place within the state approved by the elections official of the county or other political subdivision using the device. The same device may be jointly owned, borrowed, leased, or used by two or more counties, cities, or other political subdivisions to tabulate ballots cast in any election.
- **15204.** All proceedings at the central counting place, or counting places, if applicable, shall be open to the view of the public but no person, except one employed and designated for the purpose by the elections official or his or her authorized deputy, shall touch any ballot container. Access to the area where electronic data processing equipment is being operated may be restricted to those persons authorized by the elections official.
- **15205.** (a) A person may be employed to count, tally, and certify the ballots if he or she is not a candidate at the election and if he or she satisfies either of the following requirements: (1) Has the qualifications required for a precinct board member. (2) Is a deputy or employee of either of the following: (A) The governing board. (B) The elections official. (b) No person selected to count ballots need reside in any particular precinct.
- **15206.** The elections official or any deputy authorized by the elections official may excuse or dismiss any person from any counting board and enforce the order.
- **15207.** The elections official or authorized deputy shall segregate the persons employed to count the ballots into counting boards. These counting boards shall be deemed to be precinct boards, and are subject to all laws governing precinct boards where ballots are counted at the polling place.
- **15208.** Each container of ballots shall be opened and its contents removed. The ballots shall be checked to ascertain if the ballots are properly grouped and shall be arranged, if necessary, so that all similar ballots from the precinct are together. Any ballot that is torn, bent, or mutilated shall be segregated in the manner directed by the elections official and a duplicate shall be prepared as provided in Section 15210. Any ballot that is marked in a manner so as to identify the voter shall be marked "Void" and shall be placed in the container for void ballots.
- **15209.** Any magnetic or electronic storage medium used for the ballot tabulation program and any magnetic or electronic storage medium containing election results shall be kept in a secure location and shall be retained for six months following any local election and 22 months following any federal election

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or so long thereafter as any contest involving the vote at the local or federal election remains undetermined.

- **15210.** In preparing the voted ballots for processing, any ballot that is torn, bent, or otherwise defective shall be corrected so that every vote cast by the voter shall be counted by the automatic tabulating equipment. If necessary, a true duplicate copy of the defective ballot shall be made and substituted therefore, following the intention of the voter insofar as it can be ascertained from the defective ballot. All duplicate ballots shall be clearly labeled "duplicate," and shall bear a serial number that shall be recorded on the damaged or defective ballot. Should what appears to be a validly marked ballot be deemed unreadable in part or in its entirety by the scanner, processing will stop and operator intervention will be required. If, after the operator inspects the ballot, the ballot appears to be validly marked, it will be reprocessed. If, upon reprocessing, the ballot is again deemed unreadable, it will be sent to the Ballot Duplication Board wherein a true and accurate copy will be made and the duplicate ballot reentered into the ballot tabulation process.
- **15211.** If paper ballots are used for absentee voting, the canvass may be conducted in accordance with Chapter 1 (commencing with Section 15000), or the elections official may have a true duplicate copy of absentee voter paper ballots made on punchcard ballots that shall be verified in the presence of witnesses. After verification the punchcard ballots shall be counted in the same manner as other punchcard ballots.
- **15212.** If voting at all precincts within a county is not conducted using the same voting system, the result as to the precincts not subject to this article shall be determined in accordance with other provisions of this code and the result of the vote at precincts subject to this article shall be determined as provided in this article. The statement of the vote in that case shall represent the consolidation of all the results and the results of the canvass of all absent voter ballots.
- **15213.** In case of an emergency in which it becomes impossible to transport the ballots from the precinct to a central counting place, the elections official may direct that the ballots be counted at the precinct. In those cases, counting shall be conducted substantially in accordance with Article 5 (commencing with Section 15270).

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Assigning Election Boards

Before processing ballots, the election administrator appoints election boards to carry out the following tasks:

- Absentee and provisional ballot processing
- Logic and accuracy testing
- Seal and ballot container inspection
- Ballot inspection
- Ballot processing
- Ballot duplication
- Write-in ballot processing
- Ballot storage
- Election observation

Absentee and Provisional Ballot Processing

Any person wishing to cast a provisional ballot must be allowed to do so and will be subjected to the verification process outlined within the California Elections Code. The ballot will only be counted after the legitimacy of the voter's right to cast it has been verified. Examine the ballots for defects or irregularities. Check the names of the absentee and provisional voters against the voter record. Make sure the absentee voter cast only one ballot and make sure the provisional voter can legally cast a ballot in all races in which a vote was cast.

Logic and Accuracy Testing

Perform scanner logic and accuracy tests before and after the election. See Chapter 2 for instructions for clearing and testing the scanner. Logic and accuracy testing consists of processing a group of pre-marked ballots whose totals are known in advance. These predetermined groups of test ballots or test decks will also contain an example of any error type ballot that can occur. All contests in all ballot types and/or ballot styles are tested in this manner. Any deviation from the predetermined totals are rectified prior to the conclusion of Logic and Accuracy Testing. Only

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when the foregoing conditions have been satisfied is the tabulating equipment certified for processing that specific election.

Seal and Ballot Container Inspection

Ensure the security of the ballot boxes. Report any irregularities with the ballot boxes to the election administrator.

Ballot Inspection

Remove voted ballots from the ballot boxes. Remove any remaining portions of the ballot stub. Align and jog the ballots for scanning. Inspect all ballots for any apparent inadvertent mismarking, i.e., improper color of ink, x'ing or circling of candidate names, etc. If clear voter intent is present in these ballots, they should be forwarded to the Duplicate Ballot Board for appropriate action.

Ballot Processing

Process voted ballots on the central scanner. Sort write-in, blank, over-voted and unreadable ballots from the general population and give them to the resolutions board for interpretation and duplication. Return counted ballots to the correct ballot boxes and maintain the working order of the scanner.

Ballot Duplication

Members of the resolutions board interpret and duplicate unreadable and over-voted ballots. Unreadable ballots are those that the scanner cannot process because they are entirely blank or contain one or more unreadable marks. Ballots containing unreadable marks are defined in section 15210 on page 17 of these procedures.

Write-in Ballot Processing

Members of the resolutions board view and record write-in votes according to the guidelines in the California Elections Code.

Ballot Storage

Receive counted ballots from the ballot processor. Secure the counted ballots until you run a final logic and accuracy test on your central scanners. Store the ballots after the legal period for calling a recount passes, according to the California Elections Code.

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Election Observation

Appoint a panel to observe the counting process without interfering with the vote count. The panel ensures that all procedures are carried out legally and accurately.

Scanning Ballots from Early Voting

Early voting allows voters to cast valid ballots at the election office in advance of your election. If your jurisdiction allows early voting, use the guidelines in the California Elections Code to carry out early voting and securely store ballots until the polls close on Election Day or until the allowable time at which absentee ballots may be processed and counted.

Scanning Absentee Ballots

Follow the guidelines in sections 15100 to 15112 of the California Elections Code for counting absentee ballots. California law allows for verifying absent voter envelope signatures and other processing steps prior to Election Day. Absentee ballots may be counted but no results may be tallied or released prior to the close of polls. Depending on the laws in your jurisdiction, you can sometimes count absentee ballots before the polls close.

Some election offices scan absentee ballots separately from the Election Day ballots and other jurisdiction mix absentee ballots with regular precinct ballots. ES&S central scanners can use either method to process absentee ballots.

Processing Provisional Ballots

Distribute provisional ballots to voters who do not appear on the voter registration record. Allow the voter to vote and separate the provisional ballot from the general ballot population. Use the guidelines in section 14310 of the California Elections Code to scan and record totals from provisional ballots.

Additional Ballot Processing Procedures

Use the following procedures when you process ballots.

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- Sort and record write-in ballots. Central scanners automatically sort ballots with write-in votes as you process ballots.
- Present any damaged or unreadable ballots to the resolutions board for interpretation and duplication.

Storing Totals on a Disk

Store scanner results to a 3.5" disk. Save and store your scanner results or use the totals disk to transfer election information to election reporting software.

Using the OPTECH IV-C and Election Reporting Manager

WARNING - EMS 3.51 USERS: IF USING OPTECH III-P Eagle(s) and OPTECH IV-C and ABSENTEE PRECINCT NUMBERS ARE THE SAME AS ELECTION DAY PRECINCT NUMBERS RESULTS MUST BE TRANSFERRED INTO AERO FROM THE OPTECH IV-C BEFORE OPTECH III-P Eagle MemoryPacks ARE READ INTO AERO

Printing a Zero AERO Report

- A. At the Main Menu, Select "AERO (Automatic Election Returns Operation)"
- B. From the AERO Menu Select Option 5 "Reset - Counted Precincts"
 1. For the PUBLIC TEST - From Reset Counted-Precincts Menu Select Option 2 "Zero All Precincts"

NOTE: This option will reset your AERO log

2. ON ELECTION NIGHT - From Reset Counted Precincts menu, select Option I "Zero Selected Precincts". Enter your entire range of precincts
- C. From the AERO Menu Select Option 12 "AERO - Report Menu"
 1. From AERO Report menu, select Option 3 - "List Election Summary"
 2. From the Print Election Summary menu, select Option 2 - "Print All Contests and Precincts"

NOTE: Follow the instructions below if you count ballots on an OPTECH IV-C only (do not use OPTECH III-P Eagles) and want to transfer results to AERO.

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From the AERO Menu Select Option 01 - "Run - 4C Results Update Program"

A. From the Update AERO with 4C Results menu:

1. If this is the first time you are transferring results in the election and you want to replace AERO precinct totals with the OPTECH IV-C results beginning with the first precinct

Select Option 01 - "Replace Mode - beginning with first."

2. If this is NOT the first time you have transferred results in this election and you want to update only precincts that have results and not include precincts with zero (0) results:

Select Option 02 - "Add-to-Mode - beginning with first."

3. If you want to replace results starting with the next precinct after the program was interrupted by the (Esc) key:

Select Option 03 - "Replace Mode - restarting"

4. If you want to add to existing AERO results starting with the next precinct after the program was interrupted by the (Esc) key:

Select -Option 04 - "Add to Mode - restarting"

B. If the OPTECH IV-C and AERO files are not on the same drive, the system will request the drive letter for the 4C files

C. If the OPTECH IV-C was initialized to separate Regular and Absentee results, the system will ask if you want to use Absentee, Regular or Combined results. Enter the appropriate information.

Updating Election Results Manually

Use this option if results need to be manually entered or changed

- A. Select Option 04 - "Update - Election Results Manually"
 1. Enter the precinct number to be changed or entered
 2. Press "F1" if you want to suppress over/under votes
 3. If you are changing, or replacing votes for this precinct"
 - a. Enter "C" to Change Votes (+ -)
 - b. Enter "R" to Replace Votes
 4. To update the AERO results file Press "F1" after all changes for this precinct have been made.

Printing AERO Reports

- A. From the AERO Menu Select Option 12 - "AERO - Report Menu"
 1. From the AERO Report Menu Select Option 01 - "List Precinct Reports"
 - a. From the Print Canvass by Precinct Menu Select:
 - 01 - To Enter or Change Report Headings and Options
 - 02 - To Print a Report for All Precincts
 - 03 - To Print Reports for Selected Precincts
 - 04 - To Print Reports Using the Pre-Selected Precinct File
 2. From the AERO Report Menu Select Option 05 - "List - Canvass/Candidate Heading Name"
 - b. From the Print Election Canvass Menu Select:
 - 01 - To enter or change report heading and options or:
 - 02 - Select an option from 02 through 10 for the specific report desired
 3. From the AERO Report Menu Select Option 14 to Print the AERO System Log.
 4. From the AERO Report Menu Select Option 15 to Print the AERO Results Corrections Log.

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Handling Unofficial Totals

Report your preliminary absentee vote counts, according to section 15101 of the Elections Code, to the Secretary of State immediately after the polls close. This requirement applies to all elections that require you to report results to the Secretary of State.

Post-Tabulation Test

Conduct this test immediately following election tabulation on election night using the same test ballots used for previous tests. This test verifies that the system is functioning properly and that the program and system have not been altered.

In developing tests for the voting system, an early start is essential. The Election Authority should begin planning the voting system tests as soon as possible. It is a good idea to prepare a schedule for test development and the testing process. Make specific assignments for steps in test development and other concerns associated with testing, such as provision for notices.

Voting system tests need to be thorough and effective, but they do not require sophisticated knowledge of computers and data processing. What the testing process really requires are common sense, clear thinking, and planning.

Conducting the Post Election Test

An additional test is run after completion of ballot tabulation on election night. This test is the Post Election Test. The purpose of this test is to demonstrate that the counting program is the same one used in the Preliminary and Public Logic and Accuracy Test and that no changes have occurred during the counting process. Run the Post Election Test using the test deck from the Public Logic and Accuracy and Pre-Tabulation Test. The combination of these tests assures the integrity of the vote tabulation program. Combine the Post Election Test results with the other test material and reseal in the security container.

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Chapter 5: Post-Election Procedures

Use the guidelines in Division 15, Chapter 4 of the California Elections Code to build the official election canvass and announce your election results.

Understanding the Official Canvass

The official canvass is a post-election audit of several voting precinct's ballot returns and absentee ballot returns. The official canvass is used to:

- Validate the outcome of an election by verifying that the number of ballots cast is not greater than the total number of voters that signed the voter index or were issued absentee ballots.
- Account for all official ballots produced for the election and to ensure that the precinct board properly executed all required certificates and oaths.
- Verify the accuracy of the computer count by manually recounting voted ballots from at least one precinct of the voting precincts and comparing the manual totals to the system generated totals.

The official canvass must be performed by a minimum of three people.

Official Canvass Guidelines from the Elections Code

Use the following guidelines from sections 15301 to 15304 of the California Elections Code when you perform the official canvass:

- **15301.** The canvass shall commence no later than the Thursday following the election, shall be open to the public, and, for state or statewide elections, shall result in a report of results to the Secretary of State. The canvass shall be continued daily, Saturdays, Sundays, and holidays excepted, for not less than six hours each day until completed.

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- **15302.** The official canvass shall include, but not be limited to, the following tasks: (a) An inspection of all materials and supplies returned by poll workers. (b) A reconciliation of the number of signatures on the roster with the number of ballots recorded on the ballot statement. (c) In the event of a discrepancy in the reconciliation required by subdivision (b), the number of ballots received from each polling place shall be reconciled with the number of ballots cast, as indicated on the ballot statement. (d) A reconciliation of the number of ballots counted, spoiled, canceled, or invalidated due to identifying marks, overvotes, or as otherwise provided by statute, with the number of votes recorded, including absentee and provisional ballots, by the vote counting system. (e) Processing and counting any valid absentee and provisional ballots not included in the semifinal official canvass. (f) Counting any valid write-in votes. (g) Reproducing any damaged ballots, if necessary. (h) Reporting final results to the governing board and the Secretary of State, as required.
- **15303.** If the returns from any precinct are incomplete, ambiguous, not properly authenticated, or otherwise defective, the elections official may issue and serve subpoenas requiring members of the precinct board to appear and be examined under oath concerning the manner in which votes were counted and the result of the count in their precinct. This section shall apply when ballots are tabulated manually or automatically at the polls.
- **15304.** In jurisdictions using a central counting place, the elections official may appoint not less than three deputies to open the envelopes or containers with the materials returned from the precincts. If, after examination, any of the materials are incomplete, ambiguous, not properly authenticated, or otherwise defective, the precinct officers may be summoned before the elections official and examined under oath to describe polling place procedures and to correct the errors or omissions.

Completing the Official Canvass

Manually recount the ballots from at least one percent of your precincts, chosen at random, according to the guidelines described in section 15360 of the California Elections Code. Use the manual recount to verify the results from your central scanner.

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Ballot Security and Reporting Results

Use the following instructions as a general guideline for reporting results. Consult sections 15370 to 15376 of the California Elections Code for specific regulations governing the reporting of results.

To report results

1. Complete the official canvass and add any write-in votes or other totals to the final vote count. Post the final vote count at the counting location for public inspection.
2. Prepare a certified statement of the election results and submit the statement to the governing district within 28 days of the election. Show results on a precinct by precinct basis. Include the following information on your statement of results:
 - The total number of votes cast
 - The number of votes cast at each precinct for each candidate and for and against each measure
 - The total number of votes cast for each candidate and for and against each measure
 - The number of votes cast in each city, Assembly District, congressional district, State Senate District, State Board of Equalization District, and supervisorial district located in whole or in part of the county.
3. Send a copy of the results to each of the following:
 - All candidates participating in your statewide election.
 - All of the candidates voted for in the following offices:
 - Member of the Assembly*
 - Member of the Senate*
 - Member of the U.S. House of Representatives*
 - U. S. Senate*
 - Member of the State Board of Equalization*
 - Justice of the State Supreme Court*
 - Justice of the Court of Appeal*
 - Judge of the Superior Court*

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Judge of the Municipal Court

All persons voted for in a presidential primary

- The vote given for persons for electors of President and Vice President of the United States.
- All statewide measures.

Retaining Election Materials

Consult sections 17300 to 17506 of the Elections Code for guidelines on retaining election materials. The retention period for ballots and related election materials is six months for all elections if no federal elections are involved. The federal election retention period is 22 months. Extend retention periods in the case of a court challenge.

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Chapter 6: Election Security

The “safety first” rule is especially important in an election environment. Federal authorities and independent experts agree that strict security measures must be in place during all phases of the election cycle to protect against unauthorized interference with election procedures and to ensure the accuracy of election results.

The scanner system should be given a dry run simulating as closely as possible specific conditions to be faced on Election Day and election night. Enough pre-election testing (such as running the test deck) should be done so that any discrepancies between programming and the ballots can be identified.

Strict security procedures should be in place for:

1. Election equipment
2. Transporting of ballots
3. Central tabulating facility
4. Dissemination of election results

To reduce risks, no one individual should control all election procedures. Duties and responsibilities should be assigned systematically to many individuals to ensure that all phases are covered. For example, an election administrator should use members of more than one political party to serve as election judges at precincts. Separation of responsibilities for receiving ballot boxes and for ballot scanning is another example.

Personnel should have the necessary training and guidance to minimize errors and misunderstandings. The employees should maintain a spirit of professional integrity and should carry out their assigned duties in a manner reflecting the importance of the election process.

The election official shall ensure the protection of the election tally process from intentional and/or fraudulent manipulation, malicious mischief, accidents, and errors. Each jurisdiction shall implement the following procedures to ensure security protocol is followed.

- Before accepting the ballot tallying system, the vendor shall provide the jurisdiction an optimum configuration list including a list of programs necessary to the operation of the system. The jurisdiction shall establish procedures to identify changes to the ballot tallying system, including dates and times that files are created, modified or accessed, and by whom. These procedures shall limit changes to those necessary for election purposes and shall include processes to ensure such changes are only made after being previously approved by authorized personnel. Further, these procedures shall include provisions for the installation, continuous use, and update prior to each election of both firewall and anti-virus software on the computer(s) running the ballot tallying system. These procedures should also include a checklist and sign-off requirement for the system proofing tasks outlined in Section 2.
- Establish procedures for the physical protection of the facilities, as well as communication and data access controls. These should include intrusion and fire alarms, temperature and humidity sensors, etc. The procedures should also include provisions for locked facilities for computers that are directly dedicated to elections, as well as for voted and non-voted ballots and counted and uncounted ballots. Such procedures shall not preclude the accessibility of ES&S Models 550 and 650, nor computers for purposes of testing, repair, demonstration, training and for other purposes which are deemed justifiable by the election official. The procedures shall include provisions for securing ES&S Models 550 and 650 after the memory media has been installed both before and after distribution to the voting centers. These procedures shall also include provisions for the use of tamper evident seals on key locks, access doors/panels, memory cards and unused ports on any component of the voting system, including a log of such seals.

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- Establish contingency plans for ballot counting, including either back-up ballot counting facilities under the election official's supervision, or the availability of such facilities from another jurisdiction, or from a vendor, or from another source. If modem transmission of unofficial election results is used, such plans shall make contingencies for the creation of a back-up election database prior to such results being sent, for the modem to only be enabled when such transmissions are anticipated, and for official results to be loaded into the back-up created prior to such transmissions. Such plans may take note of the existence of multiple IV-C scanners, and/or multiple components of the Summary System, if such is the case, citing these situations as adequate back-up. In addition to the ballot counting program sent to the Secretary of State pursuant to Elections Code section 17500, each election official shall store another copy of the ballot counting program in an off site secure-but-readily-accessible location.
- Establish procedures for internal security, i.e., the protection of ballot counting hardware, firmware, and software from fraudulent manipulation by persons inside or outside the elections office. These procedures must provide for: restricted access to ballot counting hardware, firmware, and software; restricting connection of the election management software to any network that has an external Internet connection; individual passwords used only by the person to whom they have been issued which must meet or exceed best practices and be frequently changed including before each election; preventing the ballot tabulation system from being left unattended without password protection in place; limiting use of administrative user logins to when needed, with at least two persons having administrative access; and physical protection of all non-voted precinct and absentee voter ballots, as well as all tallied and non-tallied ballots, by use of logs to chronicle their quantity, use, and access before and after the election.
- A complete copy of each election official's security procedures shall be submitted to the Secretary of State for review prior to any election in which the system is intended to be used. In lieu of the submission of this plan, the election official may affirm that no change has been made to previously approved procedures.

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Optech IV-C Security

Jurisdictions are responsible for the election. For jurisdictions choosing to use write-in ballot stickers, this security includes audit checks to make sure that not only are the proper ballots in use, but also the proper write-in ballot stickers.

Misuse of the proper write-in ballot sticker will jam the tabulators and can destroy the ballot. Write-in ballot stickers not meeting the caliper requirements of paragraph 3.3 will jam the tabulator in the throat area and, if the ballot passes the throat area, other tabulator parts can pull and/or tear the ballot sticker. When the ballot sticker is pulled, it can also tear the ballot.

Jurisdictions shall not readjust the throat area to allow write-in ballot stickers that do not meet the caliper requirement of paragraph 3.3. This practice will also interfere with the tabulator, because the readjustment will widen the throat and allow more than one ballot to pass at a time which will cause further jams and/or misreads.

The jurisdiction is responsible for voter registration and its related database for ensuring that the ballot counts for write-in candidates do not exceed the registration totals for the jurisdiction.

The jurisdiction is also responsible to make sure the candidate meets the requirements for the office and any other requirements common to the using jurisdiction. This includes the identification of candidates authorized to use and distribute write-in ballot stickers.

Jurisdictions must train voters in the use of the write-in ballot sticker. Absentee voters, who use write-in ballot stickers need to be instructed not to tape or glue the write-in ballot stickers to the ballot. These techniques add to the caliper of the ballot and may cause further problems in the tabulators and the ballots (i.e.; the tabulator may destroy the sticker in such a way that paper residue and/or tape adhesive or glue is exposed and adheres to parts within the tabulators or other areas of the ballot thus interfering with the ballot transport and/or read area).

Jurisdictions should train all election officials, precinct workers, poll workers, etc. to recognize the legal write-in ballot sticker, the correct placement and attachment on the ballot, and the correct arrow mark for the write-in position.

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Chapter 7: Certification Requirements

Consult the California Elections Code, Division 19, for certification and approval requirements. Use the following requirements as guidelines; consult the Elections Code for specific regulations.

Biennial Certification of Hardware

Elections Code section 19220 requires each elections official to inspect and certify the accuracy of their voting or vote tabulating equipment at least once every two years. The elections official shall certify the results of their inspection to the Secretary of State.

Hardware Certification and Notification

All ES&S election equipment must be certified for use in elections by the Secretary of State prior to use in any election. Certification procedures are available upon request from the Secretary of State's Elections Division.

For each statewide election, the responsible county elections official shall cause to be prepared a list, including quantities, of all equipment to be used to tabulate votes during the semi-official and official canvass.

Logic and Accuracy Tests

Seven days before each statewide election, the elections official shall certify to the Secretary of State the results of the logic tests as well as the accurate functioning of all ballot counting equipment. This certification shall also affirm the use of the same equipment for pre-election testing and for semi-official and official vote canvasses. In the event of a change to the ballot tally program occurring after this certification, an amended certificate shall be submitted no later than the day before the election.

In the event any equipment is repaired, altered or replaced following the certification and prior to completion of the official canvass of the vote, an amended certification of logic and accuracy testing and a revised list of equipment used must be submitted to the Secretary of State not later than submission of official canvass results.

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Certifying Logic and Accuracy

Appoint a logic and accuracy board to perform the following tasks:

- Receive all required test materials from the election official.
- Verify the correctness of the election definition and test deck.
- Observe scanner performance and verify results.
- Note any discrepancies between test results and the results from ES&S.
- Deliver all the required test material to the election official.
- Certify the performance of the scanner.

Escrow of Ballot Tally Source Code

Prior to its use in any election, an exact copy of the source code for all ballot tally software programs shall be placed in an approved escrow facility, pursuant to the procedures and requirements of Elections Code section 19103 and Title 2, Division 7, of the California Code of Regulations, beginning with section 20610.

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