

Logic and Accuracy Testing Protocols

What is Logic and Accuracy Testing?

Logic and Accuracy (L&A) Testing is a set of procedures performed to ensure there are no errors on ballots or ballot displays and that voting machines are properly programmed. These tests occur prior to every election.

How Does Testing Work?

Each type of device is tested with different protocols and for specific purposes. For each piece of equipment the steps listed below will be completed to ensure the voting system operates as expected. Certain tasks such as candidate name proofing have already been completed.

Ballot Marking Devices

Testing Process

1. Loading ballots on screen.
2. Ensuring the collection of contests and candidates are correct.
3. Making predefined selections on screen to ensure accuracy of the touchscreen hardware.
4. Reviewing the printed ballot cards to ensure they match the on screen selections.
5. Repeating the process to generate a set of predefined test ballots to be used on the scanner that will be deployed in the same precinct.

Insert
Equipment
Picture(s)

Precinct and Central Count Scanners

Testing Process

1. Inserting predefined test ballots into the scanner ensures:
 - a. There are no paper size or stock issues.
 - b. The specific ballot styles (collections of contests and candidates) available to voters in a precinct can be counted by the scanner.
 - c. Error conditions, such as smudged ballots, ballots with marginal marks, ballots with over-voted contests, tears, etc., are outstacked or otherwise recorded for future adjudication or replication by staff.
2. Tabulating the results from the ballots cast on the scanner and comparing them to the expected results.

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Picture(s)

Note: This is why the test ballots are marked with a predefined set of choices.

The Tabulation System is tested by aggregating results from each scanner into the system. Each scanner has a removable media that loads the results into the central tabulation system to be aggregated with the other scanners. The results are combined with the results from the central count scanners, to ensure all results are added up and reported correctly.

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The Election Night Reporting System is not part of the voting system but is what displays the results to the public on the internet. It is tested by transferring results data from the tabulation system on a secure memory device and loading it into a separate computer to ensure the public display of results reflects what is in the Tabulation System.

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