

ImageCast Ballot Marker Operator Manual PLAN A

2008 Edition



As election workers, you have an important job, and it is essential that you are familiar with all the details of the position.

From election to election, rules change, so even if you have done the job before, read this manual so that you know what to do under current rules.

INTRODUCTION

Thank you for accepting an appointment to serve as an election official. The County has vested in you the authority to participate in the operation of a voting station. This means that you are responsible for the general conduct, efficiency and orderliness of your designated voting station.

This booklet has been prepared to assist you in the operation of the ballot marking device. It is intended to serve as a handy reference during voting day. The booklet contains general instructions as well as illustrations and diagrams. It is not intended to supersede any rules, procedures, or materials provided to you.

It is of the utmost importance that your voting station be conducted in strict accordance with requirements. Please ensure, therefore, that you have read this handbook thoroughly and that you fully understand all aspects of preparing for, operating, and closing your voting station.

As a general guideline please remember

WHEN IN DOUBT, FIND OUT

NEVER ASSUME

Always confirm your understanding by referring to this handbook. If you are still unsure, call for assistance.

Related Documents

Document Title
ImageCast Precinct Tabulator – Instruction Handbook Ver 1.0.0
ImageCast Precinct Tabulator – Operation Procedure Ver 1.3
ImageCast Precinct Tabulator – Systems Maintenance Procedure Ver 1.1
ImageCast Precinct Tabulator – Technical Guide ver 1.0.2

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1.0 BEFORE ELECTION DAY

1.1 Automated System of Voting

The County utilizes a portable ballot marking machine called the ImageCast Ballot Counter and Ballot Marker. When used for voting, the unit is part of a specially designed ballot box with:

1. an ADA voting terminal consisting of a an Audio Tactile Interface (ATI) and display screen
2. an electronic ballot printer that prints a ballot for the ADA voter
3. a ballot scanning station for review and accounting of marked ballots
4. a ballot scanning station for tabulation of hand marked paper ballots
5. a primary compartment for storing ballots that have been reviewed and accepted by the voter, a secondary ballot compartment for storage of ballots with write-in selections, and an auxiliary compartment for use in case of a complete operational failure.

The system uses a composite ballot that has all offices and questions printed on it. The voters may mark their ballots by using either a special marking pen to mark the box(es) corresponding to the candidate(s) of their choice, or by using the ADA interface that prints a paper copy of their marked ballot for them. The paper ballot is then inserted into the ImageCast Ballot Counter which reads the ballot, reviews ballot selections for the voter, and deposits the ballot into an internal compartment of the ballot box. After the close of voting, the ImageCast prints a results tape that shows the number of votes cast and the number of votes for each candidate and proposition.

Figure 1: ImageCast scanning unit

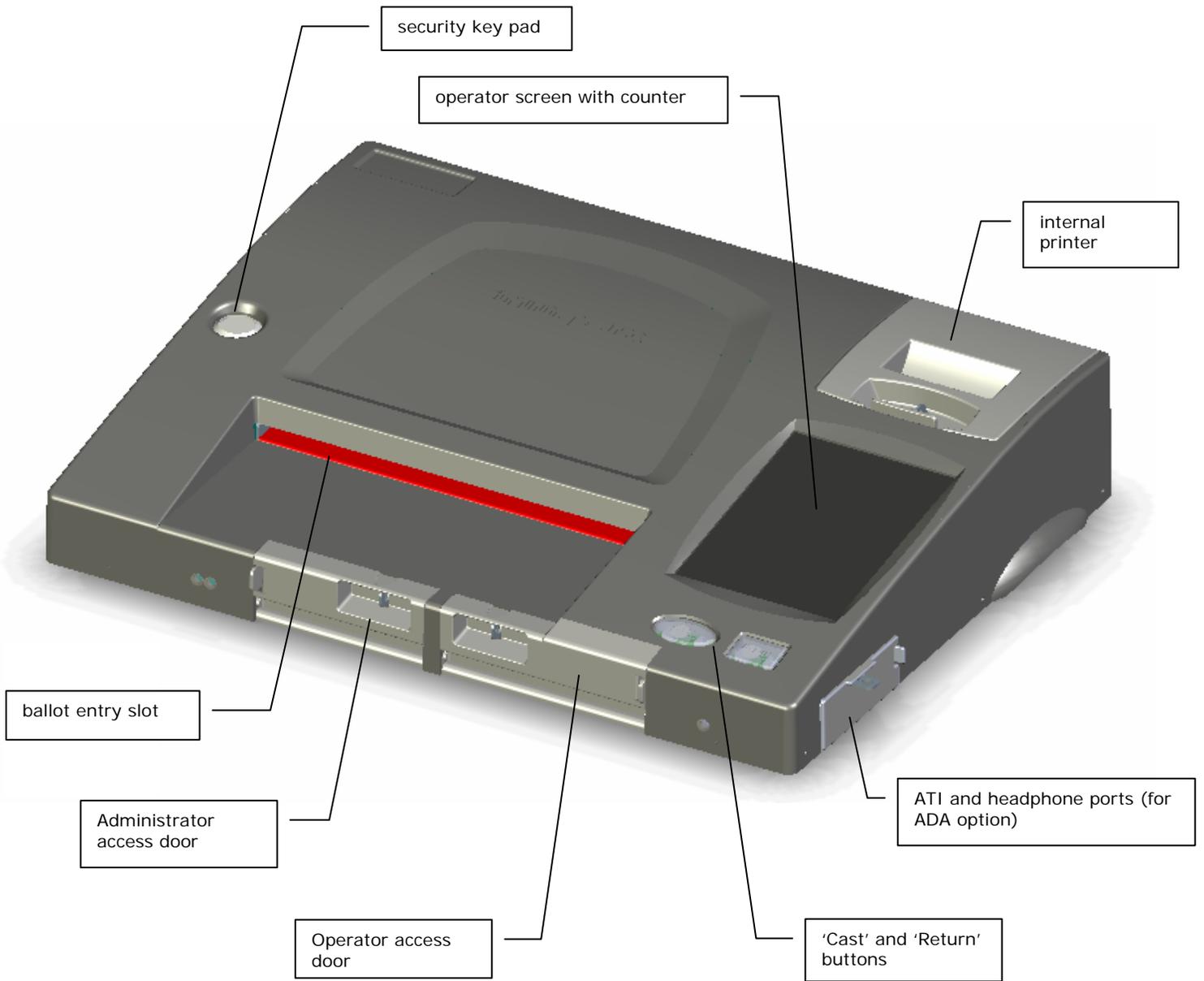
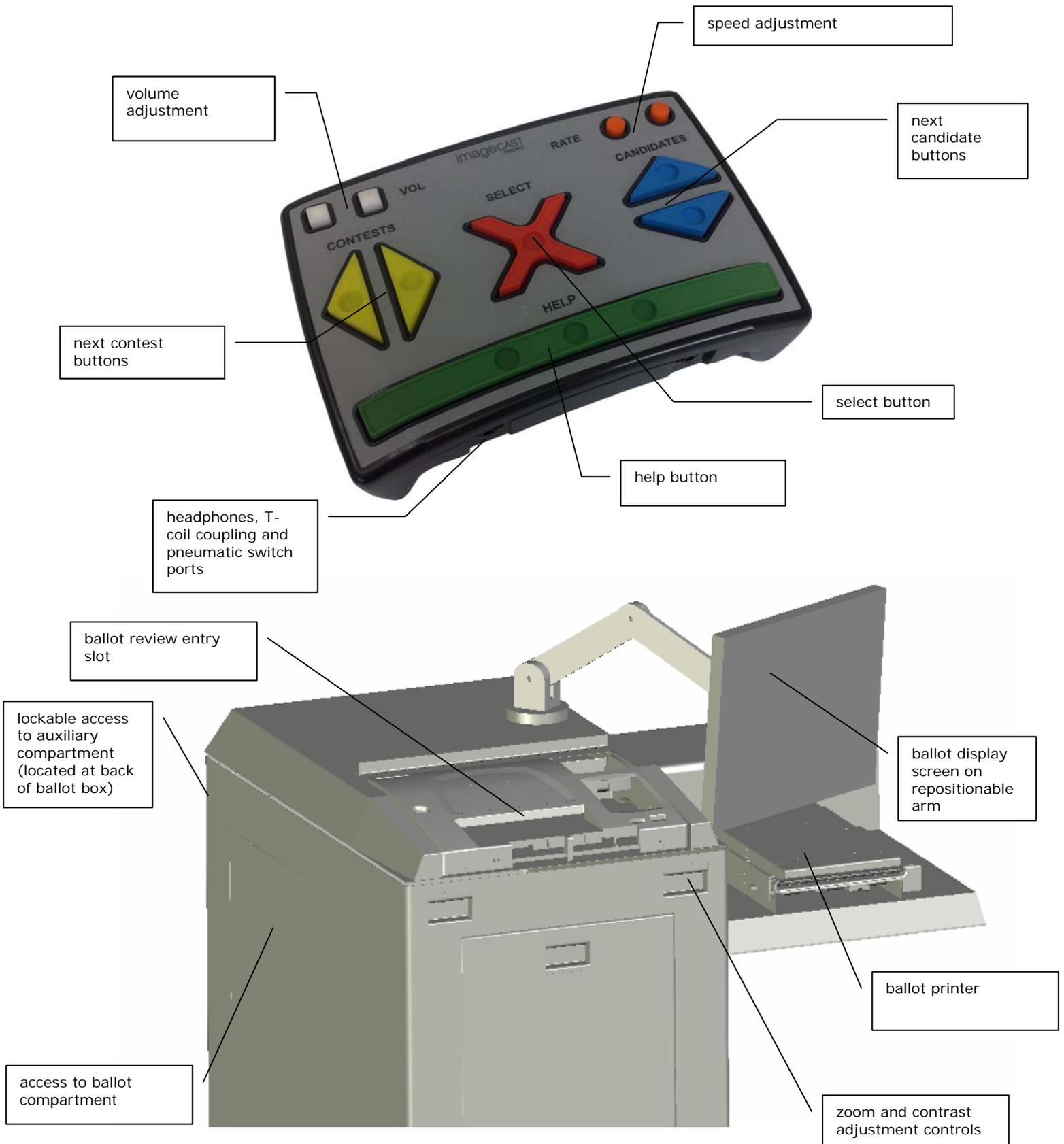


Figure 2: Audio Tactile Interface (ATI) and Ballot Box



2.0 ELECTION DAY

2.1 Hours of Voting

On Election Day, the voting station must remain open continuously from the time that the polls open until the close of polls. All Election Officials must remain at the voting station at all times.

2.2 Preparing the ImageCast Ballot Marker for Voting

2.2.1 Opening the Voting Station

(a) If a specific unit has been assigned to your location, check the serial number to verify that you have the correct unit.

If the wrong unit has been delivered, or if the numbers do not match those on the instructions or documents provided, call Election Headquarters immediately.

(b) In the presence of at least one Election Official, verify that there are no ballots or other materials present inside the ballot box. Be sure to check all compartments, including the large inner compartment and the smaller auxiliary compartment.

(c) Connect the ImageCast power cord to the wall outlet (an extension cord is provided, and should be used as required). Within seconds, the operator screen will display a message indicating that the ImageCast unit is starting up.

(d) The ImageCast will perform a series of internal checks to verify that there are no ballots currently contained within the machine, and to confirm that the unit is in proper working order. When these checks are complete, the ImageCast will prompt you to contact your security key to the security key pad in order to verify the election files. Hold your security key against the metal tab labeled "Security Key", and the operator screen will display a message confirming the acceptance of your key.

(e) The administration options menu will appear on the operator screen. To open voting, select the 'open poll' option.

The ImageCast operator screen will inform you that “Results are Zero” (i.e. that no ballots have been inputted into the tabulator yet), and it will ask you if you would like to print a Short or Long “zero results” tape. Press the “Short” button, and a single tape will print. The unit will then ask if you would like to print additional “zero results” tapes. Selecting ‘Yes’ will cause the ImageCast to print an additional copy of the tape, allowing you to print as many tapes as required. When you no longer wish to print “zero results” tape, press the No button on the operator screen.

(f) Examine the heading at the top of the ‘zero results’ tape, and verify that the tape displays the correct VOTING STATION NAME AND/OR NUMBER for your location. If any of this information is incorrect, contact Election Headquarters immediately.

Verify that the tape shows Total Scanned as zero, meaning that no ballots have been inputted into this ImageCast unit.

If the tape does not show as zero, contact Election Headquarters immediately.

(g) Confirm that the counters at the bottom of the operator screen show that Total Voters is zero, and Ballots Cast is zero. If either of these “public counters” show any number other than zero, contact Election Headquarters immediately.

The vote tabulator is now ready to accept ballots when the voting station opens. Put the security key in a safe place at this time so it cannot be misplaced. You are responsible for this key at all times.

(h) The Audio Tactile Interface (ATI), display screen, and the ballot printer are connected to the ImageCast. These can be disconnected if required, but must be connected in order to process an ADA voter.

(i) Note that there are status lights on the left side of the ballot box. These lights give a visual indication of the status of the ImageCast unit. The different conditions are:

Solid Red – Unit is starting up, or is not operational.

Flashing Green – Unit is ready for use by the next voter.

Alternating Green and Amber – Unit is in use by a voter.

Flashing Amber – ADA ballot printing is in operation.

Solid Amber – Voter is reviewing their ADA ballot.

Alternating Amber and Red – Unit has an error and is not functioning.

2.2.2 Verifying a Test Ballot

Some inspectors may ask you to perform a test ballot verification before the opening of the polls. If this is the case, mark a ballot with random vote selections. **AS A PRECAUTION, WRITE 'TEST BALLOT' ON THE BALLOT HEADER.**

Use the security key to enter the administration mode, and select the "Ballot Test" option. Select "Yes" to the "Ballot Test" confirmation question. Insert the test ballot. The ImageCast will display a summary of the selections on the operator screen. Navigate through this summary by pressing 'Next' and 'Prev' on the operator screen, as required. When the review of selections is completed, press the "Return" button.

You can repeat this procedure using additional test ballots, as required. When you are finished inserting test ballots, you will need to exit "Ballot Test" mode. To do this, use the security key to bring up the user menus on the operator screen, and press "Ballot Test". The unit will ask if you wish to disable the "Ballot Test" mode. Press the Yes button to disable the "Ballot Test".

3.0 DURING VOTING HOURS

3.1 Reporting Voter Turn-Out

At all times, the number of ballots that have been processed by the ImageCast is displayed on the public counter. This is the number of ballots that are contained within the main compartment of the ballot box.

3.2 Inserting regular ballots

Regular voters can hand-mark pre-printed ballots. These ballots are inserted into the ImageCast Ballot Counter for processing, second chance voting notification, and tabulation.

3.3 Creating ADA Ballots

One of the features of the ImageCast Ballot Marker is the ADA ballot which provides accessibility to voters who are visually impaired, or who are unable to mark a paper ballot in the traditional manner (i.e. using the special marking pen). The ImageCast Ballot Marker allows voters to create their ballot using an audio and visual interface and an ATI (Audio Tactile Interface). The ImageCast instructs the voter as to how to use the ATI to navigate through the ADA interface to make their selections. Once the voter's selections are complete, the system prints a paper ballot that is then inserted into the ImageCast for secure and accountable storage until later tabulation.

Each type of ballot is identified by a Ballot ID number found on the far right side of the ballot, or on the bottom of the ballot. It is important to note that this Ballot ID number does not identify individual ballots; it only identifies ballot types. For example, it distinguishes between ballots from different districts, but can never be used to identify an individual ballot or voter.

To create an ADA ballot, first make sure that the ATI, headphones and printer are connected to the jacks on the right side of the ImageCast. Direct the voter to a chair in front of the display screen and give the voter the Audio Tactile Interface (ATI) and headset that they will use to cast their ballot. Explain to the voter that the ImageCast will give them instructions on how to use the ATI, and will walk them through

the process of creating their ballot. Make sure the voter knows that they are welcome to put up their hand to ask you for assistance at any time.

Insert a blank ADA paper ballot into the slot of the ImageCast printer unit next to the ImageCast tabulator. The paper will be drawn into the printer's slot. Next, affix the secrecy folder to the printer unit's slot.

In order to start the ballot, contact the security key to the "Security Key" metal tab on the ImageCast. The operator screen menu will display. Choose the "Audio Session" button. Enter the Ballot ID number for this voter's audio session (i.e. the ballot type this voter will use), and press Enter. A confirmation message will display asking you to confirm you have entered the correct Ballot ID number. Press Yes if the Ballot ID number is correct (or press No if it is incorrect, or press Cancel if you wish to leave the Audio Session option).

The audio session will begin, and the ImageCast will begin instructing the voter on how to vote an ADA ballot. The voter will first be asked by the unit which language they prefer, and the voter will select this using the ATI. The ImageCast will then take the voter through the complete ADA ballot process.

When the voter is ready to start making vote selections, the display screen will automatically display the ballot. Contest names and candidate names will highlight in yellow as the voter moves through the ballot, so that they can see where they are in the ballot.

Visual Control Buttons:

On the front of the ballot box, there are 2 visual control buttons:

Zoom:

The green button allows for Zoom control, allowing the ballot to show onscreen in larger fonts. There are 3 zoom settings. To adjust the zoom, press the green button and wait for the font size to change. Keep pressing the green button until you reach the zoom setting preferred. Note that you may have to wait a few seconds after each pressing before the font size changes.

Contrast:

The red button allows for Contrast control. There are 2 settings. Press the red button once to switch from black on white background to white on black background, and press the button again to return to the original setting.

When the voter has completed their ballot, the ballot printer will produce a paper copy of the ballot for insertion into the ImageCast. The printed paper ballot will be concealed within a secrecy folder as it emerges from the printer, to preserve voter privacy.

If, for any reason, you need to cancel an ADA ballot while it is in session, use the security key to display the operator screen menu, and press the "Audio Session" button, and then press the "Cancel Audio" button. That ADA voting session will then cease.

3.4 Insertion of Ballots into the ImageCast for Verification

After the ballot has been printed or marked, the voter may insert the ballot unassisted or request assistance in order to insert their ballot into the ImageCast. If your assistance is requested, you may remove the secrecy folder (with the ballot hidden inside) from the printer and insert the secrecy folder into the input slot on the ImageCast (or give the secrecy folder to the voter so they can insert the ballot themselves).

A ballot may be inserted into the ImageCast by the voter, or by the staff assigned to the unit. The ImageCast will automatically draw the ballot from the secrecy folder into the unit. It will perform a review of the ballot, and will read the voter's choices back to them through the headphones. When the review is complete:

- If the voter presses the "Next candidate" button on the ATI or ImageCast Ballot Counter, the ImageCast will return the ballot to the voter. The ballot counter will not increment.
- If the voter presses the "Select" button on the ATI or ImageCast Ballot Counter, the ImageCast will cast the ballot, and the ballot counter will increment by one (1).

If the voter is not satisfied with the review, he/she can press the "Next candidate" button to have the ballot returned to them for remarking. In order to make a change or correction to the ballot, the voter must return their marked ballot to the Election Official, who will then mark the ballot 'cancelled', and issue a new ballot paper. The entire voting process must then be repeated using the new ballot paper.

Until the voter has inserted their ballot into the ImageCast and pressed the "Select" button on the ATI or ImageCast Ballot Counter to cast the ballot, the ballot is considered uncast.

3.5 Second Chance Voting

One feature of the ImageCast is the identification of ballots that may have been accidentally marked incorrectly. In these cases, the ImageCast will notify the operator of the mistake in order to provide the voter with the option of re-marking their ballot. This notification consists of a series of short, audible beeps combined with a Warning message on the operator screen. There are five potential second-chance voting scenarios:

1. undervotes
2. blank ballots
3. misreads
4. over votes
5. ambiguous / borderline marks

3.5.1 Undervote

If the message on the operator screen reads

```
W A R N I N G !
*****
YOU HAVE UNDERVOTED FOR AT
LEAST ONE CONTEST.

TO RETURN AND CORRECT THE
BALLOT, PRESS 'RETURN'.

TO CAST THE BALLOT AS-IS,
PRESS 'CAST'.
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The ballot has not yet been counted because the voter has selected fewer than the allowed number of candidates for the contest(s) indicated. It may be that the voter does not intend to vote for certain contests, or that he/she does not intend to vote for the maximum number of candidates allowed for certain contests.

1. The voter is offered the option to have the ballot returned to them for correction, or to have the ImageCast accept the ballot

'as-is'. After the ballot is cast, the voter cannot receive a new ballot.

2. The ballot can be returned by pressing the "Return" button.

3.5.2 Blank Ballot

A blank ballot warning occurs when the ImageCast does not detect any markings. The operator screen will display a message that reads:

W A R N I N G !

BLANK BALLOT DETECTED.
PLEASE ENSURE YOU USED THE
PROPER MARKING PEN IN THE
PROPER VOTING AREAS.

TO RETURN AND CORRECT THE
BALLOT, PRESS 'RETURN'.

TO CAST THE BALLOT AS-IS,
PRESS 'CAST'.

3.5.3 Misread

A misread warning indicates that the ImageCast has not recognized all of the features on the ballot, or that certain essential ballot identification markings cannot be found. This usually occurs for one of the following reasons:

1. the ballot is physically damaged (torn or folded, for example),
2. the voter has made markings that obstruct certain important identifiers (called registration marks) along the sides or the bottom of the ballot, or
3. the ballot was inserted into the machine incorrectly.

The operator screen will display a message that reads:

W A R N I N G !

PAPER INSERTED WAS MISREAD
AND COULD NOT BE VERIFIED
AS A VALID BALLOT. PLEASE
VERIFY BALLOT AND REFEED.

The machine will automatically return the ballot. Explain to the voter that the ballot was not counted by the machine and needs to be re-inserted.

1. Re-insert the ballot into the ImageCast.
2. If the ballot repeatedly generates this message, place it into the reject envelope, and instruct the voter to obtain a new ballot.
3. Make sure that voter understands how to properly mark the ballot.

3.5.4 Overvote

An overvote occurs when the ImageCast detects marks for more than the maximum number of candidates allowed for a particular contest. The operator screen will display a message that reads:

W A R N I N G !

YOU HAVE OVERVOTED FOR AT
LEAST ONE CONTEST.

TO RETURN AND CORRECT THE
BALLOT, PRESS 'RETURN'.

TO CAST THE BALLOT AS-IS,
PRESS 'CAST'.

Explain to the voter that the ballot has not yet been counted because they have voted for more than the maximum number of candidates allowed for at least one contest. It could be that the voter has inadvertently made a mark where the ballot counter can read it.

1. Offer the voter the option to have the ballot returned to them for correction, or to have the ImageCast accept the ballot 'as-is'.
2. If the voter intends for the ballot to be accepted 'as-is,' explain to the voter that the ImageCast will not record any votes for the overvoted contests, but that it will still record all votes for the categories that have been marked correctly. Also explain to the voter that after the ballot is cast, they cannot receive a new ballot. To accept the ballot 'as-is,' the voter must press the "Cast" button.
3. If the voter presses the "Cast" button, the ImageCast will record this ballot, and the ballot counter will increment by one (1).
4. If the voter requests that the ballot be returned to them, press the "Return" button and place the returned ballot back into the

secrecy folder. Have the voter return this ballot to the election official, who will:

- mark the ballot “cancelled,”
- place the ballot in the cancelled ballot envelope
- deliver another ballot to the voter, and instruct the voter as to how to properly mark the ballot

3.5.5 Ambiguous Mark

An ambiguous mark warning occurs when the ImageCast™ detects a mark that is unclear, meaning that the system cannot be certain of the voter’s intent. In other words, an ambiguous mark is a mark that is neither a definite vote nor a definite non-vote. The operator screen will display a message that says:

W A R N I N G !

ONE OR MORE AMBIGUOUS
MARKS DETECTED ON THE
BALLOT. PLEASE CORRECT ALL
AMBIGUOUS MARKS AND REFEED
THE BALLOT.

and the machine will automatically return the ballot. Explain to the voter that the ballot was not counted because an ambiguous mark was detected and the machine cannot be certain of the voter’s intent. Ask the voter to review the ballot to ensure that it is clearly marked in the spaces provided. Allow the voter to return to the voting booth to mark the ballot correctly, and make sure the voter understands how to mark a ballot.

There are two possible types of ambiguous marks:

1. The voter has made a mark that is too light, which needs to be darkened in order to be clearly counted as a vote, OR

The voter has inadvertently made a small mark in a box where they had not intended to, in which case they must request a fresh ballot in order to ensure that all voting boxes are blank except for the ones that they have clearly marked as votes.

3.5.6 Ballot Blockages

Ballot blockages (also called paper jams), are rare events but can occur. If a blockage has occurred, the ImageCast will report it on the operator screen.

If there is a ballot blockage, the operator screen will display a message that says:

**PAPER JAM
DETECTED.**

**PLEASE CLEAR ANY
PAPER FROM THE
DEVICE AND PRESS
THE 'CLEARED'
BUTTON**

To deal with a ballot blockage:

1. Request that the voter remain at the station until it is resolved.
2. Do not look at the markings on the ballot at any time.
3. The ballot is long enough that part of it will be protruding through the front ballot entry slot, or the rear ballot exit slot. If the ballot is visible from the front ballot entry slot, pull the ballot out and return it to the voter.
4. If the ballot is not visible from the front of the entry slot, unlock the ImageCast, lift the machine off the ballot box to expose the rear exit slot and diversion slot, and remove the jammed ballot from the appropriate slot.
5. Place the ImageCast back on top of the ballot box and lock it place.
6. Select the 'Cleared' option on the operator screen to resume normal operation.
7. If the ballot is not damaged, it can be re-inserted into the ImageCast.
8. If the ballot is damaged, a new ballot will need to be marked.
9. If, after clearing the jammed ballot and selecting the 'Cleared' option, the ImageCast still detects a paper jam, the operator screen will display a message that reads:

**TURN OFF MACHINE
AND CLEAR JAM.**

Make sure that the jam has been cleared and restart the machine. It could be that the jam has already been cleared and the paper sensors need to be reset by restarting the machine. The ImageCast should resume normal operation after restarting.

10. If the warning message persists, contact Election Headquarters to request that a technician address the issue.
11. If there are any obstructions preventing the entry of ballots into the ImageCast, call Election Headquarters in order to request that a technician come to your location to clear the obstruction.

3.5.7 Repeating Problems

Should the same problem occur on three consecutive ballots, call Election Headquarters immediately.

3.6 If the Tabulator Becomes Inoperable

If the ImageCast becomes inoperable for any reason, notify your primary emergency contact immediately.

3.6.1 Resuming Normal Tabulation

Please wait until the voting station is closed before removing any ballots.

4.0 VOTING STATION CLOSING PROCEDURES

4.1 After the Last Voter

4.1.1 Number of Ballots Processed

An election official must make a note of the number of ballots that were processed through the ImageCast throughout the day. This number will be displayed on the public counter on the operator display.

4.1.2 Closing Voting

To close the ImageCast, contact use the security key to enter the administration menu, and select the 'Close Poll' option. Follow the simple instructions, and the ImageCast will perform the required operations automatically.

The appropriate staff must sign the Certificate of Election Officials as indicated on the bottom of all tapes. Any agents and/or candidates may also sign the tapes, if they so desire.

The results tapes should be distributed at this time, as prescribed in the instructions.

4.1.3 Voting Tabulator & Official Results Tape Returned To Election Headquarters

4.1.4 Delivery of Ballot Account to Election Headquarters

After the Voting Station has been tidied-up and the supplies have been removed, a staff person will deliver the balanced ballot account forms, with a results tape attached, to Election Headquarters.

5.0 SAFETY NOTES

The ballot tabulator, ballot box, and ADA voting unit comply with:

UL 60950-1: Second Edition: Standard for Safety of Information Technology Equipment

The ballot tabulator, ballot box, and ATI unit are rated for:

- Indoor Use Only
- Ordinary Protection (not protected against harmful ingress of moisture)
- Electrical input rating of the Ballot Tabulator: 20V~60Hz 2A.
- Pollution Degree 2 for the ambient environment
- Operating Relative Humidity: 10-80% RH, non-condensing
- Operating Temperature range: 5C to 40C (41 – 104 F)
- Storage and Transportation Conditions: -25 to 60C

The ballot tabulator unit is to be used only with Supplied AC Mains Adapter/Charger only (UL Listed Class 2, model JOD-66U-16A, UL file #E149469).

5.1.1 Servicing

The interior of the Ballot Tabulator or ATI is not User Accessible and service operations performed inside the electrical enclosure requiring the use of a tool must be performed by Authorized and Trained Personnel Only.

5.1.2 User Maintenance

There is one maintenance operation that can be performed by the user. The thermal paper (model: Seiko NAK-SS058025B) can be changed.

5.1.3 Weight of Equipment and Proper Handling/Moving Procedures

Each element can be moved manual without any additional equipment. The weight of the Ballot Tabulator is 15 pounds, the weight of the ATI is 1 pound, and the weight of the Ballot Box with all materials inside is 150 pounds. The Ballot Box has wheels for easy positioning and handling.

- Height: 52"
- Width: 24", 43" with Ballot Marker Table
- Depth: 36"

Each ImageCast precinct tabulator is provided with packaging for storage and transportation. At delivery, each unit is wrapped in a plastic film to prevent static charge accumulation. Foam inserts position the machine and provide vibration and impact protection. Finally, the outer cardboard box is wax coated to provide limited protection from water. The boxes have a printed label for easy identification and are suitable for stacking. These boxes can be used during all handling operations, including shipping to and from the voting station.

The ballot box does not have a protective enclosure. It is robust enough to handle impact, shock and vibration loads associated with surface and air transportation without protection. It can also be directly stacked for storage. At delivery, there is a protective cardboard package intended to eliminate small scratches and dents occurring during transportation.

For delivery to the voting station, the Ballot Tabulator can be mounted to the Ballot Box. The ATI unit can be placed inside.

5.1.4 Explanation of Symbols

The symbol  means "CAUTION: READ ACCOMPANYING DOCUMENTS" and cautions the user to refer to all the instructions and warnings specified in the Instruction Manual before using the product.

The  symbol indicates a cycling type Standby/On switch that only controls part of the equipment (operation from the internal re-chargeable battery): it does not remove the main AC power connection supply.

 CAUTION - There is no Switch for the AC Supply. The only way to disconnect the power supply is to disconnect the external AC Power Supply Charger. The Mains socket-outlet must be located near the equipment and be readily accessible.

5.1.5 Internal Battery types

There are two Li-Ion batteries. On the Motherboard coin battery for real time clock (Panasonic #CF2412BE 3V) and the 18.5V Rechargeable Li-Ion Battery Pack for operation during power outage.

⚠ CAUTION: DISPOSE OF USED BATTERIES ACCORDING TO LOCAL REGULATIONS AND CONVENTIONS.

5.1.6 Internal Battery charging status

The LCD is used to display battery status in the same manner as cell phones.

Table 1: Battery Power Indicator Specification

Item	Attribute	Power Source	Battery Status
1	Power icon displayed, no battery indicator	AC power	Batteries charged
2	Power icon displayed, no battery indicator	AC power	Batteries low or discharged
3	No power icon, full bars in battery icon	Battery power	Batteries charged
4	No power icon, partial bars in battery icon	Battery power	Batteries low

These power status lamps are driven by power control logic within the system.

In addition, there are externally visible LEDs on the front of the unit to determine if a) AC power is connected and b) if a battery is present inside the unit.

Table 3: AC Power Indicator Specification

Item	Attribute	Power Source	Battery Status
1	Green	AC power connected	Batteries charged
2	Flashing Green/Yellow	AC power connected	No battery present
3	Yellow	Battery power, no	Batteries charged

		AC power	
4	Red (unit has been shut down)	AC power connected	Battery charging
5	Flashing Red (unit has been shut down)	AC power connected	No battery present

Notes:

