HOW TO CAST YOUR
V·O·T·E

1 INSERT CARD

Insert the activation card.

2 MAKE SELECTIONS

Make selections on the screen.
Use the **PREVIOUS** and **NEXT** buttons
to navigate through the ballot.

3 REVIEW SELECTIONS

Review all selections on the summary
screen. To make changes, touch the
contest and make selection.

4 PRINT & INSERT

Once selections are confirmed, touch
PRINT. Review the printed card to
confirm your selections.

Insert the card into the tabulator.
A "Thank You for Voting" message will
appear to confirm tabulation.

THANK YOU FOR VOTING

ExpressVote®

Universal Voting System

Easier-to-Read Ballots

Visual aids include high contrast and zoom functionality.

Avoids Overvoting

The intuitive interface also alerts voters of ballot exceptions, like undervotes.

Multilingual

Supports any language in audio and 12+ in text.

1 Insert Card

2 Touch Selections

3 Verify Selections

ADA-Friendly

The front access panel provides ports for headphones and accessibility devices.
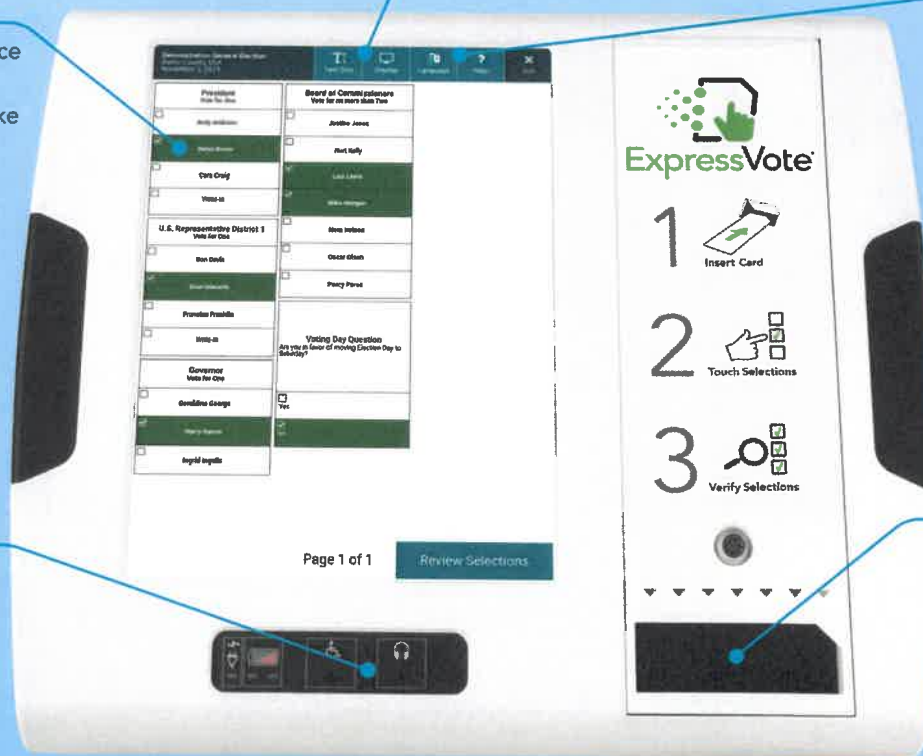
Simple Activation

The voter inserts a card to activate the voting session. After voting is complete, the vote summary card is dispensed for voter review.

A Versatile Solution

- Vote Centers
- Precinct Poll Places
- Early Voting
- Election Day

Together with the ExpressPoll® electronic pollbook and ExpressVote® Printer, you can quickly check in voters and serve up to 15,000 different ballot styles. This means no more picking and pulling ballots or wasted pre-printed stock — voters get in and out faster.

CHECK IN → RECEIVE BALLOT → VOTE → TABULATE

DS200®

Precinct Scanner & Tabulator

Protective Cover

Cover has heavy-duty rubber seal to shelter DS200 from elements during transport.

Easy to Set Up

Lid-up, power-on approach allows poll workers to easily open polls.

Touch-Screen Display

Provides voters with instructions and immediate feedback. Tension bearings hold screen in place for custom positioning.

Ballot/Card Slot

Voters cast both ballots and vote summary cards here; accommodates up to 19-inch ballots.

Auxiliary Ballot Compartment

Main Ballot Compartment

Easy, hassle-free storage of up to 3,500 ballots.

Enhanced Voting Experience

The DS200 is a precinct-based scanner and vote tabulator equipped with the latest in ES&S' patented technology. Fully certified and compliant with EAC guidelines, the DS200 enhances the voting experience for voters and election officials alike. Our patented Intelligent Mark Recognition (IMR®) and patented Positive Target Recognition & Alignment Compensation (PTRAC®) technologies ensure even the most poorly marked ballots are read accurately and consistently — protecting voter intent. All of this is designed to make everyone's job easier.
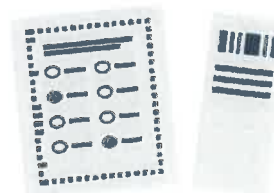
11 14-inch flat ballots processed per minute

Product Testing

PRODUCT DEVELOPMENT

We work from federal testing guidelines, designing tabulation equipment to meet or exceed every requirement.

ADDITIONAL SECURITY TESTING

We voluntarily sent tabulation equipment to be tested by independent cybersecurity labs such as **Idaho National Laboratory**, which works to improve the security of nuclear power facilities, electrical grids and other U.S. critical infrastructure.

PRE-CERTIFICATION TESTING

We internally conduct every test described in the federal guidelines to ensure **zero defects** prior to applying for certification.

FEDERAL CERTIFICATION

The Federal Test Program reviews:

- ES&S' application
- The test plan
- The test report

Following review, the Election Assistance Commission makes a decision on certification.

Federally accredited labs test tabulation equipment as described in the Federal Test Program. These stringent tests require:

1.5 million
consecutive ballot positions
correctly read by tabulation equipment

48 hours of
consecutive environmental tests
with no issues; if any issues, the clock restarts

3+ million
lines of source code reviewed

Full security audit
of the election management software

ES&S has

25

federally certified voting systems

STATE CERTIFICATION

Most states require a state code compliance review and approval by Secretary of State or state board, in addition to federal certification. **Some states require field tests of the equipment before certifying.**

BOTTOM LINE: These strict guidelines and exacting series of tests are developed for one purpose: to make sure systems perform as designed and certified.

Testing & Accuracy

In order to earn EAC certification, voting systems must be tested for conformance to pre-established standards. Certification testing under the EAC's program can only be performed by accredited Voting System Test Labs (VSTLs), which have demonstrated technical competence to test voting systems.

CERTIFICATION TEST PROCESS

The testing generally consists of three phases:

Pre-test Activities → **National Certification Testing** → **National Certification Report Issuance and Post-test Activities**

## CERTIFICATION TESTING

SOURCE CODE INSPECTION

Both manual and automated source code inspections are performed for the following types of inspections: Compliance, Functional, COTS, Security, and Build.

OPERATION ENVIRONMENTAL TESTING

Availability: This tests that equipment will respond to operational commands and accomplish the function. For example, pushing the power button will turn on or off the equipment.
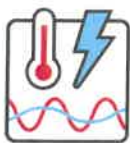
Temperature and Power Variation: This procedure tests system operation, consisting of ballot-counting cycles, under varying environmental conditions for at least 163 hours.

Product Safety: This evaluates the voting system to the requirements set forth in UL-60950-1, "Safety of Information Technology."

Maintainability: The ease with which maintenance actions can be performed.

PERFORMANCE-BASED SYSTEM TESTING

Volume & Stress:
These tests investigate the voting system's response to short term overloads, such as processing atypical high volume of ballots/voters per precinct and processing more than expected number of precincts.

Logic & Accuracy:
This tests the ability of the voting system to capture, record, store, consolidate, and report the specific selections, and absence of selections, made by the voter.

This test requires the system to correctly read **1.5 million consecutive ballot positions without error.**
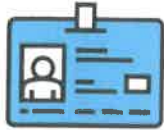
System Integration:
The primary objective of this test is to validate that the voting system functions correctly when all the elements (hardware, software, documentation, etc.) are used together.

SEE ADDITIONAL TESTING ON THE NEXT PAGE

SECURITY

Security requirements apply to the system's hardware, software and documentation. During the Security Tests, the voting system shall be tested for:

Access Control: Procedures and system capabilities that limit or detect access to critical system components in order to guard against loss of system integrity, availability, confidentiality, and accountability.

Physical Security: Measures and procedures that prevent disruption of the voting process at the polling place and corruption of data.

Software Security: Standards that address the installation of software, including firmware, in the voting system and the protection against malicious software.

USABILITY/ACCESSIBILITY

These tests focus on voters and poll workers being able to successfully interact with voting systems.

It ensures general usability with voting systems and alternative language requirements follow state or federal law.

It includes all voters, including those who have physical, sensory, or cognitive disabilities. It also assists those not usually described as having a disability, e.g., voters with poor eyesight or limited dexterity.

HARDWARE ENVIRONMENTAL TESTING

These tests simulate the stresses that voting machines and ballot counters face during storage, transport, maintenance, and repair. Tests include:

- **Bench Handling**
- **Vibration**
- **Low Temperature**
- **High Temperature**
- **Humidity**

ELECTRICAL HARDWARE TESTING

These tests demonstrate the system's ability to be able to continue operating, without damage or loss of data, while facing a range of electrical conditions:

- **Electrical Supply:** Tests the ability to operate with the electrical supply ordinarily found in polling places, central tabulation facilities, or computer room facilities.
- **Backup Power:** Tests that all voting machines are capable of operating with no interruptions for at least two hours on backup power.
- **Electrical Power Disturbances**
- **Electrical Fast Transients**
- **Lightning Surges**
- **Electrostatic Disruptions**
- **Electromagnetic Emissions**
- **Electromagnetic Fields**

PHYSICAL CONFIGURATION AUDIT (PCA)

A comparison of the voting system components submitted for testing to the manufacturer's technical specifications. It confirms that the documentation submitted meets the national certification requirements.
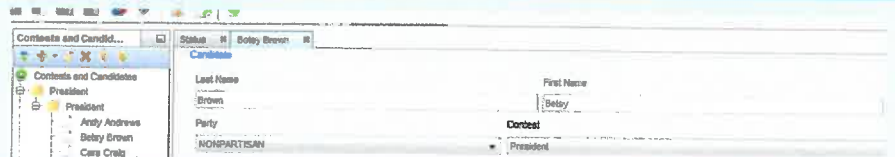
TECHNICAL DATA PACKAGE (TDP) REVIEW

A formal review of the documentation submitted along with the system under evaluation.

How It Works:
Ovals & Barcodes

Candidate names are entered in a software application. This application generates the layout for the oval ballot on paper and for the ballot on the touch screen. It also creates the database that resides on the tabulator to record votes.

PEN WITH PAPER

TOUCH SCREEN WITH PAPER
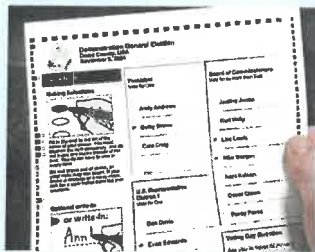
○ **Andy Andrews**

● **Betsy Brown**

○ C

STEP 2:
VOTER MAKES SELECTIONS

Voter makes selections by filling in the oval next to the name of the candidate.
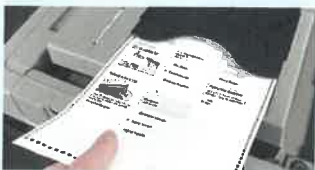
Voter makes selections by touching the candidate's name or by using an assistive device.

STEP 3:
VOTER VERIFIES MARKED BALLOT

The voter reads the text to verify their selections.

A marked ballot is printed. The voter reads the text to verify their selections.

STEP 4:
VOTER CASTS THEIR MARKED BALLOT

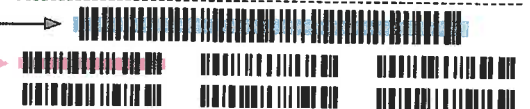Voter inserts the marked ballot into the DS200.

Voter inserts the marked ballot into the DS200.

STEP 5:
TABULATE THE BALLOT

The master barcode identifies the ballot style and contests to be tabulated

Column 9, Row 15, Sheet 1, Side 1 = 091511 = Betsy Brown

DS200 reads a filled oval which corresponds to the grid coordinates of the candidate's name. These grid coordinates are the same coordinates used in the barcode. The DS200 reads the grid coordinates and tabulates accordingly.

```
DEMO COUNTY/DEMO STATE
DEMONSTRATION ELECTION
11/05/2024
PRECINCT 1, PRECINCT 1
```

PRESIDENT----------------------------------
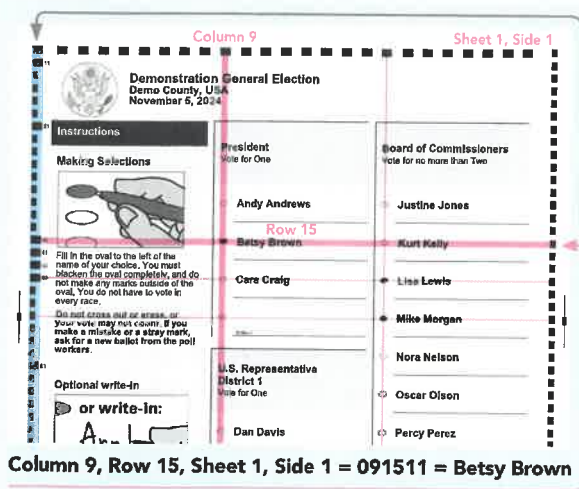   BETSY BROWN

U.S. REPRESENTATIVE DISTRICT 1---------
                                   EVAN EDWARDS

= 091511 = Betsy Brown

DS200 reads the barcode which contains the grid coordinates of the candidate's name. The grid coordinates in the barcode are identical to the grid coordinates on the oval ballot. The DS200 reads the grid coordinates and tabulates accordingly.

BOTTOM LINE: Ballots with ovals and ballots with barcodes are counted by the same tabulator in the same way. The human-readable text of the candidate's name appears on both ballots for voter verification and auditing purposes.

AUDITABLE, ACCURATE & ACCESSIBLE

	PEN WITH PAPER	TOUCH SCREEN WITH PAPER
Auditable by hand and machine	✓	✓
Uses barcodes for tabulation	✓	✓
Undergoes Logic and Accuracy (L&A) testing	✓	✓
Eliminates the ability to overvote		✓
Prevents voters from making unclear or partial marks		✓
Meets and exceeds ADA standards		✓

ANATOMY OF A BARCODE

Every barcode is made up of a series of digits, with each digit from 0-9 represented by black-and-white vertical bars that are scanned faster and more reliably than printed numerals.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
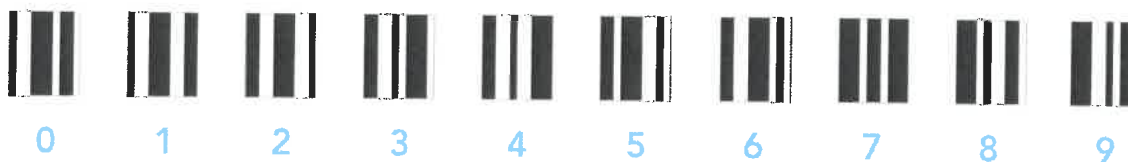
Each digit is represented by a different pattern of black or white bars, with each pattern block made up of the same total number of bars. These blocks have been designed to ensure that they accurately decode to the same number whether the barcode is scanned upside up or upside down.

Barcodes: Trusted, Tested, Universal

Barcodes are used in a variety of applications across a range of industries to improve safety, accuracy, speed and efficiency. Some examples include:

HEALTH CARE

Hospitals have added barcode technology to their medical equipment and patient identification bracelets.

- When health care professionals scan the barcode on a patient's bracelet, this ensures that they are treating the correct patient with the correct procedure or medication.
- Mobile point-of-care solutions lower costs and increase efficiency and patient safety.
- Information from a patient's identification bracelet can electronically access and update the patient's medical charts and transfer that information to the hospital's database system.
- According to a 2010 study published in *The New England Journal of Medicine*, the use of barcodes prevents more than 90,000 critical medical errors each year.

PHARMACIES

The Food and Drug Administration requires certain medications to have barcodes.

- Part of the information stored on the barcode includes the name of the medication, dosage, drug manufacturer and expiration date.
- Barcoded medications help nurses practice the five rights of medication administration, "right patient, right medication, right dose, right time and right route of administration."

MANUFACTURING

Manufacturers leverage advanced data capture and barcode technology to help cut costs, streamline operations and improve quality control.

- Instead of a warehouse worker keying in a part number and entering it incorrectly, they now scan the barcode to accurately capture the correct part number.
- Barcodes help manage inventories wherever they are located, so that the right materials are available when and where they are needed.
- A barcode-scanning system speeds up the inventory reorder process by automatically reordering products or parts when they reach a specific inventory level.

BANKING

Banks use barcodes for credit, loan, deposit or trust documents, as well as bank statements.

- Scanning barcoded documents saves time and quickly sorts and stores customer banking and financial information.
- Routing and account numbers at the bottom of every check are also barcodes and,when paired with cameras on mobile phones, can even be used to make deposits and transactions.

DEPARTMENT OF MOTOR VEHICLES

States have adopted barcodes on basic driver's licenses.

- Driver's license barcodes are used to quickly read information spelled out on the front of the card, such as name, address, license number and classification and date of birth.
- While each state varies in the amount of information in the barcode, scanning the license is a quick and easy way for businesses or law enforcement to identify the person carrying it (or quickly spot a fake).

ELECTIONS
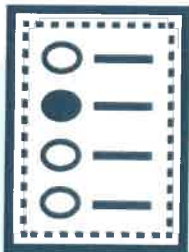
Barcodes and QR codes are universally used by election vendors.

- The use of barcodes allows for the quick, easy and more accurate tabulation of ballots.
- Barcode scanning technologies are tested, certified and proven in tabulation of ballots and summary cards.
- Barcodes, when used in conjunction with human readable text, are fully auditable and verifiable.

How It Works:
Supply Chain Security

ELECTION Systems & Software

ES&S works with leading security experts to create the most secure supply-chain possible — with rigorous inspections at every step — to provide accurate and reliable elections for our nation.

VETTING

Every partner in ES&S' global supply chain must regularly undergo a multi-point, in-depth check for security, safety, reliability and adherence to stringent operating procedures.

ES&S tabulation systems are purpose-built, which means we know and vet the manufacturer of 100% of the individual components.

PRODUCT AUTHENTICATION

All electronic components are certified to Electronic Components Industry Association standards. These standards, developed to fight counterfeiting, are upheld with a 76-point audit of manufacturer and distributor quality management systems.

PHYSICAL SECURITY: ACCESS BADGES, CAMERAS AND 24-HOUR MONITORING

ASSEMBLY

Trusted manufacturing partners inspect the components upon arrival; this includes using high-powered microscopes to look for irregularities.

- Security assessments are conducted on each of our manufacturing partners.
- Key manufacturing personnel have gone through federal background checks.
- All manufacturing partners are ISO-compliant, following highly regulated processes for quality management.

PHYSICAL SECURITY: LOCKED AND SEALED CONTAINERS, SEAL NUMBERS LOGGED AND VERIFIED DURING TRANSIT

IMPORTING

100% of our shipping partners are Customs Trade Partnership Against Terrorism (CTPAT) certified—which is the U.S. Customs and Border Protection's highest level of cargo security.

- CTPAT is the Authorized Economic Operator (AEO) program for the U.S.
- All CTPAT certified distributors are required to demonstrate that their supply chains are secure from the point of origin to the point of distribution.
- Other critical infrastructure sectors, including defense and healthcare, trust and use CTPAT certified distributors.

PHYSICAL SECURITY: ACCESS BADGES, CAMERAS AND 24-HOUR MONITORING

FINAL CONFIGURATION & VALIDATION

Before units are approved for delivery to customers, important steps take place:

- Our systems are tested by an independent, US-based laboratory that completely dismantles units to verify that the firmware on the programmable active components meets all specifications and is quality tested to our exacting standards.
- In Omaha, Nebraska, the final hardware is configured and the final end-to-end QA testing is conducted, which includes installing the certified software and firmware.

PHYSICAL SECURITY AT CUSTOMER LOCATIONS: ACCESS BADGES, CAMERAS AND 24-HOUR MONITORING

DELIVERY & INSTALLATION AT CUSTOMER LOCATIONS

- For transit, tamper-proof seals are placed on truckloads, and access to freight terminals is restricted.
- Upon delivery to customers, the firmware is verified once more.