

DS200

Operator's Guide

Document Version 5.0

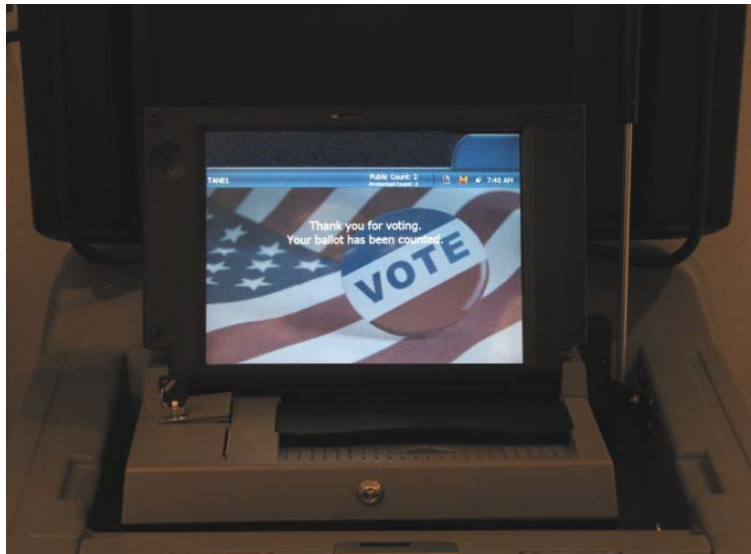
Hardware Version 1.2

Firmware Version 2.9

June 7, 2013

Introduction to the DS200

Use the diagrams and descriptions in this chapter to familiarize yourself with DS200 scanner components and functions. Always scan a ballot test deck before your election to test the scanner for accuracy and to correct any functional errors before you count official ballots.



Reference: See [Chapter 4: Pre-Election Day Tasks](#) for a list of recommended polling place supplies and instructions for assembling and testing the DS200,

The DS200 scanner reads marks on both one- and two-sided ballots. Administrators can request custom ballot acceptance criteria, which ES&S programs onto the scanner's election definition. These ballot acceptance criteria are loaded on a USB flash drive. For example, if a jurisdiction prohibits counting blank ballots, ES&S election coders can program the DS200 to return blank ballots to the voter for review and/or changes.

The DS200 can generate paper reports produced from the scanner's internal thermal printer. The DS200 stores election results on a removable USB flash drive that you can use to transfer scanner results to Election Reporting Manager after the polls close.

Power Source and Battery

An external DC power supply, which plugs into a standard 120-volt AC outlet, supplies power to the scanner. If a power outage occurs, the DS200 contains an internal back-up battery that can run the scanner for a minimum of two hours, depending on scanner activity. The following window appears if the DS200 is not plugged in.



Scanning Ballots

The DS200 can scan ballots inserted in any direction or orientation. Depending on the options set for your election definition, the DS200 will use one of the following methods for accepting or rejecting blank ballots, overvotes and undervotes.

- ❖ **Unconditional acceptance:** The scanner accepts and tabulates results for all ballots. Any contests that are blank, overvoted or undervoted will be logged as such and the remaining contests will be tabulated appropriately.
- ❖ **Unconditional rejection:** The DS200 automatically rejects undervoted, overvoted or blank ballots. Voters must review and correct ballot selections before the scanner will accept the ballot.
- ❖ **Query the voter for correction:** The DS200 returns a questioned ballot to the voter and displays a screen message that describes the problem and prompts the voter to either review and edit the ballot or cast the ballot as it is. The voter presses **Don't Cast - Return Ballot** to correct the ballot or presses **Cast Ballot** to cast the ballot without editing selections. Once **ACCEPT** is pressed, the message **Thank you for voting. Your ballot has been counted.** appears.

Seals and Locks

DS200 Seals and Locks

1. Insert the USB flash drive containing the election definition.
2. Secure the USB flash drive with a seal.
3. Close and lock the front access door. Assure that the front access door is locked and place a tamper evident seal as shown.
4. Insert the USB Backup Memory Device in the rear compartment. If your election rules require the use of a backup memory device, you should secure the USB Backup with a seal.
5. Close and lock the rear access door. Assure that the rear access door is locked and place a tamper evident seal as shown..
6. Close the display and lock. A tamper evident seal may be placed vertically from the lock to the display as shown.



DS200 Carrying Case and Ballot Bin Security Seals

The DS200 carrying case and ballot bin has nine possible locations for wire-type seals.

A. To secure the carrying case to the bin, engage the locks on the sides of the bin between the handles, then place one seal on each side of the bin between the handles (two seals).

B. To secure the ballot bin, assure that both doors are locked and place one seal on each door (two seals).

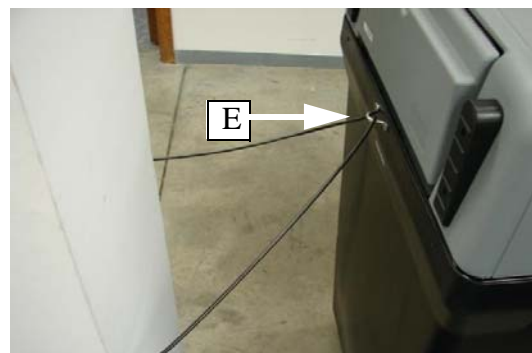
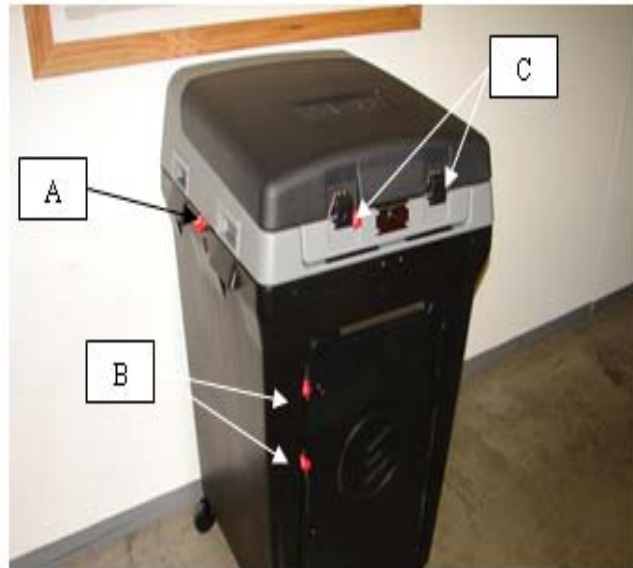
C. To secure the carrying case lid, secure both lid latches and lock the lid using the lock between the two latches. Place at least one seal on the lid latch. There are two locations for seals on each latch. Only one seal should be necessary to secure the lid.

D. To secure the DS200 inside the carrying case, lock the front door and place a seal through the lock bracket.

E. Further polling site security may be attained by using the integrated anchor point on the DS200 Ballot Bin.



Note: ES&S does not recommend any specific lock for this application due to the unknown anchor points at your polling sites. Check with your local hardware, sporting goods or computer supply store for options.



Steel Ballot Box

The steel ballot box has six possible locations for seals.

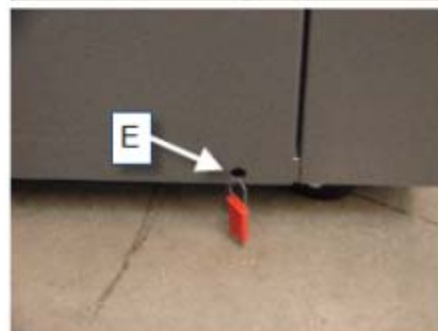
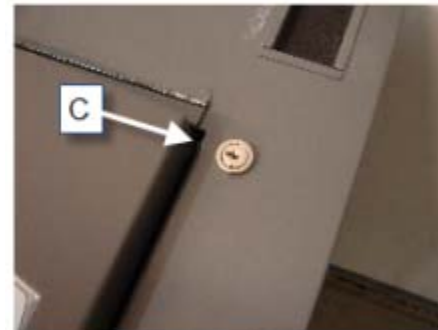
A. Slide the tabulator onto the ballot box rails and secure. A tamper evident seal can also be added for additional security.

B. Access to the emergency ballot bin is limited by this lock. A tamper evident seal can also be added for additional security.

C. When the scanner is in operation the ballot flap must be in the up position. During storage, transportation or periods of higher security, the ballot flap should be in the closed position and locked, using the lock next to the ballot flap.

D. Access scanned ballots through doors located on each side of the ballot box. These doors should be locked, and a tamper evident seal can also be added for additional security.

E. Additional security can be implemented by adding a seal on the bottom of the ballot box door.

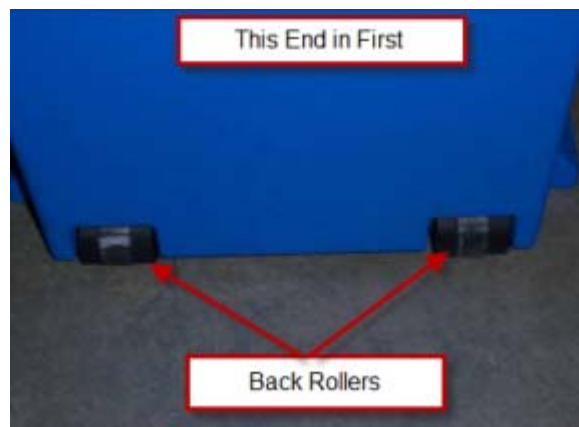


Inserting the DS200 Tote Bin into the Plastic Ballot Box

3. Before inserting the Tote Bin into the DS200 Ballot Box Lower Bin, unlock both locks located on the Top Front and Top Back on the Tote Bin Doors.



4. Align the backside of the Tote Bin so that the Back Alignment Feet are between the Inside Guide Rails.



5. Use the Strap Handle on the front of the Tote Bin to lift up and slide the Tote Bin completely into the Lower Bin. The Tote Bin should slide in until the front of the Tote Bin is even with the opening of the Lower Bin



6. Once the Tote Bin is completely inside the Lower Bin, open both lids to expose the inside of the Tote Bin. The lids should rest on the inside of the Lower Bin.



Note: Both Lids must be opened fully in order for Ballots to properly fall and stack inside the Tote Bin.



Reference: To close and remove the Tote Bin from the Ballot box, see [Closing and Removing the DS200 Tote Bin from the Plastic Ballot Box](#).

Prepare the Counter

After you mount the scanner to the ballot box, there are a number of tasks that you must complete before you open the polls. Because the proper operation of the counter depends on performing the following tasks, it is important to carefully review this section before every election.

Loading New Firmware

Your DS200 should be pre-loaded with the latest firmware version. However, if you need to perform a firmware update please follow the instructions below.



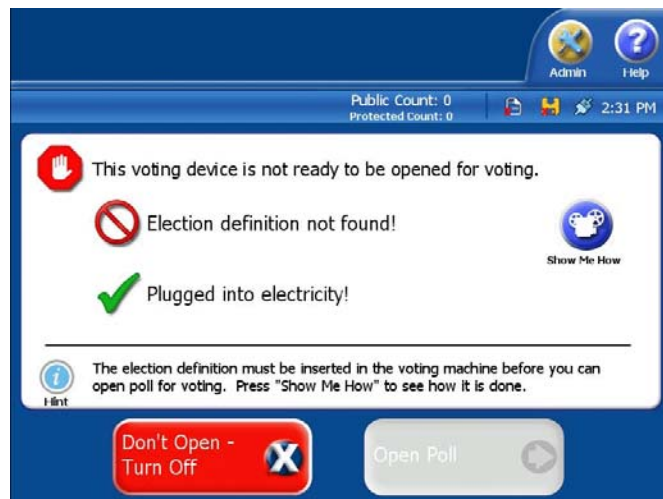
Warning: Only update firmware when approved by your State Election Authority.

To install new firmware on the DS200

1. Load the firmware update onto the USB flash drive.
2. Unlock the access door to the DS200 and remove any USB flash drives. If the DS200 is turned off, press the power button to turn on the DS200.








The Configuration report will print and the following screen will appear.



3. Insert the USB flash drive containing the firmware update into the DS200 (slot A,B or C, under the locked cover next to the printer). An Upload New Firmware screen appears.

Use the following charge guidelines to estimate charge time

 Full battery charge	If the battery shows a full charge, the DS200 does not need charging
 75 percent charge	It should take about 2 to 3 hours of fully charge the battery.
 50 percent charge	It should take about 3 to 4 hours to fully charge the battery.
 25 percent charge	It should take 5 to 7 hours to fully charge the battery.
 No charge	It should take 5 to 7 hours to fully charge the battery.

USB Backup Memory Device

The DS200 supports automatic archiving of the results data through the use of a Backup Memory Device (USB memory stick). The Backup Memory Device is optional, and depends upon the rules your jurisdiction has regarding redundant storage. You may implement the USB Backup Memory Device without any software configuration changes.

To Configure the DS200 to use a Backup Media Device will require you to select a DS200 compatible memory device, with a data size equal to or greater than the Election Media device. This USB memory device is then inserted in the device in the auxiliary USB port, located under the rear locking cover.

Install the Backup Memory Device

1. Unlock and open the rear access door.
2. Locate the auxiliary USB port, and insert the USB Backup Memory Device.
3. Secure the USB Backup Memory Device with a seal.

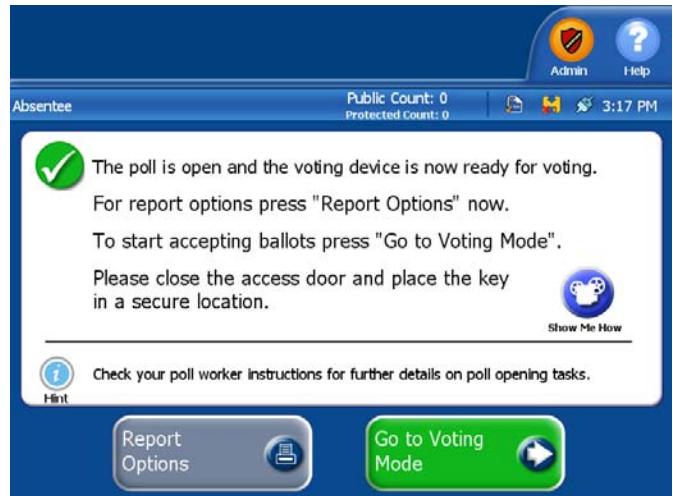


Note: If the security seal is improperly tightened it can result in damage to the USB Memory Device and the DS200.

4. Close and lock the rear access door.

The DS200 prints the Ballot Status Accounting and Zero Reports. Press **Cancel Printing** at any time during printing to cancel the current report. Press **Pause** to pause the report printing Press **Resume** to resume the report printing.

4. After the DS200 finishes printing the startup reports, the following screen appears.
5. If necessary, press **Report Options** to access the reports screen to print additional reports. If you need to print additional reports, skip to the [Report Options](#) section below.
6. Press **Go to Voting Mode**, when the scanner is ready for voting.
7. Close and lock the access panel. After you remove the key, the DS200 scanner is ready for live voting. Make sure that the public counter on the DS200 display screen increases by one with each ballot cast, but do not make any further adjustments to the scanner unless a system message appears.



Open the Polls

After you have inserted the USB Memory Device (if one is required), configured, tested and loaded the election definition. Use the following instructions to prepare the scanners for voting.



Important: Make sure the DS200 is plugged into an AC power source before you turn on the scanner.

1. Unlock the front of the DS200 machine



2. Flip up the LCD screen on the DS200

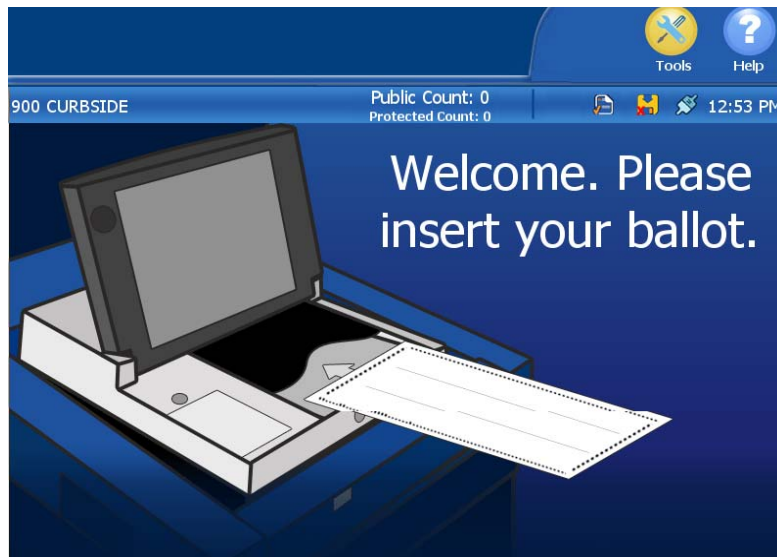
The DS200 unit automatically powers up when you raise the LCD screen and prints the Configuration Report.



3. If your DS200 does not power up, unlock the access door covering the power button.



Voting



Arrange voting booths with the following considerations: traffic flow, voter privacy, safety and accessibility.

Voters will mark their ballots and if applicable, enter their write-in entries in private voting booths. Once a voter has marked a ballot, he or she will place the ballot into the DS200.

The DS200 also has the capability to collect individual graphical ballot images of all ballots. Depending on the options set in ElectionWare, it will collect all ballot images, only those containing write-in votes, or none at all. These ballot images are stored with random names and timestamps assigned to each file to protect voter anonymity.

In addition, the DS200 does not divulge any information identifying how a voter marked a ballot when the ballot is cast. The only visible change in system status after a voter casts a ballot is the visible addition to the public count.



Note: The DS200 ballot bin main storage area was designed to hold approximately 2,500 pieces of paper.



Note: The DS200 emergency ballot bin was designed to hold approximately 100 pieces of paper. This number will need to be divided by the number of pages per ballot to estimate the ballot capacity of the emergency bin.

Assist ADA Voters

Poll workers may be required to assist ADA (Americans with Disabilities Act) voters with using the DS200. For example, a poll worker may be asked by the voter to insert their ballot into the DS200, correct ballot handling exceptions (e.g. undervotes, overvotes, mistakes), or assist with casting a ballot after exceptions have been resolved or accepted by the ADA voter who is unable to interact with the DS200's interface.



Note: AutoMark users can eject their ballot into a privacy sleeve, which can then be transported by the voter or assisting poll worker to the DS200 and inserted into the scanner. If there are no ballot handling exceptions, the DS200 deposits the ballot in the ballot box. If there are exceptions, the poll worker must confirm with the voter that the ballot is to be cast as is. For additional information about the assistance that the poll worker may be requested to provide, as well as the use of a privacy sleeve by the voter, see the *ES&S AutoMARK System Operations Procedures* manual.

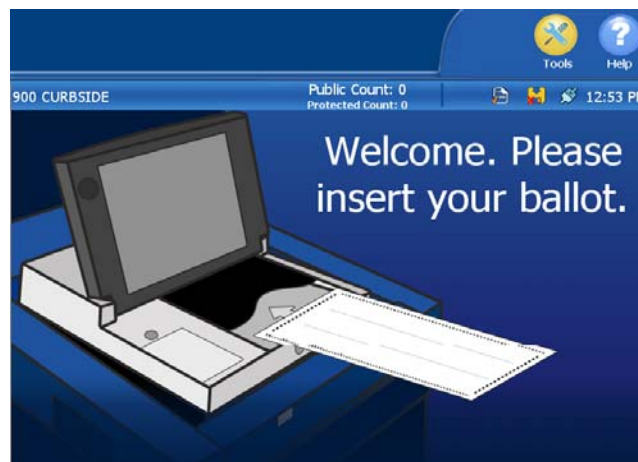
Precinct Selection During an Early Voting Period

The following process allows users to select a precinct when scanning their ballot.



Note: This process is primarily for precinct based, early voting sessions at a voting location conducting a By-Style election. The DS200 MUST have polls opened and be ready for ballot scanning.

1. Insert your ballot into the DS200



2. An authentication prompt appears; enter your pass code.
3. The DS200 prompts you to enter a precinct name; enter your precinct and select **Continue**. You can also search for the precinct.
4. The DS200 displays the matching precinct; select the precinct if it is valid.

Metal Ballot Box

Emergency Ballot Bin

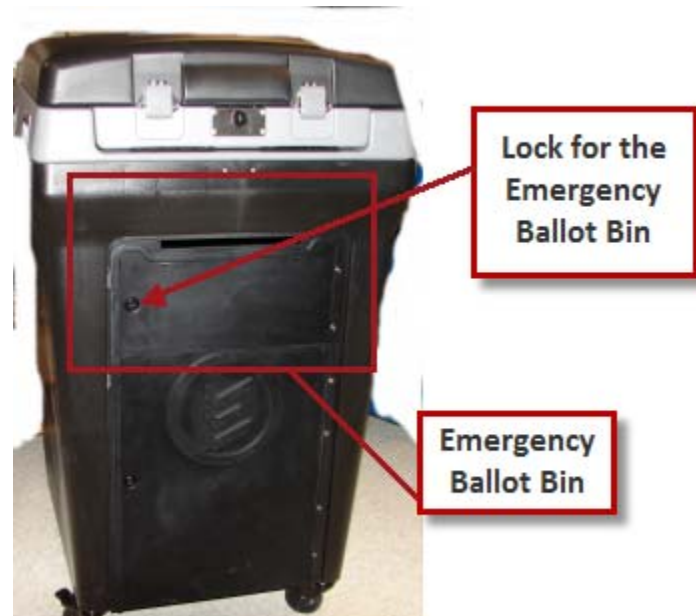
1. Unlock the bottom lock on the front of the metal ballot box.
2. Swing the hinged door on the front of the box down to access the emergency ballot bin.
3. Inspect the uncounted ballots for damage and then feed them into the scanner.



Important: Double-check the back of the bin to make sure that no ballots remain uncounted.

Plastic Ballot Box

1. Unlock the door to the emergency ballot bin on the front of the ballot box.
2. Swing open the door to access the ballots.
3. Inspect the uncounted ballots for damage and then feed them into the scanner.



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Important: Double-check the back of the bin to make sure that no ballots remain uncounted.

Close the Polls

Close your polling place for voting at the assigned time and then, use the DS200 control key to prepare scanner results for processing. You cannot print reports or process vote totals from the scanner's USB flash drive until you properly close the polls.

You can print election, event, and audit log reports after you close the scanner for voting.

1. Check the emergency ballot storage bin for uncounted ballots.



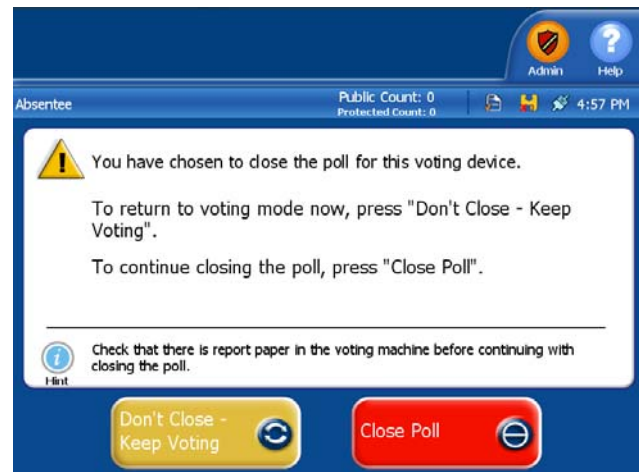
Note: Study your jurisdiction's procedures for handling uncounted ballots before Election Day.



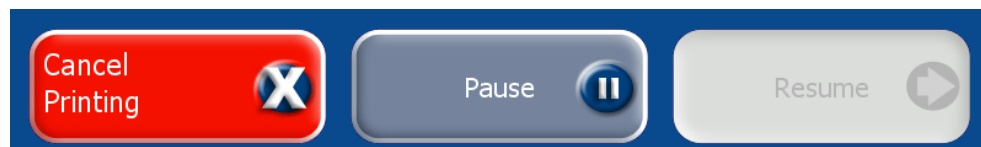
Reference: For more information about removing and processing sorted ballots, see [Handling Uncounted Ballots](#) in this chapter.

2. Unlock the DS200 access door.
3. Press the **CLOSE POLLS** button, located above the power button.
4. Press **Don't Close - Keep Voting** if you do not want to close the polls and continue voting. Press **Close Poll** to close the polls.

Depending on your election configuration in ElectionWare, the scanner may automatically print one or more of the following reports: Ballot Status Accounting Report, Results report, Configuration Report and/or Audit Log report.



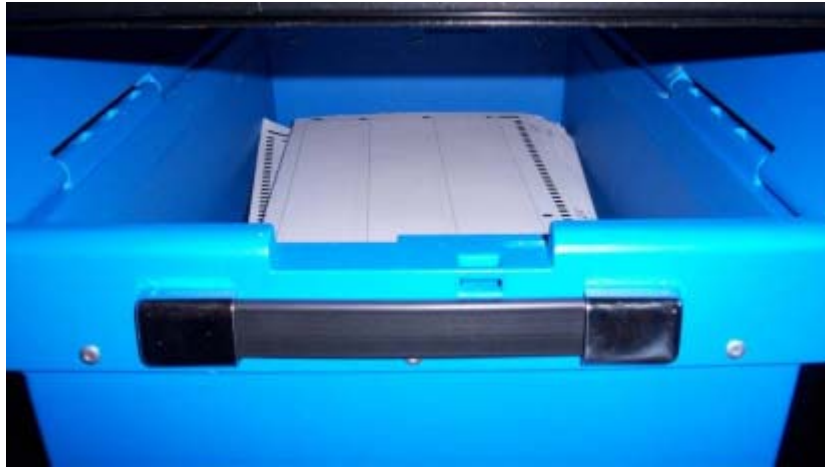
- While the report is printing you will have the option to:



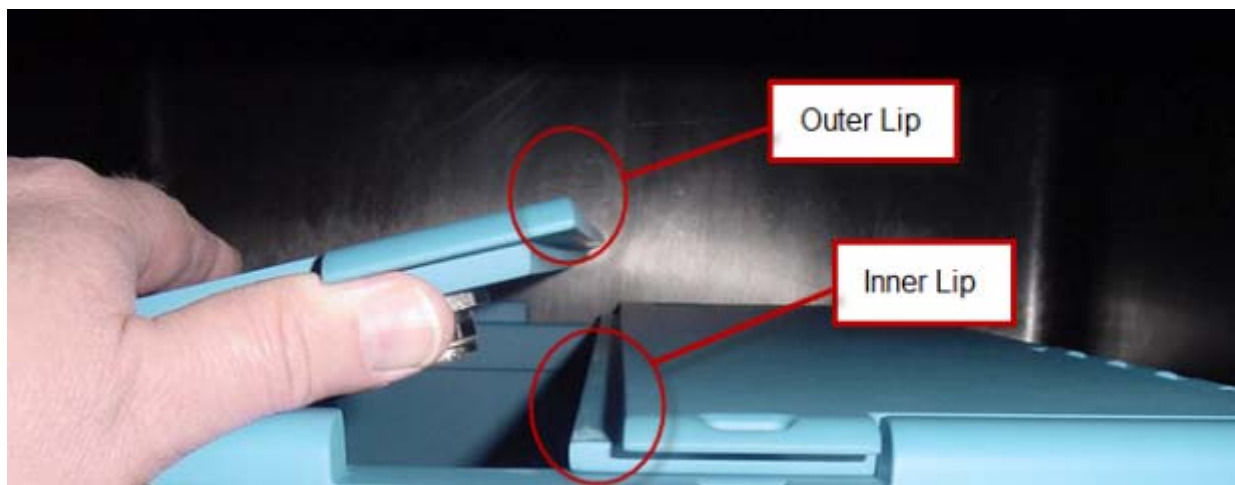
- Press **Cancel Printing** to stop printing the report that is currently printing.
 - Press **Pause** to pause the report that is currently printing.
 - Press **Resume** to resume printing a report that was previously paused.
5. Upon a successful poll close, the DS200 writes the following information to the USB Backup Memory Device if a backup device is in use:

Closing and Removing the DS200 Tote Bin from the Plastic Ballot Box

1. Once the Counted Ballot Capacity has reached approximately 1500 ballots, the Tote Bin has to be changed out. Remove the seal from the Lower Bin Door and record the number.



2. The Tote Bin must be closed before it is removed from the Lower Bin. The Lid Halves have an Inner and Outer Lip to them that mesh together. The bin is designed this way in order to prevent uncounted ballots from being slid between the Lid Halves. Close the Tote Bin by starting from the right side, and then close the left side.



3. Once both lids are closed and while the Tote Bin is still inside the Lower Bin, reach inside the Lower Bin and lock the Top Front Lock.



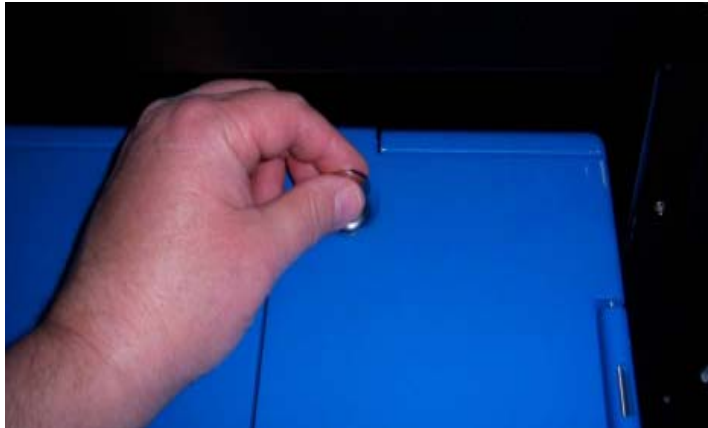
4. Using the Strap Handle on the Tote Bin, pull the Tote Bin out enough to leave the backside still in the Lower Bin.



Caution: Do not pull the Tote Bin out completely as this will drop the backside onto the ground. This action could result in cracking and/or breaking the back Tote wheels.

Caution: Do not deploy the Telescoping Handle as this could result in bending of the Handle to where it would not retract correctly.

5. Once the backside of the Tote Bin has been exposed, lock the Top Back Lock.



6. After both locks have been locked and the seal is applied, continue lifting the Tote Bin out of the Lower Bin by grasping the Strap Handle and the lip on the backside of the Tote Bin.



7. While grasping the Strap Handle, tilt the Tote Bin back slightly so that the Telescoping Handle can be deployed.



Remove Ballots from the Metal Ballot Box



Caution: Follow your jurisdictions guidelines for removing ballots from the ballot bin. Contact your election official for any questions.

1. Unlock and open the door on the front of the metal box to gain access to the ballots.
2. Remove and store the ballots per your jurisdictions guidelines. This includes ballots that were diverted for additional review (exp. write-ins).

Print Election Reports

The DS200 generates a variety of results reports after the polls close. Depending on the options configured for your election definition, the scanner may automatically print reports when you close the polls or you can manually select reports from the POLLS CLOSED screen.

1. Close the polls to access the POLLS CLOSED screen and press **Report Options** to reprint any automatic reports generated when the polls are closed. The types of reports generated depend on your election definition settings.
2. To print additional reports, return to the POLLS CLOSED screen press **Report Options** select from one of the following report options:
 - Ballot Status Accounting
 - Zero Totals (Polling Place or Precinct) - Public or Detailed
 - Voting Results (Polling Place or Precinct) - Public or Detailed
 - Event Log Summary
 - Event Log
 - Configuration
 - System Log



Note: You can configure your election definition to require a code to access the report menus.

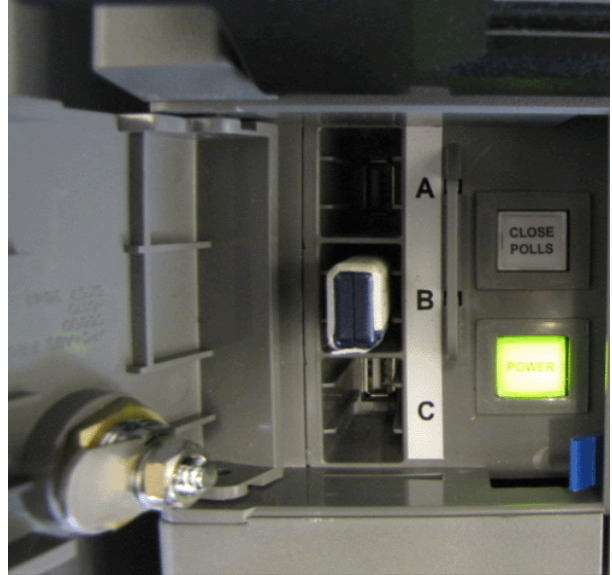


Reference: For descriptions and examples of each DS200 report, see [v Chapter 8: Scanner Maintenance](#).

Transfer Results

If your jurisdiction uses Election Reporting Manager to generate election reports, transfer election results from your scanners to the PC running the reporting software.

1. Unlock the access door. Remove the USB flash drive from the scanner.
2. Follow your jurisdictions guidelines for securing and delivering the USB flash drive to the Election Headquarters.



Post Election Day Tasks

Use the instructions in this chapter to perform the following task after you have run your election.

Note: ES&S recommends that the scanner be stored in the carrying case on top of the ballot bin.



Care should always be observed when moving the DS200, especially if attempting to move over uneven surfaces, stairs, ramps, etc. The lifting handles on the sides of the ballot box can be utilized to stabilize the entire unit while moving the ballot box.

If you need to remove the scanner with the carrying case or only the scanner. Please follow below instructions:

- **Remove the Scanner From the Ballot Box**
- **Remove the Scanner and Carrying Case from the Ballot Box**

Remove the Scanner From the Ballot Box

Use the instructions in this chapter to remove the scanner from the Plastic and Metal Ballot Box.

1. If the unit is still on, power down the scanner.
2. Close and lock the Key Access Panel and Printer Access Panel.
3. Unlock the top hinged panel on the front of the ballot box and swing it down to expose the front of the scanner.
4. Unplug the scanner from the wall outlet.



6. Press down on the two tabs Lock the front of the carrying case.



7. Unlock the left and right sides of the carrying case from the ballot box.



8. Use the side bars on the carrying case to lift the carrying case off of the ballot box.

