DS200 Precinct Ballot Scanner

Pre-Election Day Training Manual

Version Number 1.6.x

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Security Recommendations, ES&S, Omaha, NE

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Checking Supplies and the Equipment

- 1. 1 spool 3” thermal paper per scanner per election
- 2. USB flash drive (1, 2, 4 or 8 GB)
- 3. Ballot marking devices
- 4. 2 pressurized cans of air
- 5. 1 clean lint-free cloth
- 6. 1 bottle of Isopropyl rubbing alcohol
- 7. 1 set of DS200 scanner keys
- 8. 1 ballot box per scanner with keys
- 9. DS200 power cord
- 10. Extension cord if required

Cleaning the Scanner

- 11. Remove the scanner and power cord from the carrying case.
- 12. Clean the ballot entrance and exit slots with a can of pressurized, clean, dry air. Aim the air spray tube into the ballot entrance and exit slots and blow out all the debris.
- 13. Use the cloth and cleaning solution to clean the outer casing of the scanner.
- 14. Use a lint-free cloth and isopropyl alcohol to clean the LCD touch screen.
- 15. Wipe all traces of the cleaning solution after cleaning.
- 16. Unlock the rear access door on the back cover of the DS200.
- 17. Once this door is unlocked and the back cover of the DS200 is raised, the ballot transport mechanism can be opened.
18. Lift up the latches on the left and right side of the ballot transport and lift the top cover to access the ballot area.

19. Use a lint-free cloth and isopropyl alcohol to clean the glass surface of the contact image sensors.

20. Wipe the rubber rollers on the bottom surface of the ballot transport.

21. Close and lock the rear access door.

Cleaning the Ballot Box

22. Wipe dust and debris out of both of the ballot box’s bins.

23. Clean the outside of the ballot box with a soft cloth.

Attaching the DS200 to the Ballot Box

24. Unlock and open the Counter Access Panel. Place the scanner about 1/4 of the way into the recessed area and slide it on the mounting rails until it is four to five inches from the back of the recessed area.

25. Inspect the power cord for damage. If the cord is damaged, discard it and contact your election official or ES&S for a new cord.

26. Thread the cord through the opening on the back of the ballot box until it appears inside the opening at the top recessed area.

27. Plug the power cord into the power port on the back of the scanner (flat side of the plug facing up) and then plug the AC power cord from the external power supply into a 120-volt wall outlet.

**WARNING:** Only plug the scanner into a grounded, three-pronged electrical outlet. Plug only one scanner into an outlet. ES&S recommends that you do not use an extension cord.
28. Slide the scanner until it is against the back of the ballot box.

29. Close and lock the Counter Access Panel in the UP position.

**NOTE:** On the back of the ballot box, there is a bar that controls the flap entrance to the ballot box. Assure this bar is in the down position so ballots can pass into the ballot box.

**Changing the Paper in the Scanner’s Internal Printer**

**NOTE:** ES&S recommends that you begin each election with a new, full roll of paper on every scanner.

30. Unlock and open the DS200 screen.

31. Unlock the access door, located above the printer. This will allow you to access the printer release lever.

32. Press the lever to unlock and open the printer door.

33. Drop the paper into the printer paper compartment.

**IMPORTANT:** Make sure the glossy side of the thermal paper is facing the thermal printer.

34. Pull the end of the paper roll out toward the ballot input tray of the DS2000.
35. Close the printer door by pressing firmly to assure it locks into place.

**Loading the Election Definition and Ballot Image Flash Drives**

USB flash drive stores the scanner’s election definition and ballot count.

- 36. Lift the access door on the front left of the scanner to access the USB flash drive areas A, B and C
- 37. If necessary, remove the protective plastic covering of the USB flash drive containing your election definition or ballot images.
- 38. Insert the flash drive(s) into a slot. Do not force the flash drive into the slot – the ES&S label should be facing the left.

**NOTE:** The flash drive has a slot on top for a wire seal. If wire seals are used to secure the device, route the wire through this slot and through the associated seal hole on the tab next to the flash drive well.
**Initial State Report**

Once the Election Definition is loaded and recognized by the scanner, the Initial State Report will print.

- The Initial State report is automatically generated when the DS200 is turned on and an election definition flash drive is accessible. Assure this information is correct:

  - Current Date and Time
  - Election Name
  - Election Date
  - Polling Place Information
  - Number of Precincts
  - Diverter Installed
  - Report Type
  - Ability to Reopen Polls
  - Configuration for:
    - Over voted Ballots
    - Blank Ballots
    - Cross-over Ballots
  - Ballot Information

**NOTE:** If any of the information is incorrect, contact ES&S for assistance and or instructions.
Checking the Scanner’s Battery

The DS200 uses an 18-volt, 5 amp lithium ion battery to power the scanner in case of an electrical power failure. A fully charged battery can power an active scanner for two to three hours.

☐ 46. To externally check the charge of the backup battery, view the indicator light at the back of your DS200 machine.

- Green Light = Battery is charged
- Amber Light = Battery is charging
- Flashing Red Light = Battery is defective or not hooked up

NOTE: For a detailed listing of all battery light indicators, refer to the System Operations Procedures manual.

You can also check the battery charge on the screen by viewing the Battery Power Icon.

☐ 47. After the scanner powers up, a screen will appear depending upon the election definition flash card.
48. The Battery Power Icon is located in the upper-right area of the screen. You may find different icon pictures depending upon the battery status and if the unit is currently plugged in or running on battery.

- Full Charge
- 75% Charge
- 50% Charge
- Battery Not Charged

**Charging the Scanner’s Battery**

The amount of time to charge a battery can be up to seven (7) hours.

49. Plug the scanner into an outlet. An election definition flash drive is not required to charge the battery.

**Setting the Date and Time**

50. From the Administration menu, select **SYSTEM SETTINGS** to access the System Settings menu.

51. Press **DATE and TIME**.

52. Press the button of the information to be changed to access the specific data for the type of information.

53. Adjust the date, time or time format.

54. Press **PREVIOUS** when you have set the correct information.

55. Press **ACCEPT NEW TIME** to save the information.

**NOTE:** Any changes to the Time Zone will prompt the DS200 to automatically power down. The user will need to power up the equipment using the power button.
**Viewing the Front and Back Ballot Image**

- 56. From the Administration menu, choose the **BALLOT DIAGNOSTICS** option.

![Administration Menu]

- 57. Scan the ballot to be viewed and choose the type of view to display from the Ballot Diagnostics screen.

![Ballot Diagnostics]
**Testing the Election Definition**

Use options from the Election Test Menu to verify the election definition and check the system counting logic.

**NOTE:** Testing can be done manually in the same manner as Election Day processes. See Appendix B to Test manually.

- 58. If not already in the Administration Menu, press the arrow button in the lower right hand corner the press the **GO TO ADMIN** button to access the Administration Menu.

- 59. Choose **ELECTION TEST** from the Administration Menu.

- 60. Select **SCAN BALLOTS** from the Election Test Menu.

- 61. Insert the Test Deck of ballots into the scanner one at a time. The DS200 can scan ballots inserted in any orientation. As ballots are scanned, the Election Test Count will increase by one for each ballot inserted.

- 62. After you finish scanning test ballots, press the **PREVIOUS MENU** button to return to the Election Test Menu.
63. From the Election Test Menu select one of the following options to generate reports for the testing:

- Status Report – this report includes the number of ballots processed, the ballots counts for each precinct and the totals for the polling place.

- Precinct Reports – these reports includes the results for each contest broken down by precinct. The Media report will not include counts for over and under votes while the Summary report will break out those counts.

- Poll Reports – these reports includes results for all precincts in a single report. The Media report will not include counts for over and under votes while the Summary report will break out those counts.

64. Verify your results by comparing the Test Deck results to the DS200 printed report results.

- If the results match, Zero the Totals, then press Shutdown to turn off the DS200.

- If the results do not match, review the test ballots for errors, zero the totals and repeat the test by repeating steps 58 – 64.

- If the results do not match after the 2nd test, contact ES&S.

65. If your jurisdiction modems results on election night be sure to test the modems as part of testing the election definition (See Appendix C for instructions). If you do not modem results go to step 66.

### Clearing the Test Results

- 66. From the Election Test Menu, choose **ZERO TOTALS**.

- 67. Confirm you want to zero totals by pressing Yes.

- 68. An audible alert will sound showing the counters were cleared. Press OK to return to the Election Test Menu. Then press Previous to return to the Administration Menu.

### Shutdown

- 69. Shutdown the DS200 by pressing Shutdown. Store in accordance to your county’s procedures.

**WARNING:** Do Not Remove the DS200 flash drive before the equipment is completely powered off (the Power button will not be luminated). Prematurely removing the flash drive could result in damage to the equipment.
APPENDIX A

Calibration of the Touch Screen

NOTE: The DS200 should be off to begin the calibration process.

☐ Some DS200 units may be programmed to automatically power up when you raise the LCD screen. If your DS200 does not power up, unlock the switch door covering the power button.

☐ Unlock the access door, located above the printer.

☐ Once the DS200 has powered up, press and hold the CLOSE POLLS button (top button) until the button lights up. The calibration screen will appear.

NOTE: You must IMMEDIATELY press and hold the Closed Polls button once the DS200 initializing screen appears.

☐ On the calibration screen, press the circle in the upper-left corner. The circle will turn black. Then press the circle in the lower-right corner that circle will turn black and a confirmation screen will appear.

☐ From the confirmation screen press SAVE & EXIT to save the calibration settings or press RECALIBRATE to repeat the calibration process.

NOTE: You can also calibrate the touch screen by pressing the Close Polls button from the Open Polls screen
APPENDIX B

Testing Manually

- From the initial screen press **OPEN POLLS**.
- Choose the type of Zero Report – Totals Only or All Precincts.
- Scan Test Deck of ballots through the DS200.
- Once the ballots have been scanned, **CLOSE POLLS** by pressing the Close Polls button (top button).
- Compare the Results Report with the Test Deck results to assure scanning and tabulation are working correctly.
- Should the results not match clear the results and re-run the test. If the test results do not match on the second test, contact ES&S for assistance.
- If your jurisdiction modems results on election night be sure to test the modems as part of testing the election definition (See Appendix C for instructions). If not continue to clear test results.

Clearing the Manual Test Results

- From the Polls Closed menu, choose Reopen Polls.
- Enter the reopen password using the keyboard, press enter.
- From the Reopen Polls menu, chose **CLEAR COUNTS**.
- Confirm the clearing of counts by pressing **YES** to continue.
APPENDIX C

If your election is programmed to automatically modem election results follow the steps below:

☐ Use the key to open the back access panel of the DS200.

☐ Insert one end of the phone cord into the modem jack.

☐ Insert the other end into a nearby phone jack.

☐ Check the ballot auxiliary bin for any ballots.

☐ Unlock the DS200 access door.

☐ Press and hold down the CLOSE POLLS button located about the power button.
The DS200 connects to the server and uploads the election results.

A “Successfully Transferred Results” message will appear if there are no issues with the transfer.
If you are not set up to automatically transmit results, take the following steps to **manually** transmit your results:

- Use the key to open the back access panel of the DS200.

- Insert one end of the phone cord into the modem jack.

- Insert the other end into a nearby phone jack.

- The **Change Modem Phone Number** screen appears. Press **NO** if you do not want to change the modem phone number and the transmission continues. Press **YES** if you want to change the modem phone number.
The Modify Phone Number screen appears if you selected YES to change the phone number. Enter the desired number and press Enter.

NOTE: After you press Enter, the transmission continues. If the modem phone number is left blank the system defaults to the number originally set in the election definition.

The POLLS CLOSED screen appears.

From the POLLS CLOSED screen, press Modem Results.
☐ If prompted enter the **Data Transmission Code** and press **Enter**.

☐ The DS200 will attempt to dial the host server, if needed press **Cancel** to stop the transmission.

![Keyboard Image](image)

☐ Once the transmission has transferred the result the following screen will appear.

![Sending Results to the Host](image)

☐ Press **OK** when the results have been transferred.