

Logic & Accuracy Testing

**Instructions for the pre-election testing of
Optical Scan, ExpressPoll and Touch Screen
Voting Equipment in Georgia**

Version 1.4

Version 1.1, revised June 1, 2010.

Language added to Step 36 in the Touch Screen Unit Testing section (page 32) pertaining to magnifying each ballot style during testing to verify that each ballot style will load without incident when magnified by the voter. (June, 2010).

Version 1.2, revised August 16, 2010.

Instructions for testing of Bar Code Scanner added.

Replaced the testing of un-voted optical scan ballots with the testing of fully voted optical scan ballots.

Version 1.3, revised July 29, 2015.

Added instructions for verifying and changing Optical Scanner date and time settings.

Version 1.4, revised October 13, 2015.

Added instructions for County Elections Equipment Issue Form.

The procedures and guidelines outlined in this document are meant to assist elections office employees in performing the tasks required of them by the Official Code of Georgia Annotated, Georgia State Election Board Rules, and Georgia Secretary of State Rules in preparation for, and execution of an election. All procedures required of an elections office may not be outlined in this document. The Center for Election Systems and Kennesaw State University make no representation that this document is a complete or authoritative treatment of the material contained therein, or of the Law and Rules governing the elections process. The execution of an election is the sole responsibility of the jurisdiction's election superintendent.

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Overview of Logic and Accuracy Testing

Logic and Accuracy (L&A) Testing is a collection of pre-election procedures that insure that the voting equipment and ballots to be used in an upcoming election can properly display the ballot, collect votes, and tabulate results. Usually referred to as L&A, these tests occur prior to the election and are conducted in such a way as to make public observation of the procedures and results possible.

The historical purpose of L&A was to permit candidates, parties and the public to review ballots and lever machine programming prior to the election. The purpose was to demonstrate that the ballot was accurate, complete and votes cast could be properly tabulated.

Rules Governing Logic and Accuracy Testing

Logic and accuracy testing (L&A) of voting equipment prior to any election or primary is required by law in the state of Georgia (OCGA §21-2-374(b); §21-2-379.6(c)). Under the law, the State Election Board of Georgia (SEB) has the authority to establish rules governing the testing process. SEB Rule 183-1-12-.02(3) and its subsections outline the operations that are to be tested during the L&A process. L&A tests are the responsibility of the local election superintendent (OCGA §21-2-374(a); §21-2-379.6(a)).

Logic and accuracy testing is done to confirm that voting equipment “will correctly count the votes cast for all offices and on all questions” (OCGA §21-2-374(b); §21-2-379.6(c)).

Tests being performed to ascertain whether voting equipment will correctly count the votes is to be open to the public (OCGA §21-2-374(b); §21-2-379.6(c)). Public notice of the time and place of the test shall be made at least five days prior to the beginning of the test, however, that, in case of a runoff, the public notice shall be made at least three days prior thereto (OCGA §21-2-374(b); §21-2-379.6(c)).

Public notice should be placed in the Legal Organ of the jurisdiction conducting the testing. The notice must outline the starting time and location of the testing. The notice does not have to include an ending time for the testing.

The preparation and testing of voting equipment is to be open to members of the public to observe; however such members of the public shall not in any manner interfere with the preparation and testing of the DRE units. Thus to prevent any interference by the public when observing, the election superintendent may make such reasonable rules and regulations concerning the conduct of those members of the public wishing to observe. These rules shall not prevent members of the public from fairly observing (SEB Rule 183-1-12-.02(3)(b)(1)(i)).

In addition to establishing any reasonable rules and regulations for observing, the election superintendent shall during the first day of preparation, at the beginning of the day or for the first hour of public observation be available to explain the process and respond to questions and provide answers (SEB Rule 183-1-12-.02(3)(b)(1)(i)(a)).

Additional responsibilities for the election superintendent during L&A testing:

- SEB Rule 183-1-12-.02(3)(b)(1)(i)(b) – maintain a presence at all times when an outside source is used.
- SEB Rule 183-1-12-.02(3)(b)(1)(i)(c) – administer an oath of custodian to those conducting the L&A tests, if the person is not a permanent elections staff member.
- SEB Rule 183-1-12-.02(3)(b)(1)(i)(d) – establish an area where the public can observe the process.
- SEB Rule 183-1-12-.02(3)(b)(1)(i)(e) – allow only election officials and those conducting tests into the testing area.
- SEB Rule 183-1-12-.02(3)(b)(1)(i)(f) – prohibit the photocopying of any testing reports containing DRE seal number or serial number information for public disclosure.
- SEB Rule 183-1-12-.02(3)(b)(1)(i)(g) – prohibit DRE security seals or serial numbers from being photographed for public disclosure.
- SEB Rule 183-1-12-.02(3)(b)(1)(i)(h) – prohibit photographic and audio equipment, including cell phone cameras from being used to record DRE security seals or serial numbers, provided that this rule does not prohibit the news media from reporting on the testing process, so long as DRE security seals or serial numbers are not recorded or displayed in any fashion.
- SEB Rule 183-1-14-.02(2) - provides that testing be done in accordance with SEB Rule 183-1-12-.02 prior to DRE units being used for absentee balloting and that in accordance with O.C.G.A. 21-2-379.6 and SEB Rule 183-1-12-.02 public notice is posted prior to such testing.

County Elections Equipment Issue Form

The primary purpose of performing Logic and Accuracy testing on Elections equipment is to ensure all equipment used in an Election is in good working condition and functions as expected for displaying, collecting votes and tabulating results. Below is a list of items to be tested during an Election:

- Touchscreen Units
- Optical Scan Units
- Express Poll Units
- Bar Code Scanners
- TS Network Cards

The best time to inspect and test equipment is during the L&A process since every piece of equipment used during an Election is required to be tested.

While performing the physical inspection of the equipment and performing other functions such as testing a TS card reader, printing tapes and scanning ballots on the equipment during L&A counties should record any equipment failures on the “Elections Equipment Issue Form.” A copy of the form should be attached to the failed unit and a copy given to the Elections Supervisor. The Elections Supervisor will decide the proper action to be taken regarding the equipment.

- If the unit is to be repaired arrangements should be made to send the unit to ES&S for repairs.
- If the unit is to be disposed of complete the proper paper work as required by SOS office.

The form can be downloaded from KSU website, elections.kennesaw.edu.

Memory Card Preparation

Materials Needed

- Optical Scanner memory cards with new batteries
- Touch Screen memory cards
- Optical Scanner
- Touch screen unit

Clearing Previous Election Data from OS and TS memory cards

Before data for an upcoming election can be placed on an optical scan (OS) memory card or on a touch screen (TS) memory card, the data contained on the memory card from the previous election must be removed. OS memory cards have a battery that must be replaced before any election or primary. Make sure the memory card's batteries are new.

To clear the data from an OS memory card the steps are as follows:

1. Insert the OS memory card into the OS unit
2. Hold down the YES key and power the unit on
3. Release the YES key
4. When the unit reads "Supervisor Functions?", press YES
5. When asked for a password, press YES four times in a row
6. Press NO in response to all questions posed by the OS unit until the OS unit asks "Clear Memory Card?"
7. Press YES
8. When told to remove memory card simply power the OS unit off
9. Remove the cleared memory card

To clear the data from a TS memory card the steps are as follows:

1. Insert the TS memory card into the TS unit
2. Turn the TS unit on
3. The TS unit will indicate at the top of the screen display what mode (pre-Election, Election, or post-Election) the memory card is in by showing the corresponding screen.
4. The memory card should be in the post-Election mode
5. Insert the green Supervisor Card into the card slot
6. Enter the six-digit password; then press OK
7. Touch the button on the Supervisor screen labeled "Delete Election"
8. A warning will appear on screen asking if the user does intend to delete the data
9. Touch OK to proceed
10. The TS unit will ask if there are more memory cards to delete, DO NOT ANSWER THIS QUESTION!
11. Remove the cleared memory card from the TS unit
12. If there are more TS memory cards to clear, insert them into the TS unit and repeat steps 8-11

Creating OS and TS memory cards for an Election

Follow these steps to download the election information to both the Optical Scan and Touch Screen memory cards.

Materials Needed


- GEMS server
- OS unit
- Serial cable to connect OS unit to server
- TS unit
- TS network card with cable
- TS memory cards
- OS memory cards with new batteries
- Paper tape rolls for the OS and TS units
- Roll of transparent tape

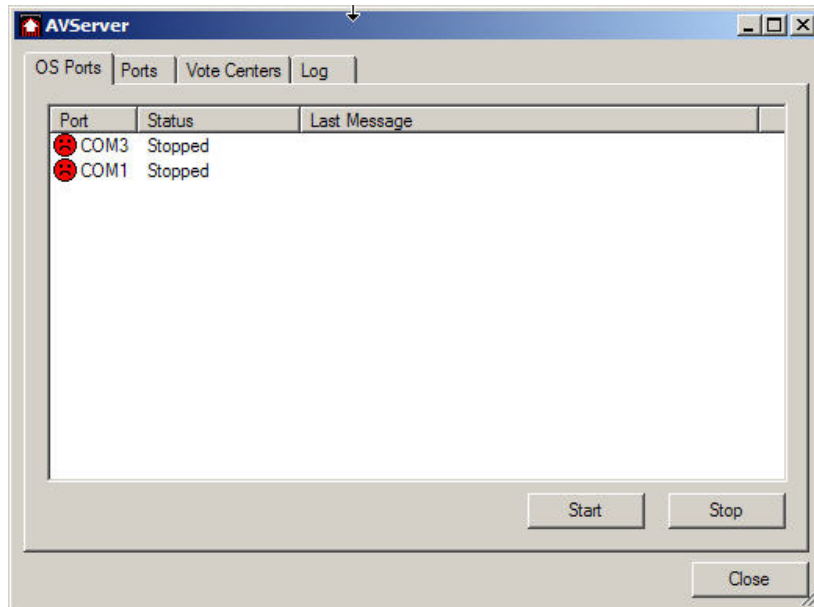
Preparing the Equipment

1. Have an Optical Scan unit connected to the GEMS server with the serial cable
2. Insert an OS memory card that has been cleared of any previous election data
3. Turn the Optical Scan unit **ON**
4. Have a Touch Screen set up next to the county server
5. Unlock the side door of the Touch Screen and insert the network card into a card slot
6. Verify the network cable connected to the network card is plugged into the GEMS server
7. Insert a TS memory card that has been cleared of any previous election data
8. Turn the Touch Screen on
9. Unlock and remove the printer covers from both the TS and OS units

Creating an OS Memory Card

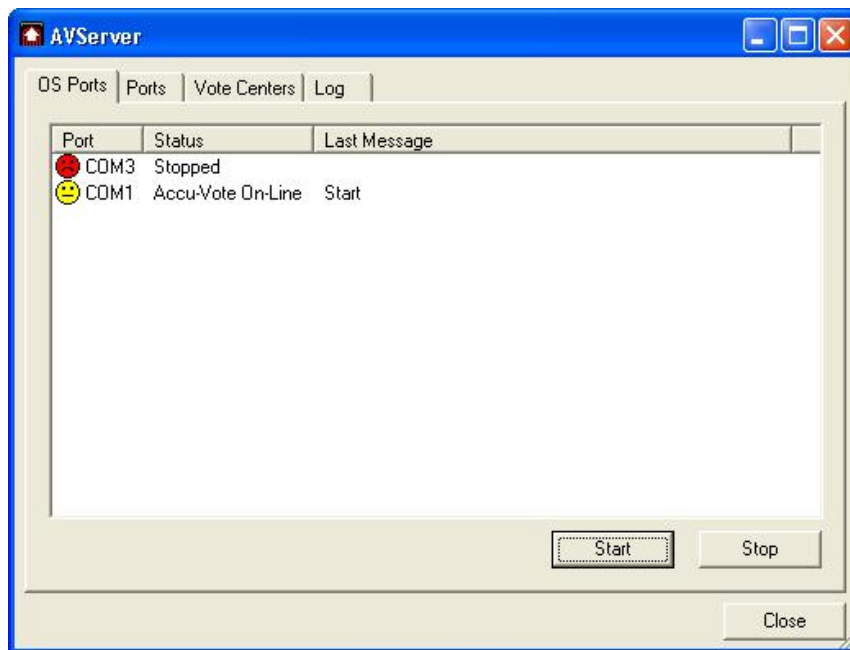
On the GEMS server, open the election database

10. On the tool bar click the  icon button. This will open the AVServer window (Figure 1).



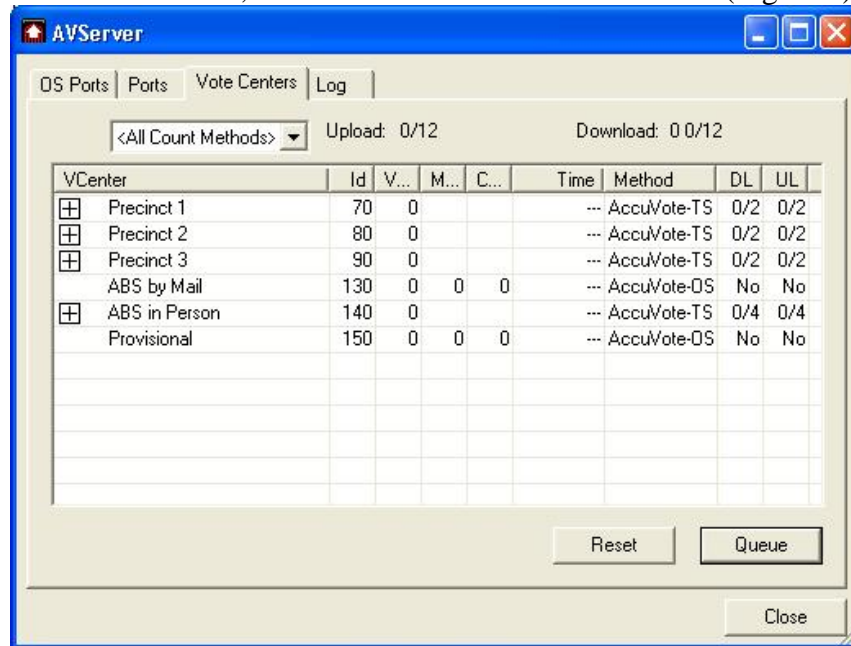
(Figure 1)

11. On the **OS Ports** screen, click on all the **COM** ports to highlight them, and click **Start** (the correct port will be indicated with a yellow “smiley” face).



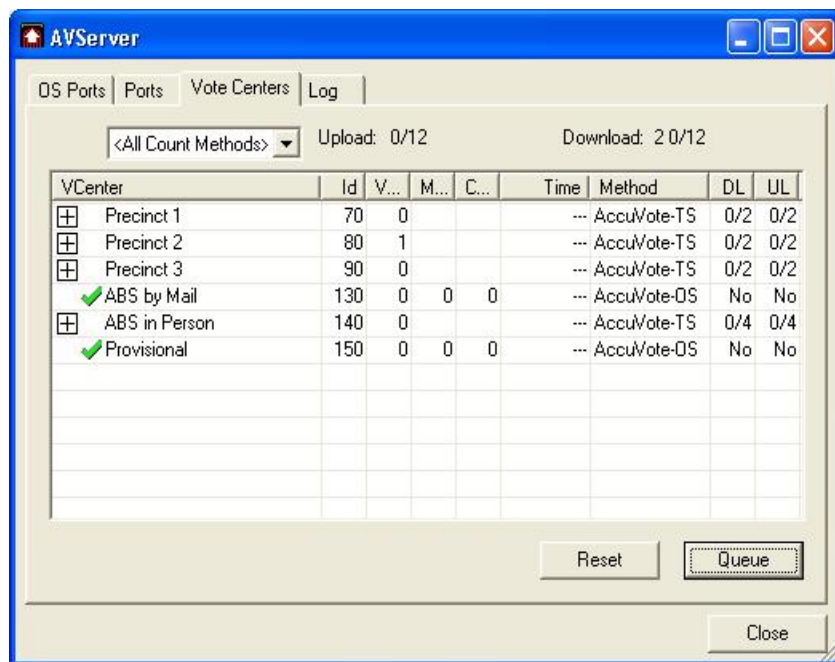
(Figure 2)

12. Click the **Vote Centers** tab, notice that all vote centers are listed (Figure 3).



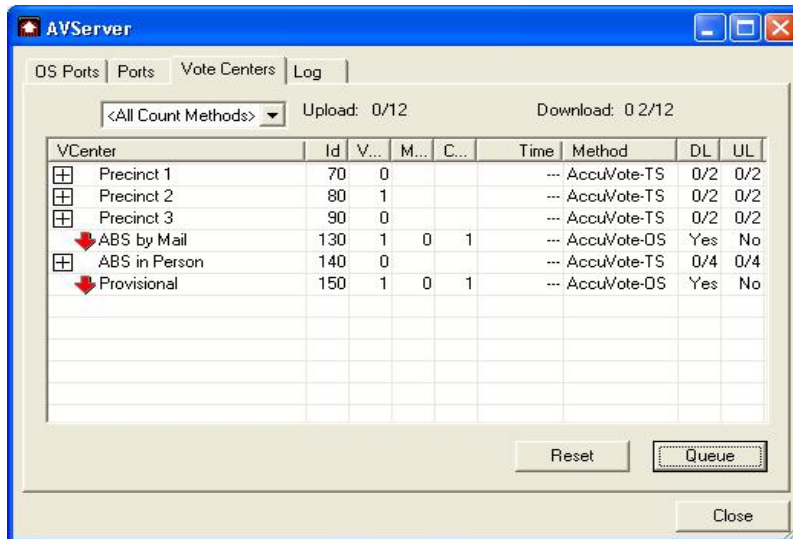
(Figure 3)

13. Click on the ABS by Mail and/or Provisional Vote Centers, or the “+” button to show the list of memory cards assigned to each vote center, and highlight the memory cards to be downloaded, and then click **Queue**. A red Q will briefly appear next to the memory card and then it will change to a green check mark (Figure 4) when the card is ready to be downloaded.



(Figure 4)

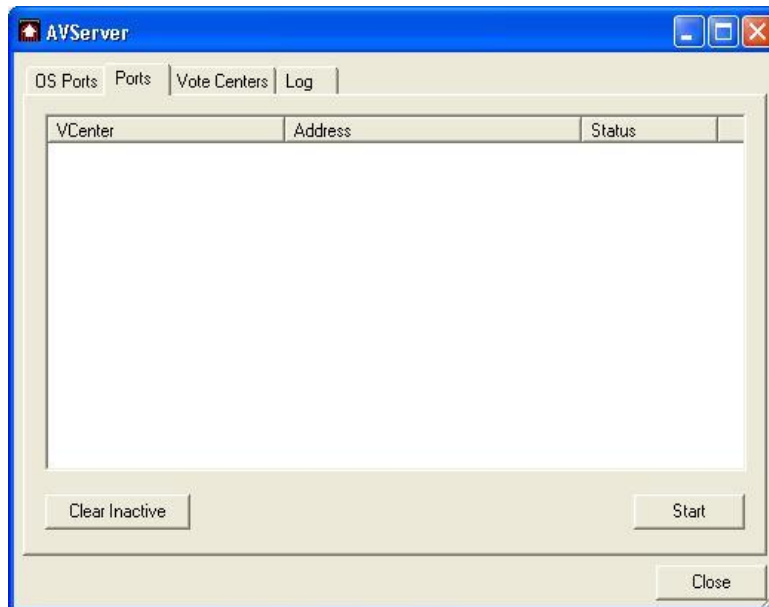
14. Once the OS memory cards assigned to the ABS by Mail and Provisional vote centers are queued, read the LCD screen on the OS unit.
15. When the OS unit's LCD screen displays "**PROGRAM MEMORY CARD BY DIRECT MODE?**", press the **YES** button.
16. The downloading will start and when it is finished a red arrow will replace the green check and a label to be taped to the memory card will be printed.



(Figure 5)

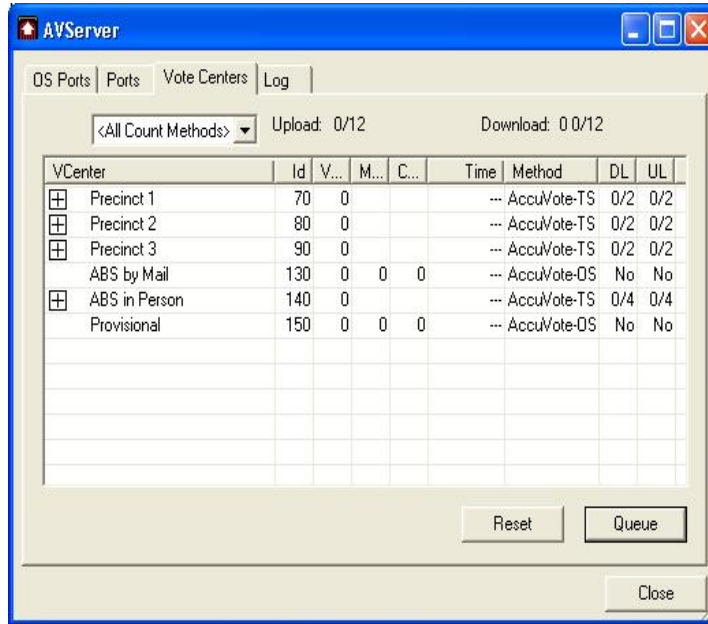
Creating TS Memory Cards:

17. To prepare TS memory cards the same queuing process is used.
18. Click on the **Ports** tab then click on the Start button.



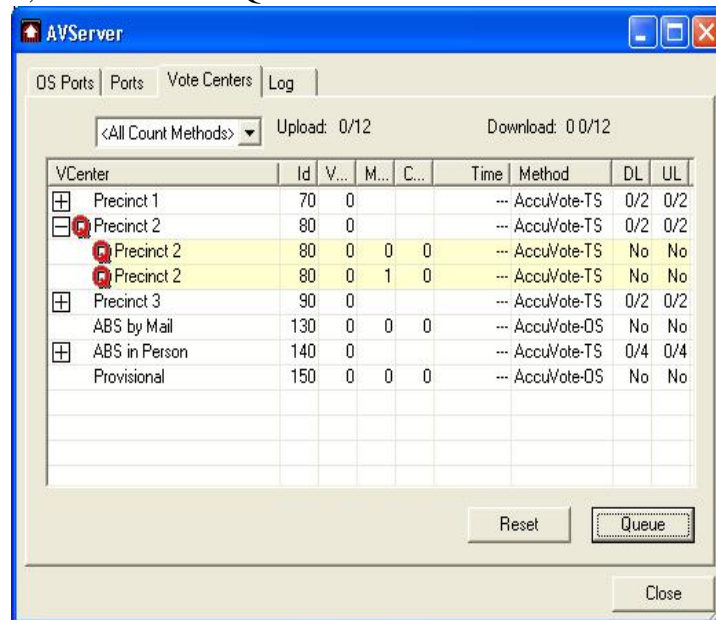
(Figure 6)

19. Click on the **Vote Centers** tab to see all vote centers.
20. Expand the vote centers associated with TS memory cards by clicking the “+” icon.



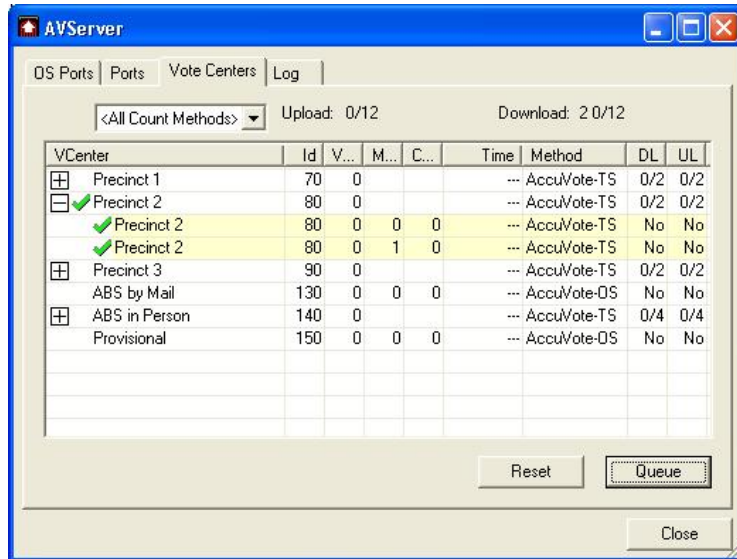
(Figure 7)

21. Click on the individual memory card listings assigned to each TS vote center being used, then click the “Queue” button.



(Figure 8)

A red Q will briefly appear next to the memory card selected. This will change to green check marks (Figure 9) when the cards are ready to be downloaded.



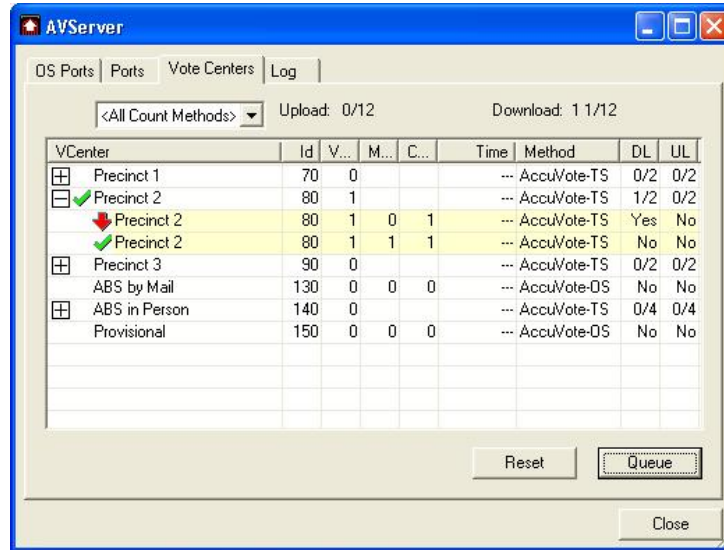
(Figure 9)

22. With a cleared memory card inserted, the Touch Screen displays the following information:

Type: Local Area Network
Host: 192.168.3.1
Phone: (blank)

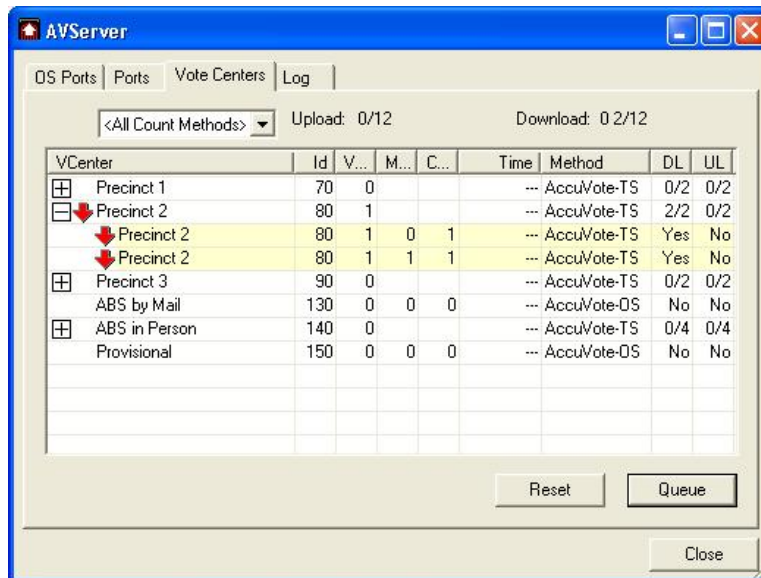
If the TS unit shows a different Host number than the one above, then the card creation process may not complete (contact KSU with any questions regarding this issue).

23. Touch **OK** on the TS unit to download a memory card from the first queued vote center to the memory card. When the download is finished, a red arrow will appear next to the vote center (Figure 10) and a label will be printed from the TS unit.



(Figure 10)

24. Remove the memory card and tape the printed label to the back of the memory card.
25. Touch OK on the Touch Screen and continue to download the memory cards until all have been created.



(Figure 11)

Optical Scan Unit Testing

Materials Needed:

- Optical Scanner
- OS Memory Card (s)
- Blank Ballots, one per precinct
- L&A Test Deck
- Ender Card

Testing of the printed ballot/cards styles is done in two parts. The first part of the test (Steps 1 – 13, or Part 1 below) must be done once the printed ballots are delivered to the county and BEFORE any printed ballots are given to a voter for absentee purposes. The second part of the test (Steps 14 – 56, or Part 2 below) should be done in conjunction with the county's scheduled public L&A testing.

NOTE: When using an Optical Scan unit if one is unsure on whether to answer a question posed with a YES or with a NO, then always select NO. A NO response will forward the user onto the next question. When the last question is reached, the system will automatically begin asking the same questions again. Also if a mistake is made by the user, simply power the OS unit off and then back on. This will return the user to the beginning of the process.

Verifying and Setting the System Clock Date and Time

Before starting the testing of the printed ballots verification of the system clock settings must be completed and if needed changed to reflect the current date and time.

Setting the system clock involves setting both the date and the time. Setting the date consists of setting the 2 digit month, day and year. Setting the time consists of setting the hour, minutes and seconds.

The YES button is used to confirm the system date is correct or the system time is correct.

The NO button is used when the system date or time is incorrect and for changing the settings by incrementing a number each time the NO button is pressed. Once a number is correct press YES to confirm the selection is correct.

Accessing the System Clock:

1. To enter the “Diagnostics Test Mode” on the optical scanner press and hold the YES and NO buttons on the front of the OS unit and turn the unit on.
2. The optical scanner displays:

SET SYSTEM
CLOCK?

3. Press YES to access the system clock settings.

Setting the Date:

4. The first option is to verify or set the date. The optical scanner will display:

DATE: 01/05/96
IS DATE OK?

5. Press YES if the date displayed is correct. Press NO if the date is incorrect.
6. If YES is pressed the optical scanner will display the option to change the system time.
7. If NO is pressed the optical scanner will display a prompt to change the month. The 2 digit month will be flashing.

DATE: 01/05/96
IS MONTH OK?

8. If the month is correct press YES, if the month is incorrect press NO.
9. Begin pressing NO to increment the month by 1 month each time NO is pressed. Press YES when the correct 2 digit month is displayed. Continue this process for the day and year.

DATE: 01/05/96
IS DAY OK?

DATE: 01/05/96
IS YEAR OK?

10. Once the date (month, day and year) is set the optical scanner will display “Is Date Ok?.” Press YES if the date displayed is correct.

Setting the Time:

NOTE: The system clock should be set to the correct time on Election Day, taking into account daylight savings time changes.

11. After the system date is confirmed the optical scanner will display:

TIME: 14:10:08
IS TIME OK?

12. Press YES if the time displayed is correct. Press NO if the time is incorrect.
13. If YES is pressed the optical scanner will display the next option to test within the system. The optical scanner may be turned off at this point.
14. If NO is pressed the optical scanner will display a prompt to change the hour. The 2 digit hour will be flashing.

TIME: 14:10:08
IS HOUR OK?

15. If the hour is correct press Yes, if the hour is incorrect press NO.
16. Begin by pressing NO to increment the hour by 1 each time NO is pressed. Note: hours are represented in military time, clock hours 00 through 23. Press YES when the correct 2 digit hour is displayed. Continue this process for the minutes and seconds.

TIME: 14:10:08
IS MINUTE OK?

TIME: 14:10:08
IS SECOND OK?

17. Once the time (hour, minutes and seconds) are set the optical scanner will ask “Is Time Ok?.” Press YES if the time displayed is correct.

PART 1 - Testing Fully Voted Ballots. (To be completed prior to mailing out ballots to absentee voters)

1. Optical scan memory cards must be created. The process of creating OS memory is outlined in the previous section.
2. An optical scan vote center will contain specific reporting precincts; in some cases it will take multiple optical scan vote centers to contain the entire county's allotment of reporting precincts. Each optical scan vote center will be labeled to indicate what reporting precincts are contained therein. If the name of the Absentee by Mail vote center is simply labeled "ABS by Mail", then *all* of the county's reporting precincts are contained therein. If the name of the vote center is ABS by Mail (Precinct A – Precinct D), then report Precinct A through Precinct D are the only report precincts contained in that ABS by Mail vote center. Only the ballots/card styles associated to those Report Precincts within the voter center will be recognized by the optical scanner.
3. You will create at least one OS memory card for every Absentee by Mail vote center listed, except the for the vote center labeled ABS by Mail <Default VC>.
4. Insert the OS memory card in the optical scanner.
5. There are two types of test decks. The first test deck will consist of only *fully voted* ballots (fully voted means **ALL** oval positions on the card are filled in). The second deck will contain ballots voted in a specific pattern. The instructions below will indicate which test deck is needed at which time.
6. OS ballot/cards styles will have reporting precinct designations printed on the bottom of the card next to card style number. One fully voted ballot/card style is needed for every reporting precinct. To conduct the first part of the L&A test the test deck needed consists of fully voted ballots. The example below outlines how to prepare the needed fully voted test deck.

EXAMPLE: In this example the Absentee by Mail vote center contains reporting precincts A – D. The only card style being used in the upcoming election in these precincts is Card Style 1. The test deck will include a version of Card Style 1 for every reporting precinct. The test deck consists of one fully voted card for each version of Card Style 1:

<u>Card Style</u>	<u>Version</u>
1	Precinct A
1	Precinct B
1	Precinct C
1	Precinct D

Total Cards in Test Deck: **4**

EXAMPLE: *continued...*

If there are multiple card styles being used in these precincts for this election, a test deck is built for each card style using all precinct versions and would look as follows:

<u>Card Style</u>	<u>Version</u>
1	Precinct A
1	Precinct B
1	Precinct C
1	Precinct D

Total Cards in 1st Test Deck: 4

<u>Card Style</u>	<u>Version</u>
2	Precinct A
2	Precinct B
2	Precinct C
2	Precinct D

Total Cards in 2nd Test Deck: 4

7. Turn the optical scanner ON.
8. The optical scanner displays:

TEST BALLOTS?

9. Press YES.
10. The optical scanner displays:

TEST UNVOTED
BALLOTS?

11. Press No.
12. The optical scanner displays:

TEST FULLY
VOTED BALLOTS?

13. Press Yes.
14. Using the test deck containing only fully voted ballots, scan each card in the test deck. After each card is scanned, the optical scanner should print a message onto the paper tape that indicates the optical scanner recognizes the OS card. If the message printed does not say “OK”, then check the tape printed to verify the error. The tape will indicate where on the ballot the error can be found. Make sure the error was not caused by an improperly voted ballot (ovals not completed filled). If the error was **NOT** created by an improperly voted ballot, then the card style has failed to be recognized and cannot be used. Each individual card should be scanned four times, each time changing the direction in which the card was inserted into the scanner. The example below shows the process. **If any card style scanned fails and cannot be recognized, then contact KSU for assistance immediately.**

EXAMPLE: Scanning Blank Ballots

Card style 1 – version Precinct A	1 st scan [front side up, top of ballot first] 2 nd scan [front side up, bottom of ballot first] 3 rd scan [back side up, top of ballot first] 4 th scan [back side up, bottom of ballot first]
Card style 1 – version Precinct B	1 st scan [front side up, top of ballot first] 2 nd scan [front side up, bottom of ballot first] 3 rd scan [back side up, top of ballot first] 4 th scan [back side up, bottom of ballot first]
Card style 1 – version Precinct B	1 st scan [front side up, top of ballot first] 2 nd scan [front side up, bottom of ballot first] 3 rd scan [back side up, top of ballot first] 4 th scan [back side up, bottom of ballot first]
Card style 1 – version Precinct D	1 st scan [front side up, top of ballot first] 2 nd scan [front side up, bottom of ballot first] 3 rd scan [back side up, top of ballot first] 4 th scan [back side up, bottom of ballot first]

15. Continue until all card styles for all precincts have been scanned.
16. When all card styles have been scanned, Press NO. This ends the fully voted ballot test.

(END OF PART 1, if not proceeding to PART 2 at this time, turn optical scanner OFF.)

PART 2: Public Testing of Voted Test Deck. (To be conducted as part of *public L & A Testing*)

17. The test deck used in Part 2 will contain blank, fully voted, and specifically voted card styles. The test will be repeated for every card style present in the OS vote center. The box below is an example of what a test deck may look like.

EXAMPLE: Voted Test Deck

In this example we have the vote center Absentee by Mail (Precinct A – Precinct D). As before, each reporting precinct has its own version of Card style 1, however this test **does not** require that every version of Card style 1 be used. Still when building the test deck a county should use as many versions of Card style 1 in its test deck as it can. The test deck should contain enough ballots so that every candidate in every race receives at least one test vote. The amount of cards in a test deck is equal to the highest number of candidates in a single race contained on the card plus one blank card plus one fully marked card. The test deck for Card style 1 would look something like this:

Card Style 1 – version Precinct A (Blank)

Card Style 1 – version Precinct D (Fully marked)

Card Style 1 – version Precinct C (vote for first candidate in each race)

Card Style 1 – version Precinct B (vote for second candidate in each race)

If needed:

Card Style 1 – version Precinct C (vote for third candidate in each race)

A test deck should be built for every numbered Card style used in the reporting precincts assigned to the Absentee by Mail vote center.

18. Turn the optical scanner ON.

19. The optical scanner displays:

TEST BALLOTS?

20. Press YES.

21. The optical scanner displays:

TEST UNVOTED
BALLOTS?

22. Press NO.

23. The optical scanner displays:

TEST FULLY
VOTED BALLOTS?

24. Press NO.

25. The optical scanner displays:

COUNT TEST
BALLOTS?

26. Press YES.

27. The optical scanner displays:

PRINT ZERO
TOTALS?

28. Press Yes.

29. The optical scanner displays:

PRINT FULL REPORT
ONLY?

30. Press NO.

31. The optical scanner displays:

PRINT SUMMARY
TOTALS ONLY?

32. Press YES.

33. The optical scanner displays:

PRINT LONG REPORT?

34. Press NO.

35. When finished printing, the optical scanner displays:

NEED ANOTHER COPY?

36. Press NO.

37. The optical scanner will now indicate it is ready to accept ballot/card styles by showing the name of the vote center and its current total count. The total count should be zero.

POLL: 10.00 U
TOT COUNT: 0

38. Before scanning the first card in the test deck verify the count is at zero. Once verified, begin scanning the test deck making sure the total count increases by one with every card style scanned. When done the total count shown by the optical scanner should match the total number of card styles contained in the test deck.

39. When all card styles in the test deck have been scanned, hold down the YES and NO buttons on the front of the optical scanner and scan the Ender Card

40. The optical scanner will display:

PRINT TEST
TOTALS REPORT?

41. Press YES

42. The optical scanner displays:

PRINT FULL REPORT
ONLY?

43. Press NO.

44. The optical scanner displays:

PRINT SUMMARY
TOTALS ONLY?

45. Press YES

46. The optical scanner displays:

PRINT LONG REPORT?

47. Press NO

48. When printing is complete, the optical scanner displays:

NEED ANOTHER COPY?

49. Press NO

50. The optical scanner will read:

REPEAT TEST?

51. Press YES if the vote center has more card styles associated to it for the election in question and repeat the above steps. Press NO, if there are no more card styles to test


52. The optical scanner displays:

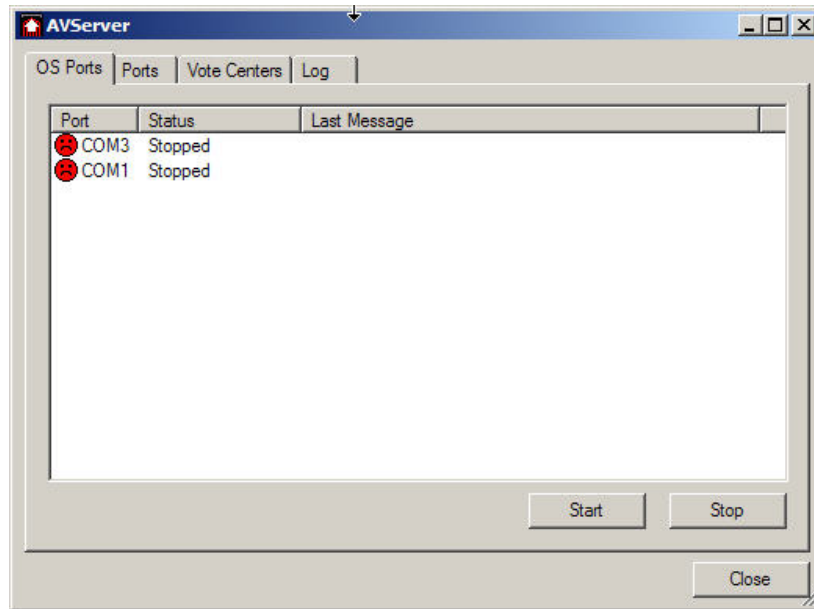
SEND TEST
RESULTS?

53. At least one memory card for each OS Absentee vote center used must be uploaded to GEMS as part of the L&A test. If the optical scanner is connected to the GEMS server and it is ready to receive results, Press YES

If test results do not need to be transmitted to GEMS, press NO and proceed to step 64.

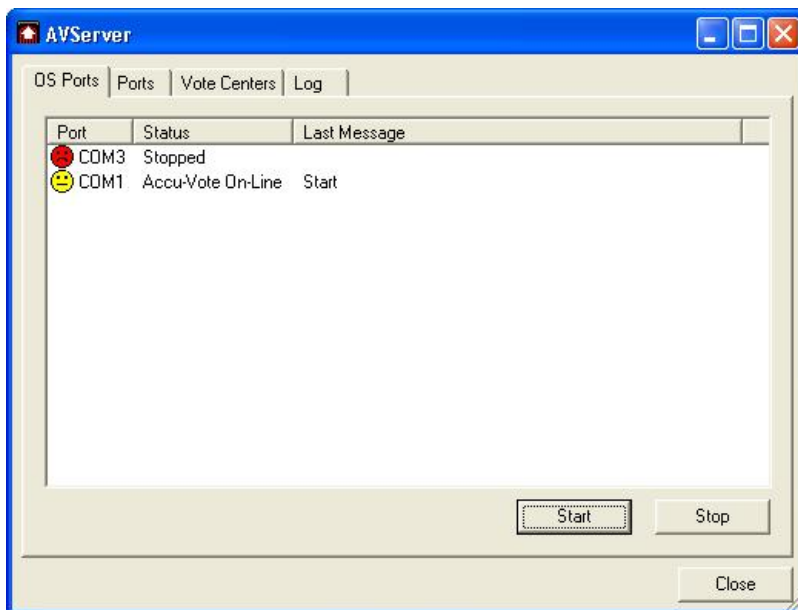
PART 3: Uploading Test Results to GEMS

54. Make sure the OS unit is connected to the GEMS computer
55. On the tool bar click the  icon button, this will open the AV Server window (Figure 12)



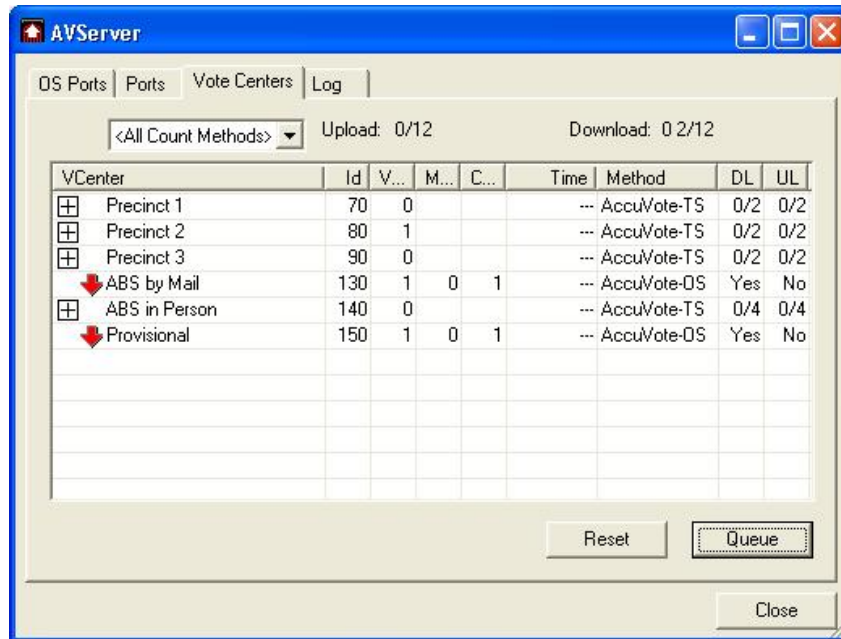
(Figure 12)

56. On the **OS Ports** screen, click on all the **COM** ports to highlight them, and click **Start** (the correct port will be indicated with a yellow face)



(Figure 13)

57. Click the **Vote Centers** tab, notice that both OS vote centers have had memory cards created



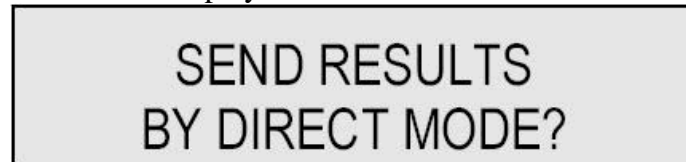
(Figure 14)

58. The optical scanner displays:



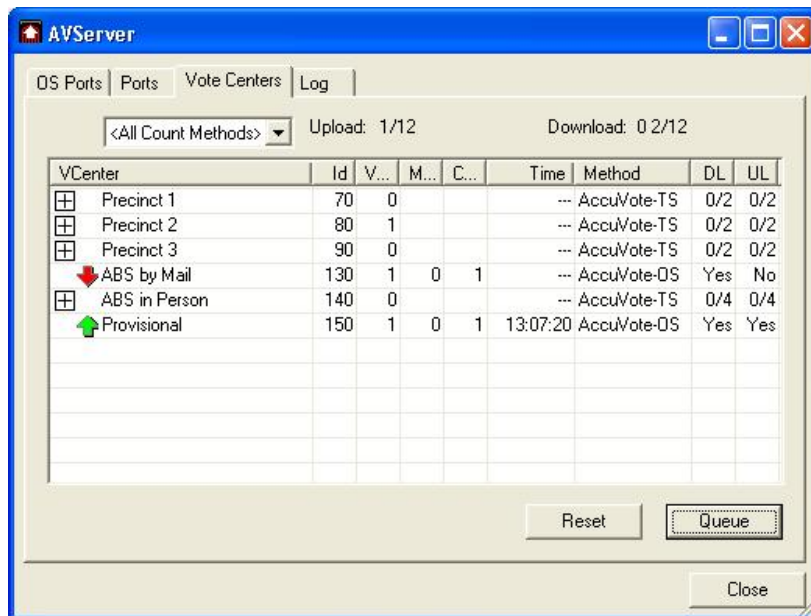
59. Press NO.

60. The optical scanner displays:



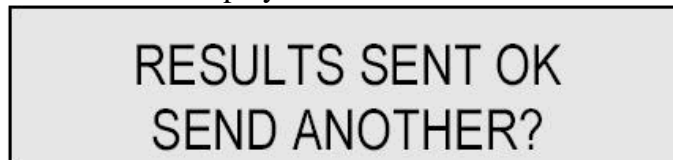
61. Press YES.

62. After successfully completing the transfer of test results, the GEMS AV Server indicates that the memory card has been uploaded. A green up arrow will appear next to the uploaded memory card.



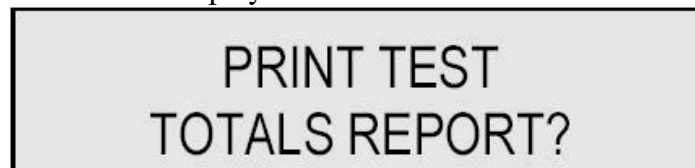
(Figure 15)

And the optical scanner will display:



63. Press NO.

64. The optical scanner displays:



65. Press NO.

66. The optical scanner displays:



67. Press NO.

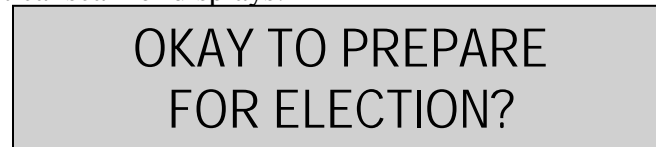
68. The optical scanner displays:



PREPARE FOR
ELECTION?

69. Press YES.

70. The optical scanner displays:



OKAY TO PREPARE
FOR ELECTION?

71. Press YES.

72. The memory card within the optical scanner is now set for election. The memory cards should now be securely stored in a sealed optical scanner or in a sealed container until needed on Election Day.

ExpressPoll Unit Testing

Items Needed:

- TS Units loaded with programmed Memory Cards and assigned to a voting location
- Compact flash (CF) cards provided by state for L&A testing purposes
- Assembled Barcode Scanners
- Report delivered from KSU (Reporting Precincts with Cards) outlining voting locations in ExpressPoll containing 6-digit Vote Center IDs for each voting location
- Blank ExpressPoll L&A forms (complete one for every two units and case - If you have more than one case for each precinct, attach additional sheets as necessary.)
- Georgia Driver's License(s). The testing of the barcode scanners requires one or more Georgia Driver's Licenses. It is suggested that county election office employees use their licenses in this test.

Procedures:

1. Determine which vote center the ExpressPoll units will be assigned to on Election Day.
2. The voter access cards created from ExpressPoll during L&A testing will be used when conducting L&A tests on the TS units being prepared for the associated vote center.
3. Record the following information in the designated area in the top section of the ExpressPoll L&A Form:
 - County
 - Election
 - Assigned Voting Location (Precinct/Vote Center)
 - Vote Center ID (6-digit number found on State provided report)
 - ExpressPoll Unit Serial Numbers (record number for each unit)
 - ExpressPoll Case Serial Number (record number for each case)
 - Security Key (after unit powered ON)
 - Version # (after unit powered ON)
4. **ExpressPoll 4000** - Remove units from case. Connect the two units using the orange network cable. Plug the Barcode Scanner into any USB slot (two USB slots located on the right side of the base facing the ExpressPoll units, two USB slots located on the back of the base where AC power cord is located and one USB slot located on left side of the ExpressPoll tablet which is two slots below the PCMCIA slot). Verify monitor switch located on top of unit is in ON position (switch pushed to the left when facing unit). Move the battery switch at back of unit to ON position and plug units into AC power.

ExpressPoll 5000 - Remove units from case. Connect the two units using the orange (crossover) network cable. Plug the Barcode Scanner into any USB slot (two slots located underneath where the ExpressPoll stand is attached). Move power switch at the top of the unit to the ON position and plug units into AC power.

5. Once the ExpressPoll unit is powered on and Barcode Scanners are attached, verify the sound of an audible “chirp” with blue indicator light to confirm that the Barcode Scanners are receiving power. (If you have a connection, Proceed to Step 7)
6. If you do NOT hear the audible “chirp” or see the blue indicator light on top of the Barcode Scanners, then it is not properly connected. Follow the procedures of unplugging from USB slot and try again. If the problem continues after several attempts with different USB slots, call KSU *immediately*.
7. Insert one L&A Compact Flash Card into each unit. Do not force the card into the unit.
8. **ExpressPoll 4000** - Touch “Launch” on each of the two units. Set the date and time on each unit. Touch “Clock Time OK Continue.”
9. **ExpressPoll 5000** - Touch “Launch” on each of the two units.
10. On both units, enter the 6-digit Vote Center Number that has been recorded on the L&A form. Enter User ID (1), and enter Login Password (*the login password can be found on the memo sent to the Elections office by KSU with the L&A cards for Express Poll*). Touch “Log In”.

The “Confirm Correct Poll Selected” screen should appear. Verify the information displayed on the ExpressPoll is the information for the location for which you desire to assign the units. If correct, then on both units touch “OK, This is Correct Poll,” to complete the assignment process. If “Confirm Correct Poll Selected” screen is displaying information for a location that you do not wish to view, then on both units touch “Wrong Poll, Go Back,” then repeat step 11 above.

11. After the “OK, This is Correct Poll” button is touched on both units, the ExpressPolls will create a test roster (electors list) for the assigned precinct. When complete, both units will show the Open/Close Poll Screen. Both units should show a network connection. This is indicated with two arrows (↑↓) in the bottom right corner of each unit. *If both these arrows are not present on both units, remove the network cables and reattach. If the reconnecting of cables and powering of units does not solve the syncing issue, loosen the thumbscrew on the back of the unit and remove the tablet from the base. Then*

reconnect the tablet to the base making sure the tablet is properly slotted in the base. Tighten the thumbscrew and make sure the tablet and base are tightly connected. Now reconnect all cables and begin the Launch procedures again.

12. At the top of the screen touch the “Tests and Lists” tab. The screen will change to show other options. In the center of the screen touch “LA/Card Check” tab, then touch the “Election L&A” button at the bottom of the screen.
13. The supervisor password is needed to access the Election L&A option. The current supervisor password can be found on the memo from KSU. Whenever ExpressPoll asks for a supervisor password to be entered, this password should be used. *BE AWARE: This password will be periodically changed by the state.*
14. Enter the supervisor password, and then touch “OK – Perform Supervisor Function”.
15. The Election Data and L&A screen should appear. Two tabs should appear at the top of the screen “Election Details” and “Card LA”. Touch “Election Details.” The following fields should be displayed:
 - GEMS File Title
 - Vote Center Number
 - Precinct Name

The information displayed by ExpressPoll in the mentioned fields is to be recorded on the left side of the ExpressPoll L&A form under the Election’s Office section. *The Elections Office will also need to record the serial numbers for each ExpressPoll assigned to the precinct on the **Precinct Recap** sheet that accompanies the TS Units to the polls on Election Day.*

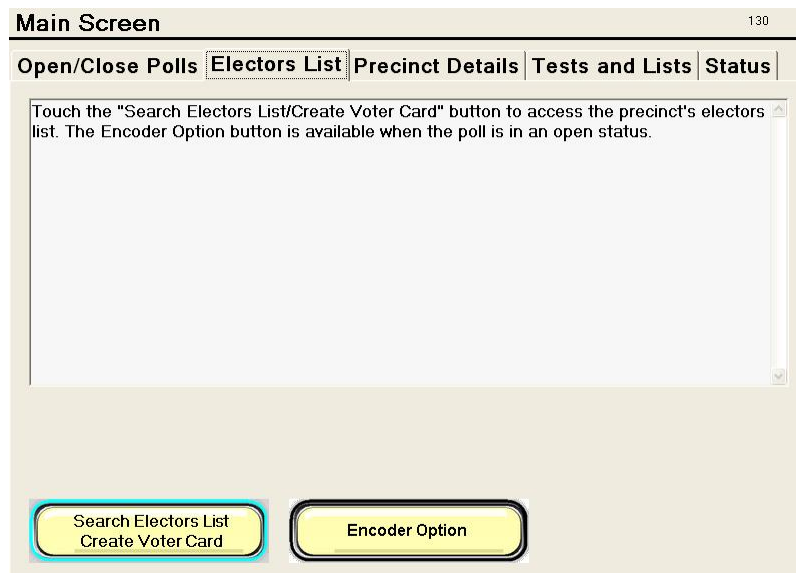
16. After recording the information displayed on the Election Details screen, touch the tab at the top of the screen entitled “Card LA”.
17. A table should appear outlining **ALL** the base precincts (ballot combos) associated to the voting location and their corresponding ballot styles. The information displayed by ExpressPoll is to be recorded on the left side of the ExpressPoll L&A form under the Election’s Office section. *If for any reason this information is not correct for the precinct being tested and you have verified you are in the correct precinct, contact KSU **immediately** for assistance.*
18. A voter access card should be created for every **unique** ballot style listed in the table. To create a card, select the desired ballot style by touching the ballot style number. The box will be highlighted and the “Create Card” button

at the bottom of the screen will become active. Insert a voter access card into the slot at the bottom of the ExpressPoll and touch the “Create Card” button. The screen will change to the “Select Ballot” screen and information will be displayed regarding the ballot style that is being placed on the voter access card. To create the voter card, touch “Issue Voter Card.” ExpressPoll will direct you to remove the voter access card. When removed, ExpressPoll will return to the Card LA screen and another voter access card can be created for other ballot styles listed. *If you wish to further compare your GEMS database with the information displayed by ExpressPoll, printout a “Base Precincts with Card Styles” report from your GEMS computer for this election. The information on that report should match what is displayed by ExpressPoll.*

19. Using a small *post-it* note, label the voter access card with precinct and ballot style information
20. The prepared voter access card should be used when L&A testing the TS units assigned to the same vote center to verify the correct ballot style is displayed when a voter access card is inserted.
21. Repeat steps 18 and 19 for each unique ballot style. After all ballot styles have had cards created and used with the TS units, on ExpressPoll touch “Back to Main Screen”
22. Touch the “Open/Close Polls” tab at the top of the screen.

Procedures to perform Logic and Accuracy test for the Barcode Scanners

23. Once at the Main Screen proceed to the Electors List



24. Tap “Search Electors List”. At the Find Voters screen read the instructions on how to search for a Voter’s record. (See screen below)

Find Voters 205

A person can be found in the electors list in one of two ways

- Barcode Search Method - Using the attached barcode reader, scan the available barcode found on the back of the person's drivers license (if presented).
 - If the person's drivers license number is connected to a record in the electors list that record will be shown by ExpressPoll.
 - If the person's drivers license number is NOT connected to a record in the electors list or it matches multiple records, an error message will be shown. Touch "OK" to return to the main search screen. Use the Standard search method to verify if they are contained in the electors list.
- Standard Search Method - Type in the person's last name (if necessary, first name and birth date)

Last Name Middle Init.

First Name Birth Date

1 2 3 4 5 6 7 8 9 0 .

Q W E R T Y U I O P -

A S D F G H J K L ' back space

Z X C V B N M space clear

Searching PRECINCT
Touch for COUNTY search

Clear Return to Main

BT:?? AC:Online Voters Marked:0 5/17/2010 2:01:55 PM

25. Make sure the Last and First name fields are clear and begin searching for voters

26. The best way to use the Barcode Scanner is when it is located on its stand. Hold the driver’s license barcode under the scanner.



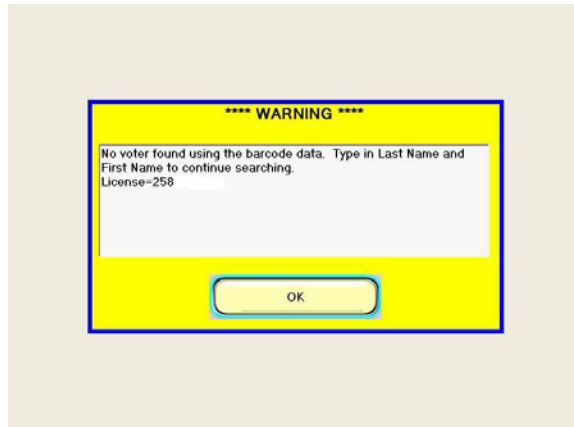
27. Use any Election Office Staff driver’s license and begin your search.

28. Scan the back of the voter’s Georgia Driver’s license as seen in the above picture

29. **DO NOT** scan any barcodes other than the Georgia Driver’s License

30. At the Find Voters Screen scan the first driver's license:

- ***Note that L&A Compact Flash Cards will not have the entire State of Georgia's Electors List. It will consist of a limited number of voters. Do not worry if you are unable to find a record. This is a test to see if the Barcode Scanners will read the license. The screen below will indicate whether you are unable to locate a record:***



31. Click OK and try another driver's license.

- ***If you DO NOT receive a "Warning" message or a Voter's record, Tap "Return to Main" and repeat the Barcode scanning procedures. Make sure your Barcode Scanner is connected properly. If you still DO NOT receive a "Warning" message or a Voter's record, contact KSU immediately.***

32. If the voter's driver's license number is found the following screen will display:

Voter Record		260	
Voter Details Addl. Voter Info Precinct Details			
Voter must show proper photo ID before voting. Once photo ID is shown, verify that the picture on the ID is that of the voter, use name, birth date and address to verify this is the correct voter. If no photo ID is shown, send the voter to the provisional station.			
Name	LANGSTON, DANIELA	Status	A
Address	820 HARRINGTON DR MILLEDGEVILLE 31061-	Voted?	Not Voted
Precinct	214-CH2	DOB	11/2/1961
Combo	214		
Comments			
CNG=012,SEN=025,HSE=141,JUD=031,COM=2,SCH=2			
Forward to Create Voter Card		Cancel Back to Electors List	

33. Once the Polls are open there will be an option to “Forward to Create Voter Card” but this process is for Logic and Accuracy, you will not be able create a voter access card
34. “Press Cancel Back to Electors List” and return to Find Voters screen

35. Always press “Clear” before beginning the next search, when either searching by tapping in the voter’s name or by using the Barcode Scanner
36. Repeat steps as needed
37. Return to Main Screen and tap the “Open/Close Polls”
38. **ExpressPoll 4000** - Touch the “**Warning: For Office Use Only**” button at the bottom of the screen. The supervisor password will be required. Enter the supervisor password, touch “OK – Perform Supervisor Function,” and then touch “Yes.” When the “Log In” screen appears, remove the AC cords from the units, move the battery switch on the back of the ExpressPoll to OFF, disconnect the network cable from the units and unplug the Barcode Scanners.
 - **ExpressPoll 5000** - Touch the “**Warning: For Office Use Only**” button at the bottom of the screen. The supervisor password will be required. Enter the supervisor password, touch “OK – Perform Supervisor Function,” and then touch “Yes.” When the “Log In” screen appears, remove the AC cords from the units, move the power switch at the top of the ExpressPoll

to OFF, disconnect the network cable from the units and unplug the Barcode Scanners.

39. Remove the L&A Compact Flash Cards from the ExpressPoll units. The L&A Compact Flash Cards will be used again with the next set of ExpressPoll units.
40. Place the ExpressPoll units as well as their network and AC cords in their assigned cases and retain the ExpressPoll L&A form associated with the case and those ExpressPoll units.

Touch Screen Unit Testing

Materials Needed:

- All programmed TS memory cards
- A Supervisor Card
- Voter Access Cards
- Sample ballots (Test deck used in OS L&A)
- The report “Base Precincts with cards” from GEMS
- The ExpressPoll Units and ExpressPoll L&A cards
- The PollBook Report (Report from state outlining voting locations in your county.)
- ExpressPoll containing 6-digit Vote Center IDs for each voting location)
- A VWD kit and headphones
- Custodian Certification Form

Follow these steps to complete L&A Testing on the TS units:

1. Inspect Touch Screen and Booth for physical damage.
2. Plug Booth into electrical source and raise screen.
3. Unlock the side security door and the printer compartment and remove lid.
4. Confirm Touch Screen and case serial numbers.
5. Record Touch Screen serial number on checklist.
6. Record machine ID from TS memory card label on checklist.
7. Write Touch Screen serial number on TS memory card label.
8. Insert memory card into bottom slot and turn unit on.
9. Confirm installation of 0808 upgrade and BallotStation 4.5.2! software. If either is absent set unit to side.
10. Feed printer paper, if necessary.

System Diagnostics:

11. Insert SUPERVISOR card. Enter your county’s password and touch **OK**.
12. Confirm electronic serial number matches booth label and serial number on side of unit.

13. Press **System Setup** button.

Supervisor Mode

Election Jul-25-2001

Anywhere County, USA

Vote Center 10

Precinct 1

Unit 8 Version 14 Copy 0 Count 0

Challenged Voters View Ballot Results Audit

Delete Election Election Archives

Enable Recording

System Setup Exit Supervisor

System Information

SN 1 System Total 117 AC Online 100%

14. Touch the **Calibrate** button.

System Setup

MachineSN 1

Smart Card COM4:

Printer Port LPT1: Print Reverse

System Directory \\FFX\AccuVote-TS\
Main Directory \\Storage Card\
Backup Directory \\FFX\AccuVote-TS\
 Texas
 Portrait Landscape

Set Date Calibrate Network Diagnostics

1 2 3 4 5 6 7 8 9 0 - = Back

Tab q w e r t y u i o p [] \

Caps a s d f g h j k l ; ' Enter

z x c v b n m , . /

Space

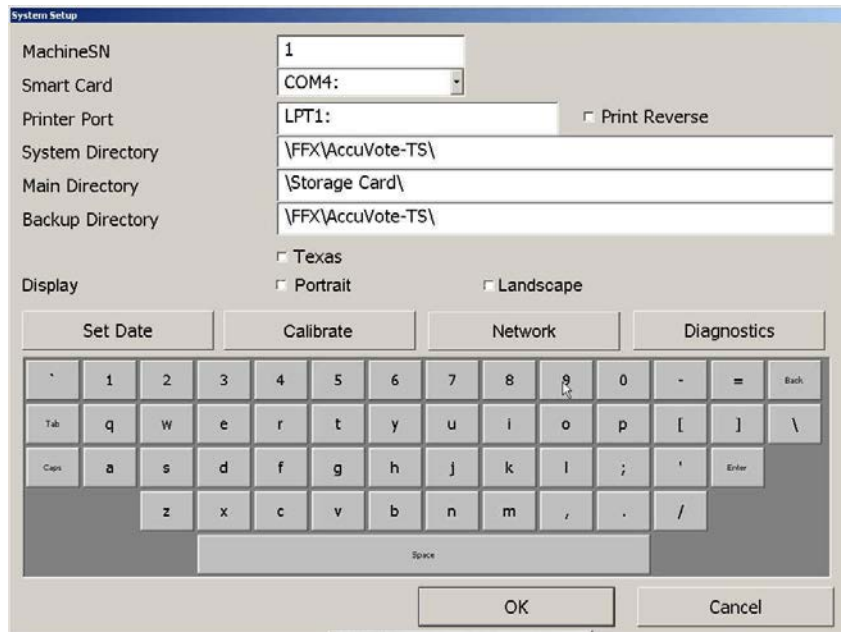
OK Cancel

**It is very important to calibrate the TS unit with the screen placed in the position it will be used on Election Day. Also, DO NOT use your finger to calibrate the machine, use a stylus or the bottom end of a pen or pencil.

The calibration screen appears and the following text is displayed: “Touch targets from a position of normal use.” Position yourself in front of the touch screen you are calibrating as if to vote a ballot.

- a. Touch the calibration target (the cross-hair symbol) displayed in the corner of the touch screen.
- b. When the first target has been touched, a second calibration target will appear in a second corner of the screen. Touch the second calibration target.
- c. When the second calibration target has been touched, a third calibration target will appear in the third corner of the screen. Touch the third calibration target.
- d. Repeat this procedure for each of the next three calibration targets that appear. When no further calibration targets appear, calibration is complete and the System Setup screen is redisplayed.

15. Press **Set Date**.



16. Press the arrows to set the correct current month, day, and year. Be aware of AM & PM settings. Press the correct date on the calendar.
17. Make sure daylight savings time is not selected. If it has a Check in the box, Click the box to Uncheck it. Make sure Eastern Time is displayed. **If you are preparing for a November election, set the time back 1 hour so that the machine will be set to the correct time on Election Day.**
18. Press **Apply** after setting date, time, and time zone. In the “Date/time Properties” window press OK or “X”
19. Press **Diagnostics**. Press **Test Printer**.
20. After test finishes, press **OK** for “Printer test PASSED”.
21. Press **Test Card Reader**. SUPERVISOR Card is ejected.
22. When directed, remove the SUPERVISOR Card.
23. Insert a Voter Access Card when prompted to insert the Smart Card.

24. When the “Card reader test PASSED” message is received, remove the Voter Access Card. Reinsert the SUPERVISOR Card. Press **Done**.
25. Press **OK**.
26. Press **Exit Supervisor** and remove the SUPERVISOR Card.
27. On Main Menu Screen, press the Reporting button.

Pre-Election Mode

Election Jul-25-2001

Anywhere County, USA

Vote Center 10

Precinct 1

Unit 8 Version 14 Copy 0 Count 0

Test Count	Reporting	Clear Totals
View Ballot Results	Upload Results	Set For Election
Create Voter Cards	Accumulator	Supervisor Mode

Shutdown System

System Information

SN 1 System Total 0 AC Online 100%

28. Print Summary Report? YES. (*Question will appear **ONLY** on TS units when multiple reporting precincts are within a voting location. Example: the ABS in Person voting location*).

**PRINT SUMMARY
TOTALS ONLY?**

YES NO

29. Print Long Report? NO

A dialog box with a light beige background. At the top, the text "PRINT LONG REPORT?" is centered. Below the text are two buttons: "YES" on the left and "NO" on the right. The "YES" button has a dotted border, while the "NO" button has a solid border.

30. Review the Zero Tape to confirm that all races are present and that all candidates in all races appear and show zero votes

31. Hook up the VWD kit and the headphones to one of the TS Units (*this will need to be done on one unit in every voting location*).

32. Press **Test Count** button.

The screenshot shows the "Pre-Election Mode" interface. At the top, it says "Pre-Election Mode". Below that, there are fields for "Election" (Jul-25-2001) and "Vote Center" (10). A teal bar displays "Anywhere County, USA". Below that, another teal bar displays "Precinct 1". Underneath, there are fields for "Unit" (8), "Version" (14), "Copy" (0), and "Count" (0). A grid of buttons is visible, with "Test Count" highlighted. Other buttons include "Reporting", "Clear Totals", "View Ballot Results", "Upload Results", "Set For Election", "Create Voter Cards", "Accumulator", and "Supervisor Mode". A "Shutdown System" button is located at the bottom right. At the bottom, "System Information" shows "SN" (1), "System Total" (0), and "AC Online 100%" in a green box.

33. Press **Count Test** button.

The screenshot shows a software interface titled "TEST BALLOTS". On the left side, there are three buttons: "Count Test" (highlighted with a dashed border), "Automatic L&A", and "Close". On the right side, there are two sections of options. The first section, "Count Test Option", contains two checkboxes: "Not Using Voter Access Card" and "Manual L&A Test". The second section, "L&A Test Options", contains three radio buttons: "Full L&A By Ballot" (which is selected), "Full L&A By Precincts", and "Single Vote Per Precinct". There is also a checkbox for "Using Rotation" in this section.

34. Retrieve sample ballots from County elections official or print ballot card styles from GEMS.

35. You will have voter access cards from the ExpressPoll that were created during L&A testing of ExpressPoll. The cards created from ExpressPoll should be tested on all TS units associated to the ExpressPoll's assigned voting location.

36. Insert the first Voter Access card into the Touch Screen. Carefully inspect each page of the displayed ballot to insure that the correct offices are being displayed and vote a constant candidate position. **If you are voting a card that was created from the ExpressPoll with audio selected, ensure that all headers, race titles, and candidates have the correct audio.** Also magnify each ballot style on the TS to verify that the ballots load without incident when magnified. When you reach the Ballot Summary page, insure that your selections are displayed before casting the ballot.

For the ABS in Person voting location: A minimum of 10% of the county's precincts must be tested. Select the precincts to test and encode a voter access card using the "create voter card" option on the TS or an ExpressPoll programmed for absentee voting use unit with 1 ballot style per precinct and perform the above test.

When all the ballot styles within the voting location have been successfully tested, the Ballot testing is finished.

37. Insert a Supervisor Card in the Touch Screen and type in the password. Press **OK**, then Press **Close**.

38. Press **Clear Totals** button.

Pre-Election Mode

Election Jul-25-2001

Anywhere County, USA

Vote Center 10

Precinct 1

Unit 8 Version 14 Copy 0 Count 0

Test Count	Reporting	Clear Totals
View Ballot Results	Upload Results	Set For Election
Create Voter Cards	Accumulator	Supervisor Mode

Shutdown System

System Information

SN 1 System Total 0 AC Online 100%

39. Do you wish to clear totals? Press **OK**.

Do you wish to clear totals?

OK Cancel

40. Press **Test Count**.

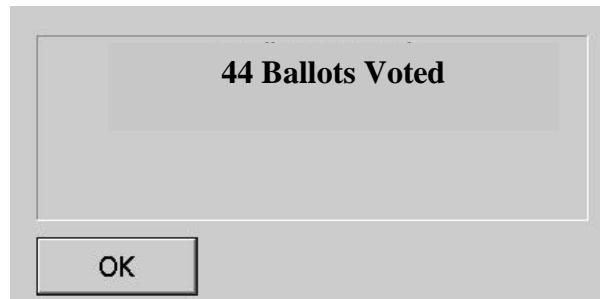
The screenshot shows the 'Pre-Election Mode' interface. At the top, it displays 'Election Jul-25-2001' and 'Vote Center 10'. Below this, a teal bar indicates 'Anywhere County, USA' and another teal bar indicates 'Precinct 1'. A status bar shows 'Unit 8', 'Version 14', 'Copy 0', and 'Count 0'. A central menu contains buttons for 'Test Count', 'Reporting', 'Clear Totals', 'View Ballot Results', 'Upload Results', 'Set For Election', 'Create Voter Cards', 'Accumulator', and 'Supervisor Mode'. A 'Shutdown System' button is located at the bottom right. The 'System Information' section at the bottom shows 'SN 1', 'System Total 0', and 'AC Online 100%'.

41. Press **Automatic L&A**

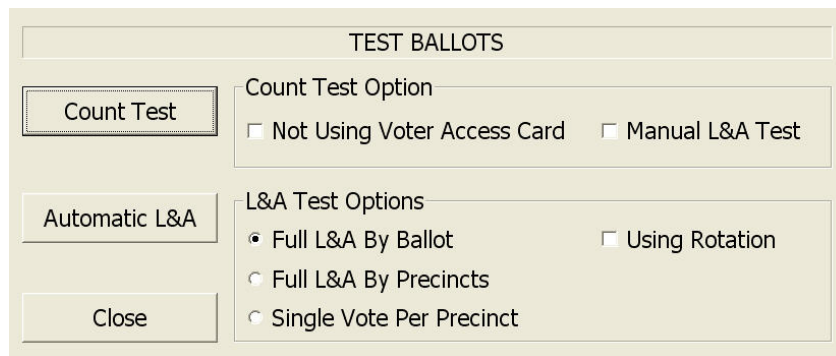
The screenshot shows the 'TEST BALLOTS' dialog box. It has a 'Count Test' button on the left and an 'Automatic L&A' button selected. The 'Count Test Option' section includes checkboxes for 'Not Using Voter Access Card' and 'Manual L&A Test'. The 'L&A Test Options' section includes radio buttons for 'Full L&A By Ballot' (selected), 'Full L&A By Precincts', and 'Single Vote Per Precinct', along with a checkbox for 'Using Rotation'. A 'Close' button is at the bottom left.

- a. This will generate an automatic ballot total equal to 1 vote for position 1 on the ballot, 2 votes for position 2, and so on. The total ballots cast via an automatic L&A process are equal to the sum of votes recorded for candidates within the race on the ballot style containing the most candidates plus one additional blank ballot. *Example: If the race containing the most candidates on the ballot contains four candidates, then the total number of ballots cast would be 11 [(1+2+3+4) =10 plus 1 blank ballot = 11. If the race appears on multiple ballot styles on the TS unit, the pattern described above will be multiplied by the number of ballot styles on which the race appears. Example: The pattern 1+2+3+4 multiplied by 2. So the pattern would be 2+4+6+8 that equals 20 plus 2 blank ballots for a final total of 22.*

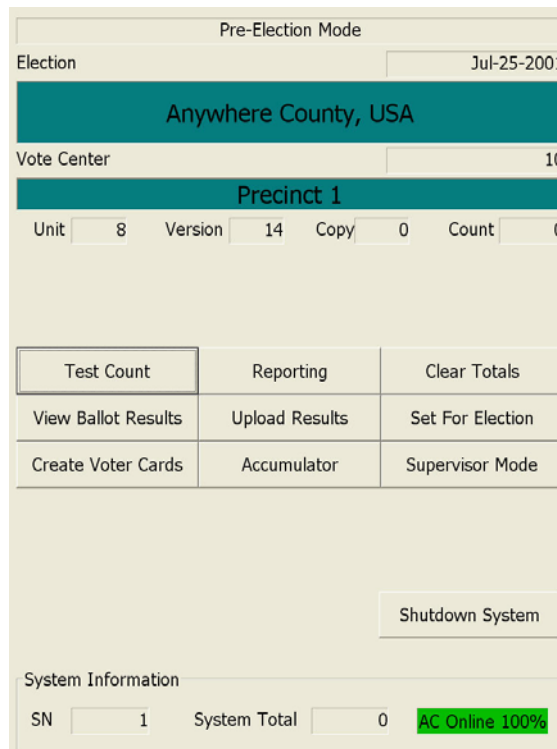
42. Press **OK**



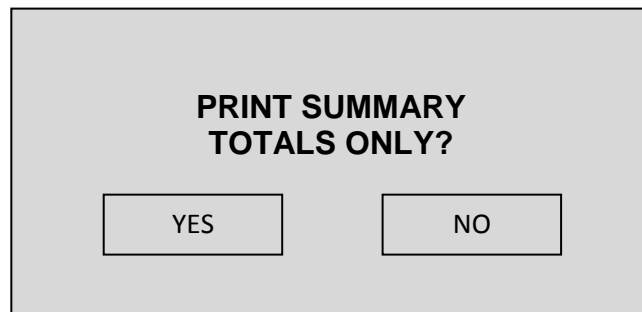
43. Press **Close** from the Test Ballot Screen.



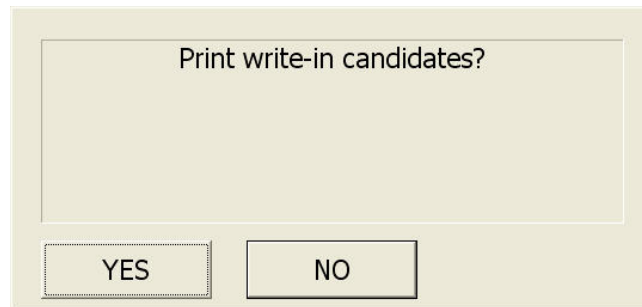
44. Press the **Reporting** button.



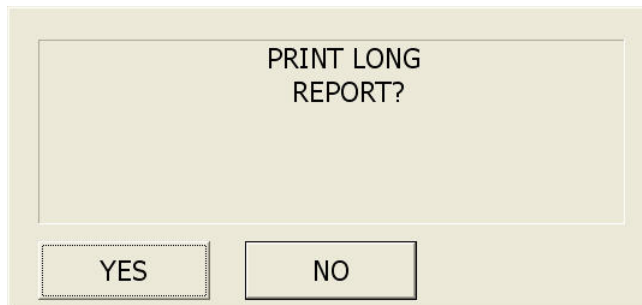
45. Press the **YES** button (*Question will appear **ONLY** on TS units when multiple reporting precincts are within a voting location. Example: the ABS in Person voting location*).



46. Press the **NO** button. (If the election does not have any write-in candidates, this option will not appear. Proceed to the next step.)



47. Press the **NO** button. *The report will print.*



48. *Verify that the votes for each candidate position are equal to 1 vote for the first position on the ballot, 2 for the second and so on. If the votes do not match the predetermined amount stop the test. Here is an example of an L&A tally tape revealing a desired pattern. The Tape below shows what the L&A results would be if the race in question appeared on two of the ballot styles loaded on the TS units schedule for use. For this example 44 ballots were cast.*

```

*****
** Summary Totals **
*****
JOHN ADAMS                2
JIMMY CARTER              4
MARTIN L. KING, JR       6
BETSY ROSS                8
GEORGE WASHINGTON        10
Write-In                  12
WRITE-IN                  12
*****

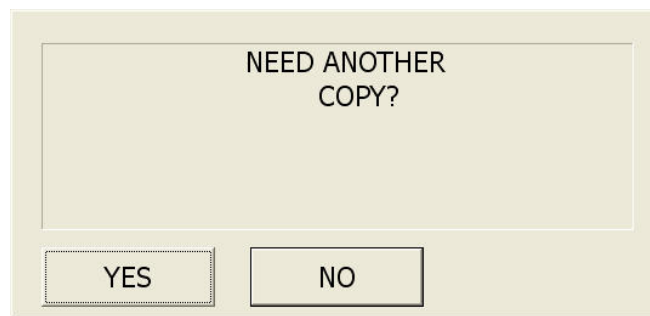
```

This line indicates how many votes were cast for the write-in position on the ballot

This line indicates how many TOTAL write-ins were cast for the race.

49. If the race above had appeared on only one ballot style loaded on the TS Unit, then the numbers would have read: 1, 2, 3, 4, 5, 6.


50. Press **NO**.

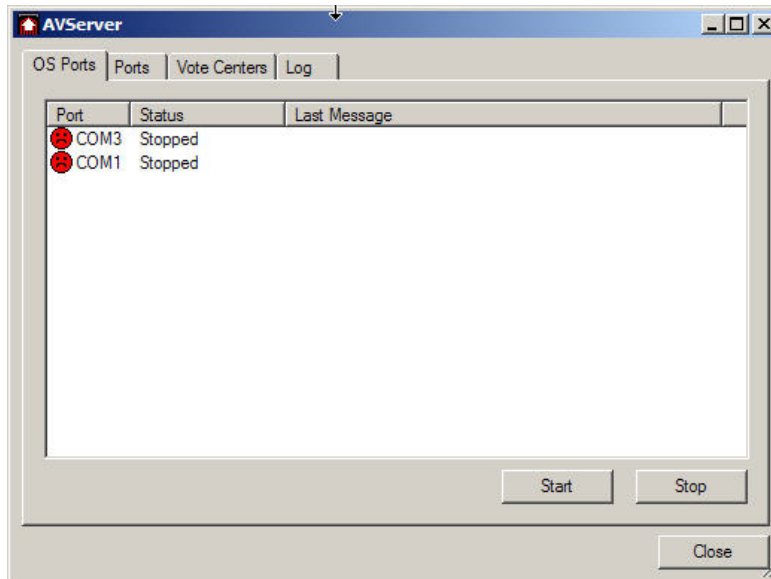


***During the Logic and Accuracy test, one PCMCIA Memory Card from each Vote Center shall be selected and loaded on the GEMS server.**

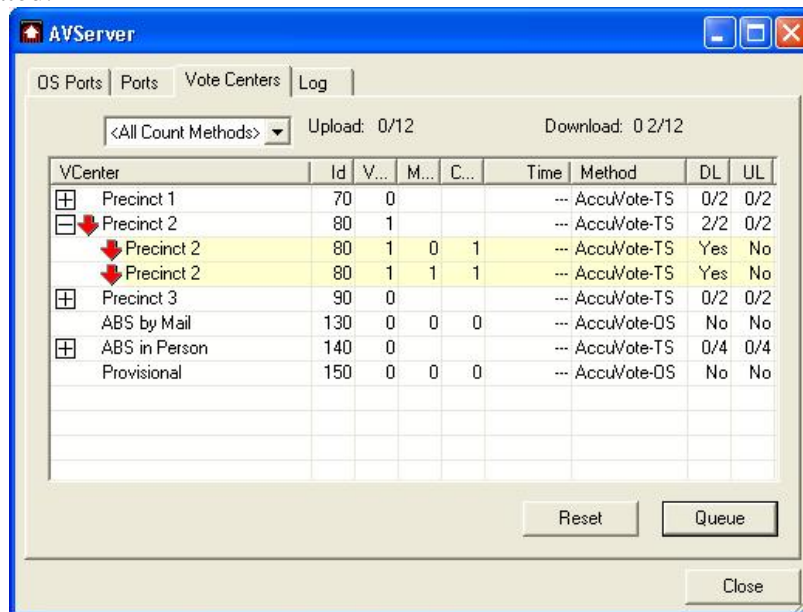
For those units whose memory card is not being uploaded back to GEMS as part of the L&A test, proceed to step 65 and proceed.

Uploading the Test Card

51. The server should be connected to a TS unit via a network cable.
52. On the GEMS server, open the election database
53. On the tool bar click the  icon button, this will open the AV Server window



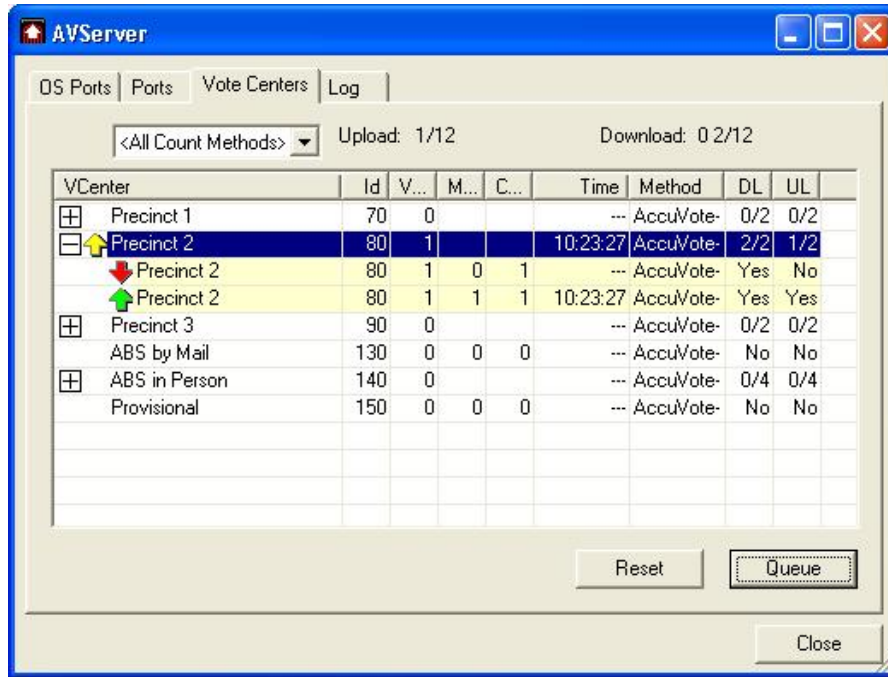
54. Click on the **Ports** tab and click **Start** (this will start the connection with the TS unit).
55. When the **Vote Centers** tab is opened, notice that both the OS and TS precincts are listed and will have red arrows next to those vote centers where memory cards have been created.



56. Insert the TS memory card to be uploaded into the TS unit connected to the GEMS server.
57. The TS units will display the **Pre-Election Mode** screen, touch the **Upload Results** button.
58. The **Transfer Results** screen will appear. Press **OK**. The memory card will transfer information to the server.
59. When prompted by the TS unit with:

“A total of 1 result files was successfully uploaded.
To upload another memory card, insert it and then
press YES. Press NO to finish”

60. Press the **NO** button (even when you have other memory cards to upload)
61. At the Transfer Complete screen, press **"OK"**.
62. The AV Server screen should show one memory card uploaded for the TS vote center.



(Figure 18)

63. Remove this precinct’s memory card and return it to its TS unit.
64. After testing the TS Memory Card, return it back into the original TS unit.

65. On the Main Menu Screen, Press **Set For Election** button.

The screenshot shows the 'Pre-Election Mode' screen. At the top, it displays 'Election Jul-25-2001' and 'Anywhere County, USA'. Below that, it shows 'Vote Center 10' and 'Precinct 1'. There are fields for 'Unit 8', 'Version 14', 'Copy 0', and 'Count 0'. A menu of options is displayed in a grid:

Test Count	Reporting	Clear Totals
View Ballot Results	Upload Results	Set For Election
Create Voter Cards	Accumulator	Supervisor Mode

At the bottom right, there is a 'Shutdown System' button. At the bottom left, there is a 'System Information' section with 'SN 1', 'System Total 0', and a green indicator 'AC Online 100%'.

66. The following message will be displayed. Press **OK**.

The screenshot shows a confirmation dialog box with the text 'Okay to Set For Election and Clear the counts?'. Below the text are two buttons: 'OK' and 'Cancel'.

67. A Zero Tape will begin to print.

68. Remove the L & A Test and Zero Tape from the printer.

69. From the Zero Tape, record Public Counter total (Count # on TS unit) checklist.

70. From the Zero Tape, record System Counter total (System Total # on TS unit) on checklist.

71. Shut down the Touch Screen by pressing the **RED** power button on the side and lock the side compartment door.

72. Check the paper roll to insure that there is enough paper to run the election. Change the roll if necessary. Attach the printer compartment door and lock.

73. Store the power cord and lower the screen to the flat position.
74. Close the lid and seal the Touch Screen booth with a numbered seal.
75. Record seal number on checklist.
76. Attach precinct shipping tag.
77. Complete the Custodian Certificate Form and attach the Zero Proof Tape.

Appendix A – Software Versions

Optical Scan

AccuVote OS 1.94W

Touch Screen

R6 – Ballot Station 4.5.2!

TSx – Ballot Station 4.5.2!

ExpressPoll

Express Poll 2.1.2

Security Key 4.5

Election Management System

GEMS 1.18.22 G

Glossary

Absentee – The process of casting a ballot for a specific election during a period of time preceding the scheduled Election Day. An absentee ballot can be cast in-person or via mail after the voter's absentee ballot request has been received and approved by the jurisdiction's voter registration office.

Active Voter - A voter who has participated in the elections process within the last three calendar years. *See O.C.G.A 21-2-234*

Base Precinct – A division of the group of individuals making up a Reporting Precinct. When all voters in the Reporting Precinct all reside within a jurisdictionally-defined common geographical location, then only one base precinct is present. In some circumstances the total group making up the Reporting Precinct may not all reside in the same geographical location. In this circumstance, a Reporting Precinct will have multiple base precincts.

Compact Flash Memory Card – A data storage device used by ExpressPoll to retain voter data and assigned ballot style information for a given election. Also called a CF Card.

Cross-Over Cable – A special type of network cable that allows two computing devices to communicate with one another directly. Cross-over cables are used to connect two ExpressPoll units when used together in a voting location.

District Combinations – A representation of the various Districts a single voter resides in at the same time. In GEMS, the district combo to which a voter is assigned is referred to as the voter's base precinct.

Districts – Geographical areas in which voters reside. Districts are political subdivisions that identify boundaries for House, Senate, Commissioners, etc.

Direct Record Electronic (DRE) – A DRE device stores the cast vote directly onto electronic media. Terms is used interchangeably with Touch Screen in the context of Georgia elections.

Ender Card – A specialized optical-scan ballot used by election workers to complete the process of scanning optical-scan ballots.

ExpressPoll – Device used to display all active and inactive voters within a given voting location for a given election. The device maintains a list of numbered voters as well as maintains the marked elector's list. ExpressPoll will create a voter access card for a voter shown on its list of voters for a specific voting location that enables the voter to access a ballot on a TS unit within their assigned voting location. Once the voter access card is created by the poll worker, the ExpressPolls indicates the voter as voted and transfers the voter's name to the numbered list of voters and prevents the voter's record from being used to create a second voter access card. Also called an electronic pollbook.

GEMS – Election management system used statewide to: create the ballot layout seen on touch screen units; create the ballot layout scanned by optical scanner; program the memory devices used to operate both touch screen units and optical scanners; and tabulate results collected from touch screen units and optical scanners used during an election within a jurisdiction. GEMS is an acronym for Global Election Management System. GEMS resides on a non-networked computer securely maintained within the jurisdiction’s elections office. This device is referred as the “Server. “

Inactive Voter – A voter who has not participated in the elections process within the past three calendar years. *See O.C.G.A. 21-2-234*

Jurisdiction – The territory within which authority may be exercised.

Memory Card – A data storage device used by both a Touch Screen Unit and an Optical Scanner to retain ballot information. GEMS transfers ballot information for a specific election and voting location to a memory card which is then installed into a Touch Screen Unit or an Optical Scanner. Any information collected by the Touch Screen Unit or Optical Scanner is saved to this data storage device. At the end of an election, each memory card created for a specific election must be uploaded to and accounted for by GEMS before that election can be finalized.

Network Cable – Also known referred to as a Cat 5 cable. A network cable is used to connect a computing device with a Switch.

Legal Organ – A publication responsible for publishing all legally required notices for a given jurisdiction.

Optical Scanner – Voting device used statewide in Georgia for the purpose of reading printed, optical scan ballots and collecting the votes of registered voters who have cast their ballot via mail-in absentee, provisional, or challenged processes. Abbreviated OS, as in OS Memory Card.

Reporting Precinct – A group of individuals who share a common geographical proximity as defined by the local jurisdiction. GEMS groups their vote results for a given election together for comparison purposes with other Reporting Precincts within the jurisdiction.

Supervisor Card – A smart card used by poll workers and specific election workers within the jurisdiction to access specific functions of a Touch Screen Unit. Supervisor Cards are green and have the seal of Georgia embossed on them.

Serial Cable – The computing cable used to connect an optical scanner to a GEMS server.

Switch – Also referred to in certain circumstances as a Hub. A device that allows multiple computing devices to communicate with one another. Computing devices are

connected to a Switch using a standard network cable. Cross-over cables are NOT used when connecting a device to a Switch.

Test Deck – A set of optical scan ballots containing a vote pattern known by the local elections office used during Logic and Accuracy testing to verify that an optical scanner is scanning and collecting data from ballots in a manner consistent with Georgia election code.

Thermal Paper – The type of paper used by the on-board printer contained in each TS unit.

Touch Screen Unit – Voting device used statewide in Georgia for the purpose of displaying electronic ballots and collecting the votes of registered voters during in-person absentee voting and on Election Days. A Touch Screen Unit (TS unit) is referred in the Official Code of Georgia Annotated as a Direct Record Electronic (DRE) voting device.

Vote Centers – A physical location (with street address) where voters assigned to a specific Reporting Precinct cast their ballots.

Voter Access Card – A smart card used by a voter to access their specific ballot style when using a Touch Screen Unit. This card contains no personal data only a specific code placed on the card by either an ExpressPoll or Touch Screen Unit which when read by a Touch Screen within the same voting location will display the ballot style associated to the specific voter. When the voting process is complete, the code contained on the card is cleared by the voting device and the card becomes unusable until reprogrammed by an ExpressPoll or Touch Screen Unit. Voter Access Cards are yellow and have the seal of Georgia embossed on them.

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