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AccuVote-OS

# Central Count User's Guide



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Central Count User's Guide

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# 1. Introduction

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## 1.1. Overview

Central Count is a device used for batch absentee ballot processing.

This document assumes Central Count is set up in a network configuration with an intelligent port server driving AccuVotes. Central Count may be alternatively configured with AccuVotes directly connected to a Windows NT host, or, with a modem connection, to an internet service provider (ISP).

### 1.1.1. Who this guide is for:

The Central Count User's Guide is designed for those who install and/or use Central Count.

## 1.2. Installing each unit:

1. Clear a space 5' by 2' on a clean, flat surface for every Central Count unit installed. Lay equipment out in a manner that allows free access to the LCD display side of the AccuVote.  
Verify that the AccuVote is loaded with central count firmware by powering the unit and observing the boot prompt on the LCD.
2. Locate the AccuVote so that front face of the unit is 15" back from the edge of the surface it is being installed on.
3. Plug the infrared connector into the infrared jack at the back of the AccuVote.
4. Insert the metal plate into the infeed area of the AccuVote with the flange bracketed downwards against the front face of the AccuVote.
5. Remove the printer cover and ensure that the printer ribbon is sufficiently inked and enough paper is available on the paper roll.
6. Insert a memory card into the memory card slot.
7. Plug a 9-pin ribbon cable into the direct serial port at the back of the AccuVote and run the cable along the back side of the AccuVote.
8. Mount the AccuFeed on the AccuVote so that the left side of the AccuFeed is flush with the right side of the printer compartment. The AccuFeed fits snugly over the top of the AccuVote's ballot input recess, and the bottom of the AccuFeed should be almost flush with the surface of the workspace. Ensure that the ribbon cable is threaded at the immediate back of the AccuVote so that it is not impeded by the AccuFeed.
9. Place the handle in the slots of the outfeed tray corresponding to the length of ballot to be processed.
10. Mount the lip of the outfeed tray over the lip at the back of the AccuFeed. Pull the outfeed tray outward to ensure that the tray properly attached.
11. Set the infeed tray extension for the ballot length by adjusting the tray's flanges to the grooves in the outfeed tray.
12. Install the infeed tray by sliding the tray in a straight line into the front of the AccuFeed so that the arm extending from the tray pushes in the AccuFeed infeed tray trigger. The infeed tray should fit snugly into the AccuFeed.
13. Connect a power cord from the power jack of the AccuVote to AC power.
14. Connect a power cord from the power jack in the cavity at the left side of the AccuFeed to AC power.

15. Attach the ribbon cable connector to the DB9 side of a DB9/RJ45 connector.
16. Attach an Ethernet cable to the RJ45 jack on the DB9/RJ45 connector and to one of the port jacks on the intelligent port server.
17. Ensure that all cabling is threaded along the underside of the outfeed trays.
18. Power on both the AccuVote and AccuFeed.

### 1.3. Activating Central Count in GEMS

The following section describes how to configure GEMS to accept the ballots.

- 1) Open the GEMS database.

If you have not already done so, set the election status to 'Set for Election'. Select Setup in the menu bar, Election in the drop-down menu and select the Election Status check box. Click on the OK button.

- 2) Activate the Central Count console. Select GEMS in the menu bar and select Central Count in the drop-down menu.

3) Under the Machines tab, click on the Select button, select the vote center for which central count is to be activated in the Select Vote Center window. Only vote centers with Count Method set to 'Central Count' in the Vote Center Editor are listed in the VCenter list. In order to select any other vote center for central counting, select the All Vote Centers check box, and all vote centers defined in the election will be displayed in the VCenter list. Click on the Start button.

Note that only one vote center may be centrally counted at once.

- 4) The Opening Central Count progress box is displayed as GEMS prepares for central count. Once the console has been readied, the Start button is disabled and the Stop button is enabled.

- 5) In order to terminate Central Count, click on the Stop button.

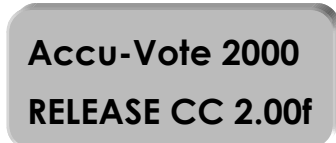
- 6) In order to exit the console, click on the Close button. Do not click on the Close button without having stopped the central count session for the vote center.

Note that the Central Count console is modeless, that is, it may be accessed at the same time as the GEMS main window. The election status cannot be changed as long as the console is active.

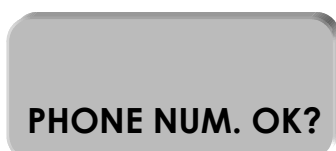
### 1.4. Activating Central Count on the AccuVote

Steps 1 through 13 are required if a memory card has not yet been configured for central count. If it has, power the AccuVote on and begin at 14.

- 1) Power the AccuVote on while pressing the Yes button 4 seconds in order to enter Setup mode. Note that a memory card configured in central count will erase any information programmed to the card.



appears on the AccuVote LCD, followed by:

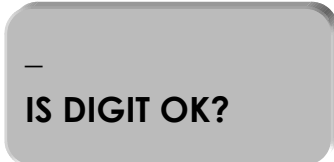


No telephone number is required to perform central count (in this configuration).

2) Press the Yes button to continue.

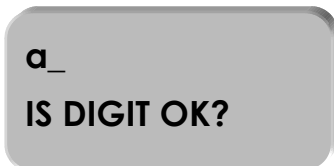


3) Press the No button in order to begin defining a Login name.

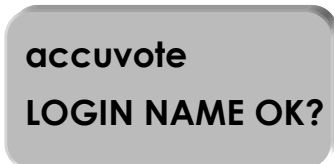


The Login name is 'accuvote', which is defined with the Yes and No buttons. The No button is pressed in continuous fashion in order to list characters and digits in sequence. Once the desired character is found, press Yes to accept the character and advance to the subsequent character position.

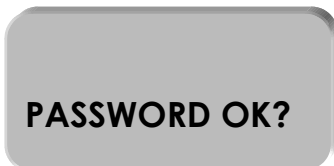
The cursor now appears in the first digit. Press the No button until the letter 'a' is displayed, then press the Yes button to advance to the next digit.



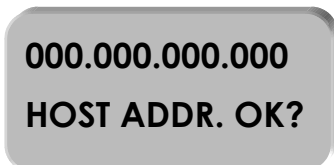
4) Continue in this manner until 'accuvote' is entered.



5) Press the Yes button.



6) No password is required – press the Yes button.



7) Press the No button in order to enter the election server's host IP address. If you are unsure about the computer's IP address, look it up with the assistance of the section titled IP Address below.

**000.000.000.000  
IS DIGIT OK?**

8) Press the No button successively in order to display each digit in sequence. When the correct digit is displayed, press Yes in order to continue to the next digit.

9) The cursor is positioned under the first digit in the available digit sequence. Press No in order to advance the digit to '1' and press Yes in order to position the cursor to the next digit position.

**100.000.000.000  
IS DIGIT OK?**

10 ) Continue in this manner until the entire IP address has been entered. Note that the cursor will automatically advance across the decimal places.

**192.168.004.010  
HOST ADDR OK?**

'192.168.004.010' is an example of a host address. When the computer's IP address has been correctly entered, press Yes to continue.

**SAVE SETUP  
ON MEMCARD?**

11) Press Yes. Setup mode is now complete. The unit now establishes a connection with the host NT machine.

**OK TO FORMAT  
THIS MEM CARD?**

12) Press Yes.

**FORMATTING  
MEM CARD**

appears on the LCD as the card is formatted, followed by:

**LOGGING IN TO  
SERVICEPROVIDER**

and

**CONNECTING TO  
NETWORK ...**

which indicate that the AccuVote is attempting to access the host computer over the network.

14) In some cases a minor delay may be experienced as the AccuVote attempts to connect to the host machine. If an initial connection could not be established, the following message appears:

**LOGIN ERROR  
ATTEMPTCONNECT?**

15) Press Yes in order to repeat the connection attempt.

**192.168.004.010  
HOST ADDR. OK?**

16) The IP address of the election host is displayed. Press Yes to confirm.

**USE BALLOT  
FEEDER?**

17) Press Yes in order for AccuFeed usage to be established.

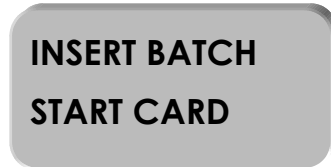
**INSERT BATCH  
START CARD**

17) Each Central Count unit is assigned an IP address by the port server. The IP number is printed on the AccuVote tape as the machine is readied to accept the first batch. A batch start card must be fed before feeding the first deck of ballots.



### 1.4.1. Feeding ballots

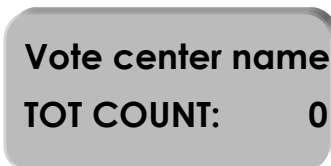
Once a unit is ready to accept ballots, place a deck of ballots with either a Batch Header or Batch Start card on top of the deck, with an AccuVote Ender card on the bottom, into the infeed tray. Once the AccuFeed lid is dropped onto the batch,



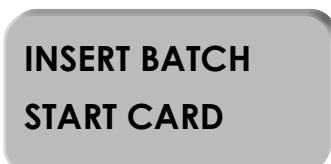
changes to:



followed by:



as the unit processes the batch card. The batch number is printed on the AccuVote tape. 'TOT COUNT' is incremented for every ballot passing through the card reader that is not returned. Once the AccuVote Ender card is processed, the LCD reverts to:



and the deck number, the deck number committed and the ballot counted are printed on the AccuVote tape.

### 1.4.2. Batches

Ballots are counted in batches, which are tagged with either with Batch Start cards or Batch Header cards. The batch number assigned by GEMS upon feeding a Batch Start card is incremented from the number assigned to the last Batch Start card fed in any of the central count units active.

Batch numbers are pre-assigned from Batch Header cards, where GEMS assigns the batch number coded onto the Batch Header card as it is fed. It is not possible to open a second batch within an active batch, nor is it possible to assign a Batch Start card which has already been used unless the batch is deleted from the database.

The AccuVote Ender card is used to end a batch, at which point the batch is committed to the GEMS database. If the counting of a batch is interrupted (ie. the connection to the host computer is lost) the contents of the deck are also lost.

Batch cards should be kept with each batch after processing for auditing purposes. While a batch may contain any number of ballots, the AccuFeed infeed hopper cannot accommodate more than 200 ballots.

Batches greater than 200 ballots should be subdivided accordingly. If varying sized ballots are featured in an election, these ballots should be batched separately, as the infeed tray extensions and outfeed tray handles must be set corresponding to ballot length.

### 1.4.3. Precinct Header cards

Precinct Header cards are used to override precinct or sequence numbers on ballots in vote centers where ballots otherwise acceptable bear conflicting numbers or are insufficiently identified. Central count adopts the precinct number marked on the Precinct Header card for all following ballots until a Precinct Separator card is fed. The Precinct Separator card returns the unit out of precinct override mode.

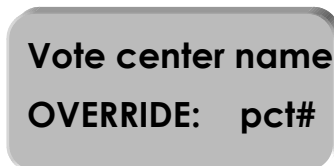
For example, an absentee vote center may accept all polling cards in an election but require the cards to bear the number of the absentee vote center (if the Use Card Pct Ids field for the corresponding counter group is checked in the Counter Group Editor). By using a Precinct Header card numbered with the absentee vote center's precinct number, polling ballots are accepted in precinct override mode.

In another example, more than one precinct in a cumulative vote center may accept cards with the same sequence number. Ballots are fed with Precinct Header cards in order to indicate the precinct a card with a particular sequence number is to be assigned to.

Cards need not be fed in precinct override mode if there is no ambiguity in precinct assignment. For example, a card with a particular sequence number need not be fed in precinct override mode if the card sequence is valid in only one precinct in the vote center.

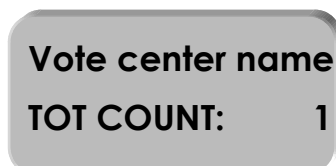
Precinct Header cards may only be fed within a batch – central count cannot be placed in precinct override mode if a batch has not been initiated.

Feeding a Precinct Header card changes the LCD display to:



**Vote center name**  
**OVERRIDE: pct#**

where 'Vote center name' is the name of the vote center being centrally counted and 'pct#' is the number of the overriding precinct. This prompt is displayed until the first card is fed, at which point the LCD changes to:



**Vote center name**  
**TOT COUNT: 1**

'TOT COUNT' maintains a count of all cards fed in override mode for that particular precinct, for both the current override and any prior override in the current batch. Outside of precinct override mode the ballot counter reflects the total number of cards fed in the entire batch.

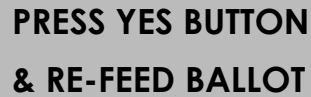
The Vote Centers with Cards reports (either by ID or Label) may be used to determine the precinct/card assignments in each vote center. These reports list each vote center in the election with report precincts, sequence numbers (where applicable) and card numbers. For sake of organization batch cards for processing in precinct override mode by precinct.

It is possible to enter override mode for the same precinct on all central count units.

An AccuVote Ender card may be used to end both precinct override mode and a batch at the same time.

#### 1.4.4. Ballot Return Messages

The following messages are displayed on the AccuVote LCD if conditions are encountered on a ballot that correspond to return conditions defined under the Reject Settings tab in the AccuVote Options window in GEMS. The ballot returned in central count is the last ballot passed through the card reader. The ballot return message flashes on the AccuVote LCD on an alternating basis with:



**PRESS YES BUTTON  
& RE-FEED BALLOT**

Options for processing returned ballots include:

- removing the ballot from the deck for later processing
- refeeding the ballot while pressing the Yes button in order to override the return condition
- remarking the ballot in order to comply with voter intent or marking another ballot in order to comply with voter intent, where applicable

A blank ballot has been fed in an election set to reject blank voted ballots:



**REJECT\_BLANKCARD**

A ballot with at least one overvote has been fed in an election set to reject overvoted ballots:



**REJECT\_OVERVOTE**

A ballot with at least one undervote has been fed in an election set to reject undervoted ballots:



**REJECT\_UNDERVOTE**

A ballot with at least one race blank has been fed in an election set to reject ballots with at least one blank race:



**REJECT\_BLANKRACE**

### 1.4.5. Host IP Address

If you are not sure of the election server's IP address, you may verify it as follows:

- 1) Click on the Start button, select Settings in the pop-up menu and Control Panel in the cascading menu.
- 2) In Control Panel, double-click on the Network icon.
- 3) In the Network window, under the Protocols tab, select TCP/IP Protocol and click on the Properties button.
- 4) The computer's IP address is entered in the IP Address field under the IP Address tab in the Microsoft TCP/IP Properties window.
- 5) Click on Cancel in the Microsoft TCP/IP Properties window, again in the Network window, then exit from Control Panel.

