

## Statewide Optical Scan Voting Systems: Vendor Product Summary and Comparison (4/23/04)

Product Feature	Diebold - AccuVote	ES&S - M-100	Sequoia - Insight (note: details shown are for comparison purposes only--no sales until ITA approval of EMS)
Tabulator Display and Printer	LCD message display located at front of tabulator. Messages do not print on tape. Printer is louder and slower than others, and also requires a printer ribbon. End card is required to close the polls.	LCD message display located at front of tabulator. Messages do not print on tape. No printer cartridge is required.	No display on front of equipment; all data printed on tape. Printouts on tape are fast, quiet, and clear. No printer cartridge is required.
Tabulator Weight/Carrying Case	The tabulator weighs approximately 14 pounds. The tabulator carry case is padded and is constructed of nylon with a zipper opening across the top and may be carried using either the nylon handle or the shoulder strap.	The tabulator weight was not provided. The tabulator carry case is moisture resistant and dustproof.	The tabulator weighs 24 pounds. Carry case provided.
Memory Cards/Prompt Packs	Proprietary memory card (must be purchased from Diebold) can accept multiple ballot styles as well as split precincts. \$250 cost for additional / replacement cards. Two memory cards included with each tabulator.	Non-proprietary memory card can accept multiple ballot styles as well as split precincts. Replacements may be purchased at local office supply stores or from vendor for \$98.00. Two memory cards included with each tabulator.	Proprietary memory packs (must be purchased from Sequoia) can accept multiple ballot styles as well as split precincts; \$250 for additional/replacement packs.
Batteries	Memory card batteries are commercially available and are not re-chargeable.	The Model 100 optical scan Precinct Ballot Counter contains a sealed lead-acid battery and charge/surge protection circuit that powers and protects all aspects of the tabulator during an electrical outage or other abnormality. The data resides on a PCMCIA card that also contains a backup battery.	Memory pack batteries are commercially available and are not re-chargeable. The tabulator battery life is approximately 6 years as long as a full charge is maintained. The tabulator will run approximately 18 hours on a charge, dependent upon usage.
Ballot Box	Tabulator ballot box has wide doors for easy visibility and access but does not have wheels. Primary bin and write-in bins each hold up to 1500 ballots.	Tabulator ballot box has wide doors for easy visibility and access.	Tabulator ballot box has removable ballot receptacles. Compartment doors are large for easy visibility and access. Ballot box is on has wheels.
Election Management System (EMS) Software	General impression is that the software could be difficult to master. Flexible ballot layout capabilities. Offers up-to-date reporting capability for media and public.	EMS software appears to be user friendly. Offers up-to-date reporting capabilities for media and public.	DOS-based programs look somewhat outdated and seem more complex to use. Software is split into three different programs (BPSII, EMS and AERO). Software does not work with DRE. BPSII can interact with other vendor's programs. Offers up to date reporting capabilities for media and public.

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Ballots/ Maximum Vote Positions	Available ballot sizes: 8.5"x11"; 8.5" x14"; and 8.5" x 17". Recommended ballot stock: between 90 and 110 pound paper stock. Short grain paper recommended to aid in the scoring and folding of absentee ballots. Offers 576 vote positions.	Ballot sizes range from 8 1/2 x 14 to 8 1/2 x 19, with up to 204 ballot positions per side. Elections with large numbers of candidates and issues may require two ballots.	Recommended ballot stock: 110 pound index stock. Utilizes arrows to define vote positions. Offers 712 vote positions.
Printer Certification	Vendor provides support to other printers. Offers a two tiered program: 1) printers that process ballot print orders from vendor and 2) printers that process ballot print orders directly from client. At this point the following printers are authorized to print ballots for use with the AccuVote: 1) Cadillac Printing, Cadillac 2) Inland Printing, Detroit; 3) Sealy Printing (unknown location).	Interested printers must pay the vendor a \$5500 fee to become qualified. At this point, the following printers are qualified to print ballots for use with the M-100: 1) Michigan Election Resources, Kalamazoo; 2) Printing Systems, Taylor; 3) Print Com, Flint.	Interested printers must first purchase a printers kit for \$1500 which contains all of the necessary technical information and standards. At this point, the following printers are authorized to print ballots for use with the Insight: 1) Michigan Election Resources, Kalamazoo; 2) Custom Printers, Grand Rapids; 3) Print Com, Flint; 5) Gage Printing, Battle Creek; and 6) Inland Printing.
Rejection of Ballots	Ballots that are returned due to overvotes, cross over votes, blank reads, improper coding or are otherwise defective are ejected and extend beyond the face of the tabulator. The override button is located at the front of the tabulator behind a door which must be unlocked by an election official for access. The override button must be continuously pushed to reinsert the ballot.	Ballots that are returned due to overvotes, cross over votes, blank reads, improper coding or are otherwise defective are concealed under a lockable cover at the front of the tabulator. The override button is also located at the front of the tabulator. The reason for the return is displayed on the LCD window until action is taken by an election official to override and accept the ballot or re-vote the ballot. The tape does not print error messages and the audit report is abbreviated.	Ballots that are returned due to overvotes, cross over votes, blank reads, improper coding or are otherwise defective are ejected and extend beyond the face of the tabulator. The override button is located at the back of the tabulator. The reason for the return prints out on the tape.

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Additional Equipment/Software required	Diebold has asserted that its GEMS software must run on a standalone, dedicated high-end server with a significant level of support and service required. The State recommends that jurisdictions contact this vendor directly and insist on justification for these costs.	E S & S has provided specifications for a high-end PC to run its EMS software. The State recommends that jurisdictions contact this vendor directly for more detailed information and justification for all costs.	A separate Memory Pack Reader is needed to program memory packs and accumulate precinct totals. Memory Pack Readers are included in the EMS purchase price. BPSII requires a PC configured as: Pentium 3GHZ processor, 1 GB RAM, 30-40 GB hard drive; Microsoft XP Professional operating system is recommended. The following software is also required: Microsoft Office 2000 Professional, Visio 2002, Adobe Acrobat 6.0. The State recommends that jurisdictions contact this vendor directly for more detailed information and justification for all costs.