



Accessible and Verifiable Voting Technology: Overview

The latest version of this chart appears at <http://www.verifiedvotingfoundation.org/accesscharts>

Some people are concerned that requirements for voter-verified paper records may delay implementation of the Help America Vote Act's (HAVA) provisions for accessible voting systems. Nothing could be farther from the truth. Equipment exists today offering both accessible and auditable voting for all voters; it is not necessary to choose between the two.

Not all accessible equipment is created equal, however. Some systems offer a wider range of options. Some offer accessible features on all units, while others provide those features only when required. Demonstrations of auditable and accessible voting equipment have taken place from New Jersey to Oregon in recent months. Some vendors have worked with accessibility advocates to develop cross-disability access and broaden the range of available features and options.

The first chart below summarizes which accessibility and verifiability categories each voting technology model makes available. The accessibility categories on the first chart link to separate charts showing more specific accessibility features for each accessibility category.

Vendor	Model	Vision [chart]	Dexterity [chart]	Mobility [chart]	Hearing [chart]	Cognitive [chart]	All Units Accessible	VVPR on All?
AccuPoll	AVS 1000 ¹	partial	partial	minimal	complete	complete	yes	always
AutoMARK (ES&S)	ballot marking device ²	complete	complete	minimal	partial	partial	yes	always
Avante	Vote Trakker ³	partial	partial	partial	none	minimal	yes	always
Avante	Vote Trakker Full Face ⁴	partial	partial	minimal	none	minimal	yes	always
Diebold	AccuVote TS ⁵	minimal	minimal	complete	complete	minimal	no	optional
Diebold	AccuVote TSX ⁶	partial	minimal	partial	none	minimal	no	optional
ES&S	iVotronic ⁷	partial	minimal	partial	none	minimal	no	optional
ES&S	iVotronic LS ⁸	partial	minimal	none	partial	partial	no	optional
Hart Intercivic	eSlate ⁹	partial	partial	partial	complete	complete	no	optional
Populex	Digital Paper Ballot ¹⁰	partial	partial	none	partial	minimal	no	optional
Sequoia	AVC Edge ¹¹	partial	minimal	partial	minimal	partial	no	optional

Key to Overview Chart:

- A. "Vision" = The voting process shall be accessible to voters with visual disabilities, including partial vision, poor vision, color blindness, and blindness.¹²
- B. "Dexterity" = The voting process shall be accessible to voters who lack fine motor control or the use of their hands. All keys and controls should be operable with one hand and not require strong grasping, pinching, or twisting of the wrist.¹³
- C. "Mobility" = The voting process shall be accessible to voters who use mobility aids, including wheelchairs. All controls should be within reach of the voter.¹⁴
- D. "Hearing" = The voting process shall be accessible to voters with hearing disabilities, providing both audio and visual cues to the voter. Also no voting station will require speech for its operation.¹⁵
- E. "Cognitive" = The voting process shall be accessible to voters with cognitive disabilities. All voters should be able to negotiate the process effectively, efficiently, and comfortably.¹⁶
- F. "All Units Accessible" reflects whether the accessibility features are on each unit, or whether they are optional add-ons.
- G. "VVPR on All?" indicates whether the voter-verified paper record audit feature is available as part of every device, or whether it is an optional add-on.

Footnotes for Overview Chart:

1. <http://www.accupoll.com/TheAccuPollAdvantage/Brochures/accessibility.pdf>
2. <http://www.essvote.com/HTML/docs/AutoMark.pdf> (Note: Although some maintain that ballot-marking devices are not accessible to mobility-impaired and dexterity-impaired individuals due to the need to move the paper ballot from the device to the secure ballot box, in most areas election workers insert the ballots into the ballot box for all voters, and since it is possible to use privacy sleeves to maintain ballot secrecy for all voters, the ballot-marking devices provide as much accessibility to mobility-impaired and dexterity-impaired voters as to all other voters.)
3. <http://www.vote-trakker.com/White%20Papers/ACCESSIBLE%20VOTING%20with%20voter%20verifiable%20paper%20records%20in%20DRE%20Voting%20System.pdf> and http://www.vote-trakker.com/accessible_optical_voting.html
4. <http://www.vote-trakker.com/White%20Papers/fullfaceballottouchscreensystem.pdf> and http://www.vote-trakker.com/accessible_optical_voting.html

5. http://www6.diebold.com/dieboldes/accuvote_ts.htm
6. http://www6.diebold.com/dieboldes/accuvote_tsx.htm
7. <http://www.essvote.com/HTML/docs/iVotronic.pdf>
8. http://www.essvote.com/HTML/docs/ESS_iVotronic_LS.pdf
9. http://www.hartintercivic.com/files/accessible_DLA_12_rev.pdf
10. <http://www.populex.com/dfb.htm>
11. <http://www.sequoiaivote.com/docs/AVCEdge.pdf>
12. <http://www.verifiedvotingfoundation.org/downloads/v1s2.pdf> pp.16-18
13. <http://www.verifiedvotingfoundation.org/downloads/v1s2.pdf> p.25
14. <http://www.verifiedvotingfoundation.org/downloads/v1s2.pdf> p.26
15. <http://www.verifiedvotingfoundation.org/downloads/v1s2.pdf> p.30
16. <http://www.verifiedvotingfoundation.org/downloads/v1s2.pdf> pp.30,34

Acknowledgements: Thanks to Verified Voting Foundation interns Jason Kim and Sarah Glaubman for the research required to prepare these charts.

© Copyright 2005, Verified Voting Foundation, Inc. All rights reserved, although reprint permission granted for nonprofit purposes with attribution to Verified Voting Foundation, Inc., a 501(c)(3) nonprofit corporation.