

Accessible and Verifiable Voting Technology: A Feature Comparison

Some 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 chart below shows some of the possibilities and the links available on many items lead to further information.

<u>Vendor</u>	<u>Model</u>	<u>Zoom/ Fontsize</u>	<u>Contrast</u>	<u>Color- shift</u>	<u>Audio</u>	<u>Tactile keypad</u>	<u>Sip/Puff option</u>	<u>Languages</u>	<u>VVPR on all?</u>	<u>All units accessible</u>	<u>Additional features</u>	<u>Fed Cert to 2002 standards?</u>
<u>AccuPoll</u>	<u>AVS 1000</u> ¹	yes	yes	yes	yes	yes	yes	yes	always	yes	VVPR readback	yes
<u>AutoMark (ES&S)</u>	<u>ballot marking device</u> ²	yes	yes	yes	yes	yes	yes	yes	always	yes	VVPR readback	yes
<u>Avante</u>	<u>Vote Trakker</u> ³	Yes	yes	yes	yes	yes	no	unlimited	always	yes	VVPR readback	no
<u>Avante</u>	<u>Vote Trakker Full Face</u> ⁴	yes	yes	yes	yes	yes	no	unlimited	always	yes	VVPR readback	no
<u>Avante</u>	<u>Optical Vote Trakker</u> ⁵	yes	yes	yes	yes	yes	no	unlimited	always	yes	VVPR readback	yes
<u>Diebold</u>	<u>Accuvote TS</u> ⁶	yes	no	no	yes	no	no	yes	optional	no		no
<u>Diebold</u>	<u>Accuvote TSx</u> ⁷	yes	?	no	yes	no	no	yes	optional	no		no
<u>ES&S</u>	<u>iVotronic</u> ⁸	none listed	none listed	none listed	yes	yes	no	yes	optional	no		yes
<u>ES&S</u>	<u>iVotronic LS</u> ⁹	yes	yes	none listed	yes	yes	no	yes	optional	no		no
<u>Hart Intercivic</u>	<u>eSlate</u> ¹⁰	no	no	no	yes	yes	yes	yes	optional	no	jelly switches	yes
<u>Sequoia</u>	<u>Edge</u> ¹¹	none listed	none listed	none listed	yes	none listed	no	yes	optional	no		no
<u>Sequoia</u>	<u>Advantage</u> ¹²	none listed	none listed	none listed	yes	none listed	no	yes	optional	no		no

Key to Chart:

- A. “Zoom/Fontsize” = capability to enlarge font so that voters with limited vision can more easily read the text.
- B. “Contrast” = increase or change contrast so text stands out. Helps voters with limited vision.
- C. “Color Shift” varies the colors shown on the screen, for voters with color-blindness and/or limited vision.
- D. “Audio” refers to a feature which allows voters to hear the instructions and ballot choices read to them through headphones. Some systems use synthesized voice, while others use human voice. [Only the AutoMark offers synchronized audio/video (enables the audio interface to be synchronized to the text being displayed on the screen, an important benefit for voters with a variety of cognitive impairments). New Draft NIST Voluntary Voting Systems Guidelines indicate "it is anticipated that this will become a requirement in future versions [of the VVSG]."]
- E. “Tactile keypad” refers to manual controls which may include Braille, specially raised or shaped buttons, etc. to facilitate the selection of choices as the voter goes through the ballot.
- F. “Sip/puff option” indicates whether a type of assistive device known as sip-puff can be attached to the voting system for voters unable to use manual controls or touchscreen.
- G. “Languages” = assistance for voters who speak languages other than English.
- H. “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.
- I. “All units accessible” reflects whether the accessibility features are on each unit, or whether they are optional add-ons.
- J. “Additional features” shows any other options or features which enhance accessibility. "VVPR readback" means that the voter can hear an audio readback of the voter-verified paper record itself, not merely an audio readback of the electronic record.
- K. “Fed cert. to 2002 standards?” – Not all equipment in use or available today is certified to the newest federal standards (2002). Some have components which are, but the entire system may not be. The prior standards are from 1990.

Footnotes:

1. <http://www.accupoll.com/TheAccuPollAdvantage/Brochures/accessibility.pdf>
2. <http://www.essvote.com/HTML/docs/AutoMark.pdf>
3. <http://www.vote-trakker.com/White%20Papers/ACCESSIBLE%20VOTING%20with%20voter%20verifiable%20paper%20records%20in%20DRE%20Voting%20System.pdf>
4. <http://www.vote-trakker.com/White%20Papers/FULLFACE%20BALLOT%20TOUCH-SCREEN%20SYSTEM-edited%20for%20new%20system.pdf>
5. http://www.vote-trakker.com/accessible_optical_voting.html
6. http://www6.diebold.com/dieboldes/accuvote_ts.htm
7. http://www6.diebold.com/dieboldes/accuvote_tsx.htm
8. <http://www.essvote.com/HTML/docs/iVotronic.pdf>
9. http://www.essvote.com/HTML/docs/ESS_iVotronic_LS.pdf
10. http://www.hartintercivic.com/files/accessible_DLA_12_rev.pdf
11. <http://www.sequoiavote.com/docs/AVCEdge.pdf>
12. <http://www.sequoiavote.com/productguide.php?product=AVC%20Advantage&type=Introduction>