



## Electronic Voting Machine Information Sheet

Avante — Vote-Trakker EVC-308SPR

**Name / Model:** Vote-Trakker / EVC-308SPR<sup>1</sup>  
**Vendor:** Avante International Technology, Inc.  
**Voter-Verifiable Paper Record Capability:** Yes.



### Brief Description:

Avante's Vote-Trakker 1 (EVC-308), was the first system to deliver a voter-verified paper audit trail. The Vote-Trakker 2 (EVC-308SPR) is Avante's latest voting machine with this capability. Voters use a "smart card" called a Voter Identification (VID) card to initialize the machine. After voting, the voter inspects a paper printout of their vote behind clear plastic. The voter then either cancels the vote or approves it. When cast, the paper record of the vote is deposited into an attached ballot box and the electronic record of the vote is written to flash memory and a hard drive within the machine. At the end of the election, the contents of the hard-drive are written to a writeable CD-ROM. Finally, the attached ballot box and the CD-ROM are transported to a tabulation facility where the CD-ROMs from all precincts are read into a central tabulation computer and summed to produce an aggregate vote count. This system is used only in Warren County, NJ.

**Detailed Voting Process:** After confirming the voter is registered, he or she is handed a "smart card" called a Voter Identification (VID) card to activate the voting machine.<sup>2</sup> This allows the machine to vote once. A "smart-card" is a card the size and shape of a credit-card which contains a computer chip, some memory and basic data such as the voter's ballot style.<sup>3</sup>

<sup>1</sup> See: <http://www.vote-trakker.com/overview.html>

<sup>2</sup> Note that Avante uses what is called a "contactless," "non-directional" smart card. Respectively, this means that the chip inside the card is not exposed and it does not matter which way the card is inserted into the machine. These types of smart cards are more difficult to hack and easier for voters to use.

<sup>3</sup> The ballot style specifies the races in an election and can be specific to a precinct and, during a partisan primary, the voter's political party. The card contains a 24 character randomly generated number that is used to connect the electronic ballot with the paper record.



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After using the touchscreen to vote, the SPR can then print a paper record. Displayed under clear plastic to avoid manipulation (see ballot box to the left of the machine in images above). The voter inspects the printout for accuracy. If the vote is incorrect, the voter indicates as so using the touchscreen and is given another chance to fix their mistakes after the paper record is deposited in a compartment in the machine for spoiled votes. If the vote is correct, the voter indicates so using the touchscreen and the machine prints a barcode on the paper record and drops it into the ballot box attached to the machine.<sup>4</sup> At the same time, the vote is electronically recorded internally to flash memory and an internal hard drive as ballot images.

At the end of the day, a poll worker with a special poll worker card closes each machine. The contents of the hard drives in each machine<sup>5</sup> are then written to a writeable CD-ROM (also called a CDR). The CDR can only be written once and cannot be changed afterwards. The CDR with the vote data and ballot box for each machine is delivered to a tabulation facility. At the tabulation facility, the vote data is read off of the CDRs from each precinct and fed into Avante's tabulation software. What is done with the paper audit records varies highly by state and county.

### What to Look For

- **Security Seals.** Ideally, the Vote-Trakker's exposed ports, memory card access areas and case seams would be covered with tamper-evident security seals. The integrity of these seals should be maintained at all times, and only breached under controlled, explained circumstances. A voided seal looks like this: <http://www.flickr.com/photos/joebeone/2247733620/> . Seals should be logged to maintain chain of custody of sensitive materials.
- **The Memory Card is Sensitive.** Corrupt memory cards can introduce viruses, cause the main election server to crash and falsify votes. Access to the memory card should be controlled, monitored and logged at all times.

### Past Problems:

**None known.**

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<sup>4</sup> The barcode facilitates efficient counting of the paper records and contains no information about the voter.

<sup>5</sup> Note that if a question arises about the integrity of a CDR or hard-drive in case of a discrepancy between the paper records and the CDRs, the internal flash memory can serve as another redundant check. This is a last resort as it involves opening the Vote-Trakker's case.



**ELECTION PROTECTION** **YOU HAVE THE RIGHT TO VOTE**  
**1-866-OUR-VOTE**

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### **NASED Qualification Status:**<sup>6</sup>

**05/20/04:** Vote-Trakker EVC-308SPR Touch Screen DRE (firmware 4.7.6)<sup>7</sup>

### **References:**

The information in this document was obtained from David Alampi at Avante International Technology, Inc.

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<sup>6</sup> *NASED Qualified Voting Systems (11/18/2005)*. National Association of State Election Directors. See: <http://www.nased.org/certification.htm>

<sup>7</sup> The SPR is fully NASED-qualified against the Federal Election System's 2002 Voting System Standards.