

# OHIO VOTING SYSTEM REQUIREMENTS MATRIX

**FOR USE BY THE BOARD OF VOTING MACHINE EXAMINERS' EXAMINATION OF VOTING SYSTEMS SUBMITTED FOR APPROVAL AND CERTIFICATION IN OHIO ELECTIONS**

**All steps required by OAC 111:3-2-06 using Primary and/or General Election ballots per Secretary of State Directives 2011-45 and 2012-34.**

EXAMINER'S NAME:	DATE:	SYSTEM BEING EVALUATED:		
		SIGNATURE: _____		
CRITERIA	ACCEPTABLE OR "YES"	UNACCEPTABLE OR "NO"	COVERED IN EAC TEST REPORT/VSTL TEST MATERIALS	QUESTIONS / COMMENTS
<b>System Overview:</b>				
Display and discuss all manuals, including precinct election official instructional manuals.				
Equipment has received a federal certification number issued by the U.S. Elections Assistance Commission (R.C. 3506.10(H)(4)(a)).				
Equipment has been certified by an independent testing authority as meeting or exceeding the minimum requirements of the federal election commission voting system standards (OAC 111:3-3-01(C)(15)).				
<b>Hardware Configurations and Opening Procedures</b>				
Demonstrate opening of polls including the printing of a "Zero Tape."				
Demonstrate means of locking out access to set up procedures to anyone but authorized personnel.				

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**Election Management – System Setup and Configuration – General Election**

<p>Demonstrate actual ballot set up, using the following races and questions and issues:</p> <ul style="list-style-type: none"> <li>• The 2012 Presidential Election ballot, including all write-ins;</li> <li>• The 2008 15<sup>th</sup> Congressional district race;</li> <li>• A city council race where a voter can vote for two of five or seven candidates;</li> <li>• A bond issue per R.C. 133.18; and</li> <li>• An emergency requirements levy issue with statutory font size and bold typeface per R.C. 5705.197.</li> </ul>				
<p>General election ballot shall include independent candidates and candidates from six political parties: Democratic, Republican, Libertarian, Green, Socialist, and Constitution parties (R.C. 3506.10(K), OAC 111:3-3-01(C)(11)).</p>				
<p>Ability to vote for candidates of one party for president, vice-president, and presidential electors by one mark (R.C. 3506.10(F), R.C. 3506.06(D), OAC 111:3-3-01(C)(6)).</p>				
<p>Rotation:</p> <ul style="list-style-type: none"> <li>• Ability to arrange all candidates for an office in a group under the title of the office and printed so that they may be rotated as provided in R.C. 3505.03 and SOS Directives 2012-34.</li> <li>• Ability to produce a report verifying rotation and correct ballot layout.</li> </ul>				
<p>Machine Setup:</p> <ul style="list-style-type: none"> <li>• Demonstrate programming over vote, blank vote, and undervote detection</li> <li>• Demonstrate programming of multiple precincts per single unit.</li> </ul>				

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Ability to generate merger and charter commission issues on the questions and issue ballot with candidate names listed.				
Capable of adhering to ballot layout as prescribed by R.C. 3505.03 and 3513.15 and SOS Directives 2012-34, including format, boldface, and font sizes.				
Capacity to contain at least 15 questions and issues (R.C. 3506.10(K)).				
<b>Election Management - System Setup and Configuration – Primary Election</b>				
Ability to create and read a primary election ballot with six (6) political parties and issues only ballots (R.C. 3506.10(G), OAC 111:3-3-01(C)(7)).				
Ability to create and read a primary election ballot in which a 17 year old may vote for candidates only and not on any question or issue.				
Ability to create and read a primary election ballot in which voter does not declare party but votes a question and issues ballot only (R.C.3506.10(G), (H); OAC 111:3-3-01(C)(8)).				
Ability to create and read nonpartisan candidates only ballot (R.C. 3506.10(G)).				
Capable of primary election ballot with write-in for each partisan ballot (R.C. 3506.10(D), OAC 111:3-3-01(C)(4)).				
Ballots accommodate facsimile signatures (R.C.3505.08).				
Tabulating software must be adequately protected against tampering.				

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<b>Construction and Security of Voting Machine – Hardware Construction, Hardware Test Results, and Security Measures</b>				
Counter or other device visible from the outside, which will show, at any time, the number of electors who have voted (R.C. 3506.10(I), OAC 111:3-3-01(C)(9))				
Protective counter, or other device, the register of which cannot be reset, which will record the cumulative total number of movements of the internal counters (R.C. 3506.10(I), OAC 111:3-3-01(C)(9))				
Built with locks, seals, and other safeguards by the use of which, immediately after the polls are closed or the operation of the machine is completed, no further changes to internal counters can be allowed (R.C. 3506.10(J), OAC 111:3-3-01(C)(10)).				
Durably constructed of material of good quality in a neat and workerlike manner and in a form that shall make it safely transportable (R.C. 3506.10(L), R.C. 3506.06(E), OAC 111:3-3-01(C)(12)).				
Constructed so that a voter may readily learn the method of operating it (R.C. 3506.10(M), R.C. 3506.06(F), OAC 111:3-3-01(C)(13)).				
Constructed so that a voter may expeditiously cast a vote for all candidates of the voter’s choice (R.C. 3506.10(M), R.C. 3506.06(F)).				
Constructed to preclude any person from tampering with any of the internal counters (R.C. 3506.10(N); OAC 111:3-3-01(C)(14)).				
Capable of being manufactured for use and distribution beyond a prototype (R.C. 3506.07).				

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Ability to track and assign access to system by board of elections staff with access to marked or unmarked ballots, tabulating software, and voting equipment.				
Shall not provide voter any type of receipt or voter confirmation that the voter may retain after leaving polling place (R.C. 3506.10(O), R.C. 3506.06(G)).				
Demonstrate secure portability to polling places.				
<p>Discuss sensitivity to variations in operating conditions, in general, and provide a reference in testing materials to the following:</p> <ul style="list-style-type: none"> <li>• Sensitivity of equipment to temperature;</li> <li>• Sensitivity of equipment to humidity;</li> <li>• Sensitivity of equipment to dust; and</li> <li>• Sensitivity of equipment to transportation.</li> </ul>				
<b>Voting and Tabulation Functional Testing</b>				
Demonstrate means by which a voter can change or cancel vote.				
Demonstrate write-in capacity (R.C. 3506.10(B), R.C. 3506.10(D), R.C. 3506.06(B) & (C), OAC 111:3-3-01(C)(4)).				
<p>Demonstrate response to the following:</p> <ul style="list-style-type: none"> <li>• Overvotes, undervotes, and blank ballots;</li> <li>• Ballots being inserted headfirst, tail-first, face-up, or face-down;</li> <li>• Multi-sheet detection; and</li> <li>• Safeguards against inserting memory cards incorrectly.</li> </ul>				

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Demonstrate accessibility to voters with disabilities.				
Demonstrate ability of machine to function during a power failure and the ability of the machine to successfully recovery from a power failure (system continues to operate when unplugged).				
Demonstrate counting the ballots, based on an actual series of votes cast during a mock election: <ul style="list-style-type: none"> <li>• 50 general election ballots as prescribed above</li> <li>• 100 primary election ballots (may be programmed, printed, and voted before the meeting)</li> <li>• Field test report (for logic and accuracy testing)</li> </ul>				
In case of one or more jammed ballots or a misfeed of ballots, demonstrate ability and methods designated in user manual to determine whether or not votes from such ballots were counted.				
Ability to advise a voter of an overvote (R.C. 3506.10(C), OAC 111:3-3-01(C)(3)).				
Permits elector to change vote until elector registers his/her vote for up to three ballots (R.C. 3506.10(E), OAC 111:3-3-01(C)(5)).				
Ability to limit possibility of double counting by notifying user that memory card has already been read.				
Permits voting in secrecy (R.C. 3506.10(A), R.C. 3506.06(A), OAC 111:3-3-01(C)(1)).				

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Provided with screen, hood, curtain, or other technology, which shall conceal voter while voting (R.C. 3506.10(N), OAC 111:3-3-01(C)(14)).				
Discuss and demonstrate backup memory features and physical audit trail, if any.				
Demonstrate closing of the polls and ability to run reports required by Ohio law (e.g., precinct reports).				
Demonstrate report of results and format variations.				
Discuss and demonstrate recount and post-election audit procedures. See SOS Directives 2012-52 and 2012-56.				
Ability to produce reports in the format requested by the secretary of state.				
Ability to allow all electors to vote for all candidates in which he/she entitled to vote (R.C. 3506.10(B), R.C. 3506.06(B), OAC 111:3-3-01(C)(2)).				
No discrepancies arising from multiple voting machine count accumulation processes.				
How an individual vote cannot be traced to the individual voter using an electronic machine with a paper audit trail or optical scan system.				
Ability to manually enter data by boards of election staff under the appropriate circumstances.				
Ability and methods designated in user manual to clear tabulating memory and re-run ballots.				

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Voting system's ability to be "backed-up" on-site or off-site; demonstrate back-up system's capability to prevent loss of data.				
<b>Warranty / Bond / Service</b> <i>Below are additional statutory requirements that a manufacturer must satisfy before a county board of elections may purchase, rent, acquire, or use new voting equipment</i>				
Manufacturer has ability to give adequate guarantee in writing and post a bond in an amount sufficient to cover cost of any recount or new election resulting from use or malfunction of equipment (R.C. 3506.10).				
Manufacturer has ability to accompany bond with satisfactory surety, as determined by Secretary of State and board of county commissioners, guaranteeing and securing machines have been and continue to be certified and will correctly, accurately, and continuously record every vote for a period of five years (R.C. 3506.10).				
Manufacturer has ability to guarantee machines against defects in workmanship and materials for a period of five years from date of acquisition (R.C. 3506.10).				
Explanation of support services required for voting system maintenance and services offered by voting machine manufacturer, including speed of service options, election day consultation, and general troubleshooting.				
Explanation of all product and services covered under the warranty and identification of the products and services that are NOT covered under the warranty.				
<b>Miscellaneous/General Properties</b>				

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Voting systems capacity to communicate with the voter registration system or other software.				
Voting system's ability to accept up-grades without the replacement of entire system.				
Complexity of operation of equipment or system can be mastered with reasonable amount of training.				
Instructions in user manual match the actual operation described and produces the intended results.				
Explanation of cost and compatibility of newly Election Assistance Commission certified components or upgrades with currently certified equipment or system.				
Inclusion and sufficiency of contracted terms for the purchase/lease of equipment.				
Explanation of all additional products and materials necessary for polling place setup and election night tabulation, including transportation requirements.				
Availability of supplies and services required for use of the voting system; explain which supplies and services are available only from the manufacturer and which are available from sources other than the manufacturer.				
<b>Evaluation rating sheet for DREs (OAC 111:5-1-01 and VVPAT requirements)</b>				
Demonstrate means by which a voter casts a ballot.				
Shall include a VVPAT (R.C. 3506.10(P)).				

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One VVPAT for each DRE, which will allow a voter to view his or her paper record copy while preventing the voter from directly handling the paper record copy or receiving a receipt or any other type of confirmation.				
Every electronic record must have a corresponding paper ballot record copy.				
Paper used shall be sturdy, clean, and resistant to degradation. <ul style="list-style-type: none"> <li>• No less than 15 pounds</li> <li>• White</li> </ul>				
A VVPAT storage unit shall store cast and spoiled paper record copies.				
The VVPAT shall not used with any voting equipment that contains any radio frequency or any other wireless device that transmits information further than one inch.				
The paper ballot copy must be printed and the voter must have the opportunity to verify that record prior to the final electronic record being recorded; VVPAT allow every voter to review, accept, or reject his or her paper record privately and independently.				
A unique identifier must appear on each individual paper ballot record produced – the identifier must not reveal the identity of the voter.				
The VVPAT shall easy for a voter to read (readability). <ul style="list-style-type: none"> <li>• Headline at least 25 point font or not less than 9 point font with magnification capability to read as 30 point font.</li> <li>• Ballot language at least 9 point font with magnification capability to read as 30 point font.</li> </ul>				

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<ul style="list-style-type: none"> <li>• Type face – new roman, arial, myriad or equivalent</li> <li>• Printed in black ink</li> <li>• Image created shall include every contest, including write-ins and undervotes.</li> </ul>				
VVPAT must be accessible to those with disabilities.				
<p>VVPAT designed to ensure that there is an adequate amount of ink, toner, ribbon, or other like supply units to accommodate voters. The system should provide a warning and an opportunity for a poll worker to add a supply of paper, ink, toner, ribbon or other like supply units before the item runs out.</p> <p>Precinct election official should be able to add supplies without reading the VVPAT.</p>				
VVPAT is on the same power system as the DRE and have a battery back-up of at least 2 hours (note: VVPAT may have a separate battery but cannot be functional without the DRE).				
<p>Security protection for VVPAT is build into DRE.</p> <ul style="list-style-type: none"> <li>• Printer secure from tampering</li> <li>• Routine maintenance may be performed without altering the records that have been recorded and without tampering with the VVPAT</li> </ul>				
Provisional ballot – image created for provisional ballot must be identifiable as a provisional ballot.				
Spoiled ballot – image created for a spoiled ballot must be identifiable as a spoiled ballot.				

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Voter may spoil his or her ballot no more than two times.				
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