



EVM BROCHURE FOR CANDIDATES & POLITICAL PARTIES

January 2024



भारत निर्वाचन आयोग
Election Commission of India



ELECTRONIC VOTING MACHINES & VVPATS are manufactured by M/s. Bharat Electronics Limited (A PSU under Ministry of Defence) and M/s. Electronics Corporation of India Limited (A PSU under Department of Atomic Energy).

ELECTRONIC VOTING MACHINE (EVM): An EVM consists of two units, namely, Control Unit (CU) and Ballot Unit (BU). A Ballot Unit caters up to 16 candidates. 24 (Twenty-four) Ballot Units can be cascaded together for catering to 384 candidates (including NOTA) with one Control Unit. On the right side of the BU along the candidates' vote button, digits 1 to 16 are embossed in Braille signage for guidance of visually impaired electors. It runs on a power pack (Battery) having 7.5 volts.

VOTER VERIFIABLE PAPER AUDIT TRAIL (VVPAT): Voter Verifiable Paper Audit Trail is an independent system attached with the Electronic Voting Machines that allows the voters to verify that their votes are cast as intended. VVPAT runs on a power pack (Battery) of 22.5 volts.

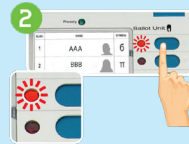
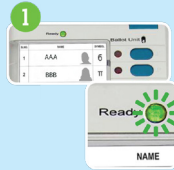
FUNCTIONING OF EVM AND VVPAT:



CONTROL UNIT

is kept with the Presiding Officer/ Polling Officer and Ballot Unit & VVPAT are kept in the Voting Compartment.

- ▶ When a vote is cast on Ballot Unit by pressing candidate button (Blue Button) of his/her choice, **RED** light glows against that particular candidate button.



- ▶ On other hand, a slip is printed on the VVPAT printer containing the serial number, name and symbol of the candidate and remains exposed through a transparent window for about **7 seconds**.
- ▶ Thereafter, this printed slip automatically gets cut and falls in sealed drop-box of the VVPAT.
- ▶ Thereafter, a beep sound is heard from the Control Unit to ensure that vote has been registered successfully.



Features	Purpose	Ruled Out
Standalone	EVM used by the Commission is a stand-alone non-networked machine which can be connected to EVM components only (e.g. CU, BU, VVPAT, SLU, P-FLCU).	Any connection with external world through wire or wireless
One Time Programmable (OTP) Chip	The machine is electronically protected to prevent any tampering/ manipulation. The programme (software) used in these machines is burnt into a One Time Programmable (OTP) chip so that it cannot be altered or tampered with.	Any alteration or tampering
Unauthorized Access Detection Module (UADM)	Software as well as polled data is stored in the micro- controller of the Control Unit of EVM, which is protected by a Secure Module. Any attempt to open the Secure Module at any time whether the machine is on or off, renders the machine in factory mode and the machine becomes inoperative.	Any access to microcontroller or memory
No Radio Frequency Transmission or Reception Capability	Any tampering of ECI-EVM by coded signals by wireless, Bluetooth or WiFi is ruled out as EVM does not have any radio frequency (RF) communication capability, hence, cannot communicate through Wifi, Bluetooth etc.	Any tampering by coded signals by wireless like Bluetooth or Wifi
Dynamic Coding of Key Presses	Every key press is coded dynamically making it impossible for anyone to decode the signals between Control Unit and Ballot Unit.	Any decoding of the signal between Control Unit, Ballot Unit and VVPAT

Features	Purpose	Ruled Out
Strong Mutual Authentication Capability	The strong mutual authentication capability ensures that any unauthorized devices cannot interact with EVM	Any interaction with any unauthorized devices
Real Time Clock for date and time stamping key presses	Every authorised or un-authorised key press is recorded with date and time stamp on real time basis.	Any malpractice

Various activities related to EVMs/VVPATs carried out with the involvement of the representatives of National & State Recognised Political Parties and Candidates as given under:

▶ STORAGE OF EVMs AND VVPATs DURING NON-ELECTION PERIOD

- Generally, EVM-VVPATs are stored at district headquarters under custody of District Election Officer (DEO).
- EVM-VVPATs are stored under double lock system with all keys of Lock-1 with DEO and all keys of Lock-2 with Deputy DEO or equivalent.
- EVM-VVPAT warehouse/strong room has minimum ½ section armed security, CCTV coverage, log-book etc.
- During non-election period till finalization of list of the contesting candidates, EVM-VVPAT warehouses are opened/closed (for any purpose like movement, inspection etc.) in the presence of the representatives of National and State Recognised Political Parties.
- With finalization of list of the contesting candidates, candidates and their representatives are involved while opening and closing of EVM-VVPAT warehouses/strong room.
- Opening and Closing of EVM warehouse/strong room is done under videography.

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► **FIRST LEVEL CHECKING OF EVMS AND VVPATS**

- First Level Checking of EVMs and VVPATs is conducted before every election by the authorised engineers of Bharat Electronics Limited (BEL) and Electronics Corporation of India Limited (ECIL) at District Election Officer (DEO) level.
- For this purpose, National and State Recognised Political Parties at district headquarters are invited in writing by DEO concerned at least two days before the beginning of FLC and a copy is endorsed to state headquarters.
- The representatives of National and State Recognised Political Parties are involved to oversee entire FLC process and also to put their signatures on the paper seal (Pink Paper Seals affixed on the Control Units) and various documents related to FLC.
- Functionality check of every EVM & VVPAT is conducted using Pre FLC unit (PFLCU).
- Dummy Symbols are loaded in every VVPAT using Symbol Loading Unit (SLU). Symbols being loaded in VVPATs are simultaneously displayed on the monitor/TV screen for viewing by representatives of Political Parties.
- During FLC cabinet of EVMs are opened in the presence of political party representatives to check there is no spurious component. Further, casting of 6 votes against each of the candidate buttons (i.e. total 96 votes), observation of result and clearing of mock poll data are done for each EVM & VVPAT.

- In addition, higher mock poll is conducted in 5% randomly selected EVMs and VVPATs (i.e. 1200 votes in 1% EVMs, 1000 votes in 2% EVMs and 500 votes in 2% EVMs). The electronic result of EVM is tallied with the VVPAT slips count. The representatives of Political Parties are allowed to pick 5% EVMs and VVPATs randomly and also to do mock poll.
- **Green** colour stickers are pasted on the FLC-OK machines and **Red** colour stickers are pasted on the FLC-Rejected machines.
- Status of FLC-OK and FLC-Rejected machines is updated in the EVM Management System (EMS) using mobile app.
- List of FLC OK EVMs and VVPATs generated from EMS is shared with all National and State Recognised Political Parties.
- The representatives of National and State Recognised Political Parties are allowed to sign the seals, forms register during FLC.
- FLC-Reject machines are sent to manufacturers for rectification.
- FLC-OK machines are stored in Strong Rooms having double lock, CCTV coverage and minimum 1 section Armed Security.

▶ EVMS AND VVPATS FOR TRAINING AND AWARENESS

- After completion of FLC, up to 10% EVMs and VVPATs are taken out for awareness and training purpose in the presence of National and State Recognised Political Parties.
- The list of awareness and training EVMs and VVPATs is shared with the representatives of the political parties.
- EVMs & VVPATs taken out for training & awareness are stored separately in a separate designated warehouse.
- EVM Demonstration Centres (EDC) are set up at district election office and at the returning officers headquarters/revenue sub-division offices till the announcement of election.

- Mobile Demonstration Van (MDV) are deployed for every assembly constituency/segment to cover all polling locations/electoral literacy clubs.
- Training & Awareness EVMs/VVPATs are reintroduced for election, if required, after de-novo FLC, Randomizations and Commissioning.

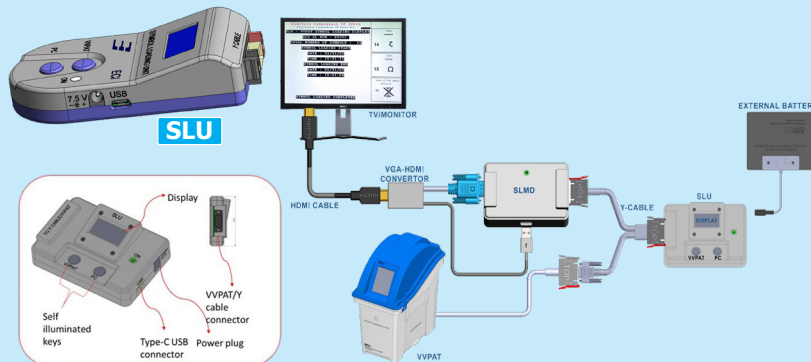
▶ **RANDOMIZATIONS OF EVMS AND VVPATS**

- Randomizations of EVMs and VVPATs are done using EVM Management System (EMS) developed by ECI.
- First randomization of EVMs and VVPATs is conducted in the presence of National and State Recognised Political Parties to allocate EVMs and VVPATs Assembly constituency/ segment-wise.
- List of first randomized EVMs and VVPATs (AC/AS-wise) is shared with National and State Recognised Political Parties.
- After finalization of list of contesting candidate, list of first randomized EVMs and VVPATs (AC/AS-wise) is also shared with contesting candidate.
- Second randomization of EVMs and VVPATs is conducted, before commissioning of EVMs and VVPATs, in the presence of contesting candidates to allocate polling station wise and reserve machines.
- The list of second randomized EVMs and VVPATs is shared with contesting candidates.

▶ **COMMISSIONING OF EVMS AND VVPATS**

- Commissioning of EVMs and VVPATs for use in poll is done in the presence of contesting candidates by the district official.
- On Commissioning day EVM-VVPAT strong room is opened in the presence of candidates/their representatives under videography.

- Symbol loading in every VVPAT is done by using Symbol Loading Unit (SLU). Symbols being loaded in VVPATs are simultaneously displayed on the monitor/TV screen for viewing by candidates/their representatives.
- During Commissioning every EVM & VVPAT is checked by casting 1 vote to each candidate button including NOTA.
- In addition, higher mock poll of 1000 votes is done in 5% randomly selected EVMs and VVPATs and electronic result of EVM is tallied with the VVPAT slips count.
- Candidates/their representatives are allowed to pick 5% EVMs and VVPATs randomly and also to do mock poll.
- If any EVM-VVPAT assigned to the polling station is found non-functional during commissioning, the same is replaced with reserve EVM/VVPAT.
- Candidates/their representatives are allowed to sign the seals used for sealing EVMs and VVPATs.
- After Commissioning of EVM-VVPAT, they are kept in the strong room in the presence of candidates/their representatives under double lock system.



► DISPERSAL OF EVMS AND VVPATS WITH POLLING PARTIES

- On dispersal day EVM-VVPAT strong room is opened in the presence of candidates/their representatives under videography.
- Dispersal of EVMs and VVPATs is done in the presence of the candidates/their representatives.
- If any EVM-VVPAT found non-functional during dispersal, the same is replaced with reserve EVM/VVPAT.

► POLL DAY

- On Poll day 90 minutes before the Actual Poll start time, mock poll of at least 50 votes (minimum 1 vote to each candidate including NOTA) is conducted at every polling station in the presence of the polling agents nominated by the contesting candidates. Electronic Result of mock poll is tallied with the VVPAT slip count.
- Mock poll data is cleared from the Control Unit and mock poll VVPAT slips are kept in the black envelope and sealed with Pink Paper Seal.
- Presiding Officer prepare the Mock Poll Certificate in this effect.
- Before starting actual poll, Control Unit is sealed with Green Paper Seal, Special Tag and Address Tag. VVPAT drop box (Ballot compartment) is also sealed using Address Tags.
- On completion of Poll, presiding officer press the 'CLOSE' button of Control Unit to close the poll. Battery is removed from VVPAT. EVM & VVPAT are kept in the respective carrying cases and sealed with address tags.
- Polling Agents are allowed to sign the seals used in sealing EVMs and VVPATs (before commencement of poll and on close of poll).
- Polling Agents nominated by the contesting candidates are allowed to remain in polling stations to observe polling process.

- A copy of Form 17C containing details of voters, EVM-VVPAT & seals used, including votes polled in EVM etc. is provided to polling agents.

▶ **TRANSPORTATION OF POLLED EVMS AND VVPATS FROM POLLING STATIONS TO COLLECTION CENTRE**

- After completion of poll, EVMs & VVPATs are transported from polling station to collection centre under escort.
- Candidates/Polling agents are allowed to follow vehicles carrying polled EVMs and VVPATs.

▶ **STORAGE OF EVMS AND VVPATS AFTER POLL**

- Polled EVMs and VVPATs are stored in the strong room in the presence of Candidates/their representatives.
- Candidates/their representatives are also allowed to put their seals on the locks of the strong room.
- Polled EVM Strong Room has minimum 1 platoon of armed security (CAPF) and CCTV coverage.
- Polled EVM Strong Room has two-cordon security. Inner cordon under CAPF and outer cordon under State Armed Police. No one is allowed to enter inner cordon.
- Candidates/their representatives are allowed to stay to watch the Strong Room, if entrance of the strong room is not visible, CCTV display facility is provided. Un-polled non-functional and unused reserve EVMs & VVPATs are stored separately under security.

▶ **COUNTING DAY**

- Polled Strong Room is opened in the presence of Candidates/their representatives, Returning Officer, ECI Observer on counting day under videography.


- Counting of votes is done in the presence of candidates and counting agents appointed by them.
- On the counting day, Control Units of EVMs are brought to the counting table from the strong room under CCTV coverage, and result is seen on the display of the CU by pressing 'RESULT' button on Control Unit after Seal verification by the Candidates/Counting Agents.
- EVM wise result is recorded by Counting Supervisor in Form 17 C and sent to RO for compilation of round wise result.
- After completion of counting of votes, mandatory verification of VVPAT slips of randomly selected 5 polling stations per assembly constituency/segment is conducted.
- After completion of counting, power packs are removed from the Control Units and Control Units are sealed in their carrying cases.
- VVPAT slips are removed from all VVPATs and kept VVPAT -wise in sealed envelopes under CCTV.
- Thereafter, EVMs are kept in the EVM Strong Room and sealed envelopes of VVPAT slips are kept with the statutory documents in separate trunk.
- Candidates/their representatives are allowed to sign the seals.

NOTE: For details on Technical Features and Administrative procedures on EVMs & VVPATs kindly refer presentation on EVM, Status Paper on EVM and Manual on EVM available on ECI website.

HOW TO CAST YOUR VOTE

1 USING EVM & VVPAT

ENTER THE BOOTH



The Presiding Officer will enable the ballot Unit while you enter the polling compartment.

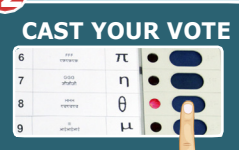


3 SEE THE LIGHT



The red light against the name/symbol of candidate chosen will glow

2 CAST YOUR VOTE



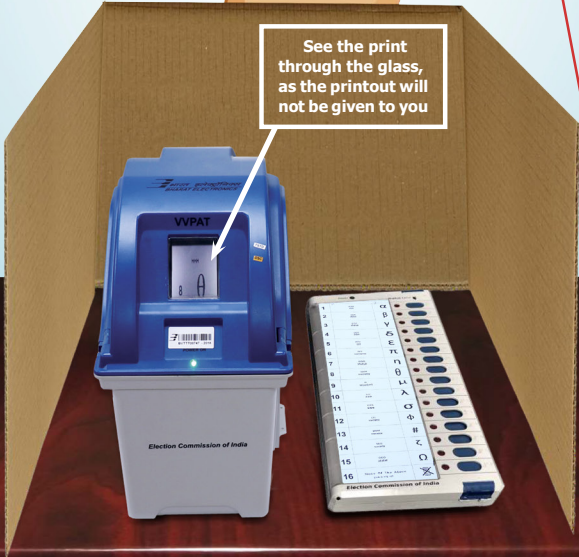
Press the Blue Button on the Ballot Unit against the name/symbol of candidate of your choice.

4 SEE THE PRINT



The Printer will print a ballot slip containing Serial Number, Name and Symbol of the chosen Candidate as shown.

* The slip will be visible for about 7 second



NOTE!

If you do not see the ballot slip and hear the loud beep please contact the Presiding officer.