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## Electronic Voting Machines (EVMs)

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### ALL YOU NEED TO KNOW ABOUT EVMs

After a controversy over supposedly malfunctioning EVMs, the poll panel will soon invite people to try to manipulate voting machines. Here's how EVMs work:

#### The Machines

- An EVM primarily has two units a control unit and a balloting unit joined by a five-meter cable. The presiding officer activates the balloting unit after every subsequent vote so that the next voter can make his choice.
- They run on 6 volt alkaline specially manufactured battery and can be used in areas with no power connection.
- They can record a maximum of 3,840 votes, more than double the limit of 1,500 electors set for each polling station. The votes can be stored for 10 years and more.



#### Future Ready

Units needed to be procured ahead of the 2019 general elections

**1,395,306**

BALLOTING UNITS

**930,716**

CONTROL UNITS

#### Versions

**M1:** Manufactured between 1989 and 2006; these were last used in the 2014 general elections.

**M2:** Built between 2006 and 2012; real time clock and dynamic coding were two key features added to this device.

#### The Origin

An idea first mooted in 1977, EVMs made their first appearance in some assembly constituencies of Madhya Pradesh (5), Rajasthan (5) and Delhi (6) in November 1998.

#### Shelf Life

EVMs have a life of only 15 years. All units manufactured till 2001 have been discarded and their chips, containing code, crushed.

#### Security Features

##### Tamper Detection:

If anyone tries to open an EVM machine, the device will become inoperative

##### Self-diagnostic checks:

The machine catches any change in hardware or software when it boots up

#### WHY INDIAN EVMs ARE UNIQUE

■ These are stand-alone machines. Most systems used in other countries are computer-based with internet connectivity, vulnerable to hacking.

■ The software in the Indian EVM chip is burnt into the chip at the time of manufacture. Nothing can be written on the chip after manufacture.



#### MADE IN INDIA

■ EVMs are produced in-house by two PSUs, Bharat Electronics and Electronics Corporation of India.

■ The software is written by the companies themselves.

■ It is converted into machine code and given to chip makers in the US or Japan as India doesn't have the capability to produce microchips.