Electronic Voting Machines (EVMs)

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.

Balloting Unit
Control UNIT
Display Section
Battery Section
Result Section
Ballot Section

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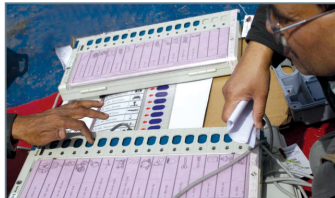If anyone tries to open an EVM machine, the device will become inoperative

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 clip 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.