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GOVERNMENT OF ANDHRA PRADESH  
GENERAL ADMINISTRATION (ELECTIONS.D) DEPARTMENT

Memo.No.2020/Elecs.D/A2/2013-11

Dated:23.01.2014.

Sub:- Protocol for First Level Checking (FLC) of EVMs  
manufactured in 2013-14.

Ref:- From ECI, New Delhi, Lr.No.51/8/16/4/2014-EMS,  
Dated:15.01.2014

\*\*\*\*\*

A copy of the reference cited received from the ECI, New Delhi, regarding "Protocol for First Level Checking (FLC) of EVMs manufactured in 2013-14" is sent herewith to all the Collectors & District Election Officers/ Returning Officers/ Special Commissioner, G.H.M.C. Hyderabad and all Roll Observers to follow the instructions of ECI, New Delhi, scrupulously.

V.VENKATESWARA RAO  
ADDITIONAL CHIEF ELECTORAL OFFICER &  
JOINT SECRETARY TO GOVERNMENT.

To  
All Collectors & District Election Officers-(w.es).  
All Returning Officers through District Election Officers-(w.es).  
The Special Commissioner, G.H.M.C. Hyderabad-(w.es).  
All Roll Observers.-(w.es)

// FORWARDED :: BY ORDER //

*P. Kanubang Rao*  
SECTION OFFICER  
P

# ELECTION COMMISSION OF INDIA

NIRVACHAN SADAN, ASHOKA ROAD, NEW DELHI 110001

No.51/8/16/4/2014-EMS

Dated, 15<sup>th</sup> January, 2014

To

The Chief Electoral Officers of

1. Andhra Pradesh, Hyderabad and
2. Karnataka, Bangalore.

CI	
No. 359	Sub: Protocol for First Level Checking (FLC) of EVMs manufactured in 2013-04.
Date: 20/1/14	Sir,
Section	

In supersession of all instructions issued by the Commission on FLC, following instructions are hereby issued for the protocol to be followed in FLC of EVMs manufactured in the year 2013-14: -

1. FLC when to be done - FLC of EVMs shall be done before every bye-election and General Election. It will be done sufficiently in advance so that all checks are carried out without any undue haste in the presence of representatives of political parties. FLC of EVM shall be completed, in any case, before finalization of the list of contesting candidates in an election.
2. FLC to be done in the presence of representatives of political parties - Depending on the number of EVMs to be checked in FLC, the DEO shall prepare a schedule for the FLC of EVM in consultation with the EVM manufacturers (ECIL & BEL) and the CEO. The schedule will be made in such a manner that sufficient time is available for FLC of EVMs by engineers of manufacturers. The schedule for FLC shall be communicated to every national and state level recognized political party in writing by the DEO at least one week before the beginning of the FLC in the district. On the day of the FLC, representatives of all national and state level recognized political parties authorized by the District President of the party shall be allowed to be present. A register shall be kept by the DEO in Annexure -A in which signatures of all political parties shall be taken every day as token of their presence.
3. Arrangements in the premises of FLC - FLC shall be carried out in a large hall which can accommodate EVMs to be checked. The hall should be able to accommodate officers nominated by the DEO, engineers of BEL and ECIL and also representatives of political parties. Before the hall is used for FLC, it shall be fully sanitized to ensure that the hall is free from any other electronic device or components of electronic devices. Every entry to the hall shall be guarded by police force. Every hall shall have a door frame, metal detector. Every person who enters the hall shall be frisked at every entry. Entry to this hall shall be on production of Identity Card of the authorized officials/passes issued by the District



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Election Officer. Nobody will be allowed to carry any electronic device inside the hall including cell phones, camera and spy pens etc.. Similarly, nobody will be allowed to carry anything out of the FLC hall.

4. **Manpower in FLC** - FLC shall be carried out only by authorized engineers of BEL and ECIL. BEL and ECIL shall be fully responsible for the integrity, efficiency and competence of their engineers. List of engineers deputed by BEL and ECIL for carrying out FLC in a district alongwith their identity card numbers etc. shall be communicated in writing by BEL and ECIL to the DEO. No engineers, technicians or other technical staff except authorized engineers/technical staff of BEL and ECIL shall be allowed to enter the FLC hall. Authorized persons will be allowed to enter the FLC hall only after proper identification using photo identity documents.

5. **Work to be done during FLC** - At the time of FLC, the following shall be done:-

a. Removal of address tags, Ballot Papers, cleaning of superscriptions on CU & BU, clearing of earlier poll data, dusting of CU & BU etc. These activities are carried-out in the secured place/protected place provided by the District Election Officers.

b. **Visual Inspection of CU/BU:** Physical verification of Carrying Cases, Control Unit, Ballot Unit, Connecting Cable, Connector, Latches etc. to ensure no breakages.

c. **Full functionality checks:** Checking of all switches in Control Unit & Ballot Unit, doors (flaps), sealing provisions, scratches on acrylic screen etc. Response of all switches, confirmation tests for efficacy of Control Unit, Ballot Unit etc. -BEL and ECIL engineers shall carry out test prescribed by the manufacturers to confirm that all components of the EVM are original. BEL and ECIL engineers will certify in Annexure-B that all the components of the EVMs are original. If any EVM is found to be defective, it will be kept aside and then taken to the factory of BEL and ECIL for repairs. Only repair of the machine for mechanical defect like defective flaps and doors, shall be carried out in the field. As an additional security measure plastic cabinet of EVMs manufactured in 2013-14 is not openable after manufacture without rendering it non-operational. Changing of electronic components of the machines in the field is strictly prohibited. Detailed step-by-step instructions of checking of the machine shall be issued separately by BEL and ECIL for their respective machines. These instructions will include a list of equipment, which the engineers will be required to carry with them in FLC hall. Security personnel will not allow any other equipment to be carried into the FLC hall.

d. **Conduct of Mock Poll:** Casting of votes against all 16 candidate switches, observation of result & clearing of mock poll data will be done for each EVM. In 5% percent of EVMs at least 1000 votes shall be polled during the mock poll. In rest of the machines

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number of votes polled during the mock poll should be to the satisfaction of the representatives of political parties. Representatives of political parties shall be allowed to do the mock poll themselves. Signatures of representatives of political parties shall be taken in a register in Annexure -C as a token of having done mock poll themselves.

- e. Demonstration of printout of results - A printout of the results of mock poll as well as a sequential print out of every vote polled during the mock poll shall be taken out for at least 10% of EVMs and shown to the representatives of political parties. Representatives of political parties shall be allowed to pick machines randomly for this purpose. Signatures of representatives of political parties shall be taken in a register in Annexure-D as a token of having seen the print out and confirm that there is no discrepancies between the votes polled during the mock poll and results in the print out.

6. **Sealing of plastic cabinet of Control Unit of EVMs with pink paper seal -**

- a. In order to ensure that the Control Unit of the EVM has not been opened after First Level Checking of the EVMs, the Control Unit shall be sealed with the 'Pink Paper Seal' (0.75 cms width) supplied by the Nasik Security Press in the presence of the representatives of the Political Parties present at the time of FLC, The Pink Paper Seal shall be affixed on the portion between the Candidate Set Section and the Result Section of the Control Unit.
- b. After fixing the Pink Paper Seal, the Engineer of the Manufacturer shall put his signature on the Pink Paper Seal; the representatives of the Political Parties shall also be allowed to put their signature on the said seal with party name in abbreviation below the signature. The representatives of the Political Parties present should be allowed to note down the serial number of the pink paper seal affixed on the Control Unit. A register in Annexure - E shall be maintained to note down the serial number of the pink paper seal used on the Control Unit by clearly mentioning the unique ID number of Control Unit and the Pink Paper Seal number. Signatures of representatives of political parties will also be obtained on this register. Photocopy of this register will be given free of cost to all National and State level recognized political parties as soon as FLC is over. Photocopy of this register will also be given to all contesting candidates as soon as last date of withdrawal of candidature is over. Photocopy of this register should also be available at the time of candidate setting and at the time of counting, and should be shown to candidates and their representative and acknowledgement taken on the register.

- 7. **Supervision of FLC** - The DEO shall nominate one officer not below the rank of Additional District Magistrate to supervise the entire process of FLC. This officer shall be present in the FLC hall for the entire duration of FLC. The process of FLC shall be continuously

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videographed. Video CD will be kept in the custody of DEO. CCTV cameras shall be put in the FLC hall in such a manner that the process of FLC can be seen on CCTV in the office of District Election Officer.

8. Copy of the letter should be given to all National and State level political parties. Copy of this letter should also be given to all the contesting candidates after the last date of withdrawal of candidatures in any elections.

Yours faithfully



(K N Bhar)  
Secretary

Copy to:

1. M/s. Bharat Electronics Limited,  
Nagavara, Outer Ring Road,  
Bangalore-560045, Karnataka.
2. M/s Electronics Corporation of India Limited,  
Andhra Pradesh, Hyderabad.

**Annexure-A**  
**(Register for First Level Checking of EVMs)**

Name of State/UT:  
Name of District:  
Address of FLC hall:  
Date:

S.No.	Name of National/State Party	Name of representative of political party with affiliation	Identity document No. with date	Signature of representative	Remarks, if any.

**Note: If the representative of a party is absent the proof of due service of notice to the party should be pasted in the register.**

**(Name and signature of engineers of BEL/ECIL with ID No.)**

**(Name, designation, signature of officers nominated by District Election Officer)**

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**Annexure-B**  
**(Certification of EVMs by BEL/ECIL)**

Name of State/UT:  
Name of District:  
Address of hall:  
Date:

It is certified that tests prescribed by BEL/ECIL to ascertain that all components are original were carried out on the EVMs listed below on..... (date). On the basis of these tests it is certified that all components of the EVMs listed below are original.

CU Identification No.

BU Identification No.


(Name & signature of BEL/ECIL engineers with ID No.)

**Annexure-C**  
**(Mock Poll certification during First Level Checking of EVMs)**

Date:.....

Name of State/UT:  
Name of District:  
Address of hall:

It is certified that I have done mock poll on..... EVMs and I am fully satisfied with the functioning of EVMs.

S.No.	Name of National/State Party	Name of representative of political party with affiliation	Identity document No. with date	Signature of representative	Remarks, if any.

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**Annexure-D**  
**(Mock Poll certification during First Level Checking of EVMs)**

Date:.....

Name of State/UT:

Name of District:

Address of hall:

It is certified that a printout of the result of mock poll as well as a sequential print out of every vote polled during the mock poll has been taken out from ..... EVMs picked up by me. There are no discrepancies between the votes polled during the mock poll and result in the print out.

S.No.	Name of National/State Party	Name of representative of political party with party affiliation	Identity document No. with date	Signature of representative	Remarks, if any.



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**Annexure-E**  
**(Register for Sealing of Control Unit of EVMs using Pink Paper Seal)**

Name of State/UT: \_\_\_\_\_  
Name of District: \_\_\_\_\_  
Address of FLC hall: \_\_\_\_\_  
Date: \_\_\_\_\_

It is certified that the sealing of the Control Units using Pink Paper Seals has been done in my presence. I have put my signature on the Pink Paper Seals after sealing of the Control Units and I am satisfied with the sealing of the Control Units.

Sl.No.	Unique ID No. of Control Unit	Pink Paper Seal Number

S.No.	Name of National/State Party	Name of representative of political party with party affiliation	Identity document No. with date	Signature of representative

(Name, designation, signature of officers nominated by District Election Officer)

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GOVERNMENT OF ANDHRA PRADESH  
GENERAL ADMINISTRATION (ELECTIONS.D) DEPARTMENT

Memo. No.2020/Elecs.D/A2/2013-15.

Dated: 12.02.2014.

Sub:- Instructions on use of Pink Paper seal for Control Unit of Upgraded Post-2006 EVMs at the time of First Level Checking and Seals to be used for the Upgraded Post-2006 EVMs and Green Paper Seal and Outer Paper Strip Seal (ABCD seal) – Regarding.

Ref:- 1. From ECI, New Delhi, Lr.No 51/8/16/4/2014-EMS, Dt.15-1-2014  
2. Memo No.2020/Elecs.D/A2/2013-11, Dt.23-01-21014.  
3. From the ECI, New Delhi, Lr.No. 51/8/16/4/2013-EMS, Dt:12.02.2014.  
4. From the ECI, New Delhi, Lr.No. 52/2/Prep/2014-EMS, Dt: 12.02.2014.  
-:o0o:-

The attention of all the District Election Officers is invited to the references cited. Copies of the references 3<sup>rd</sup> & 4th cited regarding "Instructions on use of Pink Paper seal for Control Unit of Upgraded Post-2006 EVMs at the time of First Level Checking and Seals to be used for the Upgraded Post-2006 EVMs and Green Paper Seal and Outer Paper Strip Seal (ABCD seal)" are herewith communicated to all the District Election Officers and FLC Observers for information and necessary action.

2. The District Election Officers are requested to take immediate necessary action on the following points:

- The Election Commission of India instructions shall be brought to the notice of all the Returning Officers / Asst. Returning Officers / P.Os and other election authorities concerned including the Engineers / Technicians to be deputed for the FLC and shall ensure that during the FLC of Upgraded Post-2006 EVMs, the Pink Paper Seal is affixed on Control Units in the manner specified by the Commission vide letter dt.12.2.2014 i.e. they should cut a piece of 12 cms X 0.7cms from the last upper end of the seal, as shown in the said letter of the ECI;
- The pink seals required for the FLC shall be collected from the Supervisor, G.A. (Elections) Department by deputing special messenger immediately.
- Required number of Teams shall be constituted for the FLC of EVMs (a copy of statement showing teams constituted by the District Election Officer, Anantapur is enclosed for information) and all the Teams shall be fully trained by the SLMTs/experienced officer in conducting the FLC as per the latest instructions of the Election Commission of India. The training programme shall be fully videographed in the presence of the Nodal Officer, EVM.

3. The District Election Officers are once again requested to take immediate necessary action accordingly and intimate the action taken to this office.

BHANWAR LAL,  
CHIEF ELECTORAL OFFICER &  
E.O. PRINCIPAL SECRETARY TO GOVERNMENT.

To  
All the District Election Officers-(w.es)  
FLC Observers-(w.es)

//FORWARDED :: BY ORDER//

*P. Karabong Rao*  
SECTION OFFICER

By Speed Post/Fax

# ELECTION COMMISSION OF INDIA

Nirvachan Sadan, Ashoka Road, New Delhi-110001

No. 51/8/16/4/2013-EMS

Dated: 12<sup>th</sup> February, 2014

To

The Chairman-cum-Managing Director,  
Electronics Corporation of India Limited,  
EMSD, ECIL EVM Manufacturing Unit  
MCU, IDA Cherapalli Phase-II  
Post-HCL, Hyderabad,  
Andhra Pradesh-500051.

Subject: Instructions on use of Pink Paper seal for Control Unit of Upgraded Post-2006 EVMs at the time of First Level Checking – Regarding.

Reference: Commission's letter No.51/8/16/4/2010-EMS, dated 4<sup>th</sup> August, 2010.

Sir,

I am directed to state that it has been observed that the design of the Candidate set section door of the control unit of upgraded Post-2006 EVMs has been modified in such a manner that affixing of Pink Paper Seal on Control Unit as per the existing size and procedure will obstruct opening of the door of the Candidate set section. Therefore, the Commission has decided to use the existing Pink Paper Seal of Control Unit with minor manual modification in the design of the seal and in the procedure of affixing Pink Paper Seal at the time of its use during FLC.

You are, therefore, requested to direct your Engineers/Technicians to be deputed for FLC in the State of Andhra Pradesh, where upgraded Post-2006 EVMs will be used to follow the following procedure to affix the Pink Paper Seal on the space available between the candidate set section and result section:

1. Before affixing the Pink Paper Seal, they should cut a piece of 12 cms X 0.7 cms from the last upper end of the seal, as shown below (sample enclosed).



012345



2. Thereafter, the Pink Paper Seal should be affixed on the Control unit, by placing the last end of the seal aligned with the lower edge of the right side of the Control Unit and moving towards candidate set section, battery section and then towards the bottom side of the control unit.
3. While affixing the Pink Paper seal, it should be ensured that the last end of the seal, from which a piece of 12 cms X 0.7 cms has been cut, is affixed on the right side of the control unit in a manner that Pink Paper seal does not obstruct opening of candidate set section.

4. While affixing the seal it should also be ensured that National Emblem, Logo of the Commission and serial number printed on the seal should be in the correct position (i.e. they should not be upside down) from the front side of the control unit.

Yours faithfully,

(K.N. BHAR)  
SECRETARY

Copy forwarded to the Chief Electoral Officer, Andhra Pradesh, Hyderabad with the request to inform all DEOs and FLC Observers, to ensure that during FLC of upgraded Post-2006 EVMs, the Pink Paper Seal is affixed on control units in the manner specified by the Commission. A sample of revised design of Pink Paper Seal is enclosed for ready reference.

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By Speed Post/Special Messenger

# ELECTION COMMISSION OF INDIA

NIRVACHAN SADAN, ASHOKA ROAD, NEW DELHI-110001

No.52/2/Prep/2014-EMS

Dated: 12<sup>th</sup> February, 2014

To

The Chief Electoral Officer,  
Andhra Pradesh,  
Hyderabad

Subject: Seals to be used for the upgraded Post-2006 EVMs – Regarding.

Sir,

I am directed to state that it has been observed that the width of the result section of the control unit of upgraded post-2006 EVMs has been reduced, however, there is no change in the width of the slot provided for inserting 'Green Paper Seal' in the inner cover of the result section. Therefore, the Commission has decided to continue the use of existing 'Green Paper Seal' without any change in the size but with minor modification in the procedure of using 'Green Paper Seal' at the time of sealing of result section.

The Presiding Officer after deleting the votes polled during mock poll at polling station should seal the result section using Green Paper Seal and Outer Paper Strip Seal (ABCD seal). Green Paper seal should be inserted in the slot provided in the inner door of the result section and the inner and outer doors of the result section closed. Thereafter, both ends of the Green Paper Seal should be folded in a manner that ends of the seal should not exceed the width of the result section but unique serial number of Green Paper Seal should remain visible from outside. Thereafter it should be affixed to the Control Unit using Outer Paper Strip Seal, in the manner prescribed for using Outer Paper Strip Seal.

You are, therefore, requested to include the revised procedure on use of 'Green Paper Seal' in the training manual/material of Presiding/Polling Officers.

Yours faithfully,

(Dilip K Varma)  
Under Secretary

From  
Sri Lokesh Kumar, D.S., IAS.,  
District Collector &  
District Election Officer,  
Ananthapuramu.

To  
The Chief Electoral Officer,  
E.O.PrI.Secretary to Revenue,  
Andhra Pradesh,  
Hyderabad.

Rc.No.135/2014/H1 Dated: 10-2-2014

Sir,

Sub:- Elections-2014 – conduct of general Elections-2014 – First Level checking of EVMs – Report called for – submitted.

Ref:- Instructions of the Chief Electoral officer, Andhra Pradesh, Hyderabad thorough mail on 10.2.2014.

\*\*\*\*


I invite kind attention to the reference cited, It is submitted that, the Chief Electoral Officer, Andhra Pradesh, Hyderabad has requested to furnish the detailed report on arrangements made for conduct of First Level checking of EVMs immediately.

In view of the above, it is submitted that, the following action plan is ready for conduct of First Level checking of EVMs in the Ananthapuramu District.

- At present 1007 control Units available in the District
- 1000 Control Units will be moved to Kerala State. Control Unit IDs entered in the EVM tracking
- After moving of 1000 Control Units only 7 (seven) control units available in EVM warehouse
- 7282 EVMs required for conduct of ensuing General Elections-2014
- Nodal Officer is appointed for EVMs
- Staff identified for conduct of FLC of EVMs, Training will be imparted on FLC of EVMs to the staff
- Teams for FLC of EVMs are formed
- CC cameras have been installed in the hall of EVM ware house for conduct of First Level check of EVMs. CC camera will be also installed in Camp Office of District Election Officer who will monitor the entire process of FLC
- Necessary fire fighting equipment established in the EVM ware house
- Information given to all the Political parties for attending, at the time of conduct of FLC of EVMs. Briefed about the Mock poll.
- Video Cameras readily available for conduct of FLC of EVMs
- Printers are readily available for conduct of FLC of EVMs

This is submitted for favour of kind information.

Yours faithfully,

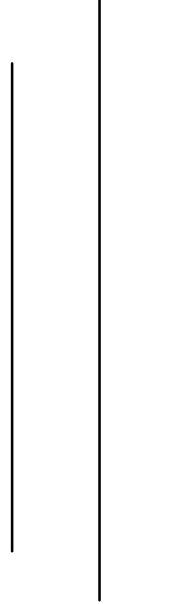
  
District Collector/  
District Election Officer  
Ananthapuramu.

**FOR OFFICIAL USE ONLY**



**ELECTRONIC VOTING MACHINE  
INSTRUCTION MANUAL**

**MODEL : CU 7516 & BU 7410**



**PREPARED AND PUBLISHED BY  
ELECTRONICS CORPORATION OF INDIA LIMITED  
HYDERABAD - 500 051**

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**Election Commission of India**

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**ABBREVIATIONS:**

BU	-	Ballot Unit
CU	-	Control Unit
ECI	-	Election Commission of India
ECIL	-	Electronics Corporation of India Ltd.
EVM	-	Electronic Voting Machine
PDT	-	Poll Date
PET	-	Poll End Time
PST	-	Poll Start Time
RTC	-	Real Time Clock
PADU	-	Printer cum Auxiliary Display Unit
GN1	-	Generation 1

## CHAPTER - 1

### INTRODUCTION

#### PRELIMINARY

1. The Electronic Voting Machine (EVM) is a reliable system for conduct of elections in which one person has to be elected out of many candidates. The EVM is designed for single post and single vote.

#### **Electronic Voting Machine - Basic Concept**

Electronic voting Machine (EVM) is a portable instrument for conducting elections to Parliament, Legislature, Local Bodies like Panchayats and Municipalities.

The Electronic Voting Machine is a microcontroller-based instrument designed to modernize the Election process. It is simple to operate and can be installed in a short period. There is no scope for invalid votes and total secrecy of voting data is maintained. The EVM facilitates quick and accurate counting. It is possible to declare the results on the same day, at the end of the poll.

#### **Need for Electronic Voting Machines**

The Electronic Voting Machine simplifies the Election process for the benefit of both Election Officials and voters. The huge expenditure involved in printing millions of ballot papers, storing and transporting them to booths etc. is obviated by the use of EVMs. In the EVM, one ballot paper per unit is used. This is fixed below the transparent acrylic sheet of the Ballot Unit and lists the names of the candidates and their symbols as in the traditional ballot paper. EVMs can be reused in subsequent elections by simply pressing a button to erase the votes recorded in the earlier poll and changing the ballot paper in the Ballot Unit.

The voter has to only press a button against the candidate of his / her choice to cast a vote. An audio visual signal confirms to the voter that the vote has been recorded.

2. EVM consists mainly of two units - (a) Control Unit (CU) and (b) Ballot Unit (BU) with cable for connecting to the Control Unit. A Ballot Unit caters up to 16 candidates. Twenty four (24) Ballot Units can be cascaded together catering to three hundred eighty four (384) candidates which can be used with one Control Unit.

#### **Special Features of the Electronic Voting Machine (EVM)**

– **Unique Serial Number:** Each CU & BU has Unique Serial Number (Factory Programmed) which matches with the LASER marked serial number and Bar Code on rear side of CU & BU.

- **Real Time Clock (RTC):** The real time clock is used to display the current date and time. The current date and time is displayed with 'power on' and on pressing the 'Total' button. Any malfunction of the RTC shall be displayed by 'CLOCK ERROR' and all other functions will be working.
  - **Status of Power Pack:** Power Pack status is displayed and also it displays the percent of Power Pack status. At lower end of battery status, display flashes 'CHANGE BATTERY'.
  - **Print:** The result of poll, Event log data, Hourly total data, Voter map data & Voter time stamp data can be printed if required.
  - **LASER Marking:** LASER marking of serial number on CU and BU.
  - **Potting:** Potting of critical components to enhance security.
  - **Tamper Detect :** Incorporates Tamper Detection feature in CU and BU to detect unauthorised persons interventions with the EVM.
  - **Braille:** Moulding of Braille signage on Ballot Unit for visually challenged persons.
3. EVM operates on a special Power Pack, commonly known as battery. EVM is tamper-proof, error free and easy to operate. It is easily portable. The polling information once recorded is retained in its memory even when the Power Pack is removed.
  4. The machine which is according to the design approved by the Election Commission of India (ECI) is manufactured by Electronics Corporation of India Limited (ECIL) and Bharat Electronics Limited. It is the end product of considerable experience and extensive trials in Indian Elections under the guidance of the Election Commission of India.
  5. This chapter aims at introducing the machine and familiarizing the electoral officials with its functioning.



Fig.1 BU, CU Carrying Cases (Closed condition)

## OPENING OF CARRYING CASES

6. The Ballot Units and Control Units are supplied in separate carrying cases. A carrying case can be opened by pressing the latches simultaneously on both sides of the handle, as shown in Fig.1 Open condition of the CU and BU carrying cases are shown in Fig. 1(A).
7. Remove the units from the carrying cases carefully by using both hands.



Fig.1 (A) BU, CU Carrying Cases (open condition)

## INSPECTION

- 8.1. After opening the carrying cases verify that the cases contain the items shown in Fig. 2 (i.e., Ballot Unit along with the interconnecting cable and Control Unit.)

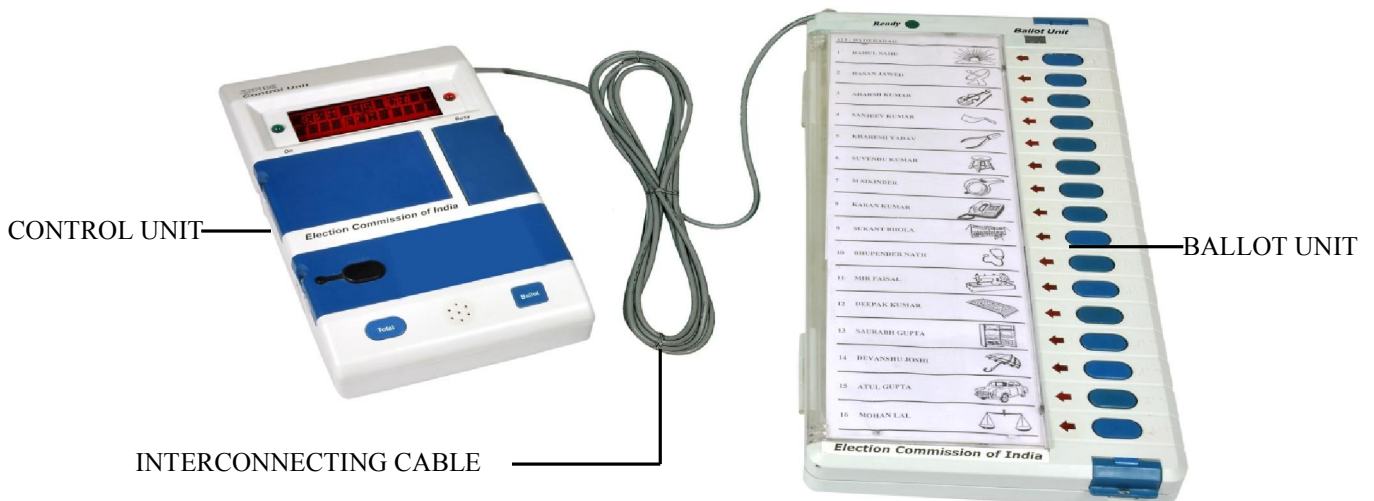


Fig.2 Items of EVM

8.2. Power pack for EVM will be supplied separately (Fig. 2A).

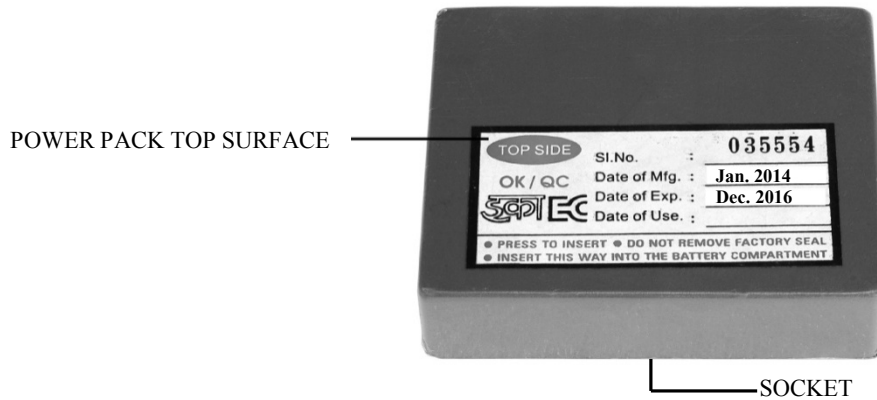


Fig.2A Power Pack of EVM (To be installed in Control Unit)

### BALLOT UNIT

9. The Ballot Unit is that unit of the machine which the voter operates to exercise his franchise.
10. It consists of a rectangular box. The box, which is as shown in Fig. 3, has -
  - a. Interconnecting Cable
  - b. Ready Lamp
  - c. Thumb Wheel Switch Panel
  - d. 16 Candidates' Buttons
  - e. 16 Candidates' Lamps and
  - f. Provision for insertion of ballot paper containing the S.Nos., Names and Election Symbols of contesting candidates under a transparent acrylic sheet (ballot paper screen).

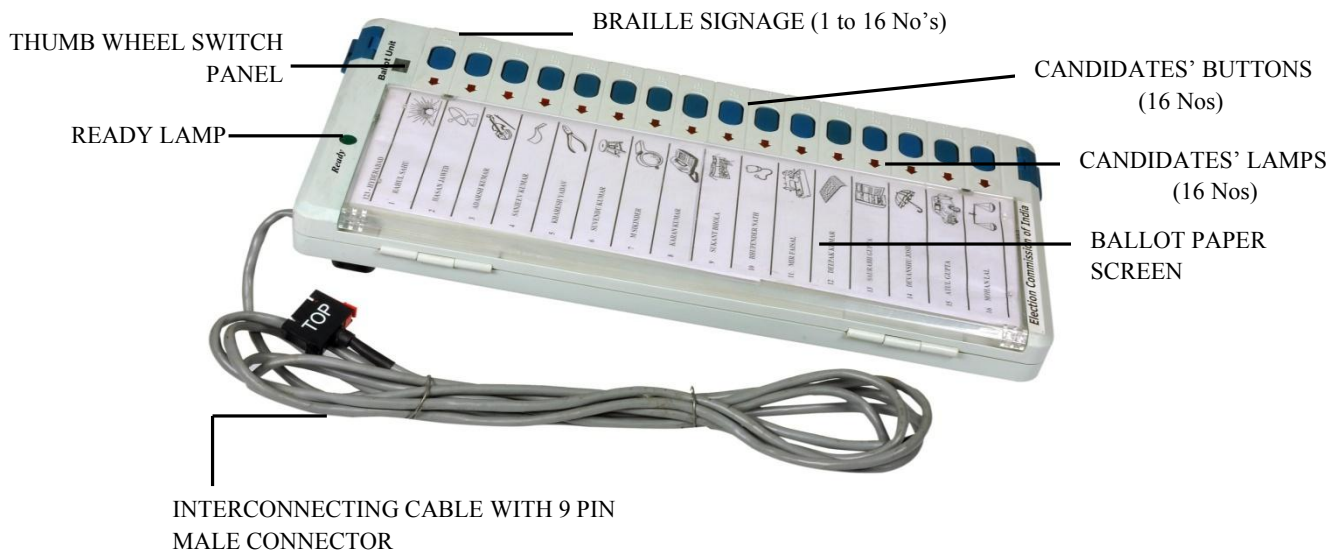


Fig.3 Ballot Unit

11. The interconnecting cable is a protected round cable, one end of which is permanently attached to the Ballot Unit. The other end is attached to a connector with a hood (Fig.4) for connecting it to the Control Unit. One side of BU cable connector spring clip is in 'RED' colour. Also one side of female socket in rear side compartment of CU is in 'RED' colour for easy identification at the time of insertion.

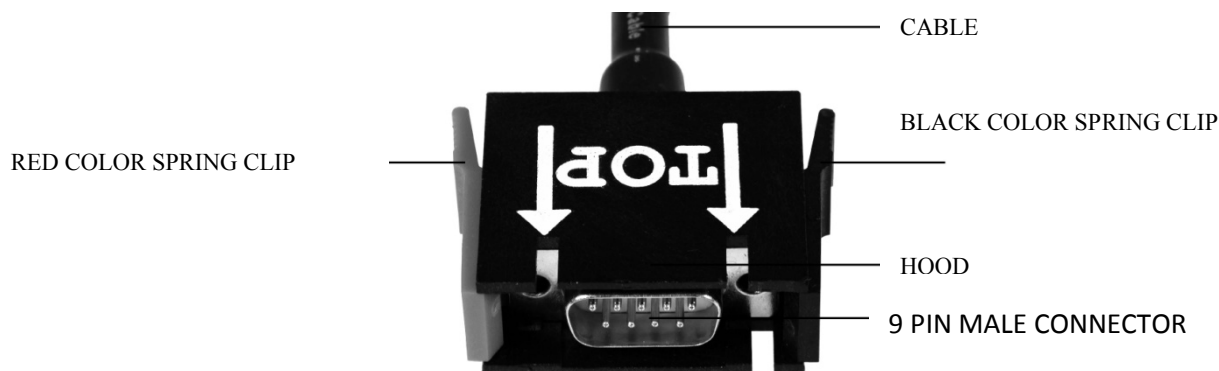


Fig.4 Inter Connecting Cable

12. The 'Ready Lamp' is on the top side of the Ballot Unit. This lamp glows GREEN when the 'Ballot' button on the Control Unit is pressed by the Presiding Officer to enable the voter to cast his / her vote. It goes off when the voter has cast his / her vote.
13. The Thumb Wheel Switch Panel is on the top right side. The Thumb Wheel Switch inside the Ballot Unit can be operated to set any one of the Twenty four positions viz. 01, 02, 03..... upto 24. When only one BU is used, the Switch is to be set to [0 1]. The position of the Thumb Wheel Switch is indicated through the transparent panel on the unit. If a second BU is used, the Switch in that unit is set to position [0 2] and so on. The Thumb Wheel switch is protected when top cover of BU is closed.
14. The voter records vote by pressing the candidate's button against the name and symbol of the candidate of his / her choice. When the button is pressed, the lamp (candidate's lamp) on the left side of that button glows RED and the voter's choice is recorded.
15. The Ballot Unit has a provision for inserting on its top face the ballot paper in which the S Nos., Names and Symbols of the contesting candidates are printed. A transparent acrylic sheet (ballot paper screen) protects the ballot paper.
16. The top cover of the Ballot Unit is opened by pressing simultaneously, towards the right, the latches at the top and bottom of the right edge of the unit. The inside of the unit is as in Fig. 5. Sixteen candidates' buttons are visible, each having an associated masking tab. The buttons which are required to be used should not be covered or masked. The buttons not required to be used should be covered or masked with their associated masking tabs.

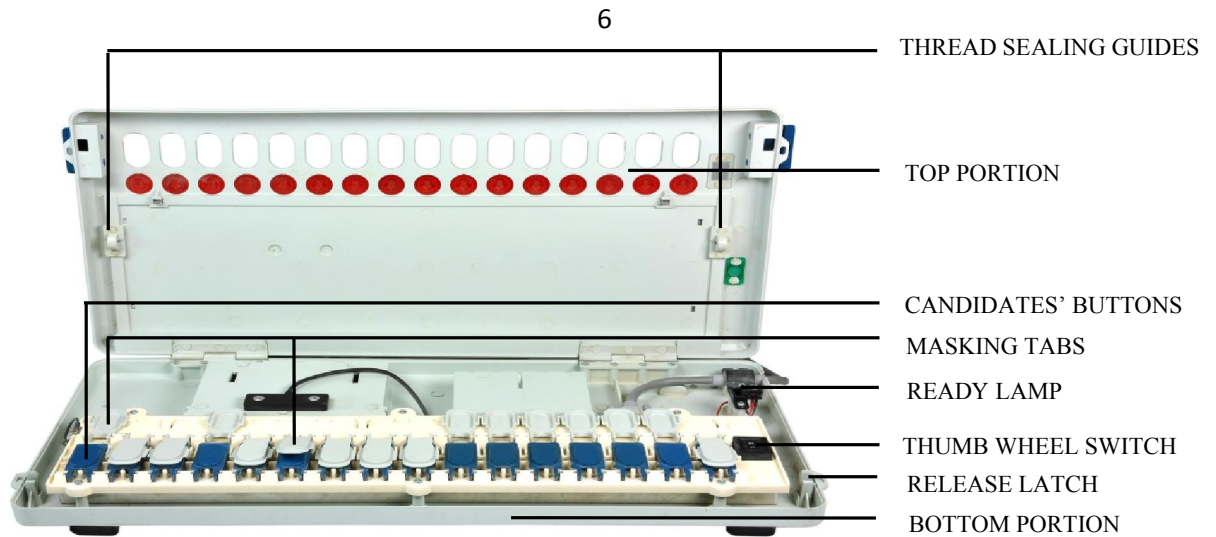


Fig.5 Inside view of Ballot Unit

17. The rear side of Ballot Unit is having two compartments. The blue color compartment is for the interconnecting Ballot Units and the white color compartment is for insert Power Pack which is shown in (Fig. 6). Power packs are inserted in 05,09,13,17 & 21Bus IF 24 BUs are connected to a CU.

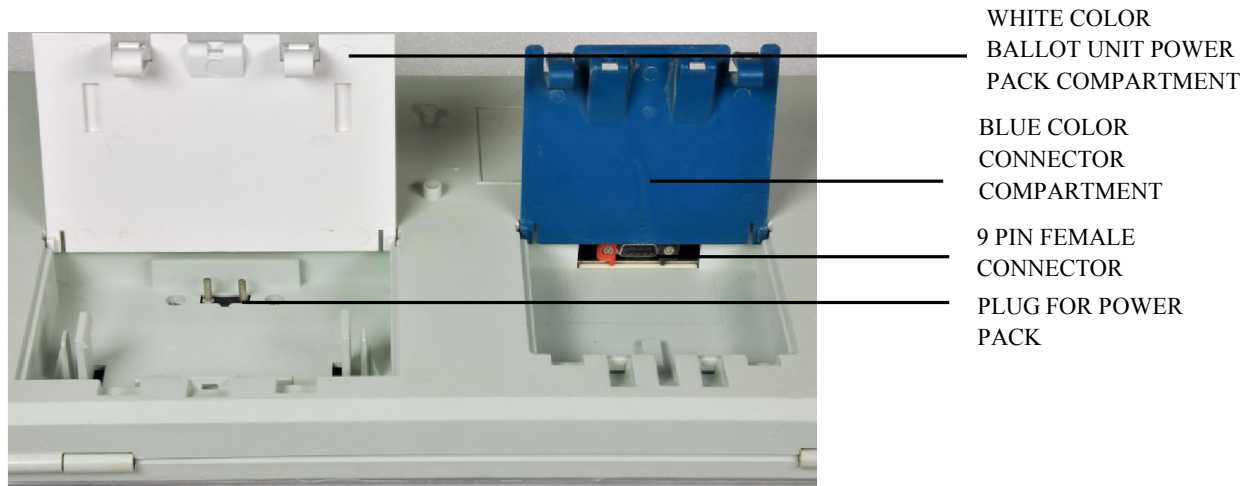


Fig.6 Rear view of Ballot Unit



## CONTROL UNIT

18. The Control Unit controls the polling process. It is operated by the Presiding Officer or the first Polling Officer.
19. Top portion of the Control Unit consists of 4 sections (as shown in Figs. 7 and 8)
  - a. Display Section,
  - b. Candidate Set Section,
  - c. Power Pack Section,
  - d. Result Section and
  - e. Ballot Section,

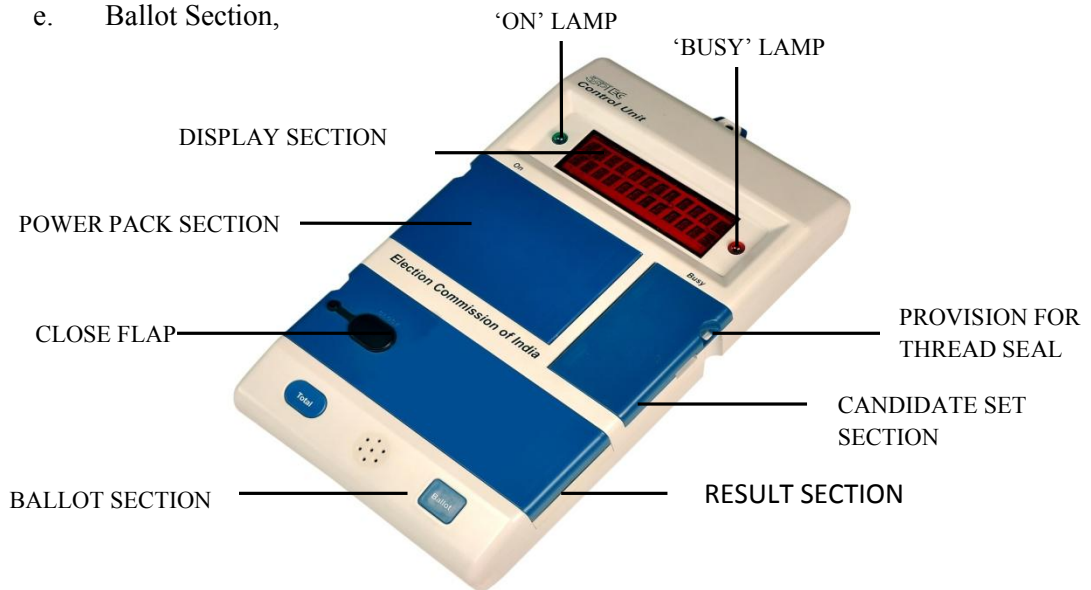


Fig.7 Front view of Control Unit



Fig.8 Side View of Control Unit

- 20 Display section consists of two lamps 'On' and 'Busy' and a display panel which consists of twenty four red coloured seventeen segment alpha numeric characters in two equal rows (Fig. 14). The functions of the lamps and the display panel are explained in paras 25, 26 and 27 of this Chapter.
- 21 The candidate set section (Fig.9) houses a 'Cand. Set' button. This section has a cover which opens from right to left by pressing the latch on the right hand side and can be sealed by thread seal. In this Section a black 'Cand. Set' button is located. The candidate set section can be closed and sealed by thread seal as shown in Fig. 7.

Power Pack Section as in Fig. 9 is used to accommodate Power Pack. Its flap opens from left to right by pressing left hand slide latch. Through hole thread seal provision is provided to seal the Power Pack compartment.

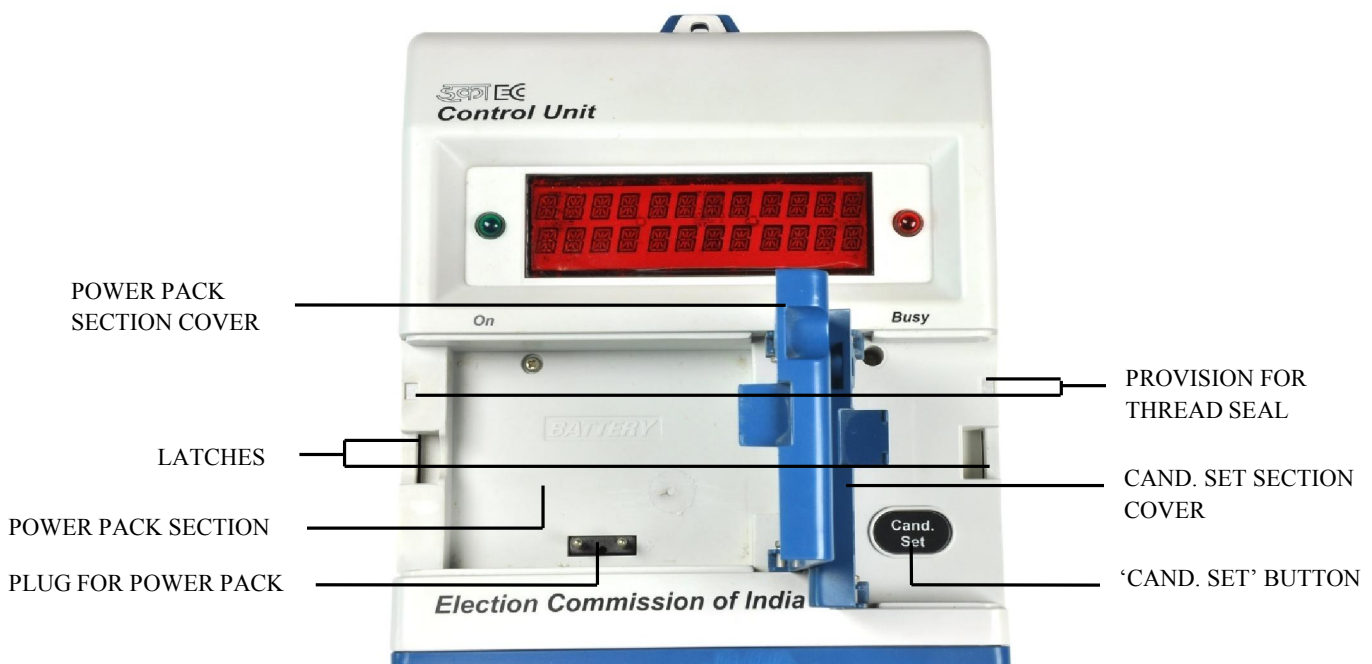


Fig.9 View of Candidate Set Section & Power Pack section

22. The cover of the result section has an elliptical aperture on the left hand side through which the 'Close' button is seen. The left portion of the result section houses a black 'Close' button. The right portion actually has an inner compartment with its own door (Fig.10).

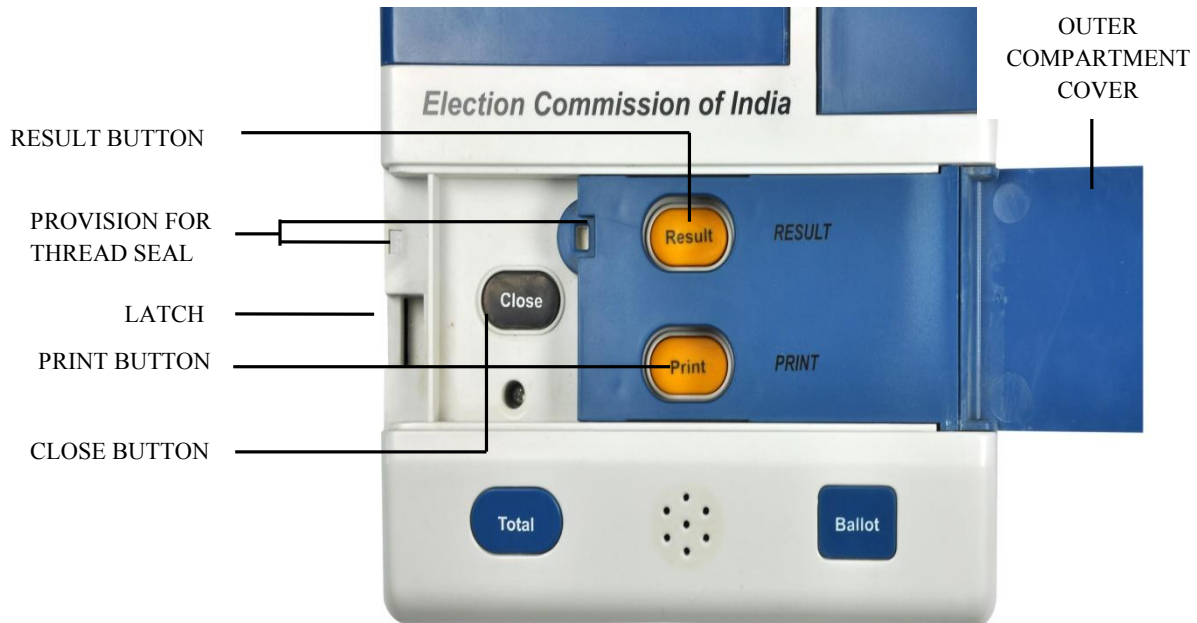


Fig.10 View of Outer compartment of Result Section

23. The door of the inner compartment has two elliptical apertures through which buttons marked 'Result' and 'Print' are seen. The inner door can be opened by inserting the thumb and finger through the two apertures above the 'Result and Print' buttons. On opening the door of the inner compartment by inserting finger, and thumb through the holes which are marked 'Result' and 'Print' and pulling the cover up, there will be seen on its inner side a frame around the two apertures for fixing green paper seal. This will also reveal three sub-sections with two yellow buttons marked 'Result' and 'Print' and a white 'Clear' button. The description of this para refers to Fig. 11.

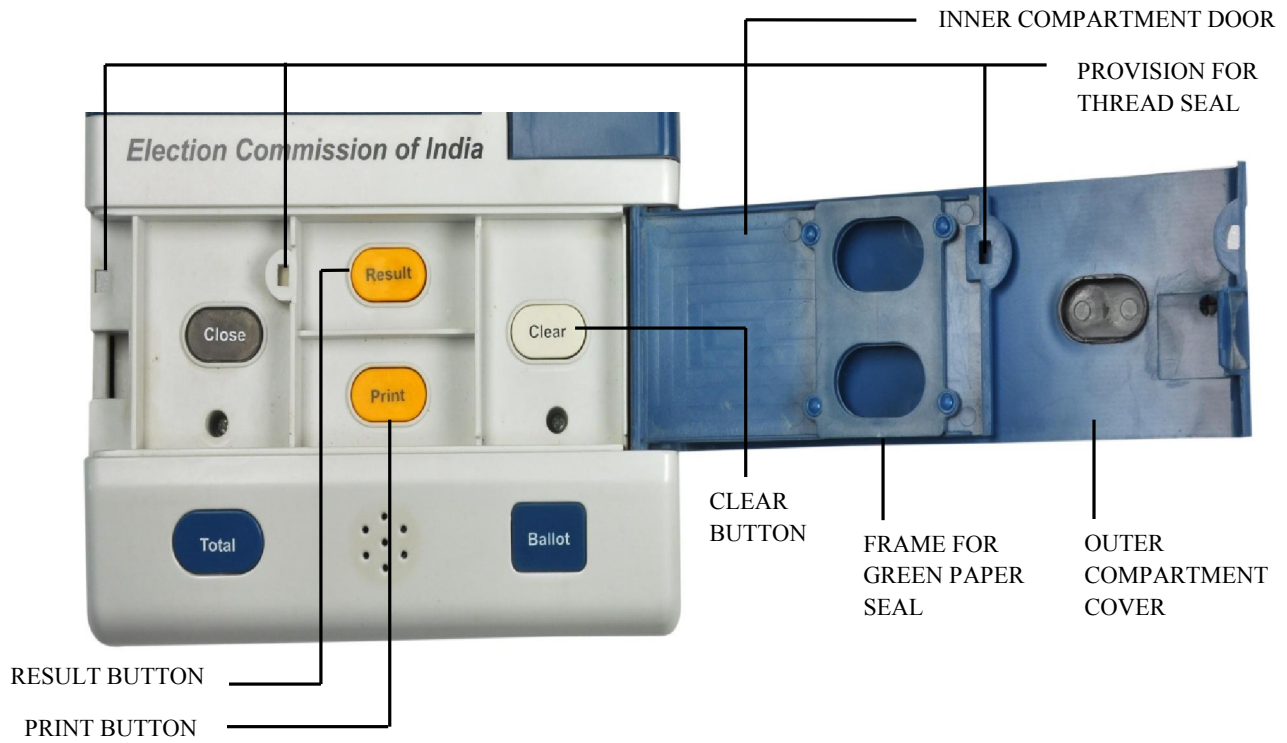


Fig.11 View of Inner Compartment of Result Section

24. In the ballot section there are two buttons - an elliptical blue 'Total' button and a rectangular blue 'Ballot' button. A buzzer as indicating in Fig. 12.

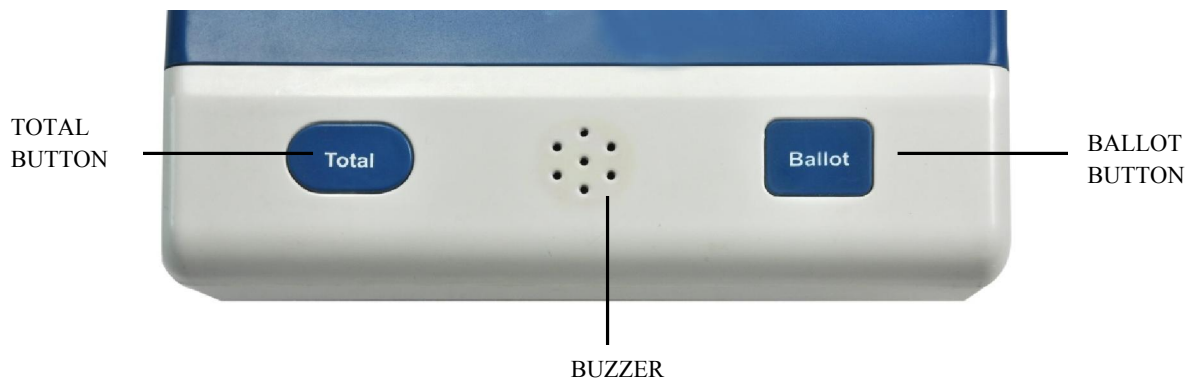


Fig.12 View of Ballot Section

23. The rear side portion of the Control Unit has also a compartment with a cover. This cover is hinged in the rear side and opens swinging downwards. Two latches are provided on the cover for locking. This has a provision for thread sealing. The cover when opened will reveals a 9 pin female connector on the left hand side for plugging the interconnecting cable from the Ballot Unit and a power switch in the right hand side, for switching the CU 'ON' or 'OFF' (Fig. 13).

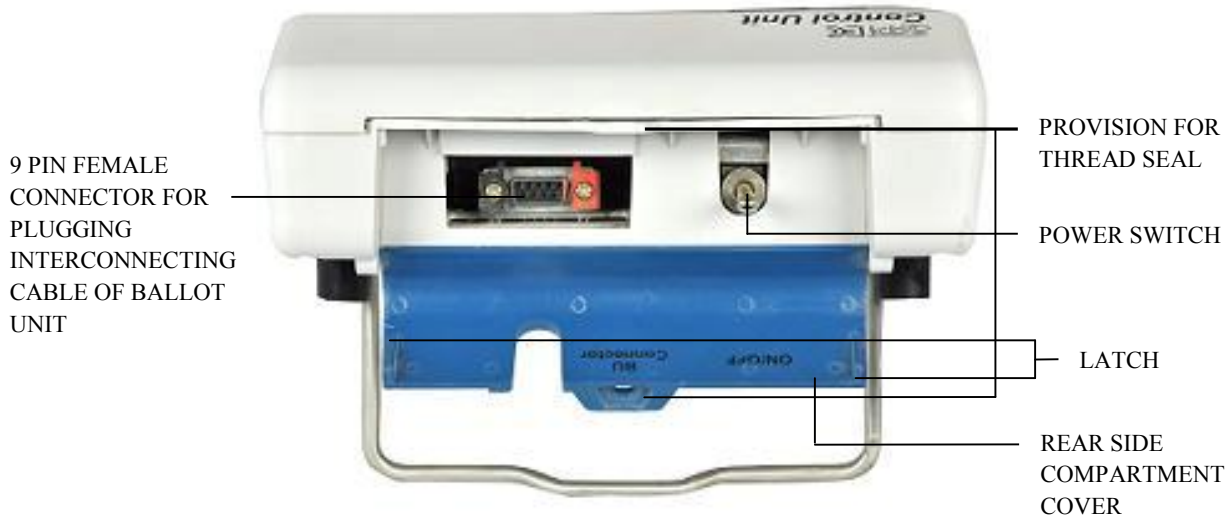


Fig.13 View of rear compartment

**'ON' Lamp**

24. The 'ON' lamp is located at the top left corner of the display section. When the power switch is pushed upwards to the 'ON' position, the Lamp glows 'GREEN' to indicate that the EVM is ready for use (Fig. 14)

**'BUSY' Lamp**

25. The red 'Busy' Lamp is located at the top right corner of the display section. It glows 'RED' when the 'Ballot' button is pressed by the polling official to enable the voter to cast his / her vote. It goes off when the voter has cast his / her vote (Fig. 14).



Fig.14 View of Display Section

## DISPLAY PANEL

26. Display panel displays the data on two rows of total twenty four characters (Fig 13).

Various types of displays which appear on display panel and what these mean are indicated below

i)

A rectangular display panel showing two lines of text in a monospaced, slightly slanted font. The first line reads "BU01 NOT" and the second line reads "RESPONDING".

Indicates first BU interconnecting cable is missing, snapped or when only one Ballot Unit is used, "Thumb Wheel Switch" in that unit has not been set at Position [0 1]. When more than one Ballot are used, those Units have not been linked in proper order snapped then that Unit Number is showing in display

ii)

A rectangular display panel showing two lines of text in a monospaced, slightly slanted font. The first line reads "PRESSED" and the second line reads "ERROR BU01".

Indicates the candidate's buttons in the first Ballot Unit is pressed condition or jammed. When more than one Ballot Units are connected, the "PRESSED ERROR" message for respective Ballot Unit will be displayed if any of the BU candidate's button pressed or jammed

iii)

A rectangular display panel showing one line of text in a monospaced, slightly slanted font. The text reads "CLOCK ERROR".

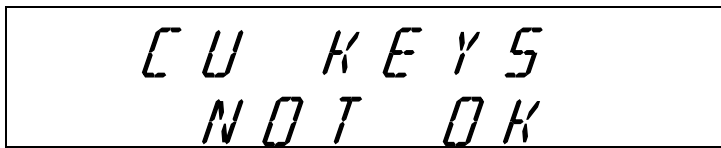
Indicates the malfunction of Real Time Clock (RTC)

iv)

A rectangular display panel showing one line of text in a monospaced, slightly slanted font. The text reads "ERROR".

Indicates the Control Unit is not fit for use

v)

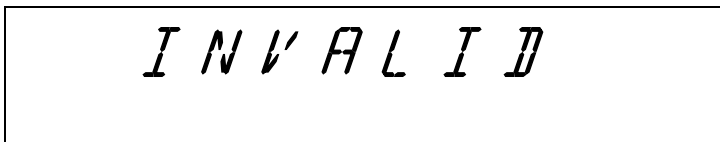


CU KEYS  
NOT OK

Indicates any key in CU is not working or continuously pressed

**Note:** Real Time Clock (RTC) failure (CLOCK ERROR) doesn't affect the recording of votes, except for time related displays, all other functions shall continue.

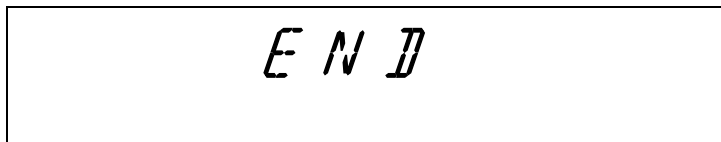
vi)



INVALID

'INVALID' display indicates that a button on the Control Unit has been pressed out of sequence. It flashes for five times with broken beep sound.

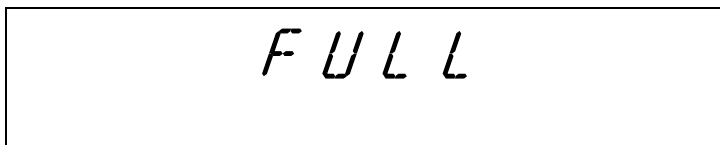
vii)



END

Indicates the end of display sequence after pressing of 'RESULT' or 'CLEAR' Button

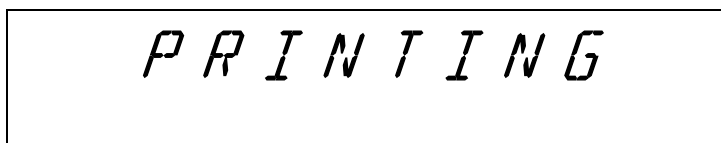
viii)



FULL

Indicates the maximum number of votes for which the machine is designed, have been polled. The machine is designed to store two thousand votes in its memory

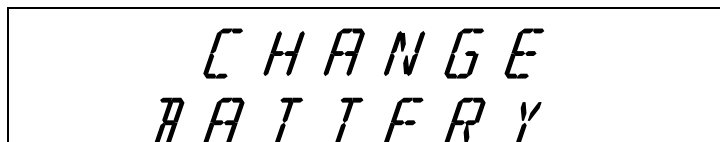
ix)



PRINTING

Indicates the printing is in progress

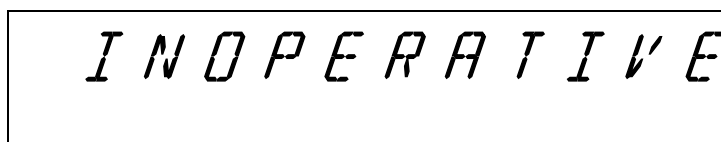
x)



CHANGE  
BATTERY

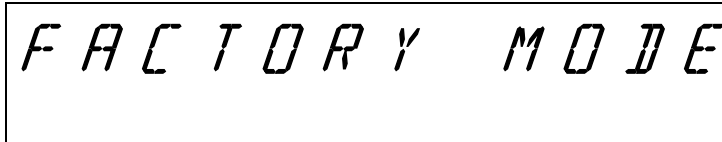
Indication for change of power pack as battery status reached for replacement

xi)



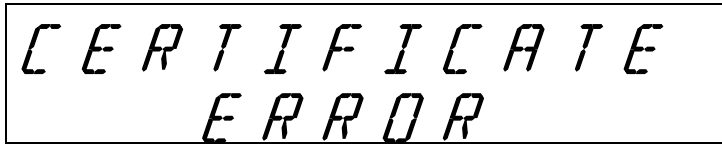
INOOPERATIVE

Indicates the Control Unit is tampered or it is not genuine



FACTORY MODE

Indicates the Control Unit is tampered or it is not genuine



CERTIFICATE  
ERROR

Indicates the Ballot Unit is tampered and all the Candidates Lamps will sequentially blink or Ready Lamp continuously blinks

### BEEP TONES

29. Whenever the Control Unit displays any information, a buzzer in the Unit gives a 'beep' sound. As explained below, the duration of the 'beep' sound varies according to the nature of information displayed :-
- a. A 'beep' of not less than 4 seconds after a voter casts his vote.
  - b. A 'beep' of 2 seconds, after any change in the information as indicated in the display panel, for example, when displaying total, candidate set, individual results etc.
  - c. Short interrupted 'beeps' to draw attention to any malfunctioning, disconnection errors etc.
  - d. A 'beep' of 4 seconds when a button is pressed out of sequence.
  - e. A long 'beep' of 20 seconds when the voting data is being cleared.





## CHAPTER - 2

### FUNCTIONS OF BUTTONS / SWITCHES

#### BALLOT UNIT

##### Candidate's Button (Fig. 3)

1. Against each candidate's name and symbol, there is a blue button, the access to which is through an opening in the Ballot Unit. A voter has to press the button against the candidate to cast vote for that candidate. It can be noticed buttons, the green 'Ready' lamp in the Ballot Unit goes OFF, and the corresponding that vote arrow lamp situated in line with the name and symbol of the candidate glows RED. This is a visual indication to the voter, that the vote has been recorded for that candidate of voter's choice. At the same time the buzzer generates a 'beep' sound from the Control Unit informing all present in the polling station that the vote has been recorded. The candidate lamp is ON and beep sound is heard for 5 seconds. After the completion of the voting process 'Busy' Lamp on the CU goes off.

##### Thumb Wheel Switch (Fig. 3 and 5)

2. The Thumb Wheel switch has numbers 01, 02, 03....up to 24. The switch be kept in position '01', '02', '03' ..... or '24' as explained in para 8 of Chapter 3. The position of the switch can be seen through the window at the right side top of the Ballot Unit.

#### CONTROL UNIT

##### Power Switch (Fig. 13)

3. To switch ON the EVM, the 'Power' switch is to be pushed upwards to the position marked 'ON'.

##### Cand. Set Button (Fig. 9)

4. The 'Cand. Set' button is used for setting the EVM for the number of candidates contesting the election. For details refer para 12 (c) and 12 (d) of Chapter-3.

##### Clear Button (Fig. 11)

5. The 'Clear' button is required to be pressed before the start of a POLL for clearing the machine and showing that no votes are already recorded in favour of any candidate. For details see paras 7 and 9 of Chapter-4.

### **Ballot Button (Fig. 12)**

6. 'Ballot' button has to be pressed for enabling a voter to record vote. When this button is pressed, the 'Busy' lamp in the Control Unit and the 'Ready' lamp in the Ballot Unit will start glowing and will continue to glow until the voter records vote. This button will again become operational for the next voter only when the earlier voter has recorded his / her vote.

### **Total Button (Fig. 12)**

7. The 'Total' button, when pressed will show the status of the battery in terms of percentage, current date and time, number of contesting candidates, the total number of votes recorded till then and battery status of BU from BU 05 onwards. This button may be pressed at any time after a voter has recorded his / her vote or before the 'Ballot' button is pressed to enable him / her to record his / her vote, but not when the 'Busy' lamp is ON.

### **Close Button (Fig. 10)**

8. Once the 'Close' button is pressed, no further voting is possible. This button is to be pressed at the close of the poll. When this button is pressed, the machine displays sequentially-closing, current date and time, serial number of machine, number of contesting candidates and total votes polled, then the display terminates with 'POLL CLOSED'.

**NOTE:** Do not turn off the machine when machine is performing close operation wait till POLL CLOSED message appears.

### **Result Button (Fig. 11)**

9. On pressing 'Result' button first time after closing the poll the machine display poll result in detail. The result shall be displayed in the following sequence -

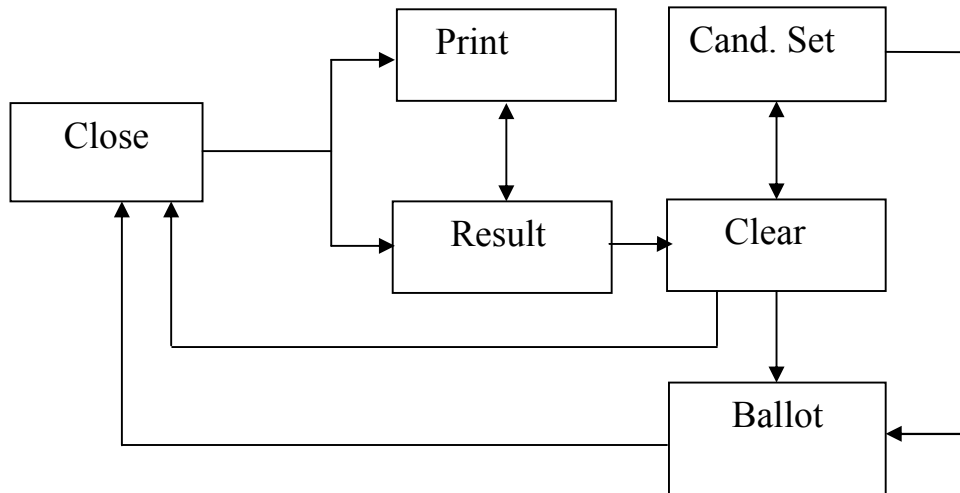
- Computing result
- Poll result with date
- Poll start and poll end time
- Serial number of machine
- Contesting candidates
- Total votes polled
- Votes polled for individual candidate sequentially.

After the above display, the display panel will show the word 'End'. Result can be seen any number of times by pressing this button again and again.

### **9a. Print Button (Fig. 11)**

This button is used for printing the result data. A special device PADU with a serial printer is required to print out the result hourly total etc.

10. It is essential to note and fully comprehend the proper sequence in which the various buttons of Control Unit have to be operated. Such proper sequence is shown below:



It may be borne in mind that pressing of any button out of proper sequence may not produce the desired effect or result on the Control Unit or the Ballot Unit.

— ★ ★ ★ —

## CHAPTER - 3

### COMMISSIONING OF EVM BY RETURNING OFFICER

#### PRELIMINARY

1. Before supplying the EVMs to the Presiding Officers for use at polling stations, the machines have to be prepared by the Returning Officer for such use. The Returning Officer has to prepare the machine for such use in the presence of the candidates / agents at such place or places and during such hours on such dates prior to the date of poll as the Officer may fix having regard to the number of machines which have to be so prepared, the time required for transporting such machines to the polling stations and other relevant factors. The Returning Officer shall, at least one week before the date of poll or as the case may be, fix the dates on which the preparation of EVMs is to be taken up by him, give notice of the same in writing to each candidate or election agent intimating the place or places where the machines will be so prepared and the date and time at which such preparation will commence. Also intimate the candidate / election agent the number of representatives that every candidate will be permitted to bring at the aforesaid place or places, depending on the number of machines to be prepared for use.

#### BALLOT UNIT

2. After taking out the Ballot Unit from the carrying case, the top cover of the unit may be opened carefully by pressing simultaneously, towards the right, the latches at the top and bottom on the right edge of the unit (Fig. 15), and swinging the cover up (Fig. 5).
3. The Ballot Unit has to be prepared by the Returning Officer by -
  - a. Inserting the ballot paper,
  - b. Masking the candidate's buttons, which are not required to be used,
  - c. Setting the Thumb Wheel Switch at the appropriate position, i.e. 01, 02, 03... or 24, as the case may be according to the number of such units which are to be used depending upon the number of candidates and the sequence in which, they are to be used.
  - d. Sealing the unit.
  - e. If more than four Ballot Units are to be used, in that case 5<sup>th</sup>, 9<sup>th</sup>, 13<sup>th</sup>, 17<sup>th</sup> and 21<sup>st</sup> Ballot Unit requires separate Power Packs i.e. Extra Power Pack to supplement BUs.

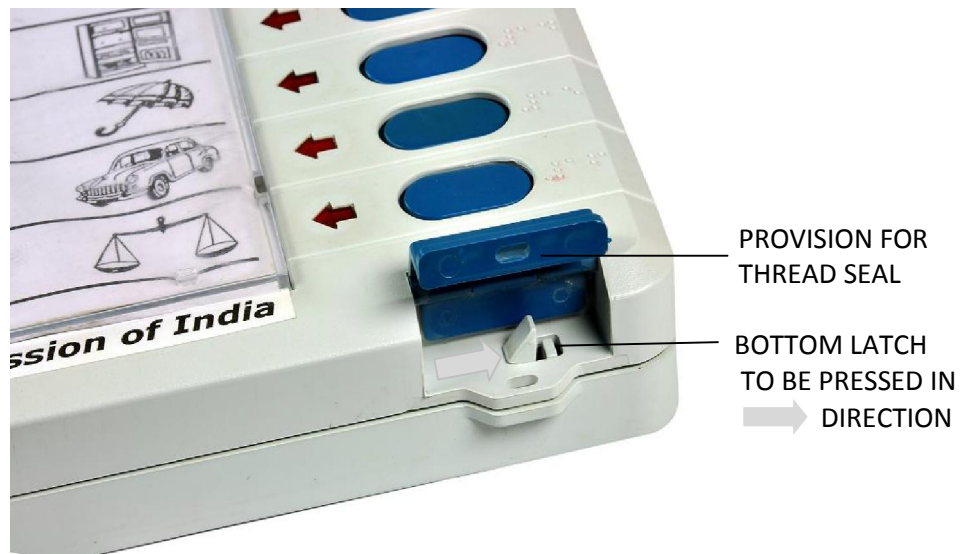


Fig.15 View of Latches

## OPENING OF BALLOT PAPER SCREEN

4. Open the ballot paper screen which is a transparent acrylic sheet hinged to the top cover on the extreme left side. The release latches of the screen are inside the top cover (Fig. 16). By pressing the latches simultaneously, first slightly towards right and then pushing them downwards, the ballot paper screen will become free for opening on the upper side of the top cover (Fig. 17). While opening the screen, care should be taken to ensure that it is not get damage.

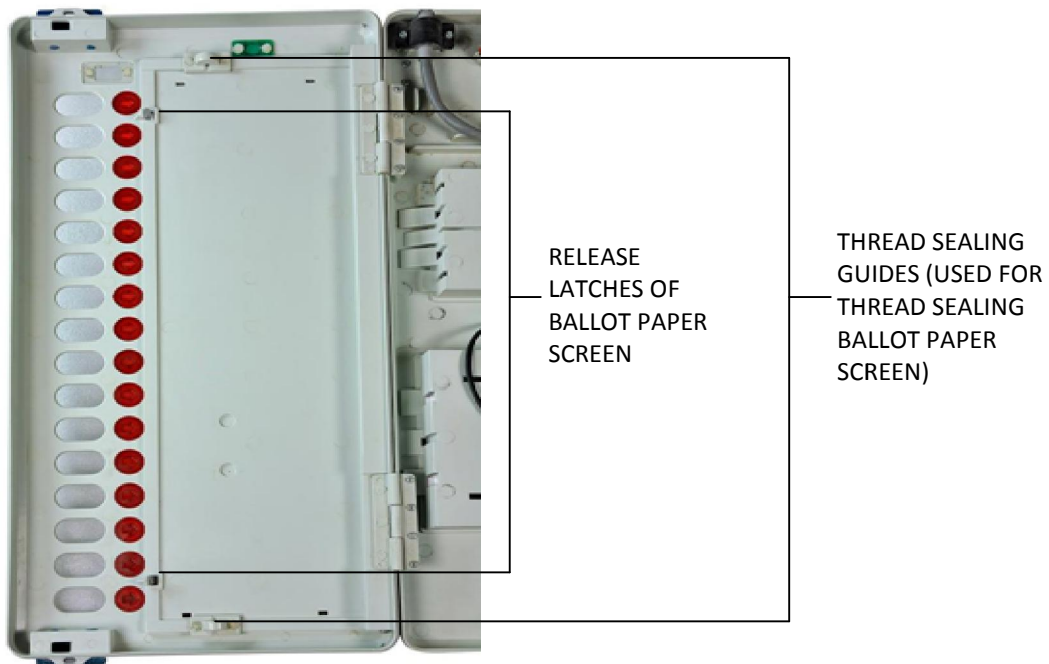


Fig.16 Inside View of Top Cover

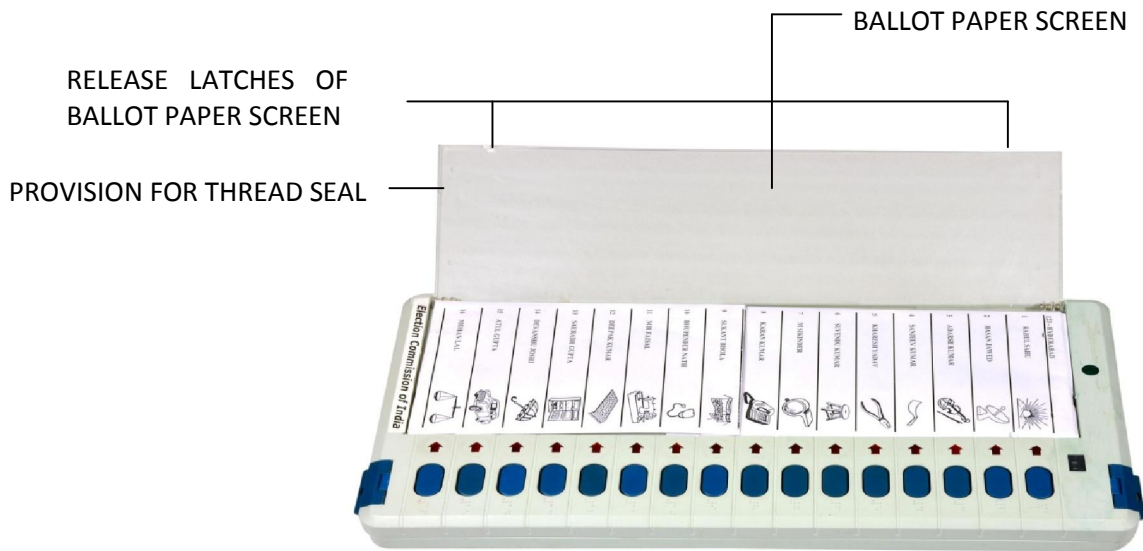


Fig.17 View of the Upper Side of Top Cover

## FIXING OF BALLOT PAPER

- Place the ballot paper in the space provided for the purpose on the upper side of the top cover. Align the ballot paper properly so that each candidate's name and his / her symbol are in line with the corresponding candidate's lamp and button. After ensuring this alignment, close and press fit the ballot paper screen to secure the ballot paper firmly underneath that screen (Fig. 18).

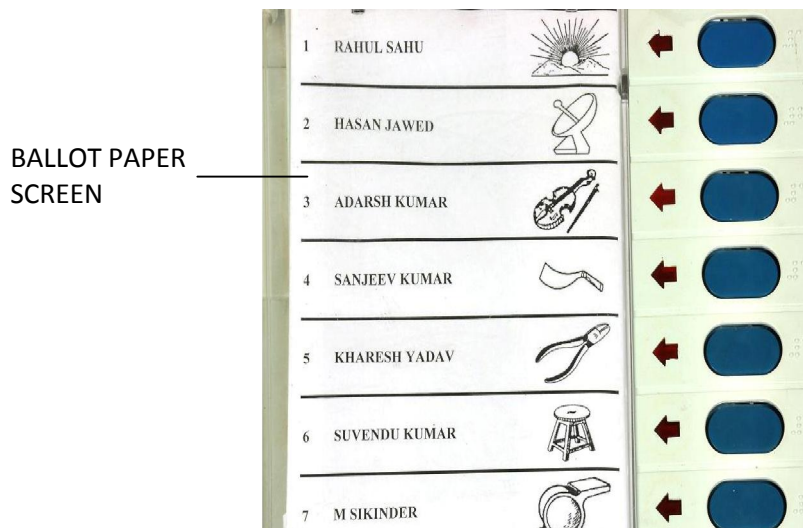


Fig.18 Properly Aligned Ballot Paper

**NOTE:** Alignment of the ballot paper is an important step. Please do this carefully. There should not be any misalignment as it will create confusion in the voter's mind.

6. After the ballot paper has been firmly fixed and the ballot paper screen has been press fit on the upper side of the top cover, the screen is to be sealed on the inner side of the top cover. This is to be done by passing the thread through the two holes on the screen specially provided for the purpose (Fig. 16) and by putting the thread seal on the prescribed address tag showing the particulars of the election with the seal of the Returning Officer.

## MASKING OF CANDIDATES' BUTTONS

7. If the number of candidates on the ballot paper is less than 16, the grey masking tabs should be moved onto the candidates' buttons not required to be used.

**NOTE:** For example, if the number of candidates are 8, the first 8 (i.e., 1 to 8) candidates' buttons are left unmasked and the remaining 8 (i.e., 9 to 16) shall be masked as shown in Fig.19

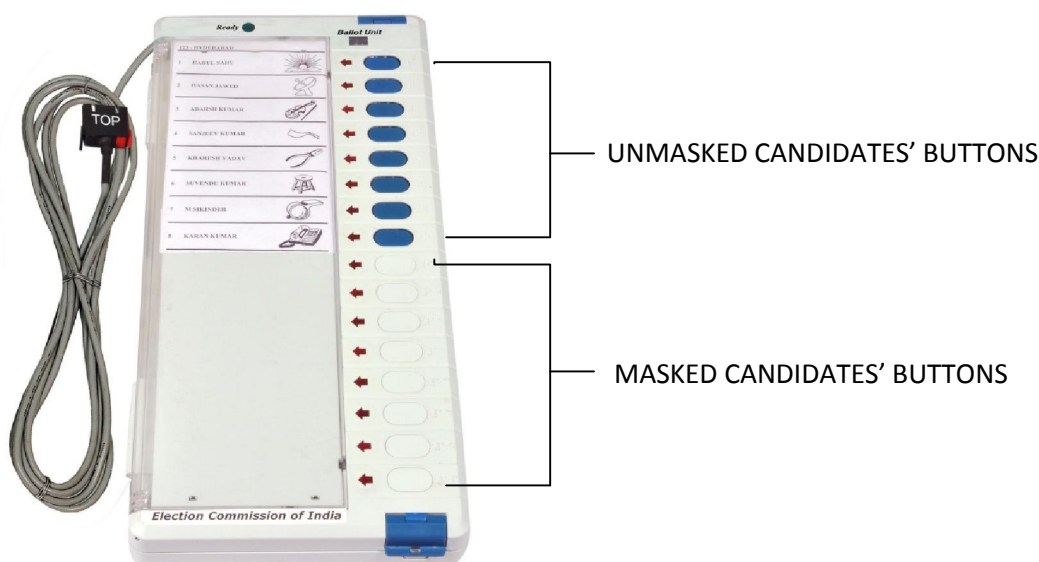


Fig.19 Balloting Unit set for 8 Candidates

## SETTING OF THUMB WHEEL SWITCH

8. Inside the Ballot Unit on the top right side, there is a Thumb Wheel Switch which has twenty four positions 01, 02, 03... up to 24. If only one Ballot Unit is to be used, set this switch to the [0 1]. If two Ballot Units are to be used, set this switch to the position [0 1] in the Ballot Unit in which the names of the candidates at S Nos. 1 to 16 appear and in second Ballot Unit set this switch to the position to [0 2]. If three Ballot Units are to be used, the Thumb Wheel Switch will set to position [0 1] in the first Ballot Unit in which the names of candidates at S Nos. 1 to 16 appear, to the position [0 2] in the second Ballot Unit in which the names of contesting candidates at S Nos.17 to 32 appear and to position [0 3] in the third Ballot Unit in which the names of contesting candidates at S Nos. 33 to 48 appear. Likewise if the 24<sup>th</sup> Ballot Unit is also to be used if number of contesting candidates exceeds 368, then the Thumb Wheel switch will be set to the position marked [2 4] in the last Ballot Unit (Fig. 20).

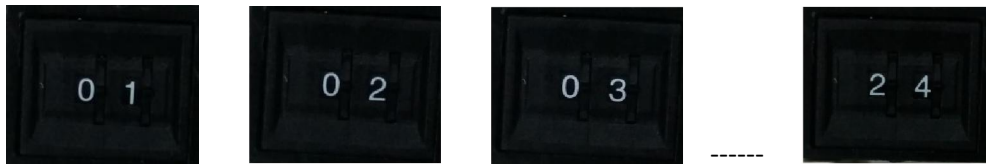


Fig - 20 Thumb Wheel Switch Position [0 1], [0 2], [0 3], ----- [2 4]

## SEALING OF BALLOT UNIT

9. Close the Ballot Unit by bringing the top cover back to its original position. Pass two threads, one through the three holes at the top and the other through the three holes at the bottom provided for the purpose and seal each thread with Returning Officer's seal.

**NOTE:** While sealing take care that direct flame does not come in contact with Ballot Unit and the molten wax does not fall on any part of the machine.

## CONTROL UNIT

10. The Control Unit is to be prepared by the Returning Officer by -

- a) Installing the Power Pack,
- b) Setting the number of contesting candidates,
- c) Sealing the Candidate set section and
- d) Sealing the Power Pack section.

## POWER PACK INSTALLATION

11 Open the cover of the Power Pack section by pulling up latch provided on the left side. Install the Power Pack specially supplied by mating the socket of the Power Pack to the plug. Ensure that Power Pack is pressed tight (Fig. 21).

The status of the battery is displayed when the unit is switched 'ON' and also on pressing the 'Total' button. The display sequence shows HIGH / MEDIUM / LOW/MARGINAL state of battery.

### Change Battery :

'CHANGE BATTERY' is displayed when the Power Pack strength is lower than 11% during MARGINAL. When the battery strength goes below the 11% during MARGINAL display, the message 'CHANGE BATTERY' is displaced after every vote is registered in the machine. It is recommended that the Power Pack be changed at the earliest.

### Battery Status Range:

High –	99% - 86%
Medium –	85% - 41%
Low-	40%- 26%
Marginal-	25% - 11%
Change Battery-	Below11%





Fig.21 Installing the Power Pack

## SETTING THE NUMBER OF CONTESTING CANDIDATES

12. After connecting the power pack, open the compartment at the rear side of the Control Unit as explained in para 25 of Chapter 1, and proceed as follows for setting the No. of contesting candidates:
  - a) Connect the Ballot Unit to the Control Unit by plugging the connector of the interconnecting cable (Fig. 4) in the plug in that compartment (Fig. 13). As the connector and the plug are multi-pin connectors, it will need some practice to plug them properly. The connector goes into the socket only one way which can be found out easily by looking at the orientation of the pins and 'Top' of the hood. The red coloured latch of connector and red coloured side of plug together come same side when plugged properly. As the pins are delicate, do not force the connector in such a way as it may damage or bend the pins. The EVM will work only when this connection is made properly.
  - b) After plugging the connector properly, push the power switch to 'ON' position. It will give a beep sound and the 'ON' lamp (Fig. 7) on the display section of the Control Unit will glow GREEN. The following power on display sequence will be seen on the display panel.

**NOTE : BU/BUs must be connected before Power On of CU.**

EVM IS ON  
ECI

All 16 candidates arrow lamps on BU glow sequentially

\* / 0 - - - - - \* / 0  
\* / 0 - - - - - \* / 0

Self segment checking. (On LED of CU goes Off during this process)

SELF CHECK  
IN PROGRESS

DTE425-11-13  
TME400-30-56

Indicates date is in DD-MM-YY and time is in HH-MM-SS format

SL NUM  
ECU0M00001

Indicates the serial number of machine

CANDIDATES  
9

Indicates contesting candidates are nine

BATTERY HIGH  
90 PERCENT

Indicates the status of the battery is HIGH in terms of PERCENTAGE

DISCOVERING  
UNITS

Identifies how many number of BUs are connected

*DISCOVERED  
BU01*

Indicates one BU is connected.

*BU01 GN1  
TESTING*

Testing BU 01 is generation 1  
(During this operation both the ready lamp on Ballot Unit & busy lamp on Control Unit will glow.)

*BU01 GN1  
OK*

Indicates BU 01 is generation 1

*EVM IS  
READY*

Indicates EVM is ready for use.

**Note:-If more than one BU is connected, CU displays discovered BU-01/02/03-----upto24, testing GNI to all number of connected BUs and displays BU 01/ 02/03-----upto24 and displays BU 01/02/03---up to 24 is/are GN1**

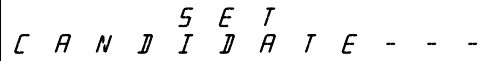
*EVM IS  
READY*

- c) After the 'ON' lamp glows GREEN, press the 'Cand. Set' button (Fig.9) in the candidate set section. Thereupon the display panel in the display section will now flash the letters as shown below with interrupted beep sound.

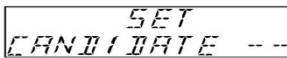


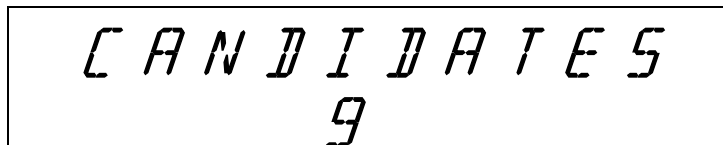
S E T  
C A N D I D A T E - - -

**NOTE:** If, however, display panel shows the word 'INVALID', it signifies that data relating to some previous operation is stored in the machine, the previous poll data has to be cleared for setting the number of contesting candidates. Press the 'Close' key and wait till the display 'POLL CLOSED' appear on the display panel. Thereafter, press the 'Result' key, wait till display 'END' appears. Now press the 'Clear' button and observe till display 'END' appears. Thereafter press the 'Cand. Set' key and now the display flashes.



S E T  
C A N D I D A T E - - -

- d) When above letters start flashing on the display panel on the Control Unit, press the candidate's button against the last contesting candidate in Ballot Unit. For example, if there are 9 contesting candidates, press the 9th candidate's button. On that button being pressed, the display panel will stop flashing the letters . Instead, the display panel will start displaying the following information.



C A N D I D A T E S  
9

This way the machine is set for 9 contesting candidates

**NOTE:** The number of contesting candidates can be set in any number of Control Units by using only one Ballot Unit. In such Ballot Unit, mask all the candidates' buttons except the button of the last contesting candidate. In the above example, mask the buttons of candidates 1-8 and 10-16 and leave only the button of candidate number 9 unmasked.

Where the work of setting the number of contesting candidates in different Control Units is distributed amongst different officers, each such officer may use a separate Ballot Unit for setting the number of contesting candidates in the Control Units allotted to him.

- e) Switch OFF the EVM by pushing the power switch downwards to 'OFF' position. Then switch 'ON' the EVM and confirm that the number of contesting candidates is as per the set value. Then switch OFF the EVM and disconnect the interconnecting cable from the Control Unit. **For this purpose, the spring type clips on both sides of the connector hood should be pressed inward simultaneously and then the connector pulled out.** Then close the cover of the rear compartment of the Control Unit.

**Following are the few cases one may come across while commissioning the EVM :**

- Case 1)** If BU is not connected with CU before power ON or BU is not manufactured by ECIL or BEL then, CU display sequence will go up to 'DISCOVERING UNITS' after that The following display sequence will be seen on the display panel.

*NO UNITS  
CONNECTED*

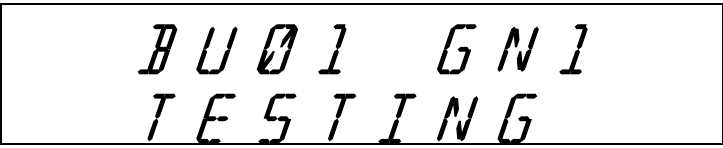
*INCORRECT  
NUMBER OF BU*

*PRESS  
BALLOT KEY*

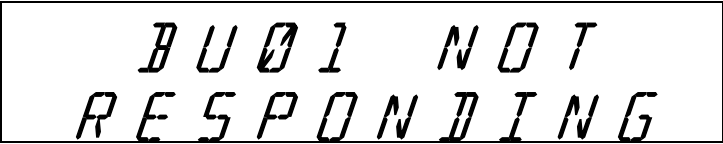
**Note:** After pressing the 'Ballot button' CU display panel will show "EVM IS READY"

- Case 2)** If Tampered BU is connected to CU, BU LED's sequentially blink or Ready lamp continuously blinks and CU display sequence will start with 'DISCOVERING UNITS', after that the followed by the sequence given below on the display panel.

*DISCOVERED  
BU01*

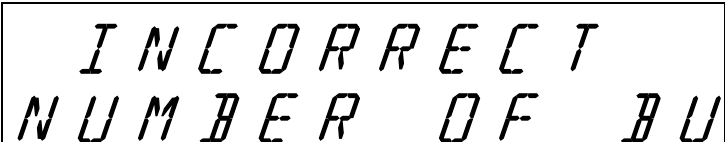


BU01 GN1  
TESTING

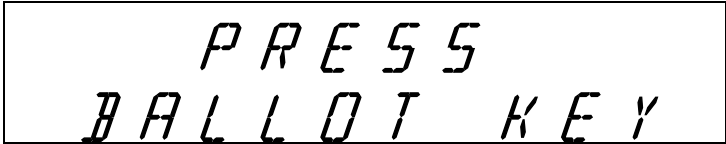


BU01 NOT  
RESPONDING

**Case 3)** If Candidate Set is more than the BUs Connected to CU before power ON then, CU display sequence will go up to 'DISCOVERING UNIT' after that the following display sequence will be seen on the display panel.



INCORRECT  
NUMBER OF BU



PRESS  
BALLOT KEY

After pressing Ballot Key, switch OFF CU, connect suitable number of BUs or change candidate set to match BUs.

**Case 4)** If more than five BUs are connected, if 05 BU is having old or drained battery, then CU display sequence will go up to 'BU 05 GN1 OK', after that the following display sequence will be seen on the display panel.



BU 05  
CHANGE



CHANGE  
BATTERY

Switch OFF CU, change Power pack in BU 05

**SEALING THE 'CAND. SET' BUTTON COMPARTMENT**

13. Close the flap which houses the 'CAND. SET' button and pass a thread through the two holes provided on the right side and seal with the seal of the Returning Officer. While sealing take care that direct flame does not come in contact with the Control Unit and molten wax does not fall on any part of the Control Unit.

**SEALING THE BATTERY COMPARTMENT**

14. Close the **Battery** compartment. Pass a thread through the two holes provided on the left side and seal with the seal of the Returning Officer. While sealing take care that direct flame does not come in contact with Control Unit and molten wax does not fall on any part of the Control Unit.
15. Put back the Ballot Unit and the Control Unit in their respective carrying cases. They are ready for transportation to the Polling Station.



## CHAPTER - 4

### COMMISSIONING OF EVM BY PRESIDING OFFICER AT POLLING STATION ON THE DAY OF POLL

#### PRELIMINARY

1. Before EVM is put in actual use at the polling station some further preparations are necessary. These have to be done by the Presiding Officer at the Polling stations in the presence of the candidates / their election agents or their polling agents. The Presiding Officer shall start the preparations about an hour before the time fixed for the commencement of the poll and the polling agents should also, therefore, be present at the polling station at that time. The preparations which are required to be made are explained in the following paragraphs.

#### BALLOT UNIT

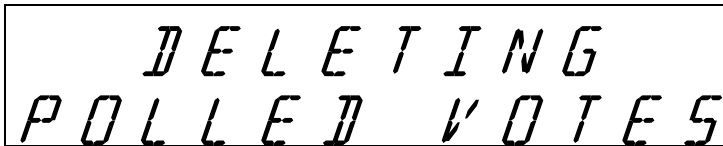
2. The Ballot Unit is already prepared in all aspects and no further preparation of this unit is required on the date of poll, except that its interconnecting cable has to be plugged to the Control Unit. Further the Presiding Officer has to check that -
  - a) The ballot paper is properly fixed in the ballot display panel under the ballot paper screen, and
  - b) The two seals put by the Returning Officer at the top and the bottom portions on the right hand side are intact.

#### CONTROL UNIT

3. The Presiding Officer should check that the seals put by the Returning Officer on the candidate set section on the right side and Battery section on left side are intact.
4. Thereafter, he should open the rear side compartment of the unit as explained in para 24 of Chapter-1 and take following steps -
  - a) Connect the Ballot Unit to the Control Unit by plugging the connector of the interconnecting cable in the socket in the said compartment as explained in para 12(a) of Chapter - 3.
  - b) Put the power switch to 'ON' position. It will give a beep sound and the 'ON' lamp (Fig.6) on the display section of the Control Unit will glow GREEN continuously.
  - c) Close the rear side compartment.
5. After the above mentioned steps, the Presiding Officer should open the cover of the result section by pressing slightly inwards the latch provided on the left side.



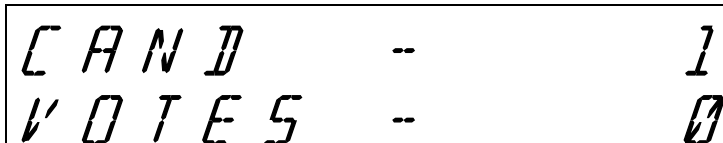
6. Thereafter, the door of the inner compartment of the result section should be opened by inserting the thumb and a finger through the two apertures above the 'Result' and 'Print' buttons and pulling up (Fig. 10).
7. After opening the inner compartment, all result counts should be set to ZERO and for this purpose, press the 'Clear' button. The clearing operation is initiated on pressing this button. This operation takes about 20 seconds (approx) and the buzzer is ON during this clearing process. On pressing 'Clear' button following information appears on display panel sequentially.



DELETING  
POLLED VOTES

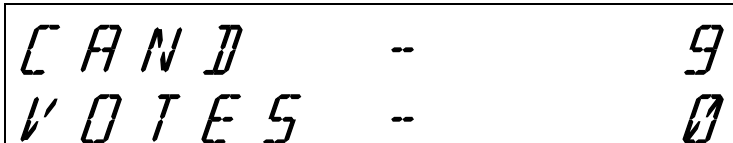
The message displayed on display window with '20' second (approx) beep, only after performing the and 'Result' operations.

After completion of clear operation the following messages are displayed

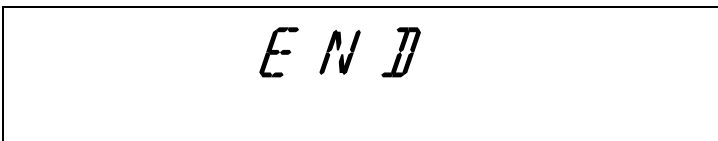


CAN -- 1  
VOTES -- 0

--- --- ---  
--- --- ---



CAN -- 9  
VOTES -- 0



END

(Every display starts with beep sound)

**NOTE: 1.** The unit should not be switched off during the clear operation. It is advisable to switch off the unit after the completion of all the display messages.

**2.** If on pressing 'Clear' button, the display panel does not display the information as indicated above, it means that some of the earlier operations needed for clearing the machine have not been performed. To clear the machines, ensure that Ballot Unit and Control Unit have been appropriately linked. Press 'Close' button and thereafter press 'Result' button. Now press the 'Clear' button. The display panel will start displaying the information as indicated above.

8. The display of the above information on the display panel is for showing the polling agents present at the polling station that no votes are recorded in the machine.

### MOCK POLL

9. After demonstrating as above that no votes are already recorded in the machine, a mock poll should be held by recording some votes. For that purpose, perform the following operations:
- Press the 'Ballot' button on the ballot section of the Control Unit. On pressing the 'Ballot' button, 'Busy' lamp in the display section will glow 'RED'. Simultaneously, the 'Ready' lamp on the Ballot Unit will also start glowing GREEN.
  - Ask any polling agent to press, according to his / her choice, any of the candidates button on the Ballot Unit.
  - On the candidate's button being so pressed, the 'Ready' GREEN lamp will go off and the arrow candidate's lamp near the switch will start glowing 'RED'. Also, a beep sound will be heard emanating from the Control Unit. After a few seconds, the 'RED' light in the candidate's lamp and the beep sound will go off simultaneously followed by busy lamp on CU. This will be the indication that the vote for the candidate whose button has been pressed, has been recorded in the Control Unit and the machine is now ready to receive next vote.
  - Repeat the process explained in the preceding paras (a), (b) and (c) for recording one / more votes for each of the remaining candidates. Keep a careful account of the votes so recorded in respect of each candidate.
  - When the votes are being so recorded, press the 'Total' button on the ballot section to verify at any time that the total votes recorded in the machine tally with the number of votes which have been polled up to that stage.

**NOTE:** 'Total' button should be pressed only after the vote has been recorded for any candidate and the 'Busy' lamp in the display section is off.

- f) At the end of the mock poll, press the 'Close' button in the result section. On 'Close' button being so pressed, the display panel in the display section will show the following information sequentially

CLOSING

DATE 25-11-13  
TIME 09-30-56

```

      SL  NUM
ECUMM000001

```

```

  CANDIDATES
      9

```

```

TOTAL POLLED
VOTES - 120

```

```

  POLL
  CLOSED

```

**NOTE: 1-** Subject to availability of time, there is no objection to permit the recording of more / less votes at mock poll. It is also not necessary that the number of votes recorded for each candidate should be the same.

**2-** On pressing 'Close' button again, display shows 'PADU NOT RESPONDING'

- g) Now press the button marked 'Result' in the result section. On being pressed, the display panel will start showing the following information sequentially -

```

  COMPUTING
  RESULT

```

```

  POLL RESULT
  PNT 25-11-13

```

```
PST 06-01-05
PET 06-16-03
```

Indicates the start and end time of poll.

```
SL NUM
ECUMM00001
```

```
CANDIDATES
9
```

```
TOTAL POLLED
VOTES -120
```

```
CAND -- 1
VOTES -- 0
```

```
-----
-----
```

```
CAND -- 9
VOTES -- 15
```

```
END
```

- h) Next, press the 'Clear' button to clear the account of votes recorded during the mock poll. On the 'Clear' button being so pressed, the account will show zero as explained in para 7 of this Chapter.

## ACTUAL POLL

10. EVM can now be used for actual poll.
11. However, before the commencement of the actual poll the 'Result Section' should be sealed.

**Note : Before sealing 'Result Section', it is very important to switch OFF Control Unit.**

After switching off Control Unit, Perform the following operations.

**a) Fixing the Green Paper Seal and closing of inner compartment of Result Section:**

These seals have been printed specially by the Election Commission of India on security paper serially numbered as in the case of currency notes at the India Security Press, Nasik. One such paper seal has to be fixed in the frame provided for the purpose on the inner side of Result section. In order that the seal is firmly fixed in the frame and does not shift from its position, a thin cardboard padding may be provided. The seal should be so fixed that its green surface is seen through the apertures from the outer side. After fixing the seal, the door of the inner compartment should be closed in such a manner that the two open ends of the paper seal protrude outwards from the sides of the inner compartment as shown in Fig.21. On the white surface of the paper seal so protruding outwards, the Presiding Officer should affix his signature in full immediately below the serial number of the seal. It shall also be got signed by such of the candidates / polling agents as are present and desire to put their signatures. Note down the serial number of the paper seal used and also allow the candidates / polling agents present to note down the numbers.

Seal the inner door. For this purpose pass a thread through the two holes provided for the purpose on the left side of the inner door and put a thread seal inserting special tag with the seal of Presiding Officer. Note down serial number of special tag.

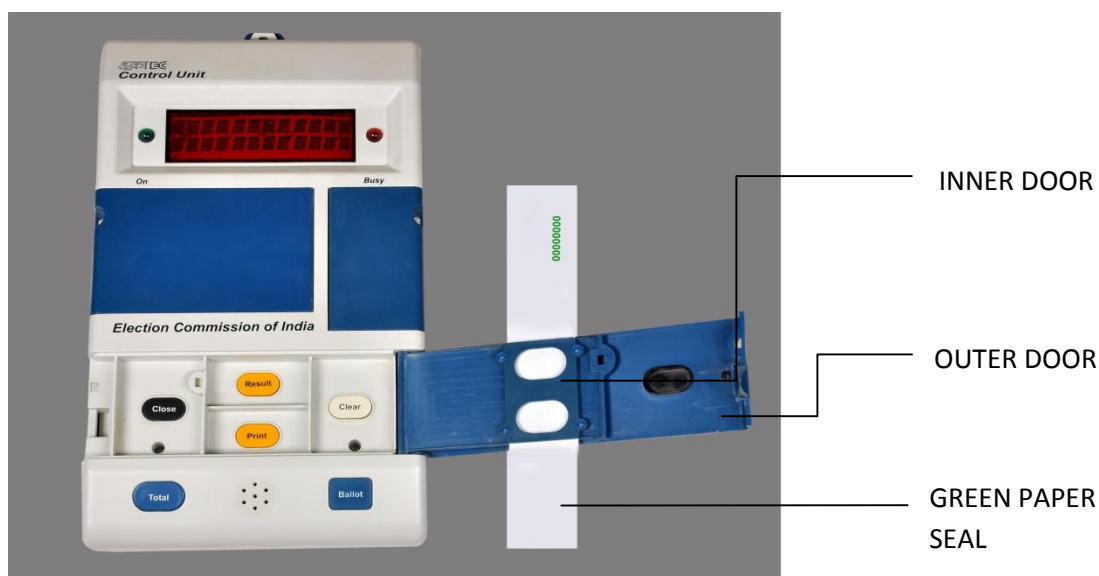


Fig.21 Fixing of Green Paper Seal

**b) Closing of Result Section:**

The outer cover of the result section has to be pressed for closing this section. After pressing the outer cover, the result section should be sealed by passing a thread through the two holes

provided for the purpose on the left side of the outer cover and putting a thread seal with the seal of the Presiding Officer.

**Take care that direct flame does not come in contact with the Unit and molten wax does not fall on any part of the machine.**

Now use the A B C D long paper strip seal with self-adhesive at A B C D portions to get glued to the green seal strip. This has to be learned practically.

12. Now the EVM is ready in all respects for use in actual poll.
13. Before commencement of the poll, however, place the Ballot Unit inside the voting compartment. This compartment should be located at sufficient distance from the table of the Presiding Officer where the Control Unit shall be kept and operated by him. The interconnecting cable between the Ballot Unit and the Control Unit has the length of approximately five meters. Therefore, the voting compartment should be reasonably distanced. Also, the cable should be so routed that it does not obstruct the movement of the voters inside the polling station and they have not to tread or trip over it. The cable may be tied to one of the table legs at Control Unit side as well as at Ballot Unit side.

### PROCEDURE DURING POLL

14. The Polling shall commence at the hour fixed for such commencement. **Press the 'Total' button and ensure that the total votes polled are zero.** After all procedural requirements relating to identification of voter, application of indelible ink on his forefinger and obtaining his signature / thumb impression in the Register of Voters have been completed with regard to the first voter, the voter concerned has to be allowed for recording his / her vote. For that purpose, press the 'Ballot' button on ballot section of the Control Unit which would make the Ballot Unit ready for recording of the vote by that voter as has been explained in paragraph 9 (a) of this chapter.

**Caution : Confirm the recording of votes by the machine duly pressing the 'Total' button after completion of first or second voter.**

Repeat that procedure every time the next voter is to be allowed to record his / her vote. It should be ensured that only one voter goes inside the voting compartment to vote. **Special care should be taken to ensure that a voter goes in that compartment in the same order in which his / her name is entered in the 'Register of Voters'.** Also ensure that the 'Ballot' button is pressed only when the earlier voter has come out of the voting compartment. At any time, if the total number of votes polled has to be ascertained, 'Total' button should be pressed. The display panel will then show the total number of votes polled by that time. **Please remember that the 'Total' button is to be pressed only when the 'Busy' lamp is OFF.** On pressing 'Total' button the display will be as shown below -

B	A	T	R	Y	H	I	G	H
9	0	P	E	R	C	E	N	T

D	T	E	2	5	-	1	1	-	1	3
T	M	E	0	0	-	3	0	-	5	6

```
CANIDIDATES
  9
```

```
TOTAL POLLED
VOTES - 120
```

```
BU01 BATTERY
LOW 39 PC
```

**CAUTION : DO NOT OPEN 'CLOSE BUTTON FLAP' DURING POLL**

### PROCEDURE AT THE CLOSE OF POLL

15. After the hour fixed for the close of poll and the last voter has recorded his vote, EVM has to be closed so that no further recording of votes in the machine is possible. For that purpose, perform the following operations -
  - a) Open the compartment at the rear of the Control Unit in the manner as explained in para 24 of Chapter - 1.
  - b) Remove the interconnecting cable in the manner explained in para 12(e) of Chapter - 3.
  - c) Remove the black plastic cap over 'Close' button and press the 'Close' button.
  - d) When this button is pressed, the display panel will show the following information sequentially. Now the EVM will not accept any further votes.

```
CLOSING
```

```
DATE 25-11-13
TIME 00-30-56
```

```
SL NUM
ECUM000001
```

CANIDATES  
9

TOTAL POLLED  
VOTES - 1065

(Assume total number of votes polled is 1065)

POLL  
CLOSED

- e) Note down in the prescribed form the total number of votes polled at the polling station as displayed in the display panel,
- f) Replace the black plastic Flap over the 'Close' button
- g) Switch OFF the EVM by pushing power switch to OFF position.
- h) Close the rear compartment.

**NOTE:** In the exceptionally odd case if the last voter chooses not to record his / her vote after the 'Ballot' button has been pressed to allow him to vote or in the case of an inadvertent pressing of the 'Ballot' button when there is no voter left to record his / her vote at the close of the poll, the 'Busy' lamp will be seen glowing 'Red'. In such a case when the interconnecting cable is removed as indicated at (b) above, the 'Busy' lamp will stop glowing 'RED' and the operations (c) to (h) above, should be performed thereafter, for closing the EVM so that no further recording of votes in the machine is possible.

16. Put back the Ballot Unit and Control Unit in their respective carrying cases.
17. Seal the carrying cases by passing the thread through the two holes provided for the purpose on both sides of the carrying cases and put thread seal on the prescribed address tag showing the particulars of the polling station with the Presiding Officer's seal and also with the seals of such polling agents as are present and desirous of putting their seals. **While sealing proper care should be taken to see that the direct flame does not come in contact with carrying cases and the molten wax does not fall on any part of the machine.**
18. Now the EVM is ready to be transported from polling station to Storage Centre (i.e. Strong Room)



## CHAPTER - 5

### PROCEDURE AT THE COUNTING PLACE

#### PRELIMINARY

1. The counting of votes recorded in the EVMs shall be done in the presence of the candidates and / or their agents. The counting shall be done at such place or places as the Returning Officer may fix. The Returning Officer shall, at least one week before the date of poll, intimate each contesting candidate or his / her election agent in writing the place, date and time fixed for the counting of votes. He / She shall also intimate the candidates / their election agents in writing about the number of counting agents that each contesting candidate shall be eligible to appoint for each place of counting, depending on the number of counting tables which the Returning Officer proposes to provide at each counting place.

#### COUNTING PROCEDURE

2. At the counting place, Control Unit and any Slave Unit ( BU or PADU) is required for ascertaining the result of poll at the polling station at which the EVM was used. The Ballot Units received from the polling stations should be kept along with the Control Units polling station-wise at the storage center.
3. Take out the Control Unit and Ballot Unit from its carrying case after examining the seal thereon and removing the same. Thereafter, place the Control Unit and Ballot Unit on the counting table. Examine the seals of Control Unit on the candidates set section and result section and remove the outer seal of the result section. Thereafter, open the cover of the result section. On opening the cover of the result section, green paper seal shall be visible through the two apertures of the compartment of the 'Result' and 'Print' buttons underneath.

**Note : Do not break / open the seal of special tag of inner Result section compartment.**

If this green paper seal is intact, the Control Unit could not have been tampered with and the recording of the votes by the machine could not be affected in any manner. If any of the other seals, that is to say, the seals on the carrying case of the Control Unit or the seals on the candidates set section or on the result section are found damaged but the green paper seal is intact, the result of the poll at the polling stations can be ascertained. In view of the vital nature of the green paper seal, the candidates and their counting agents should be allowed reasonable opportunity to satisfy themselves that the paper seal is the same which had been fixed by the Presiding Officer at the polling station before the commencement of poll. If the green paper seal is found to be not the same as the one which had been fixed by the Presiding Officer at the polling station before the commencement of the poll or if it has been found to be tampered with, keep aside the Control Unit and bring it to counting supervisors notice, do not proceed to ascertain the result of the votes recorded in that unit.

4. After checking that the green paper seal is intact, connect any Slave Unit (BU or PADU).



CAN D	--	9
VOTES	--	15

E N D
-------

**(This is only an example)**

(‘Print’ Button is to be used for printing poll results by using a special printer (PADU)).

8. If required, 'Result' button can be pressed any number of times to enable the Returning Officer, the candidate and / or their agents to note down the above result. On pressing the ‘Result’ button the display sequence starts with ‘COMPUTING RESULT’.
9. Switch ‘OFF’ the unit by pushing the power switch in the bottom compartment to 'OFF' position. Close the compartment.
10. After the result has been noted, close the cover of result section. Reseal it in the manner explained in para 11(b) of Chapter-4 with the seal of the Returning Officer and the candidates / their agents who are desirous of affixing their seals.
11. Remove the seal of the Power Pack section and open its cover. Remove the Power Pack. Close the cover.
12. Put back the Control Unit and Ballot Unit in its carrying cases which may then be kept in the bulk carrying cases.
13. All such bulk carrying cases containing the Ballot Units and Control Units shall then be ready for transportation to District Treasury / Storage place for safe custody in due course.
14. It should be made sure that Power Pack from BU nos. 5<sup>th</sup>, 9<sup>th</sup>, 13<sup>th</sup>, 17<sup>th</sup>, 21<sup>st</sup> are be removed, if used.

<b>Note:-</b> Remove Power Pack from CU and BU (if used).
-----------------------------------------------------------



## SUMMARY OF OPERATIONS

### A. PRIOR TO THE DATE OF POLL (at the Returning Officer's Headquarters)

#### BALLOT UNIT

#### CONTROL UNIT

- 
- |                                                                                                                                                  |                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Unpack the unit.                                                                                                                              | 1. Unpack the unit.                                                                                                                               |
| 2. Insert the ballot paper properly under ballot paper screen and seal it.                                                                       | 2. Install the new Power Pack.                                                                                                                    |
| 3. Mask the candidates' buttons not required to be used.                                                                                         | 3. Connect the Ballot Unit.                                                                                                                       |
| 4. Set the Thumb Wheel Switch to position [0 1], [0 2], [0 3]....up to [2 4], as appropriate.<br>Set to '[0 1]' if only one Ballot Unit is used. | 4. Switch 'ON' the unit. Check the serial number displayed matches with the Laser marked Sl. No. on the rear side of the unit.                    |
| 5. Seal the Ballot Unit.                                                                                                                         | 5. Set the number of contesting candidates.                                                                                                       |
| 6. Install new Power Packs in 5 <sup>th</sup> , 9 <sup>th</sup> , 13 <sup>th</sup> , 17 <sup>th</sup> & 21 <sup>st</sup> BU, if used.            | 6. Press the 'Total' button and check if the time and date are displayed correctly. 'CLOCK ERROR' indicates failure of the Real Time Clock (RTC). |
| 7. Put the unit in its carrying case.                                                                                                            | 7. Switch 'OFF' the unit and disconnect the Ballot Units from the Control Unit.                                                                   |
|                                                                                                                                                  | 8. Seal the 'Candidate set' section.                                                                                                              |
|                                                                                                                                                  | 9. Seal the Power Pack section.                                                                                                                   |
|                                                                                                                                                  | 10. Put the unit in its carrying case.                                                                                                            |
-

## **B. DAY OF POLL (At the Polling Station)**

### **a) BEFORE COMMENCEMENT OF POLL**

#### **BALLOTING UNIT**

1. Unpack the unit
2. Check the Ballot Unit seals
3. Place it in the voting compartment
4. Check Battery Power Packs for proper insertion in 5<sup>th</sup>, 9<sup>th</sup>, 13<sup>th</sup>, 17<sup>th</sup> & 21<sup>st</sup> BU, if used and the BU Battery compartment must be properly closed

#### **CONTROL UNIT**

1. Unpack the unit
2. Check the candidate set section and Power Pack section seal.
3. Connect the Ballot Unit to the Control Unit
4. Switch 'ON' the unit
5. Clear the Unit
6. Conduct MOCK POLL
7. Clear the unit again and switch it 'OFF'.
8. Fix duly signed green paper seal on the door over the inner compartment of Result section
9. Seal the inner compartment of the Result section with thread
10. Seal the result section and switch the unit 'ON'

### **b) DURING POLL**

1. Press the 'Total' button and ensure that the total number of votes polled is zero.
2. Press the 'Ballot' button on the Control Unit on completion of identification of first voter, application of indelible ink and obtaining his / her signature / thumb impression.
3. Allow the voter concerned for recording his / her vote. Wait for the red 'Busy' lamp and the beep sound to go off. Confirm the recording of votes polled by pressing 'Total' button after completion of first or second voter.
4. Repeat step no.2 for second voter and so on until end of poll. Ensure at intervals the total number of votes polled is tallying with actual voters allowed to record their votes.
5. **DO NOT OPEN 'CLOSE' BUTTON FLAP DURING POLLING.**

**c) AT THE CLOSE OF POLL**

---

1. Remove the black plastic cap over 'Close' button.
2. Press the 'Close' button (after pressing close button wait until EVM displays POLL CLOSED).
3. Replace the black plastic cap over the 'Close' button.
4. Press the 'Total' button and note the total number of votes polled till close of poll.
5. Open the rear compartment and Switch 'OFF' the Unit. Disconnect the interconnecting cable.
6. Pack both the Control Unit and Ballot Unit and seal both the carrying cases.

<b>Note:-</b> If you press second time 'Close' button or 'Ballot' button after 'Close' button pressing then display showing 'PADU NOT RESPONDING'.
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**C. DAY OF COUNTING (at the Counting Place)**

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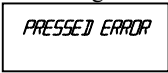
1. Check Control Unit carrying case seal, unpack it and place it on counting table.
  2. Check if all seals are intact.
  3. Open result section and check if the green paper seal on the result buttons is intact and show the seal to candidates / agents.
  4. Connect any Slave Unit ( BU or PADU).
  5. Open the rear compartment seal and switch 'ON' the Control Unit.
  6. Pierce the green paper seal on the 'Result' button and press the 'Result' button and note down the results displayed sequentially.  
( 'Print' button is used for printing poll result by using special printer (PADU).)
  7. Close the result section and reseal it.
  8. Switch 'OFF' the Control Unit and reseal the rear compartment.
  9. Remove that power pack and reseal the power pack section.
  10. Put Control Unit in its carrying case.
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**D. DEFECTS AND REMEDIES**

SL. No.	NAME OF DEFECT	REASONS	REMEDY
1.	'ON' lamp does not glow when the EVM is switched on.	Power Pack is not fixed properly or is low.	Insert the Power Pack properly or replace Power Pack with a new one. If problem persists replace CU
2.	No beep sound and display indication when the EVM is switched ON.	The Control Unit is defective and not fit for use.	Replace the Control Unit with a good one and report to ECIL.
3.	Display shows 'ERROR' and a beep sound is heard	Control Unit is defective and not fit for use.	Replace Control Unit with a good one and report to ECIL.
4.	If display shows Buzzer/Display Digit/Switch is/are not working	Control Unit is defective and not fit for use.	Replace Control Unit with a good one and report to ECIL.
5.	If display showing 'INOPERATIVE'/'FACTORYMODE'	CU is tampered or it is not genuine	Replace Control Unit with a good one and report to ECIL.
6.	If display shows 'CERTIFICATE ERROR' Immediate, POWER ON CU.	CU has wrong certificate or it is not genuine	Replace Control Unit with a good one and report to ECIL.
7.	If display shows 'BU 01/02/.../24 NOT RESPONDING' & Corresponding BU has its LEDs continuously blinks	BU is tampered	Replace Ballot Unit with a good one and report to ECIL
8.	If display shows 'BU 01/02/.../24 NOT RESPONDING'	BU may not be connected	Connect the BU
10.	If display shows 'BU 05/09/---/21 CHANGE BATTERY' then change Battery	BU 05/09/---/21 has Power Pack which is low	Replace Power Pack of BU No. 05/09/---/21 with new Power Pack.
11.	If display shows 'INCORRECT NUMBER OF BU'	CU candidate set is more than the BU connected or Thumb Wheel Switch position is incorrect.	Connect sufficient no. of BU or check Thumb Wheel Switch position.
12.	If 'Ready' Lamp is blinking	BU has problem & not fit for use.	Replace Ballot Unit with a good one and report to ECIL.
9.	If display shows 'CERTIFICATE ERROR' after discovering Units	BU has wrong certificate or it is not genuine	Replace Ballot Unit with a good one and report to ECIL.



**E. OPERATIONAL MISTAKES AND REMEDIES**

Sl.No	NAME OF DEFECT	REASONS	REMEDY
01.	Display shows 'INVALID' and a beep sound is heard.	The button pressed is not in proper sequence of operation.	Press the button in proper sequence only.
	a) When 'Cand. Set' button is pressed.	'Ballot' or 'Close' button was already pressed, Unit is not cleared.	EVM accepts Cand. Set button only when it is cleared. Hence clear the EVM before pressing 'Cand. Set'.
	b)When 'Clear' button is pressed.	Result of the previous poll is not seen.	EVM accepts 'Clear' button only when result of the previous poll is seen, at least once. Hence press 'Result' button
	c. When 'Result' button is pressed.	The polling is not closed by pressing the 'Close' button.	Close the poll by pressing the 'Close' button before pressing 'Result'.
02.	When the Presiding Officer presses the 'Ballot' button the 'Busy' lamp does not glow. Instead 'BU 01/02---/24 NOT RESPONDING' appears on the Display Panel and a short interrupted 'beep' sound is heard.	Interconnecting cable of BU No. as indicating in display has not been properly fixed or has snapped and there is no proper link.	Switch off the CU. Fix the interconnecting cable properly, if necessary, by taking it out and refixing then switch on the CU.
03	When the Presiding Officer presses the 'Ballot' button the 'Busy' lamp does not glow. Instead  appears on the display panel and a short interrupted beep sound is heard	Some voter must have left one of the buttons in the first Ballot Unit in pressed condition or any key in the jammed condition.	Go inside voting compartment and gently press all buttons once in BU. Observe whether any foreign object has been entered in BU key slots. If problem persist replace CU.
04	When 'Result' is pressed for counting and 'CONNECT ANY SLAVE UNIT' is displayed	NO Slave Unit (BU or PADU) is connected.	Connect any Slave Unit (BU or PADU).



## **F. DOs AND DON'Ts**

### **DOs**

1. Read the manual carefully before operating the EVM.
2. Press the latches gently and in the manner specified.
3. Protect the EVM from dust, heat, rain, fire and other such hazardous environments.
4. Use the Power Pack specially supplied by the Election Commission of India (ECI).
5. Inform Election Commission of India and ECIL in case of any problem.
6. Remove Power Pack from the Control Unit and Ballot Unit (if used) while storing for longer periods.
7. Ensure that the covers / doors of the sections / compartments in the Ballot Unit and the Control Unit rest properly on the plain surface, when opened.
8. Ensure that the connector of the interconnecting cable mates properly with the connector of the Control Unit before pressing in. This will mate in one direction only.
9. Switch On the CU after connecting all the Units.

### **DON'Ts**

1. Do not exert undue pressure on latches, hinges etc.
2. Do not keep EVM near heater or other hot objects.
3. Molten sealing wax should not fall on the EVM, while sealing.
4. Do not open by force the cover or doors of the various sections.
5. Do not try to open the top portion of the Control Unit (by unscrewing the screws).
6. Do not remove the seal of the power pack unless it is required for use.
7. Do not press the connector fixed at the end of the interconnecting cable into the connector of the Control Unit in reverse direction.
8. Do not pull the interconnecting cable while disconnecting it from the Control Unit without pressing the spring type clips on the hood of the connector.
9. Do not connect the units while powering on the CU.
10. Do not Power On EVM before five seconds after Power Off.

## **G. STORAGE OF EVMS**

### **INSTRUCTIONS FOR STORING BULK CARRYING CASES**

- 1) The bulk carrying cases have to be arranged as shown in Fig. 23 (LAY-OUT OF STORE). They can be kept back to back as shown in Fig. 23.
- 2) The boxes can be stacked one above the other up to a maximum of FOUR Nos. with a wooden platform as shown in Fig. 24 (WOODEN PLATFORM). We do not recommend usage of Tarpaulin for the floor.
- 3) Ballot Units and Control Units should be kept in separate bays for easy identification and movement.
- 4) Fire extinguishers should be kept fixed to the side walls for every 15 meters.
- 5) The building / walls should be strong enough to withstand attacks from rodents.
- 6) The inner side of walls and floor should be cleanly maintained to avoid insects and white ants.
- 7) In places where there is possibility of temperature going below 0 degree Celsius it is advisable to insulate the walls with THERMOCOOL.
- 8) Storage should be such that the boxes are not exposed to direct Sunlight.
- 9) Proper ventilation for good air circulation / lighting should be provided for the building.
- 10) There should be no seepage of water from ceiling, side walls and floor. If required Tarpaulin covers may be used to protect boxes.

## **H. DISPOSAL OF EVMS**

- a) The Electronic Voting Machine should be returned to M/s. Electronics Corporation of India Limited for carrying out the disposal procedure after its useful life.
- b) The individual cells of the batteries should be disposed with regular trash after removing from the plastic box. Large quantities of batteries should be disposed off at a secure landfill in accordance with State and Local regulations. The plastic box can be scrapped and recycled or other purposes.



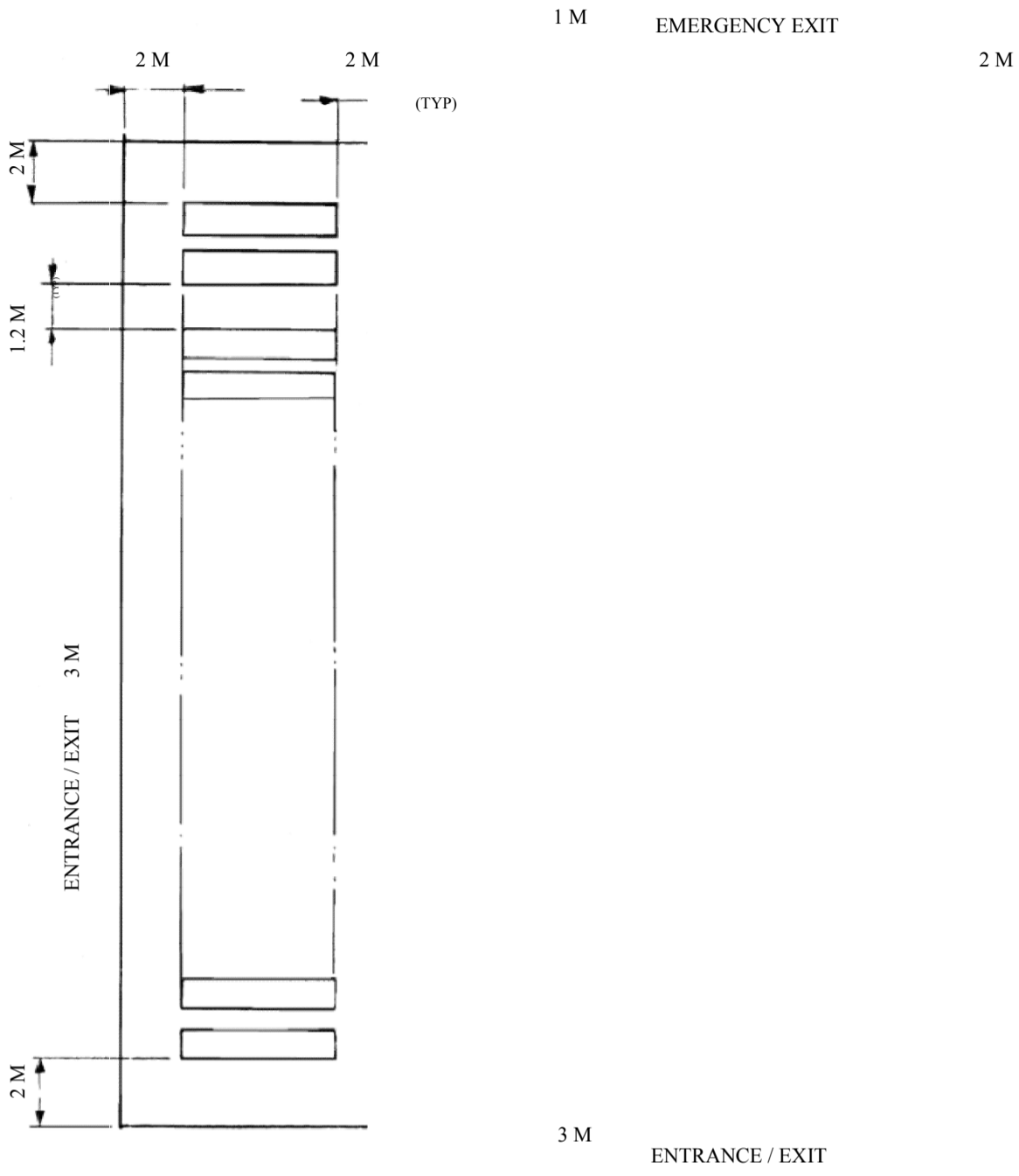


Fig. 23 LAY-OUT OF STORE

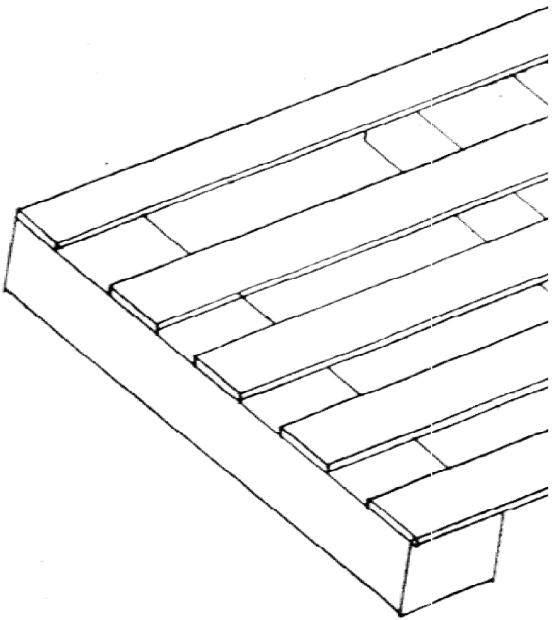


Fig. 24 WOODEN PLATFORM

