



**Maintenance Circular - 02/23**

**VERSION CONTROL SHEET**

<u>Version No.</u>	<u>Remarks</u>	<u>Date of Issue</u>
1.0	New issue	16.06.2023

**Sub.: Maintenance Protocol for Electric Point Machines (EPM)**

The following maintenance protocol shall be used for ensuring safety in maintenance of Electric Point Machines (both types). The steps mentioned in this protocol are sacrosanct and shall be followed without any exception.

The concerned SSE/JE must ensure availability of the check-list for each EPM. The check list given below must be made in form of a card and kept in each EPM. During maintenance process the check-list must be filled to appropriate entries, confirm and re-confirmed before reconnection that proper entries are made in the checklist and all entries are complete. This is required during maintenance where Electrical disconnection is required.

1. Apply for "disconnection" in format given in IRSEM and all entries are complete including time required (for both ends this is taken as 1 hour).
2. The SM/ASM on-duty shall endorse "allowed" with date & time, duration and signature which is prerequisite to take up the maintenance work.
3. If the duration permitted is less than the requirement, then it is better to take up the work at a later date and time if permissible by site requirements and without compromising safety.
4. After DCM is allowed, disconnect the operational Fuse (110V DC) or Disconnect link in location box.
5. Disconnect 24V fuse/link for detection supply in location box.
6. EPM wiring- if required to be disconnected then label each wire before removal & put ferule/tag with numbers. Disconnect one wire at a time. Record the details in the check-list for that wire before opening the next wire.
7. After completing the planned maintenance work, following steps to be taken-
  - a) Oiling and greasing of the point be completed.
  - b) Housing on both sides be verified and if required service of Engineering staff shall be availed;
  - c) Ensure all nuts and bolts are tightened and all necessary fittings are in place.
  - d) Ensure space below rods is clear and there is no obstruction to movement of rods.
  - e) After checking above, reconnect one wire at a time as per the check-list matching ferule/ tag number with function and entering the same on sheet as above. Repeat same process for other wires.
  - f) 24V fuse for detection to be inserted. Indication on panel and correspondence with field be verified.

Prepared by	Checked By	Approved By	Date
<i>Amit Kumar</i>	<i>SSTE/Sig 14/6</i>	<i>[Signature]</i>	16/6/23



- 110V DC link/fuse to be connected.
- Correspondence testing on both sides (Normal and Reverse) be checked & confirmed by ASM/SM on-duty.
- Obstruction test & corresponding indication on panel states to be verified.
- Check-list as below be signed.

Date	STATION:		CHECKLIST			EPM no.		Signature with name and desgn.
	Function		Disconnection		Reconnection			
	Terminal id	Ferrule number	Disconnected Yes/No	Terminal Id	Ferrule number	Reconnected Yes/No		
	B110 NW							
	B110 RW							
	N110 CW							
	B24 (I/c)							
	N24 (I/c)							
Date	Correspondence Testing of Point and correct indication on Panel/VDU			Normal to Reverse	Correct Reverse indication Verified by ASM	Reverse to Normal	Correct Normal indication Verified by ASM	Sign with name and desgn.
	Normal Reverse tested by SSE/JE	to Reverse tested by SSE/JE	Time					

8. RCM be given after completing all steps as above and confirmatory signature by SSE/JE on record.

Suggestions for improvement/ additions may be forwarded to HQ.

प्र. के. अ. अ. अ.  
16/6/23  
(Prashant Kumar Varma)  
Chief Signal Engineer  
North Central Railway

NO: NCR/S&T/1078/Technical Circular/SIG(Policy)/Pt-II

Date: 16/06/2023

Prepared by	Checked By	Approved By	Date
Amit Kumar			16/6/23