

104

Government of India
Ministry of Railways
Research, Designs & Standards Organisation

Ref. No. EL/3.2.10/8/JCG

Lucknow-226011
Dated 27 May 1981

MODIFICATION SHEET No. RDSO/WAM4/111

PROVISION OF CAPACITOR ACROSS CUTLER HAMMER TIME DELAY
RELAY COIL (Q 48)

1. Object

Railways have reported several failures of D.P.D.T. micro switch contacts and coils as well. Intense sparks have been observed at the interlock contacts across the economy resistor. Tests have shown that a 1 microfarad capacitor across the relay coil eliminates the arcing across the contacts. The object of this modification is to minimise the arc intensity across the self interlock and thus prevent welding of contacts and burning of the coil.

2. Work to be done

- 2.1 Ensure that relays have been modified already as per modification sheet No. RDSO/WAM4/110 dated 18.2.81.
- 2.2 Crimp the sockets to the capacitor axial leads. Ensure that the total length between lugs is not less than 160 mm.
- 2.3 Fix the capacitor over the top of the SPDT switch cover with the help of the araldite. Avoid sharp bends and strain on the capacitor leads.

3. Application

All locos fitted with Cutler Hammer Q48 time delay relays having economy resistance. If required, this can be adopted for QTD 105 & 106 application also.

4. Material required

- One capacitor 1/4W 10% rated capacitance and 630/500 V rated voltage (dc) with axial leads conforming to IS: 4633 (category 1)
(Note: total length shall not be less than 160 mm).
- Two sockets, crimp type similar to M/s Dowell's catalogue No. RS-7103A3

5. Material rendered surplus: Nil

Modification Drawing

SK-ED-3379 (1st 1)

7. Agency for implementation

- Chittaranjan Locomotive Works - for locos under production.
- Railways : Elec. Loco sheds, POH shops - for locos in service.

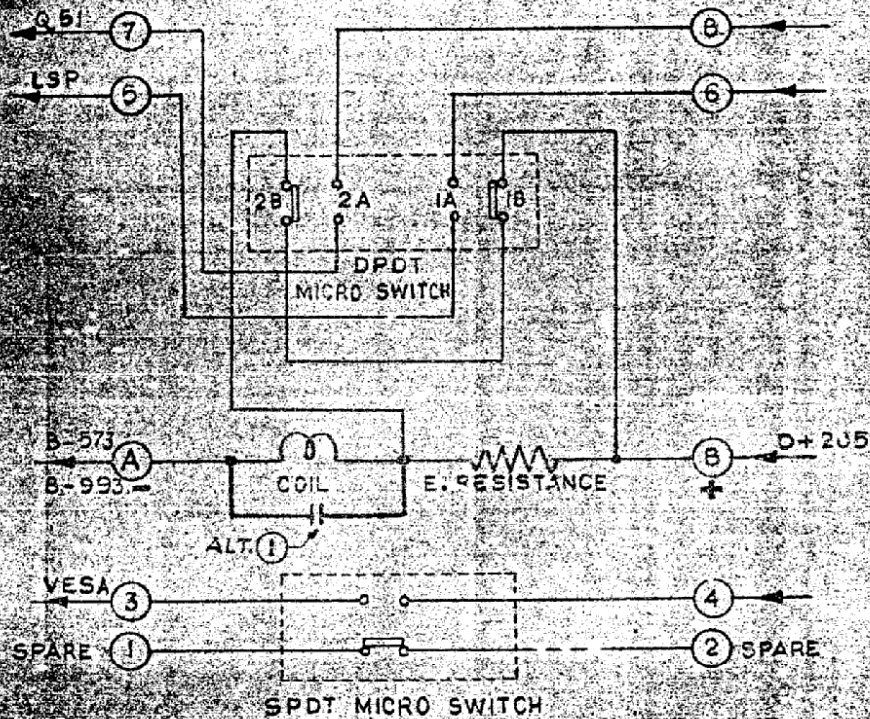
8. Distribution

As per list attached.

Encl: SK M 3379 (Alt. 1)
Mailing list.

H B Singh
(H B Singh)
for Director General (M)

6793 3379



NOTE:-

1. TERMINAL CONFIGURATION IS AS SEEN FROM THE REAR SIDE.
2. MOVING CONTACTS SHOWN WITHIN SWITCH CONFORM TO ACTUAL ARRANGEMENT.
3. INCOMING +VE SUPPLY MUST BE TERMINATED ON RIGHT ROW TERMINALS OF THE RELAY TERMINAL BOARD AND TOP ROW TERMINALS OF THE DPDT SWITCH.
4. CABLE NOS. PERTAIN TO WAM-4 AND IS FOR GUIDANCE ONLY.

REVISION	DESCRIPTION	DATE	SIGNATURE
1	CAPACITOR TUF 600V TO IS-4533 ADDED	1/4/81	...
2	CUTLER HAMMER	...	...
3	...	...	...

REVISED CABLE CONNECTION
FOR 048

REVISION FILE --- SKEL 3379