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

No : EL/3.2.12/EC2 Lucknow-226011
Dated : July, 1979

MODIFICATION SHEET NO. RDSO/WAM4/86

REPLACEMENT OF 3K OHM CARBON RESISTOR (R'4)BY WIRE WOUND RESISTOR IN BCF7 BATTERY CHARGER OF M/S CONTROLS AND DRIVES CORPORATION, COIMBATORE

1. **Object of modification :**

1.1 Railways have reported some cases of failures of 3K ohm carbon resistor (R'4) and erratic output voltage on BCF7 chargers. Investigations indicated that two 3K ohms carbon resistors connected in parallel in bias winding were getting overheated and in some cases surface coating had completely peeled out. This also results in drift in resistance value and consequent erratic output voltage.

1.2 It is proposed to replace these carbon resistors by two 3K ohms, 10W wire wound resistors connected in parallel to give an effective value of 1.5K ohms, 20W.

2. **Work to be carried out :**

i) Mount 3K ohm, 10W wire wound resistor in place of 3K ohm carbon resistor (R'4) and solder the leads with 60 tin. 40 lead solder as per IS : 193-1977
ii) Test for proper functioning of charger.

3. **Application to class of locomotives :**

3.1 WAM4 and other locos provided with BCF7 battery chargers.

4. **Material required :**

4.1 Two vitreous enamelled wire wound resistors as per IS : 3373 (Part-II) 1967 of 3K ohm ± 5%, 10W each.

5. **Material rendered surplus** : N I L
6. **Reference** : N I L
7. **Modification Drawing** : N I L
8. **Agency for modification**

Railways - on all the BCF7 barrery hargers.

9.**Distribution :** (As per list attached.)

Encls : One mailing list

Surender Kumar

S. Kumar
for Director General (Elec.)