

**Ministry of Railways
Research, Designs and Standards Organisation
Manak Nagar, Lucknow-226 011**

Modification Sheet No. ELRS/MS/ 0261

File No. EL. 3.1.3.

Dated : 29.6.99

1.0 **Title :** Modification in the DBR control circuit to prevent opening of C145 contactor
with snap action in case of :

- (i) Energisation of QF1, QF2, QE relays.
- (ii) Energisation of SWC due to application of brakes through SA9 by driver while in Dynamic Braking mode.

2.0 **Object**

- 2.1 To avoid jerk in the locomotive due to sudden opening of C145 contactor while in DBR mode.
- 2.2 To improve driver's confidence level while working in DBR mode on down gradient since due to energisation of QF1, QF2, QE or SWC will not reduce the DBR effort to 'O' instead it will reduce the DBR effort to an appropriate value by causing regression of GR.
- 2.3 To improve reliability of C145 contactor by reducing its maintenance requirements as on load opening will be avoided.

3.0 **Work to be carried out**

- 3.1 Control circuit to be modified as given in enclosed annexures.
- 3.2 Cable index is to drawn by the implementing agencies themselves for different types of locomotives.

1.0 **Application to the class of locomotives.**

All A.C. electric locomotives having DBR.

5.0 **Material required**

Control cable of required length

6.0 **Material rendered surplus**

Nil

7.0 **Reference**

- (i) Suggestion given by ELS Itarsi and ELS Ajni of Central Railway.
- (ii) Trials conducted in Central Railway.

1.0 **Modification Drawing**

Annexures (I) and (II)

9.0 **Agency of Implementation**

All electric loco sheds. POH shops and CLW

10.0 **Distribution**

As per enclosed list.



(O.H. PANDE)
for DG Elect.

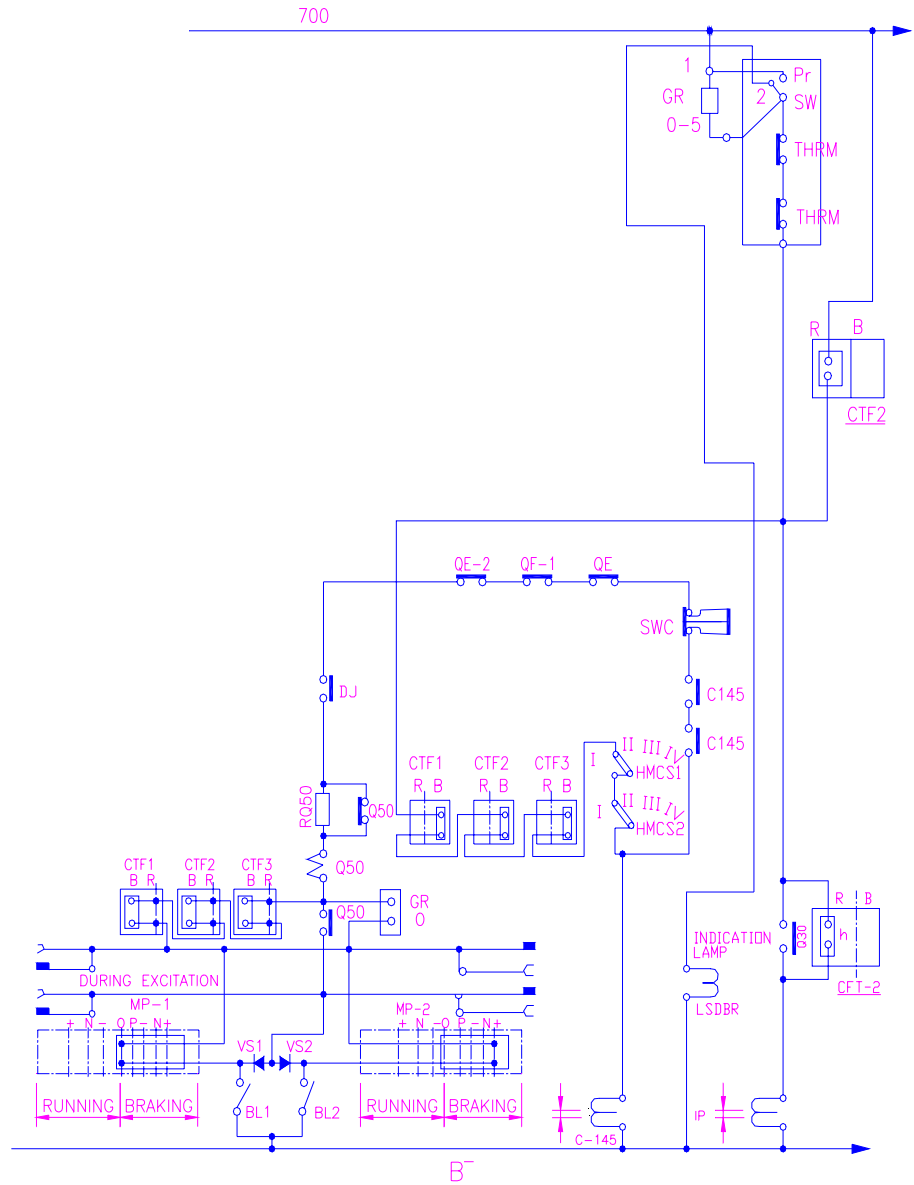
700



DATE	26.6.99
D	K.P.NIGAM
C	MAHANT

REP. ELRS/MS /0261

ANNEXURE-II



MODIFIED DBR CONTROL CIRCUIT

Dt.	29.6.99
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