

Fax : (0522)-2452581  
Telephone: (0522)-2465715  
Telegram : 'RAILMANAK', Lucknow  
Email : dsetpl@gmail.com



भारत सरकार - रेल मंत्रालय  
अनुसंधान अभिकल्प और मानक संगठन  
लखनऊ - 226011  
Government of India - Ministry of Railways  
Research, Designs & Standards Organization,  
LUCKNOW - 226011

No. EL/3.1.35/2 Electrical

Dated 04.01.2012.

**Chief Electrical Engineers,**

- East Central Railway, Hazipur - 844 101 (Bihar)
- South East Central Railway, Bilaspur-495 004.
- West Central Railway, Jabalpur 482 001.
- Northern Railway, Baroda House, New Delhi-110 001.
- Central Railway, 2<sup>nd</sup> floor, Parcel Office Bldg., Mumbai CST-400 001
- South Central Railway, Rail Nilyam, Secunderabad - 500 071.
- Eastern Railway, Fairlie Place, Kolkata -700 001.
- South Eastern Railway, Garden Reach, Kolkata-700 043
- Southern Railway, Park Town, Chennai-600 003
- Western Railway, Churchgate, Mumbai -400 020
- Chittaranjan Locomotive Works, Chittaranjan-713 331 (WB)

**MODIFICATION SHEET NO. RDSO/2011/EL/MS/ 0403 (Rev.0) , Dated 30.11.11**

**1.0 Title:**

Auto switching of machine room/corridor lights to avoid draining of batteries in three phase electric locomotives.

**2.0 Object:**

The corridor light and cab light are directly connected to battery through MCB 310.4. Corridors light and cab lights remains "ON" after the MCE "OFF" or the locomotive is shutdown. To avoid this circuit is modified, so that the machine room light and cab lights gets switched off automatically after a delay of 10 minutes even if MCE is "ON" after the locomotive is shutdown.

**3.0 Existing Arrangement with cross-references of respective design document:**

As per ABB doc. No. 3EHP281144 sheet no.04B and 3EHP281147 sheet no 07A of G1. The circuit diagram is indicated as annexure-I.

**4.0 Modified Arrangement to replace existing arrangement as given above in 3.0:**

- 4.1 The modified circuit diagram is indicated in annexure-II. As per modified circuit "Cable no 2021 at MCB no. 310.4 is to be removed and to be connected after Contactor 126 (control electronics ON) i.e. at cable no.2095.

- 4.2 Implementation of above modification will require BL key to be put in 'Driving' position or in 'Cooling' position for cab and machine room light to get 'ON'. However this may pose problem in resetting of MCB or doing some trouble shooting in machine room after switching off electronics as machine room light and corridor light will also get switched off. In order to overcome this situation drivers are required to be instructed that to examine machine room BL, key should be kept in driving mode or in cooling mode and for resetting of MCB or for doing some trouble shooting in machine room the BL key should be put in cooling mode again after switching off the electronics with following sequence so that contactor no.126 gets closed and contactor no.218 does not close in cooling mode

**Driving → Off → Cooling → Off → Cooling**

- 5.0 **Application to class of locomotives:**

WAP-5, WAP-7, WAG-9, WAG-9H.

- 6.0 **Material Required:**

NIL

- 7.0 **Material Rendered Surplus:**

Nil.

- 8.0 **Reference:**

As per MSG item no.19(i) proposed by South Central Railway and Rly.Bd. letter no. 2011/Elect(TRS)/138/2 dated 16.8.11.

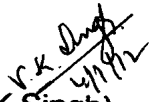
- 9.0 **Modification Drawing:**

Attached.

- 10.0 **Agency of Implementation:**

CLW and Loco Sheds holding, 3-phase locomotives.

Encl: As Above .


  
(V.K.Singh)  
for Director General/Elect.

**Copy to:-**

1. **Secretary (Electric Traction), Railway Board, Rail Bhavan, New Delhi-110 001**
2. **Sr. DEE (TRS), Electric Loco Sheds,**
  - Central Railway, Ajni (Nagpur)-440008.
  - South East Central Railway, BMY Complex, Bhilai, Durg-490 025.
  - West Central Railway, Tughlakabad, New Delhi-110 044.
  - Northern Railway, Ghaziabad (UP)-201 001.
  - East Central Railway, Gomoh-828 401
  - South Central Railway, Lallaguda, Secunderabad – 500 017.
  - Eastern Railway, Howrah.

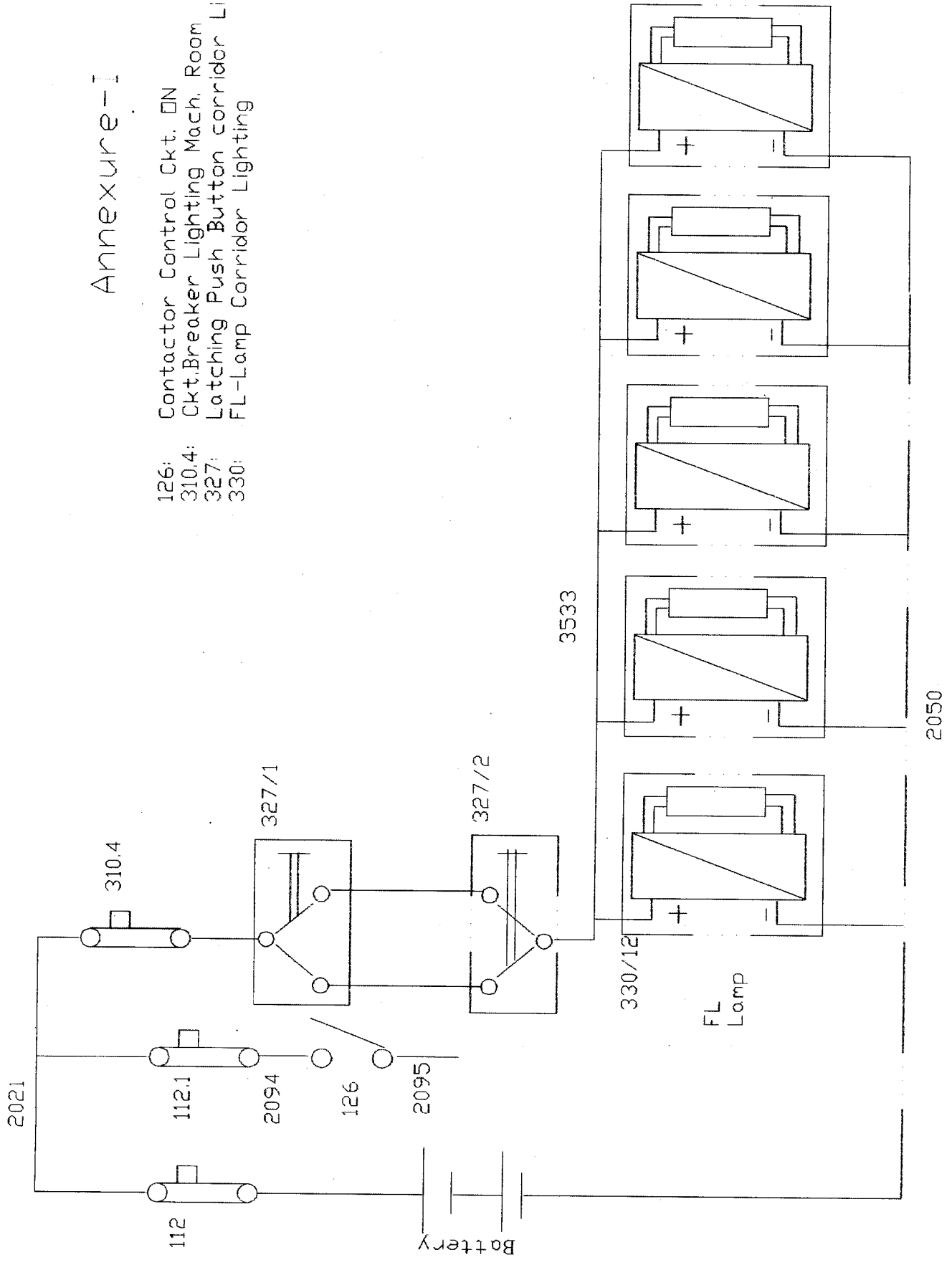
- South Eastern Railway, Tatanagar-831 002.
- Western Railway, Vadodara-390 002.
- Southern Railway, Royapuram, Chennai-600 013.

Encl: As above

  
(V.K. Singh)  
for Director General/Elect.

# Annexure-I

- 126: Contactor Control Ckt. ON
- 310.4: Ckt,Breaker Lighting Mach. Room
- 327: Latching Push Button Corridor Lighting.
- 330: FL-Lamp Corridor Lighting



# Annexure-II

- 126: Contactor Control Ckt. DN.
- 310.4: Ckt. Breaker Lighting Machine Room
- 327: Latching Push Button Corridor Lighting
- 330: FL-Lamp Corridor Lighting.

