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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 14.03.2012.

**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/2012/EL/MS/ 0407 (Rev.0) , Dated**  
**29.02.2012**

**1.0 Title:**

Standardization of power selection switch position in flasher units provided in three phase electric locomotives.

**2.0 Object:**

In a flasher (FL) unit (provided as per RDSO specification no. ELRS/SPEC/LFL/0017 Rev.'1'), there are two positions in the power selection switch, one is 'Auto' and the other 'ON' position. Such FL units are used in both conventional locos and in 3-phase locos.

In the FL units used in conventional locos, the power selection switch is kept in 'Auto' mode during train working and in 'ON' mode for manual operation during testing of the FL unit. But in 3-phase locos the power selection switch is kept only in 'ON' mode both for train working and also for manual operation/testing of FL unit as BPFL switch provided on driving desk is to be kept in 'ON' position for manual operation . The FL unit get isolated in 3-phase locos if the power selection switch is kept in 'Auto' position.

The above situation is creating confusion to the running staff particularly while working 3-phase locos. If inadvertently, the power selection switch is kept in 'Auto' position by the running staff in 3-phase locos, the FL unit will get isolated and will result in loco failure.

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

As per ABB doc. No. 3EHP281144 sheet no. 04C, 3EHP281147 sheet no 07D of G1. The circuit diagram is indicated as Fig.-I .

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

A loop of 2.5mm<sup>2</sup> cable of approximately 10 cm to be connected between Auto and ON terminal at terminal board provided on flasher control unit in each cab.

The modified circuit diagram is indicated in Fig.-II.

**5.0 Application to class of locomotives:**

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

**6.0 Material Required:**

- i) 2.5 sq.mm. cable, as per RDSO spec.no. ELRS/SPEC/ELC/0019 Rev.2. Qty. 2 X 10 cm./Loco.
- ii) 4 nos. lug for 2.5 mm<sup>2</sup> cable size.

**7.0 Material Rendered Surplus:**

Nil.

**8.0 Reference:**

As per South East Central Railway's letter no. SECR/Elect/CEE/TRS/306/RDSO/11/3592 dated 30.09.2011.

**9.0 Modification Drawing:**

Attached.

**10.0 Agency of Implementation:**

CLW and Loco Sheds holding, 3-phase locomotives.

*[Signature]*  
14/03/12

(Sandeep Srivastava)  
for Director General/Elect.

Encl: As Above .

**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.

*[Signature]*  
14/03/12

(Sandeep Srivastava)  
for Director General/Elect.

Encl: As above

EXISTING

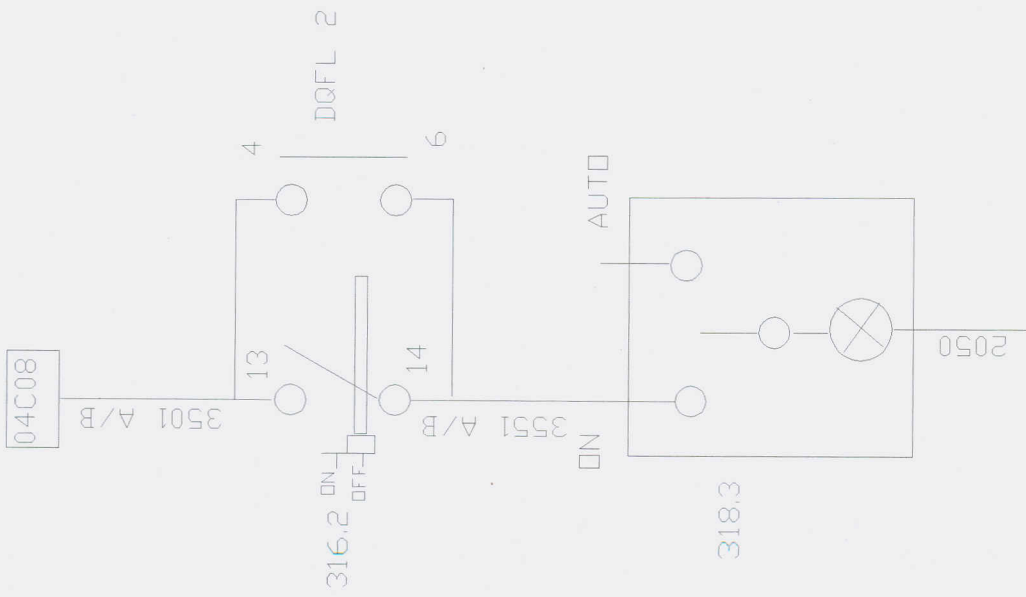


FIG.-I

MODIFIED

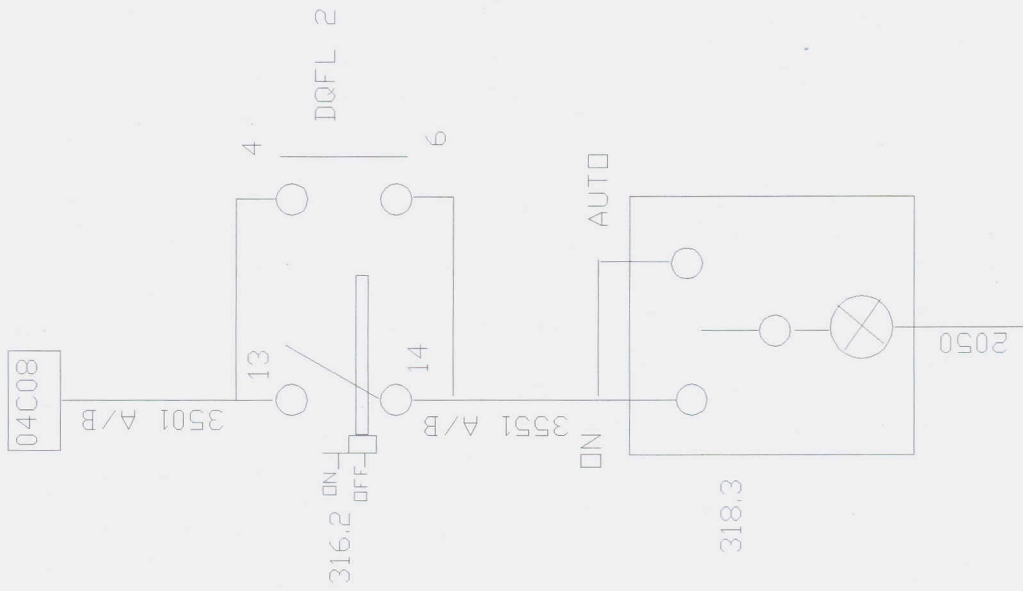


FIG.-II

