



सत्यमेव जयते

भारत सरकार - रेल मंत्रालय  
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No. RDSO-EL/0/SYS(RLAY)/1/2020-O/o PED/SE/RDSO

Date: 18.09.2024

**Principal Chief Electrical Engineers,**

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| 1. Central Railway, Mumbai CST-400 001                         | 11. South East Central Railway, Bilaspur- 495 004        |
| 2. East Central Railway, Hazipur-844 101                       | 12. South Eastern Railway, Garden Reach, Kolkata-700 043 |
| 3. East Coast Railway, Chandra shekharpur, Bhubaneswar-751 016 | 13. Southern Railway, Park Town, Chennai-600 003         |
| 4. Eastern Railway, Fairlie Place, Kolkata-700 001             | 14. South Western Railway, Hubli-580 024                 |
| 5. North Central Railway, Subedarganj, Prayagraj-211 033       | 15. West Central Railway, Jabalpur-482 001               |
| 6. Northern Railway, Baroda House, New Delhi-110 001           | 16. Western Railway, Churchgate, Mumbai- 400 020         |
| 7. North Eastern Railway, Gorakhpur-273001                     | 17. Chittaranjan Locomotive Works, Chittaranjan- 713 331 |
| 8. North East Frontier Railway, Maligaon, Guwahati-781 011     | 18. Banaras Locomotive Works, Varanasi - 221 004         |
| 9. North Western Railway, Jaipur-302 006                       | 19. Patiala Locomotives Works, Patiala - 147 003         |
| 10. South Central Railway, Rail Nilayam, Secunderabad-500 071  |  |

**SPECIAL MAINTENANCE INSTRUCTION NO RDSO/2012/EL/SMI/0275 Rev- '01'**  
**Dated 18/09/2024**

- 1.0 **TITLE:** Special maintenance instruction for measurement of milli volt drop of contactor numbers 218, 126, 136.4 & 130.1.

2.0 **BRIEF HISTORY:**

Modification sheet number RDSO/2011/EL/MS/0399 revision 0 dated 08/08/11 was issued to reduce cases of life sign missing from different processor card. In this connection, ELS/AQ had informed that they have found mV drop between wire numbers 2095 and 2096 at the tip number 1 and 2 of contactor 218, and between wire number 2094 and 2095 at the tip number 1 and 2 of contactor 126, in the range of 100mV to 11V in few locos which resultant in life sign missing messages from electronic card. The matter was also discussed with other loco shed holding three phase loco and loco shed have similar observation.

During the 41st MSG meeting, Central Railway reported that improper contact of the interlock of the control circuit contactor was causing interruptions in the supply to the further circuit. It was decided to revise the SMI issued for the measurement of the milli volt drop of contactors No. 218 and No. 126 and to follow similar practices for other control circuit contactors.

**3.0 OBJECT:**

To reduce the mV drop when it is found that mV drop between wire number 2095 & 2096 at the tip number 1 & 2 of contactor 218, and between wire number 2094 and 2095 at the tip number 1 & 2 of contactor 126, between wire number 2064 & 2302 of contactor 130.1 and between wire number 2314 & 2312 of contactor 136.4 are more.

**4.0 MAINTENANCE INSTRUCTION:**

Measure the milli volt drop between wire number 2095 & 2096 at the tip number 1 & 2 of contactor 218, and between wire number 2094 & 2095 at the tip number 1 & 2 of contactor 126, between wire number 2064 & 2302 of contactor 130.1 and between wire number 2314 & 2312 of contactor 136.4. If it is more than 50mV the tip of the contactor should be clean/change so that the mV drop remains within 50mV.

**5.0 APPLICATION TO CLASS OF LOCOMOTIVES:**

WAG9/WAG9H/WAP7/WAP5 Electric Locomotives.

**6.0 AGENCY FOR IMPLEMENTATION:**

All loco sheds holding three phase locomotives.

**7.0 PERIODICITY OF IMPLEMENTATION:**

IC/Major Schedule.

**Encl: Nil**

**(Amit Yadav)**  
**for Director General Std. Electrical**

**Copy to:**  
**Secretary Railway Board, Rail Bhavan New Delhi**

**As per standard mailing list.**