

## EAST COAST RAILWAY

Office of the  
Pr. Chief Safety Officer  
Bhubaneswar

No.ECoR/SFY/ 710

Dt:- 26.09.2024.

### SAFETY CIRCULAR NO.: -10/2024

Sub:- Zonal safety circular on Streamlining Signalling Functions Description Writing at Signaling Installations.

Ref:- RB letter No. 2023/Sig/17-Sig-Equip. Maintenance/Part dated 06.11.2023.

Description writing of functions in Outdoor Location Boxes and Cable Termination Racks (CTR) in Relay Room /Relay huts / Goomties plays a very vital role during Maintenance & Testing and during attending failures. Presently both Indoor and Outdoor writing work is being carried out primarily by manual painting. It has been observed that during transfer of functions from defective cable conductors, updation in the writing/painting becomes very difficult due to scarcity /non-availability of painters. Although updation of function particulars on CTR and location boxes is to be permanently done by means of manual painting for legibility, yet to address the above gaps, following strategy may be adopted :

#### (A) Outdoor :-

1. Conductor/wire labeling: Function identification marker (Ferrules with printed letters /PVC sleeve with printed details of the cable core / Signaling function in Black with Yellow background) to be provided on each cable conductor. (Annexure - A, Figure - 1).
2. Description details of Terminals: The Row of Screw less Disconnected Terminal /ARA Terminal shall be serially numbered as A, B, C, D ..... from top and in each row, terminals shall also be serially numbered from left to right starting from 1. (Annexure -A, Figure -2).
3. The Cable Termination Details of Location Box (Location Termination Particulars) shall be prepared in Auto CAD / any suitable software. One copy of Cable Termination details shall be fixed in the respective location box duly printed on a board and another laminated copy / copy in plastic cover shall also be kept in the location box. (Annexure - A, Figure -2).
4. After every cable terminated in a row, there should be a minimum gap equivalent to 1-2 ARA terminal or minimum 06 Screw less Disconnect Terminals. (Annexure - A, Figure-3).
5. Inside the Location Box, minimum clearance of bottom most terminal row shall be around 150 mm from base of location box. The Centre to Centre Distance between two rows of Screw less Disconnected Terminal / ARA Terminal shall be around 18 cm to 20 cm or suitable gap between rows to be kept for cable entry holes and description writings (Annexure-A, Figure-3).
6. Location Box shall be numbered from its front side as well as Back side / side walls with black letter on yellow/white background.
7. The Cables terminated on Location Box shall be identified by punched labels / Cable Identification Tag tied on each end of the Cable for correct identification. (Annexure-A, Figure-4).

**(B) Indoor:-**

1. Conductor/wire labeling: Function identification marker (Ferrules with printed letters / PVC sleeve with printed details of the core / Signalling function in Black with Yellow background) to be provided on each cable conductor. (Annexure-A, Figure-1).
2. Description details of Terminals : The rows of Screwless Disconnect Terminal /ARA Terminal shall be serially numbered as A, B, C, D .... and in each row, terminals shall also be serially numbered left to right starting from 1. (Annexure-A, Figure -5).
3. The Centre to Centre Distance between two rows of Screwless Disconnect Terminal /ARA Terminal shall be around 18 cm to 20 cm. After every cable terminated in a row, there should be a minimum gap equivalent to 1 ARA terminal or 02 spacers / dummy Screwless Disconnect Terminals. (Annexure-A, Figure -5).
4. Screwless Disconnection Terminal /ARA Terminal or any other terminal approved by RDSO shall be used for termination of cables.
5. The Cables terminated on CT rack shall be identified by punched labels / Cable Identification Tag tied on each end of the cable for correct identification. (Annexure-A, Figure -4).
6. Line wise and if necessary, function wise cables shall be provided as per para 15.1.2 (c) of IRSEM.
7. Minimum clearance of bottom most terminal in CT rack shall be normally 300 mm from ground.
8. CT Racks Particulars (i.e. Function wiring and termination details) may be made using Vinyl Printing or Flex Printing on 300 GSM /PVC banner roll of suitable size framed or any other means and shall be fixed on wall through suitable wooden/metallic frame (CT board) adjacent to CT rack such that signal staff can view both CT rack and CT Board details simultaneously.

**(C) Periodical Verification & Validation :-**

1. Annually, after monsoon season, SSE/Signal/Incharge of the section shall ensure verification and updation of any changes in cable/wiring termination particulars and replace /update description boards accordingly.
2. This should be followed in all future installations and to the extent possible in existing installation.

All JE/SSE (Sig) and signal maintenance staff concerned are advised to ensure strict adherence. Inspecting officials are to conduct cheks to ensure compliance of the same.

Encl: As above in 01 page

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Copy to-

1. Secy. to GM for kind information of GM.
2. Secy. to AGM for kind information of AGM.
3. PCE, PCME, PCOM, PCEE, PCCM, PCSTE, PCSC & CAO (Con) for information.
4. Sr.DSO/ KUR, SBP & WAT for information & necessary action.
5. Principal MDTC/VSKP & MDZTI/BBS for information & necessary action.



Annexure 'A'

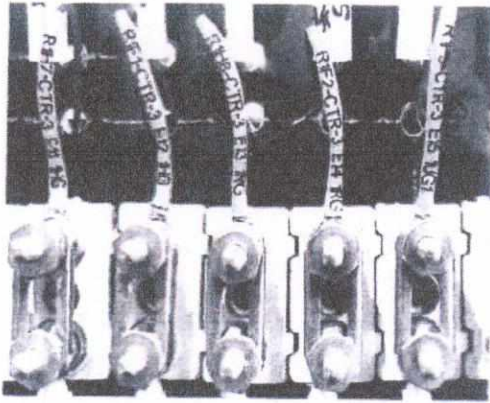


Fig-1

Fig-2

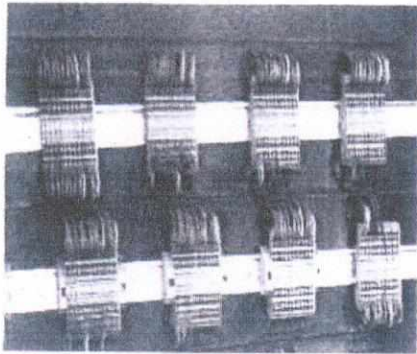


Fig-3

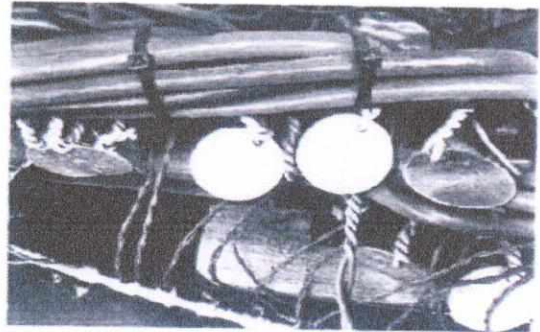


Fig-4

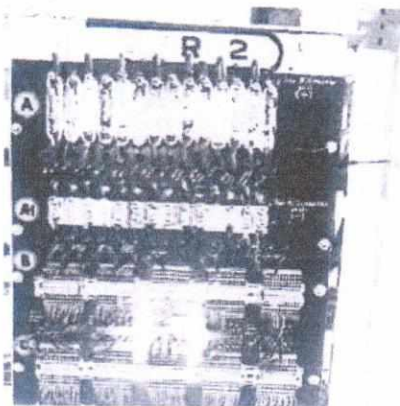


Fig-5