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Issue	I
Date	April 2005

Wiring of Copper Telecoms Terminations (formerly RT/E/WI/00113)

This temporary front sheet facilitates change to the new Network Rail Standards referencing nomenclature.

The Ref above will be formally allocated to this standard when it is next changed in the meantime the contents, date and issue number of this Network Rail Standard are UNCHANGED and with immediate effect it should be referred to as “(new ref) formerly (old ref)”.

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Business Process Document

WIRING OF COPPER TELECOMS TERMINATIONS

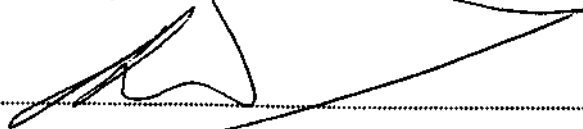
Endorsement & Authorisation

Endorsed by:



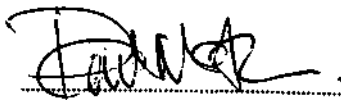
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Issue record

Issue	Date	Comments
1.0	April 2005	

Implementation

This work instruction shall be implemented from April 2005.

Compliance

This work instruction shall be complied with from June 2005 and is mandatory on Network Rail and its contractors that are required to work on telecommunication copper cables and termination frames. This work instruction shall not be retrospectively applied to existing copper cables and termination frames as work on these systems was mandated by the withdrawn Railway Group Standards TMI GEN0073, GT/TD CAB091 and GT/EHH 802.

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I GENERAL

I.1 Definitions & Abbreviations

The following definitions and abbreviations have been used in this instruction:

DP	Distribution Point. ('Cases' and 'Boxes')
CCTV	Closed Circuit Television
CSR	Cab Secure Radio
DC	Direct Current
Frame	A general term used to refer to IDF, MDF and DP
GF	Ground Frame
HABD	Hot Axle Box Detector
IDC	Insulation Displacement Connector
IDF	Intermediate Distribution Frame
MDF	Main Distribution Frame
NRN	National Radio Network
O&M	Operation and Maintenance
RETB	Radio Electronic Token Block
RSSB	Railway Safety and Standards Board
SCADA	Supervisory Control And Data Acquisition
SSI	Solid State Interlocking
TDM	Time Division Multiplex
Temporary Jumper Owner	The person who instructed that temporary jumper is installed to assist project delivery or circuit faulting
Through Jumper	A jumper which connects a pair from a cable to another pair on a different cable
Verts	Verticals (on a frame)

2 PURPOSE

The purpose of this standard is to ensure that all Network Rail employees, contractors and maintenance employees who are responsible for the installation and maintenance of infrastructure telecommunications cables are aware of the fundamental principles that shall be adhered to regarding:-

- cable terminations and distribution frame labelling
- circuit jumpering

The application of these principles will ensure that the termination of copper cables and jumper wires, whether permanent or temporary, provides a safe and satisfactory connection that will prevent contact or interference with other working circuits.

This work instruction supersedes Railway Group Standards TMI GEN0073, GT/TD CAB091 and GT/EHH 802 as these standards have been withdrawn by Railway Safety and Standards Board (RSSB).

3 WIRING AND TERMINATION PROCEDURES

The areas that shall be considered in ensuring an inherently safe cable termination are as follows:

- Immediate identification of un-terminated jumpers to establish their function followed by either recovery or reinstatement to the correct position once verification has been assured.
- Recover jumpers of redundant circuits from all MDF's in order to avoid any future confusion. Through jumpering at intermediate line side locations shall be left intact for future use and to facilitate testing between MDF's.
- Cable and circuit allocation records shall be updated.
- The proper use of the correct tools in making a termination, and the use of approved techniques for soldering, crimping and wire wrapping. This is especially important when working on terminations that already carry working circuits.
- The use of correctly colour coded jumper wire according to the circuit type to aid future identification. This is defined in section 6.