

Ref:	NR/L2/CTM/012/043
Issue:	1
Date:	06 March 2010
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NR/L2/CTM/012/043 Competence & Training in Signal Engineering

Sig 43: Joint and terminate cables and wires

1 Purpose.

The purpose of this competence standard is to define the competence requirements for persons required to joint and terminate cables and wires.

2 Scope.

This competence standard applies in all circumstances where any person is required to joint and terminate cables and wires on Network Rail managed infrastructure.

The level and extent of responsibility will include their own safety and that of others who might be affected by their work. The person will be expected to refer to others for authorisation when required, will be responsible for the implementation of the instructions and will work within set procedures and specifications. The person is responsible for the quality of their completed work.

This competence standard shall be used to assess the competence of people jointing and terminating any of the following:

- Lineside cable
- Tail cable
- Aluminium power cable
- Copper power cable
- TPWS cable
- SSI Datalink
- Telecoms
- Steel wire armoured cables

Where the type and complexity of connections to be made includes:

- Crimped.
- Formed.
- Ring.
- Screw fixed.

And wiring will be connected to:

- Fuse Holders.
- Terminal Blocks.
- WAGO Terminals

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3 Competence Standard.

This Competence Standard comprises one element.

Element 1 Joint and terminate wires and cables.

This is concerned with the safe jointing and termination of cables and wires in accordance with design specifications.

To prove competence in this unit, the person shall demonstrate their ability to complete jointing and termination in accordance with instructions. The person will have to show they can follow recording procedures and can follow reporting and escalation procedures.

4 Assessment.

4.1 Initial Assessment

Where the equipment is new to the person's area of responsibility evidence should be used from the satisfactory completion of training and mentoring and shall be gathered as defined in element 1.

Performance evidence may come from a variety of sources and will include evidence derived from surveillance (direct observation) by an approved assessor. Evidence will also include detailed questioning and may additionally be supported by performance reports from the person's line manager.

4.2 Re-Assessment

Re-assessment shall be completed in accordance with the applicable requirements set out in 7.2 of NR/L2/CTM/012.

4.3 Knowledge Evidence that is common to the whole unit.

You shall have knowledge and understanding of:

- a) How the jointing and termination activity may affect the safe operation of the
 - 1) railway.
- b) What procedures need to be followed to confirm operational and personal safety is maintained during the work.
- c) How to avoid personal injury during the work.
- d) What each of the component parts being installed contributes to the overall operation of the signalling system.
- e) What tools are required to complete the work and what equipment calibration is required.
- f) What the limits of your responsibility and authority are.
- g) Who is responsible for taking the equipment out of operational service and handing the equipment back the equipment to operational service.
- h) Reporting lines and escalation procedures.
- i) Industry protocols relating to communication important safety information.