



Australian Government

**Assessment Requirements for UEERS0017
Repair rail signalling power and control
cables**

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including using risk control measures
- applying sustainable energy principles and practices
- completing rail signalling cable repairs
- completing relevant technical reports, records and documentation
- dealing with unplanned events in a manner that minimises risk to personnel and equipment
- identifying corresponding ends of broken cable cores accurately
- interpreting cable diagrams
- locating and rectifying causes of failed cable test
- preparing to repair rail signalling cables
- repairing damaged rail signalling cables effectively and in accordance with workplace procedures
- selecting approved cable joining kit, cable repair tools and testing devices
- using testing devices and tools correctly and safely.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- conductor continuity and core insulation and earth testing procedures and acceptable results, including:
 - testing to confirm de-energised cores
 - continuity of repaired cores, earth resistance of repaired cores and insulation between repaired cores
 - industry standard acceptable cable test results
 - recording of test results
- methods of joining broken cable core conductors and reinstating insulation, including:

- using hand tools to remove insulation and apply crimp lugs
- selecting inline joiner lugs
- selecting appropriate jointing materials and kits
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures
- special termination tools and their use, including:
 - insulation removal tools
 - inline crimping tools
 - conducting tool tests
 - checking calibration date
 - recording tests
- types of cable used for rail signalling including signalling power and multi-core control cables
- types of cable joining kits used to repair damaged signal cables, including heat shrink and waterproof jointing (epoxy mould)
- workplace procedures for identifying corresponding ends of broken cable cores, including cable isolation methods and testing de-energised cable cores.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, facilities, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>