



**Australian Government**

**Assessment Requirements for UEERS0024  
Install and maintain rail track circuit leads  
and bonds**

**Release: 1**

# Assessment Requirements for UEERS0024 Install and maintain rail track circuit leads and bonds

## Modification History

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

This unit replaces and is equivalent to UEERS0011 Install and maintain rail track circuit leads and bonds.

Modifications this release include:

- Element titles and performance criteria amended.
- Minor amendments made to Performance Criteria text.
- Performance criteria 1.4, 2.2 and 3.3 added.
- Performance and Knowledge Evidence updated for clarity.

## Performance Evidence

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

- applying relevant codes of practice, work health and safety (WHS)/occupational health and safety (OHS) requirements, industry regulation and environmental procedures
- preparing to install/maintain track circuit leads and bonds
- selecting and using tools correctly.
- performing plant hazard assessment on power tools used for rail fitting and cable termination
- interpreting relevant specifications, diagrams and track insulation plans correctly
- selecting correct cable and rail connection termination part, sizes and types
- installing/maintaining track circuit leads and bonds correctly
- applying bonding techniques correctly
- dealing with unplanned events in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- ensuring bonds and leads testing and test results comply with technical requirements
- completing installation/maintenance of track circuit leads and bonds
- completing relevant technical reports, records and documentation

## Knowledge Evidence

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

- rail terminology, including signalling nomenclature, signalling symbols and terms relevant to

- each state or territory
- relationship to the signalling arrangement plan/scheme
- basic track circuit operation
- purpose and application of bonding plans
- track circuit connection methods and types
- track connections/track circuit leads
- bonding of turnouts (series /parallel)
- renewal of track leads and bonds
- traction bonding in electrified areas
- safe movement of rail vehicles and trains, including
  - role of the track circuit in rail signalling system in enabling safe and efficient movement of trains
  - relevant track circuit testing requirements
- typical issues/faults affecting rail electrotechnology services and systems
- scheduled and unscheduled infrastructure maintenance requirements
- track circuit leads and bonds installation and maintenance procedures
- methods for recording and maintaining work records and documentation
- relevant manufacturer specifications and manuals

## 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>

