



Australian Government

UEERS0037 Test copper rail signalling 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.

This unit replaces and is equivalent to UEERS0019 Test copper rail signalling cables.

Modifications this release include:

- Prerequisite unit changed.
- Amendments made to Performance Criteria text.
- Performance criteria 3.4 removed.
- Range of Conditions updated.
- Performance and Knowledge Evidence updated for clarity.

Application

This unit involves the skills and knowledge required to test signal and communication copper cables.

It includes following workplace procedures, determining tools required, setting up and conducting tests, interpreting test results, determining activities to maintain system integrity and reporting activities.

Persons achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice, rules and/or guidelines.

No other licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEERS0021 Assemble and wire electrical rail signalling equipment

Competency Field

Rail Signalling

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to inspect and test copper rail signalling cable

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for work area are identified and applied
- 1.2** Hazards are identified, risks assessed, and control measures and workplace procedures implemented
- 1.3** Safety hazards that have not previously been identified are noted and risk control measures implemented
- 1.4** Access times and work methods are confirmed to comply with customer requirements and relevant rail safety legislation
- 1.5** Rail service access is checked prior to testing and signalling cable is isolated/disconnected from rail network/equipment to ensure no equipment damage can occur during testing
- 1.6** Required inspection, test procedures and purpose are identified from site and recorded using client documentation and complying with manufacturer specifications
- 1.7** Tools and testing devices needed for cable testing are obtained in accordance with workplace procedures and checked for correct operation and safety
- 1.8** Testing devices calibration certification is checked and is current in accordance with manufacturer's specifications

2 Inspect and test copper rail signal cables

- 2.1** Work area and rail cable system is made safe for testing in accordance with WHS/OHS risk control measures and workplace procedures
- 2.2** Rail signal cables are inspected in accordance with workplace procedures and relevant specifications
- 2.3** Tests are set up and performed in accordance with safety risk control measures and manufacturer specifications

- 2.4 Test results are read accurately and compared against manufacturer and site specifications for rail cable performance
 - 2.5 Existing methods for dealing with unplanned situations are dealt with safely in a manner that minimises risk to personnel and equipment and with the approval of an authorised person/s
 - 2.6 Testing is performed efficiently without waste of materials or damage to apparatus, the surrounding environment or services in accordance with sustainable energy practices
 - 2.7 Available services are connected and tested for functionality to ensure all previous services have been resumed
- 3 **Report test results**
 - 3.1 WHS/OHS work completion risk control measures and workplace procedures are followed
 - 3.2 Recommendations and required actions to maintain cable system integrity resulting from cable tests are reported and documented
 - 3.3 Cable test results are documented accurately and recorded in the relevant system

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Identifying and testing of copper rail signalling cables must include the following:

- fully documented copper rail cable test results including compliant and non-compliant results

Unit Mapping Information

This unit replaces and is equivalent to UEERS0019 Test copper rail signalling cables.

Links

Companion Volume Implementation Guides are found in VETNet -

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