



Australian Government

UEEDV0006 Install and modify optical fibre performance data communication cabling

Release: 1

UEEDV0006 Install and modify optical fibre performance data communication cabling

Modification History

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

Application

This unit involves the skills and knowledge required to install and modify optical fibre performance data communication cabling.

It includes working safely, installing optical fibre cabling, terminating at distributors, testing and compliance checks, and completing cabling documentation.

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

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEDV0005 Install and maintain cabling for multiple access to telecommunication services

Competency Field

Data and Voice

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Prepare to install and modify optical fibre cabling

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for a given work area are identified, obtained and applied
- 1.2** Installation and modification of wiring is prepared in consultation with others and sequenced appropriately
- 1.3** Scope of work is determined from documentation and/or discussions with relevant person/s
- 1.4** Advice is sought from relevant person/s to ensure work is coordinated effectively with others
- 1.5** Material required for the installation work is obtained in accordance with workplace procedures and job requirements
- 1.6** Tools, equipment and testing devices required for the installation work are obtained in accordance with workplace procedures and checked for correct operation and safety
- 1.7** Preparatory work is checked to ensure no damage has occurred and is in accordance with workplace procedures and relevant industry standards

2 Install and modify optical fibre cables

- 2.1** WHS/OHS risk control measures and workplace procedures for carrying out work are followed
- 2.2** Optical fibres are tested for optical continuity
- 2.3** Cables are installed and modified with sufficient excess to affect terminations in accordance with manufacturer specifications, relevant industry standards and job requirements
- 2.4** Methods for dealing with unplanned situations are discussed with relevant person/s for approval and documented in accordance with workplace procedures
- 2.5** Unplanned situations are dealt with safely and with the approval of relevant person/s
- 2.6** Quality checks of the installed wiring are conducted in accordance with workplace procedures
- 2.7** Cable installation and modification is conducted without waste of materials, damage to apparatus, circuits or

		surrounding environment using sustainable energy practices
3 Terminate optical fibre cables	3.1	WHS/OHS risk control measures and workplace procedures for carrying out the work are followed
	3.2	Cable termination work area and optical fibre cables are cleaned and safety measures implemented in accordance with WHS/OHS requirements and workplace procedures
	3.3	Cables are prepared for termination in accordance with manufacturer specifications and relevant industry standards
	3.4	Optical fibre connectors are fitted in accordance with manufacturer specifications and relevant industry standards
	3.5	Relevant methods are used to splice optical fibre cables in accordance with WHS/OHS requirements, manufacturer specifications and relevant industry standards
	3.6	Cable performance tests are conducted and results documented
	3.7	Causes of defects indicated by test results are identified and rectified
	3.8	Unplanned situations are dealt with safely and with the approval of relevant person/s
	3.9	Quality checks of the installed wiring are conducted in accordance with workplace procedures
	3.10	Cable terminations are completed without waste of materials, damage to apparatus, circuits or surrounding environment using sustainable energy practices
4 Document installation and modification and verify optical fibre cabling performance	4.1	WHS/OHS work completion risk control measures and workplace procedures are followed
	4.2	Worksite is cleaned and made safe in accordance with workplace procedures
	4.3	Final checks to the installed cabling are conducted in accordance with job requirements

- 4.4** Documentation certifying system performance is issued to a relevant person/s

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.

Installing or modifying cabling must include at least two of the following:

- performance optical fibre cables

Unit Mapping Information

This unit replaces and is equivalent to UEENEEF105A Install and modify optical fibre performance data communication cabling.

Links

Companion Volume implementation guides are found in VETNet - -

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

Assessment Requirements for UEEDV0006 Install and modify optical fibre performance data communication cabling

Modification History

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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 (WHS/OHS) requirements, including applying risk control measures
- completing documentation
- conducting cable performance tests and documenting results
- dealing with unplanned events
- documenting installation and modification and verifying optical fibre cabling performance
- identifying and rectifying anomalies
- identifying and rectifying defects
- installing and modifying optical fibre cables
- obtaining and checking tools, equipment and testing devices
- preparing and terminating each type of cable in accordance with relevant industry standards
- preparing to install and modify optical fibre cabling
- routing, placing and securing cables in accordance with relevant industry standards
- terminating cable in accordance with manufacturer specifications and relevant industry standards
- terminating optical fibre cables
- testing optical fibres for optical continuity.

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:

- building construction and building codes
- installation and modification
- installation of cables
- optical fibre principles of operation
- optical fibre safety - hazards

- optical fibre safety - laser
- optical theory
- problem-solving techniques
- relevant industry standards
- relevant manufacturer specifications and operating instructions
- relevant job safety assessments or risk mitigation processes
- relevant tools, equipment and testing devices
- relevant WHS/OHS legislated requirements, including risk management principles
- relevant workplace documentation, including administration and management records
- relevant workplace quality, policies and procedures
- support structures and fixings
- sustainable energy principles
- terminating of fibre cables
- testing of optical fibre cables.

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 simulations
- relevant and appropriate materials, tools, facilities and equipment currently used in industry
- resources that reflect current industry practices in relation to installing and modifying performance data communication optical fibre cabling
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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