



**Australian Government**

# **UEEDV0004 Install and connect data and voice communication equipment**

**Release: 2**

# **UEEDV0004 Install and connect data and voice communication equipment**

## **Modification History**

Release 2. This minor update is to amend the Performance Criteria numbering.

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 connect data and voice communication equipment.

It includes working safely, preparing and installing communications equipment, and completing 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

UEEDV0008 Install, modify and verify coaxial and structured communication copper cabling

UEEDV0006 Install and modify optical fibre performance data communication cabling

AND

UEECD0043 Solve problems in direct current circuits

OR

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

## **Competency Field**

Data and Voice

## Unit Sector

Electrotechnology

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### **1 Prepare to install communications equipment**

### 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 a given work area are identified, obtained and applied
- 1.2** Installation of communications equipment is prepared in consultation with others and sequenced appropriately
- 1.3** Scope of work is determined from documentation and/or discussion with relevant person/s for work to be undertaken
- 1.4** Location of communications equipment and associated equipment is planned within the constraints of the building structure, significant and relevant industry standards
- 1.5** Advice is sought from relevant person/s to ensure the work is coordinated effectively with others
- 1.6** Material needed for the installation work is obtained in accordance with workplace procedures and job requirements
- 1.7** Tools, equipment and testing devices required for installation work are obtained in accordance with workplace procedures and checked for correct operation and safety
- 1.8** Preparatory work is checked to ensure no damage has occurred in accordance with workplace procedures

#### **2 Install communications equipment**

- 2.1** WHS/OHS risk control measures and workplace procedures for carrying out the work are followed
- 2.2** Communications equipment tests are carried out in accordance with WHS/OHS requirements and

workplace procedures

- 2.3** Communications equipment is installed with sufficient access to affect terminations, adjustments and maintenance in accordance with job requirements and relevant industry standards
  - 2.4** Cabling is terminated at communications equipment in accordance with manufacturer requirements and relevant industry standards
  - 2.5** Methods for dealing with unplanned situations are discussed with relevant person/s for approval and documented
  - 2.6** Unplanned situations are dealt with safely and with the approval of an authorised person/s
  - 2.7** Quality checks of the installed communications equipment are conducted in accordance with workplace procedures
  - 2.8** Communications equipment installation is carried out efficiently without waste of materials or damage to communications equipment, circuits, surrounding environment and/or services using sustainable energy principles
- 3 Complete and report installation activities**
  - 3.1** WHS/OHS work completion risk control measures and procedures are followed
  - 3.2** Worksite is cleaned and made safe in accordance with workplace procedures
  - 3.3** Final checks are made to ensure that the installed communications equipment is in accordance with relevant industry standards
  - 3.4** 'As-installed' communications equipment is documented and relevant person/s notified in accordance with workplace procedures and relevant industry standards

## 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 and connecting must include the following:

- at least three different types of voice and data communications equipment
- at least three types of communications cable

## Unit Mapping Information

This unit replaces and is equivalent to UEENEEF109A Install and connect data and voice communication equipment.

## 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 UEEDV0004 Install and connect data and voice communication equipment

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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 using risk control measures
- carrying out communications equipment installation without waste of materials or damage to communications equipment, circuits, surrounding environment and/or services using sustainable energy principles
- completing and reporting installation activities
- completing required documentation
- connecting communications equipment
- dealing with unplanned events
- dealing with unplanned situations
- installing communications equipment and associated equipment
- installing communications equipment with sufficient access to affect terminations, adjustments and maintenance
- obtaining and checking tools, equipment and testing devices
- placing and securing communications equipment accurately
- planning location of communications equipment and associated equipment
- preparing to install communications equipment and associated equipment
- terminating cabling
- testing communications equipment.

## 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:

- analogue and digital signals
- basics of encoding networking signals

- internet services
- local area network (LAN) architectures
- network signal propagation
- networking protocols and the open systems interconnection (OSI) model
- problem-solving techniques
- relevant building structure and significant
- 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
- relevant workplace documentation
- relevant workplace quality, policies and procedures
- sustainable energy principles
- transmission control protocol (TCP)/internet protocol (IP)
- types of networks, network components and hardware.

## 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 connecting voice and data communications equipment
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

## Links

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