



Australian Government

Department of Education, Employment and Workplace Relations

UEENEEF115A Assemble and connect telecommunication frames and cabinets

Release: 1

UEENEEF115A Assemble and connect telecommunication frames and cabinets

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This unit covers assembly and connection of telecommunication frames and cabinets. The unit encompasses working safely, following standards, specifications and component/ manufacturer requirements, matching equipment with that specified, terminating and connecting communication wiring and completing necessary documentation.

Application of the Unit

Application of the Unit 2)

This unit is intended for competency development in entry-level employment based programs incorporated in approved contracts of training.

Licensing/Regulatory Information

License to practice 3)

The skills and knowledge described in this unit do not require a license to practice in a workplace specifically for the purpose of assembling and connecting communication frames and cabinets. In other skills and knowledge described in this unit may only be practised under the requirements set out in ACMA 'Open' Cabling Provider Rule. In addition, practice in this unit is subject to regulations directly related to occupational health and

License to practice**3)**

safety and where applicable contracts of training such as apprenticeships.

Pre-Requisites**Prerequisite Unit(s)****4)****Competencies****4.1)**

Granting competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.

UEENEEE1 01A Apply Occupational Health and Safety regulations, codes and practices in the workplace

UEENEEE1 02A Fabricate, assemble and dismantle utilities industry components

UEENEEE1 05A Fix and secure electrotechnology equipment

UEENEEE1 07A Use drawings, diagrams, schedules, standards, codes and specifications

For the full prerequisite chain details for this unit please refer to Table 2 in Volume 1, Part 2

Literacy and numeracy skills**4.2)**

Participants are best equipped to achieve competency in this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 'Literacy and Numeracy'

Reading 3 Writing 3 Numeracy 3

Employability Skills Information

Employability Skills 5)

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

6) Elements describe the essential outcomes of a competency standard unit. Performance Criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1 Prepare to assemble and connect telecommunication frames and cabinets	1.1	OHS procedures for a given work area are identified, obtained and understood.
	1.2	Established OHS risk control measures for work preparation are followed.
	1.3	Work instructions, including layout and wiring diagrams, are identified, obtained and understood.
	1.4	Advice is sought from the work supervisor to ensure the work is coordinated effectively with others.
	1.5	Materials required for the work are obtained in accordance with established routines and procedures.
	1.6	Tools, equipment and testing devices needed to carry out the work are obtained and checked for correct operation and safety.

ELEMENT	PERFORMANCE CRITERIA	
2 Assemble and connect telecommunication frames and cabinets	2.1	Established OHS risk control work measures are followed.
	2.2	Equipment is checked as being isolated where necessary in strict accordance OHS requirements and procedures.
	2.3	Frames/cabinets and communication components are fitted in accordance with work instructions, standards and established routines.
	2.4	Interconnections are made in accordance with work instructions, standards and established routines.
	2.5	Routine quality checks are carried out in accordance with work instructions.
	2.6	Completed communication frames/cabinets are checked/tested against work instructions and industry standards and in strict accordance with OHS risk control measures.
	2.7	Procedures for referring non-routine events to immediate supervisor for directions are followed.
	2.8	Work is carried out efficiently without waste of materials or damage to apparatus and the surrounding environment or services and using sustainable energy practices.
3 Check quality of assembled telecommunication frames and cabinets	3.1	Established OHS risk control measures for work completion are followed.
	3.2	Quality of assembled frames/cabinets is checked/tested against work instructions and industry standards and in accordance with established routines.
	3.3	Prescribed solutions are used where corrective actions to assembled components are necessary.
	3.4	Work report forms are completed accurately and appropriate person(s) notified in

ELEMENT

PERFORMANCE CRITERIA

accordance with established routine.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

8) This describes the essential skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired of safe working practices and assembling and connecting telecommunication frames and cabinets.

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

KS01-EF115A and terminations

Voice and data cabinet assembly, cabling

Evidence shall show an understanding of voice and data cabinet assembly, cabling and terminations, applying safe working practices and relevant Standards, Codes and Regulations to an extent indicated by the following aspects:

T1. Cabinet internal cable routing and management provisions

T2. Cabinet ventilation requirements

T3. Cabinet structure encompassing:

- internal framework
- cable entry
- removable panels
- multiple cabinets
- doors, locks and hinges
- mounting rails
- access to equipment and cabling
- earthing arrangements and methods

T4. Mounting requirements for components that include

- rack units
- patch panels
- routers
- servers

T5. Communication cable and conductor terminations:

- approved termination devices and sockets
- special termination tools and their use
- cable colour coding up to 100 pair indoor and outdoor cable

T6. Methods of terminating cables:

- cables less than twenty pair
- twenty pair cable and greater
- structured cables
- coaxial cables

REQUIRED SKILLS AND KNOWLEDGE

- optical fibre cables
- termination safety practices

T7. Cable labelling devices

- Quality checks and tests

Evidence Guide

EVIDENCE GUIDE

9) This provides essential advice for assessment of the unit and must be read in conjunction with the performance criteria and the range statement of the unit and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this unit. It must be used in conjunction with all parts of the unit and performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment 9.1)

Longitudinal competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment intervention. It is the industry-preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. It is recognised that, in some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accordance with industry and regulatory policy.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Sources of evidence need to

be 'rich' in nature to minimise error in judgment.

Activities associated with normal everyday work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practised. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments. Sample assessment instruments are included for Assessors in the Assessment Guidelines of this Training Package.

**Critical aspects
of evidence
required to
demonstrate
competency in
this unit** 9.2)

Before the critical aspects of evidence are considered all prerequisites shall be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated performance criteria shall be demonstrated on at least two occasions in accordance with the 'Assessment Guidelines – UEE11'. Evidence shall also comprise:

- A representative body of work performance demonstrated within the timeframes typically expected of the discipline, work function and industrial environment. In particular this shall incorporate evidence that shows a candidate is able to:
 - Implement Occupational Health and Safety workplace procedures and practices, including the use of risk control measures as specified in the performance criteria and range statement
 - Apply sustainable energy principles and practices as specified in the performance criteria and range statement
 - Demonstrate an understanding of the essential knowledge and associated skills as described in this unit. It may be required by some jurisdictions that RTOs provide a percentile graded result for the purpose of regulatory or licensing requirements.
 - Demonstrate an appropriate level of skills enabling employment
 - Conduct work observing the relevant Anti Discrimination legislation, regulations, policies and workplace procedures

- Demonstrated consistent performance across a representative range of contexts from the prescribed items below:
 - Assemble and connect communication frames and cabinets as described in 8) and including:

- A Following assembly instructions
- B Selecting and placing equipment correctly
- C Making connection without damaging switchgear/control
- D Adhering to quality procedures
- E Dealing with unplanned events by drawing on essential knowledge and skills to provide appropriate solutions incorporated in a holistic assessment with the above listed items

Context of and specific resources for assessment 9.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a

workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to undertake actual work as prescribed by this unit.

These should be used in the formal learning/assessment environment.

Note:

Where simulation is considered a suitable strategy for assessment, conditions must be authentic and as far as possible reproduce and replicate the workplace and be consistent with the approved industry simulation policy.

The resources used for assessment should reflect current industry practices in relation to assembling and connecting telecommunication frames and cabinets.

Method of assessment

9.4)

This unit shall be assessed by methods given in Volume 1, Part 3 'Assessment Guidelines'.

Note:

Competent performance with inherent safe working practices is expected in the Industry to which this competency standard unit applies. This requires assessment in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and skills described in this unit.

Concurrent assessment and relationship with other units

9.5)

There are no concurrent assessment recommendations for this unit.

Range Statement

RANGE STATEMENT

10) This relates to the unit as a whole providing the range of contexts and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

This unit shall be demonstrated in relation to assembling and connecting telecommunication frames and cabinets each on at least two occasions.

Generic terms used throughout this Vocational Standard shall be regarded as part of the Range Statement in which competency is demonstrated. The definition of these and other terms that apply are given in Volume 2, Part 2.1.

Unit Sector(s)

Not applicable.

Competency Field

Competency Field **11)**

Data and Voice Communications