



Australian Government

UEEEEC0077 Verify functionality and compliance of custom electronic installations

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.

Application

This unit involves the skills and knowledge required to verify functionality and compliance of custom electronic installations. It includes preparing to verify custom electronic installations, visually inspecting the installation, conducting tests, reporting inspection and verifying findings.

The skills and knowledge described in this unit require a licence or permit to practice in the workplace where work is carried out on electrical installations which are designed to operate at voltages greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c.).

Competency development activities in this unit are subject to regulations directly related to licensing. Where a licence or permit to practice is not held, skills and knowledge described in this unit require a relevant contract of training, such as an Australian Apprenticeship.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

No other 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

UEECD0025 Lay wiring/cabling and terminate accessories for extra-low voltage (ELV) circuits

UEEEEC0004 Assemble and set up fixed video/audio components and systems in buildings and premises

Competency Field

Electronics and Communications

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 verify custom electronic installations

- 1.1 WHS/OHS requirements and workplace procedures for relevant work area are identified, obtained and applied
- 1.2 Risk control measures are applied in accordance with workplace procedures prior to commencing work
- 1.3 Risks/hazards are identified, assessed and reported to relevant person/s, and control measures implemented
- 1.4 Relevant person/s is consulted to ensure the work is coordinated effectively with others on worksite
- 1.5 Location of system components is determined from specifications and diagrams
- 1.6 Inspection and tests are sequenced in accordance with job schedule
- 1.7 Materials required for tests and verification are obtained in accordance with workplace procedures and checked against job requirements
- 1.8 Tools, equipment and testing devices required to verify compliance are obtained in accordance with workplace procedures and checked for correct operation and safety

2 Visually inspect the installation

- 2.1 Workplace risk control measures and workplace procedures are applied
- 2.2 Circuits/machines/plant are isolated, as required, in accordance with WHS/OHS requirements and workplace procedures
- 2.3 Cabling is checked for appropriate type and size
- 2.4 Cabling accessories and components are checked as being suitably located, securely fixed and suitably protected from damage or corrosion

- 2.5 Accessories and components are checked as being appropriately rated and meeting functional requirements
- 2.6 Evidence that equipment complies with safety and functional requirements is confirmed in accordance with relevant industry standards
- 2.7 Unplanned situations are dealt with in accordance with workplace procedures, discussed with relevant person/s and documented
- 2.8 Unexpected situations are dealt with safely and with the approval of relevant person/s
- 2.9 Inspection is conducted efficiently minimising waste of materials, damage to apparatus, the surrounding environment or services applying sustainable energy practices

3 Conduct tests

- 3.1 Workplace risk control measures and workplace procedures are applied
- 3.2 Testing or measuring on a live and operating system is conducted in accordance with WHS/OHS requirements and workplace procedures
- 3.3 Circuits/machines/plant are isolated in strict accordance with WHS/OHS requirements and workplace procedures
- 3.4 Tests are conducted to verify that cabling is safe, meets specified standards and any relevant regulatory requirements
- 3.5 Custom electronic apparatus and devices are tested to ensure safe installation and intended functionality
- 3.6 Unexpected situations are dealt with in accordance with workplace procedures, discussed with relevant person/s and documented
- 3.7 Unexpected situations are dealt with safely and with the approval of relevant person/s
- 3.8 Testing is conducted efficiently, minimising waste of materials, damage to apparatus, the surrounding environment or services applying sustainable energy practices

4 Report inspection and

- 4.1 WHS/OHS work completion risk control measures and

verification findings

procedures are applied

- 4.2 Worksite and equipment are cleaned and made safe in accordance with workplace procedures
- 4.3 Non-compliance defects are identified and reported in accordance with workplace procedures
- 4.4 Recommendations for rectifying defects are made in accordance with workplace procedures
- 4.5 Work completion is documented and appropriate person/s notified in accordance with workplace procedures

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.

Verifying compliance and functionality of custom electronic installations must include at least the following:

- two different new or existing custom electronic installations
- one installation, including a basic integrated system

Verification must include at least the following:

- visual inspection of cabling, accessories, apparatus and controls
- conducting all safety and compliance tests

Testing must include at least the following:

- isolation testing
- insulation resistance
- cable tests to specified standard (e.g. Category 5 standard)
- polarity tests
- continuity of earthing
- correct connections performance tests

Unit Mapping Information

This unit replaces and is equivalent to UEENEEH105A Verify functionality and compliance of custom electronic installations.

Links

Companion Volume implementation guides are found in VETNet - -

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