



Australian Government

UEEEEC0055 Repair basic computer equipment faults by replacement of modules/sub-assemblies

Release: 1

UEEEEC0055 Repair basic computer equipment faults by replacement of modules/sub-assemblies

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 repair computer equipment by replacement of slot/plug connected modules/sub-assemblies.

It includes planning and repairing computer equipment and completing workplace reporting requirements.

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

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

AND

UEECD0043 Solve problems in direct current circuits

OR

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

OR

UEECD0040 Solve basic problems electronic and digital equipment and circuits

UEECD0043 Solve problems in direct current circuits

OR

UEECD0040 Solve basic problems electronic and digital equipment and circuits

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

Competency Field

Electronics and Communications

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to repair computer equipment

2 Repair computer 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) procedures for a given work area are identified and applied in accordance with workplace procedures
- 1.2** WHS/OHS risk control measures and workplace procedures are followed
- 1.3** Nature of the repair is obtained from documentation or supervisor to determine the scope of work to be undertaken
- 1.4** Advice is sought from the work supervisor to ensure the work is coordinated effectively with others
- 1.5** Sources of materials required for work are determined in accordance with workplace procedures
- 1.6** Tools, apparatus and testing devices needed to carry out work are obtained and checked for correct operation in accordance with workplace procedures and safe work practices
- 2.1** WHS/OHS risk control measures and workplace procedures for carrying out computer repair work are followed
- 2.2** Need to inspect, test and measure live electrical work is determined in accordance with WHS/OHS requirements, safe work practices and workplace procedures
- 2.3** Circuits/apparatus are checked and isolated in accordance with WHS/OHS requirements and

- workplace procedures
- 2.4** Apparatus is dismantled in accordance with manufacturer guidelines and supervisor's instructions
- 2.5** Modules/sub-assemblies are tagged during the dismantling for correct and efficient reassembly and stored to protect components against loss or damage
- 2.6** Repairs are undertaken without damage to other components, apparatus or circuits
- 2.7** Apparatus is assembled in an appropriate sequence with all modules/sub-assemblies and parts correctly placed, secured and connected in accordance with manufacturer guidelines and industry standards
- 2.8** Unplanned events are referred to supervisor for directions in accordance with workplace procedures
- 2.9** Repairs are carried out efficiently without waste of materials, damage to apparatus or environment using sustainable energy practices
- 3 Complete and report repair work activities**
 - 3.1** WHS/OHS work completion risk control measures and workplace procedures are followed
 - 3.2** Computer equipment is inspected, prepared and forwarded to appropriate person/s for testing
 - 3.3** Work area is cleaned and made safe in accordance with workplace procedures
 - 3.4** Work supervisor is notified of the completion of the repair work 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.

- Carrying out repairs to computers and servers must include the following:
- replacement of at least three slot/plug connected modules/sub-assemblies having different functions and in which the fault has been previously established

Unit Mapping Information

This unit replaces and is equivalent to UEENEEH101A Repair basic computer equipment faults by replacement of modules/sub-assemblies.

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 UEEEC0055 Repair basic computer equipment faults by replacement of modules/sub-assemblies

Modification History

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

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 three separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including using risk control measures
- applying sustainable energy practices
- communicating effectively
- completing report repair work activities
- connecting computer to a network
- dealing with unplanned events in accordance with problem-solving techniques and workplace procedures
- following computer repair procedures, including control measures for static electricity
- preparing and repairing computer equipment, including:
 - detecting faulty components
 - reassembling the computer equipment correctly
 - repairing computers without damage to other equipment, environment and services
 - replacing modules/sub-assemblies to manufacturer guidelines
 - testing computer equipment operation, including repaired faulty components
 - using components, apparatus or circuits
- reading and interpreting system specifications and workplace procedures
- using operating system tools to configure a peripheral.

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:

- personal computers structure and components and their function, including motherboards, memory modules, video modules, connecting buses, storage devices and the like
- personal computers assembling and dismantling techniques
- personal computers hardware faults

- basic network hardware and components
- connection of network media
- set-up of standard network configuration, including:
 - cable anchoring and support methods
 - termination methods
- basic repairs to computer equipment by replacing modules/sub-assemblies
- basic set-up of network configuration including hardware and components
- problem-solving techniques
- relevant computer structure and components repairs, including:
 - computer assembly and dismantle techniques
 - computer system inspection and testing techniques
 - static electricity control measures
 - three slot/plug connected modules/sub-assemblies, including:
 - modules, including self-contained hardware components, such as motherboards, memory cards, video modules, connecting buses and storage devices
 - sub-assemblies, including collections of integrated components that may form part of a module that are designed to be replaceable for servicing, such as the component part of a hard drive module or motherboard
- relevant industry standards
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications and operating instruction for tools, equipment, components, apparatus and circuits
- relevant testing devices
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies, procedures and instructions, including repair and quality workplace procedures.

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, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, relevant industry standards, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

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