



Australian Government

UEEAS0001 Assemble electronic components

Release: 1

UEEAS0001 Assemble electronic components

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 assemble electronic components.

It includes preparing and assembling electronic apparatus. It also includes qualify checking of assembled components.

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

Competency Field

Assembly

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to assemble electronic components

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** WHS/OHS hazards are identified, risks are assessed and control measures are implemented for work preparation

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| | 1.3 | Assembling of electronic components work instructions are obtained and applied |
| | 1.4 | Advice is sought from work supervisor to ensure work is coordinated effectively with others |
| | 1.5 | Materials required for work are obtained in accordance with workplace procedures |
| | 1.6 | Tools, equipment and testing devices needed to carry out work are obtained and checked for correct operation and safety |
| 2 Assemble electronic components | 2.1 | WHS/OHS risk control measures and workplace procedures are followed |
| | 2.2 | Circuits are checked and isolated in accordance with WHS/OHS requirements and workplace procedures |
| | 2.3 | Components are placed and interconnections made in accordance with drawings or diagrams, industry standards and workplace procedures |
| | 2.4 | Work is completed in accordance within timeframe, environment and work instructions |
| 3 Check quality of assembled components | 3.1 | WHS/OHS risk control measures and workplace procedures for work inspection and testing are followed |
| | 3.2 | Quality of assembled component is inspected and checked in accordance with work instruction and relevant industry standards |
| | 3.3 | Problem-solving techniques are used where faulty component/s are identified and corrective actions completed in accordance with workplace procedures |
| | 3.4 | Reporting is completed 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.

Assembling electronic components must include at least two different electronic apparatus consisting of the following:

- printed circuit board
- plated through hole component or sub-system
- surface-mount component or sub-system

Unit Mapping Information

This unit replaces and is equivalent to UEENEEA101A Assemble electronic components.

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 UEEAS0001 Assemble electronic components

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 (OHS) requirements, including:
 - job safety assessments or risk mitigation processes
 - safe work method statements (SWMS)
- coordinating work with others
- checking and isolating circuits
- assembling electronic components/apparatus, including:
 - identifying and selecting tools, equipment and testing devices
 - identifying and applying work instructions, relevant workplace procedures, industry standards, codes of practice and regulations for electronic component assembly
 - selecting and placing components in accordance with drawings or diagrams
 - making connection without damaging components
 - adhering to quality workplace procedures and instructions
- verifying quality of assembled apparatus and connection of components
- applying problem solving techniques in accordance with workplace procedures
- completing required reporting.

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:

- identification of surface mount components
- requirements of standard with respect to surface mount, including soldering
- post solder inspection
- ball grid arrays
- identification of surface mount components including ball grid arrays
- requirement of standards with respect to soldering

- post-solder inspection
- electronic components, apparatus and circuits
- interconnections requirements
- relevant industry standards
- reporting requirements
- relevant job safety assessments or risk mitigation processes
- relevant testing devices and inspection requirements
- relevant WHS/OHS legislated requirements
- requisition 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 other 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.

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