



Australian Government

Assessment Requirements for UEEEC0060 Repairs basic electronic apparatus faults by replacement of components

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.

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 problem-solving techniques
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - applying safe working practices
 - using risk control measures
 - checking tools, equipment and testing devices for correct operation and safety
 - checking circuits/apparatus are isolated
- carry out basic repairs to electronic apparatus, including:
 - following work instructions and manufacturer instructions for access to components
 - removing at least three different types of components specified in the work instructions
 - replacing components to manufacturer specifications
 - terminating electronic cables using solderless termination techniques
 - de-soldering and soldering without damage to components
 - reassembling the apparatus correctly
 - dealing with unplanned events in accordance with workplace procedures
- communicating effectively with others
- completing and reporting repair work activities
- complying with relevant electrical regulations and industry standards
- consulting work supervisor as required
- maintaining a clean worksite and equipment
- reading, interpreting and completing workplace documentation
- reassembling the apparatus correctly
- correctly tagging, inspecting and storing components during dismantling.

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:

- electronic soldering equipment and techniques, including:
 - workshop hazards and safety associated with soldering
 - quality concepts
 - electronic soldering equipment
 - the soldering process
 - lead-free solder
- printed circuit board soldering techniques, including:
 - electronic component mounting
 - solder rework of printed circuit boards
 - faulty solder joints
- soldering electronic cables, including:
 - effects and prevention of electrostatic discharge (ESD)
- electronic component basics, including:
 - types of components
 - the physical features and primary characteristic of components
 - marking and codes on components
 - handling static sensitive components
- electronic cable overview and coaxial cable, including:
 - coaxial cables types and characteristics
 - coaxial cable termination
- performance copper cables, including:
 - twisted pair voice and data cables
 - insulation displacement connector
 - colour codes
 - terminating performance cables
- electronic apparatus components, including:
 - fault finding
 - testing
 - replacement
- relevant electronic cables, electronic apparatus and components, including:
 - fault-finding techniques
 - safe storage of dismantled components and parts
 - techniques to dismantle and re-assemble
 - techniques to safely and correctly identify, replace and repair
 - techniques to tag components during dismantling process
- relevant electrical regulations, industry standards and codes of practice
- relevant manufacturer specifications
- relevant WHS/OHS legislated requirements

- relevant work instructions
- relevant workplace documentation
- relevant workplace policies and procedures
- risk mitigation processes.

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 workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated 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, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, 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>