



Australian Government

**Assessment Requirements for UEERL0002
Attach cords, cables and plugs to electrical
equipment for connection to 1000 V a.c. or
1500 V d.c.**

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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 relevant industry standards
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including using risk control measures
- applying to quality, workplace procedures and instructions
- attaching cords, cables and plugs to electrical equipment for connection to 1,000 volts (V) alternating current (a.c.) or 1,500 volts (V) direct current (d.c.) supply
- attaching, replacing and repairing flexible cords, cables and plugs to equipment for operation, safely up to 1,000 V a.c. to 1,500 V d.c.
- dealing with unplanned events in accordance with problem-solving techniques and workplace procedures
- finding and repairing fault/s in attached flexible cords, cables and plugs
- inspecting and testing flexible cords, cables, plugs and equipment for operation and safety up to 1,000 V a.c. to 1,500 V d.c.
- planning and preparing to attach flexible cords, cables and plugs up to 1,000 V a.c. to 1,500 V d.c.
- providing status reports
- replacing and repairing flexible cords, cables and plugs up to 1,000 V a.c. to 1,500 V d.c.

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:

- safety, including:
 - WHS/OHS and electrical safety requirements
 - requirements of AS/NZS 4836 Safe working practices on low voltage installations
- selection of flexible cords, cables and plugs to suit given applications, including:

- multi-phase systems
- structure of plug pin configuration
- applications of commonly used flexible cords, cables and plugs for connection to 1,000 V a.c. or 1,500 V d.c. supply
- determining the current rating of a range of commonly used flexible cords, cables and plugs for connection to 1,000 V a.c. or 1,500 V d.c. supply
- determining the number of cores/pins required for given situations
- multi-phase colour code and the conventional code used in the most common cords and cables
- selecting flexible cords and cables for given multi-phase loads to 1,000 V and service duty
- selecting multi-phase plugs to 1,000 V for a given load and ingress protection (IP) rating
- selecting the correct plug and socket combinations for a range of applications, including use in damp areas
- flexible cords, cables and plugs connected to multi-phase equipment, including:
 - design features of plugs and sockets which protect the conductor terminations from undue force when disconnecting a cord - tortuous path
 - cord preparation - not to mark/damage the inner core when stripping the sheath for termination, double the end of the conductor to be terminated
 - preparation of the surfaces at an earthing connection before and after completion of the termination, including terminations exposed to corrosion, and those for which no specific earthing terminal is provided
 - prepare flexible cords, cables for connection
 - single insulated metal framed equipment is earthed in accordance with requirements or the integrity of double insulated equipment is maintained
 - fitting a range of various multiphase flexible cords, cables, plugs, and sockets with attention to tortuous path requirements, colour code, polarity and correct termination of conductors with the sheath well into the body, and the cord grip anchored
- determine that a flexible cord, cable and plug is safe and is connected correctly, including:
 - importance of conducting both visual and electrical tests to ensure leads are safe and appropriate for connection to supply in regard to physical condition, sufficiently high insulation resistance, continuity, arrangements for protection against indirect contact are undamaged and in place, appropriate IP rating, and arrangements for protection against dangers of mechanical movement as relevant are undamaged and in place
 - check polarity of plug, and for any abnormal or obvious damage or fault
 - minimum acceptable value of insulation resistance between actives, neutral and earth
 - insulation resistance and continuity tests prior to, and after, connecting cords, cables and plugs to appliances
 - fault finding attached multi-phase flexible cords, cables and plugs, and multi-phase cord extension leads
- producing documentation and reports, including:
 - nature and content of, and the need to produce, status reports and documents
 - producing status reports and documents

- problem-solving techniques
- producing documentation and reports
- relevant industry standards
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications and operating instruction for tools, equipment and testing devices
- relevant WHS/OHS legislated requirements, including relevant inspections and tests
- relevant workplace policies, procedures and instructions
- relevant workplace quality procedures
- selection of flexible cords, cables and plugs to suit given applications.

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
- resources that reflect current industry practices in relation to attaching cords, cables and plugs to electrical equipment for connection to 1,000 V a.c. or 1,500 V d.c. supply
- 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>