



Australian Government

MEM18105 Disconnect and reconnect high voltage fixed wired equipment

Release: 2

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Modification History

Release 2. Prerequisite units updated

Release 1. New unit

Application

This unit has been developed for Engineering Tradesperson – industrial electrician apprenticeship training and the recognition of trade-level skills in disconnecting and reconnecting high voltage (HV) fixed wired equipment using appropriate techniques and procedures.

Some jurisdictions require the holder of this unit to be licensed or certified and users should check with the relevant authorities.

Band:

This unit has dual status and is to be regarded as both a specialisation band A unit and Specialisation band B unit for progression to C7 (AQF level IV).

Unit Weight: 3

Pre-requisite Unit

Path 1	MEM10016	Terminate and test electrical wiring and accessories
	MEM10018	Select cable types and sizes to suit loads and electrical installation environment
	MEM18001	Use hand tools

Competency Field

Maintenance and diagnostics

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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| 1. Determine job | 1.1 Follow standard operating procedures (SOPs) |
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Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
requirements	1.2 Comply with work health and safety (WHS) requirements at all times, including appropriate risk control measures 1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs 1.4 Identify job requirements from specifications, drawings, job sheets or work instructions
2. Disconnect equipment	2.1 Determine function of electrical of equipment by reference to circuit drawings, schematics, reference manuals, equipment specifications, identification plate and/or consultation with technical adviser 2.2 Determine and record equipment characteristics, including direction of rotation, where appropriate 2.3 Identify points of isolation and isolate equipment in accordance with procedures 2.4 Check that circuits/equipment are isolated and tagged using all appropriate lock-off equipment and signage 2.5 Note, record and label conductor layout 2.6 Disconnect conductors and terminate and make safe disconnected cables/connections using appropriate tools, equipment and techniques
3. Prepare to reconnect equipment	3.1 Plan reconnection ensuring WHS policies and procedures are followed 3.2 Identify characteristics, including rating of the equipment to be connected, and determine connection requirements 3.3 Test original and/or replacement item to ensure it is safe to be connected

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
4. Connect equipment	4.1 Isolate and tag circuits and equipment in accordance with procedures 4.2 Check connections and prepare conductors for termination 4.3 Test the conductors for continuity and insulation resistance readings ensuring they comply with regulatory and legislative requirements 4.4 Confirm continuity between exposed conductive parts of the equipment and the main earth or metal switchboard enclosure 4.5 Connect conductors to equipment in accordance with specifications and regulatory requirements 4.6 Fasten/seal all cables/wires/conduit to specifications 4.7 Remove all lock-off equipment and signage
5. Perform emergency first aid	5.1 Assess situation to identify points of danger to the injured person and potential rescuer 5.2 Rescue/recover injured person or provide assistance to injured person in accordance with recognised standards/procedures 5.3 Make contact with the appropriate medical and rescue authorities 5.4 Record details of first aid given

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

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| Appropriate techniques and procedures include: | <ul style="list-style-type: none">• Clearances for safe approach as mandated by statutory authorities |
| Isolation includes: | <ul style="list-style-type: none">• Isolating supply for safe disconnection of all electrical power to equipment supply circuit with switch circuit breaker or fuses on circuits/equipment at voltage levels above 1000 V alternating current (AC) and 1500 V direct current (DC) |
| Test equipment and tools includes one or more of the following: | <p>In accordance with voltage and fault-limiting requirements:</p> <ul style="list-style-type: none">• appropriate proving dead meters• high potential testers• voltmeters• insulation resistance testers• handheld tools, including pliers, screwdrivers, sockets, spanners, keys, earthing links and operating sticks |
| Signage includes one or more of the following: | <ul style="list-style-type: none">• tags• access permit holders• restricted access signs |

Unit Mapping Information

No equivalent unit

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>