Australian Government

MEM18057 Maintain/service analog/digital electronic equipment

Release: 1

MEM18057 Maintain/service analog/digital electronic equipment

Modification History

Release 1. Supersedes and is equivalent to MEM18057B Maintain/service analog/digital electronic equipment

Application

This unit of competency defines the skills and knowledge required to maintain/service analog/digital electronic equipment.

Where termination of cables is required see unit MEM10002 Terminate and connect electrical wiring and unit MEM18063 Terminate signal and data cables, as appropriate.

Where the selection and use of engineering measurement is required unit MEM12023 Perform engineering measurements should also be selected.

Where the selection and use of power tools/hand held operations is required unit MEM18002 Use power tools/hand held operations should also be selected.

Where diagnosis and repair of electronic equipment is undertaken to component level unit MEM18056 Diagnose and repair analog equipment and components and unit MEM18065 Diagnose and repair digital equipment and components, should also be selected as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: **A**

Unit Weight: **6**

Pre-requisite Unit

MEM05001	Perform manual soldering/desoldering - electrical/electronic components
MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12004	Perform precision electrical/electronic measurement
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
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.	
1	**Determine job requirements**	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		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	**Undertake maintenance checks and routine tests**	2.1	Determine the function of electronic equipment by reference to circuit diagrams, equipment manuals and/or consultation with equipment operator, where appropriate
		2.2	Run equipment built-in test functions and record results, where appropriate
		2.3	Note and record built-in faults/status display
		2.4	Check equipment/sub-assemblies, components, connections and terminations visually using appropriate test equipment and techniques
		2.5	Remove and replace faulty components, where appropriate
		2.6	Check all results for compliance with manufacturers' requirements or specification and record results to SOPs
3	**Maintain and/or service electronic equipment**	3.1	Isolate sub-assemblies in accordance with procedures, where appropriate
		3.2	Adjust electronic equipment/sub-assemblies to specifications, manufacturers' requirements and/or procedures using appropriate tools, test equipment and

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	techniques
4 **Return electronic equipment to service**	4.1 Return equipment/sub-assemblies into service
	4.2 Check equipment/sub-assemblies for operational compliance to specifications and/or manufacturers' requirements
	4.3 Complete all documentation requirements according to SOPs

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.

Electronic systems and equipment include one (1) or more of the following:

- amplifiers
- analog/digital hardware
- telecommunication
- consumer audio/video
- electronic appliances
- process control
- computer systems
- security monitoring and alarm systems
- scanning systems
- fire systems
- power supplies
- test equipment

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Components include one (1) or more of the following:	• discrete component • circuit boards • connectors • plug-in items • power supplies
Test equipment includes one (1) or more of the following:	• continuity testers • ammeters • voltmeters • cathode ray oscilloscopes • frequency counters

Unit Mapping Information

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Links

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