



Australian Government

MEM05001 Perform manual soldering/desoldering - electrical/electronic components

Release: 1

MEM05001 Perform manual soldering/desoldering - electrical/electronic components

Modification History

Release 1. Supersedes and is equivalent to MEM05001B Perform manual soldering/desoldering – electrical/electronic components

Application

This unit of competency defines the skills and knowledge required to perform manual soldering/desoldering for the installation and fabrication of electrical/electronic components.

Where advanced specification and high reliability soldering associated with the installation of electrical/electronic components and in areas where reliability of connections is critical unit MEM05002 Perform high reliability soldering and desoldering should also be selected.

Where the interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

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

Where the selection and use of tools is required unit MEM18001 Use hand tools and unit MEM18002 Use power tools/hand held operations, 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: 4

Pre-requisite Unit

MEM11011	Undertake manual handling
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information

Competency Field

Fabrication

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 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, sketches, job sheets or work instructions |
| 2 | Prepare and solder materials | 2.1 | Prepare materials to specifications using appropriate tools, equipment, materials and SOPs |
| | | 2.2 | Select correct soldering techniques, materials and soldering tools |
| | | 2.3 | Joint, mount, shape materials to specification |
| | | 2.4 | Observe procedures for the protection of components |
| | | 2.5 | Apply solder to component and remove excess material using appropriate techniques |
| | | 2.6 | Undertake inspection and report and record inspection results according to SOPs |
| 3 | Undertake desoldering | 3.1 | Select appropriate techniques, desoldering tools and equipment for given task |
| | | 3.2 | Desolder materials/components and minimise damage to materials/components according to SOPs |
| | | 3.3 | Remove and clean material/components to specifications |

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.

Materials include the following:

- solder
- flux

Solder includes one (1) or more of the following:

- solid
- resin core
- paste

Flux includes one (1) or more of the following:

- resin
- powder

Soldering irons include one (1) or more of the following:

- simple
- cordless
- temperature controlled
- soldering station
- soldering tweezers
- hot knife

Tools used with soldering irons include one (1) or more of the following:

- pliers
- side cutters
- brushes
- files
- solder syringes
- holding devices

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>