



**Australian Government**

# **MEM10011 Terminate and connect specialist cables**

**Release: 1**

# MEM10011 Terminate and connect specialist cables

## Modification History

Release 1. Supersedes and is equivalent to MEM10011B Terminate and connect specialist cables

## Application

This unit of competency defines the skills and knowledge required to prepare for the termination and connection of specialist cables that require particular techniques and, in some cases, testing.

Most types of these cables are designed to either exclude or minimise the ingress of gas or liquids, or to minimise the danger of flash.

Special fittings must be used for each type of specialist cable and cables requiring the use of bending tools and techniques which do not cause damage.

All testing is undertaken on completed circuits where these are not connected to main supply, using appropriate methods, including continuity and resistance checks.

Where termination and connection of standard electrical wiring/cable is required see unit MEM10002 Terminate and connect electrical wiring.

Where the selection and use of engineering measurement is required see unit MEM12023 Perform engineering measurements.

Where the selection and use of power tools/hand held operations is required see unit MEM18002 Use power tools/hand held operations.

Where termination and connection of signal and data cables is required see unit MEM18063 Terminate signal and data cables.

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

**Band: A**

**Unit Weight: 3**

## Pre-requisite Unit

|          |                                                              |
|----------|--------------------------------------------------------------|
| MEM09002 | Interpret technical drawing                                  |
| MEM10002 | Terminate and connect electrical wiring                      |
| MEM11011 | Undertake manual handling                                    |
| MEM12002 | Perform electrical/electronic measurement                    |
| MEM13015 | Work safely and effectively in manufacturing and engineering |

MEM16006 Organise and communicate information

MEM18001 Use hand tools

## Competency Field

Installation and commissioning

## Elements and Performance Criteria

Elements describe the essential outcomes.

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

- |   |                                                                    |                                                                                                                                                                        |
|---|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <b>Determine job requirements</b>                                  | 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 | <b>Prepare for termination and connection of specialist cables</b> | 2.1 Ensure all work is undertaken safely to workplace procedures, applicable regulations and legislative requirements                                                  |
|   |                                                                    | 2.2 Select correct cables and materials in accordance with job requirements                                                                                            |
|   |                                                                    | 2.3 Obtain certification documentation, as appropriate                                                                                                                 |
|   |                                                                    | 2.4 Ensure preparation of work is undertaken or checked/inspected for correct locations and specifications                                                             |
|   |                                                                    |                                                                                                                                                                        |
| 3 | <b>Connect specialist cables</b>                                   | 3.1 Ensure terminations/connections are made to specifications, manufacturers' requirements and to safety and state/territory regulations and legislative requirements |
|   |                                                                    | 3.2 Ensure all entry points are sealed using appropriate                                                                                                               |

Elements describe the essential outcomes.

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

compounds, including resins

- 3.3 Install equipment and wiring in a manner that does not reduce the type of protection afforded by the equipment design
- 3.4 Test all cabling, connections and terminations for compliance with specifications
- 3.5 Ensure all cables, wires, conductors and connections are marked/tagged and labelled to specifications
- 3.6 Complete documentation in accordance with relevant specifications and regulatory requirements

## 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.

**Specialist cables include one (1) or more of the following:**

- mineral insulate cables (MIMS)
- steel wire armoured cables (SWA)
- other sheathed cables, including piloted cables
- composite screened cables
- braided cables
- cable installations requiring specialised glands, fittings and enclosures

**Tested includes the following:**

- testing of both continuity and insulation resistance to requirements

## 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>