



Australian Government

**Assessment Requirements for MEA239
Fabricate aircraft electrical looms and
harnesses**

Release: 2

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Modification History

Release 2. Equivalent to MEA239 Fabricate aircraft electrical looms and harnesses with amended prerequisite codes.

Performance Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria under the specified conditions of assessment, and must include:

- applying relevant WHS practices
- using approved fabrication procedures and processes relating to electrical looms, cables, and harnesses
- recognising the integrity/security of electrical component crimps, joints and plug/connector pins
- fabricating cables, harnesses and looms, including wire marking, to approved industry standards
- under qualified person guidance performing testing to assess post-construction serviceability according to enterprise procedures.

The underlying skills inherent in this unit should be transferable into other areas that require similar techniques. It is essential that the general aspects of material specification and selection, measurement and fabrication be related to specific aircraft component applications to the extent necessary to unambiguously understand expert guidance.

Knowledge Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- electrical wire gauges and standards
- wire marking conventions and procedures
- wire terminations, soldering and crimping.

Assessment Conditions

- Competency should be assessed in the work environment or simulated work environment, using tools and equipment specified by aircraft in the maintenance manuals. It is also expected that applicable general-purpose tools and test equipment found in most routine situations would be used where appropriate.

- Evidence of knowledge about individual components and their links with systems will be necessary to supplement evidence of ability to interpret qualified person guidance and enterprise procedures to fabricate looms, harnesses and cables before undertaking any action. The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.
- Safety precautions applicable to the manufacturing of electrical looms, harnesses and cables are to be fully observed. An understanding of system operation as it relates to the work must be demonstrated before undertaking any action, to ensure safety and quality issues are addressed.
- The following conditions of assessment represent the requirements of the Regulators (ADF and CASA) and maintenance stakeholders and must be rigorously observed.
- A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements and performance criteria of the unit of competency are being achieved under qualified person guidance on a representative range of electrical loom, cable and harness fabrication tasks with the exception of the items listed in the Range of Conditions. This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide (for details refer to the Companion Volume Assessment Guidelines).
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>