



Australian Government

**Assessment Requirements for MEA246
Fabricate and/or repair aircraft electrical
hardware or parts**

Release: 2

Assessment Requirements for MEA246 Fabricate and/or repair aircraft electrical hardware or parts

Modification History

Release 2. Equivalent to MEA246 Fabricate and/or repair aircraft electrical hardware or parts 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, including the use of PPE and reference to MSDS
- using approved repair/fabrication procedures and processes relating to electrical cables, harnesses, antenna leads and aerial components
- recognising the integrity/security of electrical component crimps, wire wrapping, joints, and plug/connector pins
- constructing cables, harnesses and looms, including wire marking, to approved industry standards
- performing component testing to assess post-construction serviceability.

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/manufacture are related to specific aircraft component applications.

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:

- component and system operation
- aircraft wiring specifications and standards
- standard repair methods for:
 - electrical cables
 - ignition harnesses
 - fire warning system harnesses
 - coaxial cables, such as antenna leads
 - aerial components
- electrical plugs and connectors
- soldering methods
- fabrication methods for the above wiring and cables
- wire marking methods
- assembly of electrical cables into wiring looms

- relevant WHS procedures
- how to obtain relevant MSDS
- relevant maintenance manuals
- relevant regulatory requirements and standard procedures.

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 requirements and fabricate components before undertaking any action. The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.
- 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 routine supervision on a representative range of tasks, including:
 - power distribution
 - ignition
 - control circuits
 - signal circuits.
- 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).
- Where the unit is to be used for CASA licensing purposes the Assessor must also meet the criteria specified in the CASR Part 147 Manual of Standards.
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Links

Companion Volume implementation guides are found in VETNet -

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