



Australian Government

MEA294 Inspect, test and troubleshoot advanced aircraft electrical systems and components

Release: 1

MEA294 Inspect, test and troubleshoot advanced aircraft electrical systems and components

Modification History

Release 1. Equivalent to MEA211 Inspect, test and troubleshoot advanced aircraft electrical systems and components. Revised as a result of changed prerequisites. Unit codes updated.

Application

This unit of competency describes the skills and knowledge required to inspect, test and troubleshoot advanced aircraft electrical systems and components. It involves the application of hand skills and the use of system and component knowledge and applicable maintenance publications and test equipment when working with the systems and components of fixed and rotary wing aircraft that have advanced electrical systems, during scheduled and unscheduled maintenance. Work may be performed individually or as part of a team.

The unit is part of the Mechanical Aircraft Maintenance Engineer licensing pathway. It is used in workplaces that operate under the airworthiness regulatory systems of the Australian Defence Force (ADF) and the Civil Aviation Safety Authority (CASA).

This unit forms part of the CASA requirement for maintenance certification licences under Civil Aviation Safety Regulation (CASR) Part 66. Where a CASA licensing outcome is sought, users must refer to the licensing provisions in the MEA Aeroskills Companion Volume Implementation Guide.

Pre-requisite Unit

MEA203	Remove and install advanced aircraft electrical system components
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Competency Field

Aviation maintenance

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Inspect advanced aircraft electrical

PERFORMANCE CRITERIA

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

1.1 Use required maintenance documentation and modification status, including system defect reports where relevant, to

ELEMENTS

PERFORMANCE CRITERIA

systems and components	identify specific inspection requirements
	1.2 Check isolation tags and configure aircraft for safe system inspection and operation according to applicable maintenance manual
	1.3 Visually or physically check electrical systems for external signs of defects according to applicable maintenance manual while observing work health and safety (WHS) requirements
	1.4 Correctly identify and report defects using organisational reporting processes
2. Test and adjust advanced aircraft electrical systems	2.1 Prepare aircraft and system according to applicable maintenance manual for the application of power and system operation
	2.2 Functionally test electrical system according to maintenance manual for evidence of serviceability and malfunction
	2.3 Calibrate or adjust system according to maintenance manual, as appropriate
3. Troubleshoot advanced aircraft electrical systems	3.1 Use available information from maintenance documentation and inspection and test results to assist in fault determination
	3.2 Use maintenance manual fault diagnosis guides and logic processes to ensure efficient and accurate <i>troubleshooting to line replacement level</i>
	3.3 Obtain specialist advice, where required, to assist with troubleshooting process
	3.4 Locate system faults and clearly identify and correctly record causes of faults in maintenance documentation, where required, according to standard organisational procedures
	3.5 Determine rectification requirements according to maintenance requirements

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Release 1. Equivalent to MEA211 Inspect, test and troubleshoot advanced aircraft electrical systems and components.

Links

Companion Volume implementation guides are found in VETNet -

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