



Australian Government

MEAA VI0045 Maintain basic light aircraft instrument systems and components

Release: 1

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Modification History

Release 1. Application changed. Elements and Performance Criteria changed. Foundation Skills made explicit. Range of Conditions removed, and relevant information moved to Assessment Requirements. Assessment Requirements clarified. Supersedes and is equivalent to MEA275 Maintain basic light aircraft instrument systems and components.

Application

This unit describes the skills and knowledge required to apply hand skills and use system and component knowledge and applicable test equipment to inspect, test and troubleshoot basic aircraft instrument systems and to remove and install components during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

Applications include light fixed wing aircraft with fixed undercarriage and basic rotary wing aircraft with skids or floats and no powered flight controls powered by either a normally aspirated piston engine or small gas turbine.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Civil Aviation Safety Authority (CASA) and the Defence Aviation Safety Authority (DASA).

Any other relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

MEA246 Fabricate and/or repair aircraft electrical hardware or parts

Competency Field

Aviation maintenance

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Inspect basic aircraft instrument systems and components	1.1 Identify specific inspection requirements from relevant maintenance documentation and modification status, including system defect reports 1.2 Check isolation tags and configure aircraft for safe system inspection and operation in accordance with maintenance manual while observing work health and safety (WHS) requirements

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	<p>1.3 Visually or physically check instrument system components for external signs of defects in accordance with maintenance manual</p> <p>1.4 Identify and report defects in accordance with standard enterprise procedures</p>
2. Test or adjust basic aircraft instrument systems and components	<p>2.1 Prepare aircraft and system for application of power or system operation in accordance with maintenance manual</p> <p>2.2 Perform functional testing on instrument system for evidence of serviceability or malfunction in accordance with maintenance manual</p> <p>2.3 Perform required calibration or adjustments to system in accordance with maintenance manual</p>
3. Troubleshoot basic aircraft instrument systems and components	<p>3.1 Use available information from maintenance documentation and inspection and test results to assist in fault determination</p> <p>3.2 Troubleshoot issues to line replacement level using maintenance manual fault diagnosis guides and logic processes</p> <p>3.3 Obtain required specialist or supervisory advice to assist with the troubleshooting process</p> <p>3.4 Locate instrument system faults and identify and record causes of faults in required maintenance documentation in accordance with standard enterprise procedures</p> <p>3.5 Determine requirements for rectification of faults</p>
4. Remove and install basic aircraft instrument system components	<p>4.1 Render system safe and prepare it in accordance with maintenance manual, fitting required isolation tags to ensure personnel safety</p> <p>4.2 Remove instrument components in accordance with maintenance manual while observing all WHS requirements</p> <p>4.3 Complete and process required maintenance documentation relating to removal in accordance with standard enterprise procedures</p> <p>4.4 Tag and pack removed components in accordance with specified procedures</p> <p>4.5 Confirm correct part numbers, modification status, serviceability and shelf life of instrument components to be installed</p> <p>4.6 Perform physical installation of instrument components in accordance with maintenance manual and regulatory requirements, and ensure appropriate adjustment or alignment is carried out</p> <p>4.7 Reinststate system to correct operational condition in preparation for</p>

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	testing, as necessary and in accordance with maintenance manual 4.8 Complete and process required maintenance documentation in accordance with standard enterprise procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret maintenance manuals, inspection procedures and specifications (allowable limits).
- Writing skills to record and report on defects and faults and their causes.
- Numeracy skills to interpret and communicate technical information and take and interpret system measurements and instrument displays.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEA275 Maintain basic light aircraft instrument 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>