



Australian Government

Department of Education, Employment and Workplace Relations

MEA264A Remove and install aircraft electrical/avionic components during line maintenance

Release: 2

MEA264A Remove and install aircraft electrical_avionic components during line maintenance

Modification History

Minor formatting and editorial changes made.

Unit Descriptor

This unit covers the competencies required to remove and install a limited range of aircraft electrical and avionic system components that are within the privileges of the Aircraft Maintenance Engineer A Licence. It is one of the units required for the granting of the chosen Aircraft Maintenance Engineer A Licence under CASR Part 66, in accordance with the licensing provisions in Section 3 Assessment Guidelines.

Application of the Unit

This unit requires application of hand skills and the use of maintenance documentation/publications in the removal and installation of a limited range of aircraft electrical and avionic system components. Applications include fixed and rotary wing aircraft.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

MEA265A Remove and install general aircraft electrical hardware

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

1. Remove aircraft electrical system components
 - 1.1. System is rendered safe and prepared in accordance with the applicable manual and isolation tags are fitted where necessary to ensure personnel safety.
 - 1.2. ***Electrical component*** removal is carried out in accordance with the applicable manual.
 - 1.3. Required maintenance documentation is completed and processed in accordance with enterprise procedures.
 - 1.4. Removed components are tagged and packaged in accordance with specific procedures.
2. Remove avionic system components
 - 2.1. System is rendered safe and prepared in accordance with the applicable manual and isolation tags are fitted, where necessary, to ensure personnel safety
 - 2.2. ***Avionic component*** removal is carried out in accordance with the applicable manual
 - 2.3. Required maintenance documentation is completed and processed in accordance with enterprise procedures
 - 2.4. Removed components are tagged and packaged in accordance with specific procedures.
3. Install aircraft electrical system components
 - 3.1. Electrical components to be installed are checked to confirm correct part number, status, serviceability and shelf life
 - 3.2. Physical installation of electrical components is performed in accordance with the applicable maintenance manual, ensuring appropriate adjustment/alignment with mechanical components is carried out
 - 3.3. System is reinstated to correct operational condition in preparation for testing
 - 3.4. Required maintenance documentation is completed and processed in accordance with enterprise procedures
4. Install avionic system components
 - 4.1. Avionic components to be installed are checked to confirm correct part number, status, serviceability and shelf life
 - 4.2. Physical installation of electrical components is performed in accordance with the applicable maintenance manual, ensuring appropriate adjustment/alignment with mechanical components is carried out
 - 4.3. System is reinstated to correct operational condition in preparation for testing
 - 4.4. Required maintenance documentation is completed and processed in accordance with enterprise procedures

Required Skills and Knowledge

Required skills

Look for evidence that confirms skills in:

- applying relevant OHS procedures
- using maintenance publications in identifying/locating:
 - ovens, boilers and beverage makers
 - aircraft main and APU batteries (lead acid and nickel cadmium) and associated mounting equipment including related anti-vibration aids and battery temperature monitoring systems
 - aircraft internal and external lights
 - static wicks
 - passenger entertainment system components
- correctly connecting:
 - ovens, boilers and beverage makers
 - aircraft main and APU batteries (lead acid and nickel cadmium) and associated mounting equipment including related anti-vibration aids and battery temperature monitoring systems
 - aircraft internal and external lights
 - passenger entertainment system components
- applying standard procedures, including handling of electrostatic sensitive devices

Required knowledge

Look for evidence that confirms knowledge of:

- component attachment methods
- connection of hardware and plugs
- procedures for handling electrostatic sensitive devices
- relevant OHS practices
- the use of applicable maintenance documentation and aircraft publications relating to electrical and passenger entertainment systems
- relevant regulatory requirements and standard procedures

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to remove and install specified aircraft electrical and avionic components in accordance with applicable maintenance publications while observing all relevant safety precautions.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>It is essential that cleanliness requirements and safety precautions applicable to the system being maintained are fully observed, understood and complied with, as well as work practices associated with electrostatic sensitive devices.</p> <p>Evidence of transferability of skills and knowledge related to removal and installation is essential. This is to be demonstrated by application across the range of applicable components listed in the Range Statement. An understanding of the attachment methods, connection of hardware, and the need for functional testing as they relate to the work must be demonstrated before undertaking any action. The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards. A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements of the unit of competency are being achieved under supervision but without intervention on at least one component from each of Groups 1 to 5 as listed in the Range Statement. This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide.</p>
<p>Context of and specific resources for assessment</p>	<p>Competency should be assessed in the work environment, using tools and equipment specified in maintenance manuals. It is also expected that general-purpose tools, test and ground support equipment found in most routine situations would be used where appropriate.</p>
<p>Method of assessment</p>	
<p>Guidance information for assessment</p>	

Range Statement

<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Note	Range statements listed below are numbered to facilitate specification of the assessment requirements included in the Evidence Guide
Electrical components	Electrical components include: <ol style="list-style-type: none">1. Ovens, boilers and beverage makers2. Aircraft internal and external lights, filaments and flash tubes3. Aircraft main and APU batteries4. Static wicks
Avionic components	Avionic components include: <ol style="list-style-type: none">1) 5. Passenger entertainment system components but excluding public address
Application	Application of this unit may relate to: <ul style="list-style-type: none">• scheduled or unscheduled maintenance
Procedures and requirements	Refer to industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Sector(s)

Aviation maintenance

Competency field

Co-requisite units

Not applicable