



Australian Government

MEA510 Maintain seat and pod electrical and electronic systems

Release: 1

MEA510 Maintain seat and pod electrical and electronic systems

Modification History

Release 1 - New unit of competency

Application

This unit of competency requires application of hand skills in the scheduled or unscheduled removal and installation of electrical and electronic system components during the overhaul of aircraft seats and pods, and the use of basic electrical test equipment and in-flight entertainment system test sets to perform functional tests and confirm system serviceability.

This unit is part of the Aeroskills Life Support and Furnishing Certificate III and IV training pathways. 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).

Pre-requisite Unit

MEA240 Use electrical test equipment to perform basic electrical tests

Competency Field

Aviation maintenance

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

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

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|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Remove and inspect seat and pod electrical system components | 1.1 System is rendered safe and prepared in accordance with the applicable maintenance manual to ensure personnel safety |
| | 1.2 Removal of electrical system components is carried out in accordance with the applicable maintenance manual while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDS) and items of |

- personal protective equipment (PPE)
- 1.3 Removed components are inspected for visible signs of damage or deterioration in accordance with maintenance manuals and standard enterprise procedures
 - 1.4 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures
 - 1.5 Removed components are tagged, packaged or discarded in accordance with specified procedures
2. Remove and inspect seat and pod electronic system components
- 2.1 System is rendered safe and prepared in accordance with the applicable maintenance manual to ensure personnel safety
 - 2.2 Removal of electronic system components is carried out in accordance with the applicable maintenance manual while observing all relevant WHS requirements, including the use of MSDS and items of PPE
 - 2.3 Removed components are inspected for visible signs of damage or deterioration in accordance with maintenance manuals and standard enterprise procedures
 - 2.4 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures
 - 2.5 Removed components are tagged, packaged or discarded in accordance with specified procedures
3. Install seat and pod electrical system components
- 3.1 Electrical system components to be installed are checked to confirm correct part numbers, modification status, serviceability and shelf life
 - 3.2 Physical installation of electrical components is carried out in accordance with the applicable maintenance manual
 - 3.3 System is reinstated to correct physical condition in preparation for testing
 - 3.4 Required maintenance documentation is completed and processed in accordance with standard enterprise

- procedures
4. Install seat and pod electronic system components
 - 4.1 Electronic system components to be installed are checked to confirm correct part numbers, modification status, serviceability and shelf life
 - 4.2 Physical installation of electronic components is carried out in accordance with the applicable maintenance manual
 - 4.3 System is reinstated to correct physical condition in preparation for testing
 - 4.4 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures
 5. Functionally test seat and pod electrical and electronic systems
 - 5.1 Applicable system test set is connected to seat or pod in accordance with the applicable maintenance manual or approved vendor procedures
 - 5.2 Power is applied to the seat or pod in accordance with applicable maintenance manual
 - 5.3 Seat or pod electrical system is functionally tested for correct operation in accordance with the applicable maintenance manual
 - 5.4 Seat or pod electronic system is functionally tested using the applicable test set in accordance with the applicable maintenance manual
 - 5.5 Test equipment is removed and required maintenance documentation is completed and processed in accordance with standard enterprise procedures

Foundation Skills

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

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Removal and installation of electrical components involves one or more of the following connection methods:

- Bolted
- Plug connectors

Electrical system components include:

- Electrical cables and looms
- Selectors and switches
- Motors and actuators
- Relays, control units and modules

Electronic system components include:

- Display units
- Tuners/selectors
- Volume controls
- Audio headset receptacles
- Data cables

Visible signs of damage or deterioration include:

- Broken or chafed wires
- Corrosion of plugs and connectors
- Physical damage to components
- Wear
- Evidence of electrical or electronic component overheating

Unit Mapping Information

Release 1 – equivalent to MEA510A Maintain seat and pod electrical and electronic systems

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>