



Australian Government

MEAAVI0033 Perform routine removal and installation of miscellaneous aircraft electrical hardware or components

Release: 1

MEAAVI0033 Perform routine removal and installation of miscellaneous aircraft electrical hardware or components

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 MEA238 Perform routine removal and installation of miscellaneous aircraft electrical hardware/components.

Application

This unit describes the skills and knowledge required to apply hand skills and use maintenance publications and documentation to remove and install a range of electrical components and electrical hardware under the guidance of a qualified person, including both on and off-aircraft work during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

Oxygen systems and components, and fuel tank components and integrated hardware are not included in this unit.

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

MEA107 Interpret and use aviation maintenance industry manuals and specifications

MEA154 Apply work health and safety practices in aviation maintenance

MEA155 Plan and organise aviation maintenance work activities

MEA156 Apply quality standards during aviation maintenance activities

MEA157 Complete aviation maintenance industry documentation

MEA158 Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

Competency Field

Aviation maintenance

Elements and Performance Criteria

Elements	Performance criteria
Elements describe the	Performance criteria describe the performance needed to

essential outcomes.	demonstrate achievement of the element.
1. Prepare to remove aircraft electrical hardware	1.1 Plan removal task with guidance from qualified person, using maintenance documentation and in accordance with standard enterprise procedures 1.2 Confirm system safety with qualified person 1.3 Remove electrical hardware in accordance with standard enterprise procedures and maintenance documentation while observing all relevant work health and safety (WHS) requirements 1.4 Complete and process required documentation in accordance with standard enterprise procedures 1.5 Tag, pack or discard removed components in accordance with specified procedures
2. Install aircraft electrical hardware	2.1 Plan installation with guidance from qualified person, using maintenance documentation and in accordance with standard enterprise procedures 2.2 Confirm correct part numbers of electrical hardware components to be installed against maintenance documentation 2.3 Perform physical installation of electrical hardware in accordance with maintenance documentation and standard enterprise procedures 2.4 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.
- Writing skills to complete maintenance documentation.
- Numeracy skills to interpret technical information.

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 MEA238 Perform routine removal and installation of miscellaneous aircraft electrical hardware or components.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MEAAVI0033 Perform routine removal and installation of miscellaneous aircraft electrical hardware or components

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Performance Evidence

There must be evidence the candidate has completed all the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- remove and install miscellaneous aircraft electrical hardware components under guidance, both on and off-aircraft work during scheduled or unscheduled maintenance, on at least five of the electrical components or hardware that are applicable to the enterprise from the following list:
 - switches
 - relays
 - lamps
 - terminal blocks
 - current limiters
 - circuit breakers
 - fuses
 - sockets
 - potentiometers
 - capacitors
 - inductors
 - magnetic amplifiers
 - transformers
 - rheostats
 - resistors and diodes
 - miscellaneous sensors and minor components hard mounted throughout the aircraft, busbars, lugs, ferrules, splices, connectors, and electrical, electronic cables and looms
- prepare and terminated electrical cables to aircraft industry standards for the components or hardware being removed and installed, using each of the following techniques:
 - crimping techniques
 - soldering techniques
 - solder sleeve joints

- identify aircraft wire markings, terminal block identification and plug/socket pin numbering systems for the components or hardware being removed and installed
- install electrical loom and harness equipment at least once, ensuring minimum bends are maintained, cable is not in tension, plugs are correctly aligned, security of route ensures no chaffing of insulation, adequate clipping and cable ties have been utilised and construction complies with aircraft industry standards
- positively identify miscellaneous electrical hardware and/or components selected for assessment
- apply cleanliness requirements and safety precautions at all times, and as relevant to the components or hardware being removed and installed and demonstrated awareness of electrostatic discharge procedures.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- component attachment methods
- electrostatic discharge procedures
- connection of hardware, plugs and terminals points
- wire marking, terminal block identification and plug/socket numbering systems
- Work health and safety (WHS) practices for removal and installation of miscellaneous aircraft electrical hardware or components
- maintenance documentation for miscellaneous aircraft electrical hardware or components.

Assessment Conditions

The following conditions of assessment represent the requirements of the regulators (DASA and CASA) and maintenance stakeholders and must be rigorously observed.

Skills must have been demonstrated under routine supervision in the workplace or in a simulated environment that reflects workplace conditions and contingencies encountered in removing and installing miscellaneous aircraft electrical hardware or components. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to removing and installing miscellaneous aircraft electrical hardware or components
 - tools and equipment specified in maintenance manuals
 - general-purpose tools and items of ground support and test equipment required for removing and installing miscellaneous aircraft electrical hardware or components.

Evidence of tasks demonstrating competency must be recorded in a log of industrial experience and achievement.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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