



Australian Government

MEAAVI0058 Repair and overhaul aircraft audio and visual systems and reproducers

Release: 1

MEAAVI0058 Repair and overhaul aircraft audio and visual systems and reproducers

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 MEA288 Repair or overhaul aircraft audio and visual systems and reproducers.

Application

This unit describes the skills and knowledge required to apply hand skills and use knowledge of component repair and overhaul procedures relating to aircraft analogue and digital passenger entertainment electronic equipment components that are repaired or overhauled in aviation maintenance workshops during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

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

MEAAVI0038 Use electronic test equipment

MEA296 Use electrical test equipment in aviation maintenance activities

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. Determine requirements	1.1 Interpret audio and video system and reproducer component defect reports (removal tags) or customer orders and match by part and serial numbers to identify requirements 1.2 Prepare circuitry, connect to the applicable test equipment and perform functional testing or cycled through prescribed test procedures for evidence of serviceability or malfunction in accordance with the

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	maintenance documentation 1.3 Establish modification status to assist in determining the overhaul requirements for the components 1.4 Identify and document extent of overhaul or repair in accordance with standard enterprise procedures
2. Dismantle and inspect audio and video system and reproducer components	2.1 Dismantle component parts in accordance with maintenance manuals while observing all relevant work health and safety (WHS) requirements 2.2 Assess component parts for serviceability in accordance with the relevant maintenance documentation 2.3 Tag and repair parts requiring specialist repair and specify repair instructions 2.4 Compile and process parts lists in accordance with standard enterprise procedures
3. Repair, replace or modify audio and video system and reproducer	3.1 Repair or replace component parts in accordance with maintenance documentation 3.2 Make required modifications of components or parts in accordance with relevant manufacturers' bulletins or procedures
4. Assemble, test and adjust audio and video system and reproducer components	4.1 Assemble component parts in accordance with specified tolerances and maintenance documents 4.2 Test and adjust assembled components in accordance with maintenance documentation and using the appropriate test equipment 4.3 Complete and process required maintenance documentation and modification records 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 perform and interpret technical testing.

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 MEA288 Repair or overhaul aircraft audio and visual systems and reproducers.

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 MEAAVI0058 Repair and overhaul aircraft audio and visual systems and reproducers

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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:

- repair and overhaul aircraft audio and visual systems and reproducers during scheduled and unscheduled maintenance on an item from each of the following groups:
 - video cassette recorders (VCRs)
 - video display systems
 - cathode ray tube (CRT) display systems
 - symbol generators
 - audio amplifiers
 - audio and video selectors
 - voice recorders
 - microphones
 - headsets
 - passenger control units (PCUs)
 - tape reproducers (and tape reproduction)
- recognise the serviceability state and repair or overhaul requirements for digital electronic interface systems, including:
 - VCRs
 - video display systems
 - CRT display systems
 - symbol generators
 - audio amplifiers
 - audio selectors
 - voice recorders
 - microphones
 - headsets
 - PCUs
 - tape reproducers (and tape reproduction)

- perform functional testing by applying logic processes, and using test equipment and appropriate wiring diagrams and manuals to isolate component faults use high-precision, high-reliability soldering techniques and demonstrate correct handling of components, including application of anti-static equipment, during repair and modification work
- and assess post-repair or overhaul serviceability
- apply testing procedures, cleanliness requirements and safety precautions at all times and as relevant to the systems or components being maintained.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- component and system operation
- the basic function and operation of audio and visual and reproducer components to enable testing for fault isolation or confirmation to determine repair or overhaul requirements, and serviceability status post-repair or overhaul
- basic principles/functions relating to audio and visual and reproducer components and associated with the following:
 - advanced analogue fundamentals
 - basic logic and semiconductor theory
 - digital fundamentals
 - electrostatic discharge (ESD) precautions
 - alternating current (AC) and direct current (DC) electrical systems
 - video display theory
 - video recorder theory
 - cleaning and maintenance techniques for video and recorder heads
 - aircraft display systems
 - symbol generation
 - vector and raster graphics
 - audio circuit theory
 - sound measurement
 - decibel (dB) level standards
 - audio tape control signals and recording techniques
 - basic logic and semiconductor theory
- cleaning and maintenance techniques for audio recorder heads
- work health and safety (WHS) requirements for repairing or overhauling aircraft audio and visual systems and reproducers
- maintenance publications for repairing or overhauling aircraft audio and visual systems and reproducers.

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 repairing or overhauling aircraft audio and visual systems and reproducers. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - required workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to repairing or overhauling aircraft audio and visual systems and reproducers
 - tools and equipment specified in maintenance documentation
 - general and special-purpose tools and test equipment.

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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