

Name of Assessed Person:

Registration:

UNIT MEAAVI0040: Modify and Repair Aircraft Component Multi-Layer Printed Circuit Boards

1. Inspect multi-layer printed circuit boards and associated components	a. Capacitors; Resistors; Wires; Semiconductors; Inductors; Transformers; Switches; Connectors; Multi Pin ICS; Terminal Posts and Heat-Sink Materials and Will Include Electrostatic Sensitive Devices	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

- 1.1 Interpret required maintenance documentation, including component defect reports and match parts and serial numbers.
- 1.2 Prepare work area and circuit board assemblies in accordance with standard enterprise procedures to allow for effective detailed inspection of all substrate, circuit tracks, edge connectors and attached components, taking into account any static discharge procedures.
- 1.3 Visually or physically inspect circuit board assemblies for physical integrity of substrate, circuit tracks, edge connectors and attached components in accordance with maintenance documentation while observing all relevant work health and safety (WHS) requirements.
- 1.4 Establish modification status to assist in determining repair requirements.
- 1.5 Identify and report defects in accordance with standard enterprise procedures.

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2. Test or adjust multi-layer printed circuit boards and associated components	a. Capacitors; Resistors; Wires; Semiconductors; Inductors; Transformers; Switches; Connectors; Multi Pin ICS; Terminal Posts and Heat-Sink Materials and Will Include Electrostatic Sensitive Devices	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

- 2.1 Prepare and connect circuit board assemblies to the appropriate test facility in accordance with approved procedures, or prepare and connect circuit board assemblies in situ to allow required test procedures to be performed.
- 2.2 Perform functional testing on circuit board assemblies for evidence of serviceability or malfunction in accordance with normal trade practice and maintenance documentation.
- 2.3 Electronically or physically adjust or align circuit board assemblies, attached hardware and electronic components in accordance with maintenance manuals or other prescribed procedures.

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3. Troubleshoot multi-layer printed circuit cards and associated components	a. Capacitors; Resistors; Wires; Semiconductors; Inductors; Transformers; Switches; Connectors; Multi Pin ICS; Terminal Posts and Heat-Sink Materials and Will Include Electrostatic Sensitive Devices	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

- 2.1 Prepare and connect circuit board assemblies to the appropriate test facility in accordance with approved procedures, or prepare and connect circuit board assemblies in situ to allow required test procedures to be performed.
- 2.2 Perform functional testing on circuit board assemblies for evidence of serviceability or malfunction in accordance with normal trade practice and maintenance documentation.
- 2.3 Electronically or physically adjust or align circuit board assemblies, attached hardware and electronic components in accordance with maintenance manuals or other prescribed procedures.

**** Note: Troubleshooting: involves the use of fault finding charts or similar, to line replacement level.**

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4. Dismantle multi-layer printed circuit cards and associated components	a. Capacitors; Resistors; Wires; Semiconductors; Inductors; Transformers; Switches; Connectors; Multi Pin ICS; Terminal Posts and Heat-Sink Materials and Will Include Electrostatic Sensitive Devices	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

- 4.1 Remove conformal or protective coatings from the circuit board assembly to the extent required to effect necessary repairs and in accordance with maintenance manuals, industry or enterprise standards as applicable.
- 4.2 Observe WHS requirements at all times during maintenance procedures and use required material safety data sheets (MSDSs) and personal protective equipment (PPE).
- 4.3 Dismantle circuit board assembly to the extent necessary to allow repair of all identified faults.
- 4.4 Tag and dispatch parts for processing in accordance with specified procedures.
- 4.5 Package and store parts for retention and refitment in accordance with standard enterprise procedures to avoid physical and electrostatic damage.
- 4.6 Pack and process parts for disposal in accordance with statutory requirements pertaining to dangerous good.

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**5.
Assemble multi-layer printed circuit boards and associated components**

a. Capacitors; Resistors; Wires; Semiconductors; Inductors; Transformers; Switches; Connectors; Multi Pin ICS; Terminal Posts and Heat-Sink Materials and Will Include Electrostatic Sensitive Devices

No. of Entries	1	2	3
Tail / Job No.			
LAME Sign.			
Date			
Simulated	Yes No	Yes No	Yes No

Performance Criteria:

- 5.1 Collect parts removed for access and replacement parts, ensuring appropriate modification status, component tolerances and assembly configuration is maintained.
- 5.2 Replace conformal or protective coatings to the required standard of the equipment manufacturer or industry standard.
- 5.3 Ensure rework techniques are in accordance with industry approved procedures, and observe required WHS precautions, including use of MSDS and PPE.
- 5.4 Assemble printed circuit board and associated components in accordance with maintenance manuals, and ensure all electrical joints meet the required standard of the equipment manufacturer or industry standard.
- 5.5 Rework circuit substrate material, circuit tracks, edge connectors and through-hole eyelets as required to restore printed circuit board to a serviceable Condition.

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Certification of Underpinning Knowledge and Skills to Modify / Repair Aircraft Component Multi-Layer Printed Circuit Boards

A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements and performance criteria of the unit of competency are being achieved under routine supervision on at least one (1) component from each of Group a) 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 (for details refer to the Companion Volume Implementation Guide).

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Evidence has been confirmed of the attainment of the following pre-requisite units of competency (as they are related to attainment of the elements of competency specified in this unit).	
296, AVI0038	
Evidence has been confirmed of the knowledge requirements for this unit as delivered by a CASR 147 Approved Organisation.	
OR	
Assessment has been conducted to determine that the underpinning knowledge and skills have been achieved in accordance with the Competency Unit.	

Certification of Unit Completion

I certify that I have reviewed the certification of the elements for this competency unit and that all of the competency unit requirements have been met.

Signed: _____ Assessor No. _____ MTO: _____ Date: _____