

1. Title	Aircraft electrical anti-icing and de-icing system components repair
2. Code	EMAMAV452A
3. Range	Aircraft electrical anti-icing and de-icing system components repair activity is usually carried out in a specialist bay or workshop on components that have been removed from the aircraft, e.g. leading edge heaters, propeller heaters, pitot heaters, intake cowls, control units, sensors.
4. Level	4
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Working principles</p> <ul style="list-style-type: none"> <li>◆ Understand the working principles for the aircraft electrical anti-icing and de-icing system.</li> </ul> <p>6.2 Methods and procedures</p> <ul style="list-style-type: none"> <li>◆ Able to review the maintenance documents and procedures to decide on maintenance task, e.g. confirm fault, repair, modify</li> <li>◆ Able to prepare the work area, obtain and check the resources for serviceability or status in accordance with the procedures, e.g. publications, materials, tools, equipment, safety equipment, environmental conditions established.</li> <li>◆ Able to confirm the component identification is matched with the documentation.</li> <li>◆ Able to prepare the component for repair in accordance with the procedures, e.g. clean, inspect, assess economics of carrying out repair.</li> <li>◆ Able to determine and record the next task in accordance with the procedures, e.g. locate defects, repair, test, adjust, complete the task.</li> </ul>

	<ul style="list-style-type: none"><li>◆ Able to locate the defects using troubleshooting techniques and inspection procedures appropriate to the defects indications in accordance with the procedures.</li><li>◆ Able to report and record the defects in accordance with the procedures.</li><li>◆ Able to disassemble the component in accordance with the procedures, e.g. clean, label, preserve, segregate, store.</li><li>◆ Able to determine and record the rectification action in accordance with the procedures.</li><li>◆ Able to procure the replacement parts and verify their authenticity and serviceability in accordance with the procedures, e.g. identify, inspect.</li><li>◆ Able to rectify the defects in accordance with the procedures, e.g. repair, replace, modify, adjust.</li><li>◆ Able to assemble the component in accordance with the procedures.</li><li>◆ Able to perform inspections in accordance with the procedures, e.g. independent, duplicate, progressive.</li><li>◆ Able to prepare the component for test in accordance with the procedures.</li><li>◆ Able to test and adjust the component in accordance with the procedures, e.g. troubleshoot, functionally test, calibrate, adjust, document adjustments and performance.</li></ul>
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6.3 Professional approach

- ◆ Able to perform inspections after test in accordance with the procedures, e.g. independent, duplicate, progressive.
- ◆ Able to understand the legislative requirements, aviation authority requirements, manufacturers' publications and the maintenance organizations' approved maintenance practices and requirements in carrying out the task.
- ◆ Able to complete the task within the stipulated duration.
- ◆ Able to prepare the component for use, storage or transit in accordance with the procedures, e.g. locking, inhibiting, blanking, packing, shelf-life requirement.
- ◆ Able to check the resources for serviceability and return them to service or storage in accordance with the procedures, e.g. tools, equipment, safety equipment, publications.
- ◆ Able to handle the unused parts and materials in accordance with the procedures, e.g. serviceable, unserviceable, surplus, waste, scrap, hazardous.
- ◆ Able to complete the documentation in accordance with the procedures, e.g. labels, work cards, release notes, log books, certification.
- ◆ Able to return the work area in a state which enables the next task to begin in accordance with the procedures.

7. Assessment Criteria	The integral outcome requirement of this UoC is:  (i) Able to return the aircraft electrical anti-icing and de-icing system components to a serviceable condition by disassembling, checking for and reporting damage, repairing, modifying or replacing parts, reassembling, testing and documenting the work.
8. Remarks	Ref: NZQA - 3965