

Title	Repair commercial aviation optical system components		
Level	4	Credits	25

Purpose	People credited with this unit standard are able to: prepare to repair commercial aviation optical system components; locate defects in commercial aviation optical system components; repair commercial aviation optical system components; test and adjust commercial aviation optical system components; and complete the repair task.
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Classification	Aeronautical Engineering > Avionic Instrument Repair
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Available grade	Achieved
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Guidance Information

- 1 All tasks must be carried out in accordance with enterprise procedures.
- 2 Definition
Enterprise procedures – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.
- 3 The repair activities referred to in this unit standard are those usually carried out in a specialist bay or workshop on components that have been removed from the aircraft.
- 4 Optical system components may include head-up displays, cathode ray tube displays, liquid crystal displays, low light television, digital and analogue video cameras and recorders.
- 5 This unit may be gained by achieving competency on commercial or military aircraft with the appropriate systems and components.

Outcomes and performance criteria

Outcome 1

Prepare to repair commercial aviation optical system components.

Performance criteria

- 1.1 Repair task is determined by reviewing maintenance documentation and enterprise procedures.
- Range confirm fault, repair, modify.
- 1.2 Work area is prepared, and resources obtained and checked for serviceability or status.
- Range may include but is not limited to – publications, materials, tools, equipment, safety equipment, environmental conditions established.
- 1.3 Component identification is matched with documentation.
- 1.4 Component is prepared for repair.
- Range clean, inspect, assess economics of carrying out repair.
- 1.5 Next task is determined and documented.
- Range locate defects, repair, test, adjust, complete the task.

Outcome 2

Locate defects in commercial aviation optical system components.

Performance criteria

- 2.1 Defects are located using troubleshooting techniques and inspection procedures appropriate to the defect indications.
- 2.2 Defects are reported and documented.

Outcome 3

Repair commercial aviation optical system components.

Performance criteria

- 3.1 Component is disassembled.
- Range clean, label, preserve, segregate, store.
- 3.2 Rectification action is determined and documented.
- 3.3 Parts are procured and verified as authentic and serviceable.
- Range identify, inspect.
- 3.4 Defects are rectified.
- Range repair, replace, modify, adjust.

- 3.5 Component is assembled.
- 3.6 Inspections of assembled component are obtained.
- Range independent, duplicate, progressive.

Outcome 4

Test and adjust commercial aircraft optical system components.

Performance criteria

- 4.1 Component is prepared for testing.
- 4.2 Component is tested and adjusted.
- Range may include but is not limited to – troubleshoot, functionally test, calibrate, adjust, document adjustments and performance.
- 4.3 Inspections are obtained.
- Range independent, duplicate, progressive.

Outcome 5

Complete the repair task.

Performance criteria

- 5.1 Component is prepared.
- Range may include but is not limited to – use, storage, transit, locking, inhibiting, blanking, packing, shelf-life requirement.
- 5.2 Resources are checked for serviceability and returned to service or storage.
- Range may include but is not limited to – tools, equipment, safety equipment, publications.
- 5.3 Leftover parts and materials are disposed of.
- Range may include but is not limited to – serviceable, unserviceable, surplus, waste, scrap, hazardous.
- 5.4 Documentation is completed.
- Range may include but is not limited to – labels, work cards, release notes, logbooks, certification.
- 5.5 Work area is left in a state that enables the next task to begin.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 June 1995	31 December 2016
Revision	2	7 August 1997	31 December 2016
Revision	3	8 May 2001	31 December 2016
Review	4	19 May 2006	31 December 2016
Revision	5	21 September 2007	31 December 2016
Review	6	24 October 2014	31 December 2022
Review	7	23 July 2020	N/A

Consent and Moderation Requirements (CMR) reference	0028
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact ServiceIQ qualifications@serviceiq.org.nz if you wish to suggest changes to the content of this unit standard.