

Title	Fabricate aerospace wiring harness assemblies		
Level	4	Credits	20

Purpose	People credited with this unit standard are able to fabricate aerospace wiring harness assemblies.
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Classification	Aeronautical Engineering > Aerospace Engineering
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Available grade	Achieved
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Guidance Information

1 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.

2 Range

- a evidence of at least ten types of harnesses is required. Types are differentiated by significantly unique end connectors, terminations (e.g. solder, crimp) and the specification of the harness cable (e.g. copper, optical, radio frequency).
- b fabrication of harnesses should involve all construction and assembly work, including connector termination.
- c production should involve inspection and testing tasks to validate the quality and functionality of the completed products.

3 References

- Health and Safety at Work Act 2015;
- IPC/WHMA-A-620D, *Requirements and Acceptance for Cable and Wire Harness Assemblies*, January 2020, published jointly by IPC – Association Connecting Electronics Industries and the Wire Harness Manufacturers Association, available at <https://www.ipc.org/TOC/IPC-WHMA-A-620D-toc.pdf>;
- IPC/WHMA-A-620D-S, *Space and Military Applications Electronic Hardware Addendum to IPC/WHMA-A-620D*, January 2020, published jointly by IPC – Association Connecting Electronics Industries and the Wire Harness Manufacturers Association, available at <https://www.ipc.org/TOC/IPC-WHMA-A-620D-S-toc.pdf>.

- 4 The following apply to all outcomes of this unit standard:
- a all activities are to be completed and reported in accordance with enterprise procedures;
 - b all work practices must meet worksite's documented quality management requirements;
 - c all activities must comply with policies, procedures and requirements of the enterprises involved; and any relevant legislative and/or regulatory requirements, which include, but are not limited to, the Health and Safety at Work Act 2015.

Outcomes and performance criteria

Outcome 1

Fabricate aerospace wiring harness assemblies.

Performance criteria

- 1.1 Fabrication task is determined by reviewing manufacturing documentation and enterprise procedures.
- Range may include but is not limited to – publications, drawings, work instructions, standard operating procedures.
- 1.2 Component identities are matched to the manufacturing documentation.
- 1.3 Resources are obtained and checked for serviceability or status.
- Range may include but is not limited to – publications, tools, materials, equipment, safety equipment.
- 1.4 Harness assemblies are fabricated in accordance with manufacturing documentation.
- Range wire stripping, wire marking and labelling, crimping, soldering, potting, lacing, plugs and connectors removed and fitted, corrosion/contamination control, vibration, and flexing control.
- 1.5 Harness assemblies are functionally checked via inspection, continuity checks and other applicable method as determined by the manufacturing documentation.
- 1.6 Any defects are rectified.
- Range may include but is not limited to – replace, modify, adjust.
- 1.7 Fabrication documentation is completed.
- Range may include but is not limited to – labels, production orders, release notes, logbooks, certification.

Planned review date	31 December 2027
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	30 March 2023	N/A
Rollover and Revision	2	27 June 2024	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 Ringa Hora Services Workforce Development Council qualifications@ringahora.nz if you wish to suggest changes to the content of this unit standard.