

Title	Remove and replace automotive air conditioning components in the passenger compartment and engine bay		
Level	3	Credits	2

Purpose	<p>This unit standard is intended for people in the automotive repair industry.</p> <p>People credited with this unit standard are able to remove and replace air conditioning components in the passenger compartment, and engine bay.</p>
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Classification	Motor Industry > Automotive Heating, Ventilation, and Air Conditioning
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Available grade	Achieved
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Guidance Information

- 1 It is recommended that people hold credit for Unit 30572, *Demonstrate knowledge of vehicle or machine batteries*, Unit 30565, *Demonstrate knowledge of an automotive air conditioning system*, Unit 22799, *Demonstrate safety precautions on vehicles fitted with air bags and/or seatbelt pre-tensioners*, and Unit 24447, *Recover refrigerant from, and evacuate and charge an automotive air conditioning system* before being assessed against this unit standard.
- 2 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, and company requirements and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 3 Performance of the outcomes of this unit standard must comply with the following:
 - Health and Safety at Work Act 2015;
 - Resource Management Act 1991, s15 Discharge of contaminants into environment;
 - Australia and New Zealand Refrigerant handling code of practice 2007
<https://www.irhace.org.nz/publications-2/code-of-practice/>;
 - Local body regulations for discharging contaminants to air, land or water.
- 4 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 5 Definitions

Company requirements refer to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and

procedures, work instructions, product quality specifications and legislative requirements.

Service information refers to technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.

Suitable tools and equipment refer to industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe working practices.

- 6 For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.
- 7 Should the air conditioning system require recovering, evacuating and/or recharging of refrigerant, this work must be completed by the holder of an Approved Filler Certificate issued under the under the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Outcomes and performance criteria

Outcome 1

Remove and replace air conditioning components in the passenger compartment.

Performance criteria

- 1.1 Trim panels, safety restraint devices, ducts, and blanking caps are removed and replaced without damage.
- 1.2 The evaporator, drain tube, cabin filters, air conditioning switch, and electrical connections are removed and replaced.

Outcome 2

Remove and replace air conditioning components in the engine bay.

Performance criteria

- 2.1 Components that interfere with removal and replacement of air conditioning components are removed or loosened, and replaced without damage.

Range	may include but is not limited to – radiator, grille, headlamps, drive belt(s), pulleys, belt tensioners.
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- 2.2 Air conditioning components are removed and replaced.

Range	may include but is not limited to – condenser, receiver-drier, fans, compressor, pipes and hoses, relay(s), idle-up system, air conditioning wiring harness, replacement drive belt, pulleys.
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2.3 The replaced components are installed.

Range includes but is not limited to – neat; functional; protected from chaffing, fracturing, and vibration.

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	25 January 2008	31 December 2022
Review	2	29 April 2021	N/A

Consent and Moderation Requirements (CMR) reference	0014
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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 MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.