

<b>Title</b>	<b>Install electrical accessories in vehicles, and test for and rectify faults</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>2</b>

<b>Purpose</b>	<p>This unit standard is intended for people in the automotive repair industry.</p> <p>People credited with this unit standard are able to: procure an electrical vehicle accessory for installation; install an electrical accessory to the vehicle; test an electrical accessory and its circuit for faults; and rectify electrical accessory componentry and circuit faults.</p>
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<b>Classification</b>	Motor Industry > Automotive Electrical and Electronics
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 It is recommended that people hold credit for Unit 30558, *Test and repair automotive electrical circuits* 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;  
Land Transport Rule: Vehicle Lighting 2004;  
Land Transport Rule: Vehicle Standards Compliance 2002.
- 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* means 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 Range

This unit standard may include but is not limited to the following after-market accessories – electric aerial, additional brake lights, air horns, trailer plug, auxiliary lights.

For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.

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## Outcomes and performance criteria

### Outcome 1

Procure an electrical vehicle accessory for installation.

#### Performance criteria

- 1.1 An accessory kit that is suitable for the vehicle and meets customer requirements is obtained.
- 1.2 A suitable alternative is recommended to the customer if the requested equipment is not available or unsuitable.
- 1.3 Additional parts and materials that are required but not included in the kit are determined and procured.

### Outcome 2

Install an electrical accessory to the vehicle.

#### Performance criteria

- 2.1 The position of any necessary holes is determined to ensure that the accessory is correctly positioned, securely held, the structural strength of the body is not impaired, and no damage is caused by drilling holes or projecting screws.
- 2.2 Trim panels are removed, without damage, where necessary to gain access.
- 2.3 The minimum number of holes necessary are cut in the predetermined locations to the diameters specified in the installation instructions, and any anti-corrosive treatment is carried out.
- 2.4 The wiring is positioned and secured.
- 2.5 The accessory, switch, and any other electrical components are connected to the wiring and installed and positioned.

- 2.6 The circuit is connected to the supply with effective circuit protection and is tested for correct operation.

### Outcome 3

Test an electrical accessory and its circuit for faults.

#### Performance criteria

- 3.1 The system is operated, and the symptoms of any faults established.
- 3.2 Tests are carried out in a manner which ensures that any faults are identified and located. There is no damage to the vehicle's electronic components as a result of testing.

### Outcome 4

Rectify electrical accessory componentry and circuit faults.

#### Performance criteria

- 4.1 A justifiable decision is made whether to repair or replace a faulty part, based on the practical and economic viability of a repair.
- 4.2 Repairable parts are reconditioned to restore full serviceability and are of neat appearance where the repair is exposed.
- Range may include – brackets, motors, switches, relays, connectors, wiring.
- 4.3 Treatment that will inhibit corrosion and restore original colour and appearance is applied to repaired parts.
- 4.4 Non-repairable faulty components are replaced with new parts of at least equivalent specification to restore full serviceability.

<b>Planned review date</b>	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	29 October 1993	31 December 2022
Review	2	4 October 1996	31 December 2022
Review	3	26 February 1999	31 December 2022
Review	4	25 January 2008	31 December 2022
Review	5	25 March 2021	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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**Comments on this unit standard**

Please contact MITO New Zealand Incorporated [info@mito.org.nz](mailto:info@mito.org.nz) if you wish to suggest changes to the content of this unit standard.