

<b>Title</b>	<b>Diagnose and rectify lighting circuit faults on vehicles or machines</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>4</b>

<b>Purpose</b>	People credited with this unit standard are able to diagnose and rectify vehicle or machine lighting circuit faults.
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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 24127, *Describe automotive lighting requirements and lighting circuit diagnosis* 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;  
Vehicle Inspection Requirements Manual (VIRM) In-service Certification;  
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.

## Outcomes and performance criteria

### Outcome 1

Diagnose vehicle or machine lighting circuit faults.

#### Performance criteria

- 1.1 The lighting fault in the vehicle or machine is identified.
- 1.2 The extent of the lighting problem is verified by inspection.
- Range may include – one lamp, all lamps, constant fault, intermittent fault.
- 1.3 The probable type of the lighting fault is established by observation.
- Range may include – light out, light dim, light intermittent.
- 1.4 The circuit is tested, and the cause of the fault is located without causing further damage to the lighting system and vehicle or machine components.
- Range may include – supply voltage, voltage at the user, voltage drop across the supply line, voltage drop across the negative line, current flowing in the circuit, circuit insulation, high resistance.

### Outcome 2

Rectify vehicle or machine lighting circuit faults.

#### Performance criteria

- 2.1 Lighting faults are rectified to restore full serviceability.
- Range replacement of a faulty component, repair of a faulty component, repair and replacement of faulty wiring and connections.

<b>Replacement information</b>	This unit standard and unit standard 24127 replaced unit standard 3399.
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<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	25 January 2008	31 December 2022
Review	2	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.