



**Australian Government**

# **AURETK001 Identify, select and use low voltage electrical test equipment**

**Release: 1**

# AURETK001 Identify, select and use low voltage electrical test equipment

## Modification History

Release	Comment
Release 1	New unit of competency.

## Application

This unit describes the performance outcomes required to identify, select and safely use basic low voltage (LV) electrical test equipment to test basic LV electrical circuits in vehicles or machinery.

It applies to those working in the automotive service and repair industry. The electrical systems and components include those in agricultural machinery, heavy commercial vehicles, light vehicles, vessels, motorcycles, mobile plant machinery or outdoor power equipment.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

## Competency Field

Electrical

## Unit Sector

Technical - Tools and Equipment

## Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
1. Identify and select LV electrical test equipment	1.1 Job requirements are determined according to workplace instructions 1.2 <b><i>LV electrical test equipment</i></b> is identified and selected to meet job requirements

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	<p>1.3 Function and method of operation of equipment are confirmed before use</p> <p>1.4 LV electrical test equipment is checked for serviceability according to manufacturer specifications and workplace procedures</p> <p>1.5 Hazards associated with the work are identified and risks are managed</p> <p>1.6 <b><i>Safety requirements</i></b> and safe operating procedures for equipment are accessed and interpreted</p>
2. Use electrical test equipment	<p>2.1 Equipment is connected according to workplace procedures and without causing damage to vehicle or machinery</p> <p>2.2 Electrical test equipment is used according to safety requirements to prevent injury to self and others, and damage to vehicle or other workplace equipment</p> <p>2.3 Test results or readings are interpreted and confirmed according to job requirements and workplace procedures</p> <p>2.4 Damaged, faulty or inaccurate electrical test equipment is tagged and isolated for repair or replacement and reported according to workplace procedures</p>
3. Complete work processes	<p>3.1 Electrical test equipment is cleaned, checked and stored ready for use according to workplace procedures</p> <p>3.2 Workplace documentation is processed according to workplace procedures</p>

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance and are not explicit in the performance criteria.

<b>Skills</b>	<b>Description</b>
Learning skills to:	<ul style="list-style-type: none"> <li>locate appropriate sources of information efficiently.</li> </ul>
Reading skills to:	<ul style="list-style-type: none"> <li>interpret text, symbols and basic electrical diagrams in manufacturer literature and safe operating procedures.</li> </ul>
Writing skills to:	<ul style="list-style-type: none"> <li>legibly and accurately record test measurements and enter correct information on tags of faulty LV electrical test equipment.</li> </ul>
Oral communication skills	<ul style="list-style-type: none"> <li>clarify instructions, confirm use and suitability of LV electrical</li> </ul>

Skills	Description
to:	test equipment, and report findings.
Numeracy skills to:	<ul style="list-style-type: none"> <li>measure voltage, current and resistance and use basic mathematical operations, including addition and subtraction, to calculate deviations from manufacturer specifications.</li> </ul>
Planning and organising skills to:	<ul style="list-style-type: none"> <li>select and prepare appropriate LV electrical test equipment to achieve required outcomes and ensure tasks are completed within workplace timeframes.</li> </ul>

## Range of Conditions

This section specifies work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Bold italicised wording, if used in the performance criteria, is detailed below.

<b><i>LV electrical test equipment</i></b> must include:	<ul style="list-style-type: none"> <li>test lights and probes</li> <li>circuit continuity testers</li> <li>digital multimeters.</li> </ul>
<b><i>Safety requirements</i></b> must include:	<ul style="list-style-type: none"> <li>work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: <ul style="list-style-type: none"> <li>selecting and using personal protective equipment (PPE)</li> <li>identifying hazards and controlling risks associated with wearing jewellery while working around high current wiring systems.</li> </ul> </li> </ul>

## Unit Mapping Information

Equivalent to AURETK1001 Identify, select and use low voltage electrical test equipment

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>