

Title	Demonstrate knowledge of electrical installation testing, fault finding, and rectification of discovered faults		
Level	4	Credits	6

Purpose	People credited with this unit standard are able to demonstrate knowledge of: <ul style="list-style-type: none"> – electrical installation testing; and – fault finding and rectification of discovered faults.
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Classification	Electrical Engineering > Electrical Installation and Maintenance
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Available grade	Achieved
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Guidance Information

- 1 Unit standards or equivalent prior knowledge and skills recommended:
Unit 32614, *Demonstrate knowledge of electrical faults, circuit protection, de-commissioning, and commissioning*;
Unit 32617, *Select and use instruments for testing, fault finding, and repairing basic appliances*.
- 2 References
AS/NZS 3000 (version as cited in the Electricity (Safety) Regulations), *Electrical Installations (known as the Australian/New Zealand Wiring Rules)*;
AS/NZS 3017:2007, *Electrical installations - Verification guidelines*;
AS/NZS 4836:2011, *Safe working on or near low-voltage electrical installations and equipment*;
or any current subsequent amendments and replacements.
- 3 Definition
DC – direct current.
- 4 This unit standard can be used together with other relevant unit standards, additional learning and workplace training to meet the requirements of the Electrical Workers Registration Board (EWRB) core competencies, available at <https://www.ewrb.govt.nz>.
- 5 This unit standard applies to installations and equipment rated above extra-low voltage unless specifically stated.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of electrical installation testing.

Performance criteria

- 1.1 Identify requirements for electrical testing from AS/NZS 3000.
Range three requirements.
- 1.2 Explain the purpose of AS/NZS 3017.
- 1.3 Identify instruments to test circuits to meet the requirements of section 8 of AS/NZS 3000.
Range de-energised, energised circuits.
- 1.4 Interpret test results and explain the reasons for compliance or non-compliance.
Range two compliant results, two non-compliant results.

Outcome 2

Demonstrate knowledge of fault finding and rectification of discovered faults.

Performance criteria

- 2.1 Describe the process of gaining information from customers about the symptoms of faults.
- 2.2 Explain methods of testing circuits or equipment to identify faults safely.
Range two de-energised, one energised circuit.
- 2.3 Describe methods and actions to rectify commonly discovered faults in electric circuits or equipment.
Range three faults.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 March 2022	N/A

Consent and Moderation Requirements (CMR) reference	0003
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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 Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@waihanga.nz if you wish to suggest changes to the content of this unit standard.