

Title	Demonstrate and apply knowledge of theory and practice for registration of electrical workers (stage 1)		
Level	4	Credits	2

Purpose	<p>This unit standard is for people who are completing an electrical licence and want to become registered and licenced with the Electrical Workers Registration Board.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – carry out health and safety practices in an electrical workplace – demonstrate and apply knowledge of single-phase leads, fittings, and accessories – select and test electrical protection equipment – design, install, and terminate energy regulators – apply knowledge of soldering – demonstrate and apply knowledge to disconnect, test, and reconnect wired appliances or equipment – demonstrate and apply knowledge of single-phase and three-phase motors.
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Classification	Electrical Engineering > Electrical Standards and Statutes
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Available grade	Achieved
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Guidance Information

- 1 This unit standard may be used for learning and assessment off-job.
- 2 Under the Electricity Act 1992 the Electrical Workers Registration Board (EWRB) has a responsibility to set registration criteria for electrical workers and ensure that all persons applying for electrical registration are competent.
- 3 As part of the process to be eligible for registration as electrical workers, candidates must complete and pass a Stage 1 EWRB approved assessment which is based on the requirements of the EWRB *Teaching Guidelines*. Electricians, Electrical Engineers, Electrical Installers must also pass the EWRB Regulations examination.

The EWRB Stage 1 examination is the assessment tool for this unit standard, and credit for this unit standard may only be granted on evidence of passing this examination.

However, in terms of meeting the above requirement, candidates who have been awarded recognition of equivalent knowledge and skills from another Regulatory Body may gain exemption from the EWRB Stage 1 examination.

4 References

AS/NZS 3000 (version as cited in the Electricity (Safety) Regulations), *Electrical Installations (known as the Australian/New Zealand Wiring Rules)*
Electricity Act 1992
Electricity (Safety) Regulations 2010
EWRB *Teaching Guidelines* available at [Teaching guidelines and resources | Electrical Workers Registration Board \(ewrb.govt.nz\)](#)
The New Zealand Electrical Codes of Practice, available from [WorkSafe New Zealand](#) and all subsequent amendments and replacements.

5 Definitions

DOL – Direct On Line.

Industry practice – those practices that competent practitioners within the industry recognise as current industry best practice.

6 Range

- a Candidates must refer to current legislation and Standards during assessment.
- b Material required for EWRB examinations is available at [Exams and practical assessments | Electrical Workers Registration Board \(ewrb.govt.nz\)](#)
- c All evidence presented for assessment against this unit standard must be in accordance with:
 - i legislation
 - ii policies and procedures
 - iii ethical codes
 - iv Standards – may include but are not limited to those listed in Schedule 2 of the Electricity (Safety) Regulations 2010
 - v applicable site, enterprise, and industry practice
 - vi where appropriate, manufacturers' instructions, specifications, and data sheets.

Outcomes and performance criteria

Outcome 1

Carry out health and safety practices in an electrical workplace.

Performance criteria

- 1.1 Explain cardiopulmonary resuscitation.
- 1.2 Carry out safe working practices and procedures in an electrical workplace.

Outcome 2

Demonstrate and apply knowledge of single-phase leads, fittings, and accessories.

Performance criteria

- 2.1 Identify 10 flexible cords and cable types and specify an application for each type.
- 2.2 Identify 10 electrical fittings and accessories and state an application for each.

2.3 Describe cord connectors, single-phase leads, and flexible cord termination.

2.4 Terminate flexible cords, cables, and conductors.

2.5 Describe three-phase plugs and cord connection sockets.

2.6 Terminate three-phase plugs and cord connection sockets.

Outcome 3

Select and test electrical protection equipment.

Performance criteria

3.1 Select and replace rewirable and high rupturing capacity fuses.

Outcome 4

Design, install, and terminate energy regulators.

Performance criteria

4.1 Design, install, and terminate a three-heat switch.

4.2 Design, install, and terminate simmerstat switch.

Outcome 5

Apply knowledge of soldering.

Performance criteria

5.1 Solder and de-solder components on a printed circuit board.

5.2 Solder and de-solder wiring tags.

Outcome 6

Demonstrate and apply knowledge to disconnect, test, and reconnect wired appliances or equipment.

Performance criteria

6.1 Describe lockout and tag out procedures, isolation, and disconnections of supply methods.

6.2 Connect, disconnect, and reconnect electrical appliances and equipment.

6.3 Test and tag three Class I and Class II second hand and repaired appliances.

Range evidence of two Class I appliances and one Class II appliances are required.

Outcome 7

Demonstrate and apply knowledge of single-phase and three-phase motors.

Performance criteria

7.1 Describe single-phase induction motor and DOL motor starters.

7.2 Install a single-phase induction motor and DOL motor starter, test for safety, connect to the supply, test run, isolate, and change the motor connections to reverse direction of rotation and test run.

7.3 Describe three-phase induction motor and DOL motor starters.

7.4 Install a three-phase induction motor and DOL motor starter, test for safety, connect to the supply, test run, isolate, and change the motor connections to change direction of rotation and test run.

Planned review date	31 December 2028
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 November 2016	31 December 2025
Review	2	28 March 2024	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 the Waihangā Ara Rau Construction and Infrastructure Workforce Development Council qualifications@WaihangāAraRau.nz if you wish to suggest changes to the content of this unit standard.