

Title	Demonstrate knowledge of electrical control devices and simple electrical circuits		
Level	3	Credits	3

Purpose	<p>This unit standard is for use in the training of electrical technicians and service persons. It covers basic control devices, and the construction and testing of specified simple electrical circuits.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> - describe simple appliance control devices; and - construct and test simple electrical circuits.
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Classification	Electrical Engineering > Electrical Service Technicians
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Available grade	Achieved
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Guidance Information

- 1 This unit standard has been developed for learning and assessment off-job.
- 2 Competency under this unit standard does not entitle the candidate to legally perform prescribed electrical work without adequate supervision until the candidate has been registered and licensed under the Electricity Act 1992.
- 3 References
 Electricity (Safety) Regulations 2010;
 Electricity Act 1992;
 Health and Safety at Work Act 2015, and associated regulations;
 New Zealand Electrical Codes of Practice available at
<https://www.worksafe.govt.nz/laws-and-regulations/standards/electricity-standards-and-codes-of-practice/>;
 and all subsequent amendments and replacements.
- 4 Definitions
Current regulations and standards – refers to the requirements of the above legislation and standards, applied to the context in which the term is used.
Electrical technicians and service persons – for the purposes of this unit standard means, people who hold or who are working towards electrical registration as an Electrical Service Technician, Electrical Appliance Serviceperson (endorsed to disconnect and connect), or Electrical Appliance Serviceperson.
Industry practice – those practices which competent practitioners within the industry recognise as current industry best practice.

Outcomes and performance criteria

Outcome 1

Describe simple appliance control devices.

Range energy regulator (simmerstat), three-heat switch, thermostat, pressure switch, limit switch, time switch, thermal switches.

Performance criteria

- 1.1 The principle of operation of each device is described in accordance with industry practice.
- 1.2 Two applications are stated for each device in accordance with industry practice.

Outcome 2

Construct and test simple electrical circuits.

Range circuits – one-way and two-way lamp switching circuits employing Edison screw and bayonet cap lamp fittings, three-heat switching circuit, energy regulator (simmerstat), fluorescent light fitting, double-pole switching circuits, replacement of a three-heat switch with an energy regulator (simmerstat). Candidates may be supplied with circuit diagrams.

Performance criteria

- 2.1 Components are assembled and wired in accordance with current regulations and standards, and industry practice.
- 2.2 Circuits are tested for safety in accordance with current regulations and standards.
- 2.3 Operation of circuits is verified according to industry practice.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 November 2000	31 December 2013
Revision	2	3 April 2001	31 December 2013
Revision	3	19 May 2004	31 December 2013
Review	4	20 June 2006	31 December 2024
Rollover and Revision	5	20 September 2012	31 December 2024
Revision	6	15 January 2014	31 December 2024
Rollover and Revision	7	25 March 2021	31 December 2024
Review	8	2 March 2023	31 December 2024

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>.