

<b>Title</b>	<b>Install and commission electrical appliances</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	<p>This unit standard covers the installation of domestic or commercial electrical appliances, and is for people wishing to qualify as electrical technicians, service persons or as electricians.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> <li>– prepare for installation of electrical appliances;</li> <li>– install electrical appliances; and</li> <li>– commission electrical appliances.</li> </ul>
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<b>Classification</b>	Electrical Engineering > Electrical Appliance Servicing
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<b>Available grade</b>	Achieved
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<b>Prerequisites</b>	<p>For safety reasons, competency in this unit standard should be assessed only after competency in the following unit standards has been achieved, or equivalent knowledge and skills demonstrated:</p> <p>Unit 750, <i>Demonstrate knowledge of electrical test instruments and take measurements</i>;</p> <p>Unit 1204, <i>Demonstrate knowledge of earthing</i> or Unit 17806, <i>Demonstrate knowledge of protection from the harmful effects of electricity</i>, and Unit 15856, <i>Demonstrate knowledge of the New Zealand electricity supply system</i>;</p> <p>Unit 6705, <i>Test electrical appliances for safety</i>, or Unit 17804, <i>Test single-phase electrical appliances</i>;</p> <p>Unit 15848, <i>Demonstrate knowledge of safeguards for use with portable electrical appliances</i>;</p> <p>Unit 15851, <i>Demonstrate knowledge of electrical safety and safe working practices for electrical workers</i>;</p> <p>Unit 15852, <i>Isolate and test low-voltage electrical subcircuits</i>, or Unit 17799, <i>Demonstrate knowledge of testing for electrical safety for electrical appliance servicing – single-phase</i>;</p> <p>Unit 15855, <i>Demonstrate knowledge of circuit protection</i> or Unit 17802, <i>Replace fuses and plug-in miniature circuit breakers</i>, and Unit 17806, <i>Demonstrate knowledge of protection from the harmful effects of electricity</i>;</p> <p>Unit 26551, <i>Provide first aid for life threatening conditions</i>;</p> <p>Unit 26552, <i>Demonstrate knowledge of common first aid conditions and how to respond to them</i>.</p>
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## Guidance Information

- 1 This unit standard has been developed for learning and assessment on-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 in Employment Act 1992, and associated regulations;  
*New Zealand Electrical Codes of Practice* (Ministry of Business, Innovation and Employment, ISSN 0114-0663);  
AS/NZS 3760:2010, *In-service safety inspection and testing of electrical equipment*, including Amendment 1;  
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 or Electrical Appliance Serviceperson (endorsed to disconnect and connect).  
*Industry practice* – those practices, which competent practitioners within the industry recognise as current industry best practice.
- 5 Range  
*Typical electrical appliances* – heaters, ranges, range hoods, fans, motors, towel rails, washing machines, clothes dryers, waste disposal units.  
Appliances may be single or three-phase, plug-ended or fixed-wired. Permanent cabling to the switchboard is not included. Evidence of four different appliances is required.
- 6 Assessment  
Persons assessing against this unit standard are required to hold a current practising licence at or above the level being sought by the trainee.

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## Outcomes and performance criteria

### Outcome 1

Prepare for installation of electrical appliances.

### Performance criteria

- 1.1 Customer requirements are established through consultation, regarding type, size, and position of appliance to be installed.
- 1.2 Other installation requirements are established through consultation with other trades on site (if any), and manufacturer's specifications for the appliance.

Range            typical installation requirements – location of waste outlet, hot and cold water supply, water pressure, water temperature, electrical connection, circuit rating.

## Outcome 2

Install electrical appliances.

### Performance criteria

- 2.1            Appliance is moved and placed in position without damage to the appliance or its surroundings, according to industry practice.
- 2.2            Testing confirms that all requirements of current regulations and standards have been met, and that the appliance is safe to connect to the supply.
- 2.3            Appliance is installed, connected, and adjusted in accordance with manufacturer's specifications and industry practice.
- 2.4            Installation is completed to customer requirements.
- 2.5            Work site is left free of installation and excess materials to the customer's satisfaction.

## Outcome 3

Commission electrical appliances.

### Performance criteria

- 3.1            Normal appliance operation through a complete cycle is verified.
- 3.2            The operation of the appliance is explained to the customer, and appliance documentation and warranties are handed over.
- 3.3            Documentation is completed to company requirements.

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**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	29 April 1994	31 December 2013
Review	2	23 April 1996	31 December 2013
Review	3	28 June 1999	31 December 2013
Review	4	28 January 2001	31 December 2013
Review	5	20 June 2006	31 December 2022
Rollover and Revision	6	20 September 2012	31 December 2022
Revision	7	15 January 2014	31 December 2022
Review	8	28 January 2021	31 December 2022

<b>Consent and Moderation Requirements (CMR) reference</b>	0003
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.