

Title	Work safely with electrical equipment		
Level	2	Credits	1

Purpose	<p>This unit standard is for people who use electrical equipment and tools in a domestic or industrial environment, and who need to recognise potentially dangerous equipment and situations, and know how to respond to them.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – inspect electrical equipment for safe use; – inspect and use flexible cords and extension sets; – fit a plug to a cord; – use electrical isolation and protective devices; and – describe potentially harmful situations related to the use of electrical equipment.
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Classification	Electrical Engineering > Core Electrical
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Available grade	Achieved
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Guidance Information

- 1 This unit standard has been developed for learning and assessment on-job or off-job with suitable simulation.
- 2 Achievement of this unit standard does not by itself imply that trainees may legally perform prescribed electrical work in their own right. Until they are registered and licensed under the Electricity Act 1992, trainees are assisting, and must work under the supervision of a Supervisor of Electrical Work when carrying out prescribed electrical work. If the prescribed electrical work in question is carried out for reward, the Supervisor of Electrical Work must hold a valid practising licence.
- 3 References
 Electricity Act 1992;
 Electricity (Safety) Regulations 2010;
 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/>;
 AS/NZS 3000:2018, *Electrical installations (known as the Australian/New Zealand Wiring Rules)*, including Amendment 1;
 and all subsequent amendments and replacements.
- 4 The terms *flexible cord*, *plug*, *cord extension socket*, and *cord extension set* should be interpreted as in Worksafe website or AS/NZS 3000.

Outcomes and performance criteria

Outcome 1

Inspect electrical equipment for safe use.

Range power tools, home and office appliances, trade tools.

Performance criteria

1.1 Loose, damaged, or missing parts are inspected.

Range may include but is not limited to – securing screws, handles, guards, controls, cracked bodies, handgrips, damaged chucks, blade clamps, tool holders, key-ways.

1.2 Abnormal operating conditions are inspected.

Range non-performance of design function; noises, heat, smell, overloads.

1.3 Defective equipment is labelled and put aside for repair by a competent person.

Outcome 2

Inspect and use flexible cords and extension sets.

Performance criteria

2.1 Any damaged cords are inspected.

Range may include but is not limited to – cuts, nicks, abrasions, tightly twisted, knotted, flattened, compressed, exposed wires.

2.2 Any cords not properly attached to cord clamps are inspected.

2.3 Any damaged or incomplete plugs and extension sockets are inspected.

2.4 Any defective cords and cord extension sets are labelled and removed from service.

2.5 Cords and cord extension sets are neatly coiled while not in use, to prevent damage.

2.6 Cords and cord extension sets are uncoiled while in use to prevent overheating.

Outcome 3

Fit a plug to a cord.

Performance criteria

- 3.1 Colour codes for flexible cords are identified in accordance with AS/NZS 3000.
- 3.2 Insulation is stripped back and strands are twisted according to industry practice.
- 3.3 Plug pins are identified and wires matched to them according to the colour code.
- 3.4 Plug is fitted according to industry practice.

Outcome 4

Use electrical isolation and protective devices.

Performance criteria

- 4.1 Electrical isolation and protective devices are identified.

Range main switch, isolator, circuit breaker, fuse, fixed and portable residual current devices (RCDs).
- 4.2 Main switch and isolators are operated according to industry practice.
- 4.3 Circuit breakers are operated and re-set according to industry practice.
- 4.4 Residual current devices are used, tested, and re-set according to manufacturer's instructions and industry practice.

Range testing refers to built-in tests only.
- 4.5 Cartridge fuses are identified and replaced according to industry practice.
- 4.6 Rewirable fuses are identified and repaired according to industry practice.

Outcome 5

Describe potentially harmful situations related to the use of electrical equipment.

Performance criteria

- 5.1 Potentially harmful situations and the possible outcomes are identified and described.

Range situations – damp, water, cords lying where they could be damaged, badly secured or placed fittings and fixtures, malfunctioning equipment, overloads.

5.2 Actions to take in response to harmful situations to prevent accidents are described.

Range actions to take – warn other persons, isolate circuit, remove potential hazard, report hazard to responsible person, seek assistance; repair damage where appropriate, label defective equipment.

Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 April 1996	31 December 2013
Review	2	10 February 1999	31 December 2013
Revision	3	3 April 2001	31 December 2013
Review	4	26 May 2005	N/A
Rollover and Revision	5	15 March 2012	N/A
Revision	6	15 January 2014	N/A
Rollover and Revision	7	28 January 2021	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 Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.