

<b>Title</b>	<b>Select and install flexible cords</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>2</b>

<b>Purpose</b>	<p>This unit standard is for people in the electrical and related industries, who need to make up and connect flexible cords to appliances and accessories.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> <li>– identify colour codes and terminal abbreviations applicable to flexible cords;</li> <li>– select flexible cords and connect to accessories;</li> <li>– select flexible cords and connect to appliances; and</li> <li>– test flexible cord connections.</li> </ul>
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<b>Classification</b>	Electrical Engineering > Core Electrical
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 This unit standard has been developed for learning and assessment on-job.
- 2 This unit standard and unit standards 29469 and 29441 together meet the assessment requirements of ERAC EPC 32.  
This unit standard and unit standards 29427, 29441, and 29469 together meet the assessment requirements of ERAC EPC 33.
- 3 Definitions  
*EPC* – Critical Essential Performance Capability.  
*ERAC* – Electrical Regulatory Authorities Council.  
*EWRB* – Electrical Workers Registration Board.  
*Safe and sound practice* – as it relates to the installation of electrical equipment is defined in AS/NZS 3000:2007, *Electrical Installations (known as the Australian/New Zealand Wiring Rules)*.
- 4 Range
  - a Candidates may refer to current legislation and Standards during assessment.
  - b Demonstration of safe working practices and installation in accordance with *safe and sound practice* are essential components of assessment of this unit standard.

- c All activities and evidence presented for all outcomes and performance criteria in 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; and,
  - vi where appropriate, manufacturers' instructions, specifications, and data sheets.

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## Outcomes and performance criteria

### Outcome 1

Identify colour codes and terminal abbreviations applicable to flexible cords.

#### Performance criteria

- 1.1 Identify colours for phase or active, neutral, and earth conductors in single-phase and three-phase flexible cords.
- 1.2 Interpret terminal abbreviations found on single-phase and three-phase flexible cord accessories.

Range abbreviations – phase, active, line, neutral, earth.

### Outcome 2

Select flexible cords and connect to accessories.

Range accessories – single-phase three-pin plug and socket, three-phase plug and socket, bayonet-cap lamp-holder, Edison-screw lamp-holder.

#### Performance criteria

- 2.1 Select flexible cords to match the accessories.

Range selection must consider – length, voltage drop, current rating, number of cores, outside diameter, shape, insulation quality to suit voltage, operating temperature.

## 2.2 Terminate flexible cords to accessories.

Range	termination considerations may include but are not limited to – phasing, colour code, strands are not cut from conductors, no stray strands protruding, strands are twisted and doubled over where necessary, terminal screws are tightened, earth conductor is installed so that it will suffer least or last under cord tension, fabric covered cords are sleeved or whipped, cord clamp arrangement is secured so that conductors are not strained, cord protector shroud is replaced, flexible cord insulation integrity is maintained. evidence of three is required.
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### Outcome 3

Select flexible cords and connect to appliances.

Range single-phase plug-in appliance, three-phase plug-in appliance.

#### Performance criteria

3.1 Confirm appliance is isolated from the supply.

3.2 Select flexible cord to match the appliance.

Range	selection must consider – length, voltage drop, current rating, number of cores, outside diameter, shape, insulation quality to suit voltage, operating temperature, environmental conditions.
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3.3 Terminate flexible cord to the appliance.

Range	termination methods include two of – nut, bolt, screw terminal, tunnel terminal, crimped lug; termination considerations must include – phasing, colour code, conductor path within the appliance, strands are not cut from conductors, no stray strands protruding, strands are twisted and doubled over where necessary, terminal screws are tightened, exposed metal is bonded where applicable, earth conductor installed so that it will suffer least or last under cord tension, fabric covered cords are sleeved or whipped, cord clamp arrangement is secured so that conductors are not strained, cord protector shroud is replaced, flexible cord insulation integrity is maintained.
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### Outcome 4

Test flexible cord connections.

#### Performance criteria

4.1 Carry out visual inspections and electrical, earth continuity, polarity, and insulation resistance tests.

## 4.2 Document test results and tag appliance.

**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	10 February 1999	31 December 2013
Revision	2	3 April 2001	31 December 2013
Review	3	26 May 2005	31 December 2021
Rollover and Revision	4	15 March 2012	31 December 2021
Revision	5	15 January 2014	31 December 2021
Review	6	21 July 2016	31 December 2027
Revision	7	16 March 2017	31 December 2027
Review	8	24 March 2022	31 December 2027
Rollover and Revision	9	25 May 2023	31 December 2027

**Consent and Moderation Requirements (CMR) reference**

0003

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.