

<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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**Explanatory notes**

- 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 evidence requirements 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 evidence requirements

### Outcome 1

Identify colour codes and terminal abbreviations applicable to flexible cords.

#### Evidence requirements

- 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.

#### Evidence requirements

- 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.

**Outcome 3**

Select flexible cords and connect to appliances.

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

**Evidence requirements**

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.

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.

**Outcome 4**

Test flexible cord connections.

**Evidence requirements**

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

4.2 Document test results and tag appliance.

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<b>Planned review date</b>	31 December 2019
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**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	N/A
Revision	7	16 March 2017	N/A

<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>.

**Please note**

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

**Comments on this unit standard**

Please contact The Skills Organisation at [reviewcomments@skills.org.nz](mailto:reviewcomments@skills.org.nz) if you wish to suggest changes to the content of this unit standard.