

Title	Install a main switchboard		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to install a main switchboard.
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Classification	Electrical Engineering > Electrical Installation and Maintenance
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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.
- 2 Unit standard or equivalent prior knowledge and skills recommended:
Unit 32623, *Demonstrate knowledge of circuit protection and distribution board wiring*;
Unit 32634, *Plan circuit protection, and install and test distribution boards*;
Unit 32638, *Demonstrate knowledge of earthing systems and switchboards*.
- 3 Definitions
Safe and sound practice – as it relates to the installation of electrical equipment is defined in AS/NZS 3000.
Stakeholders – refers to clients, installation owners, management, public, other trades people on site, candidate's work team, and any other people affected by work on site and/or the outcome of that work.
- 4 References
AS/NZS 3000 (version as cited in the Electricity (Safety) Regulations), *Electrical Installations (known as the Australian/New Zealand Wiring Rules)*;
AS/NZS 3017:2007, *Electrical installations - Verification guidelines*;
AS/NZS 4836:2011, *Safe working on or near low-voltage electrical installations and equipment*;
Electricity (Safety) Regulations 2010;
or any current subsequent amended or replacement versions.
- 5 This unit standard can be used together with other relevant unit standards, additional learning and workplace training to meet the requirements of the Electrical Workers Registration Board (EWRB) core competencies, available at <https://www.ewrb.govt.nz>.
- 6 This unit standard applies to installations and equipment rated above extra-low voltage unless specifically stated.

- 7 For this unit standard, the switchboard must be tested to meet the requirements of AS/NZS 3000 and with reference to AS/NZS 3017. The mains polarity must be tested to ensure it is correct.
- 8 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.
- 9 Candidates are expected to locate and reference the relevant clauses in the Standards that relate to the electrical work being undertaken.

Outcomes and performance criteria

Outcome 1

Install a main switchboard.

Performance criteria

- 1.1 Communicate with stakeholders to establish and meet installation requirements.
- 1.2 Plan the placement and configuration of a main switchboard in accordance with AS/NZS 3000.
- Range may include but is not limited to – access, associated control and protection devices, wiring, metering equipment.
- 1.3 Install and connect a main switchboard.
- 1.4 Test a switchboard installation and document test results.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 March 2022	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 Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@waihanga.nz if you wish to suggest changes to the content of this unit standard.