

Title	Inspect and test an electrical installation for compliance with AS/NZS 3000		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to: carry out a visual and mechanical inspection of; and test an electrical installation for compliance with AS/NZS 3000:2007.
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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 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;
AS/NZS 3000:2007, *Electrical installations (known as the Australian/New Zealand Wiring Rules)*, including Amendment 1;
AS/NZS 3017:2007, *Electrical installations – Verification guidelines*;
and all subsequent amendments and replacements.
- 4 **Definition**
The term *current regulations and standards* is used in this unit standard to refer to the requirements of the above references.
- 5 **Range**
 - a Demonstration of *safe working practices* is an essential component of assessment of this unit standard.
 - b The installation shall be a complete domestic installation, or a small commercial or industrial installation, or part of any such installation, but shall include a main switchboard and an earth electrode.

Outcomes and performance criteria

Outcome 1

Carry out a visual and mechanical inspection of an electrical installation for compliance with AS/NZS 3000:2007.

Performance criteria

- 1.1 Inspection includes the checks covering electrical work in general.
- 1.2 Inspection includes the checks for consumer's mains.
- 1.3 Inspection includes the checks for switchboards.
- 1.4 Inspection includes the checks for wiring systems.
- 1.5 Inspection includes the checks for electrical equipment.
- 1.6 Inspection includes the checks for the earthing system.
- 1.7 Results are recorded according to current regulations and standards.

Outcome 2

Test an electrical installation for compliance with AS/NZS 3000:2007.

Performance criteria

- 2.1 Fitting and devices which may suffer damage due to test voltages are identified, and methods to protect them from damage are demonstrated.
- 2.2 Electrical tests are carried out without damage to electrical accessories, equipment, and in particular semiconductor devices, due to test voltages.

Range tests – insulation resistance, polarity, circuit and earth continuity, bonding, earth resistance, earth loop impedance.
- 2.3 The correct operation of residual current devices (RCD) is verified either through manufacturer's certification or by means of an RCD tester.
- 2.4 Results are recorded to current regulations and standards.
- 2.5 Certification of compliance is completed according to current regulations and standards.

Range as only registered persons can complete a certificate of compliance, a dummy, or practice certificate of compliance is to be used for assessment against this unit standard.

Replacement information	This unit standard and unit standard 15866 replaced unit standard 2027.
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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	10 February 1999	31 December 2013
Review	2	26 May 2005	31 December 2021
Rollover and Revision	3	15 March 2012	31 December 2021
Revision	4	15 January 2014	31 December 2021
Review	5	21 July 2016	31 December 2027
Review	6	24 March 2022	31 December 2027
Rollover and Revision	7	25 May 2023	31 December 2027

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>.