



MINISTRY OF BUSINESS,  
INNOVATION & EMPLOYMENT  
HĪKINA WHAKATUTUKI

# Acceptable Solutions and Verification Methods

For New Zealand Building Code Clause  
**G9 Electricity**



## Status of Verification Methods and Acceptable Solutions

Verification Methods and Acceptable Solutions are prepared by the Ministry of Business, Innovation and Employment in accordance with section 22 of the Building Act 2004. Verification Methods and Acceptable Solutions are for use in establishing compliance with the New Zealand Building Code.

A person who complies with a Verification Method or Acceptable Solution will be treated as having complied with the provisions of the Building Code to which the Verification Method or Acceptable Solution relates. However, using a Verification Method or Acceptable Solution is only one method of complying with the Building Code. There may be alternative ways to comply.

Users should make themselves familiar with the preface to the New Zealand Building Code Handbook, which describes the status of Verification Methods and Acceptable Solutions and explains alternative methods of achieving compliance.

Defined words (italicised in the text) and classified uses are explained in Clauses A1 and A2 of the Building Code and in the Definitions at the start of this document.

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## New Zealand Government

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## Document Status

The most recent version of this document (Amendment 7), as detailed in the Document History, is approved by the Chief Executive of the Ministry of Business, Innovation and Employment. It is effective from 5 November 2020 and supersedes all previous versions of this document.

The previous version of this document (Amendment 6) will cease to have effect on 3 November 2021.

People using this document should check for amendments on a regular basis. The Ministry of Business, Innovation and Employment may amend any part of any Verification Method or Acceptable Solution at any time. Up-to-date versions of Verification Methods and Acceptable Solutions are available from [www.building.govt.nz](http://www.building.govt.nz)

<b>G9: Document History</b>			
	<b>Date</b>	<b>Alterations</b>	
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Amendment 1	September 1993	p. vi, References p. 1, 1.0.1	p. 3, 1.0.1 p. 4, Index
Amendment 2	1 December 1995	pp. i and ii, Document History p. vi, References	p. 1, 1.0.1
Amendment 3	1 July 2001	p. 2, Document History, Status p. 9, Definitions	
Amendment 4	23 June 2007	p. 2, Document History, Status p. 7, References p. 9, Definitions	p. 11 VM1 p. 13 AS1, 1.0.1, 2.0.1
Amendment 5	Published 30 June 2010 Effective from 30 September 2010 until 14 August 2014	p. 2, Document History, Status p. 3, Code Clause G9 p. 7, References	
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Amendment 7	Effective from 5 November 2020	p. 2A, Document History, Status p. 5, Contents p. 7, References	p. 11, VM1 1.0.1 p. 13, AS1 1.0.1, 2.0.1, 2.0.2 p. 15, Index
<b>Note: Page numbers relate to the document at the time of Amendment and may not match page numbers in current document.</b>			



# New Zealand Building Code

## Clause G9 Electricity

This Clause is extracted from the New Zealand Building Code contained in the First Schedule of the Building Regulations 1992.

66	<b>Building Regulations 1992</b>	1992/150
<b>FIRST SCHEDULE—continued</b>		
<b>Clause G9—ELECTRICITY</b>		
<b>Provisions</b>	<b>Limits on application</b>	
<b>OBJECTIVE</b>		
<p><b>G9.1</b> The objective of this provision is to ensure that:</p> <ul style="list-style-type: none"> <li>(a) In <i>buildings</i> supplied with electricity, the <i>electrical installation</i> has safeguards against outbreak of <i>fire</i> and personal injury, and</li> <li>(b) <i>People with disabilities</i> are able to carry out normal activities and processes within <i>buildings</i>.</li> </ul>		
<p>Objective G9.1(b) shall apply only to those <i>buildings</i> to which section 47A of the Act applies.</p>		
<b>FUNCTIONAL REQUIREMENT</b>		
<p><b>G9.2</b> Where provided in a <i>building</i>, <i>electrical installations</i> shall be safe for their <i>intended use</i>.</p>		
<b>PERFORMANCE</b>		
<p><b>G9.3.1</b> The <i>electrical installation</i> shall incorporate systems to:</p> <ul style="list-style-type: none"> <li>(a) protect people from contact with parts of the installation which are live during normal operation, and to prevent parts of the installation or other <i>building elements</i> becoming live during fault conditions,</li> <li>(b) permit the safe isolation of the installation and of electrical fittings and appliances,</li> <li>(c) safeguard people from excessive temperatures resulting from either normal operation of electrical equipment, or from currents which could exceed the installation rating,</li> <li>(d) safeguard people from injury which may result from electromechanical stress in electrical components caused by currents in excess of the installation rating,</li> </ul>		

Amend 5  
Sep 2010  
See Note

**NOTE:**

Section 47A is in the Building Act 1991. The equivalent section in the Building Act 2004 is section 118.

1992/150

*Building Regulations 1992*

37

FIRST SCHEDULE—*continued*

## Provisions

- (e) Protect *building elements* from risk of ignition, impairment of their physical or mechanical properties, or function, due to temperature increases resulting from heat transfer or electric arc,
- (f) Operate safely in its intended environment, and
- (g) Safeguard against ignition of the surrounding atmosphere where it is potentially flammable or explosive.

**G9.3.2** An *electrical installation* supplying an *essential service* shall:

- (a) Maintain the supply for a time appropriate to that service, and
- (b) Be capable of being isolated from the supply system, independently of the remainder of the installation.

**G9.3.3** An *electrical installation* connected to an *electrical supply* system, shall contain safeguards which protect the safety features of the external supply.

**G9.3.4** In *buildings* intended for use by *people with disabilities*, light switches and plug socket outlets shall be *accessible* and usable.

## Limits on application

Performance G9.3.4 shall not apply to Housing, *Outbuildings*, *Ancillary Buildings*, and to *Industrial Buildings* where no more than 10 people are employed.

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Amend 7  
Nov 2020





# References

For the purposes of New Zealand Building Code compliance, the acceptable New Zealand and other Standards, and other documents referred to in this Verification Method and Acceptable Solution (primary reference documents) shall be the editions, along with their specific amendments, listed below. Where the primary reference documents refer to other Standards or other documents (secondary reference documents), which in turn may also refer to other Standards or other documents, and so on (lower order reference documents), then the applicable version of these secondary and lower order reference documents shall be the version in effect at the date this Verification Method and Acceptable Solution were published.

Amend 4  
Jun 2007

Amend 6  
Feb 2014

Amend 6  
Feb 2014

## Where quoted

### Publications by New Zealand Ministry of Economic Development

Amends  
5, 6, 7  
Amend 4  
Jun 2007

NZECP 51: 2004 Homeowner/occupier's electrical wiring work in domestic installations

AS1 1.0.1

### New Zealand Legislation

Electricity (Safety) Regulations 2010

VM1 1.0.1,  
AS1 2.0.2

Amend 7  
Nov 2020

Amend 7  
Nov 2020



# Definitions

This is an abbreviated list of definitions for words or terms particularly relevant to this Verification Method and Acceptable Solution. The definitions for any other italicised words may be found in the New Zealand Building Code Handbook.

Amend 6  
Feb 2014

Amend 4  
Jun 2007

**Accessible** Having features to permit use by a *person with a disability*.

**Building** has the meaning ascribed to it by Sections 8 and 9 of the Building Act 2004.

**Building element** Any structural and non-structural component or assembly incorporated into or associated with a *building*. Included are *fixtures*, services, *drains*, permanent mechanical installations for access, glazing, partitions, ceilings and temporary supports.

**Electrical installation** Any electrical fixed appliances, and components used in the reticulation of electricity, which are intended to remain permanently attached to and form part of the *building*.

**Electrical supply system** The source of electricity external to the *electrical installation*.

**Essential service** In the context of an *electrical installation* means emergency lighting, firemen's lifts, alarms, water pumps, sprinklers, detectors, ventilation systems and public address systems necessary for the safety of people in *buildings*.

**Intended use** in relation to a *building*:

- a) includes any or all of the following:
  - i) Any reasonably foreseeable occasional other use that is not incompatible with the *intended use*; and
  - ii) Normal maintenance; and
  - iii) Activities taken in response to *fire* or any other reasonably foreseeable emergency
- b) but does not include any other maintenance and repairs or rebuilding.

Amend 4  
Jun 2007

**Person with a disability** means a *person* who has an impairment, or a combination of impairments, that limits the extent to which the person can engage in the activities, pursuits and processes of everyday life, including, without limitation, any of the following:

- a) a physical, sensory, neurological, intellectual impairment or
- b) a mental illness.

Amend 4  
Jun 2007



# Verification Method G9/VM1

## 1.0 Electrical Installations

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Amend 7  
Nov 2020

**1.0.1** Electrical installations within the scope of the Electricity (Safety) Regulations 2010, and that comply with the Electricity (Safety) Regulations 2010, will meet the performance criteria of NZBC Clause G9.

Amend 4  
Jun 2007



# Acceptable Solution G9/AS1

## 1.0 Electrical Installations within Domestic Dwellings

Amend 4  
Jun 2007

**1.0.1** NZECP 51 is an Acceptable Solution for *electrical installations* within domestic dwellings.

Amend 1  
Sep 1993

### COMMENT:

Regulation 57 of the Electricity (Safety) Regulations 2010 allows owner-occupiers of domestic residential premises to, in certain situations, carry out prescribed electrical work on a *building* in accordance with NZECP 51. However NZECP 51 does not allow new electrical work to be livened. New electrical work undertaken by owner-occupiers must be inspected, tested and certified by a licensed electrical inspector, who will liven the work upon certification.

Amend 7  
Nov 2020

## 2.0 Light Switches and Plug Sockets for use by a Person with a Disability

Amend 4  
Jun 2007

**2.0.1** In *buildings* intended for use by *persons with disabilities*, light switches and *socket outlets* shall comply with the following requirements:

Amend 7  
Nov 2020

- a) All light switches shall be horizontally aligned with door handles at 900 – 1200 mm above finished floor level.
- b) The toggle, rocker, push pad, or push button control of light switches shall project clear of the switch plate.

### COMMENT:

It is recommended that the width of any push pad or button be no less than 20 mm.

- c) *Socket outlets* in *accessible* accommodation units shall be fixed between 500 mm and 1200 mm above the finished floor level and at least 500 mm from corners. At least one room light shall have a bedside switch.

- d) For *accessible* accommodation, switches and socket outlets shall contrast visually with their surroundings.

Amend 4  
Jun 2007

**2.0.2** In situations where the location of the light switches and plug sockets conflict with the Electricity (Safety) Regulations 2010, the Electricity (Safety) Regulations 2010 shall take precedence.

Amend 7  
Nov 2020





# Index G9/VM1 & AS1

All references to Verification Methods and Acceptable Solutions are preceded by **VM** or **AS** respectively.

	<b>Domestic buildings</b> .....	<b>AS1</b> 1.0
Amends 1 and 7	<b>Electrical Codes of Practice</b> .....	<b>AS1</b> 1.0.1
	<b>Electricity (Safety) Regulations 2010</b> .....	<b>VM1</b> 1.0.1, <b>AS1</b> 1.0.1, 2.0.2
Amend 1 Sep 1993	<b>Electrical installations</b> .....	<b>VM1</b> 1.0
	<b>Light switches</b> .....	<b>AS1</b> 2.0.1 a) b)
	<b>Person with a disability</b> .....	<b>AS1</b> 2.0
Amend 7 Nov 2020	<b>Socket outlets</b> .....	<b>AS1</b> 2.0.1 c) d), 2.0.2

