



Department of  
Building and Housing  
*Te Tari Kaupapa Whare*

Dear Customer

Please find enclosed Amendment 7, effective 10 October 2011, to the Compliance Document for Clause F7 Warning Systems – Third Edition of the New Zealand Building Code.

<b>Section</b>	<b>Old F7</b>	<b>October 2011 Amendments to F7</b>
Title pages	Remove title page and document history	Replace with new title page and document history
Code Clause	Remove page 3/4	Replace with new page 3/4
References	Remove page 7/8	Replace with new page 7/8
F7/AS1	Remove page 17/18	Replace with new page 17/18



# Compliance Document for New Zealand Building Code Clause F7 Warning Systems – Third Edition

Prepared by the Department of Building and Housing

This Compliance Document is prepared by the Department of Building and Housing. The Department of Building and Housing is a Government Department established under the State Sector Act 1988.

Enquiries about the content of this document should be directed to:



Department of  
Building and Housing  
*Te Tari Kaupapa Whare*

Department of Building and Housing  
PO Box 10-729, Wellington.  
Telephone 0800 242 243  
Fax 04 494 0290  
Email: [info@dbh.govt.nz](mailto:info@dbh.govt.nz)

**Compliance Documents are available from [www.dbh.govt.nz](http://www.dbh.govt.nz)**

## New Zealand Government

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## Status of Compliance Documents

Compliance Documents are prepared by the Department of Building and Housing in accordance with section 22 of the Building Act 2004. A Compliance Document is for use in establishing compliance with the New Zealand Building Code.

A person who complies with a Compliance Document will be treated as having complied with the provisions of the Building Code to which the Compliance Document relates. However, a Compliance Document 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 Compliance Documents 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 Compliance Document.

<b>F7: Document History</b>			
	<b>Date</b>	<b>Alterations</b>	
First published	July 1992		
Second edition incorporating Amendment 1	December 1993	p. v, Contents p. vi, References	p. vii, Definitions p. 3 to 8, Complete rewrite
Amendment 2	19 August 1994	pp. i and ii, Document History p. 4, 1.2.5, 1.3.3, 1.3.4, 1.4.3	p. 5, 1.4.4, 1.4.5, 1.5.4 p. 7 and 8, Index
Amendment 3	1 December 1995	p. ii, Document History p. vi, References p. 3, 1.1.1, 1.1.2, 1.1.3, 1.2.1, 1.2.2, 1.2.3	p. 4, 1.4.2 p. 5, 1.5.1 p. 6, 2.2.5 added
Reprinted incorporating Amendments 1, 2 and 3	April 1998		
Third edition	1 December 2000 Effective from 1 June 2001	Document revised – third edition issued	
Amendment 4	24 April 2003	p. 3, Code Clause p. 5, Contents p. 7, References	p. 13, 1.2.1 Type 1 pp. 17 and 18, 3.1-3.4 p. 20, Index
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Amendment 5 4 July 2005	Effective 1 October 2005	pp. 1-2, Document History and Status pp. 7-8, References	pp. 9-10, Definitions pp. 13-14, F7/AS1
Amendment 6	Effective 1 November 2008	p. 2, Document History p. 5, Contents p. 7, References p. 9, Definitions p. 13, 1.2.1	p. 14, 1.2.5, 1.2.6, 1.2.8, 1.3.1 p. 15, 1.3.5, 1.3.6 p. 16, 2.1, 2.1.2 p. 17, 2.2.4 pp. 19-20, Index
Amendment 7	Effective 10 October 2011	pp. 1-2, Document History and Status p. 3, Code Clause	p. 7, References p. 17, F7/AS1 3.2.2
<b>Note: Page numbers relate to the document at the time of Amendment and may not match page numbers in current document.</b>			

## Document Status

The most recent version of this document, as detailed in the Document History, is approved by the Chief Executive of the Department of Building and Housing. It is effective from 10 October 2011 and supersedes all previous versions of this document.

People using this Compliance Document should check for amendments on a regular basis. The Department of Building and Housing may amend any part of any Compliance Document at any time. Up-to-date versions of Compliance Documents are available from [www.dbh.govt.nz](http://www.dbh.govt.nz)

# New Zealand Building Code

## Clause F7 Warning Systems

The mandatory provisions for building work are contained in the New Zealand Building Code (NZBC), which comprises the First Schedule to the Building Regulations 1992. The relevant NZBC Clause for Warning Systems is F7.

**FIRST SCHEDULE—continued**

**Clause F7—WARNING SYSTEMS**

**Provisions**

**Limits on application**

**OBJECTIVE**

**F7.1** The objective of this provision is to safeguard people from injury or illness due to lack of awareness of an emergency.

**FUNCTIONAL REQUIREMENT**

**F7.2** *Buildings* shall be provided with appropriate means of warning people to escape to a *safe place* in an emergency.

**PERFORMANCE**

**F7.3.1** A means of warning must alert people to the emergency in *adequate* time for them to reach a *safe place*.

**F7.3.2** Appropriate means of detection and warning for fire must be provided within each *household unit*.

**F7.3.3** Appropriate means of warning for fire and other emergencies must be provided in *buildings* as necessary to satisfy the other performance requirements of this code.

Performance F7.3 does not apply to *Outbuildings, backcountry huts or Ancillary buildings*.

Amend 4  
Apr 2003

Amend 4  
Apr 2003

Effective  
31 Oct 2008



# References

For the purposes of New Zealand Building Code (NZBC) compliance, the Standards and documents referenced in this Compliance Document (primary reference documents) must be the editions, along with their specific amendments, listed below. Where these primary reference documents refer to other Standards or documents (secondary reference documents), which in turn may also refer to other Standards or documents, and so on (lower-order reference documents), then the version in effect at the date of publication of this Compliance Document must be used.

Amend 7  
Oct 2011

## Standards New Zealand

Amends  
5 and 7

NZS 4512: 2010 Fire alarm systems in buildings

### Where quoted

AS1 1.1.1, 1.1.2,  
1.1.3, 1.1.4, 1.1.5,  
1.2.2, 1.2.3, 1.2.4,  
1.2.6, 1.2.7, 1.3.2,  
1.5.1, 2.1.2 b)

Amends  
5 and 7

NZS 4515: 2009 Fire sprinkler systems for life safety in sleeping occupancies (up to 2000 m<sup>2</sup>)

AS1 1.2.8

Amend 6  
Nov 2008

NZS 4541: 2007 Automatic fire sprinkler systems  
*Amend: 1*

AS1 1.2.8

Amend 7  
Oct 2011

## British Standards Institution

BS 5446:- Components of automatic fire alarm systems for residential premises  
Part 1: 1990 Specification for self-contained smoke alarms and point-type smoke detectors  
*Amends: 6863, 7648, 9628*

AS1 3.2.2

Amend 4  
Apr 2003

## Standards Australia

AS/NZS 1668:- The use of ventilation and air conditioning in buildings  
Part 1: 1998 Fire and smoke control in multi-compartment building  
*Amend: 1*

AS1 1.5.3

Amend 5  
Oct 2005

Amend 4  
Apr 2003

AS 1670:- Fire detection, warning, control and intercom systems – System design, installation and commissioning

Part 6: 1997 Smoke alarms

AS1 3.3.2

AS 3786: 1993 Smoke alarms  
*Amends: 1, 2, 3, 4*

AS1 3.2.2

Amend 7  
Oct 2011





- b) A "111" telephone call to the Fire Service from a continuously attended telephone with outside line access serving all *buildings* connected to the alarm system, and having the main *fire* alarm panel or mimic panel visible to the switchboard operator. A warning device shall be provided to alert the operator of a *fire* alarm in any *building* on the site (see Paragraph 2.2.3 for *purpose groups* SC or SD), or
- c) Where Paragraph 2.2.4 applies a telephone (or telephone system) is installed within the *building* and readily accessible at all times to enable "111" calls to be made to the Fire Service.

**2.2.3** Direct connection to the Fire Service is the only acceptable means of communication for *purpose groups* SC and SD.

**2.2.4** Telephone communication using the "111" call system (given in Paragraph 2.2.2 c)) may be used only where specifically permitted by "special application" 'f' in Table 4.1 of Compliance Document C/AS1.

Amend 6  
Nov 2008

**2.2.5** Where direct connection to the Fire Service is either unavailable or impractical, alternative methods of summoning assistance shall be detailed in the plans and specifications.

**COMMENT:**

This makes allowance for remote situations where telephone line communication is impractical.

**3.1 Domestic Smoke Alarms**

**3.1.1** Smoke alarms shall be installed in every *household unit* of *purpose groups* SH and SR where an automatic smoke detection and alarm system is not required by Table 4.1.

**3.1.2** Appendix A and the other paragraphs of F7/AS1 do not apply to the installation of domestic smoke alarms specified under Paragraph 3.1 of F7/AS1. Paragraph 3.1 stands alone and only details the requirements for domestic smoke alarms within *household units* (where an automatic smoke detection and alarm system is not required by Table 4.1).

Amend 4  
Apr 2003

**3.2 Type 1 Domestic Smoke Alarm System**

**3.2.1** This system is based around one or more domestic/residential type smoke alarms with integral alerting devices. Coverage shall be limited to selected parts of a single *firecell*, subject to the conditions below:

**3.2.2** Smoke alarms shall be listed or approved by a recognised national authority as complying with at least one of: AS 3786 and BS 5446: Part 1.

**3.2.3** The smoke alarms **may** be battery powered and are not required to be interconnected. In addition, they shall provide a hush facility having a minimum duration of 60 seconds.

**COMMENT:**

A hush facility is a button on the smoke alarm which silences the alarm for a limited time after activation. This allows the cause of a nuisance alarm to be cleared without removing the battery to silence the smoke alarm.

**3.2.4** Smoke alarms shall have an alarm test facility readily accessible by the building occupants. This facility may be located on the smoke alarms.

**3.3 Location of smoke alarms**

**3.3.1** Smoke alarms shall be located on the *escape routes* on all levels within the *household unit*. On levels containing the sleeping spaces, the smoke alarms shall be located either:

- a) In every sleeping space, or
- b) Within 3.0 m of every sleeping space door. In this case, the smoke alarms must be audible to sleeping occupants on the other side of the closed doors.

Amend 7  
Oct 2011

Amend 4  
Apr 2003

**COMMENT:**

Smoke alarms also need to be located so that an alarm is given before the *escape route* from any bedroom becomes blocked by smoke. This includes those parts of *escape routes* on other floors. Although not required by the Acceptable Solution, the interconnection of individual smoke alarms should be considered if audibility is a problem.

Smoke alarms need to be heard by sleeping occupants. In this Acceptable Solution, audibility is assumed if the sound pressure level is 60 dB(A) within the sleeping area with all doors closed.

of components will eventually necessitate replacement of the smoke alarm units. Lack of maintenance will shorten this lifetime.

Amend 4  
Apr 2003

**3.3.2** Smoke alarms shall be installed on or near the ceiling in accordance with AS 1670.6 and the manufacturer’s instructions.

**COMMENT:**

AS 1670.6 gives instructions for the physical location of smoke alarms. Smoke alarms need to be situated on (or near) the ceiling for optimum detection of smoke in a *fire* situation.

Observance of the manufacturer’s instructions is important to ensure smoke alarms are physically mounted correctly. Such information is usually device-specific.

**3.4 Maintenance**

**3.4.1** Recommended maintenance procedures are:

- a) In-situ annual cleaning with a vacuum cleaner (no disassembly of smoke alarm).
- b) Monthly testing by use of the smoke alarm’s “test” facility.

**COMMENT:**

These smoke alarms are exempt from the usual ongoing compliance schedule regime. A test facility is necessary to allow basic maintenance by the building owner/occupier.

The above are maintenance procedures that do not require any special technical knowledge, or disassembly of any part of the system.

The other maintenance recommendation is for the smoke alarms to be annually cleaned in-situ using a vacuum cleaner, with no disassembly of the smoke alarm. The purpose of this is to remove dirt and dust from both the outside of the smoke alarm (blocks smoke entry) and the smoke-sensing chamber inside (makes it either less sensitive, or over-sensitive).

It must be recognised that any smoke alarm installed will have a limited service life (approximately 10-15 years maximum) provided it is well maintained and cared for. Gradual deep-seated soiling and degradation

Amend 4  
Apr 2003