

Australian Standard[®]

Automatic fire sprinkler systems

Part 4: Residential

This Australian Standard was prepared by Committee FP/4, Automatic Sprinkler Installations. It was approved on behalf of the Council of Standards Australia on 30 January 1995 and published on 5 April 1995.

The following interests are represented on Committee FP/4:

Asset Services, Department of Administrative Services
Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Chamber of Manufactures
Australian Fire Authorities Council
Australian Fire Protection Association
Australian Water and Sewerage Authorities
Commonwealth Fire Board
CSIRO—Division of Building, Construction and Engineering
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Part 4: Residential

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PREFACE

This Australian Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee on Automatic Sprinkler Installations to be Part 4 of AS 2118—*Automatic fire sprinkler systems*.

This Standard is the result of a consensus among representatives on the joint committee to produce it as an Australian Standard.

The revisions to AS 2118 include Standards Australia's requirements to keep product and installation Standards separate. When complete the series will comprise the following:

AS

- 2118 Automatic fire sprinkler systems
 - Part 1: Standard
 - Part 2: Drencher
 - Part 3: Deluge
 - Part 4: Residential
 - Part 5: Domestic
 - Part 6: Combined sprinkler and hydrant
 - Part 9: Piping support and installation
 - Part 10: Approval documentation
- 4118 Fire sprinkler systems
 - Part 1.1: Components—Sprinklers and sprayers
 - Part 1.2: Components—Alarm valves (wet)
 - Part 1.3: Components—Water motor alarms
 - Part 1.4: Components—Valve monitors
 - Part 1.5: Components—Deluge and pre-action valves
 - Part 1.6: Components—Stop valves and non-return valves
 - Part 1.7: Components—Alarm valves (dry)
 - Part 1.8: Components—Pressure reducing valves
 - Part 1.9: Components—Accelerators and exhausters
 - Part 2.1: Piping—General

This Standard is intended to provide a degree of life safety and property protection for the inhabitants of low-rise Class 2 and Class 3 together with Class 9a, excluding hospitals, buildings as defined in the BCA. In addition to providing an increased level of protection to building occupants, the Standard has also taken into consideration the economic aspects of the sprinkler system.

The purpose of the Standard is to provide design and installation requirements for a life safety sprinkler system in addition to smoke alarms, to aid in the detection and control of fires in residential occupancies and thus provide improved protection against injury and loss of life. A sprinkler system designed and installed in accordance with this Standard is expected to prevent flashover (total involvement) in the room of fire origin, and to improve the chance for occupants to escape or be evacuated.

In preparing this Standard, the Committee considered US National Fire Protection Association (NFPA) 13R, *Standard for the Installation of Sprinkler Systems in Residential Occupancies up to Four Stories in Height*, 1991 Edition, and the assistance gained from this source is acknowledged.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard

Automatic fire sprinkler systems

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard specifies requirements for the design, installation and performance of automatic life safety fire sprinkler systems in residential buildings containing not more than four storeys.

1.2 NEW DESIGNS AND INNOVATIONS Any alternative materials, designs, methods of assembly and procedures that do not comply with specific requirements of this Standard or are not mentioned in it but give equivalent results to those specified, are not necessarily prohibited. The specified approval remains the prerogative of the regulatory authority.

1.3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1670	Automatic fire detection and alarm systems—System design, installation and commissioning
1851	Maintenance of fire protection equipment
1851.3	Part 3: Automatic fire sprinkler systems
2118	Automatic fire sprinkler systems
2118.1	Part 1: Standard
2118.9	Part 9: Piping support and installation
2484	Fire—Glossary of terms
2484.1	Part 1: Fire tests
2482.2	Part 2: Fire protection and firefighting equipment
2941	Fixed fire protection installations—Pumpset systems
3000	Electrical installations—Buildings, structures and premises
3013	Electrical installations—Wiring systems for specific applications
3500	The National Plumbing and Drainage Code
3500.0	Part 0: Glossary of terms
3500.1	Part 1: Water supply
3786	Smoke alarms
4118	Fire sprinkler systems
4118.2.1	Part 2.1: Piping
BCA	Building Code of Australia

1.4 DEFINITIONS For the purpose of this Standard, the definitions given in AS 2484.1, AS 2484.2, AS 3500.0, AS 2118.1 and those below apply.

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