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Australian Standard 1670—1983

SAA CODE FOR AUTOMATIC FIRE ALARM INSTALLATIONS

STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter

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The following interests are represented on Committee FP/2:

Australian Electrical and Electronic Manufacturers Association
Board of Fire Commissioners of New South Wales
Building Owners and Managers Association of Australia Limited
Commonwealth Fire Board
Department of Aviation
Department of Home Affairs and Environment
Department of Public Works, W.A.
Department of Housing and Construction
Experimental Building Station
Fire Protection Industry Association of Austra[illegible]imited
Insurance Council of Australia Ltd
Metropolitan Fire Brigade Board, Bri[illegible]ba[illegible]
Metropolitan Fire Brigade Board, M[illegible]bo[illegible]rne
Telecom Australia

AUSTRALIAN STANDARD

AUTOMATIC FIRE ALARM INSTALLATIONS

known as the SAA CODE FOR AUTOMATIC FIRE ALARM INSTALLATIONS

AS 1670--1983

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PREFACE

This edition of this standard was prepared by the Association's Committee on Automatic Fire Alarm Installations to supersede AS 1670—1974.

In this edition, Clause 2.6.1 has been amended to provide an additional requirement for fire alarm installations in multiple home units/hotels or motel rooms to assist fire brigades and the public to locate fire. Other changes of an editorial nature have been made and the opportunity has been taken to publish the standard in the A4 size.

The committee is further revising this standard to remove specific construction details of equipment from it. This will enable the various items of the fire detector system to have their own separate specifications, leaving installation and commissioning requirements in AS 1670. Specifications for fire alarm equipment will be published in the following parts of AS 1603:

Part 1—Heat Dectors
Part 2—Smoke Detectors
Part 3—Flame Detectors
Part 4—Control and Indicating Equipment
Part 5—Manually Operated Fire Alarm Call Points.

Maintenance requirements for fire alarm equipment will be included in various parts of AS 1851, Maintenance of Fire Protection Equipment.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
AUTOMATIC FIRE ALARM INSTALLATIONS

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard sets out requirements for the design, installation and maintenance of automatic fire alarm systems.

The standard applies to alarm systems using thermal detectors, smoke detectors, systems using detectors responsive to flame and any other automatic fire alarm system, including the method of connecting manual call-points to such systems.

1.2 APPLICATION.

1.2.1 Compliance. All automatic fire alarm systems shall comply with the general requirements of Section 2, and with the additional requirements of Section 3, 4 or 5, according to type.

Where an automatic fire alarm system is ancillary to an automatic fire-extinguishing installation, the fire alarm system shall comply with this standard, in so far as it is applicable and appropriate.

Automatic fire alarm installations will not be regarded as complying with this standard unless the installation is carried out by the manufacturer of approved automatic fire alarm equipment or by a contractor specially authorized by such manufacturer for the purpose.

1.2.2 Interpretation. If any ambiguity by fault or doubt arise as to the meaning or effect of any requirements of this standard the question may be referred to the Standards Association of Australia for reference to the Association's Committee [illegible] who will give an interpretation of the requirement.

NOTE: Any such interpretation may later be published as an amendment to this standard.

1.3 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1603	Thermal Detectors for Fire Alarm Installations
AS 1668	SAA Mechanical Ventilation and Air-conditioning Code Part 1—Fire Precautions in Buildings with Air-handling Systems
AS 1905	SAA Fire Door Code Part 1—Fire Doors
AS 2036	Manually Operated Fire Alarm Call Points
AS 3000	SAA Wiring Rules
AS 3116	Approval and Test Specification for Elastomer Insulated Electric Cables and Flexible Cables for Working Voltages of 0.6/1 kV
AS 3147	Approval and Test Specification for PVC Insulated Electric Cables and Flexible Cables for Working Voltages of 0.6/1 kV.

1.4 DEFINITIONS. For the purpose of this standard the following definitions apply.

1.4.1 Alarm group—that portion of the system comprising all relays, lamps, switches, wiring to the detectors, and detectors associated with a particular protected area. Wiring and components common with other alarm groups are not included.

1.4.2 Approved—approved by the Authorized Inspector.

1.4.3 Authorized Inspector—any inspector authorized from time to time by a Statutory Authority administering Acts of Parliament or regulations under such Acts, and/or any inspector appointed by the Insurance Council of Australia or other such authority.

NOTE: There may be one or more Authorized Inspectors in relation to any given installation. If the fire alarm system is one provided by virtue of Statutory Regulations, the relevant department inspector will have jurisdiction; if it is a matter of fire insurance, the relevant company or association may have an inspector; and the client may have an inspector acting on his behalf.

1.4.4 Automatic fire alarm system—a system comprising components for automatically detecting a fire, initiating an alarm of fire and initiating other action as arranged; the system may also include manual call-points.

1.4.5 Bar-type detector—a detector in which the sensing element extends longitudinally (typically 0.5 m or more).

1.4.6 Break-glass alarm—a type of manual call-point in which the alarm cannot be operated until the glass is broken.

1.4.7 Control point—the place or room where the fire indicator board or boards are situated.

1.4.8 Corridor—a comparatively narrow enclosed thoroughfare within a building, not used for trade or storage purposes.

NOTE: A lift lobby is not classified as a corridor.

1.4.9 Cupboard—an enclosure recessed into a wall or fixed to a wall, having a door or doors.

1.4.10 Detector—a device by means of which, upon the occurrence of some predetermined conditions associated with a fire (e.g. thermal condition, solid or gaseous products of combustion or characteristics of flame), an alarm of fire is automatically given.

(See also Flame detector, Thermal detector, Smoke detector.)

1.4.11 Extra-low voltage—that voltage defined in AS 3000.