

Australian Standard™

**Fire detection, warning, control and
intercom systems—System design,
installation and commissioning**

**Part 4: Sound systems and intercom
systems for emergency purposes**

This Australian Standard was prepared by Committee FP-002, Fire Detection, Warning, Control and Intercom Systems. It was approved on behalf of the Council of Standards Australia on 17 March 2004 and published on 23 April 2004.

The following are represented on Committee FP-002:

Audio Engineering Society
Australasian Fire Authorities Council
Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Australian Institute of Building Surveyors
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intercom systems—System design,
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**Part 4: Sound systems and intercom
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Originated as part of AS 2220—1978.
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PREFACE

This Standard was prepared by the Standards Australia Committee FP-002, Fire Detection, Warning, Control and Intercom Systems, to supersede AS 2220.2—1989, *Emergency warning and intercommunication systems in buildings, Part 2: System design, installation and commissioning*.

The objective of this Standard is to specify the design, installation and commissioning requirements for an evacuation and intercommunication system used in a building for the safe evacuation of the building occupants in the event of a fire alarm.

AS 2220.2—1989 specified requirements for the installation of emergency warning and intercommunication systems. This part of AS 1670 is drafted on the basis of functions that are to be provided on all sound systems and intercom systems for emergency purposes and optional functions (with requirements), which may be provided. The optional functions enable the system to be installed to include either the warning functions or the intercom functions, or both. It is intended that the options be used for specific applications when required.

For the first time this Standard permits the installation of specific components that comply with international equipment Standards (issued as AS Standards) and EN 54, *Fire detection and fire alarm systems*. Committee FP-002 intends to withdraw existing Australian equipment Standards where international Standards exist; however, this will take effect five years after the publication of the Australian adoption of the international Standards.

This Standard will be referenced in the Building Code of Australia 2004, thereby superseding AS 2220.2—1989, which will be withdrawn 12 months from the date of publication of this Standard.

This Standard may be used in conjunction with the fire detection system installation requirements specified in AS 1670.1 to form a complete fire detection, warning, control and intercom system.

Maintenance requirements for control and indicating equipment are given in AS 1851, *Maintenance of fire protection equipment*.

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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FOREWORD

A sound system and intercom system for emergency purposes is a life-safety system for installation within a building or site. The purpose is to provide assistance in the orderly evacuation of personnel in emergencies such as, but not limited to, fire, smoke, civil commotion, bomb threats, siege, explosion, leakage of toxic substances or fumes and structural damage. A guide to the development of evacuation procedures is described in AS 3745.

To achieve this aim, the sound system and intercom system has the following capabilities as appropriate:

- (a) Receive alarm signals from a detection system.
- (b) Delivery of intelligible speech for emergency announcements and directions.
- (c) Audible, and where required, visual emergency signals.
- (d) Provision for automatic and manual operation.
- (e) Continuous operation under conditions of the emergency.
- (f) Independence from other systems in manual operation.
- (g) Provide a positive means of communication between the chief warden and the various floor or area wardens.

STANDARDS AUSTRALIA

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Fire detection, warning, control and intercom systems—System design, installation and commissioning**Part 4: Sound systems and intercom systems for emergency purposes**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for the design, installation and commissioning of sound systems and intercom systems for emergency purposes comprising components complying with the requirements of the appropriate product Standards.

NOTE: The general procedures for the use of the sound system and intercom system and the response of personnel are given in AS 3745.

1.2 APPLICATION

The requirements of this Standard apply to the installation of a sound system and intercom system installed either 'stand alone' or as an integral part of a fire detection and warning system. Where the sound system functions are required, they shall be installed in accordance with the requirements of Section 4. Where the intercom system functions are required, they shall be installed in accordance with the requirements of Section 5.

1.3 REFERENCED DOCUMENTS

AS

- | | |
|---------|---|
| 1259 | Acoustics—Sound level meters (all parts) |
| 1428 | Design for access and mobility |
| 1428.2 | Part 2: Enhanced and additional requirements—Buildings and facilities |
| 1603 | Automatic fire detection and alarm systems |
| 1603.5 | Part 5: Manual call points |
| 1603.11 | Part 11: Visual warning devices |
| 1670 | Fire detection, warning, control and intercom systems—System design, installation and commissioning |
| 1670.1 | Part 1: Fire |
| 1670.4 | Part 4: Sound systems and intercom systems for emergency purposes |
| 2220 | Emergency warning and intercommunication systems in buildings |
| 2220.1 | Part 1: Equipment design and manufacture |
| 2293 | Emergency evacuation lighting for buildings |
| 2293.1 | Part 1: System design, installation and operations |
| 2484 | Fire—Glossary of terms |
| 2484.2 | Fire protection and firefighting equipment |
| 2659 | Guide to the use of sound measuring equipment |
| 2659.1 | Part 1: Portable sound level meters |
| 2676 | Guide to the installation, maintenance, testing and replacement of secondary batteries in buildings (all parts) |