

Australian Standard™

**Sound systems for emergency purposes
(IEC 60849:1998 MOD)**



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 11 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 Government Analytical Laboratories, Scientific Services Laboratory
- Australian Industry Group
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STANDARDS AUSTRALIA

RECONFIRMATION
OF
AS 60849—2004
Sound systems for emergency purposes (IEC 60849:1998 MOD)

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Technical Committee FP-002 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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National Fire Industry Association
Property Council of Australia
Society of Fire Safety

NOTES

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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, in part (emergency warning portions), AS 2220.1—1989, *Emergency warning and intercommunication systems in buildings—Equipment, design and manufacture*.

The objective of this Standard is to specify the equipment requirements for a sound system used to assist in the safe evacuation of building occupants in the event of a fire alarm or other emergency.

This Standard is an adoption with national modifications and has been reproduced from IEC 60849:1998, *Sound systems for emergency purposes*, and has been varied as indicated to take account of Australian conditions. The national modifications include a reference to installation requirements contained in AS 1670.4 and maintenance requirements contained in AS 1851 in preference to the requirements in IEC 60849.

Variations to IEC 60849:1998 are indicated at the appropriate places throughout this Standard. Strikethrough ~~(example)~~ identifies IEC text, tables and figures, which, for the purposes of this Australian Standard, are deleted. Where text, tables or figures are added, each is set in its proper place and identified by shading **(example)**. Added figures are not themselves shaded, but are identified by a shaded border.

An optional test for c.i.e. required to operate outside the range -5°C to $+40^{\circ}\text{C}$ is specified in Clause 5.7 c).

AS/NZS 3100 shall be read in conjunction with this Standard.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) A full point should be substituted for a comma when referring to a decimal marker.

The term ‘informative’ has been used in this Standard to define the application of the Appendix to which it applies. An ‘informative’ Appendix is only for information and guidance.

This Standard incorporates commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by ‘C’ preceding the clause number and is printed in italics in a box. The commentary is for information only and does not need to be followed for compliance with the Standard.

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Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian/New Zealand table, figure or text that is added is part of this standard and is identified by shading.

1 Scope and object

1.1 Scope

This International Standard applies to sound reinforcement and distribution systems to be used to effect a rapid and orderly mobilization of occupants in an indoor or outdoor area in an emergency situation.

This standard applies to systems using tone signals and to systems with voice announcements for emergency purposes.

NOTES

- 1 The use of the system for normal sound reinforcement and distribution systems purposes under nonhazardous circumstances is not excluded.
- 2 It is recommended that the system, when used for emergency purposes, should form part of a complete facility (equipment, operating procedures and training programmes) for the control of emergencies.
- 3 Sound systems for emergency purposes may be the subject of approval by relevant authorities.

1.2 Object

The purpose of this standard is to specify the performance requirements for sound systems which are primarily intended to broadcast information for the protection of lives within one or more specified areas in an emergency.

The standard gives the characteristics and the methods of test necessary for the specification of the system.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

References to international standards that are struck through in this clause are replaced by references to Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is identified as such.

AS 1670.4, *Fire detection, warning, control and intercom systems—System design, installation and commissioning Part 4: Sound systems and intercom systems for emergency purposes*

AS 1851(all parts), *Maintenance of fire protection equipment*

AS 7240.2, *Fire detection and alarm systems Part 2: Control and indicating equipment* (ISO 7240-2:2003, MOD)

IEC 60027: *Letter symbols to be used in electrical technology*

~~IEC 60065:1985, *Safety requirements for mains-operated electronic and related apparatus for household and similar use*~~

AS 60065, *Audio, video and similar electronic apparatus—Safety requirements* (IEC 60065:2001, MOD)

~~IEC 60068-1:1988, *Environmental testing—Part 1: General and guidance*~~

AS 60068.1, *Environmental testing—General and guidance* (identical to IEC 60068-1:1988)

~~IEC 60079: *Electrical apparatus for explosive gas atmospheres*~~

AS/NZS 60079 (all parts): *Electrical apparatus for explosive gas atmospheres* (identical to IEC 60079 (all parts))

IEC 60268-11:1987, *Sound system equipment – Part 11: Application of connectors for the interconnection of sound system equipment*

IEC 60268-12:1987, *Sound system equipment – Part 12: Application of connectors for broadcast and similar use*

IEC 60268-16:2003, *Sound system equipment – Part 16: Objective rating of speech intelligibility by speech transmission index)*

IEC 60364: *Electrical installations of buildings*

~~IEC 60417:1973, *Graphical symbols for use on equipment*~~

AS 1104—1978, *Informative symbols for use on electrical and electronic equipment* (identical to IEC 60417)

IEC 61938:1996, *Audio, video and audiovisual systems – Interconnections and matching values – Preferred matching values of analogue signals*

ISO 7731, *Ergonomics—Danger signals for public and work areas—Auditory danger signals*

ISO 8201, *Acoustics—Audible emergency evacuation signal*

3 Definitions

For the purpose of this standard, the following definitions apply.

3.1 Area of coverage

The area, inside and/or outside a building, where the system meets the requirements laid down in this standard.

NOTE – Certain parts of an area may be excluded, see 5.1