

Australian Standard<sup>®</sup>

**Automatic fire detection and alarm  
systems**

**Part 17: Warning equipment for people  
with hearing impairment**

**STANDARDS**  
Australia



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 February 2011.  
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The following are represented on Committee FP-002:

- Audio Engineering Society
  - Australasian Fire and Emergency Authorities Council
  - Australian Building Codes Board
  - Australian Chamber of Commerce and Industry
  - Australian Industry Group
  - Australian Institute of Building Surveyors
  - CSIRO CMSE
  - Deafness Forum of Australia
  - Fire Protection Association Australia
  - Institute of Security Executives
  - National Electrical and Communications Association
  - National Fire Industry Association
  - Property Council of Australia
  - Society of Fire Safety
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## PREFACE

This Standard was prepared by the Standards Australia Committee FP-002, Fire Detection, Warning, Control and Intercom Systems.

The objective of this Standard is to provide design and performance specifications for warning equipment that acts with smoke alarms or detectors to provide a means of alerting people with hearing impairment to potential danger.

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## FOREWORD

Smoke alarms and smoke detection systems for use in residential applications are intended to warn of the presence of a fire by emitting an audible warning. However, people with hearing impairment may be unable to hear the audible alarm that is normally produced.

There are recognized methods of alerting hearing impaired people, including the use of vibro-tactile, low-frequency sounds and visual alarm devices. To provide a fire warning for hearing impaired people, it has become common practice for such devices to be coupled to smoke alarms or smoke detection systems. For example, vibrating pads can be used to awaken sleeping people, and visual alarms to alert those already awake, in the event of smoke having been detected. This Part of AS 1603 specifies requirements for supplementary warning devices to be used in residential accommodation to warn hearing impaired people in the event of fire. This Standard does not claim to provide an exclusive or definitive solution to the problem of providing reliable fire safety protection to hearing impaired people.

This Standard provides tests and requirements for vibro-tactile, 520 Hz square wave audible alarm and visual alarm devices, and any control equipment required for the connection of these components to smoke alarm or smoke detection systems. The tests specified in this Standard are conformity-type tests and are not intended as manufacturers' tests to maintain uniformity of quality in production.

Reference is made to international and national standards in the relevant clauses and component assessment table, in order to provide options for compliance assessment to reduce the cost of compliance with this Standard.

## STANDARDS AUSTRALIA

**Australian Standard**  
**Automatic fire detection and alarm systems**

**Part 17: Warning equipment for people with hearing impairment**

SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Part of AS 1603 specifies requirements, test methods and marking for warning equipment for the hearing impaired.

This warning equipment is intended to provide a warning to people with hearing impairment and, in particular, the arousal of sleeping occupants on detection of fire.

Warning equipment can be supplied in two ways:

- (a) A ready-to-install consumer kit containing all components, connections and instructions required for installation.
- (b) Individual components intended to be installed by a competent person

**1.2 REFERENCED DOCUMENTS**

The following referenced documents are indispensable for the application of this document.

## AS

1603	Automatic fire detection and alarm systems
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	Rules for emergency warning and intercommunication systems for buildings
2220.1	Part 1: Equipment design and manufacture
3786	Smoke alarms
4428	Fire detection, warning, control and intercom systems—Control and indicating equipment
4428.1	Part 1: Fire
4428.9	Part 9: Requirements for wire-free alarm zone circuits
7240	Fire detection and alarm systems
7240.1	Part 1: General and definitions
7240.2	Part 2: Control and indicating equipment (ISO 7240-2:2003, MOD)
7240.4	Part 4: Power supply equipment (ISO 7240-4:2003, MOD)

## AS/NZS

3000	Electrical installations (known as the Australian/New Zealand Wiring Rules)
3100	Approval and test specification—General requirements for electrical equipment
60335	Household and similar electrical appliances—Safety
60335.1	Part 1: General requirements