Australian Standard®

# Intruder alarm systems

# Part 4: Wire-free systems installed in client's premises

This Australian Standard was prepared by Committee EL/31, Intruder Alarm Equipment and Installations. It was approved on behalf of the Council of Standards Australia on 31 January 1990 and published on 7 May 1990.

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The following interests are represented on Committee EL/31:

Association of Burglary Insurances Surveyors Australasia

Australian Electrical and Electronic Manufacturers Association Limited

Australian Security Industry Association Limited

Building Owners and Managers Association of Australia Limited

Confederation of Australian Industry

Department of Administrative Services—Australian Construction Services

Department of Defence

Insurance Council of Australia

Metal Trades Industry Association of Australia

Police Department, N.S.W.

Public Works Department, N.S.W.

State Pollution Control Commission, N.S.W.

Tasmania Police

Telecom Australia

Victorian Security Institute

Additional interests participating in preparation of Standard:

Department of Transport and Communications

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# PREFACE

This Standard was prepared by the Standards Australia Committee on Intruder Alarm Equipment and Installations. It is intended to assist in selecting the class of equipment best suited to particular risks and to enable them to achieve a complete and accurate specification of the protection required in particular premises.

The Standard is Part 4 of a four-part Standard, the parts of which are as follows:

Part 1: Systems installed in client's premises
Part 2: Central stations and signalling links
Part 3: Detection devices for internal use
Part 4: Wire-free systems installed in client's premises (this Standard).

Wire-free intruder alarm systems include non-wired signalling paths, using electromagnetic radiation or sound to transmit telemetry or telecommand signals between its component parts.

In the preparation of this Standard reference has been made to existing International and National Standards particularly BS 6799, British Standard Code of Practice for Wire-free intruder alarm systems.

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STANDARDS AUSTRALIA

# Australian Standard
# Intruder alarm systems

## Part 4: Wire-free systems installed in client's premises

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE.** This Standard sets out the classification of systems and the system and equipment requirements of intruder alarm systems installed in client's premises where the principal interconnections are by wire-free links. Such systems consist of detection devices, control equipment, warning and signalling devices, and the necessary power supply equipment.

This Standard does not cover the transmission of signals from the protected location to a remote centre. (See AS 2201.2 for signalling links between client's premises and central stations.)

**1.2 REFERENCED DOCUMENTS.** The following documents are referred to in this Standard:

AS
2201 Intruder alarm systems
2201.1 Part 1: Systems installed in client's premises
2201.2 Part 2: Central stations and signalling links
2201.3 Part 3: Detection devices for internal use

Department of Transport and Communications Standards which include frequency and power requirements

**1.3 DEFINITIONS.** For the purposes of this Standard, the definitions given in AS 2201.1 and the following apply:

**1.3.1 Wire-free system**—a system employing electromagnetic radiation or sound to transmit telemetry or telecommand signals between component parts of an intruder alarm system.

**1.3.2 Remote control equipment**—equipment linked by a wire-free means to the control equipment.

# SECTION 2 CLASSIFICATION OF SYSTEMS

**2.1 GENERAL.** Wire-free systems are classified by category of integrity, i.e. the degree of monitoring provided, in ascending order of integrity from Class I to Class V, as described in Clause 2.2.

**2.2 CLASSIFICATION.**

**2.2.1 Class I.** Class I system shall provide the following:

(a) Transmission of a signal when a detector or a deliberately operated device has gone into an alarm condition.

(b) Local or remote annunciation of a low voltage, low capacity, or high impedance condition of a transmitter and detection device battery prior to the point where it is capable of supporting only seven days normal operation in addition to the generation of the fault signal.

NOTE: The battery condition feature is not necessary for links associated with portable deliberately-operated devices which should be tested at regular intervals.

(c) A means to distinguish between an alarm and a fault signal.

(d) A method of coding to give a minimum of 16 different system identifications (to minimize the possibility of interference occurring between systems).

**2.2.2 Class II.** Class II system shall provide the same features as Class I and the following:

(a) Remote annunciation at the control equipment of a low voltage, low capacity, or high impedance condition of a transmitter and detection device battery prior to the point where it is capable of supporting only seven days normal operation in addition to the generation of the fault signal.

(b) An identification at the control equipment of the transmitter or channel that has operated.

**2.2.3 Class III.** Class III system shall provide the same features as Class II and the following:

(a) Monitoring of the communication channel in use to detect the presence of any continuous blocking or interfering signals that are present for more than 30 s which could prevent the reception of legitimate signals.

(b) A separate fault indication at the control equipment.

NOTE: For a central station connected system this fault indication need not result in the sounding of any associated audible signalling device at the client's premises.

**2.2.4 Class IV.** Class IV system shall provide the same features as Class III and the following:

(a) Repetitive transmission of signals (auto-reporting) denoting the status of the transmitter or channel at the control equipment.

(b) Generation of a fault condition in the event of failure to receive a signal from any single transmitter or channel in the system within a 24 h period.

NOTE: For a central station connected system this fault indication need not result in the sounding of any associated audible signalling device at the client's premises.

**2.2.5 Class V.** Class V system shall provide the same features as Class IV and the following:

(a) Generation of a fault condition in the event of failure to receive a signal from any single transmitter or channel in the system within a 4 h period.

(b) Tamper detection of any system component separately annunciated at the control equipment.

(c) Transmission within 30 s of return-to-normal signals from detection devices which previously have gone into alarm condition. Detection device status shall be indicated at the control panel.