

Australian/New Zealand Standard™

**Household and similar electrical  
appliances—Safety**

**Part 2.82: Particular requirements for  
amusement machines and personal  
service machines**



## **AS/NZS 60335.2.82:2015**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-002, Safety of Household and Similar Electrical Appliances and Small Power Transformers. It was approved on behalf of the Council of Standards Australia on 19 October 2015 and on behalf of the Council of Standards New Zealand on 6 November 2015.

This Standard was published on 30 November 2015.

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The following are represented on Committee EL-002:

Australian Industry Group  
National Retailers Association (Australia)  
Business New Zealand  
Consumer Electronic Suppliers Association, Australia  
Consumers' Federation of Australia  
Electrical Regulatory Authorities, Australia  
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Engineers Australia  
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*This Standard was issued in draft form for comment as DR 15905.*

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# Australian/New Zealand Standard™

## Household and similar electrical appliances—Safety

### Part 2.82: Particular requirements for amusement machines and personal service machines

Originated as AS/NZS 3350.2.82:2000.  
Jointly revised and redesignated AS/NZS 60335.2.82:2006.  
Jointly revised and redesignated AS/NZS 60335.2.82:2015.

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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

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**AS/NZS 60335.2.82:2015****HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –  
SAFETY –****Part 2.82: Particular requirements for amusement machines and personal service machines****Foreword**

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002- Safety of Household and Similar Electrical Appliances and Small Power Transformers to supersede AS/NZS 60335.2.82:2006 two years from the date of publication. During this period it is anticipated that regulatory authorities will approve amusement machines and personal service machines to either standard.

The principal changes in this edition as compared with the 2006 edition of AS/NZS 60335.2.82 and its amendments are as follows (minor changes are not listed).

- Clarifies that Kiddie Rides are not considered to be child appealing appliances within the meaning of the standard (22.44);
- Adds requirements for safety software used for power input control (22.106).

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with safety requirements designed to give the user protection against hazards that might occur during normal operation and abnormal operation of the appliance and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand

The text of IEC 60335-2-82 Ed 2.2, prepared by IEC Technical Committee TC 61, was submitted to the Standards Australia/Standards New Zealand Combined Procedure (dual public comment and committee vote) for adoption of the IEC standard as a Standards Australia/Standards New Zealand joint standard.

This Standard is an adoption with national modifications of the second edition of IEC 60335-2-82, *Household and similar electrical appliances – Safety – Part 2-82: Particular requirements for amusement machines and personal service machines* including its amendment 1 (2008) and amendment 2 (2015). It has been varied as indicated to take account of Australian and New Zealand conditions.

This part 2 has to be used in conjunction with the latest edition of AS/NZS 60335.1 Household and similar electrical appliances – Safety – Part 1: General requirements and its Amendments. It was established on the basis of AS/NZS 60335.1:2011.

This part 2 supplements or modifies the corresponding clauses of AS/NZS 60335.1 so as to convert it into the Australian/New Zealand Standard: Safety requirements for amusement machines and personal service machines.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

NOTE 1 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.;

- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letters AZ.

NOTE 2 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3.

p NOTE 3 In this document, p is used in the margin to indicate instructions for preparing a consolidated version.

The essential safety requirements in AS/NZS 3820<sup>1</sup> that could be applicable to requirements for amusement machines and personal service machines are covered by this standard.

The national variations to IEC 60335-2-82 Ed 2.2 form the Australian and New Zealand national variations for purposes of the IECEE scheme for recognition of results of testing to standards for safety of electrical equipment (the CB scheme).

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<sup>1</sup> AS/NZS 3820 *Essential safety requirements for electrical equipment*

The text of the International Standard IEC 60335-2-82 Ed 2.2 was approved as a joint Australia/New Zealand Standard with the agreed national variations as given below.

**AUSTRALIAN NATIONAL VARIATIONS**

There are no national variations to this Part 2 other than those listed in the national variations in AS/NZS 60335.1:2011.

**NEW ZEALAND NATIONAL VARIATIONS**

There are no national variations to this Part 2 other than those listed in the national variations in AS/NZS 60335.1:2011.

**Annex ANZ  
(normative)**

**Normative references to international publications with their corresponding joint  
Australia/New Zealand publications**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by national variations the relevant joint Australia/New Zealand publications applies if the national variations are needed to ensure the safety of the appliance for Australia/New Zealand conditions. These international publications are indicated by (mod). If an international publication is not so indicated, then either it or the listed Australia/New Zealand publication may be used.

<b><u>Publication</u></b>	<b><u>Year</u></b>	<b><u>Title</u></b>	<b><u>AS/NZS</u></b>	<b><u>Year</u></b>
IEC 60065	2014	<i>Audio, video and similar electronic apparatus – Safety requirements</i>	60065	2012
IEC 60068-2-52	1996	<i>Environmental testing – Part 2: Tests – Test Kb: Salt mist, cyclic (sodium, chloride solution)</i>		

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –  
SAFETY –****Part 2-82: Particular requirements for amusement machines  
and personal service machines**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

**This Consolidated version of IEC 60335-2-82 bears the edition number 2.2. It consists of the second edition (2002-11) [documents 61/2226/FDIS and 61/2301/RVD], its amendment 1 (2008-02) [documents 61/3348/CDV and 61/3462/RVC] and its amendment 2 (2015-01) [documents 61/4825/FDIS and 61/4872/RVD]. The technical content is identical to the base edition and its amendments.**

**This Final version does not show where the technical content is modified by amendments 1 and 2. A separate Redline version with all changes highlighted is available in this publication.**

**This publication has been prepared for user convenience.**

This part of International Standard IEC 60335 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

The French version of this standard has not been voted upon.

This part 2 is to be used in conjunction with the latest edition of IEC 60335-1 and its amendments. It was established on the basis of the fourth edition (2001) of that standard.

NOTE 1 When “Part 1” is mentioned in this standard, it refers to IEC 60335-1.

This part 2 supplements or modifies the corresponding clauses in IEC 60335-1, so as to convert that publication into the IEC standard: Safety requirements for electric amusement machines and personal service machines.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states “addition”, “modification” or “replacement”, the relevant text in Part 1 is to be adapted accordingly.

NOTE 2 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.

NOTE 3 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

The following differences exist in the countries indicated below.

- Clause 1: Gaming machines have to comply with IEC 60950 (South Africa).
- 6.1: Class 0 appliances are allowed provided that their rated voltage does not exceed 150 V (Japan and USA).
- 6.1: Class 0I is allowed (Japan).
- 19.101: The fault condition with the contactor locked in the on-position is not applied (USA).
- 20.1: The test is different (USA).
- Clause 21: The impact energy is different (USA).
- 25.7: Lighter supply cords are allowed (USA).
- 25.7: The requirements for supply cords are different. Additional protection of the supply cord is required (Australia).

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

## INTRODUCTION

It has been assumed in the drafting of this International Standard that the execution of its provisions is entrusted to appropriately qualified and experienced persons.

This standard recognizes the internationally accepted level of protection against hazards such as electrical, mechanical, thermal, fire and radiation of appliances when operated as in normal use taking into account the manufacturer's instructions. It also covers abnormal situations that can be expected in practice and takes into account the way in which electromagnetic phenomena can affect the safe operation of appliances.

This standard takes into account the requirements of IEC 60364 as far as possible so that there is compatibility with the wiring rules when the appliance is connected to the supply mains. However, national wiring rules may differ.

If an appliance within the scope of this standard also incorporates functions that are covered by another part 2 of IEC 60335, the relevant part 2 is applied to each function separately, as far as is reasonable. If applicable, the influence of one function on the other is taken into account.

When a part 2 standard does not include additional requirements to cover hazards dealt with in Part 1, Part 1 applies.

NOTE 1 This means that the technical committees responsible for the part 2 standards have determined that it is not necessary to specify particular requirements for the appliance in question over and above the general requirements.

This standard is a product family standard dealing with the safety of appliances and takes precedence over horizontal and generic standards covering the same subject.

NOTE 2 Horizontal and generic standards covering a hazard are not applicable since they have been taken into consideration when developing the general and particular requirements for the IEC 60335 series of standards. For example, in the case of temperature requirements for surfaces on many appliances, generic standards, such as ISO 13732-1 for hot surfaces, are not applicable in addition to Part 1 or part 2 standards.

An appliance that complies with the text of this standard will not necessarily be considered to comply with the safety principles of the standard if, when examined and tested, it is found to have other features that impair the level of safety covered by these requirements.

An appliance employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be considered to comply with the standard.

## HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

### Part 2-82: Particular requirements for amusement machines and personal service machines

#### 1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electric commercial amusement machines and personal service machines, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

NOTE 101 Examples of appliances that are within the scope of this standard are

- amusement machines:
  - billiard tables;
  - bowling machines;
  - dartboards;
  - driving simulators;
  - gaming machines;
  - kiddie rides;
  - laser shooting appliances;
  - pinball machines;
  - video games.
- personal service machines:
  - card re-value machines;
  - currency dispensers;
  - luggage lockers;
  - weighing machines;
  - shoe shining appliances.

NOTE 102 If part of the appliance is within the scope of IEC 60065 or IEC 60950, the part has to comply with the relevant standard.

As far as is practicable, this standard deals with the common hazards presented by appliances that are encountered by users and **maintenance persons**.

NOTE 103 Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;
- in many countries additional requirements are specified by the national authorities responsible for health, for the protection of labour and similar authorities.

NOTE 104 This standard does not apply to

- appliances intended exclusively for household use;
- appliances intended exclusively for industrial purposes;
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas);
- appliances for washing cars;
- dispensing appliances and vending machines (IEC 60335-2-75);
- appliances within the scope of IEC 60065, such as jukeboxes and household video games;