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New Zealand Standard

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**Approval and test specification—  
Electric bread toasters**

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**STANDARDS AUSTRALIA**

This Standard was prepared under a joint arrangement by Standards Australia and the Standards Association of New Zealand. It was approved for publication on behalf of the Council of Standards Australia on 17 December 1991 and on behalf of the Standards Council of New Zealand on 24 December 1991. It was published on 16 April 1992.

**The following organizations are represented on the Committees responsible for this Standard:**

**Standards Australia Committee EL/2, Electrical Approvals Standards**

Australian Electrical and Electronic Manufacturers Association

Confederation of Australian Industries

Consumer Electronics Suppliers Association

Electrical Apparatus Approvals Authorities

Electrical Supply Association of Australia

Electrical testing laboratories

Institution of Engineers, Australia

New Zealand Manufacturers Federation

New Zealand Ministry of Commerce (Energy Inspection)

In addition a New Zealand electrical consultant was part of the Committee

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Suggestions for improvements to Australian and New Zealand Standards, addressed to the head office of the relevant organizations are welcomed. Notification of any inaccuracy or ambiguity found in either an Australian or New Zealand Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Amendment No. 4  
to

AS 3101—1992/NZSAS 3101:1992

Approval and test specification Electric bread toasters

STANDARDS AUSTRALIA

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REVISED TEXT

The 1992 edition of AS 3101/NZSAS 3101 is amended as follows; the amendments should be inserted in the appropriate places.

*SUMMARY:* This Amendment applies to Table 1 and Clause 11.7.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

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**to**  
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**Approval and test specification—**  
**Electric bread toasters**

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Amendment No 2

to

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Approval and test specification Electric bread toasters

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The 1992 edition of AS 3101/NZS AS 3101 is amended as follows; the amendment should be inserted in the appropriate place.

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Amendment No. 1

to

AS 3101—1992/NZS/AS 3101:1992

Approval and test specification—Electric bread toasters

REVISED TEXT

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**Approval and test specification—  
Electric bread toasters**

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## PREFACE

This Specification is issued as a Joint Standard under the terms of the Memorandum of Understanding between Standards Australia and the Standards Association of New Zealand, with the object of reducing technical barriers to trade between the two nations.

This Standard was prepared by the Joint Australia/New Zealand Committee on Electrical Approvals Standards to supersede AS 3101—1985.

It is one of a series of Approval and Test Specifications issued by Standards Australia and the Standards Association of New Zealand. This Specification is to be read in conjunction with AS 3100, *Approval and test specification—General requirements for electrical equipment* in Australia and, for the purposes of Clause 11 of this Specification, NZS 6200, *Specification for general requirements for electrical apparatus and material* in New Zealand. The purpose of this Specification is to outline conditions which must be met to secure approval for the sale and use of electrical equipment. Only safety matters and related conditions are covered.

This edition was published to incorporate into the Specification Amendment Nos. 1 and 2 to AS 3101—1985 and to effect change to Clause 8.3 with regard to new instructional requirements.

In Australia this Specification supersedes AS 3101—1985 from date of publication with the exception of Clause 8.3 which forms part of the Specification 12 months after publication.

The Standards Association of New Zealand wishes to advise that this Specification will supersede NZS 1825:1963 12 months after publication.

Attention is drawn to that fact that this Specification does not purport to include all the necessary provisions of a contract.

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## STANDARDS AUSTRALIA/STANDARDS ASSOCIATION OF NEW ZEALAND

**Joint Australian/New Zealand Standard**  
**Approval and test specification—Electric bread toasters**

**1 SCOPE** This Specification specifies essential safety requirements for electric bread toasters, as defined in Clause 4.1, intended for electrical operation by alternating current at low voltage. For the purpose of this Specification an electric bread toaster is referred to as a 'toaster'.

**2 APPLICATION**

**2.1 General requirements of AS 3100** This Specification shall be read in conjunction with AS 3100 and the appropriate provisions of AS 3100 shall apply to the construction of the appliance and the insulation or safeguarding, or both, of parts which normally carry current.

**2.2 Specific requirements of this Specification** A toaster shall be deemed to comply with this Specification only if it complies with all the requirements of this Specification and passes the tests specified herein.

**2.3 Requirements of other Specifications** Equipment and components incorporated in a toaster upon which safety depends shall comply with the appropriate requirements of any relevant approval and test specification unless such requirements are varied herein.

**3 REFERENCED DOCUMENTS** The following documents are referred to in this Specification:  
**STANDARDS**

AS	NZS	
—	6200	Specification for general requirements for electrical apparatus and material

**APPROVAL AND TEST SPECIFICATIONS**

AS	NZS	
3100	—	General requirements for electrical equipment
3109	—	Appliance couplers for household and similar general purposes
3109.1	—	Part 1: General requirements
3191	—	Electrical flexible cords

**4 DEFINITION** For the purpose of this Specification, the definition below applies.

**4.1 Electric bread toaster** An appliance which is intended primarily for toasting bread or similar foods.

**5 SAFEGUARDING OF ELEMENTS AND LIVE PARTS**

**5.1 General** Elements which are accessible to personal contact or with which bread may come in contact during any part of the toasting operation shall be provided with guards, in accordance with the requirements of Clauses 5.2 to 5.6.

**5.2 Vertical elements** Vertical elements shall be provided with guards in the form of wires spaced not greater than 40 mm apart throughout the length of the element, or such other arrangement of metal shielding which in the opinion of the approval authority will provide an equivalent degree of safeguarding. Where wires are used they shall be—

- (a) for automatic toasters which are enclosed except for the apertures into which the toast is inserted, not less than 0.9 mm diameter or a smaller size acceptable to the approval authority having regard to the design and method of use of the toaster; and
- (b) not less than 1.6 mm diameter in all other cases.

The elements and guards shall be arranged and supported so that a minimum clearance of 6 mm is maintained between any portion of the guards and any portion of the elements and other live parts under conditions likely to be experienced in service.

**5.3 Horizontal elements** Horizontal elements shall be provided with guards in the following form:

- (a) *Above the element* A metal guard above the element, of wire not less than 0.9 mm diameter and not greater than 7 mm square mesh, or an arrangement of metal shielding which will, in the opinion of the approval authority, provide an equivalent degree of safeguarding.
- (b) *Below the element* An arrangement below the element of non-ignitable shielding which will prevent any tray, reflector or cooking vessel from coming into contact with the element.

**5.4 Materials for guards** Any wire guard immediately above a radiant horizontal element shall be constructed of metal which will not readily corrode when exposed to high temperatures. In all other cases, the wires or metal of the guard shall be plated or treated or made of a material such that they will not corrode unduly when exposed to the heat of the element.