

AS 3172

SUPERSEDED BY AS 3172-1990

Amendment 1 - November 1986
" 2 - April 1987.
" 3 - December 1987.
" 4 - May 1988
AS/3172-1986
UDC 621.31:641.53
Amendment 5 - July 1989.

see also DR 84113

Australian Standard® 3172—1986

APPROVAL AND TEST SPECIFICATION— ELECTRIC COOKING APPLIANCES FOR HOUSEHOLD USE



PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.

Incorporated by Royal Charter



This Australian standard was prepared by Committee EL/2, Electrical Approvals Standards. It was approved on behalf of the Council of the Standards Association of Australia on 9 April 1986 and published on 2 June 1986.

The following interests are represented on Committee EL/2:

- Australian Consumers Association
- Australian Electrical and Electronic Manufacturers Association
- Confederation of Australian Industry
- Consumer Electronics Suppliers Association
- Electrical Apparatus Approvals Authorities
- Electrical Testing Laboratories
- Electricity Supply Association of Australia
- Institution of Engineers Australia

Review of Australian Standards. To keep abreast of progress in industry, Australian standards are subject to periodic review and are kept up-to-date by the issue of amendments or new editions as necessary. It is important therefore that standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all SAA publications will be found in the Catalogue of SAA Publications; this information is supplemented each month by SAA's journal 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn standards.

Suggestions for improvements to Australian standards, addressed to the head office of the Association, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian standard should be made without delay in order that the matter may be investigated and appropriate action taken.

First published (AS C172).....	1963
Revised and issued as AS 3172.....	February 1976
Second edition.....	1980
Third edition.....	1984 ✓
Fourth edition.....	1986

* for earlier standards see attached sheets

STANDARDS ASSOCIATION OF AUSTRALIA

(C 146 - 1954 Ap.) S.A.A. approval and test specification for domestic electric ranges.

Amendment 3 Feb. 1957

4 - Sept. 1958

5 - July 1959

6 - Dec. 1960

7 - Aug. 1961

Under Revision see Doc. 646 of Jan. 1962.

Superseded by C172 - 1963 Ap.

C/E
Electrical

Electric cookers

FRONT

STANDARDS ASSOCIATION OF AUSTRALIA *page 1*

(C172 - 1963 Ap.) SAA approval and test specification for domestic electric cooking appliances.

Superseded by AS 3172-1976

Amendment 1 - April 1955

2 - Sept. 1965

3 - June 1966

4 - Aug. 1966

5 - Nov. 1967

6 - April 1968

7 - Nov. 1969

C/E

Electrical

Amendment 8 - Oct. 1970

9 - Dec. 1971

10 - Feb. 1973

11 - Feb. 1974

12 - March 1975

13 - Aug. 1975

Electric cookers

• Griddles

• Kettles, Jugs & Saucepans

• Plate Warmers

Hot Plates, Electric

Pressure Cookers

see also page 3

Supersedes Doc. 57 of 30.11.46.

C.146 - 1949 (Amended and redated)

Supersedes C102 - 1954 Ap.

C105 - 1952 Ap.

C146 - 1954 Ap.

Doc. 646 of Jan. 1962.

BACK

STANDARDS ASSOCIATION OF AUSTRALIA

(C.102 - 1954 Ap.) SAA approval and test specification for electric grillers (including grill-boilers, boiling plates and the like).

- Amendment 3 - Feb. 1954
- 4 - Sept. 1958
- 5 - July 1959
- 6 - Dec. 1960

C/
E
Electrical

Under Revision See Doc. 646 of Jan. 1962,
Superseded by C172 - 1963⁰ Ap.

Electric Grillers

STANDARDS ASSOCIATION OF AUSTRALIA

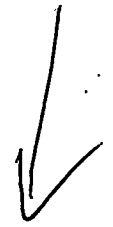
(C.105 - 1954 Ap.) SAA approval and test specification for electric kettles and saucepans.

Superseded by C172 - 1963 Ap.

C/
E
Electrical

Electric Kettles, Jugs & Saucepans

FRONT



Supersedes C.102 - 1937 P.
 C.102 - 1938 P.) 1937 redated
 C.102 - 1939 P.)
 C.102 - 1940 Ap.
 C.102 - 1947 Ap. 1940 redated.
 Doc. 91 of Feb. 1948.
 C.102 - 1949 Ap.

Supersedes C.105 - 1937 P.
 C.105 - 1938 P.) 1937 redated.
 C.105 - 1939 P.)
 C.105 - 1940 Ap.
 C.105 - 1947 Ap.) 1940 redated.
 C.105 - 1948 Ap.)
 C.105 - 1950 Ap.)
 C.105 - 1952 AP.)

BACK

PREFACE

This specification, prepared by Committee EL/2, Electrical Approvals Standards, was approved on behalf of the Council of the Association on 26 July 1963.

The specification is one of a series of approval and test specifications issued by the Association under Part II of the SAA Wiring Rules. These specifications are accompanied by a general specification AS C100 Ap., containing definitions and general requirements for electrical materials and equipment. The purpose of these specifications is to outline conditions which must be met to secure approval for the sale and use of electrical equipment in Australia. Only safety matters and conditions closely allied thereto are covered.

It incorporates a revision of three approval and test specifications, AS C102 Ap., Electric Grillers, AS C105 Ap., Electric Kettles and Saucepans, and AS C146 Ap., Domestic Electric Ranges, which are hereby superseded. In addition, the scope has been extended to embrace several other cooking appliances such as rotisseries, frypans, deep fryers and contact griddle plates; specific testing requirements have been included for these appliances. Hitherto, it has been difficult to categorise these appliances in terms of the existing specifications and it has been left largely to individual approvals authorities to adopt such requirements of those specifications as have appeared appropriate for the purpose.

More specific requirements have been included in respect to temperature limits at terminating devices, types of material and conductors for use in high temperature locations, and the location and rating of fuses, where required, which should assist in eliminating some interpretation difficulties which were evident with the superseded specifications.

In order to keep abreast of progress in the industries concerned, the publications of the Standards Association of Australia are subject to periodical review. Suggestions for improvement addressed to the Headquarters of the Association, Science House, 157 Gloucester Street, Sydney, will be welcomed.

The Association desires to call attention to the fact that this specification does not purport to include all the necessary conditions of a contract.

This specification requires reference to SAA Approval and Test Specifications C100, C109, C112, C121, C122, C133, C135, C138, C140, C158 and C161, and to AS CC1, Part I (SAA Wiring Rules).



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STANDARDS ASSOCIATION OF AUSTRALIA

1963 Ap.

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Approval and Test Specification

for

DOMESTIC ELECTRIC COOKING APPLIANCES

(AS C172—1963 Ap.)

The 1963 edition of AS C172 is amended as follows:

STANDARDS ASSOCIATION OF AUSTRALIA

1963 Ap.

Approval and Test Specification

for

DOMESTIC ELECTRIC COOKING APPLIANCES

(AS C172—1963 Ap.)

The 1963 edition of AS C172 is amended as follows: (twice) 20

AS 3172/Amdt 1/1986-11-03

STANDARDS ASSOCIATION OF AUSTRALIA
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AMENDMENT No 1
to
AS 3172—1986
APPROVAL AND TEST SPECIFICATION—
ELECTRIC COOKING APPLIANCES FOR HOUSEHOLD USE

REVISED TEXT

The 1986 edition of AS 3172 is amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: The following sections of the standard are covered by this amendment: Clauses 8, 15.1 and Appendix A.

Published on 3 November 1986.

AS 3172/Amdt 2/1987-04-06

STANDARDS ASSOCIATION OF AUSTRALIA
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AMENDMENT No 2
to
AS 3172—1986
Approval and Test Specification—
ELECTRIC COOKING APPLIANCES FOR HOUSEHOLD USE

REVISED TEXT

The 1986 edition of AS 3172 which was amended in November 1986 is further amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: The following sections of the standard are covered by this amendment: Table 1, Clauses 5.1, 6.2, 6.3.4, 17.11.2, 17.11.4, 17.12.2 and Appendix A.

Published on 6 April 1987.

STANDARDS ASSOCIATION OF AUSTRALIA
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25 NOV 1987

AMENDMENT No 3
to
AS 3172—1986
Approval and Test Specification—
ELECTRICAL COOKING APPLIANCES FOR HOUSEHOLD USE



REVISED TEXT

The 1986 edition of AS 3172 which was amended in November 1986 and April 1987 is further amended as follows; the amendment should be inserted in the appropriate place.

SUMMARY: The following section of the Standard is covered by this amendment: Clause 17.14.

Published on 1 December 1987.

STANDARDS ASSOCIATION OF AUSTRALIA
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10 MAY 1988

AMENDMENT No 4
to
AS 3172—1986
APPROVAL AND TEST SPECIFICATION—
ELECTRIC COOKING APPLIANCES FOR HOUSEHOLD USE

REVISED TEXT

The 1986 edition of AS 3172 which was amended in November 1986 and April and December 1987 is further amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: The following sections of the Standard are covered by this Amendment: Clause 17.12.4, Appendix A, Figure 2 and Figure 3.

Published on 9 May 1988.

STANDARDS AUSTRALIA



Amendment No 5
to
AS 3172—1986
Approval and test specification—Electric cooking appliances for household use

REVISED TEXT

The 1986 edition of AS 3172, which was amended in November 1986, April and December 1987 and May 1988, is further amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: This Amendment applies to Clauses 10.2, 11.6, 17.9.2, 17.16, Table 2 and Paragraph A8.2.

Published on 14 July 1989.

PREFACE

This standard was prepared by Committee EL/2, Electrical Approvals Standards. It is one of a series of approval and test specifications issued by the Association. These specifications are accompanied by a general specification AS 3100 containing definitions and general requirements for electrical materials and equipment. The purpose of these specifications is to outline conditions which must be met to secure approval for the sale and use of electrical equipment in Australia. Only safety matters and related conditions are covered.

This edition was published to incorporate into the specification Amendment Nos 1 and 2 to AS 3172—1984 and to effect changes to Clauses 4.3, 11.1, 11.2, 11.4, 14.1, 14.3, 14.5, 17.3, 17.10, 17.11.1, 17.11.2, 17.11.3, 17.11.4, 17.14, Table 1 and Appendix A with regard to new requirements for switches and abnormal operation tests including fire tests. The mandatory requirements for fuses in ranges has been amended. Also a list of referenced documents has been added to Clause 1 and a note with regard to Standards mark added to Clause 15.

This specification supersedes AS 3172—1984 from date of publication.

The Association desires to call attention to the fact that this specification does not purport to include all the necessary provisions of a contract.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

APPROVAL AND TEST SPECIFICATION—
ELECTRIC COOKING APPLIANCES FOR HOUSEHOLD USE

This specification shall be read in conjunction with AS 3100. (See also Clause 3, below.)

1 SCOPE AND REFERENCED DOCUMENTS.

1.1 Scope. This specification applies to electric cooking appliances, as defined in Clause 2.1 below, intended for electrical operation by direct or alternating current at low or medium voltage.

It applies to appliances such as electric ranges, ovens, cooking tables, hotplate hob units, grill boiler units, deep fryers, frypans, rotisserie cookers, saucepan type cookers, cake makers, contact type griddle and toasting plates, waffle irons, steam pressure cookers, plate and food warmers and grillers; and to electric kettles, coffee percolators, drink heaters, and other appliances intended for the heating of water or drinks, including electric urns and urn-type percolators having a capacity of less than 4.5 litres or intended in normal operation not to contain more than 4.5 litres.

It does not apply to appliances within the scope of the Australian standard approval and test specifications for—

Electric bread toasters—AS 3101

Portable immersion heaters—AS 3104

Electric jugs—AS 3106

NOTE: An appliance in the form of a container incorporating a sheathed element with provision for earthing the sheath is within the scope of this specification even though it may have a non-metallic body and, in shape, resembles a conventional jug.

1.2 Referenced documents. The following documents are referred to in this specification.

1.2.1 Australian standards.

AS 2005 Fuses with Enclosed Fuse-links (up to and including 1000 V a.c. and 1500 V d.c.)
Part 3—Fuses for Household and Similar Applications

AS 3000 SAA Wiring Rules

NOTE: Although not referred to or called up by this specification, attention is drawn to the quality and performance requirements in AS 1549, AS 1550, and AS 1551, Household Electric Ranges, Electric Hotplates, and Controls for Heating Units, respectively.

1.2.2 Approval and test specifications.

AS 3100 Definitions and General Requirements for Electrical Materials and Equipment

AS 3109 Appliance Couplers for Household and Similar General Purposes

AS 3111 Miniature Overcurrent Circuit-breakers

AS 3112 Plugs and Plug Sockets

AS 3135 Semi-enclosed Fuses for a.c. Circuits

AS 3140 Edison-type Screw Lampholders

AS 3158 Fibrous Insulated Electric Cables and Flexible Cables for Working Voltages of 0.6/1 kV

AS 3161 Thermostats and Energy Regulators

AS 3191 Electric Flexible Cords

2 DEFINITIONS. For the purpose of this specification, the following definitions apply:

2.1 Electric cooking appliance (hereinafter referred to as an 'appliance')—an electrically operated appliance designed to apply heat to food, or liquids for drinking, and intended primarily for household use.

2.2 Deep fryer—a heated well or deep utensil which is intended for cooking food by immersion in fat or oil.

2.3 Fixed appliance—an appliance not usually moved from place to place in service and generally intended for permanent connection to the supply circuit wiring.

2.4 Griller—a self-contained cooking appliance which is intended to heat or cook food mainly by radiation, there being no direct contact between the heating unit and the food or the utensil holding the food; it shall not include an appliance incorporating a cooking compartment fitted with an additional heating unit.

2.5 Griller hotplate—a heating unit which combines the functions of a hotplate and a grilling unit.

2.6 Heating element—the actual electrical conducting medium which is heated by an electric current.

2.7 Heating unit—a heating element together with its insulation and supports and immediate enclosure, if any.

2.8 Hotplate—a surface heating unit (excluding warming plate) designed to accommodate one or more cooking vessels.

2.9 Hot zone—any portion of an appliance where the temperature may exceed 150 °C during normal conditions of operation.

2.10 Oven—a chamber capable of being closed, and incorporating one or more heating units intended solely for heating the chamber, in which baking or roasting may be carried out.

2.11 Portable appliance—an appliance intended to be easily moved from place to place and intended for connection to the supply circuit wiring by means of a flexible cord, plug and plug socket.

2.12 Range—a cooking appliance incorporating one or more hotplates and one or more ovens.

2.13 Rotisserie—a cooking appliance incorporating a rotating spit and intended to cook food essentially by radiation.

2.14 Smooth-top cooking surface—a cooking top of glass, ceramic or similar material in which the heating unit(s) may be an integral part of the cooking top.

2.15 Warming plate—an electrically heated panel on which vessels or food are placed in order to be held at or brought to a suitable temperature for serving.