

# Australian Standard® 3181—1986

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## APPROVAL AND TEST SPECIFICATION— ELECTRICALLY OPERATED PROJECTORS FOR HOUSEHOLD AND SIMILAR USE



**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA  
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Australian Electrical and Electronic Manufacturers Association  
Confederation of Australian Industry  
Consumer Electronics Suppliers Association  
Electrical Apparatus Approvals Authorities  
Electrical Testing Laboratories  
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Amendment No 1  
to  
AS 3181—1986  
Approval and test specification—  
Electrically operated projectors for household and similar use

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REVISED TEXT



The 1986 edition of AS 3181 is amended as follows; the amendment(s) should be inserted in the appropriate place.

*SUMMARY:* This Amendment applies to Clauses 1.2, 3.4 and 9.2.

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**Page 4. Clause 1.2.**

1. *Delete* the reference to AS 3126, Extra-low Voltage Transformers, and *substitute* AS 3108, Isolating Transformers and Safety Isolating Transformers.
2. *Delete* the reference to AS 3159, Electronic Sound and Vision Equipment, and *substitute* AS 3250 Mains Operated Electronic and Related Equipment for Household and Similar General Use.

This Amendment forms part of the Specification on publication.

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**Page 4. Clause 3.4.**

*Delete* the reference to AS 3159 and *substitute* AS 3250.

This Amendment forms part of the Specification on publication.

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**Page 5. Clause 9.2.**

1. *Delete* AS 3162 in the first and second paragraphs and *substitute* AS 3108.
2. *Delete* the reference to AS 3159 in the final paragraph and *substitute* AS 3250.

This Amendment forms part of the Specification on publication.

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## 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 No 1 to AS 3181—1981 and to effect changes to Clauses 12 and 15.5 with regard to new requirements for switches and fire tests. Also a list of referenced documents has been added to Clause 1 and a Note with regard to the Standards Mark to Clause 14.

This specification supersedes AS 3181—1981 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—  
ELECTRICALLY OPERATED PROJECTORS FOR HOUSEHOLD AND SIMILAR 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 household electric projectors as defined in Clause 2 below and designed for operation at low voltage.

**1.2 Referenced documents.** The following approval and test specifications are referred to in this standard:

AS 3100 Definitions and General Requirements for Electrical Materials and Equipment

~~AS 3108~~ ~~SEE AMENDMENT 1~~  
AS 3109 Appliance Couplers for Household and Similar General Purposes

AS 3117 Bayonet Lampholders

~~AS 3126 Extra-low Voltage Transformers~~

AS 3140 Edison-type Screw Lampholders

AS 3145 Radio Interference Suppression Devices

~~AS 3159 Electronic Sound and Vision Equipment~~  
~~AS 3250~~ ~~SEE AMENDMENT 1~~

**2 DEFINITIONS.** For the purpose of this specification, the following definition applies:

**2.1 Household electric projector (hereinafter referred to as a 'projector')**—an electrically operated appliance designed for projecting an image of a photographic slide, picture or moving film on a screen, and intended primarily for household use. It may incorporate a fan and an automatic mechanism for the changing of the slide and/or focusing and facilities for sound reproduction from film, tape, microphone or any other means. Viewers and editors which project an external image shall be deemed to be within the scope of this definition.

NOTE: A household projector will generally be portable but non-portable types are not excluded from this specification; they may also be suitable for use in schools, small halls and the like.

**3 COMPLIANCE WITH SPECIFICATIONS.**

**3.1 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 projector and the insulation and/or safe-guarding of parts which normally carry current.

**3.2 Specific requirements of this specification.** A projector shall be deemed to comply with this specification only if it complies with all the requirements of this specification and passes the relevant tests specified herein.

**3.3 Requirements of other specifications.** Equipment and components incorporated in a projector which are depended upon for safety shall comply with the appropriate requirements of any relevant approval and test specification unless such requirements are varied herein.

**3.4 Electronic equipment.** Electronic sound and control equipment incorporated with the projector shall comply with the requirements of AS 3159, 3250 ~~SEE AMENDMENT 1~~

**4 MEANS OF CONNECTION.**

**4.1 Type of connection.** The projector shall be provided with one of the following means of connection to the supply:

(a) A Type C appliance plug and appliance inlet socket complying with AS 3109. The socket shall be arranged so that the temperature of the plug when inserted will not exceed the limiting temperature specified in AS 3100 for the materials used and the projector is operated under the conditions prescribed in Clause 15.2.

(b) A power supply cord which shall be assembled with the appliance by one of the following methods:

- Type X attachment.
- Type M attachment.
- Type Y attachment.

Notwithstanding the requirements of Clause 4.3.4 of AS 3100, the means of connection of the conductors of the supply flexible cord need not be arranged to prevent the disturbance of the conductors of any flexible cord connected to an external control device not mounted on the projector, during the connection or disconnection of either the supply flexible cord or the control flexible cord.

**4.2 Supply flexible cord and connecting plug.** Where required by Clause 4.4 of AS 3100, the projector shall be provided with a supply flexible cord and connecting plug.

Any flexible cord provided with a projector for the purpose of connecting it to the supply, shall—

- (a) be of a sheathed type not inferior to a light duty type flexible cord in accordance with AS 3191;
- (b) be correctly wired in accordance with the appropriate requirements of Clause 4.4 of AS 3100; and
- (c) have a free length (external to the projector and any plug) of not less than 1.8 m.

**4.3 Control flexible cord.** A flexible cord connected between a projector and an external control device, which is not mounted on the projector and which operates at low voltage, shall be regarded as a supply flexible cord, and shall comply with the appropriate requirements of Clause 4.2 above and of Items (i), (ii), (v), (vi) and (vii) of Clause 4.4 of AS 3100, except that the free length of the cord may be less than 1.8 m.

**5 EARTHING.** Where a projector is not provided with double insulation (see Clause 6)—

- (a) it shall comply with the relevant requirements of Clause 5.3 of AS 3100;
- (b) the earthing terminal shall be marked in accordance with Clause 7.4 of AS 3100; and