

Australian Standard®

**Approval and test specification—
Portable electrical control or
conditioning devices**

D



STANDARDS AUSTRALIA 

This Australian Standard was prepared by Committee EL/4, Electrical Accessories. It was approved on behalf of the Council of Standards Australia on 1 May 1990 and published on 6 August 1990.

The following interests are represented on Committee EL/4:

Australian Electrical and Electronic Manufacturers Association
Confederation of Australian Industry
Department of Public Works, N.S.W.
Electrical Contractors Association of Australia
Electricity Supply Association of Australia
Plastics Industry Association
Railways of Australia Committee
Regulatory Authorities (Electrical)
Telecom 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 are aware of amendments thereto.

All details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine '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which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.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 Standards Australia, 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.

Australian Standard®

**Approval and test specification—
Portable electrical control or
conditioning devices**

First published as AS 3197—1976.
Second edition 1980.
Third edition 1990.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY NSW

ISBN 0 7262 6339 7

PREFACE

This Standard was prepared by the Standards Australia Committee on Electrical Accessories to supersede AS 3197—1980.

It is one of a series of Approval and Test Specifications issued by the organization. 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 Standard was revised to align the switching and protection requirements with AS 3105, *Approval and test specification—Electrical portable outlet devices*, and to encompass devices with a control or conditioning function, rather than the former switching or control function only.

Typical examples of devices having a control or conditioning function are those which incorporate energy regulators, speed controllers, timing devices, photo-electric devices, devices actuated by sound or radio frequency, devices actuated by signals or impulses generated remotely by manual or automatic means, movement detectors, lighting dimmers, temperature sensitive devices, overcurrent protection devices of either the manual or automatically resetting type, voltage/frequency conditioning devices, and filtering devices.

This Specification supersedes AS 3197—1980 (including Amendment Nos 1 to 5) from date of publication, with the exception of the indicated passages in Clause 5.1.

Standards Australia points out that this Specification does not purport to include all the necessary provisions of a contract.

© Copyright — STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the Head Office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

CONTENTS

	<i>Page</i>
1 SCOPE	4
2 APPLICATION	4
3 REFERENCED DOCUMENTS	4
4 DEFINITIONS	5
5 DESIGN AND CONSTRUCTION	5
6 MEANS OF CONNECTION	7
7 THERMOSTAT OR ENERGY REGULATOR	7
8 POWER SUPPLY CORD ASSEMBLY	7
9 MARKING	7
10 TESTS	9

STANDARDS AUSTRALIA

Australian Standard

Approval and test specification—Portable electrical control or conditioning devices

1 SCOPE. This Specification specifies essential safety requirements for portable electrical control or conditioning devices as defined in Clause 4 below, which are designed for operation at low voltage and which have a maximum operating current not exceeding 20 A.

Typical examples of devices having a control or conditioning function are those which incorporate energy regulators, speed controllers, timing devices, photo-electric devices, devices actuated by sound or radio frequency, devices actuated by signals or impulses generated remotely by manual or automatic means, movement detectors, lighting dimmers, temperature sensitive devices, overcurrent protection devices of either the manual or automatically resetting type, voltage/frequency conditioning devices and filtering devices.

Plugs complying with AS 3112, cord extension sockets complying with AS 3120, socket outlet adaptors complying with AS 3122 and cord extension sets complying with AS 3199, which incorporate control or conditioning functions are within the scope of this Specification.

This Specification does not apply to the following:

- (a) Control or conditioning devices which are incorporated in an appliance
- (b) Portable residual current (earth-leakage) devices within the scope of AS 3190.
- (c) Portable devices incorporating voltage transformation within the scope of AS 3108.
- (d) Appliance connectors incorporating control facilities within the scope of AS 3109.
- (e) Plugs complying with AS 3112, cord-extension sockets complying with AS 3120 and socket-outlet adaptors complying with AS 3122 which incorporate indicating devices, e.g. neons, light-emitting diodes;
- (f) Plugs complying with AS 3112 incorporating fuses.
- (g) Electrical portable outlet devices complying with AS 3105.

NOTE: Thermostats and energy regulators of the self-contained type but intended for independent mounting are within the scope of AS 3161.

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 control device and the insulation and safeguarding of parts which normally carry current.

2.2 Specific requirements of this Specification. A control device 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.

2.3 Requirements of other Specifications. Equipment and components incorporated in a control device which are dependent upon for safety, shall comply with the appropriate Specification unless such requirements are varied herein.

3 REFERENCED DOCUMENTS. The documents below are referred to in this Standard.

STANDARDS

AS 3100 IAA Wiring Rules

APPROVAL AND TEST SPECIFICATIONS

AS 3100 Definitions and general requirements for electrical materials and equipment
 3105 Electrical portable outlet devices
 3108 Isolating transformers and safety isolating transformers
 3109 Appliance couplers for household and similar general purposes
 3109.1 Part 1: General requirements
 3111 Miniature overcurrent circuit-breakers
 3112 Plugs and socket-outlets