AS/NZS 3112:2000 (Incorporating Amendment Nos 1 and 2)

## Australian/New Zealand Standard™

# Approval and test specification—Plugs and socket-outlets





AS/NZS 3112:2000 This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-004, Electrical Accessories. It was approved on behalf of the Council of Standards Australia on 17 December 1999 and on behalf of the Council of Standards New Zealand on 20 December 1999. It was published on 3 April 2000.

The following are represented on Committee EL-004:

Australasian Railway Association Australian Chamber of Commerce and Industry Australian Electrical and Electronic Manufacturers Association Canterbury Manufacturers Association, New Zealand Consumer Electronic Suppliers Association of Australia Electricity Supply Association of Australia International Accreditation New Zealand Ministry of Commerce, New Zealand National Electrical and Communications Association New Zealand Manufacturers' Federation Plastics and Chemicals Industries Association Regulatory authorities (electrical), Australia Testing Interests (Australia)

#### Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 98511.

AS/NZS 3112:2000 (Incorporating Amendment Nos 1 and 2)

### Australian/New Zealand Standard<sup>™</sup>

## Approval and test specification—Plugs and socket-outlets

Originated in Australia as AS C112—1937. Originated in New Zealand as part of NZSS 198—1939. Previous edition AS/NZS 3112:1993. Fifth edition 2000. Reissued incorporating Amendment No. 1 (December 2001). Reissued incorporating Amendment No. 2 (March 2003).

### COPYRIGHT

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

### PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/4, Electrical Accessories to supersede AS/NZS 3112:1993 on publication.

This Standard incorporates Amendment No. 1 (December 2001) and Amendment No. 2 (March 2003). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

This Standard is one of a series of Approval and Test Specifications issued by Standards Australia and Standards New Zealand. In Australia, these specifications are to be read in conjunction with AS/NZS 3100, Approval and test specification—General requirements for electrical 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. Only safety matters and related conditions are covered.

Where there is a published Australian/New Zealand harmonized or Joint Standard referenced in this Standard, the New Zealand Standard number is given in parenthesis following the Australian Standard number.

This Standard was revised to introduce the following technical and editorial changes:

- (a) Amendments 1, 2, 3 and 4 to AS/NZS 3112:1993 have been incorporated into the text.
- (b) The material and design of plug pins
- (c) Requirements for insulated pins
- (d) Requirements for IP-rated plugs and sockets
- (e) Changes to tests.
- Notes to the text in the body of the Standard are not mandatory parts of the Standard.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

This Standard does not provide all the necessary conditions for a contract.

A1

### CONTENTS

Page

SECTIO	N 1 SCOPE AND GENERAL	
1.1	SCOPE	5
1.2	APPLICATION	5
1.3	REFERENCED DOCUMENTS	5
1.4	DEFINITIONS	
SECTIO	N 2 PLUGS	
2.1	TERMINALS AND INTERNAL CONNECTIONS	8
2.2	PLUG PINS	8
2.3	INSULATING MATERIALS	9
2.4	NON-REWIREABLE PLUGS	10
2.5	MEANS OF ENTRY AND CORD ANCHORAGE FOR FLEXIBLE CORD	10
2.6	RADIO INTERFERENCE SUPPRESSION DEVICES	11
2.7	FINGER-GRIP	11
2.8	RATINGS AND DIMENSIONS OF LOW VOLTAGE PLUGS	
2.9	INTERNAL CONNECTIONS	12
	ARRANGEMENT OF EARTHING CONNECTIONS	
	FUSES	
	MARKING	
	TESTS ON PLUGS	
2.15		
SECTIO	N 3 SOCKET-OUTLETS	
3.1	TERMINALS AND INTERNAL CONNECTIONS	
3.2	PROHIBITED ARRANGEMENTS	
3.3	SOCKET-OUTLET CONTACTS	
3.4	INSULATING MATERIALS	
3.5	RADIO INTERFERENCE SUPPRESSORS	
3.6	DIMENSIONS	
3.7	ARRANGEMENT OF EARTHING CONNECTIONS	
3.8	PREVENTION OF CONTACT WITH LIVE PINS	
3.9	FUSES	
3.10	FLOOR SOCKET-OUTLETS	
3.10	SWITCHED SOCKET-OUTLETS	
3.11	SHUTTERED SOCKET-OUTLETS	
	MARKING	
5.15	TESTS FOR SOCKET-OUTLETS	
3.14	TESTS FOR SOCKET-OUTLETS	40
APPENI		50
A	GAUGE FOR THREE-PIN FLAT-PIN PLUGS	
B	GAUGE FOR TWO-PIN FLAT-PIN PLUGS WITH PARALLEL PINS	51
С	THREE-PIN TEST PLUG WITH FLAT PINS FOR FULL-INSERTION TEST	
-	AND THE FINGER TEST DURING NORMAL INSERTION TEST	52
D	THREE-PIN TEST PLUG WITH FLAT PINS FOR	
	ABNORMAL INSERTION TEST	53
E	PLUGS AND SOCKET-OUTLETS FOR USE	
	IN EXTRA-LOW VOLTAGE CIRCUITS	
F	GAUGE FOR FLAT AND ROUND PIN PLUGS	55



This is a free preview. Purchase the entire publication at the link below:

**Product Page** 

S Looking for additional Standards? Visit Intertek Inform Infostore

> Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation