

(Identical with IEC 512-1(1984))

Australian Standard®

**Electromechanical components for
electronic equipment—Basic testing
procedures and measuring methods**

Part 1: General



This Australian Standard was prepared by Committee ET/5, Environmental Testing Procedures. It was approved on behalf of the Council of Standards Australia on 5 June 1989 and published on 6 November 1989.

The following interests are represented on Committee ET/5:

Aerospace Technologies of Australia
Confederation of Australian Industry
Department of Administrative Services
Department of Defence
Electricity Supply Association of Australia
Institution of Engineers, Australia
National Association of Testing Authorities
Society of Automotive Engineers, Australasia
Telecom Australia
University of New South Wales

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 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which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.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®

**Electromechanical components for
electronic equipment—Basic testing
procedures and measuring methods**

Part 1: General

First published as AS 3726.1—1989.

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

ISBN 0 7262 5806 7

PREFACE

This Standard was prepared by the Standards Australia Committee on Environmental Testing Procedures. Part 1 is identical with IEC 512, Part 1: *General* issued by the IEC Committee TC/48, Electromechanical Components for Electronic Equipment.

The purpose of Part 1 is to provide fundamental information on test methods and procedures for use in detail specifications on the subject of specific components. The Standard is intended to be read in conjunction with AS 1099, *Basic environmental testing procedures for electrotechnology*. This Standard will select and prescribe the tests to be used, the required severity to be used, and the permissible performance limits to be attained. Detail specifications will be expected to specify deviations in the procedure and any special procedures which may be required.

This Standard applies to a group of electromechanical components which predominantly display particular physical characteristics or fulfil specific functions.

The page numbers of the IEC English text are given on the bottom left hand corner of each page of this Standard.

For the purpose of this Australian Standard, the text of the IEC Publication used herein should be modified as follows:

- (a) **Terminology:** The words 'Australian Standard' should replace the words 'IEC Publication' wherever they appear.
- (b) **References:** The references to international Standards should be replaced by references to Australian Standards as follows:

<i>Reference to international Standard</i>	<i>Appropriate Australian Standard</i>
IEC	AS
50 International Electrotechnical Vocabulary (IEV)	1852 International electrotechnical vocabulary (IEV)
68 Basic environmental testing procedures	1099 Basic environmental testing procedures for electrotechnology

© Copyright — STANDARDS AUSTRALIA

Purchasers 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 INTRODUCTION	4
2 SCOPE	4
3 OBJECT	5
4 TERMINOLOGY	5
5 STANDARD CONDITIONS FOR TESTING	6
6 TESTING	7
7 CLASSIFICATION OF DEFECTS	7
APPENDIX A. LIST OF TESTS CURRENTLY ENVISAGED AND THEIR ARRANGEMENT	9

Currently in preview, click buy full ver

STANDARDS AUSTRALIA

Australian Standard

Electromechanical components for electronic equipment—Basic testing procedures and measuring methods

Part 1: General

1. Introduction

This standard contains fundamental information on test methods and procedures.

It is intended to be used in those cases where a generic or detail specification for a certain component has been prepared, so as to achieve uniformity and reproducibility in the testing procedures.

The term “environmental conditioning” or “environmental testing” covers the natural and artificial environments (including electrical stresses) to which components may be exposed so that an assessment of their performance can be made under conditions of use, transport and storage to which they may be exposed in practice.

The requirements for the performance of the components are not covered by this standard. The relevant specification for the item under test defines the permissible performance limits.

A list of the tests currently envisaged and their arrangement is given in Appendix A. This appendix will be updated whenever appropriate.

To provide for future expansion of publication 512 and to retain consistency of presentation, each test section will be subdivided. The subdivisions are identified by the addition of a lower-case letter, e.g.:

Section Two — Electrical continuity and contact resistance tests

Test 2a: Contact resistance — Millivolt level method

Test 2b: Contact resistance — Specified test current method

2. Scope

This standard is intended to be used as a basic specification. It contains basic test methods and procedures applicable to electromechanical components, with the following families or sub-families:

- Connections, solderless
- Connectors for frequencies below 3 MHz
- Sockets for electronic tubes
- Sockets for other plug-in devices
- Switches, lever
- Switches, push-button
- Switches, rotary
- Switches, sensitive
- Switches, thermal time-delay
- Switches, thermostatic.