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IEC 512-8 (1984)

(Identical with and reproduced from IEC 512.8-1984)

Australian Standard®

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

Part 8: Connector tests (mechanical) and mechanical tests on contacts and terminations

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STANDARDS AUSTRALIA

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

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PREFACE

This Standard was prepared by the Standards Australia Committee on Environmental Testing Procedures. It is identical with and reproduced from IEC 512-8 (1984) as amended by Amendment No 1, issued by the IEC.

The purpose of Part 8 is to specify uniform tests for connectors to assess the ability of the contact retaining system and the insert retaining system to withstand axial and torsional forces; to insert and withdraw contacts, and to maintain engagement of mated connectors. Methods are given to assess probe damage to female connectors; to assess the tensile strength of crimped connectors; to measure the holding capability of resilient contacts, and to assess the ability of terminations to withstand mechanical stresses. Further methods are included which assess the ability of contacts to withstand the crimping operation; to hold an insulation grip on cables and grounding contact springs, and to determine the force necessary to strip a wrapped connection from a post.

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 Standard 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:

Reference to international Standard		*Appropriate Australian Standard*	
IEC		AS	
68	Basic environmental testing procedures	1099	Basic environmental testing procedures for electrotechnology
68-2	Part 2: Tests	1099.2	Tests
68-2-21	Test U: Robustness of terminations and integral mounting devices	1099.2U	Robustness of terminations
352	Solderless connections	2948	Solderless connections
352-1	Part 1: Solderless wrapped connections - General requirements, test methods and practical guidance	2948.1	Part 1: Solderless wrapped connections—General requirements, test methods and practical guidance
512	Electromechanical components for electronic equipment; basic testing procedures and measuring methods	3726	Electromechanical components for electronic equipment—Basic testing procedures and measuring methods
512-2	Part 2: General examination, electrical continuity, contact resistance, insulation and voltage stress tests	3726.2	Part 2: General examination, electrical continuity, contact resistance, insulation and voltage stress tests
ISO			
1302	Mechanical drawing—Method of indicating surface texture on drawings	1100 1101.201	Technical drawing Part 201: Mechanical drawing

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Scope

The tests contained herein, when required by the detail specification, shall be used for electromechanical components within the scope of Technical Committee No. 48*. They may also be used for similar devices when specified in a detail specification.

SECTION ONE — CONNECTOR TESTS (MECHANICAL)

1. Test 15a: Contact retention in insert

1.1 *Object*

The object of this test is to detail a standard method to assess the ability of the contact retaining system to withstand the axial mechanical stresses likely to be encountered during normal usage.

1.2 *Preparation of the specimen*

The specimen shall consist of a component with all contacts installed in accordance with the detail specification.

Loosen or remove any accessories which are not essential for the contact retaining system.

1.3 *Test method*

Select 20% of the contacts (but not less than six contacts) at random for the test. At least one contact shall be near the periphery and one near the centre of the component. For components having six contacts or less, all contacts shall be used for the test.

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* *Scope of Technical Committee No. 48:* To prepare international standards regarding components having an inherent electromechanical connecting or switching function, intended for use in equipment for telecommunication and in electronic devices employing similar techniques.

Notes 1. — R.F. connectors will not be dealt with by this Technical Committee as they will be covered by Technical Committee No. 46 together with r.f. cables.

2. — Sockets for components such as crystals or electronic tubes should be considered in co-operation with the relevant Technical Committee.