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**(Expires 23 January 2003)**

AS 61340.5.1

Interim Australian Standard™

## **Electrostatics**

### **Part 5.1: Protection of electronic devices from electrostatic phenomena— General requirements**

This Interim Australian Standard was prepared by Committee EL-025, Control of Undesirable Static Charges. It was approved on behalf of the Council of Standards Australia on 21 November 2000 and published on 23 January 2001.

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The following interests are represented on Committee EL-025:

Australasian Plastics and Rubber Institute  
Australia Post  
Australian Electrical and Electronic Manufacturers Association  
Australian Institute of Petroleum  
Department of Mineral Resources N.S.W.  
Institution of Electrical Engineers  
WorkCover New South Wales

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## PREFACE

This Interim Standard was prepared by the Standards Australia Committee EL-025, Control of Undesirable Static Charges.

This Interim Standard is Part 5.1 of a series which when complete will consist of the following main Parts:

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- 61340 Electrostatics
- 61340.1 Part 1: General
- 61340.2 Part 2: Measurement methods in electrostatics
- 61340.3 Part 3: Methods for simulating electrostatic effects
- 61340.4 Part 4: Standard test methods for specific applications
- 61340.5 Part 5: Protection of electronic devices from electrostatic phenomena
- 61340.6 Part 6: Techniques to control electrostatic phenomena and methods to assess their effectiveness

This Interim Standard is identical in technical content to and has been reproduced from IEC 61340-5-1:1998, *Electrostatics—Part 5-1: Protection of electronic devices from electrostatic phenomena—General requirements* and includes its Corrigendum:1999-02.

The Corrigendum affects the primary function code, in Figure 4. Changes made are highlighted by a marginal bar.

The objective of this Interim Standard is to provide a more comprehensive coverage of the control of electrostatic discharge than is available in AS/NZS 1020:1995, *The control of undesirable static electricity*, in the area of the effects and prevention of electrostatic discharge to electronic devices. On completion of this AS 61340 Series, AS/NZS 1020:1995 will be revised to act as a guide to the AS 61340 suite of Standards.

This Interim Standard will have a currency of two years from its date of publication. At the conclusion of that period it will either be superseded by another Standard, confirmed as an interim Standard in its present form for a further two year period or withdrawn.

Compliance with this Interim Standard concerns the installation of new equipment only. Existing equipment should be replaced as soon as is practical. For the duration of the changeover period, extra precautions should be considered.

Some of the effects of static electricity have been known for several thousands of years. In more recent times, their properties have been understood and have been used to advantage in many applications. Unfortunately some properties of static electricity cause problems, particularly in the electronics industry. This Interim Standard gives rules which, if followed, will minimize the unwanted effects of electrostatic discharge. Additional information on how the Interim Standard should be applied is contained in AS 61340.5.2 (User guide).

When the requirements of this Interim Standard are applied, they will provide a low risk of damage to the vast majority of components and assemblies used in the electronics industry, particularly for devices which have a damage threshold of greater than 100 V (human body model). Where ultra-sensitive devices are used, additional specialist precautions will need to be applied.

The definitions used in this Interim Standard apply for this document, and different definitions or ranges may apply in some other areas of electrostatics.

A reference to an International Standard identified in the Normative References Clause by strikethrough (~~example~~) is replaced by a reference to the Australian or Australian/New Zealand Standard(s) listed immediately thereafter and identified by shading (**example**). Where the struck-through referenced document and the referenced Australian or Australian/New Zealand Standard are identical, this is indicated in parenthesis after the title of the latter.

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The terms ‘normative’ and ‘informative’ have been used in this Interim Standard to define the application of the annex to which they apply. A ‘normative’ annex is an integral part of a Standard, whereas an ‘informative’ annex is only for information and guidance.

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