

Australian/New Zealand Standard™

Safety of laser products

**Part 1: Equipment classification,
requirements and user's guide
(IEC 60825-1:2001, MOD)**

AS/NZS 2211.1:2004

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee SF-019, Personal Protection Against Laser Radiation. It was approved on behalf of the Council of Standards Australia on 11 February 2004 and on behalf of the Council of Standards New Zealand on 16 February 2004. It was published on 31 March 2004.

The following are represented on Committee SF-019:

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Australian Chamber of Commerce and Industry
Australian Defence Force Academy
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Australian Radiation Laboratory
Department of Defence (Australia)
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Safety of laser products

Part 1: Equipment classification, requirements and user's guide (IEC 60825-1:2001, MOD)

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-019, Personal Protection Against Laser Radiation. It is an adoption with national modifications, and has been reproduced from IEC 60825-1:2001, *Safety of laser products, Part 1: Equipment classification, requirements and user's guide*.

The 2001 edition of IEC 60825-1 was issued to incorporate IEC Amendment 1:1997 and IEC Amendment 2:2001 into IEC 60825-1:1993. The amended text is indicated by marginal bars. IEC Corrigendum to Amendment 2:2001 was issued in 2002. The correction to Table H1 contained in the corrigendum has been included in the Australian/New Zealand variations in Appendix ZZ.

For the purpose of this Standard, the IEC text is supplemented as set out in Appendix ZZ. These changes are indicated by a double marginal bar against the relevant clause or part thereof affected.

The objective of this Standard is to—

- (a) protect people from laser radiation in the wavelength range 180 nm to 1 mm by indicating safe working levels of laser radiation and by introducing a system of classification of lasers and laser products according to their degree of hazard;
- (b) lay down requirements for both user and manufacturer to establish procedures and supply information so that proper precautions can be adopted;
- (c) ensure adequate warnings are provided to individuals of hazards associated with accessible radiation from laser products through the use of signs, labels and instructions;
- (d) reduce the possibility of injury by minimizing unnecessary accessible radiation and to give improved control of the laser radiation hazards through protective features and provide safe usage of laser products by specifying user control measures; and
- (e) protect people against other hazards resulting from the operation and use of laser products.

The terms 'normative' and 'informative' have been used in this 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.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number appears on the cover and title page while the International Standard number appears only on the cover.
- (b) In the source text, 'IEC 60825-1' and 'this part 1' should read 'this Australian/New Zealand Standard'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

References to International Standards should be replaced by references Australian Standards, as follows:

<i>Reference to International Standard</i>	<i>Australian/New Zealand Standard</i>
IEC	AS/NZS
60027	Letter symbols to be used in electrical technology
60027-1	Part 1: General
60050	International Electrotechnical Vocabulary (IEV)
60050 (845)	Chapter: 845: Lighting

IEC		AS/NZS	
60601	Medical electrical equipment	3200	Medical electrical equipment
60601-2-22	Part 2-22: Particular requirements for the safety of diagnostic and therapeutic laser equipment	3200.2.22	Part 2.22: Particular requirements for safety—Diagnostic and therapeutic laser equipment
60825	Safety of laser products	2211	Safety of laser products
60825-2	Part 2: Safety of optical fibre communication systems (OFCS)	2211.2	Part 2: Safety of optical fibre communication systems (OFCS)
61010	Safety requirements for electrical equipment measurement, control and laboratory use		
61010-1	Part 1: General requirements	—	
61040	Power and energy measuring detectors, instruments and equipment for laser radiation	—	
ISO		AS ISO	
1000	SI units and recommendations for the use of their multiples and of certain other units	1000	The international system of units (SI) and its application

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