Australian Standard®

Laser-based speed detection devices

Part 1: Definitions and device requirements

This Australian Standard® was prepared by Committee CS-098, Laser Speed Detection. It was approved on behalf of the Council of Standards Australia on 11 July 2003.
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The following are represented on Committee CS-098:

- Australian Automobile Association
- Australian Chamber of Commerce and Industry
- CSIRO Division of Telecommunications and Industrial Physics
- Institution of Engineers Australia
- National Standards Commission
- New South Wales Police Service
- Queensland Police Service
- South Australia Police
- Tasmania Police
- Victoria Police
- Western Australia Police

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through public comment period.

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AS 4691.1—2003
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PREFACE

This Standard was prepared by Standards Australia Committee CS-098, Laser Speed Detection, following a request by a supplier of these devices for a performance specification and operating procedures for laser-based speed detection devices. The request has resulted in the preparation of a two part series of Standards, this one (Part 1) covering definitions and device requirements predominantly for assistance to manufacturers and Part 2 covering operational procedures for users of these devices.

This Standard incorporates Amendment No. 1 (September 2006). 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 does not purport to be an exhaustive set of requirements for the metrological aspects of speed measurements by laser. The establishment of such requirements falls within the area of responsibility of the National Standards Commission (NSC) rather than Standards Australia.

This Standard has been prepared to take into account the state of the art of laser-based speed detection in Australia at the time of publication.

This Standard is not intended to inhibit further advances in laser-based speed detection technology. The Committee will consider amending the Standard to include suitable requirements for new types of equipment as they become available.

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.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies definitions and design, construction, functional performance and marking requirements for laser-based devices which are used to measure the speed of targets for law enforcement or scientific measurement using the lidar principle. This Standard includes devices linked to an image capture system.

1.2 OBJECTIVE

The objective of this Standard is to provide manufacturers with a set of minimum requirements for the design, construction, performance and marking of laser-based speed detection devices used for law enforcement or scientific measurement in order to ensure adequate device capabilities for users of these devices.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS
1939 Degrees of protection provided by enclosures for electrical equipment (IP Code)

AS/NZS
1906 Retroreflective materials and devices for road traffic control purposes
1906.1 Part 1: Retroreflective materials

2211 Laser safety
2211.1 Part 1: Equipment classification, requirements and user's guide

3000 Electrical installations (known as the Australian/New Zealand Wiring Rules)

3191 Approval and test specification—Electric flexible cords

3350 Safety of household and similar electrical appliances
3350.1 Part 1: General requirements (IEC 60335-1:1991, MOD)

A1

61000 Electromagnetic compatibility (EMC)
61000.6.1 Part 6.1: Generic standards—Immunity for residential, commercial and light-industrial environments

AS/NZS CISPR
22 Information technology equipment—Radio disturbance characteristics—Limits and methods of measurement

IEC
60068 Environmental testing
60068-2-64 Part 2: Test methods—Test Fh: Vibration, broad-band random (digital control) and guidance

