

Australian Standard™

**Motor vehicle frontal protection systems**

**Part 1: Road user protection**

This Australian Standard was prepared by Committee ME-083, Motor Vehicles—Frontal Protection Systems. It was approved on behalf of the Council of Standards Australia on 16 September 2002 and published on 17 September 2002.

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The following are represented on Committee ME-083:

Association of Rotational Moulders Australasia  
Australian Automobile Association  
Australian Automotive Aftermarket Association  
Australian Industry Group  
AUSTROADS  
Australian Motor Vehicle Certification Board  
Consumers' Federation of Australia  
Ergonomics Society of Australia  
Federal Chamber of Automotive Industries  
Land Transport Safety Authority New Zealand  
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**Part 1: Road user protection**

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## PREFACE

This Standard was prepared by the Australian members for the Joint Standards Australia/Standards New Zealand Committee ME-083, Motor Vehicles—Frontal Protection Systems. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to provide manufacturers with performance requirements for vehicle frontal protection systems (VFPS) and address issues, such as the following:

- (a) Applicable Australian Design Rules requirements.
- (b) Road user protection requirements.
- (c) Test methods.
- (d) Marking and packaging.

This Standard does not address the issue of VFPS compatibility with Vehicle Occupant Protection Systems (e.g. air bag triggering).

Committee ME-083 will consider developing further Parts in the AS 4876 series. This may include a Part dealing with the protection offered to the vehicle by VFPS.

Child head impact criteria have been included incorporating values that are considered achievable.

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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STANDARDS AUSTRALIA

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Part 1: Road user protection

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SECTION 1 SCOPE AND GENERAL

### 1.1 SCOPE

This Standard sets out requirements for all types of vehicle frontal protection systems (VFPS) and specifies the road user protection criterion. This Standard also requires that motor vehicles fitted with a VFPS continue to comply with the applicable Australian Design Rules (ADRs).

This Standard applies to the design and construction of vehicle frontal protection systems for motor vehicles up to and including 3500 kg GVM in the MA, MB, MC, MD1, MD2 and NA Categories, as defined in the Australian Design Rules for Motor Vehicles and Trailers.

#### NOTES:

- 1 The Committee recommends that this Standard, except for the road user protection criterion (refer to Clause 3.2), is applicable to VFPS for new model motor vehicles first produced after 1 January 2003.
- 2 The Committee also recommends that the performance requirement for the road user protection criterion (refer to Clause 3.2) is applicable to VFPS for new model motor vehicles first produced after 1 January 2005.

### 1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

ISO

6487 Road vehicles—Measurement techniques in impact tests—Instrumentation

ADR\*

Australian Design Rules for Motor Vehicles and Trailers

### 1.3 DEFINITIONS

For the purpose of this Standard, the definitions given in the *Australian Design Rules for Motor Vehicles and Trailers* and those below apply.

#### 1.3.1 Anchorage

A device designed to transfer loads from a VFPS to the vehicle. It includes bolts or screws and other hardware for the attachment of the VFPS and it may be fitted as original-vehicle equipment or supplied as part of the VFPS fitting.

#### 1.3.2 Bumper replacement VFPS

A VFPS that is primarily designed to reduce the damage to a vehicle in the event of either a front end impact or an animal strike, in which the VFPS is fitted in place of the vehicle's front bumper (refer to Figure 1.1(a)).

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\* This reference refers to the latest edition of the Design Rules as amended from time to time.



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