

Australian/New Zealand Standard™

Ambulance restraint systems

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME/48, Restraint Systems in Vehicles. It was approved on behalf of the Council of Standards Australia on 11 December 1998 and on behalf of the Council of Standards New Zealand on 7 December 1998. It was published on 5 February 1999.

The following interests are represented on Committee ME/48:

ACROD, Australia
Australian Automobile Association
Australasian Faculty of Rehabilitation Medicine
Australian Industry Group
Department of Transport and Regional Development (Australia)
Federal Chamber of Automotive Industries
Federation of Automotive Products Manufacturers, Australia
Land Transport Safety Authority New Zealand
Roads and Traffic Authority of New South Wales

Additional interests participating in preparation of Standard:

Ambulance body manufacturers
Ambulance Employees Association, Australia
Ambulance Services of A.C.T., Vic., N.S.W., Tas., Qld., S.A. and W.A.
Restraint system manufacturers
St John Ambulance, Australia
St John Ambulance, New Zealand

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/48, Restraint Systems in Vehicles, to provide a specification for the minimum performance requirements of restraint systems for occupants and equipment within ambulance vehicles.

The basis for the performance criteria set by this Standard is the restraint of multiple items of equipment and occupants during frontal impact under a deceleration equivalent to 20g and a sideways impact under a deceleration equivalent to 10g. It may not be possible under all conditions to restrain occupants and specialized equipment in the ideal configuration. Dynamic Testing Procedure accommodates 50th and 95th percentile manikins, this will be reviewed in the next revision.

This Standard should be applied only to new or new conversions of ambulance vehicles.

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/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Ambulance restraint systems

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard applies to motor vehicles specifically designed as, or modified and converted into, ambulances for the transportation of occupants and equipment. The Standard specifies the requirements for restraining equipment and occupants sharing the same interior space. It may not be possible under all conditions to restrain occupants in the ideal configuration.

1.2 OBJECTIVE The objective of this Standard is to decrease the impact hazard to occupants during an accident whilst being transported in an ambulance.

1.3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

2942 Wheelchair occupant restraint assemblies for motor vehicles

AS/NZS

2596 Seat belt assemblies for motor vehicles

ADR* Australian Design Rules

3 Seat anchorages

4 Seat belts

5 Anchorages for seat belts

34 Child restraint anchorages and child restraint anchor fittings

SAE

J211 Recommended practice for instrumentation of impact tests

1.4 DEFINITIONS For the purpose of this Standard, the definitions below apply.

1.4.1 Ambulance—a vehicle that has been designed or modified and equipped to attend to, transport or provide medical treatment to occupants.

1.4.2 Anchorage—a device designed to transfer loads from the restraint system to the vehicle. It includes bolts or screws and other hardware for the attachment of the anchorage to the vehicle.

1.4.3 Anchor point—that part of a vehicle at which the restraining forces are transferred from the anchorage to the vehicle.

1.4.4 Compartment door—a door that includes any catches, latches, hinges and attachment points.

1.4.5 Equipment—those items that are required to transport or provide medical treatment to occupants or those which may be specified by the operator.

* Australian Design Rules for Motor Vehicles and Trailers. These references denote the latest edition of the design rules, in place at the time this Standard is used.