

Australian Standard[®]

**Caravan and light trailer towing
components**

Part 5: Electrical connectors

This Australian Standard was prepared by Committee ME/52, Caravan and Light Trailer Components. It was approved on behalf of the Council of Standards Australia on 9 August 1995 and published on 5 November 1995.

The following interests are represented on Committee ME/52:

Australian Automobile Association
Australian Automotive Aftermarket Association
Australian Chamber of Commerce and Industry
Australian Federation of Consumer Organizations
Commercial Vehicle Industry Association of Australia
Department of Transport and Communications (Commonwealth)
Federal Chamber of Automotive Industries, Australia
Federation of Automotive Products Manufacturers, Australia
Metal Trades Industry Association of Australia
Recreational Vehicle Manufacturers Association of Australia
Roads and Traffic Authority of New South Wales
Telstra Corporation Ltd

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AS 4177.5—1995

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Part 5: Electrical connectors

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/52 on Caravan and Light Trailer Components to supersede AS 2513—1982, *Electrical connectors for trailer vehicles*. This Standard forms part of a series of Standards dealing with caravan and trailer components.

Of the Interests listed on the inside front cover, the Federal Chamber of Automotive Industries and one of the two members representing the Australian Chamber of Commerce and Industry did not approve the publication of the Standard, as it does not harmonize with International Standards.

This Standard is the result of a consensus among Australian and New Zealand representatives on the Joint Committee to produce it as an Australian Standard only.

The Committee agreed that only one connector should be specified in the Standard and any reference to other styles should be omitted. The connector design selected is a 12-pin socket type, capable of being used with either a 12-pin or a 7-pin plug.

This Standard only applies to the design and performance of electrical connectors not to their installation; with the exception of the trailer wiring.

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.

Other Standards in this series are as follows:

AS

- 4177 Caravan and light trailer towing components
- 4177.1 Part 1: Towbars and towing brackets
- 4177.2 Part 2: 50 mm towballs
- 4177.3 Part 3: Coupling bodies
- 4177.4 Part 4: Safety chains up to 3500 kg capacity

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STANDARDS AUSTRALIA

Australian Standard
Caravan and light trailer towing components

Part 5: Electrical connectors

1 SCOPE This Standard specifies requirements for the compatibility and performance of electrical connectors for making detachable electrical connections between motor vehicles and trailers fitted with electrical equipment normally operating at a nominal d.c. voltage of 6 V, 12 V or 24 V.

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

AS

2331 Methods of test for metallic and related coatings

2331.3.1 Part 3.1: Corrosion and related property tests—Neutral salt spray (NSS) test

3 DEFINITIONS For the purpose of this Standard, the following definitions apply.

3.1 Connector—a two-part device intended for making a detachable connection (electrical) between a motor vehicle and trailer.

3.2 Contact—the mating components of a connector through which the electrical connection between plug and socket is made.

3.3 Motor vehicle—a self-propelled vehicle used on a public road.

3.4 Plug—the part of a connector that is normally attached by flexible cable to the trailer.

3.5 Shall—is taken to be mandatory.

3.6 Should—is taken to be advisory.

3.7 Socket—the part of a connector that is normally fixed to the rear of the motor vehicle.

3.8 Terminal—the device at the rear of the plug and the socket to which each conductor is connected.

3.9 Trailer—any vehicle without motive power of its own designed for attachment to a motor vehicle for the purpose of being towed. It includes both recreational and commercial vehicles.

4 MATERIALS

4.1 Electric current-carrying parts All electric-current-carrying parts shall be made of brass, bronze or other suitable copper alloy, or plated for corrosion resistance.

4.2 Body parts Materials for body parts shall be in accordance with Clause 6 and shall—

- (a) have adequate strength and adequate temperature stability to withstand normal usage;
- (b) have appropriate insulating properties where required; and