AS 3629.4—1991
NZS 5466:Part 4:1991

Australian Standard®
New Zealand Standard

Methods of testing child restraints

Part 4: Determination of adjustment device forces

AUS B
NZ BB

SANZ Standards Association of New Zealand
STANDARDS AUSTRALIA

This Standard was prepared under a joint arrangement by Standards Australia and the Standards Association of New Zealand. It was approved for publication on behalf of the Council of Standards Australia on 26 November 1991 and on behalf of the Standards Council of New Zealand on 24 December 1991. It was published on 24 December 1991.

The following organizations are represented on the Committees responsible for this Standard:

Standards Australia Committee CS/75, Automotive Occupant Restraints
Australian Automobile Association
Australian Automotive Aftermarket Association
Australian Consumers Association
Australian Federation of Consumer Organizations
Australian Retailers Association
Business and Consumer Affairs, N.S.W.
Confederation of Australian Industry
Department of Transport and Communications
Department of Transport, S.A.
Federal Bureau of Consumer Affairs
Federal Chamber of Automotive Industries
Federation of Automotive Products Manufacturers
Ministry of Consumer Affairs, Vic.
National Association of Testing Authorities, Australia
National Health and Medical Research Council
Retail Traders Associations of Australia
Roads and Traffic Authority, N.S.W.
Royal Australasian College of Surgeons
University of New South Wales

Additional interest participating in preparation of Standard:
VicRoads

Standards Association of New Zealand Committee 50/–, Mechanical and General Board
Accident Compensation Corporation
Consumers Institute
Department of Labour
Department of Scientific & Industrial Research
Institution of Professional Engineers of N.Z.
Medical Association
Ministry of Commerce
Ministry of Transport
National Council of Women
N.Z. Chemical Industry Council
N.Z. Manufacturers Federation

Review of Standards
To keep abreast of progress in industry, Australian and New Zealand Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all publications of the Standards Association of New Zealand and Standards Australia will be found in the Catalogue of Publications of the respective organization; this information is supplemented in their monthly magazines, which subscribing members receive, and which give details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian and New Zealand Standards, addressed to the head office of the relevant organizations, are welcomed. Notification of any inaccuracy or ambiguity found in either an Australian or New Zealand Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

This Standard was issued in draft form in New Zealand as DZ 5466:Part 4.

AS 3629.4—1991
NZS 5466:Part 4:1991

Australian Standard®
New Zealand Standard

Methods of testing child restraints

Part 4: Determination of adjustment device forces

In Australia
First published as AS 3629.4—1991.

In New Zealand
First published as NZS 5466:Part 4:1991.

PUBLISHED JOINTLY BY:

STANDARDS AUSTRALIA
(Standards Association of Australia) 80 Arthur Street, North Sydney NSW, Australia

STANDARDS ASSOCIATION OF NEW ZEALAND
6th floor, Wellington Trade Centre, 181-187 Victoria Street
Wellington 1, New Zealand

ISBN 0 7262 7239 6

PREFACE

This Standard is issued as a joint Standard under the terms of the Memorandum of Understanding between Standards Australia and the Standards Association of New Zealand with the objective of reducing technical barriers to trade between the two nations.

The test method previously called up in AS 1754, *Child restraint systems for use in motor vehicles*, was AS 2597, *Methods of testing seat belts*, Part 6: *Determination of adjustment device forces*, which is no longer suitable for testing all of the types of adjusters now used in child restraints.

CONTENTS

STANDARDS AUSTRALIA/STANDARDS ASSOCIATION OF NEW ZEALAND

Australian/New Zealand Standard
Methods of testing child restraints

Part 4: Determination of adjustment device forces

1 SCOPE This Standard sets out the method for determining the forces required to adjust child restraint systems.

2 APPLICATION The tests set out in this Standard apply to all child restraint adjustment devices.

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

AS	
1753/NZS 5432	Webbing for restraining devices for occupants of motor vehicles
1754/NZS 5411	Child restraint systems for use in motor vehicles
2597	Methods of testing seat belts
2597.7	Method 7: Determination of locking angle of tilt-lock adjustment device

4 DEFINITIONS For the purpose of this Standard, the definitions given in AS 1754/NZS 5411 apply.

5 PRINCIPLE Adjustment devices are tested to determine the forces required to adjust the size of the child restraint to the occupant and to adjust the length of the anchorage straps with which the child restraint is equipped.

6 APPARATUS The following apparatus is required:

(a) The apparatus described in Appendix D of AS 1753/NZS 5432.

(b) A machine capable of drawing the webbing through the adjustment device at a rate of 500 ±50 mm/min. A suitable machine is shown in AS 1753/NZS 5432.

The machine shall indicate the force being applied to the webbing to an accuracy of ±1 N.

(c) For restraints incorporating any tilt-lock adjusters, a means of establishing a reference line to tilt-lock adjustment devices.

(d) Where applicable, a rig to hold the child restraint in a position simulating its normal attitude in a motor vehicle. Devices which can be mounted either upright or reclined may be mounted in either position.

(e) Where applicable, a fixture to hold the adjustment device, which permits webbing to be drawn through the adjustment device, and which permits the adjustment device to be rotated from a 'webbing fully unlocked' attitude to a locked attitude. The axis of rotation is to lie in the plane of the webbing and be normal to the length of the webbing.

7 TEST SPECIMEN Except for Type C1 child restraints, Type C2 child restraints and other child restraints which do not require manual adjustment, the following shall apply:

(a) The test specimen shall comprise one complete child restraint with the harness supplied separately from the other components.

(b) Test specimens shall be dry, unused, and not previously tested.

(c) Non-in-line adjustment devices shall be tested as installed in the child restraint.

(d) Where practical, in-line adjustment devices shall be tested as installed in the child restraint. Otherwise they shall be tested separately. Devices which are supplied separately shall be supplied with webbing of the type used in the adjustment system of the child restraint. The webbing length shall not be less than 600 mm.

8 PROCEDURE The procedure shall be as follows:

(a) Except for Type C1 child restraints, Type C2 child restraints and other child restraints which do not require manual adjustment—

(i) install the harness in the child restraint with the shoulder strap through the uppermost shoulder strap slots;

(ii) place a TNO P3 dummy in the child restraint and adjust the harness firmly;

(iii) mark the unloaded length of webbing through the adjuster at the point at which it emerges from the adjuster;