

Australian/New Zealand Standard™

AS/NZS 3629.4:2014

Methods of testing child restraints

Method 4: Determination of the force required to adjust a harness

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-085, Child Restraints for Use in Motor Vehicles, to supersede AS/NZS 3629.4:1997.

This Standard has been revised to provide a test method for new type designations of child restraints introduced in AS/NZS 1754:2013, namely Type A4, Type C1, Type C2 and Type G.

METHOD

1 SCOPE

This Standard sets out the method for determining the force required to adjust a child restraint harness.

2 OBJECTIVE

The objective of this Standard is to provide manufacturers and testing authorities with a method for testing a child restraint for ease of adjustment.

3 APPLICATION

The test set out in this Standard applies to adjusters used in child restraint harnesses.

4 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS/NZS	
1754	Child restraint systems for use in motor vehicles
3629	Methods of testing child restraints
3629.1	Part 1: Dynamic testing

5 DEFINITIONS

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

6 PRINCIPLE

Adjustment devices are tested to determine the forces required to adjust the size of the child restraint to the occupant.

7 APPARATUS

The following apparatus is required:

- (a) A machine capable of indicating the force being applied to the webbing, to an accuracy of ± 1 N:
- (b) A test seat as specified in AS/NZS 3629.1.
- (c) An appropriate test dummy clothed in summer weight clothing as specified by AS/NZS 1754, as follows:

Type designation of child restraint	Test dummy
Type A1 and Type A2 restraints	TNO P3/4
Type A4, Type B and Type D restraints	TNO P3
Type C1 restraints	TNO P6
Type C2 restraints	TNO P10 weighted to 36 kg
Type G restraints	TNO P10
Child restraints which are a combination of types	The largest TNO dummy specified above for a type in the combination

8 TEST SPECIMEN

The following shall apply to test the specimen:

- (a) The test specimen shall comprise one complete child restraint.
- (b) Test specimens shall be dry, unused and not previously tested.

9 PROCEDURE

The procedure shall be as follows:

- (a) Ensure that the harness shoulder straps pass through the uppermost shoulder strap slots of the child restraint.
- (b) Place the child restraint on the test seat and secure it with the top tether strap and lap-only seat belt.
- (c) Place the test dummy in the child restraint and adjust the harness firmly.
- (d) Mark the unloaded length of webbing through the adjuster at the point at which it emerges from the adjuster and at a point 150 mm from the point at which it emerges from the adjuster.
- (e) With the adjuster unlocked, draw the webbing through it in a direction which loosens the harness to the 150 mm mark on the webbing.
- (f) Cycle the webbing 25 complete cycles through the adjuster between the lines marked on the webbing. The adjuster shall be in the locked position when tightening the harness and in the unlocked position when loosening it.

NOTE: After 25 cycles, the harness should be in a loose condition.

- (g) Suspend the child restraint so that the test dummy is facing downwards with the torso in a horizontal position, and supported only by the harness. Leave the restraint in this position for not less than 24 h. The test dummy may be removed from the child restraint on the completion of this Step, but if so, it shall be placed back in the child restraint before proceeding with Step (i) below. The harness adjustment shall not be altered when removing the dummy from or placing it back in the device.