Product Guide

Carrot 3000

Special purpose car seat

AUSAP

MACA LTD

Mobility & Accessibility
for Children in Australia

Product Guide

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This guide has been developed by Mobility and Accessibility for Children in Australia Ltd (MACA).

MACA is a registered charity dedicated to advancing the rights of children with disabilities and medical conditions to safe and accessible transport. For more information, visit macahub.org or email contact@macahub.org.

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MACA LTD

Mobility & Accessibility for Children in Australia

Introduction

This Product Guide has been developed to support prescribers who have undertaken MACA's specialist training course *Transporting children with disabilities and medical conditions.*

This information may also be useful for:

- Government agencies who fund special purpose car seats
- Product suppliers of special purpose car seats
- Organisations with a responsibility for transporting children with disabilities and medical conditions
- Regulators

The Product Guide incorporates MACA's Australian Safety Assessment Program (AuSAP) findings. AuSAP independently assesses the safety and performance of vehicle restraint options used by children with disabilities and medical conditions. AuSAP was established with funding support from the Transport Accident Commission (Victoria), and in-kind support from Britax Childcare Pty Ltd and Neuroscience Research Australia.

More information is available at **www.macahub.org**

Published May 2023

Product information

Product name: Carrot 3000

Product type

The Carrot 3000 is a special purpose car seat. This type of restraint is designed specifically for the needs of children with disabilities and medical conditions when travelling in a motor vehicle.

Special purpose car seats come with an extensive range of features with some products catering for older and larger children, unlike Australian standard car seats, which cater for children up to 10-12 years of age.

These features can improve the child's positioning, comfort, and safety, with some offering a swivel base to help parents and carers transfer the child in and out of a vehicle.

Australian importer

Medifab is the importer of the Carrot 3000 and works with distributors throughout Australia.

Medifab
26 Pardoe Street
East Devonport
Tasmania, Victoria 7310
Tel: 1300 543 343
www.medifab.com.au

Manufacturer

The Carrot 3000 is designed and manufactured by Seeds Co. Ltd, based in Japan.

Seeds Co. Ltd
705-16 Meshiro
Isahaya, Nagasaki 854-0007 JAPAN
en.seeds-seating.com

The Carrot 3000 swivel base is manufactured by RehaNorm, based in Germany.

RehaNorm GmbH & Co. KG
Am Ockenheimer Graben 50
55411 Bingen
www.rehanorm.de

Compliance

The Carrot 3000 complies with both the European regulation (15 to 36 kg) and US standard for child restraints (13.6 to 49 kg).

Europe

The Carrot 3000 complies with the:

- United Nations Economic Commission for Europe Regulation No 44 *Uniform provisions concerning the approval of restraining devices for child occupants of power-driven vehicles* (ECE r44)
- Regulation (EU) 2017/245 on medical devices

ECE r44 categorises child restraints by groups, suitable for children from birth to 12 years and has a maximum weight limit of 36 kg.

Category	Weight Range (Approx. age)	Description	Compliance
Group 0	0 - 10 kg (Birth to 6-9 months)	Rearward facing (built-in harness primary restraint)	⊗
Group 0+	0 - 13 kg (Birth to 12-15months)	Rearward facing (built-in harness primary restraint)	⊗
Group 1	9 - 18 kg (9 months to 4 years)	Forward facing (built-in harness primary restraint)	⊗
Group 2	15 - 25 kg (4 to 6 years)	Forward facing (vehicle seatbelt primary restraint)*	✓
Group 3	22 - 36 kg (6 to 11 years)	Forward facing (vehicle seatbelt primary restraint)*	✓

* Special purpose car seats generally continue using the built-in harness for postural support

United States

The Carrot 3000 complies with the:

- United States Federal Motor Vehicle Safety Standard 213 *Child restraint systems* (FMVSS)

The FMVSS has no upper weight limit requirements (unlike ECE r44), with the Carrot 3000 certified for use for occupant weight from 13.6 to 49 kg.

Find out more about standards/regulations here.

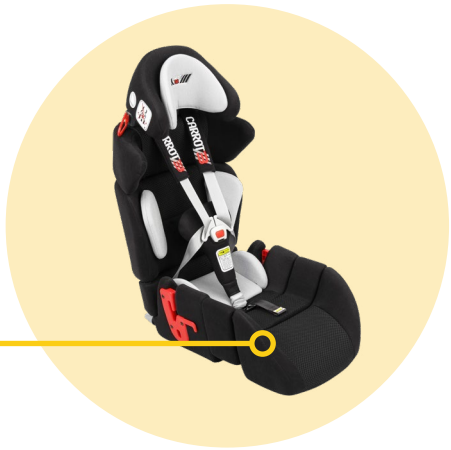
Prescribing information

The following section aims to give easy access to key information that supports the safe and legal use of the Carrot 3000 in motor vehicles in Australia.

- **Standard items:** The Carrot 3000 is provided standard with a five-point built-in harness.
  This harness is for postural support only and the occupant must always use the vehicle seatbelt when travelling in the Carrot 3000.

- **Optional accessories:** The Carrot 3000 has an extensive range of optional accessories, for example:
  - swivel base
  - footrest
  - support tray
  - seat depth extenders
  - backrest height extension
  - anti-escape options
  - tilt wedge
  - top tether strap
  - lateral support wedges
  - shoulder strap retainer
  - vehicle protection mat
  - abduction block.

  For detailed information about accessory options visit Medifab.



- **Instruction manual:** The Carrot 3000 complies with multiple standards/regulations. It is important to read the instruction manual for its use in Australia, provided by Medifab:
  - Carrot 3000 instruction manual
  - swivel base instruction manual

- **Top tether strap:** The use of the top tether strap is optional. Where the top tether strap is used, it is only for the purposes of holding the Carrot 3000 in place (there is also a fixing strap available for this purpose), not for crash protection. The vehicle seatbelt is the primary restraint and must be used at all times around the occupant and the Carrot 3000.

Prescribing information

- **Safe use:**
  - The vehicle seatbelt is the primary form of restraint for the occupant.
  - The built-in harness is for postural support only.
  - The swivel base requires ISOFIX for attaching to the vehicle.

  ISOFIX/LATCH: Where the swivel base is not used flexible ISOFIX (called LATCH in the US) and top tether use is optional. Where used this is for the purposes of securing the Carrot 3000 to the vehicle, not for crash protection. The vehicle seatbelt is the primary restraint and must always be used.

Carrot 3000 without swivel base			
Compliance	**Top tether**	**ISOFIX/LATCH**	**Occupant weight**
ECE r44	Optional	Optional	15-36 kg
FMVSS	Optional	Optional	13.6-49 kg

  Note: The top tether strap may not be suitable for use with the swivel base as it can interfere with using this feature.

- **Specifications:** Refer to Medifab's website for specification information, such as seat height, width and depth.
- **Weight:** The Carrot 3000 weighs 8.7 kg without accessories.
- **Aircraft compatible:** Yes.
- **Engineering certification:** There are no engineering certification requirements to consider. The Carrot 3000 uses the vehicle's seatbelt as the primary restraint and should always be used in accordance with the manufacturer's instructions.
- **Legal requirements:** As the Carrot 3000 is a special purpose car seat, there are legal requirements to comply with in each state and territory when using it in a motor vehicle. Refer to MACA's online resources for relevant state/territory information and templates.

For more information about the Carrot 3000, please refer to the Medifab website.

AuSAP information

The Carrot 3000 was assessed by the Australian Safety Assessment Program (AuSAP) in 2021/22, in accordance with the AuSAP Test and Assessment Protocol, which uses frontal and side impact test requirements from the AS/NZS 1754 *Child restraint systems for use in motor vehicles.*

The testing included seven frontal and one side impact test and was conducted at the APV-T Test Centre in Melbourne, Victoria. The test results were analysed by the AuSAP Expert Committee.

The Carrot 3000 was tested to the higher weight range offered by FMVSS.

The Carrot 3000 is published on MACA's national product register.

Frontal tests

The following tests were undertaken with a P10 (36 kg) dummy.

Swivel base (with ISOFIX), built-in harness for postural support, seatbelt as primary restraint	
Dummy	P10 (36 kg)
Test type	Frontal
Set-up	The swivel base was connected to the test bench ISOFIX low anchorages with ISOFIX lower attachment connectors. The swivel base foot props were installed in accordance with the manufacturer's instructions. The dummy was placed in the built-in harness for postural support. The seatbelt was used around the dummy and the Carrot 3000 (primary restraint).
Performance	Dummy was retained by the restraint during impact. No separation of any load carrying part or fragmentation of any rigid components.

Image: Carrot 3000 frontal test

AuSAP information

Frontal tests

The following tests were undertaken with a P10 (36 kg) dummy.

Swivel base (with ISOFIX), built-in harness for postural support, top tether, seatbelt as primary restraint	
Dummy	P10 (36 kg)
Test type	Frontal
Set-up	The swivel base was connected to the test bench ISOFIX low anchorages with ISOFIX lower attachment connectors. The swivel base foot props were installed in accordance with the manufacturer's instructions. The top tether strap was attached to test bench upper anchorage point. The dummy was placed in the built-in harness for postural support. The seatbelt was used around the dummy and the Carrot 3000 (primary restraint).
Performance	Dummy was retained by the restraint during impact. No separation of any load carrying part or fragmentation of any rigid components. Top tether load 1.25 kN.

Image: Carrot 3000 frontal test

Built-in harness for postural support, top tether and ISOFIX [LATCH], seatbelt as primary restraint	
Dummy	P10 (36 kg)
Test type	Frontal
Set-up	The flexible ISOFIX was attached to the test bench ISOFIX low anchorages and the top tether strap to the upper anchorage point. The dummy was placed in the built-in harness for postural support. The seatbelt was used around the dummy and the Carrot 3000 (primary restraint).
Performance	Dummy was retained by the restraint during impact. No separation of any load carrying part or fragmentation of any rigid components. Top tether load 1.53 kN

Image: Carrot 3000 frontal test

AuSAP information

Frontal tests

The following tests were undertaken with a P10 (36 kg) dummy.

Built-in harness for postural support, seatbelt as primary restraint	
Dummy	P10 (36 kg)
Test type	Frontal
Set-up	The dummy was placed in the built-in harness for postural support. The seatbelt was used around the dummy and the Carrot 3000 (primary restraint).
Performance	Dummy was retained by the restraint during impact. No separation of any load carrying part or fragmentation of any rigid components.

Image: Carrot 3000 frontal test

The following tests were undertaken with an AF5 (49 kg) dummy.

Built-in harness for postural support, top tether and ISOFIX [LATCH], seatbelt as primary restraint with lap part only routed through lower seatbelt guide	
Dummy	AF5 (49 kg)
Test type	Frontal
Set-up	The flexible ISOFIX was attached to the test bench ISOFIX low anchorages and the top tether strap to the upper anchorage point. The dummy was placed in the built-in harness for postural support. The seatbelt was used around the dummy and the Carrot 3000 (primary restraint).
Performance	Dummy was retained by the restraint during impact. No separation of any load carrying part. Right-hand side webbing guide separated from the seat (Note: this had no impact on dummy retention or performance). Top tether load 1.17 kN.

Image: Carrot 3000 frontal test

AuSAP information

Frontal tests

The following tests were undertaken with an AF5 (49 kg) dummy.

Built-in harness for postural support, seatbelt as primary restraint with lap part only routed through lower seatbelt guide	
Dummy	AF5 (49 kg)
Test type	Frontal
Set-up	The flexible ISOFIX was attached to the test bench ISOFIX low anchorages and the top tether strap to the upper anchorage point. The dummy was placed in the built-in harness for postural support. The seatbelt was used around the dummy and the Carrot 3000 (primary restraint).
Performance	Dummy was retained by the restraint during impact. No separation of any load carrying part. Right-hand side webbing guide separated from the seat (Note: this had no impact on dummy retention or performance). As a result of this test SEEDS reported in March 2023 that they have strengthened the webbing guide.

Image: Carrot 3000 frontal test

Built-in harness for postural support, seatbelt as primary restraint	
Dummy	AF5 (49 kg)
Test type	Frontal
Set-up	The dummy was placed in the built-in harness for postural support. The seatbelt was used around the dummy and the Carrot 3000 (primary restraint).
Performance	Dummy was retained by the restraint during impact. No separation of any load carrying part or fragmentation of any rigid components.

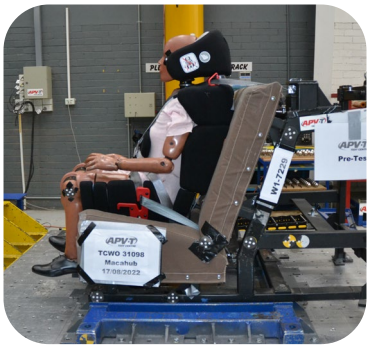


Image: Carrot 3000 frontal test

AuSAP information

Side impact protection

Australia has been a world leader in providing side impact protection requirements in its standard. In recent times the newer European standard (ECE r129) has introduced side impact testing (for torso protection) and the United States Federal Motor Vehicle Safety Standard 213 has introduced requirements for occupants under 18.1 kg, with manufacturers required to comply by 30 June 2025.

The Carrot 3000 has not been designed to provide side impact protection, as this is not a requirement of the standards or regulations it complies with.

As a key aim of AuSAP is to influence design and safety of products, side impact tests of some special purpose car seats are undertaken. The results of these tests are shared with the manufacturers to encourage them to consider improving side impact protection in future designs.

Fortunately, many modern vehicles have side airbag systems which are highly effective at reducing the risk of injury in side impact crashes. If the vehicle is not provided with side impact protection, the Carrot 3000 is recommended for use in the centre seating position, where suitable.

More information about vehicle safety features is available from How Safe is Your Car.

AuSAP information

Side impact test

The following tests were undertaken with a P6 (22 kg) dummy.

Swivel base (with ISOFIX), built-in harness for postural support, seatbelt as primary restraint	
Dummy	P6 (22 kg)
Test type	Side Impact
Set-up	The swivel base was connected to the test bench ISOFIX low anchorages with ISOFIX lower attachment connectors. The swivel base foot props were installed in accordance with the manufacturer's instructions. The dummy was placed in the built-in harness for postural support. The seatbelt was used around the dummy and the Carrot 3000 (primary restraint).
Performance	Dummy was retained by the restraint during impact. No separation of any load carrying part or fragmentation of any rigid components. Head impacted door.

Image: Carrot 3000 side impact test

Warranty period, life span and maintenance/repairs

Medifab provides a product warranty for one year from the date of product purchase. Where the product manufacturer's instruction for use or user manual state a warranty period more than 12 months, Medifab will offer the same.

The Carrot 3000 warranty period, as detailed in the user manual, is for two years from the date of original purchase. Proof of purchase is required. This warranty covers defective materials and workmanship.

The warranty does not cover incorrect and improper use, damage caused by an accident.

To make a claim, contact Medifab or the authorised distributor or retailer where the product was purchased. Medifab will undertake any required maintenance or repairs.

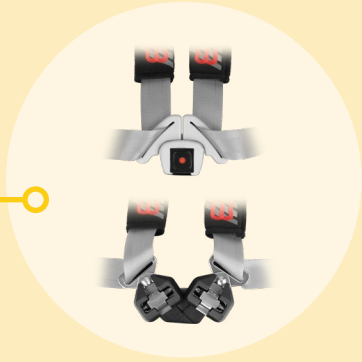
The Carrot 3000 anticipated life span is six years.

Restrictive practice

The Carrot 3000 provides options that may assist in keeping an occupant safely secured in their vehicle restraint. Where one of the following options is prescribed in response to behaviours of concern restrictive practice implications (mechanical restraint) may need to be considered.
The options include:

- Alternative buckle options
- Shoulder strap retainer

The NDIS Quality and Safeguards Commission's Restrictive Practice Guide: Safe Transportation provides guidance for NDIS Providers and NDIS behaviour support practitioners on the use of mechanical restraint during transport.



Further information

For more information visit the MACA website, or contact MACA on
Tel: (03) 9134 2500 or email contact@macahub.org

Resources

MACA's website: **www.macahub.org**

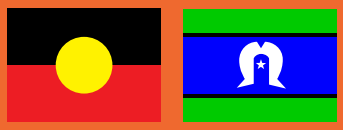
NDIS Quality and Safeguards Commission,
Restrictive Practice Guide: Safe Transportation, February 2023

How Safe is Your Car: **www.howsafeisyourcar.com.au**

Feedback

MACA values your feedback. If you find this resource useful please let us know, and if you have suggestions for improvements we would love to hear from you.

Please email **contact@macahub.org**



We pay respect to the Traditional Custodians of all lands, past, present & future. Honouring Elders & nurturing all young people.

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