

EUROPEAN NEW CAR ASSESSMENT PROGRAMME

# **Technical Bulletin**

# **Child Restraint Systems for Installation Checks**

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# **Child Restraint Systems for Installation Checks**

From 2013 onwards, Euro NCAP uses a selection of popular Child Restraint Systems (CRS) to assess the vehicle's ability to safely and correctly accommodate child seats. This list contains a sample of widely available, well performing child seats that represent most common types of products available on the European market. The list will be checked annually and updated if seats are no longer available on the market. Each update will occur at the start of the year preceding the year of application.

Euro NCAP does not assess or rate the child seats individually and although the child restraint systems on the top pick list are generally recommended, there are other seats available on the market that provide equal protection.

#### **Definitions**

#### R44 groups:

Group 0+: Infants until 13kg (approx 12 to 18 months) Group 0+/I: Infants / toddlers until 18kg (approx 3.5 yr)

Group I: Toddlers 9 -18kg (approx 1 - 3.5 yr)

Group II/III: Children from 15 kg onwards (approx 3 yr)

#### i-Size CRS

45-75 cm: Birth to approx. 12 months 45-105 cm: Birth to approx. 4 years 61-105 cm: approx. 4 months to 4 years 67-105 cm: approx. 9 months to 4 years

The CRS versions of the top pick list CRS are specified at the end of this document. Each CRS will be installed using the installation mode detailed in the tables below.

#### Universal Belted CRS

CRS	Group	Installation		Type
Maxi Cosi Cabriofix	Group 0+	Belt mounted	В	U
Maxi Cosi Cabriofix plus Easybase 2	Group 0+	Belt mounted with base & support leg Rearward facing	B_L_	Vehicle List
Römer King II LS	Group I	Belt mounted	В	U/UF
Römer KidFix XP	Group II/III	Belt mounted	В	U/UF

#### **ISOFIX CRS**

CRS	Group	Installation		Туре
Maxi Cosi Cabriofix & Familyfix	Group 0+	ISOFIX mounted with base & support leg Rearward facing	_IL_	ISO/R1
BeSafe iZi Combi X4 ISOfix	Group 0+/I	ISOFIX mounted with support leg Rearward facing, SIP+ NOT used	_IL_	ISO/R3
Römer Duo Plus	Group I	ISOFIX with Top tether mounted	_I_S	ISO/F2X
Römer KidFix XP	Group II/III	ISOFIX mounted Forward facing	B I	Vehicle List

#### i-Size CRS

CRS	Size	Installation		Туре
Maxi Cosi 2way Pearl & 2wayFix	67cm-105cm ≤ 18.5kg	ISOFIX mounted with support leg Rearward facing	_IL_	i-Size
	>15months- 105cm ≤ 18.5kg	ISOFIX mounted with support leg Forward facing		
BeSafe iZi Kid X2 i-Size	61cm-105cm ≤ 18.0kg	ISOFIX mounted with support leg Rearward facing, SIP+ NOT used	_IL_	i-Size ISO/R2
BeSafe iZi Flex FIX i-size	100cm-135cm	ISOFIX mounted, without side bumpers	_IL_	i-Size ISO/B2

Any comfort adjustments on the CRS shall be changed up to a maximum stature of 135cm. The following adjustment shall be used:

- Kidfix XP, the installation will be assessed with the height adjustment set to the 8<sup>th</sup> notch up from the bottom equating to a stature of 135cm, where the lowest position is notch 1.
- BeSafe iZi Flex FIX, the installation will be assessed with the height adjustment set to the 10<sup>th</sup> position up from the bottom equating to a stature of 135cm, where the lowest position is number 1.

Where the vehicle manufacturer recommends any CRS and boosters the settings/adjustments for each applicable child stature shall be provided to Euro NCAP.

#### **CRS Versions**

Maxi Cosi Cabriofix

Specification equivalent to build No: 2251394

Approval No: 04443517

Easybase2

Approval No: E4 04443523

FamilyFix base Approval No: 043908

Römer King II LS

From Serial No: 00006177 (dated 10.03.2014)

Approval No: E11 041578

Römer KidFix XP

Serial No: 1085025 (dated 07.09.2015)

Approval No: E1 04301304

BeSafe iZi Combi X4 ISOfix

Approval No: ECE R44-04 4201

Römer Duo

From Serial No: 00.419.994 (dated 11.03.2011)

Approval No: 04301133

Maxi Cosi 2way Pearl & 2wayFix

Approval No: E4-129R-000001

BeSafe iZi Kid X2 i-Size

Approval No: E4-129R-000002

BeSafe iZi Flex FIX i-Size

Approval No: E4-129R-02-000017

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# **Child Restraint Systems for Dynamic Testing**

#### **Q6 Dummy**

The Q6 dummy will be placed in a forwards facing CRS only, rearwards facing CRS are NOT accepted. Where the vehicle manufacturer does not recommend a FWF CRS for a six year old child, the front ODB and Side MDB impacts will be performed with the Q6 dummy seated in a booster seat selected from the top pick list. This CRS will be the **Britax Römer Kidfix XP** installed using the ISOFIX anchorages and adult belt. Where the vehicle offers no ISOFIX anchorages, it will be installed using the adult belt only. The CRS height adjustment shall be set to the 4<sup>th</sup> notch up from the bottom, where the lowest position is notch 1.

#### Q10 Dummy

Where the vehicle manufacturer does not recommend booster cushion for a ten year old child (either stand-alone or as part of a booster seat with detachable backrest), the front ODB and Side MDB impacts will be performed with the Q10 dummy seated on a booster cushion (only) selected from the list below by the vehicle manufacturer, where no selection is made the Secretariat will choose at random.

For both child dummies, the requirements detailed in the Euro NCAP COP Assessment protocol, Section 3.1.3 relating to stature, CRS adjustment and integrated CRS must be followed.

#### Fischer Price Safe Voyage Graco Booster Basic

Where the Graco booster is to be installed in Euro NCAP tests, the seat belt clip must NOT be used under any circumstance. The adjustable arm rest shall be positioned to the highest position.

Nania/OSANN Dream - approval number ECE R44: E2 - 0403011 Nania/OSANN UP - approval number ECE R44: E2 - 049047 Nania/OSANN Junior - approval number ECE R44: E24 - 04148 Peg Perego Viaggio 2-3 Shuttle - approval number ECE R44.04: E24 - 0000256

Where the vehicle manufacturer recommends the use of the high back version of either the Kidfix XP or Takata Maxi for the Q10, the test will be performed with either the booster cushion only with backrest removed or a booster cushion from the list above.