

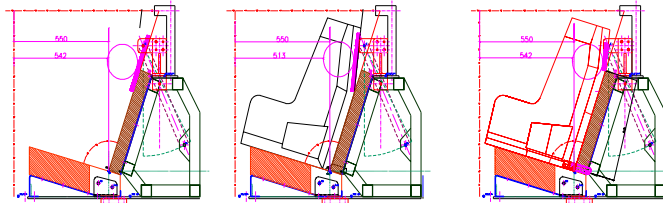
# ISOFIX CRS volume envelope B1 Vehicle Fit

## Background

- The ISO 13216-3 volumetric devices generate a condition that effectively reduces the head excursion space available
- A proposal for revision to the rear surface has been accepted by ISO WG1 (as an additional device)
- GRSP requested that data be supplied on vehicle fit of proposed device
- Installation checking in hand 97% completed

## Reason for revision

Comparison ISOFIX CRS F3 with  
Standard CRS Forward Facing and  
new Proposal



Left hand figure shows head position spaced from cushion surface by required energy absorption material giving 547 mm of excursion space, centre figure shows forward head position generated by current rear surface including EA material reducing excursion space to 515 mm, right hand view shows the CLEPA proposal that regains head excursion space.



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## Method

- Data used German sales by manufacturer and model (KBA – December 2002)
- ISOFIX capable vehicle models identified
- Volumetric device checked for fit & photographed
- Analysis of results



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## Findings

- As at end 2002 approximately 66% (by volume) of vehicles sold in Germany were ISOFIX capable – either initial fit/optional/retrofit
- Of ISOFIX capable vehicles so far checked the CLEPA proposed device fits approximately 94% of market volume



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## Findings

- Of 63 models checked
  - B1 fits 36 without adjustment to head restraint
  - B1 fits 23 with adjustment to or removal of the head restraint (similar to requirement for good fit of non ISOFIX CRS)
  - B1 does not fit 4 models
- Still to be checked approximately 3 % of the ISOFIX equipped vehicles

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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Audi A2 model 2003**



fits: X	does not fit:	headrest must be removed	X
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Audi A3 model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Audi A4 model 2003**



fits: X	does not fit:	headrest must be removed: X
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Audi A6 model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Audi A8 model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height CLEPA Proposal**

**BMW 5 Series Touring 2003 (530i se)**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height CLEPA Proposal**

**BMW X5 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Chrysler Jeep Cherokee model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Chrysler PT Cruiser model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Chrysler Voyager model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Ford Fiesta model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Honda Jazz model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Honda CRV model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Honda Stream model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Honda Civic model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height CLEPA Proposal**

**Lexus LS430**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height CLEPA Proposal**

**Lexus GS300/430**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Mazda 6 model 2003**



fits: X	does not fit:	headrest must be removed: No
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GRSP-Data envelope reduced height 2<sup>nd</sup> version

Mazda 323F model 2003



fits: <b>X</b>	does not fit:	headrest must be removed: No
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GRSP-Data envelope reduced height 2<sup>nd</sup> version

Mazda MX 5 model 2003



fits:	does not fit: <b>X</b>	headrest must be removed:
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Mazda Premacy model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Mazda Tribute model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Mercedes A-Klasse model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Mercedes C-Klasse model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Mercedes C-Klasse Coupe model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Mercedes CLK model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Mercedes E-Klasse (W211) model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Nissan Micra model 2002**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Nissan Micra model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Nissan Almera Tino model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Nissan Primera model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Nissan X Trail model 2003**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Opel Vectra model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Peugeot 206 SW model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Peugeot 307 model 2003**



fits: X	does not fit:	headrest must be removed: X
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Peugeot 807 model 2003**



fits: X	does not fit:	headrest must be removed: X
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Peugeot Partner model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Renault Espace model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Renault Clio model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Renault Vel Satis model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Renault Scenic model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Renault Twingo model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Renault Kangoo model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Renault Laguna model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Renault Megane 2 model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Seat Leon model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Seat Ibiza model 2003**



fits:	does not fit: X	headrest must be removed: X
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Seat Cordoba model 2003**



fits:	does not fit: X	headrest must be removed: X
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Skoda Superb model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Skoda Octavia model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Skoda Fabia model 2003**



fits:	does not fit: X	headrest must be removed: X
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**GRSP-Data envelope reduced height CLEPA Proposal**

**Subaru Impreza GX Sport**



fits: X	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height CLEPA Proposal**

**Subaru Forrester X AWD**



<b>fits: X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height CLEPA Proposal**

**Subaru Legacy GX AWD Saloon**



<b>fits: X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Toyota Yaris Verso model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**Toyota Avensis model 2002**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**VW Tuareg model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**VW Polo model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**VW Lupo model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**VW Sharan model 2002**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**VW Touran model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: No
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**VW Tuareg model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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**GRSP-Data envelope reduced height 2<sup>nd</sup> version**

**VW Passat Variant model 2003**



fits: <b>X</b>	does not fit:	headrest must be removed: <b>X</b>
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