

GRSP informal on CRS

« DEFINE A SIMPLE SEATBELT PATH »
for Integral systems

Preliminary results



WHY PRELIMINARY ?

- The data used today belongs to BSRI Belgian Road Safety Institute and is still under analysis in collaboration with LAB.
- This only a working document, updated version will be provided/published when analysis is finalized
- Due to schedule of the GRSP informal group, data are presented in a draft version



SUMMARY

- Why is necessary?
- Helping end-users, questions
- Definition of a «simple seatbelt route »
- Available material and methodology
- Integral systems - seatbelt attached
- Results
- Other points (strong link with phase II)
- Perspectives works

Why is necessary?

- Misuse of CRS installation is an issue
- Phase III of ECE R129 is under construction
- If no input / reflection, situation of CRS attachment with seatbelt not will be improved
- End-user ease of use and misuse reduction are part of initial philosophy of R129.
- Awareness of parents
 - on the danger of incorrect CRS fixation
 - on the fact that they are actors in this issue

Why is necessary?

- If CRS installation is not understood, end-users are doing it simple, and quickly, rarely looking for a safe solution

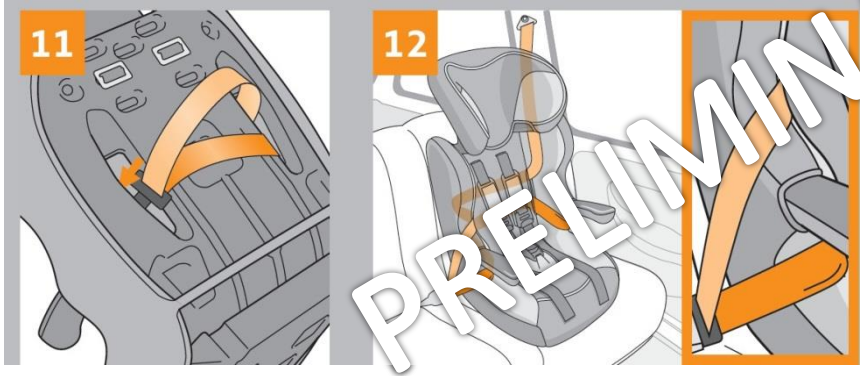


How to help end-users

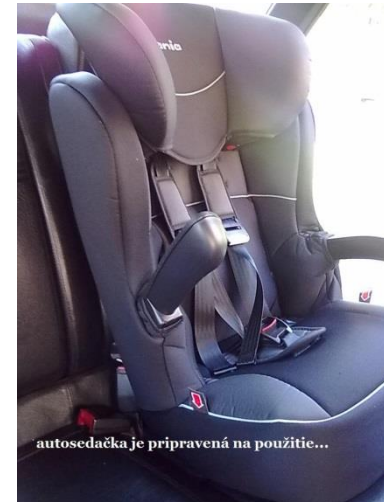
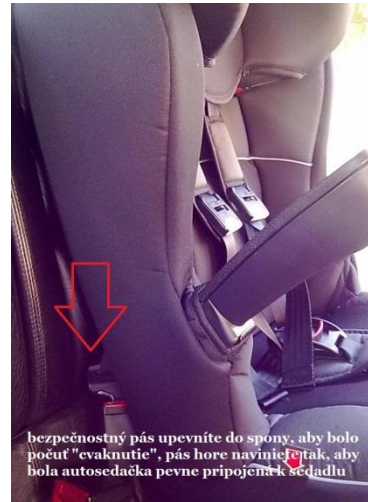
- Lot of information available but what is really useful to help consumer
 - Controlled
 - User manual / CDs / DVDs provided with CRS
 - User instructions (pictograms)
 - Colour codes
 - Not controlled
 - Demonstrations on youtube
 - Discussions / advices on forums

How to help end-users

- Example



User manual - available on line



Slide show - available on line

How to help end-users



autosedacia je pripravena na pouzitie...

Definition of « simple seabelt route »

- Different approaches are possible:
 - Definition by specialists of the exact terminology to be included in the final regulation text
 - Not today's exercise
 - Simple, for what, for who?
 - CRS and car makers (engineers),
 - rating organisations (provision of points to be achieved),
 - end-users (understandable and ease of use)
 - Today's purpose is to see how parents are performing

Available material

- Misuse field data:
 - sufficient degree of technical information
 - CRS model, misuse description, fiability of coded data
 - sufficient sample size
 - recently collected
- BRSI data collection
 - Detailed; with trained inspectors; approx. 2000 children studied, lot of pictures available – for post collection coding/quality check, data collected in September 2014.

Methodology

- Selection of integral G1 CRS
- Split into 4 categories corresponding to different seatbelt routes
- Look at **misuse of installation**

Integral systems seatbelt attached

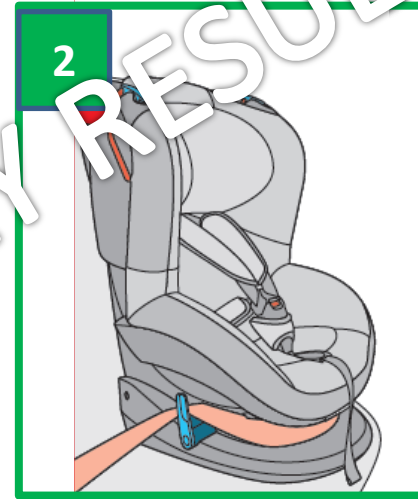
**G1 and convertible CRS
G0+/1**

Common, many models, since years



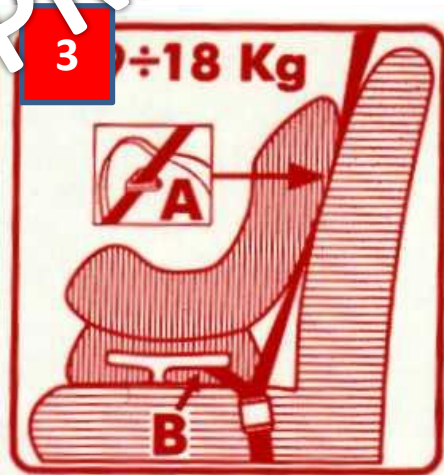
**Mainly G1 only
(convertible?)**

Common, few models, relatively recent



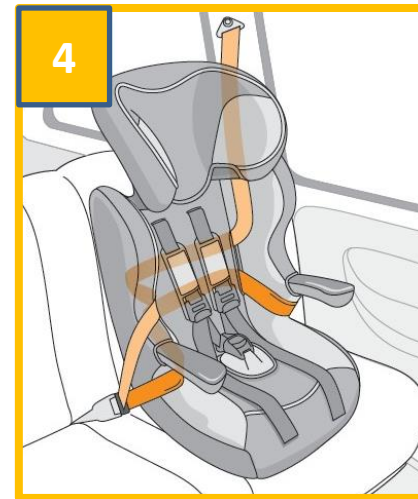
**convertible CRS
G0+/1**

Less and less used for CRS attachment



Multigroup 123

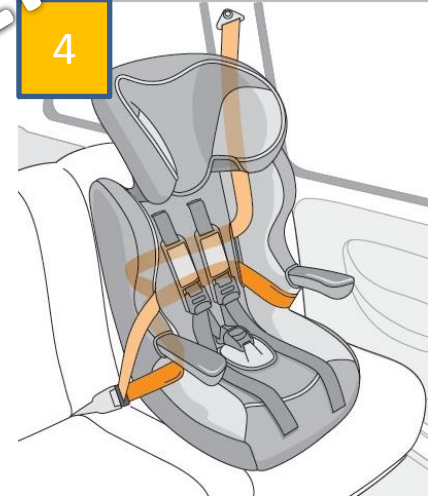
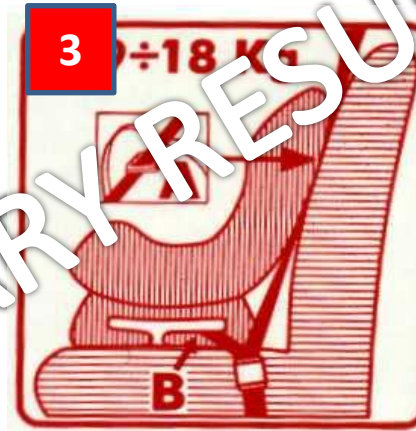
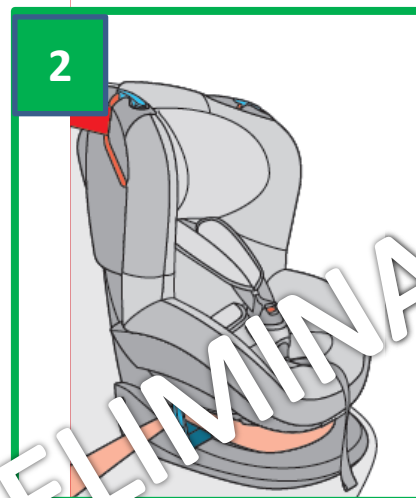
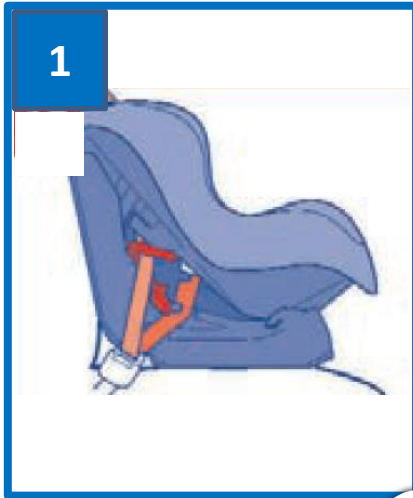
Common, many models, appeared relatively recent (44/03?)



Results

- 498 harness CRS fixed by seatbelt
- Average rate of misuse installation: 25%
- Detailed of seatbelt attachment category is unknown for 27%
- Sample with known attachment category = 365 with an average rate of misuse of 27%

Results



Effective: 16
No misuse: 124
Misuse: 40

Rate misuse
=
24%

Effective: 101
No misuse: 81
Misuse: 20

Rate misuse
=
20%

Effective: 23
No misuse: 11
Misuse: 12

Rate misuse
=
52%

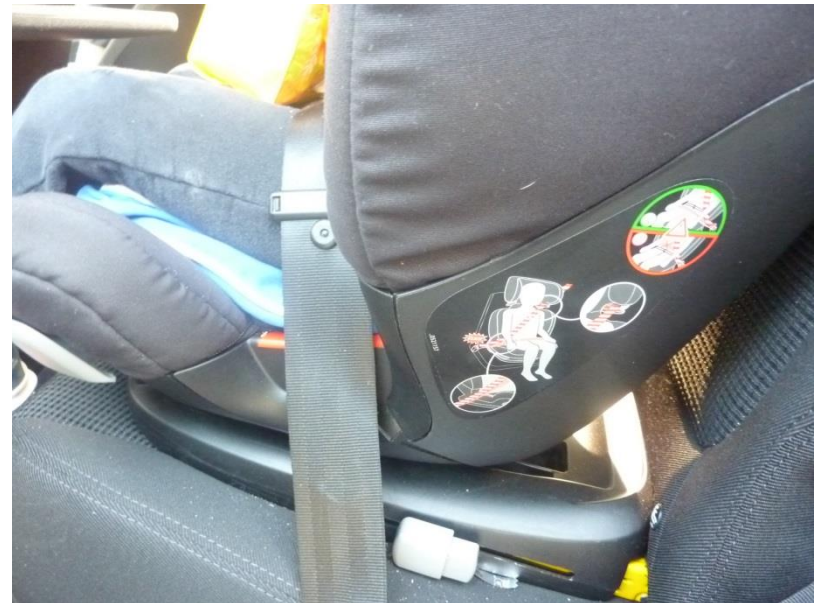
Effective: 76
No misuse: 48
Misuse: 28

Rate misuse
=
37%

PRELIMINARY RESULTS

Other points (link with Phase II)

- Booster systems (highback and low back)
 - Most commonly seen misuse
 - Existing systems avoiding the risk with a good seatbelt positioning: need to consider this point



Other points (link with Phase II)

- Two installations possibility forward facing:
 - Confusion leading to unsafe situation

DEDICATED TO
G1 USE BUT RED
MARKED, SO
USED FOR G2/3
SOMETIMES



Perspectives

- Finalise the analysis of pictures
- Rate the misuse severity in the different « seatbelt attachement » categories
- Update document and circulate/publication on the item, including ISOFIX systems, shields(?), booster systems issues
- Collaborate with CLEPA to translate results (integral systems and boosters) into technical requirements, and make proposal to GRSP informal group

Acknowledgements / Welcome / Questions

- BRSI for data disposal
- GRSP informal group to consider this analysis
- CLEPA for collaboration if any

