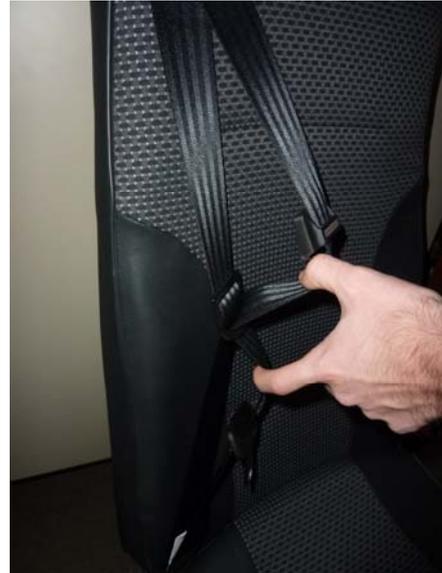
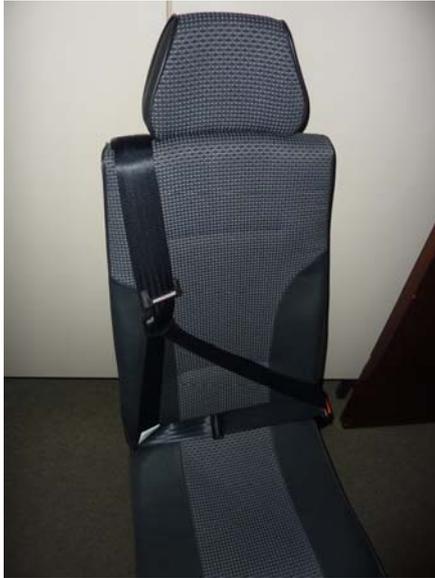
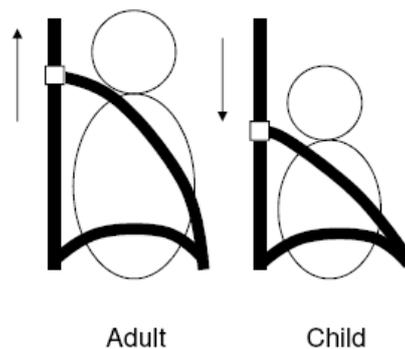


## Transportation of children in busses and coaches secured by so “called generation-belt-systems”

For the transportation of children in busses and coaches several types of so called “generation-belt-systems” can be found on the market. The belts do have a system approval according to UN-Regulation No. 16 as 3-point adult belt.



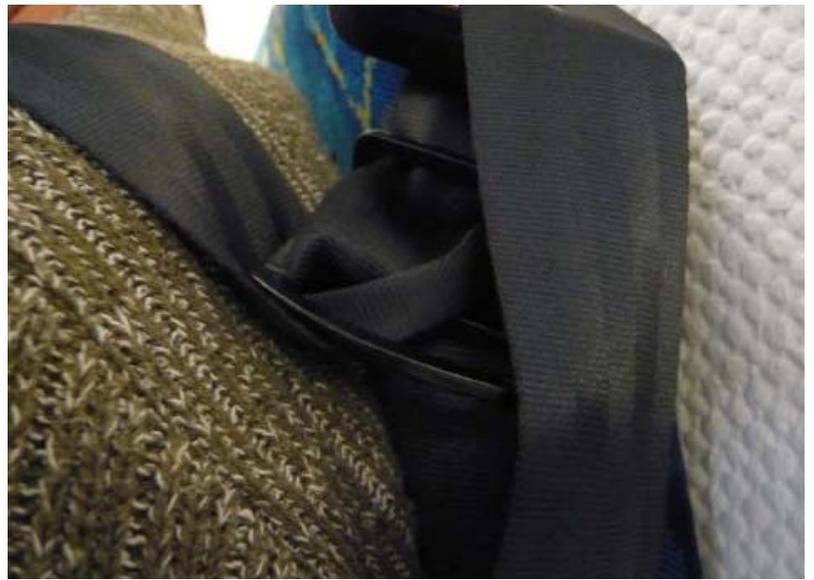
The upper anchorage on the generation belt can be raised or lowered to accommodate smaller occupants such as children



When these systems are installed in busses and coaches of category M2 and M3 the installation of the belts and the effective anchorage points have to be approved according to UN-Regulation No. 16 and No. 14.

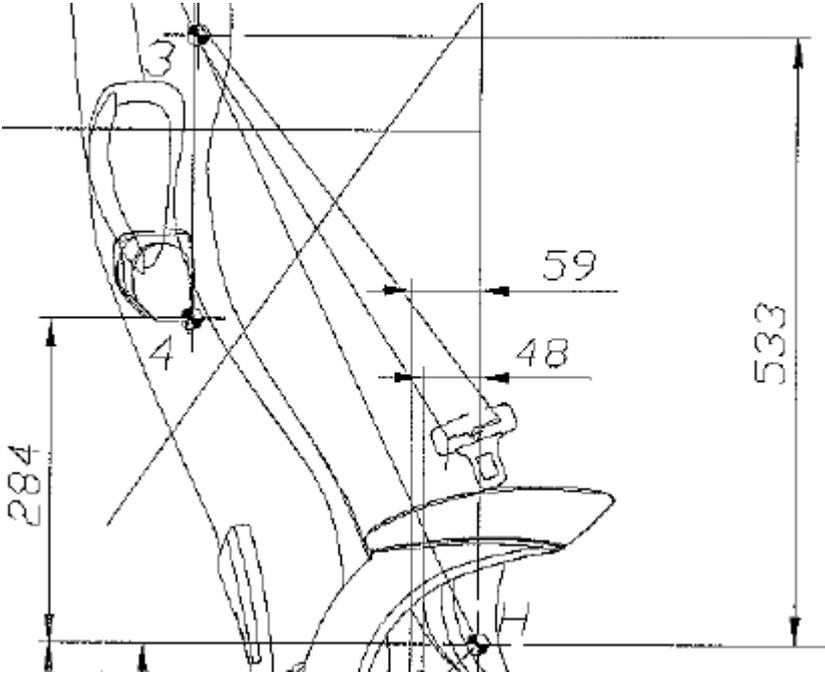
During the approval of buses and coaches, a couple of systems were found, which do not fulfil one or more or all of the following points of UN-Regulation No. 16:

- 8.2.2.2 The straps are not liable to assume a dangerous configuration
- 8.2.2.3 That the danger of a correctly positioned belt slipping from the shoulder if a wearer as a result of his/her forward movement is reduced to a minimum
- 8.2.2.4 The risk of the strap deteriorating through contact with sharp parts of the vehicle or seat structure, child restraint systems or ISOFIX child restraint systems ...
- 8.2.2.5 The design and installation of every safety-belt provided for each seating position shall be such as to be readily available for use. ...
- 8.3.1. Rigid parts, such as the buckles, adjusting devices and attachments, shall not increase the risk of bodily injury to the wearer or to other occupants of the vehicle in the event of an accident.
- 8.3.3 When the belt is being worn, it shall either adjust automatically to fit the wearer or be so designed that the manual adjusting device is readily accessible to the wearer when seated and is convenient and easy to use. It shall also be possible for it to be tightened with one hand to suit the build of the wearer and the position of the vehicle seat.
- 8.3.4. Safety-belts or restraint systems incorporating retractors shall be so installed that the retractors are able to operate correctly and stow the strap efficiently.



And/or the systems do not fulfil UN-Regulation No. 14,

- 5.1.4. Point C is a point situated 450 mm vertically above the R point. However, if the distance S as defined in paragraph 5.1.6. is not less than 280 mm and if the alternative formula  $BR = 260 \text{ mm} + 0.8 S$  specified in paragraph 5.4.3.3. is chosen by the manufacturer, the vertical distance between C and R shall be 500 mm.



Germany is of the opinion that an approval for such systems cannot be granted as the existing requirements do not allow for. These products therefore should not be used for safety reasons. Non-complying and non-functioning systems should be removed from the market. The Danish Ministry of Transportation has already banned the use of such systems:



### Tilbagekaldelse af ulovligt sikkerhedsudstyr til børn i busser

Gammel Hant 4  
1117 København K  
Telefon 7226 7000  
Fax 3338 1439  
info@trafikstyrelsen.dk  
www.trafikstyrelsen.dk

Trafikstyrelsen har modtaget indberetning om, at der sælges og bruges ikke godkendt sikkerhedsudstyr til fastspænding af børn i bl.a. busser der bruges til kørsel med børnehavebørn.

Dato 19.07.2011

Eksempler på ikke godkendt sikkerhedsudstyr til fastspænding af børn er generationssele, clips til føring af selegjord og seleholder:



Generationssele



Seleclips



Seleholder

Udstyr skal ifølge *Bekendtgørelse 357 af 19/4 2006 om krav til sikkerhedsudstyr for børn i biler* være godkendt og mærket i henhold til ECE-regulativ 44.03 eller direktiv 77/541/EØF (eller senere tilpasninger af regulativ eller direktiv).

Korrekt mærkning af udstyr kan se således ud, hvor man skal være opmærksom på, at der skal være en angivelse af barnets vægt, og at de to første tal i godkendelsesnummeret skal være 03 eller 04:

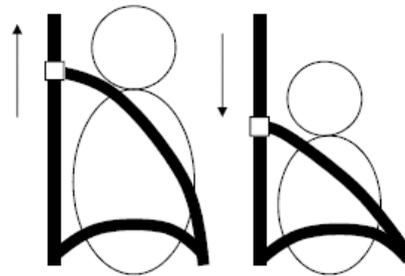


However, for well constructed systems, for which the only point not being fulfilled is the height requirement (450 mm) of point 5.1.4 of Regulation No. 14, the concept can have the benefit of a better belt routing at the shoulder-belt section in the neck area, but still the belt routing of the lap-belt section across the stomach may be a problem.

GRSP may discuss to modify Regulation No. 14 for specific vehicle categories in a way, that it will be possible to reduce the height of 450mm above the R-point, having in mind, that such systems will prevent the use of type approved universal CRS systems and seat integrated CRS.



The upper anchorage on the generation belt can be raised or lowered to accommodate smaller occupants such as children



Adult

Child

