



ISOFIX child restraint fixture R2: Fitment in vehicles

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Universal ISOFIX position in vehicle



Discussion about requirements for ISOFIX positions in vehicles to be defined as “universal”:

- lower ISOFIX anchorages (already defined in ECE R14/16)
- top tether anchorage (already defined in ECE R14/16)
- requirements for vehicle floor to allow child restraints with support leg (claimed by the group, but still under discussion)
- space available for ISOFIX F2 and/or R1 fixture (already defined in ECE R14/16)
- space available for ISOFIX R2 fixture (claimed by the group, but still under discussion)

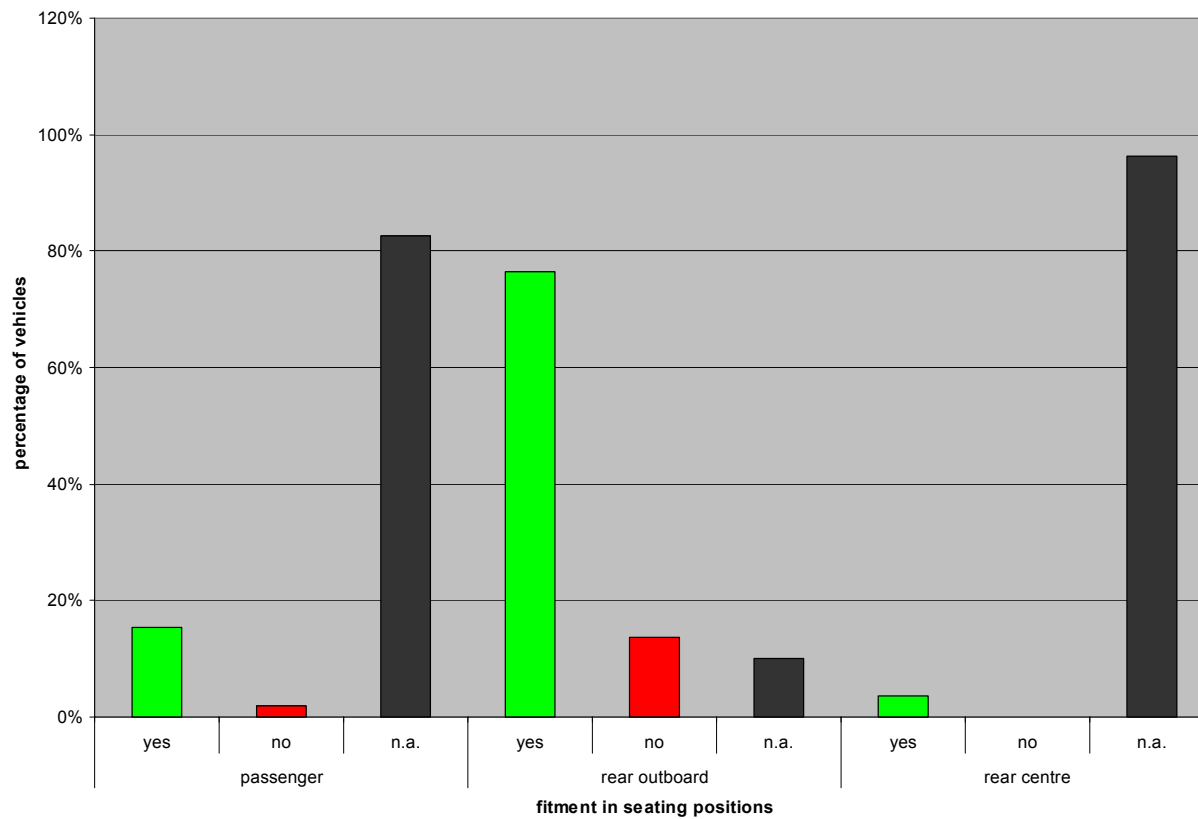
Next pages show investigation of available vehicle space and fitment of ISO R2 fixture:

- data basis: 110 vehicle types in all categories (small, middle, luxury, van, SUV, coupés, convertibles and sports cars)
- investigated seating positions where front passenger seat, rear outboard and rear centre seat
- classification of seating positions in “ISO R2 fits” (yes), “ISO R2 does not fit” (no) and “no ISOFIX anchorages available” (n.a.)
- to keep in mind: data is based on current vehicle fleet; not all vehicles do already meet the new ISOFIX requirements of ECE R14/R16 because transitional period for ISOFIX is still running

Overview: all vehicle classes



ISO R2 fixture (all vehicles)



Most vehicles (83%) are not equipped with ISOFIX anchorages on front passenger seat and on rear centre seat (96%)

ISO R2 fits in 76% of rear outboard seats

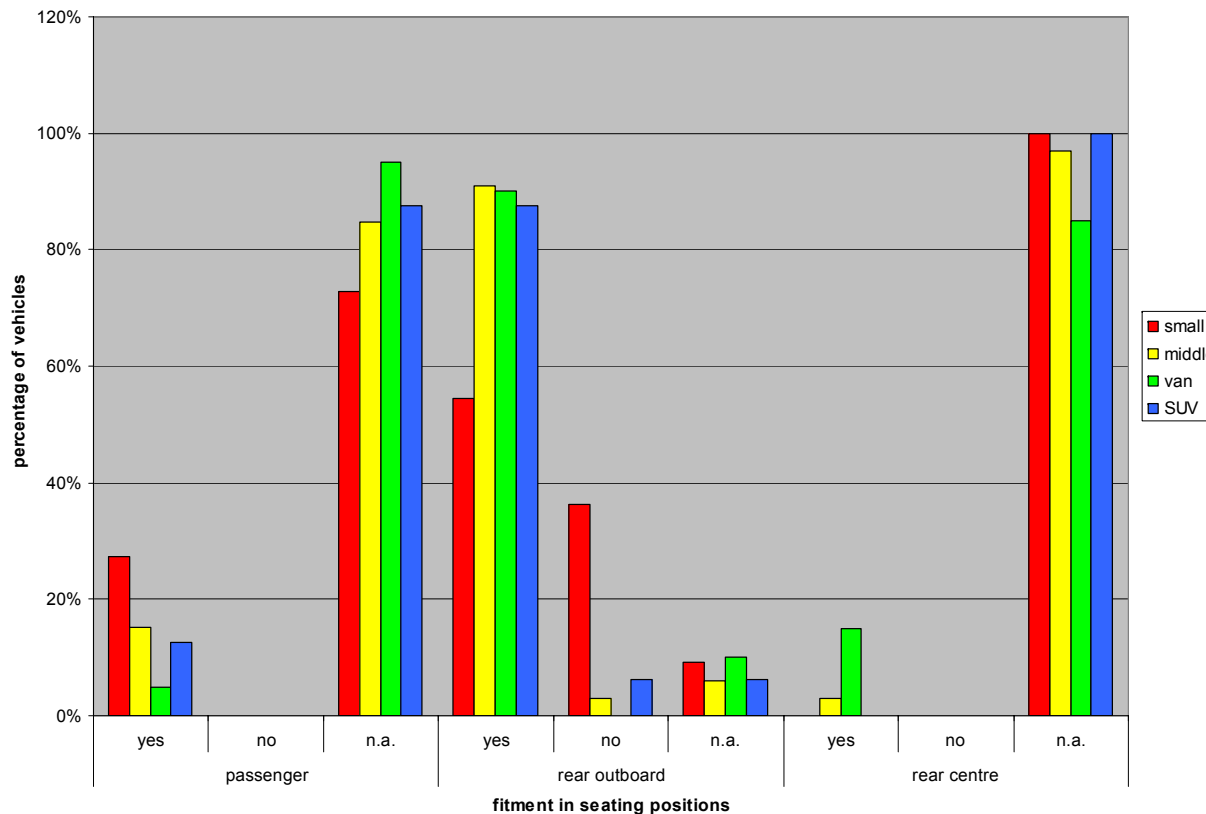
ISO R2 does not fit in 14% of rear outboard and 2% of front passenger seats

Situation in family cars



The diagram below shows fitment of ISO R2 fixture in family cars (which are: small, middle, van and SUV). Excluded here are coupés, convertibles, luxury and sports cars.

ISO R2 fixture (family cars)



Most vehicles (85%) are not equipped with ISOFIX anchorages on front passenger seat

ISO R2 fits on front passenger seat, when there are ISOFIX anchorages

In small cars ISO R2 does not fit in 36% of the vehicle types (often used as second car and therefore used for child transport!)

Conclusions



Summary and conclusions:

- ISO R2 fixture would fit in all front passenger seating positions, but most of the vehicles are not equipped with ISOFIX anchorages on these seats
- ISO R2 does not fit in 14% of rear outboard and 2% of rear centre seats (all categories)
- especially in small cars, which are often “second cars” and therefore used for transport of children, 36% of the vehicles types have not enough space for the ISO R2 envelope

Recommendation:

- The definition of an “universal ISOFIX seating position” in the vehicle should not include the ISO R2 fixture (as already defined in ECE R16)
- All seating positions with ISOFIX and top tether anchorages should be “universal”, when fitting F2 envelope. For the fitment of the different child restraint sizes and for the information of the consumer the current size classification (with letters A, B, C, ...) should be maintained as already defined in ECE R16.