

Proposal for Supplement 8 to the 07 series of amendments and for Supplement 4 to 08 series of amendments to UN Regulation No. 16 (Safety-belts)

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The text reproduced below was prepared by the expert from the International Organization of Motor Vehicle Manufacturers (OICA).

It replaces former working document ECE/TRANS/WP.29/GRSP/2019/15 and informal document GRSP-66-14.

The proposal aims to introduce an optional (on the choice of the manufacturer) test procedure for frontal airbags in combination with rearward facing child restraint systems in the rear seat to demonstrate that no deactivation of the airbag is needed. The aim of the proposal is to promote new airbag technologies.

Following discussions with GRSP experts and as suggested during last GRSP in Dec. 2021 (ECE/TRANS/WP.29/GRSP/70, Paragraph 12), the proposal has been revised in order to limit the scope to specific vehicle ECRS.”

The modifications to the current text of the Regulation are marked in bold for new characters.

Text of the Regulation, amend to read:

Paragraphs 8.1.9. to 8.1.10., amend to read:

"8.1.9. In the case of a frontal protection airbag in the front passenger seat, the warning shall be durably affixed to each face of the passenger front sun visor in such a position that at least one warning on the sun visor is visible at all times, irrespective of the position of the sun visor. Alternatively, one warning shall be located on the visible face of the stowed sun visor and a second warning shall be located on the roof behind the visor, so, at least one warning is visible all times. It shall not be possible to easily remove the warning label from the visor and the roof without any obvious and clearly visible damage remaining to the visor or the roof in the interior of the vehicle.

If the vehicle does not have a sun visor or roof, the warning label shall be positioned in a location where it is clearly visible at all times.

In the case of a frontal protection airbag for other seats than the front seats in the vehicle, the warning shall be directly ahead of the relevant seat, and clearly visible at all times to someone installing a rear-facing child restraint on that seat. The requirements of this paragraph and paragraph 8.1.8. do not apply to those seating positions equipped with a device which automatically deactivates the frontal protection airbag assembly when any rearward facing child restraint is installed **or if the seating position is approved only for use with a specific vehicle ECRS that is tested according to paragraph 7.1.3.2. or 7.1.3.3. of UN Regulation No. 129, 03 series of amendments, with the airbag active during the frontal impact test.**

8.1.10. Detailed information, making reference to the warning, shall be contained in the owner's manual of the vehicle; as a minimum, the following text in all official languages of the country or countries where the vehicle could reasonably be expected to be registered (e.g. within the territory of the European Union, in Japan, in Russian Federation or in New Zealand, etc.), shall at least include: NEVER use a rearward facing child restraint on a seat protected by an ACTIVE AIRBAG in front of it, DEATH or SERIOUS INJURY to the CHILD can occur"

The text shall be accompanied by an illustration of the warning label as found in the vehicle. The information shall be easily found in the owner's manual (e.g. specific reference to the information printed on the first page, identifying page tab or separate booklet, etc.).

The requirements of this paragraph do not apply to vehicles of which all passenger seating positions are equipped with a device which automatically deactivates the frontal protection airbag assembly when any rearward facing child restraint is installed **or if the seating position is approved only for use with a specific vehicle ECRS that is tested according to paragraph 7.1.3.2. or 7.1.3.3. of UN Regulation No. 129, 03 series of amendments, with the airbag active during the frontal impact test.**

II. Justification

1. The accident statistics in recent years show the benefits of protecting forward-facing occupants in case of a frontal crash, if the restraint system combines a safety belt and an airbag.

2. The safety belt and airbag system for the driver and the passenger in the first seats has been continuously optimised, however not in the rear.

3. It would be beneficial to use such systems also in the rear as it would allow for:

(a) Better protection of the head and neck, primarily for bigger occupants (50 per cent and 95 per cent);

(b) Lower level of belt force;

(c) Better protection of occupants against stiffer seat structures (e.g. rear-seat entertainment).

4. The implementation of an airbag in the rear is very complex due to the integration of the component, the geometrical situation and the many variances of possible seating positions. Therefore, it is recommended to develop for this situation an airbag technology of minimum risk during deployment of the airbag cushion, fulfilling a good performance and requirements specially for rearward-facing child restraints. Following discussions with GRSP experts and as suggested during last GRSP in Dec. 2021 (ECE/TRANS/WP.29/GRSP/70, Paragraph 12), the proposal has been revised in order to limit the scope to specific vehicle ECRS approved according to UN Regulation 129. The respective front impact tests shall be conducted with the respective frontal airbag of the vehicle active.

In this case, both an airbag deactivation and an airbag warning label would no longer be needed; a particular care of the driver for the CRS on the rear seat would not be necessary.
