

## **Proposal for Supplement 2 to the 02 series of amendments to Regulation No. 129**

### **Submitted by the expert from France\***

The text reproduced below was prepared by the expert from France, on behalf of the informal group on Child Restraints Systems and supersedes document ECE/TRANS/WP.29/GRSP/2016/23. The modifications to the current text of the UN Regulation and of ECE/TRANS/WP.29/2016/107 (02 series of amendments to the UN Regulation) and ECE/TRANS/WP29/GRSP/2016/19 (Proposal for Supplement 1 to the 02 series of amendments to Regulation No. 129) are marked in bold for new or strikethrough for deleted characters.

### **I. Proposal**

*Text of the Regulation,*

*Paragraph 2.3.2., amend to read*

"2.3.2. *"i-Size booster seat"* (Non-Integral Universal Enhanced Child Restraint System) is a category of Enhanced Child Restraint Systems with integrated backrest and stowable ISOFIX ~~connectors~~ **attachments** if any, primarily designed for use in all i-Size seating positions of a vehicle."

*Paragraph 2.6., amend to read:*

"2.6. *"Integral Universal ISOFIX ~~Universal~~"* is an ISOFIX **Enhanced Child Restraint System** comprising either a top-tether or a support-leg, to limit the pitch rotation of the Enhanced Child Restraint System, attached to, or supported by, the corresponding vehicle."

*Paragraph 2.16., amend to read:*

"2.16. *"CRF pitch angle"* is the angle between the bottom surface of the fixture "ISO/F2 (~~B~~) as defined in Regulation No. 16 (Annex 17, Appendix 2, Figure 2) and the horizontal Z plane of the vehicle as defined in Regulation No. 14 (Annex 4, Appendix 2), with the fixture installed in the vehicle as defined in Regulation No. 16 (Annex 17, Appendix 2)."

*Paragraph 2.17.1., amend to read:*

"2.17.1. *"ISOFIX Vehicle seat fixture"* means a fixture, according to ISOFIX size ~~classes~~ **envelopes** whose dimensions are given in Figures 1 to 7 of Appendix 2 to Annex 17 to Regulation No. 16, used by an Enhanced Child Restraint System manufacturer to determine the appropriate dimensions of an ISOFIX Enhanced Child Restraint System and the location of its ISOFIX attachments."

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\* In accordance with the programme of work of the Inland Transport Committee for 2016–2017 (ECE/TRANS/254, para. 159 and ECE/TRANS/2016/28/Add.1, cluster 3.1), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

Paragraph 2.57., amend to read:

"2.57. "Module", is a part of an ECRS that is separate from the ISOFIX ~~attachments connectors~~ and is in direct contact with the child. A module can be used whether or not as a stand-alone to restrain a child in a car. A base is allowed to accept more than one module (Module A, Module B, etc.)."

Paragraph 4.6., amend to read:

"4.6. Marking for integral ECRS including ISOFIX connections attachments.  
The marking shall be located on the part of the ECRS which includes the ISOFIX ~~connectors~~ **attachments**.  
One of the following information labels shall be permanently visible to someone installing the Enhanced Child Restraint System in a vehicle:"

Paragraph 4.6.2., amend to read:

"4.6.2. *Specific Vehicle ISOFIX ECRS*.  
If the product includes ISOFIX attachments, the following information shall be permanently visible to someone installing the restraint in a vehicle:  
The ISO ISOFIX logo followed by the ~~letter(s)~~ **reference(s)** that is/are appropriate for the ISOFIX size ~~class(es)~~ **fixture(s)** into which the product fits. As a minimum, a symbol consisting of a circle with a diameter of minimum 13 mm and containing a pictogram, the pictogram shall contrast with the background of the circle. The pictogram shall be clearly visible either by means of contrast colors or by adequate relief if it is moulded or embossed.



**B** ISO/F2, **€** ISO/R3 and **F** ISO/L1

The Specific vehicle ISOFIX Enhanced Child Restraint System shall have a permanently attached label visible to the person installing the Enhanced Child Restraint System in the car, containing the following information:

Specific Vehicle ISOFIX "

Paragraph 4.6.3., amend to read:

"4.6.3. An international approval mark as defined in paragraph 5.4.1. In case the ECRS containing module(s) this marking shall be permanently attached to the part of the ECRS which includes the ISOFIX ~~connectors~~ **attachments**."

Insert a new paragraph 4.7.3., to read:

"**4.7.3. An impact shield that is not permanently attached to the child seat shall have a permanently attached label to indicate the make and model of the ECRS to which it belongs. The minimum size of the label shall be 40 x 40 mm**"

Paragraph 5.4.3.1., amend to read:

"5.4.3.1. The words "R129" followed by a dash and the same approval number as the part of the ECRS which includes the ISOFIX ~~connectors~~ **attachments**;"

Paragraph 6.3.2.1., amend to read:

"6.3.2.1. Internal geometric characteristics

The Technical Service conducting the approval tests shall verify that the internal dimensions of the Enhanced Child Restraint System conform to the requirements of Annex 18. The minimum dimensions for shoulder breadth, hip breadth and sitting height shall be fulfilled simultaneously for any stature within the size range declared by the manufacturer. Integral Enhanced Child Restraint System shall also fulfil the minimum and maximum dimensions of shoulder height, for any stature within the size range declared by the manufacturer.

**Non-integral Enhanced Child Restraint System shall also fulfil the maximum dimensions of shoulder height, for any stature within the size range declared by the manufacturer"**

Paragraph 6.3.2.1., amend to read:

"6.3.2.2.1. Integral Class Enhanced Child Restraint Systems

The maximum external dimensions for the width, height and depth of the Enhanced Child Restraint System and the locations of the ISOFIX anchorages system, with which its attachments shall engage, shall be defined by the ISOFIX Vehicle Seat Fixture as defined in paragraph 2.17.1. of this Regulation.

(a) i-Size Forward facing Enhanced Child Restraint Systems shall fit within the ISO/F2x size envelope for a reduced-height forward-facing toddler CRS;

(b) i-Size Rearward facing Enhanced Child Restraint Systems shall fit within the ISO/R2 size envelope for a reduced-size rearward-facing toddler CRS;

(c) Specific vehicle ISOFIX Enhanced Child Restraint Systems shall fit:

(i) in vehicle(s) specified in a list or

(ii) at least in one of the ISO (R1, **R2X**, R2, R3, **F2X**, F2, ~~F2X~~, F3, L1, L2) size envelopes as described in Annex 17 Appendix 2 of Regulation No. 16.

..."

Paragraph 6.3.5.1., amend to read:

"6.3.5.1. Support-leg and support-leg foot geometrical requirements

The support leg, including its attachment to the Enhanced child restraint systems and the support-leg foot shall lie completely within the support leg dimension assessment volume (see also figures 1 and 2 of annex 19 of this Regulation), which is defined as follows:

(a) In width by two planes parallel to the X'-Z' plane separated by 200 mm, and centered around the origin; and

(b) In length by two planes parallel to the Z'-Y' plane and positioned at distances of 585 mm and 695 mm forward of the origin along the X' axis; and

(c) In height by a plane parallel to the X'-Y' plane, positioned at a distance of 70 mm above the origin and measured perpendicular to the X'-Y' plane. Rigid, non-adjustable parts of the support leg shall not extend beyond a plane parallel to the X'-Y' plane, positioned at a distance of 285 mm below the origin and perpendicular to the X'-Y' plane.

**The support-leg may protrude the support-leg dimension assessment volume, providing it remains within the volume of the relevant CRF”.**

*Paragraph 6.6.4.1.6.2., amend to read:*

**"6.6.4.1.6.2.1. Without the anti-rotation device and without the shoulder strap positioner in use, unless:**

- (a) a mechanism or;**
- (b) a visual and audible warning signal.**

**is provided to prevent incorrect use of the anti-rotation device and / or the shoulder strap positioner.**

**6.6.4.1.6.1.2. Without the shoulder strap positioner in use, unless:**

- (a) a mechanism or;**
- (b) a visual and audible warning signal.**

**is provided to prevent incorrect use of the shoulder strap positioner."**

*Paragraph 7.2.8., amend to read:*

**"7.2.8. The complete seat, or the component fitted with ISOFIX attachments (e.g. ISOFIX base) if it has a release button, is attached rigidly to a test rig in such a way that ISOFIX ~~connectors~~ attachments are vertically aligned as shown in Figure 3. A 6 mm diameter bar, 350 mm long, shall be attached to the ISOFIX ~~connectors~~ attachments. A mass of 5 kg shall be attached to the extremities of the bar."**

*Paragraph 7.2.8.2., amend to read:*

**"7.2.8.2. The ISOFIX attachments opening force shall be applied using a dynamometer or similar device in the normal manner and direction as indicated in the manufacturers user manual. The contact end shall be a polished metal hemisphere with radius  $2.5 \pm 0.1$  mm for a release button or a polished metal hook with a radius of 25 mm."**

*Paragraph 7.2.8.4., amend to read:*

**"7.2.8.4. The ISOFIX attachments opening force to be measured shall be that needed to disengage the first ~~connector~~ attachment."**

*Annex 8. amend to read:*

**"1. General**

**1.1. The dummies prescribed in this Regulation are described in this annex, in technical drawings<sup>1</sup> held by Humanetics Innovative Solutions Inc. and in the user manuals delivered with the dummies. The abdominal pressure sensors prescribed in this Regulation are described in this annex, in technical drawings held by the French institute of science and technology for transport, spatial planning, development and networks (IFSTTAR) and in the user manuals delivered with the instrumentation."**

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<sup>1</sup> **The configurations of each dummy or abdominal pressure sensors are described and deposited in a transitory way on the website of the informal working group on Child Restraint Systems: <https://www2.unece.org/wiki/display/trans/Q-Dummy+drawings>**

Annex 21. amend to read:

Load application device II

"...

Strech lenght	(+/- 5 mm)				
	Q 0	Q 1	Q 1,5	Q 3	Q 6
Main belt (A)	1 740 mm	1 850 mm	1 900 mm	2 000 mm	2 000 mm
Hip belt (B)	530 mm	560 mm	600 mm	630 mm	660 mm
Lower dimension (C)	125 mm	150 mm	150 mm	170 mm	200 mm
Mid dimension (D)	270 mm	300 mm	350 mm	380 mm	380 mm

Annex 214, amend to read:

Load application device II

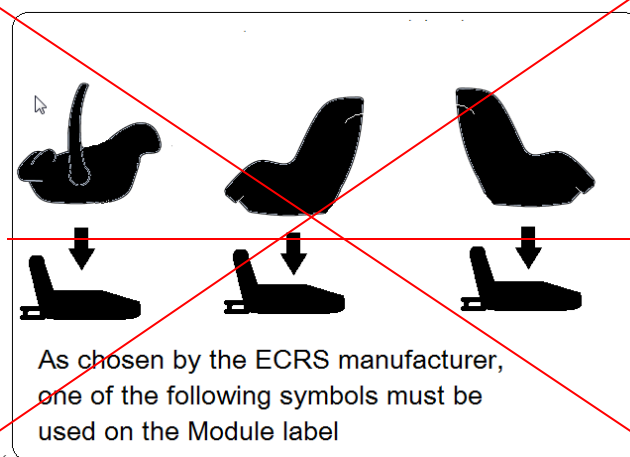
"...

Stretch length	(+/- 5 mm)					
	Q 0	Q 1	Q 1,5	Q 3	Q 6	Q 10
Main belt (A)	1,740 mm	1,850 mm	1,900 mm	2,000 mm	2,000 mm	2,100 mm
Hip belt (B)	530 mm	560 mm	600 mm	630 mm	660 mm	<del>700</del> 800 mm
Lower dimension (C)	125 mm	150 mm	150 mm	170 mm	200 mm	200 mm
Mid dimension (D)	270 mm	300 mm	350 mm	380 mm	380 mm	400 mm

..."

Annex 2 figure, replace module pictures in the last figure in Annex 2 as follows::

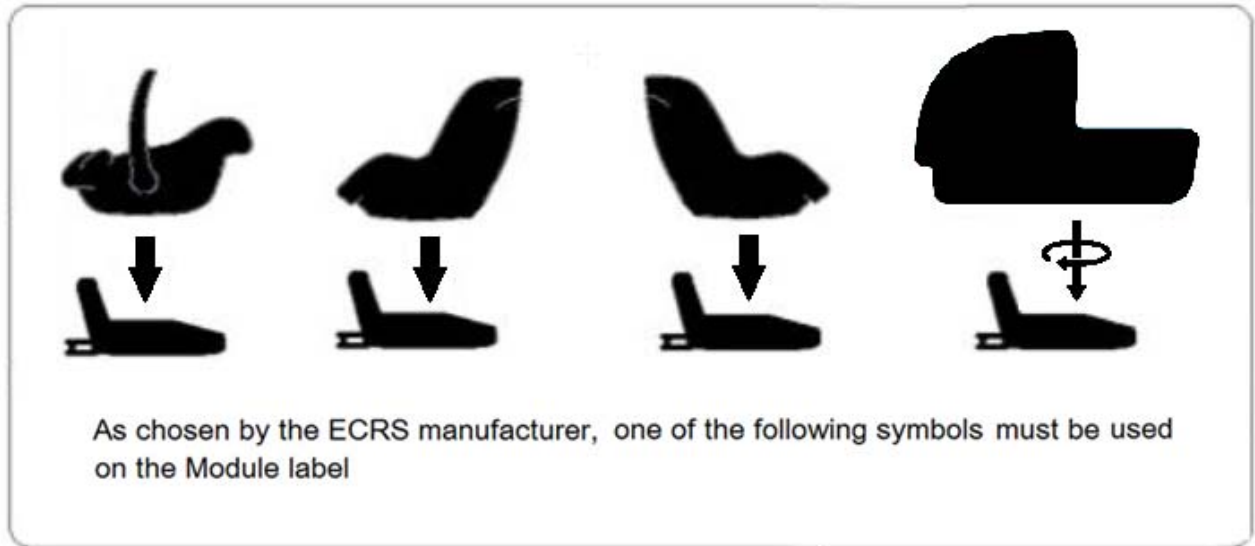
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## II. Justification

The above proposal aims clarifying and at adding editorial corrections to the text of the 02 series of amendments to the UN Regulation No. 129.

In addition, Module label was agreed in the 62nd IG meeting but the image was missed in the informal document GRSP-60-08.

The addendum to ECE/TRANS/WP.29/GRSP/2016/22 are written in grey

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