



# Economic and Social Council

Distr.: General  
20 December 2024

Original: English

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## Economic Commission for Europe

### Inland Transport Committee

### World Forum for Harmonization of Vehicle Regulations

#### 195th session

Geneva, 4–7 March 2025

Item 4.10.7 of the provisional agenda

#### 1958 Agreement:

Consideration of draft amendments to existing

UN Regulations submitted by GRE

## **Proposal for Supplement 1 to the 09 series of amendments to UN Regulation No. 48 (Installation of Lighting and Light- Signalling Devices)**

### **Submitted by the Working Party on Lighting and Light-Signalling\***

The text reproduced below was adopted by the Working Party on Lighting and Light-Signalling (GRE) at its ninety-first session (ECE/TRANS/WP.29/GRE/91, paras. 15, 24 and 27). It is based on ECE/TRANS/WP.29/GRE/2024/3, ECE/TRANS/WP.29/GRE/2024/4, ECE/TRANS/WP.29/GRE/2024/15, ECE/TRANS/WP.29/GRE/2024/22 and informal document GRE-90-10. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee (AC.1) for consideration at their March 2025 sessions.

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\* In accordance with the programme of work of the Inland Transport Committee for 2025 as outlined in proposed programme budget for 2025 (A/79/6 (Sect. 20), table 20.6), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

*Paragraph 5.35.10., amend to read:*

- “5.35.10. Except for the wrong way warning, predicted trajectory and risk of collision warning, Driver Assistance Projection shall not be switched ON when the vehicle speed is below 65 km/h. However, when the projection is already switched ON, it may remain switched ON as long as the vehicle speed remains above 40 km/h.”

*Paragraph 5.35.11., amend to read:*

- “5.35.11. Except for predicted trajectory, the lateral distance from the outer edges of the Driver Assistance Projection with respect to the longitudinal median plane or to the trajectory of the centre of gravity of the vehicle shall not be more than 1,250 mm.”

*Insert new paragraphs 5.35.12. and 5.35.12.1., to read:*

- “5.35.12. Irrespective of the requirements of paragraph 5.35.11., for predicted trajectory illustrated in Annex 16:
- 5.35.12.1. The Driver Assistance Projection may be adapted according to the predicted trajectory of the centre of gravity of the vehicle. It shall not be wider than the width of the vehicle including any fitted accessories and trailer if applicable and, in any case, shall not be more than 2,600 mm.”

*Insert a new paragraph 5.35.13., to read:*

- “5.35.13. Compliance with paragraphs 5.35.11. and 5.35.12.1. shall be demonstrated by the manufacturer by calculation or by other means accepted by the Type Approval Authority.”

*Paragraph 6.1.9.1., amend to read:*

- “6.1.9.1. The reference value corresponding to an aggregate maximum intensity of the main-beam headlamps which can be switched ON simultaneously shall not exceed 100.”

*Paragraph 6.2.6.1.2., amend to read:*

- “6.2.6.1.2. ...
- For category N<sub>2</sub>G, N<sub>3</sub>G, M<sub>2</sub>G, M<sub>3</sub>G (off-road) vehicles where the headlamps exceed a height of 1,200 mm, the limits for the vertical inclination of the cut-off shall be between: -1.5 per cent and -3.5 per cent.
- ...”

*Paragraph 6.2.8.2., amend to read:*

- “6.2.8.2. A tell-tale indicating failure, whether flashing or not, is mandatory:
- (a) In the case where the whole beam or the kink of the elbow of the cut-off is moved to produce bend lighting; or
- (b) If one or more light source module(s) or non-replaceable light source(s) or if more than one UN approved light source(s) are used to produce the principal dipped beam, except when they are wired so that the failure of any one of them causes all of them to stop emitting light.

It shall be activated:

- (a) In the event of a malfunction of the displacement of the kink of the elbow of the cut-off; or
- (b) At the discretion of the manufacturer, either
- In case of a failure of any one of the light source module(s) or non-replaceable light source(s) or UN approved light source(s) producing the principal dipped-beam, except when they are wired so that the failure of any one of them causes all of them to stop emitting light; or

- If a failure signal is received in accordance with paragraph 4.13. of the 01 and any subsequent series of amendments to UN Regulation No. 149.

In any case, once activated, it shall remain activated while the failure is present. It may be cancelled temporarily, but shall be repeated whenever the device, which starts and stops the propulsion system, is switched ON and OFF.”

*Paragraph 6.2.9.2., amend to read:*

“6.2.9.2. Dipped-beam headlamps with a light source(s) and/or light source module(s) producing the principal dipped beam having a total objective luminous flux for at least one headlamp which exceeds 2,000 lumens shall only be installed in conjunction with the installation of headlamp cleaning device(s) according to UN Regulation No. 45<sup>11</sup>.”

*Paragraph 6.22.9.1., amend to read:*

“6.22.9.1. An AFS shall be permitted only in conjunction with the installation of headlamp cleaning device(s) according to UN Regulation No. 45<sup>16</sup> for at least those lighting units, which are indicated under item 9.2.2.3. of the communication form conforming to the model in Annex 1 to UN Regulation No. 149, if the total objective luminous flux of the light source(s) and/or light source module(s) of these units exceeds 2,000 lm at least on one side, and which contribute to the Class C (basic) passing beam.”

*Paragraph 6.22.9.5., amend to read:*

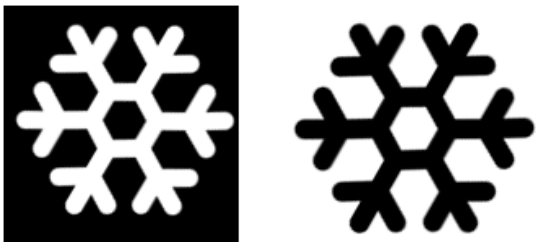

“6.22.9.5. The reference value corresponding to an aggregate maximum intensity of the lighting units that can be energized simultaneously to provide the main-beam lighting or its modes, if any, shall not exceed 100.

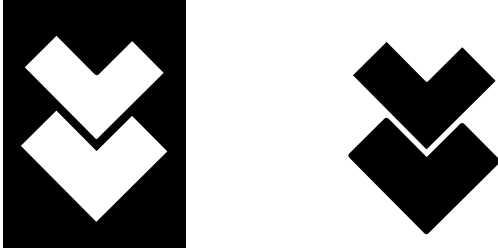
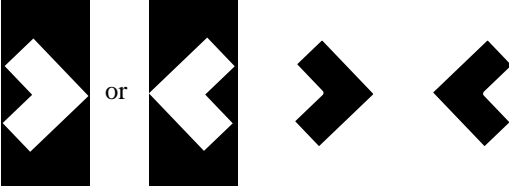
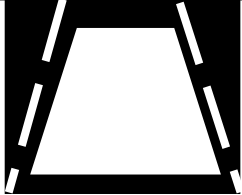
This maximum intensity shall be obtained by adding together the individual reference marks indicated on the several installation units that are simultaneously used to provide the main beam.”

*Annex 16, amend to read:*

## “Annex 16

### **Symbols and patterns for the use as Driver Assistance Projections and Explanations of the Warnings/Highlights**

<i>Symbols and Pattern</i>	<i>Use case</i>	<i>Conditions and remarks</i>
	Slippery road warning	
	Risk of collision warning	<p>Triggered when the relative speed is larger than 30 km/h and Risk of Collision Time is less than 1.4 s.</p> <p>Flashing at 4.0 hz +/- 1.0 hz allowed.</p>

	Wrong way warning	Activated when the vehicle is entering a one-way road or a highway in opposite direction.  Flashing at 4.0 hz +/- 1.0 hz allowed.
	Lane keeping assist warning	Activated if the vehicle unintentionally exits its lane.
 <p>This figure is showing an example of the basic quadrilateral shape of the Driver Assistance Projection for predicted trajectory, as seen from the driver's perspective of a car in straight forward motion. The dashed lines are not part of the projection. They are a representation of the lines delineating the lane on which the vehicle is travelling, and only added to clarify the image and lateral boundaries of the predicted trajectory projection.</p>	Predicted trajectory	This shape may change when adapted in conformity with the requirements in paragraph 5.35.12.

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