Economic Commission for Europe
Inland Transport Committee
World Forum for Harmonization of Vehicle Regulations
Working Party on Lighting and Light-Signalling

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UN Regulation No. 48 (Installation of lighting and light-signalling devices): Other proposals for amendments to UN Regulation No. 48

Proposal for a Supplement to the new 07 series of amendments to UN Regulation No. 48 (Installation of lighting and light-signalling devices)

Submitted by the expert from France*

The text reproduced below was prepared by the expert from France with the aim to correct and clarify the requirements for variable luminous intensity of the rear light signalling functions. The proposal is mainly based on ECE/TRANS/WP29/GRE/2019/11.

* In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, cluster 3.1), 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.
I. Proposal

Paragraph 5.26., amend to read:

“5.26. Rear direction indicator lamps of category 2b, rear position lamps of category R2, stop lamps of category S2 (except stop lamps of category S4) and rear fog lamps of category F2 with variable luminous intensity control, which respond simultaneously to at least one or more of the following [external influences: ambient lighting, fog, snowfall, rain, spray, dust clouds, contamination of the light emitting surface, listed in paragraphs 5.26.1. [and 5.26.2.], are allowed,

Solution A

[provided that, for each of the lamps mentioned above that can be considered separately, the specific prescribed intensity relationship with each of the other lamps, if applicable, is maintained throughout variation transitions]

Solution B

[provided that the intensity of the all lamps mentioned above vary in the same proportion, and that the specific prescribed intensity relationship with each of the other lamps, if applicable, is maintained throughout variation transitions]

provided that their [prescribed intensity relationship if applicable] is maintained throughout variation transitions. No sharp variation of intensity shall be observed during transition. Stop lamps of category S4 may produce variable luminous intensity independent from the other lamps. It may be possible for the driver to set the functions above to luminous intensities corresponding to their steady category and to return them to their automatic variable category.”

II. Justification

1. The intention of this proposal is to clarify the requirements of paragraph 5.26. that allow the variable luminous intensity of four different light signaling functions: rear direction indicator lamps of category 2b, rear position lamps of category R2, stop lamps of category S2, and rear fog lamps of category F2.

2. It seems that the understanding of the current text of the Regulation leads to different interpretations between the industry, technical services and Type Approval Authorities. There are two main interpretations, which are the following:

(a) Some consider that the all lamps can have variable luminous intensity independently from the other lamps, which means that, for instance, only one or two lamps (among the 4 mentioned) can vary and not the others.

(b) Others consider that the all mentioned lamps shall vary in the same time, and not independently from the others, especially regarding to the following exception of the current text, which is a specific case for S4 lamp and which let think that this is not applicable to the other lamps. According to this understanding, the all mentioned lamps shall vary all together proportionally.
3. As a consequence, the current proposal aims to clarify the situation by making two alternative proposals to be decided upon:

- Solution A: corrections and clarifications related to interpretation (a) above.
- Solution B: corrections and clarifications related to interpretation (b) above.