

The present informal document was prepared by the group of interested experts discussing new series of amendments to UN R48. It supports document ECE/TRANS/WP29/GRE/2019/29.

In this document the reasons and explanations for the proposed amendment are presented, for each of the paragraphs included in document ECE/TRANS/WP29/GRE/2019/29.

Paragraph 2.3.5.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 2.3.6.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 2.3.10.

UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 2.3.11.

UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 2.7.6.

Due to the constant increase of lighting and light signaling functions operated in automatic way, it was deemed useful to clarify the conditions in which a function is put by its manual or automatic operation. The four new definitions in sub-paragraphs 2.7.6.1. to 2.7.6.4. have been introduced to better clarify whether the operation of a function has caused it to actually emit light or has just put it in a “standby” condition, allowing it to emit light only after a further manual or automatic input (manual or automatic).

Consequently, the whole sections 5 and 6 of UN Regulation No. 48 were verified for coherence and consistency of the various functions switching conditions to these new definitions; the changes made to a number of paragraphs in document ECE/TRANS/WP29/GRE/2018/44 for this purpose will be commented in the present document with a simple reference to the above explanation.

The definition for “Sequential activation” has been moved at the end of paragraph 2.7.6. and the sub-paragraph numbering has been changed accordingly; moreover the wording has been updated to be coherent and consistent with the new definitions above indicated.

Paragraph 2.10.11 new

Definition of “V plane” added because the point of intersection of the “H plane” and the “V plane” defines the “V-H point” used in lighting Regulations.

Paragraph 2.7.6.5.

The text in square brackets was added for clarification.

Paragraph 4.2.

The TF HS was established to the aim of simplify and clarify certain aspects of the headlamp and DRL switching and related interaction; as such, the proposal to be prepared by the TF should have been treated as a “supplement” to the present 06 Series of amendments to UN Regulation 48.

However the proposal the TF finally prepared involved more complex changes than originally expected, also requesting technical modification to the vehicles to fulfill the updated requirements.

For this reasons, it was deemed more suitable to present it as a new series of amendment, the 07 and consequently it was necessary to introduce the suitable changes in this paragraph.

Paragraph 5.7.1.1.

See explanation for paragraph 2.7.6.

Paragraph 5.9.

The terminology has been updated to avoid confusion with the one introduced with the new definitions in paragraph 2.7.6.

Paragraph 5.9.2.

See explanation for paragraph 2.7.6.

Paragraph 5.11. and related sub paragraphs

Sub-paragraphs 5.11.1.1. to 5.11.4. renumbered as indents (a) to (d) of paragraph 5.11.1. Wording of these sub-paragraphs and related indents changed for editorial improvement.

Paragraph 5.12.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 5.12.1.1.

See explanation for paragraph 2.7.6.

Paragraph 5.14.3.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 5.14.4.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 5.18.3.

See explanation for paragraph 2.7.6.

Paragraph 5.18.4.

See explanation for paragraph 2.7.6.

Paragraph 5.21.1.

See explanation for paragraph 2.7.6.

Paragraph 6.1.

Editorial changes in relation to document WP.29-2018-99 Rev.01.

Paragraph 6.1.2.

Editorial changes in relation to document WP.29-2018-99 Rev.01 and see explanation for paragraph 2.7.6.

Paragraph 6.1.7.1.

Editorial changes in relation to modification to paragraph 2.7.6. In addition a wording simplification is proposed.

Paragraph 6.1.7.2.

See explanation for paragraph 2.7.6.

Paragraph 6.1.7.3.

See explanation for paragraph 2.7.6.

Paragraph 6.1.7.4.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.1.7.5.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.1.7.6.

See explanation for paragraph 2.7.6.

Paragraph 6.1.9.1.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.1.9.3.

See explanation for paragraph 2.7.6.

Paragraph 6.1.9.3.1.

See explanation for paragraph 2.7.6.

Paragraph 6.2.

Editorial changes in relation to document WP.29-2018-99 Rev.01.

Paragraph 6.2.7.1.

Changes aiming for simplification of wording; no change in the requirement's meaning.

Paragraph 6.2.7.2.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.2.7.3.

Editorial changes in relation to document WP.29-2018-99 Rev.01 and in relation to modification to paragraph 2.7.6.

A further sentence is added to provide a link with the subsequent sub-paragraphs providing exceptions to the general requirement of this paragraph.

Paragraph 6.2.8.2.

Editorial changes in relation to modification to paragraph 2.7.6. In addition UN R48 has to be fulfilled by vehicles by combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 6.2.9.

See explanation for paragraph 2.7.6.

Paragraph 6.4.7.1.

See explanation for paragraph 2.7.6. In addition UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 6.4.7.2.

See explanation for paragraph 2.7.6. In addition some editorial changes, connected with the said paragraph, have been introduced.

Furthermore the existing value of 10 km/h has been changed in 15 km/h to take into account the difficulty to exactly measure such a low speed; the chosen value takes into account the tolerances allowed by UN Regulation No. 39 for the speedometers (an indicated speed of 15 km/h can correspond to a true speed of only 10 km/h).

Paragraph 6.5.7

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.6.7.2.

See explanation for paragraph 2.7.6. In addition some editorial changes, connected with the said paragraph, have been introduced.

Paragraph 6.6.9.

UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 6.7.7.1.

See explanation for paragraph 2.7.6.

Paragraph 6.7.7.2.

UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 6.8.9.

Editorial change, aimed to clarify the requirement (without modify its meaning); a wording already used in other paragraph was used, for text consistency.

Paragraph 6.9.7.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.9.8.

The TF HS Experts decided to re-introduce the sentence (deleted with Supplement 10 to the 06 series of amendment, as a consequence of other amendments in that supplement) allowing to do not switch ON the tell-tale for front position lamps when used in connection with DRL. Same wording of the sentence previously existing has been used, just updating the reference to the involved paragraph.

In addition a small editorial correction has been introduced.

Paragraph 6.9.9.1.

See explanation for paragraph 2.7.6. Editorial changes in relation to modification to said paragraph have been introduced.

Paragraph 6.10.7.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.10.8.

The TF HS Experts decided to re-introduce the sentence (deleted with Supplement 10 to the 06 series of amendment, as a consequence of other amendments in that supplement) allowing to do not switch ON the tell-tale for front position lamps when used in connection with DRL. Same wording of the sentence previously existing has been used, just updating the reference to the involved paragraph.

Paragraph 6.11.7. and related sub-paragraphs, up to 6.11.7.4.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.11.7.5.

See explanation for paragraph 2.7.6.

Paragraph 6.12.7.

See explanation for paragraph 2.7.6. In addition UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 6.12.9.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.18.9.

Editorial change, aimed to clarify the requirement (without modify its meaning); a wording already used in other paragraph was used, for text consistency.

Paragraph 6.19.7.1.

UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 6.19.7.1.3.

Editorial change for clarification of the requirement.

Paragraph 6.19.7.2.

See explanation for paragraph 2.7.6. Editorial changes in relation to modification to said paragraph have been introduced. In addition the existing value of 10 km/h has been changed in 15 km/h to take into account the difficulty to exactly measure such a low speed; the chosen value takes into account the tolerances allowed by UN Regulation No. 39 for the speedometers (an indicated speed of 15 km/h can correspond to a true speed of only 10 km/h).

Paragraph 6.19.7.3.

UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 6.20.7.

See explanation for paragraph 2.7.6.

Paragraph 6.20.7.2.

See explanation for paragraph 2.7.6. Editorial changes in relation to modification to said paragraph have been introduced. In addition the existing value of 10 km/h has been changed in 15 km/h to take into account the difficulty to exactly measure such a low speed; the chosen value takes into account the tolerances allowed by UN Regulation No. 39 for the speedometers (an indicated speed of 15 km/h can correspond to a true speed of only 10 km/h).

Paragraph 6.20.9.

See explanation for paragraph 2.7.6.

Paragraph 6.22.7.1.1.

See explanation for paragraph 2.7.6.

Paragraph 6.22.7.1.3.

See explanation for paragraph 2.7.6.

Paragraph 6.22.7.1.5.

See explanation for paragraph 2.7.6.

Paragraph 6.22.7.2.

See explanation for paragraph 2.7.6.

Paragraph 6.22.7.3.

Editorial change, without modify the paragraph's meaning.

Paragraph 6.22.7.4.4.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.22.8.2.

Editorial changes in relation to modification to paragraph 2.7.6. Furthermore UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 6.22.9.3.1.3.

Editorial changes in relation to modification to paragraph 2.7.6.

Paragraph 6.23.

Because of the General Safety discussions in Brussels the European Commission made the proposal to make emergency stop signal mandatory. The group of interested experts agreed that the requirements in UN R48.07 have to be aligned with the discussions/decisions in Brussels.

In the Interinstitutional File 2018/0145(COD) the following is been mentioned:

Article 3 “Definitions”

For the purposes of this Regulation, the definitions laid down in Article 3 of Regulation (EU) 2018/858 shall apply.

In addition, the following definitions shall apply:

(7) 'emergency stop signal' means ~~rapid flashing stop lamps~~ a light-signalling function to indicate to other road users to the rear of the vehicle that a high retardation force is being applied to the vehicle relative to the prevailing road conditions;

Article 6 “Advanced vehicle systems for all categories of motor vehicle”

1. **Motor vehicles** shall be equipped with the following advanced vehicle systems:

- (a) intelligent speed assistance;
- (b) alcohol interlock installation facilitation;
- (c) driver drowsiness and attention monitoring;
- (d) advanced distraction recognition;
- (e) emergency stop signal;**
- (f) reversing detection.

Based on the above the group of interested experts came to the conclusion that the emergency stop signal should become mandatory for motor vehicles and for trailers it should still be optional. As the discussion in Brussels no longer is limiting the signal to flashing of stop lamps also the flashing of the direction indicators should be maintained in UN R48.07.

Paragraph 6.23.7.3. and related sub-paragraphs

See explanation for paragraph 2.7.6.

Paragraph 6.24.9.1.

See explanation for paragraph 2.7.6.

UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.

Paragraph 6.24.9.2.

See explanation for paragraph 2.7.6.

Paragraphs 6.25.7.3. to 6.25.7.6.

See explanation for paragraph 2.7.6.

Paragraph 6.26.7.,

See explanation for paragraph 2.7.6. The existing value of 10 km/h has been changed in 15 km/h to take into account the difficulty to exactly measure such a low speed; the chosen value takes into account the tolerances allowed by UN Regulation No. 39 for the speedometers (an indicated speed of 15 km/h can correspond to a true speed of only 10 km/h).

Paragraph 12.6. and related sub-paragraphs (new)

The TF HS was established to the aim of simplify and clarify certain aspects of the headlamp and DRL switching and related interaction; as such, the proposal to be prepared by the TF should have been treated as a “supplement” to the present 06 Series of amendments to UN Regulation 48.

However the proposal that the TF HS finally prepared involved more complex changes than originally expected, also requesting technical modification to the vehicles to fulfill the updated requirements. For this reasons, it was deemed more suitable to present it as a new series of amendment.

As new 07 series of amendments the document is then presented with a proposal for transitional provisions, based on the structure suggested by the “General Guidelines for United Nations regulatory procedures and transitional provisions in un Regulations” (document ECE/TRANS/WP.29/1044/Rev.2).

Annex 2

Editorial changes to update the number of the series of amendments in the marking examples.

Annex 6, Paragraph 5.4.3.,

UN R48 has to be fulfilled by vehicles with combustion engines, electric vehicle etc. Therefore, engine is been replaced by propulsion system which is more neutral.