The text reproduced below was prepared by the expert from the Working Party "Brussels 1952" (GTB) in order to introduce provisions regarding Light Emitting Diode (LED) modules as well as the term "principal passing beam". It also introduces editorial changes to improve clarity of the text. The proposal is based on the current text of the Regulation including Supplement 5 to the 01 series of amendments. The modifications to the current text of Regulation No. 45 are marked in bold or strikethrough characters.

In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance performance of vehicles. The present document is submitted in conformity with that mandate.
A. PROPOSAL

Paragraph 2.7., amend to read:

"2.7. "Cleaning period" means the period of time comprising one or more cleaning operations to fulfil the requirements specified in paragraph 7 below to be met, including any pre-treatment period."

Insert new paragraphs 2.8 and 2.9, to read:

"2.8. "Cleaning operation" means any suitable process for cleaning;

2.9. The definitions given in Regulation No. 48 and its series of amendments in force at the time of application for type approval shall apply to this Regulation."

Paragraph 6.1., amend to read:

"6.1. The headlamp cleaner shall be designed and constructed to clean those parts of the light-emitting surface of the headlamps which distribute produce the principal passing beam and, as an option, the driving beam, so that at least the cleaning effect specified in paragraph 7 below is achieved."

Paragraph 6.2.2.1., amend to read:

"6.2.2.1. 20 per cent of the illuminating surface of a passing lamp headlamp producing a passing beam,"

Paragraph 6.2.2.2., amend to read:

"6.2.2.2. 10 per cent of the illuminating surface of a driving lamp headlamp producing a driving beam not reciprocally incorporated with a passing lamp headlamp producing a passing beam;"

Paragraph 6.5.1., amend to read:

"6.5.1. Cleaning of all passing headlamps producing the principal passing beam shall be compulsory. If there are more than two driving headlamps producing the driving beam, the cleaning of one pair of these headlamps shall be sufficient;"

Paragraph 7.1., amend to read:

"7.1. The efficiency of the cleaner shall be tested in accordance with the requirements of Annex 4 to this Regulation. The cleaning efficiency at the points on the measuring screen which are specified below shall, after every cleaning period, amount to at least 70 per cent for the passing lamp headlamp producing the principal passing beam and also 70 per cent for the optional driving lamp headlamp producing the
**driving beam:** in case of an AFS this provision applies to the photometric system value as defined in Annex 9 to Regulation No. 123 from those lighting units indicated in paragraph 6.1.1. above.

Paragraph 7.1., replace the existing diagram with the following:

"Diagram of Measuring Points on a Screen"

![Diagram of Measuring Points on a Screen]

Paragraph 7.3., amend to read:

"7.3. Measuring points for the passing lamp headlamp producing the passing beam"

Paragraph 7.3.2., amend to read:

"7.3.2. Headlamps approved in respect of the passing beam and the driving beam (marking CR, HCR, C+R, C+HR, HC+R or HC+HR or X C/V/E/W/R/T)

Measuring points; 50R (L) (and 50V if in the same headlamps, different optical systems for the driving lamp and the passing lamp driving beam and passing beam are provided)."

Paragraph 7.4., amend to read:

"7.4. Measuring point for the driving lamp headlamp producing the driving beam"

Measuring point : HV."
Annex 4.

Paragraph 2.1.2., amend to read:

"2.1.2. For headlamp with the outside lens in plastic material:

The mixture .................................................................

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5 parts by weight of sodium chloride (pure at 99 percent)

13 parts by weight of distilled water with a conductivity of \( \leq 1 \text{ mS/m} \), and 2 \( \pm 1 \) parts by weight drops of surfactant."

B. JUSTIFICATION

The addition of the definition of "Principal Passing Beam" into Regulation No. 48 in association with the introduction of LED Modules has led to a requirement to update the text of Regulation No. 45.

Following the suggestions from Technical Services, the proposal also introduces editorial changes which should improve the practical application of the Regulation.