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## ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations

Working Party on Lighting and Light-Signalling

Sixty-first session Geneva, 30 March - 3 April 2009 Item 4(c) of the provisional agenda

> **REGULATION No. 48** (Installation of lighting and light-signalling devices)

Clarifications on installation requirements

Proposal for draft Supplement 4 to the 04 series of amendments to Regulation No. 48

Submitted by the expert from the Working Party "Brussels 1952" \*/

The text reproduced below was prepared by the expert from the Working Party "Brussels 1952" (GTB) in order to modify the installation height requirements of Rear and Side Retro-Reflectors. The modifications to the current text of Regulation No. 48 are marked in bold characters.

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<sup>\*/</sup> 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.

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## A. PROPOSAL

Paragraph 6.14.4.2., amend to read:

"6.14.4.2. In height: Above the ground, not less than 250 mm nor more than 900 mm (**not** more than 1,200 mm if grouped with any rear lamp(s), 1,500 mm if the shape of the bodywork makes it impossible to keep within 900 mm)."

Paragraph 6.15.4.2., amend to read:

"6.15.4.2. In height: Above the ground, not less than 250 mm nor more than 900 mm (**not** more than 1,200 mm if grouped with any rear lamp(s),1,500 mm if the shape of the bodywork makes it impossible to keep within 900 mm)."

Paragraph 6.17.4.2., amend to read:

"6.17.4.2. In height: Above the ground, not less than 250 mm nor more than 900 mm (not more than 1,200 mm if grouped with any lamp(s), 1,500 mm if the shape of the bodywork makes it impossible to keep within 900 mm or if the presence of the device is not mandatory according to paragraph 6.17.1.)."

## B. JUSTIFICATION

Over time, the shape of vehicles has changed and one of the consequences relates to the design and installation of retro-reflectors. The height restriction of 900 mm in many cases leads to the design of a single function retro-reflector often mounted in the rear bumper skin of passenger cars. In this location, the retro-reflectors are susceptible to water and dirt. which may reduce their function.

The same difficulties also occur on heavy goods vehicles and trailers and therefore triangular retro-reflectors are included within the scope of this proposal providing greater flexibility for the mounting of grouped lamps. Improvement in visibility will result by allowing fitment of lamps/reflectors further away from the effects of road spray.

By increasing maximum height requirements, and at the same time requiring the retro-reflectors to be grouped with other lamps, more robust designs are possible. Rear lamp assemblies are currently marketed with grouped lighting / signalling lamps and triangular retro-reflectors.

This proposed amendment will also assist the development of harmonized solutions with FMVSS 108.

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