

24 June 2019

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## **Agreement**

### **Concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations\***

(Revision 3, including the amendments which entered into force on 14 September 2017)

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#### **Addendum 47 – UN Regulation No. 48**

#### **Revision 11 - Amendment 6**

Supplement 12 to the 05 series of amendments – Date of entry into force: 28 May 2019

#### **Uniform provisions concerning the approval of vehicles with regard to the installation of lighting and light-signalling devices**

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2018/85.



**UNITED NATIONS**

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\* Former titles of the Agreement:

Agreement concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958 (original version); Agreement concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these Prescriptions, done at Geneva on 5 October 1995 (Revision 2).

*Insert a new paragraph 2.37., to read:*

"2.37. "External status indicator" means an optical signal mounted on the outside of the vehicle to indicate the status or the change of the status for Vehicle Alarm System (VAS), Alarm System (AS) and immobiliser of UN Regulations No. 97 and No. 116, when the vehicle is parked."

*Paragraph 2.7., amend to read:*

"2.7. "Lamp" means a device designed to illuminate the road or to emit a light signal to other road users. Rear registration plate lamps and retro-reflectors are likewise to be regarded as lamps. For the purpose of this UN Regulation, light-emitting rear registration plates, the service-door-lighting system according to the provisions of UN Regulation No. 107 on vehicles of categories M<sub>2</sub> and M<sub>3</sub> and external status indicator as defined in this UN Regulation are not considered as lamps.  
..."

*Paragraph 5.7.2.1., amend to read:*

"5.7.2.1. Single lamps as defined in paragraph 2.16.1., subparagraph (a), the apparent surface of which is composed of two or more distinct parts, shall be installed in such a way that:

- (a) Either the total area of the projection of the distinct parts of the apparent surface in the direction of the reference axis on a plane tangent to the exterior surface of the outer lens and perpendicular to the reference axis shall occupy not less than 60 per cent of the smallest quadrilateral circumscribing the projection of the said apparent surface in the direction of the reference axis; or
- (b) The minimum distance between the facing edges of two adjacent/tangential distinct parts of the apparent surface in the direction of the reference axis shall not exceed 75 mm when measured perpendicularly to the reference axis.

These requirements shall not apply to a single retro-reflector."

*Paragraph 5.8., amend to read:*

"5.8. The maximum height above the ground shall be measured from the highest point and the minimum height from the lowest point of the apparent surface in the direction of the reference axis.

In the case of dipped-beam headlamp, the minimum height in relation to the ground is measured from the lowest point of the apparent surface in the direction of the reference axis independent of its utilization.

Where the (maximum and minimum) height above the ground clearly meets the requirements of the UN Regulation, the exact edges of any surface need not be determined."

*Paragraphs 5.10.1. and 5.10.2., amend to read:*

- "5.10.1. For the visibility of red light towards the front of a vehicle, with the exception of a red rearmost side-marker lamp, there shall be no direct visibility of the apparent surface of a red lamp if viewed by an observer moving within Zone 1 in a transverse plane situated 25 m in front of the vehicle (see Annex 4);
- 5.10.2. For the visibility of white light towards the rear of a vehicle, with the exception of reversing lamps and white side conspicuity markings, there shall be no direct visibility of the apparent surface of a white lamp if viewed by an observer moving within Zone 2 in a transverse plane situated 25 m behind the vehicle (see Annex 4);"

*Insert a new paragraph 5.30., to read:*

- "5.30. External status indicator
- One external status indicator for Vehicle Alarm System (VAS), Alarm System (AS) and immobiliser is allowed if:
- (a) The light intensity in any direction does not exceed 0.5 cd;
  - (b) The colour of the light emitted is white, red or amber;
  - (c) The area of the apparent surface is not larger than 20 cm<sup>2</sup>.
- Up to two external status indicators for Vehicle Alarm System (VAS), Alarm System (AS) and immobiliser are allowed on a vehicle provided that the apparent surface does not exceed 10 cm<sup>2</sup> per indicator."

*Paragraph 6.2.9., amend to read:*

- "6.2.9. Other requirements
- 6.2.9.1. The requirements of paragraph 5.5.2. shall not apply to dipped-beam headlamps.
- 6.2.9.2. Dipped-beam headlamps with a light source or LED module(s) producing the principal dipped-beam having a total objective luminous flux for each headlamp which exceeds 2,000 lumen shall only be installed in conjunction with the installation of headlamp cleaning device(s) according to UN Regulation No. 45.
- 6.2.9.3. With respect to vertical inclination the provisions of paragraph 6.2.6.2.2. above shall not be applied for dipped-beam headlamps with a light source or LED module(s) producing the principal dipped-beam and having an objective luminous flux for each headlamp which exceeds 2,000 lumens.
- In the case of filament lamps for which more than one test voltage is specified, the objective luminous flux which produces the principal dipped-beam, as indicated in the communication form for the type approval of the device, is applied.
- In the case of dipped-beam headlamps equipped with an approved light source, the applicable objective luminous flux is the value at the relevant test voltage as given in the relevant data sheet in the UN Regulation, according to which the applied light source was approved, without taking into account the tolerances to the objective luminous flux specified on this datasheet.

6.2.9.4. Only dipped-beam headlamps according to UN Regulations Nos. 98 or 112 may be used to produce bend lighting.

If bend lighting is produced by a horizontal movement of the whole beam or the kink of the elbow of the cut-off, it shall be activated only if the vehicle is in forward motion; this shall not apply if bend lighting is produced for a right turn in right hand traffic (left turn in left hand traffic)."

*Paragraph 6.3.6.1.2.1.*, amend to read:

"6.3.6.1.2.1. When the total objective luminous flux of the light source for each front fog lamp does not exceed 2,000 lumens:"

*Paragraph 6.3.6.1.2.2.*, amend to read:

"6.3.6.1.2.2. When the total objective luminous flux of the light source for each front fog lamp exceeds 2,000 lumens:"

*Paragraph 6.26.9.2.*, amend to read:

"6.26.9.2. At the request of the applicant and with the consent of the Technical Service the requirement of 6.26.9.1 may be verified by a drawing or simulation or deemed be satisfied if the installation conditions comply with paragraph 6.2.2. of UN Regulation No. 23, as noticed in the communication document in Annex 1, paragraph 9."

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