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Inland Transport Committee

**World Forum for Harmonization of Vehicle Regulations**

**Working Party on Lighting and Light-Signalling**

**Eighty-seventh session**

Geneva, 25-29 April 2022

Item xx of the provisional agenda

**UN Regulation No. 48 (Installation of lighting and light-signalling devices):**

**Proposals for [amendments to the latest series] of amendments**

 Proposal for a new [0x] series of amendments to UN Regulation No. 48

Submitted by the expert from [Special Interest Group on the 09 series of amendments to UN Regulation No. 48 (R48-09 SIG)](https://wiki.unece.org/pages/viewpage.action?pageId=128419838)[[1]](#footnote-2)\*

The text reproduced below was prepared by the expert from [Special Interest Group on the 09 series of amendments to UN Regulation No. 48 (R48-09 SIG)](https://wiki.unece.org/pages/viewpage.action?pageId=128419838) with the aim to add the park condition of a vehicle in the scope of UN Regulation No. 48 and to minimise hazards, such as glare and distraction, to other road users. The proposed modifications to the current text of the UN Regulation are marked in bold for new or strikethrough for deleted characters.

 I. Proposal

Paragraph 2.5.18., amend to read:

~~"2.5.18. "~~*~~Exterior courtesy lamp~~*~~" means a lamp used to provide supplementary illumination to assist~~~~the~~~~entry and exit of the vehicle driver and passenger or in loading operations;~~**~~vehicle user to identify, approach or depart; enter or exit; load or unload the vehicle."~~**

Paragraph 2.5.20., amend to read:

"2.5.20. ***"****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 immobilizer of UN Regulations No. 97**,** ~~and~~ No. 116**, No.162 and No. 163,** when the vehicle is parked."

Insert new paragraph (numbers to be defined), to read:

**"2.X.Y. *“Answer-back [signal]”* means a signal used to assist the vehicle user to find his/her car under the park condition of a vehicle**

**2.X.Y. “*Energy indicator lamp*” means a lamp used to inform the vehicle user about the energy level, and/or the condition of the energy transfer system and/or the status of energy transfer of the vehicle.**

**2.X.Y. “*Lamp test mode*” means a system or mode which enables the vehicle user to perform a function check of the vehicle’s lighting and light signalling devices and their associated systems.**

**~~[2.X.Y.~~ *~~“Follow-me-home light”~~* ~~means lamps used to assist vehicle users by illuminating the area close to the vehicle.]~~**

**[2.X.Y. “*Working lamp*” means ....]"**

Insert new paragraph 3.2.9., to read:

~~"~~**~~3.2.9. Where the vehicle is equipped with lamps that are used under the park condition as specified in 5.33.1:~~**

**~~3.2.9.1. A list of the lamps used [under the park condition]~~**

**~~3.2.9.2. A detailed description providing the following information:~~**

**~~- the conditions for the lamps to be switched ON and OFF~~**

**~~- if the lamps are flashing: the flashing frequency~~**

**~~- if the lamps are varying their intensity and/or apparent surface: the luminous intensity range and/or the changes in apparent surface~~**

**~~This information may be provided by the vehicle manufacturer by sufficient documentation or by other means accepted by the Type Approval Authority."~~**

Abandon the above and adopt the Japanese proposal.

 **JPN proposal**

Insert new paragraph 3.2.9., to read:

"**3.2.9. If the vehicle is equipped with lamps that are switched ON under the park condition of a vehicle as specified,** **except for (a) in 5.35.1., the applicant shall submit a detailed description providing the following information:**

**3.2.9.1 The documents clarifying that lamps described,** **except for (a) in 5.35.1 are switched ON under which scenario. The items that need to be mentioned are as follows.,**

(a) **Type of lamps;**

(b) **Triggering and timing of switching ON and OFF,;**

(c) **If variable luminous intensity, line graphs clearly showing flash and/or vary in luminous intensity and/or apparent surface of the underlying regulations.;**

(d) ………"

*Paragraph 5.9.,* amend to read:

~~"5.9. In the absence of specific instructions, the photometric characteristics (e.g. intensity, colour, apparent surface, etc.) of a lamp shall not be intentionally varied during the period when the lamp is switched ON.~~

~~5.9.1. Direction-indicator lamps, the vehicle-hazard warning signal, amber side-marker lamps complying with paragraph 6.18.7. below, the emergency stop signal shall be flashing lamps.~~

~~5.9.2. The photometric characteristics of any lamp may vary:~~

~~(a) In relation to the ambient light;~~

~~(b) As a consequence of other lamps being switched ON or OFF; or~~

~~(c) When the lamps is being used to provide another lighting function; provided that any variation in the photometric characteristics is in compliance with the technical provisions for the lamp concerned.~~

~~5.9.3. The photometric characteristics of a direction indicator lamp of categories 1, 1a, 1b, 2a or 2b may be varied during a flash by sequential activation of light sources as specified in paragraph 5.6. of UN Regulation No. 6. or paragraph 5.6.11. of UN Regulation No. 148.~~

~~This provision shall not apply when direction indicator lamps of categories 2a and 2b are operated as emergency stop signal according to paragraph 6.23.1. of this Regulation.~~

**~~5.9.4.~~****~~The lamps referred to in paragraphs~~ *~~(reference to paragraphs numbers of definitions of related lamps – 4 lamps + ECL)~~* ~~may flash and/or vary in luminous intensity and/or apparent surface.~~**

 **~~These lamps shall operate according to the conditions specified in general specifications and/or in dedicated paragraphs 6.x.x, 6.y.y. and 6.z.z."~~**

Abandon the above and adopt the Japanese proposal.

**JPN proposal**

**5.9.4.** [**Answer-back [signal] may flash and/or vary in luminous intensity and/or apparent surface. In addition, the direction-indicator lamps used as the answer-back [signal] may also be varied during a flash by the sequential activation of light sources.]**"

*Paragraph 5.11.1.,* amend to read:

"5.11.1. This requirement does not apply while one or more of the following conditions exist:

 (a) Front and rear position lamps, as well as side-marker lamps when combined or reciprocally incorporated with said lamps are switched ON as parking lamps;

 (b) Side-marker lamps flash in conjunction with direction indicators;

(c) Daytime running lamps are switched ON;

(d) Front position lamps function is substituted under the provisions of paragraph 5.12.1. below.

**[(e) Lamps are operating under the provisions of paragraphs *(reference to paragraphs of provisions of related lamps)*.]"**

*Paragraph 5.15.,* amend to read:

"5.15 The colours of the light emitted by the lamps7 are the following:

…

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| --- | --- |
| Manoeuvring lamp: | White |
| **Energy indicator lamp:** | **White; however, other colours may be used if they follow the principles for colours specified in paragraph 5. of ISO 2575:2004.****If approved lamps are used as energy indicator lamps, the colour of the light emitted shall be the one specified for the corresponding lamp."** |

*Insert a new paragraph 5.36,* to read:

~~"~~**~~5.36. Lamps that may be switched ON under the park condition of a vehicle are as follows:~~**

**~~(a) Lamps and signals in this UN Regulation as long as they are operated in~~** **~~the same manner allowed under the normal condition of use of the vehicle;~~**

**~~(b) External status indicator;~~**

**~~(c) Exterior courtesy lamps;~~**

**~~(d) Parking lamps;~~**

**~~(e) Lamps referred to in~~ *~~(reference to paragraphs numbers of definitions of related lamps)~~*~~"~~**

Abandon the above and adopt the Japanese proposal.

**JPN proposal**

*Insert a new paragraph 5.35,* to read:

"**5.35. Lamps that may be switched ON under the park condition of a vehicle are as follows:**

**(a) Lamps in this UN Regulation as long as they are operated in the same manner as under the normal condition of use of a vehicle;**

**(b) Lamps as defined in paragraph 2. 5. 18.;**

**(c) Lamps as defined in paragraph 2. 5. 20.; and**

**(d) Light function as defined in paragraph 2. 6. 4.;** "

*Paragraphs 6.24. to 6.24.3.,* amend to read:

"6.24. Exterior courtesy lamp

6.24.1. Presence

Optional on motor vehicles

6.24.2. Number

Two, however further exterior courtesy lamps to illuminate steps and/or door handles are permitted. Each door handle or step shall be illuminated by not more than one lamp.

6.24.3. Arrangement

No special requirement, however the requirements of paragraph 6.24.9.~~3~~**4**. apply."

*Paragraph 6.24.9.,* amend to read:

"6.24.9. Other requirements

6.24.9.1. The exterior courtesy lamp shall not be switched ON unless the vehicle is stationary and one or more of the following conditions is satisfied:

(a) The propulsion system is stopped; or

(b) A driver or passenger door is opened; or

(c) A load compartment door is opened.

The provisions of paragraph 5.10. shall be met in all fixed positions of use.

**~~6.24.9.1.1. The exterior courtesy lamps may be switched ON manually or automatically.~~**

**~~6.24.9.1.2. The exterior courtesy lamps shall not flash.~~**

**~~6.24.9.1.3. At the discretion of the manufacturer the combination of exterior courtesy lamps may be grouped in different patterns to suit the circumstances of their use and the environment~~**

**~~6.24.9.1.4. The photometric characteristics of the exterior courtesy lamps may vary in relation to the position of vehicle users.~~**

6.24.9.2. **The rear position lamps, the parking lamps, the side marker lamps, the end-outline marker lamps, and** ~~A~~**a**pproved lamps emitting white light with the exception of main beam head lamps, daytime running lamps and reversing lamps may be switched ON as courtesy lamp function. They may also be switched ON together with the exterior courtesy lamps and the condition of paragraph 5.11. and 5.12. above may not apply."

6.24.9.3The technical service shall, to the satisfaction of the Type Approval Authority, perform a visual test to verify that there is no direct visibility of the apparent surface of the exterior courtesy lamps, if viewed by an observer moving on the boundary of a zone on a transverse plane 10 m from the front of the vehicle, a transverse plane 10 m from the rear of the vehicle , and two longitudinal planes 10 m from each side of the vehicle; these four planes to extend from 1 m to 3 m above and perpendicular to the ground as shown in Annex 14.

At the request of the applicant and with the consent of the Technical Service this requirement may be verified by a drawing or simulation.

**~~This requirement about no direct visibility of the apparent surface of the exterior courtesy lamps within the defined zone shall be deemed fulfilled~~** **~~if the applicant can prove to the satisfaction of the Type Approval Authority that the luminous intensity is less than [0.5] cd per lamp [taking into account the influence of the vehicle body if applicable]. "~~**

Insert new paragraph 6.27., to read:

~~"6.27. Answer-back [signal]~~

**~~Where not otherwise specified in this paragraph and its sub-paragraphs, the individual requirements for the lamps used for answer-back [signal] do not apply.~~**

~~6.27.1. Presence~~

~~Optional~~

~~6.27.2. Number~~

~~Less than or equal to the individual specifications applicable to the specific lamp used for the Answer-back [signal].~~

~~6.27.3. Arrangement~~

~~No special requirements.~~

~~6.27.4. Position~~

~~6.27.4.1. In width:~~

~~No special requirements.~~

~~6.27.4.2. In height:~~

~~Less than or equal to the individual specifications applicable to the specific lamp used for the Answer-back [signal].~~

~~6.27.4.3. In length:~~

~~No special requirements~~

~~6.27.5. Geometric visibility~~

~~No special requirements~~

~~6.27.6. Orientation~~

~~In accordance with the individual specifications applicable to the specific lamp used for the Answer-back [signal].~~

~~6.27.7. Electrical connections~~

 ~~The requirements of paragraphs 5.11., 5.12. and for the electrical connections of devices used for the Answer-back [signal] do not apply.~~

~~6.27.8. Tell-tale~~

~~No special requirement.~~

~~6.27.9. Other requirements~~

~~6.27.9.1. The answer-back [signal] shall be provided by lighting and light-signalling devices whose maximum luminous intensity does not exceed [700] cd [on or above the HH line] [with the exception of front and rear fog lamps and stop lamps].~~

~~6.27.9.2. The answer-back [signal] may only be activated automatically in conjunction with the locking and unlocking of the door(s), the opening and closing of the doors, the detection of the vehicle user approaching with the key and in accordance with other conditions prescribed as conditions similar to this stated by the manufacturer.~~

~~6.27.9.3. The duration of Answer-back [signal] is at the discretion of the manufacturer. However, if any lamp flashes and/or varies in intensity as part of this signal, the duration flashing shall not exceed [3] seconds."~~

Abandon the above and adopt the Japanese proposal.

Insert new paragraph 6.27., to read:

"6.27. Answer-back [signal]

6.27.1.　 Presence

Optional

6.27.2. Number

In accordance with the individual specifications applicable to the specific lamp used for the answer-back [signal].

6.27.3. Arrangement

In accordance with the individual specifications applicable to the specific lamp used for the answer-back [signal].

6.27.4. Position

6.27.4.1. In width: in accordance with the individual specifications applicable to the specific lamp used for the answer-back [signal].

6.27.4.2. In height: in accordance with the individual specifications applicable to the specific lamp used for the answer-back [signal].

 However, if the height changes depending on the engine operating condition, it shall be less than or equal to the individual specifications applicable to the specific lamp.

6.27.4.3. In length: in accordance with the individual specifications applicable to the specific lamp used for the answer-back [signal].

6.27.5. Geometric visibility

In accordance with the individual specifications applicable to the specific lamp used for the answer-back [signal].

6.27.6. Orientation

In accordance with the individual specifications applicable to the specific lamp used for the answer-back [signal].

6.27.7. Electrical connections

6.27.7.1. The answer-back [signal] shall only operate under the park condition of a vehicle.

~~6.27.7.2. The answer-back [signal] may only be activated automatically in conjunction with the locking and unlocking of the door(s), the opening and closing of the doors, the detection of the vehicle user approaching with the key and in accordance with other conditions prescribed as conditions similar to this stated by the manufacturers.~~

6.27.7.2. No significant variation shall be observed during the transition of variation in luminous intensity and/or apparent surface of the answer-back [signal].

6.27.7.3. The answer-back [signal] shall flash at a frequency not exceeding 2.0 Hz.

~~6.27.7.5. The duration of the optical indication of the answer-back [signal] shall not exceed 3 seconds.~~

6.27.7.4. The lamps may also operate in combination.

6.27.7.5. The conditions of paragraphs 5.11. and 5.12. above may not apply.

6.27.8. Tell-tale

No special requirement.

6.27.9. Other requirements

6.27.9.1. The answer-back signal shall be provided by lighting and light-signalling devices whose maximum luminous intensity does not exceed [700] cd [on or above the HH line] with the exception of front and rear fog lamps and stop lamps].

6.27.9.2. The answer-back [signal] may only be activated automatically in conjunction with the locking and unlocking of the door(s), the opening and closing of the doors, the detection of the vehicle user approaching with the key and in accordance with other conditions prescribed as conditions similar to this stated by the manufacturers.

6.27.9.2. The duration of the optical indication of the answer-back [signal] shall not exceed 3 seconds."

Insert new paragraph 6.28., to read:

**"6.28. Energy indicator lamp**

**Where not otherwise specified in this paragraph and its sub-paragraphs, the individual requirements for the lamps used for energy indicator lamp do not apply.**

**6.28.1. Presence**

 **Optional.**

**6.28.2. Number**

 **No special requirement.**

**6.28.3. Arrangement**

 **No special requirement.**

**6.28.4. Position**

**No special requirement.**

**6.28.5. Geometric visibility**

 **No special requirement.**

**6.28.6. Orientation**

 **No special requirement.**

**6.28.7. Electrical connections**

The requirements of paragraphs 5.11., 5.12. and for the electrical connections of devices used for the Energy indicator lamp do not apply.

**6.28.8. Tell-tale**

No special requirement.

**6.28.9. Other requirements**

**6.28.9.1 If not otherwise specified, all lighting and light-signalling lamps may be used as an energy indicator lamp.**

**6.28.9.2 The energy indicator lamp shall not be switched ON unless the vehicle is stationary and one or more of the following conditions exist:**

**(a) the vehicle is connected to the energy grid; or**

**(b) the energy indicator lamp is switched ON manually by the vehicle user.**

**6.28.9.3. The luminous intensity of energy indicator lamp shall not exceed [50cd].**

**However, if approved lamps are used for energy indicator lamp, the luminous intensity shall not exceed the required maximum of the lamp concerned according to the following conditions:**

* **if the ambient light conditions outside vehicle are above 1,000 lux (measured according to the requirements of Annex 13), the luminous intensity above the H-H line shall not exceed [1200cd].**
* **if the ambient light conditions outside vehicle are less than 1,000 lux (measured according to the requirements of Annex 13), the luminous intensity above the H-H line shall not exceed [300cd].**

**6.28.9.4. When the energy indicator lamp is switched ON manually by the vehicle user, the duration of the indication shall not exceed [10s].**

**6.28.9.5. Energy indicator lamps may flash when a failure related to the energy transfer is detected."**

*Add a new paragraph 9.31. in Annex 1;* to read:

"**9.31. Lamps allowed to be used under park condition:**

**9.31.1. Answer-back signal: yes/no2……………………**

**9.31.2. Lamp test mode: yes/no2……………………**

**9.31.3. Energy indicator lamp: yes/no2……………………**

**~~9.31.4. Follow-me home light: yes/no~~~~2~~~~……………………~~**~~"~~

**~~Proposal A for Lamp test mode : specific provisions in general specifications~~**

*~~Insert a new paragraph 5.37,~~* ~~to read:~~

~~"~~**~~5.37. General provisions relating to lamp test mode~~**

**~~5.37.1. The lamp test mode may be switched ON manually by the vehicle user and/or automatically when the vehicle user is detected with the key and/or in accordance with the conditions prescribed or as conditions similar to this stated by the manufacturer.~~**

**~~5.37.2. The duration of Lamp test mode is at the discretion of the vehicle manufacturer. It shall always be switched OFF automatically when the vehicle is in the normal condition of use.~~**~~"~~

**Proposal B for Lamp test mode : specific provisions in individual specifications**

Insert new paragraph 6.29., to read:

"6.29. Lamp test mode

**Where not otherwise specified in this paragraph and its sub-paragraphs, the individual requirements for the lamps used for lamp test mode do not apply.**

6.29.1 Presence

Optional.

6.29.2. Number

No special requirement.

6.29.3. Arrangement

No special requirements.

6.29.4. Position

No special requirements.

6.29.5. Geometric Visibility

No special requirements

6.29.6. Orientation

No special requirements

**6.28.7. Electrical connections**

The requirements of paragraphs 5.11., 5.12. and for the electrical connections of devices used for the lamp test mode do not apply.

**6.28.8. Tell-tale**

No special requirement.

6.29.9. Other Requirements.

6.29.9.1. The lamp test mode may be switched ON manually by the vehicle user and/or automatically when the vehicle user is detected with the key and/or in accordance with the conditions prescribed or as conditions similar to this stated by the manufacturer.

6.29.9.2. The duration of Lamp test mode shall be limited to less than or equal to [180 seconds]. The lamp test mode may be manually re-initiated by the vehicle user. It shall always be switched OFF automatically when the vehicle is in the normal condition of use."

**II. Justification**

1. Plans to update.
1. \* In accordance with the programme of work of the Inland Transport Committee for 2021 as outlined in proposed programme budget for 2021 (A/75/6 (Sect.20), para 20.51), 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. [↑](#footnote-ref-2)