

Proposal for a new series of amendments to UN Regulation No. 48 to supersede GRE/2023/02

The text reproduced below was prepared by the expert from Special Interest Group (SIG) on the 09 series of amendments to UN Regulation No. 48 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 2.5.20., 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 Nos. 97, ~~and 116~~, **162 and 163**, when the vehicle is parked."

Insert a new paragraph 2.6.4. to read:

"**2.6.4. *“Answer-back signal”* means a signal used to assist the vehicle user to identify and find his/her car under the park condition of a vehicle.**"

Insert a new paragraph 5.9.4., to read:

"**5.9.4. Answer-back signal 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 6.27."

Paragraph 5.15., amend to read:

"5.15. The colours of the light emitted by the lamps¹⁰ are the following:

...

Manoeuvring lamp:

White

Answer-back signal:

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

Insert a 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. However, it may be less than or equal to the individual specifications applicable to the specific lamp.**
- 6.27.3. Arrangement**
 - In accordance with the individual specifications applicable to the specific lamp used for the answer-back signal. However, it may be less than or equal to the individual specifications applicable to the specific lamp.**
- 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. However, it may be less than or equal to the individual specifications applicable to the specific lamp.**
 - 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 operating conditions of the propulsion system, 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. However, it may be less than or equal to the individual specifications applicable to the specific lamp.**
- 6.27.5. Geometric visibility**
 - In accordance with the individual specifications applicable to the specific lamp used for the answer-back signal. However, it may be less than or equal to the individual specifications applicable to the specific lamp.**
- 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. If the answer-back signal flashes, the frequency shall not exceed 2.0 Hz.**
 - 6.27.7.3. The lamps may operate in combination.**
 - 6.27.7.4. Individual specific requirements for electrical connections and the conditions of paragraphs 5.11. and 5.12. may not apply to the lamps used for the answer-back signal.**

- 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 approved lighting and light-signalling devices and exterior courtesy lamps where in all these cases, the maximum luminous intensity per lamp does not exceed 700 cd on or above the HH line. However, front fog lamps, rear fog lamps and stop lamps are not permitted to be used.**
- 6.27.9.2. The answer-back signal may only be activated automatically in conjunction with the locking and unlocking of the door(s) and/or the detection of the vehicle user in proximity to the vehicle.**
- 6.27.9.3. The answer back signal may flash and/or vary in luminous intensity and/or apparent surface.**
- 6.27.9.4. The duration of the optical indication of the answer-back signal shall not exceed 3 seconds.**
- 6.27.9.5. Compliance with the requirements of paragraphs 6.27.9.1. to 6.27.9.4. shall be demonstrated by the applicant, using test reports or other means of verification accepted by the Type Approval Authority. The information shall be indicated in the communication form."**

Insert a new paragraph 9.28., to read:

"9.28. Answer-back signal: yes/no²....."

Renumber paragraphs 9.28., 9.29., 9.30. to 9.29., 9.30., 9.31.

II. Justification

1. Japan made proposals of ECE/TRANS/WP.29/GRE/2021/2, GRE-84-29 and GRE-84-30 at the eighty-fourth session of the Working Party on Lighting and Light-Signalling (GRE) and insisted that it would be necessary to formulate Regulations for lamps under the park condition. This resulted in the establishment of a Special Interest Group (SIG) on the 09 series of amendments to UN Regulation No. 48 as a meeting structure under GRE. These proposals are reflecting the results of deliberations at SIG since July 2021. At the eighty-sixth session of GRE, a two-step approach was approved with Step1 being the establishment of the framework of the Regulation of the lamps under the park condition and the Regulation of the existing lamps by the series of amendments, and Step 2 being the Supplement amendments that will add upcoming lamps. This proposal is the legal text for Step 1, based on the policy decided by SIG.

2. Several Contracting Parties viewed it as a problem that the lamps not subject to the provisions under the park condition in the current UN Regulation No. 48 have been put at the market and that for the Type Approval Authorities it would be difficult to restrict those lamps safely under the park condition provisions in the current UN Regulation No. 48. This proposal was intended to arrange comprehensively the requirements for the lamps under the park condition and to promote the unified operation and international standard harmonization of UN Regulation No. 48.

3. Meanwhile, to increase user convenience, some manufacturers have produced vehicles with a function that allows lights to flash in conjunction with locking/unlocking of the doors, charging electric vehicles (EV), etc., while a vehicle is under the park condition. We believe that such functions can be permitted to the extent that they do not impair traffic safety.

4. However, during the 9th session of the SIG, the representative of EU Commission expressed some concerns on other functions than “answer-back signal”. It was decided to only regulate this function to be integrate into the 09 series of amendments and the other will developed in Step 2.

5. Therefore, we would like to define the “answer-back signal” as lighting and light-signalling functions that assist the user of the vehicle to locate his vehicle by operating in conjunction with the locking or unlocking of the doors and the detection of the vehicle user approaching with the key under the park condition.

6. The answer-back signal is defined in paragraph 2.6.4. This type of signal is also already implemented on current production vehicles available today.

7. The requirements for the answer-back signal are prescribed in paragraph 6.27. in connection with the duration of illumination as well as the kind and function of lamps that can be used.

Duration of their optical indication

8. The duration of the optical indication of the answer-back signal shall not exceed 3 seconds in the same manner as the external status indicator of immobilisers. This provision that the duration of the optical indication of the immobiliser shall not exceed 3 seconds has not been revised since 1995 to the present. This can be considered a proof that there have been no safety issues. Therefore, the duration of 3 seconds is incorporated as a requirement for answer-back signal from the standpoint of safety for the surroundings. Moreover, as a reference for this matter, Japan has investigated the history of this provision that the duration of flashing of direction indicator lamps was specified as 3 seconds in connection with the external status indicator in UN Regulation No. 97. This discussion, that was carefully examined by the three meeting structures of GRE, the Working Party on General Safety Provisions (GRSG) and the World Forum (WP.29) from 1994 to 1995, was indicated in the official reports and related documents. According to the history that was clearly indicated, initially there was a proposal to allow only 2 flashes, then a provision to allow flashing for 2 seconds was proposed, and finally a provision to allow flashing for 3 seconds was decided. This provision of three-second flashing has been adopted without any relaxation to the present day. It is evident from this history that there was great concern about flashing for more than 3 seconds.

Types of lighting or light-signalling functions that can be used

9. Paragraph 6.27.1. prescribes reciprocally incorporated lamps for the answer-back signal. The answer-back signal shall be provided by approved lighting and light-signalling and exterior courtesy lamps where in all these cases, the maximum luminous intensity does not exceed 700 cd on or above the HH line. However, front fog lamps, rear fog lamps and stop lamps are not permitted to be used.

Maximum intensity and colour

10. With regard to the maximum intensity, colour, etc. of the answer-back signal, each lamp shall comply with the requirements prescribed in the individual specifications in paragraph 6. However, lamps with the specifications equal to or less than the individual specifications applicable to the particular lamp are permitted.