

Proposal for supplement [2] to the 02 Series of Amendments to UN Regulation No. 39 (Speedometer and Odometer)

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The text reproduced below was prepared by the Task Force on Automated Vehicles Regulatory Screening (TF-AVRS), with the aim to amend and supersede document ECE/TRANS/GRSG/2025/18. The modifications to ECE/TRANS/GRSG/2025/18 are marked in **(bold) red** for new or ~~striketthrough~~ for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2025 as outlined in proposed programme budget for 2025 (A/79/6 (Sect. 20), table 20.6), 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.

I. Proposal

Insert new paragraphs 0. and 0.1. to 0.1.2., to read:

"0. Introduction

- 0.1. Supplement [2] to the 02 series of amendments is introduced to take into account vehicles of categories X and Y ¹, as well as vehicles with a manual mode operating at speeds above 6 km/h which are equipped with an Automated Driving System Feature of Type 2 (ADSF-2).
- 0.1.1. The Regulation was originally drafted for vehicles with driver and manual driving controls. It is the intention of this ~~new~~ amendment to keep the spirit of the Regulation and to extend its application to vehicles without driver and without manual driving controls in the vehicle. In the absence of driver/manual driving controls in the vehicle, provisions related to them shall not be taken into account if not already covered by this amendment.
- 0.1.2. In case of vehicles equipped with an Automated Driving System (ADS) ¹ other than vehicles of categories X and Y, in the manual driving mode no special provisions or exemptions apply. In a mode where an Automated Driving System ~~Feature type~~ 2 (ADSF-2) is active the relevant ADS requirements have to be fulfilled.
- 0.1.3. Paragraph 5.1. is amended, to indicate that:
 - (a) an odometer display is ~~not~~ required for vehicles of categories X and Y, ~~but if fitted, and~~ shall comply with the relevant provisions
 - (b) the requirements related to the speedometer, do not apply to vehicles of categories X and Y. This means, that even if the vehicle's speed is displayed to the occupants, the responsibility for what is shown and how, is the responsibility of the manufacturer and not subject to Type Approval.
 - (c) the requirements related to the speedometer, do not apply to a vehicle, while an ADSF-2 is active. This means that even if the vehicle's speed is displayed to the occupants, the responsibility for what is shown and how, while an ADSF-2 is active, is the responsibility of the manufacturer and not subject to Type Approval."

Paragraph 1., footnote 1, amend to read:

¹ As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3), document ECE/TRANS/WP.29/78/Rev.68, para. 2 - ~~www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html~~
<https://unece.org/transport/vehicle-regulations/wp29/resolutions>."

Paragraph 2.6., amend to read:

"2.6. "Odometer" means that part of the odometer equipment which indicates ~~to the driver~~ the total distance driven by the vehicle."

Paragraph 2.7., amend to read:

"2.7. "Unladen vehicle" means the vehicle in running order, complete with fuel, coolant, lubricant, tools and a spare wheel (if provided as standard equipment by the vehicle manufacturer), carrying a driver weighing 75 kg (**except for vehicles of category X and Y**), but no driver's mate, optional accessories or load."

Insert new paragraphs 2.9. and 2.10., to read:

- "2.9. "ADS feature of type 1 (ADSF-1)" means an ADS feature which includes an ADS fallback response requiring a fallback user
- 2.10. "ADS feature of type 2 (ADSF-2)" means an ADS feature which does not include an ADS fallback response requiring a fallback user."

Paragraph 4.4.1., footnote 3, amend to read:

- "³ The distinguishing numbers of the Contracting Parties to the 1958 Agreement are reproduced in Annex 3 to the Consolidated Resolution on the Construction of Vehicles (R.E.3), document ECE/TRANS/WP.29/78/Rev. 68, Annex 3 - www.unecce.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html <https://unece.org/transport/vehicle-regulations/wp29/resolutions>."

Paragraph 5.1., amend to read:

- "5.1. An on-board ~~speedometer and~~ odometer complying with the requirements of this Regulation shall be fitted to the vehicle to be approved. ~~For vehicles of categories X and Y, an odometer display does not need to be fitted. The requirements in paragraphs 5.5. to 5.12. only apply to such display, where fitted.~~

~~For vehicles other than those of category X or category Y, a~~ **An on-board speedometer complying with the requirements of this Regulation shall be fitted to the vehicle to be approved, except to vehicles of categories X and Y.**

If more than one on-board speedometer or odometer is fitted to the vehicle, all these speedometers and odometers shall comply with all the requirements of this Regulation ~~when displayed~~. Additional graduations and numerical values are not permitted.

For vehicles of category X or category Y, a speedometer may be fitted, but is not required to meet the requirements of this Regulation.

Tachographs or Recording equipment, or Tachograph Replacement Units are not considered to be an on-board speedometer or odometer for the purpose of this paragraph."

Paragraph 5.2., amend to read:

"5.2. Speedometer

The display of the speedometer shall be located within the direct field of view of the driver and must be clearly legible both day and night. ~~The provision on legibility during day and night does not apply to a speedometer in the Field of Vision Assistant (FVA) compliant with the technical requirements of UN Regulation No. 125 or UN Regulation No. 176 In case of vehicles equipped with an ADS, the requirements of this paragraph and its subparagraphs shall apply at the latest [500 ms] after an ADS initiates or receives the request to start the process of transferring DDT back to the driver/the transitions of user roles and the procedure for those transitions, for example, reversion to manual driving following deactivation of the ADS feature, shall comply with the technical requirements defined in UN Regulation No. [XXX].~~ The range of speeds displayed must be sufficiently wide to include the maximum speed of this type of vehicle as stated by the manufacturer.

- 5.2.1. In the case of speedometers intended for vehicles of Categories M, N, and L₃, L₄, L₅, and L₇ the graduation shall be 1, 2, 5 or 10 km/h. The numerical values of the speed shall be indicated on the display as follows: when the highest value on the display does not exceed 200 km/h, speed values shall be indicated at intervals not exceeding 20 km/h. When the maximum value on the display exceeds 200 km/h, then the speed values shall be indicated at intervals not exceeding 30 km/h. The indicated numerical speed value intervals need not be uniform.

If a setting makes it possible for the driver to choose between the speed in km/h and mph (miles per hour), then the speed may be displayed only in either km/h or mph at any one time. The corresponding unit shall permanently be displayed.

- 5.2.2. In the case of vehicles of Categories M, N, and L₃, L₄, L₅, and L₇ manufactured for sale in any country where imperial units are used, the speedometer shall also be marked in miles per hour (mph); the graduations shall be of 1, 2, 5 or 10 mph.

The speed may be displayed either in km/h or mph at any one time provided that a setting makes it possible for the driver to choose between the speed in km/h and mph, in that case the corresponding unit shall permanently be displayed.

The numerical values of the speed shall be indicated on the display at intervals not exceeding 20 mph and commencing at 10 or 20 mph. The indicated numerical speed value intervals need not be uniform.

- 5.2.3. In the case of speedometers intended for vehicles of categories L₁ (mopeds), L₂, and L₆, the display readings shall not exceed 80 km/h. The graduation shall be 1, 2, 5 or 10 km/h and the marked numerical values of the speed indicated shall not exceed 10 km/h. The indicated numerical speed value intervals need not be uniform.

- 5.2.4. In the case of vehicles of categories L₁, L₂ and L₆ manufactured for sale in any country where imperial units are used, the speedometer shall also be marked in mph; the graduation shall be of 1, 2, 5 or 10 mph. The numerical values of the speed shall be indicated on the display at intervals not exceeding 10 mph and starting at 10 or 20 mph. The indicated numerical speed value intervals need not be uniform. If a setting makes it possible for the driver to choose between the speed in km/h and mph, then the speed may be displayed only in km/h or mph at one time at any one time. The corresponding unit shall permanently be displayed."

Paragraphs 5.5. to 5.11., amend to read:

"5.5. Odometer equipment

The display of the odometer shall be visible or accessible to ~~the a~~ driver, if applicable., ~~as an alternative to an odometer display, paragraph 5.9. applies.~~ The odometer shall display at least an integer number composed of a minimum of 6 numerals for the vehicles of categories M and N, and at least an integer number composed of a minimum of 5 numerals for the vehicles of category L. Nevertheless, the Type Approval Authorities may also accept an integer number composed of at least 5 numerals for the vehicles of categories M and N if the intended use of the vehicle justifies it.

- 5.5.1. In the case of vehicles manufactured for sale in any country where imperial units are used, the odometer shall be marked in miles.
- 5.5.2. The odometer shall display the distance in the unit corresponding to that of the predominant speedometer scale. If a setting makes it possible for ~~the a~~ driver

or **ADS** to select the odometer display distance in km or miles independently of the speedometer, the odometer shall identify the unit used.

5.6. Odometer Equipment – Accuracy

Paragraphs 5.7. to 5.9. and 5.11. to 5.12. do not apply to vehicles fitted with purely mechanical odometers.

Paragraphs 5.9. and 5.11. to 5.12. do not apply to L category vehicles.

For vehicles equipped with a tachograph or recording equipment, or where a tachograph replacement unit is the only source of measuring mileage, the requirements of paragraphs 5.7. to 5.9. and 5.12. are considered to be met, if the security and accuracy of the recording equipment are at least equivalent to the requirements of this UN Regulation.

5.7. The accuracy of the odometer equipment shall be tested in accordance with the test procedure prescribed in Annex 4.

5.8. The total distance indicated shall not deviate by more than ± 4.0 per cent from the true distance travelled as determined in paragraph 5.7.

5.9. When total distance values are provided by the serial data port on the standardised data link connector, as specified in paragraph 6.5.3. of Appendix 1 of Annex C5 to UN Regulation No. 154 or as specified in paragraph 4.7.3. of Annex 9B to UN Regulation No. 49, these values shall not deviate from the (rounded) total distance indicated. However, this does not apply to the total distance travelled (lifetime) as defined in UN Regulation No. 154.

5.10. Odometer – General

Total distance values and the total distance indicated shall have a resolution better than or equal to 1 km or 1 mile, as appropriate.

5.11. In the case of an electrically detectable failure preventing the odometer requirements of this UN Regulation from being met, a malfunction indication shall be provided to the driver, **if applicable**, if not already covered by other failure warnings and/or other failure conditions. **In case of vehicles of categories X and Y and vehicles where an ADSF-2 is active, the malfunction shall be transmitted as a logic signal to the ADS.**

5.11.1. The malfunction indication shall be active when the malfunction occurs and shall remain active as long as the malfunction persists. It may be temporarily cancelled, but shall be repeated each time the ignition or the vehicle master control switch is activated.

5.11.2. At the time of type approval, the means of indicating malfunction chosen by the manufacturer shall be confidentially outlined."

Insert new paragraph 5.13., to read:

"5.13. Vehicles equipped with an ADSF-2, including vehicles of categories X and Y, shall comply with the relevant technical requirements and relevant transitional provisions of UN Regulation No. [XXX]."