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**Economic Commission for Europe****Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Automated/Autonomous and Connected Vehicles****Ninth session**

Item 5 (b) of the provisional agenda

**Connected vehicles:****Software updates and Over-the-Air issues****Proposal for a supplement to UN Regulation No. [156]  
(Software updates and software updates management  
systems)****Submitted by the expert from the France\***

This proposal was prepared by the expert from France, clarifying the requirements applicable to alternatives software identifications systems differing from the Regulation No. X Software Identification Number (RxSWIN) defined in the Regulation. It is based on the informal document GRVA-07-37, already presented at the seventh session of the Working Party on Automated/Autonomous and Connected Vehicles (GRVA) in September 2020. The modifications of the existing Regulation are marked in bold for new or strikethrough for deleted characters.

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\* 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.



## I. Proposal

*Insert a new paragraph 2.12., to read:*

- 2.12.**        **"Alternative software identification system" means a dedicated system, defined by the vehicle manufacturer, identifying the version and representing information about the type approval relevant software of the Electronic Control System contributing to the regulated type approval relevant characteristics of the vehicle.**

*Paragraph 7.1.1.3., amend to read:*

- 7.1.1.3.**     A process whereby, for a vehicle type that has an RXSWIN **or an alternative software identification system**, information regarding the RXSWIN **or the alternative software identification system** of the vehicle type before and after an update can be accessed and updated. This shall include the ability to update information regarding the software versions and their integrity validation data of all relevant software for each RXSWIN **or an alternative software identification system**.

*Paragraph 7.1.1.4., amend to read:*

- 7.1.1.4.**     A process whereby, for a vehicle type that has an RXSWIN **or an alternative software identification system**, the vehicle manufacturer can verify that the software version(s) present on a component of a type approved system are consistent with those defined by the relevant RXSWIN **or an alternative software identification system**;

*Paragraph 7.1.2.3., amend to read:*

- 7.1.2.3.**     For every RXSWIN **or alternative software identification system**, there shall be an auditable register describing all the software relevant to the RXSWIN **or to the alternative software identification system** of the vehicle type before and after an update. This shall include information of the software versions and their integrity validation data for all relevant software for each RXSWIN **or an alternative software identification system**.

*Add a new paragraph 7.2.3., to read:*

- 7.2.3.**        **If the manufacturer implements an alternative software identification system, the manufacturer shall demonstrate that the requirements of paragraphs 7.2.1.2.1. to 7.2.1.2.3. are met.**

## II. Justification

1. In the context of software update Regulation and its first referencing in UN Regulation No. [157], GRVA agreed that the vehicle manufacturer can choose to use a software identification system that differs from the RXSWIN. The proposal below aims to introduce the same level of requirements independently from the identification system chosen.
  2. This proposal is submitted together with the corresponding amendment proposal to UN Regulation No. [157].
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