

List of relevant GRBP Regulations for software updates

This document was prepared by the expert from France. It proposes a list of the relevant UN Regulations and Global Technical Regulations (GTRs) under the purview of GRBP, for the purposes of software updates.

I. List of relevant UN Regulations and GTRs

Regulation	Title	Relevant (Yes/No)
UN Regulation No. 9	Sound emissions (Categories L2, L4 and L5)	Yes
UN Regulation No. 28	Audible warning devices	No
UN Regulation No. 30	Pneumatic tyres (passenger vehicles)	No
UN Regulation No. 41	Sound emissions (Category L3)	Yes
UN Regulation No. 51	Sound emissions (Categories M and N)	Yes
UN Regulation No. 54	Pneumatic tyres (commercial vehicles)	No
UN Regulation No. 59	Replacement silencing systems	No
UN Regulation No. 63	Sound emissions (Category L1)	Yes
UN Regulation No. 64	Temporary use spare unit, run flat tyres and/or a run flat system and/or extended mobility tyres	Yes
UN Regulation No. 75	Pneumatic tyres (Category L)	No
UN Regulation No. 92	Non-original replacement exhaust silencing systems	No
UN Regulation No. 106	Pneumatic tyres (agricultural vehicles)	No
UN Regulation No. 108	Retreaded pneumatic tyres	No
UN Regulation No. 109	Retreaded pneumatic tyres (commercial vehicles)	No
UN Regulation No. 117	Rolling sound emissions, adhesion on wet surfaces and rolling resistance of tyres	No
UN Regulation No. 124	Wheels (passenger cars)	No
UN Regulation No. 138	Quiet road transport vehicles	Yes
UN Regulation No. 141	Tyre Pressure Monitoring Systems (TPMS)	Yes
UN Regulation No. 142	Installation of tyres	Yes
UN Regulation No. 164	Snow performance of tyres	No
UN Regulation No. 165	Reverse warning sound	Yes
Global Technical Regulation No. 16	Tyres	No

II. Justification

During the 191st session of WP.29, the expert from France proposed that all subsidiary Working Parties of WP.29 consider the list of the Regulations under their respective purview which may be relevant for the purposes of software updates (see ECE/TRANS/WP.29/1175, para. 37). This identification of relevant Regulations is necessary to introduce the provisions on identification and update of software in each affected Regulation, using the guidance provided in Annex 7 of the Consolidated Resolution on the Construction of Vehicles (R.E.3).

This document proposed a list of the UN Regulations and GTRs under the purview of GRBP which may be relevant for the purposes of software updates. More specifically:

- **UN Rs9, 41, 51, 63, 92, 138, 165** (Regulations on sound emissions and other sounds): in addition to sound emitting systems which can be intrinsically affected by software updates, several other vehicle features (such as engine power), which may be affected by software updates, may affect in turn the sound emissions of vehicles.

- **UN Rs28, 59, 92** (Regulations on devices or replacement systems related to sound emissions): while type approvals pursuant to these Regulations may be affected by software updates, UN Regulation No. 156 only allows software updates of vehicles, and does not include in its scope software updates for separate components or devices.
- **UN Rs 30, 54, 75, 106, 108, 109, and GTR16** (Regulations on tyres): for the reason mentioned in the above paragraph, the authors do not consider these Regulations to be relevant for software updates at this stage.
- **UN R64** (Regulation on temporary use spare units, etc.): Run-flat Warning Systems may be affected by software updates.
- **UN R141** (Regulation on TPMS): TPMS may be affected in several ways by software updates, e.g. due to updates of the sensors or to updates in how signals from the sensors are processed.
- **UN R142** (Regulation on the installation of tyres): it is possible that software updates could affect certain characteristics of a vehicle, such as its maximum design speed, which could in turn affect the validity of the type approval on the installation of its tyres. Although this scenario might not represent a high priority for GRBP at this stage, the authors are of the view that all potentially relevant Regulations should be amended to reflect the guidance from Annex 7 of R.E.3.