

UNECE **PRESS RELEASES**

New UN Regulation keeps silent cars from becoming dangerous cars

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“Silent cars” will no longer be dangerously silent thanks to a new regulation adopted by the UNECE World Forum for Harmonization of Vehicle Regulations (WP.29) which requires acoustic warning devices on hybrid and electric cars.

While no car is completely silent unless it is turned off, hybrid and electric cars don't emit significant engine noise. Though this seems positive, as traffic noise can adversely affect health and quality of life, it can also be dangerous as the car will give no audible warning to pedestrians. Pedestrians and other road users have come to rely on the noise emitted by combustion engine vehicles to provide useful information such as the presence of one or more cars, their approximate speed, whether the vehicle is accelerating or decelerating, and so on.



These “silent cars” may constitute a safety risk for blind or visually impaired people, cyclists or any pedestrian. This risk is higher when silent cars are driving at a low speed such as in parking lots. Studies have examined accident data for electric and hybrid cars and compared this to the respective numbers of accidents for internal combustion engine cars. They found that quiet vehicles were more likely to be involved in collisions with pedestrians than conventional cars and accidents where pedestrians were injured by quiet vehicles had increased in the recent years.

As a result, WP.29 has adopted a [new Regulation on Quiet Road Transport Vehicles \(QRTV\)](#) which aims to minimize the risk posed by silent cars, without creating a disturbing level of traffic noise. According to the new Regulation, quiet cars should be equipped with an [Acoustic Vehicle Alerting System \(AVAS\)](#) to create artificial noise in the speed range from 0 to 20 km/h. Above 20 km/h the noise of tires on the road and the wind noise are audible even from a fully electric car thereby negating the need for a warning system.

The Regulation introduces the minimum AVAS sound levels, spectrum and frequency shift, depending on the vehicle's speed forward or backwards speed. When the car's speed increases the sound becomes louder (50 dB at 10 km/h, 56 dB at 20 km/h and 47 dB for reversing) so that pedestrians can audibly judge the speed. To provide for environmental protection, this Regulation also specifies the maximum overall sound limit which, while loud enough to provide a warning to road users, is still quite enough to protect against noise pollution.

At this stage, the Regulation covers only acoustic measures to overcome the concerns of reduced audible signals from electrified vehicles. In the future, the Regulation could be enhanced by alternative, non-acoustic measures such as pedestrian detection systems within the vehicle.

Note to editors

The [World Forum for Harmonization of Vehicle Regulations \(WP.29\)](#) is a Working Party within the UNECE Inland Transport Committee. It manages three global Agreements on vehicles. Any country that is member of the United Nations may participate in the activities of the World Forum and accede to the Agreements.


The 1958 Agreement and its annexed UN Regulations contain provisions (for vehicles, their systems, parts and equipment) related to safety and environmental aspects. They include performance-oriented test requirements, as well as administrative procedures. They address issues such as type approval (of vehicle systems, parts and equipment); conformity of production (i.e. the means to prove the ability, for manufacturers, to produce a series of products that match the type approval specifications); and mutual recognition of the type approvals granted by Contracting Parties.

Contracting Parties

There are **50 Contracting Parties** to the 1958 Agreement. The Agreement does not preclude those countries whose rules and regulations are implemented through self-certification (manufacturer's certification) from becoming Contracting Parties.

Region	Contracting Parties to the 1958 Agreement
Europe	The EU, Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland
Asia	Azerbaijan, Japan, Kazakhstan, Malaysia, Republic of Korea, Thailand
Oceania	Australia, New Zealand
Africa	Egypt, Tunisia, South Africa

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