

French experts proposal concerning the technical requirements on Safety Belt Reminder

Principles :

The safety belt use is mandatory in most countries around the world. In order to favour the safety belt use by the passengers, it seems relevant to define harmonized regulatory requirements in regards of a mandatory system dedicated to alert the passengers when they do not use the safety belt.

It has been demonstrated in many studies conducted by different countries and by the EEVC that a high rate of safety belt use provides a positive impact on road safety.

The purpose of this system would be to define two levels of alert when the safety belt is not used :

- a first level characterized by a visual signal,
- a second level characterized by a visual and audible signals.

The system shall be designed in such a way that it provides an assistance to the passengers. The target is to get more people that accept the benefits of the safety belt, to actually use them.

The system must not create any passengers reject which could lead to bypass or damage the system.

Scope:

The final objective is that these requirements should concern all the different categories of vehicle which have to comply with the mandatory safety belt fitment and all the passengers of these corresponding vehicles.

Nevertheless, the enforcement of these new requirements need to be progressive taking into consideration the eventual technical and cost barriers regarding the feasibility of fitment of such device for certain categories of vehicles and certain seating positions.

As a first step, we propose to apply this requirements to the driver seating position of the M1 category of vehicle. This device are already provided in a growing part of the vehicle fleet.

In case where as optional equipement a device is fitted on another category of vehicle or another seating position, the specifications for the driver seating position could apply to this device with, when needed, some specific appropriate characteristics.

The long term enforcement of this device will need a technical feasibility and economic assesment taking into consideration the technical progress, the consumers acceptance and the real impact in term of road safety.

Proposal :

The regulatory text hereunder takes into consideration most of the principles defined in international regulatory standards :

- Japan regulation (TRIAS 49) and the informal document N°86-26 submitted at the last GRSG,
- Australian regulation ADR 69/00, and in Euro NCAP protocol.

The proposal is an amendment to Regulation 16. The technical principles are annexed to this document.

The technical amendment concerns the following items of Regulation ECE 16:

§ 1 Scope

amend § 1 to read :

This regulation applies (...). It also applies to safety belt reminder fitted in M1 category of vehicles.

§ 2 Definition

Add new § 2.39

§ 2.39 : Safety Belt Reminder :

System dedicated to alert the driver when he does not use the safety belt

§ 6 Requirements

Add new § 6.5

§ 6.5 : Safety Belt Reminder

§ 6.5.1 First alert level...

§ 6.5.2 Second alert level...

§ 8 Installation specifications

Amend §8.1 to read:

§ 8.1: Safety belt and restraints systems equipment

Add a new § 8.4:

§ 8.4 : Safety belt reminder equipment

The driver seating position of the M1 category of vehicle as defined in annex 7 of the Consolidated Resolution (RE3) shall be equipped with a safety belt reminder satisfying the requirements of this regulation.

Timescale:

France wishes to progress quickly in this field, that's why the approach of this proposal is to consider the driver's seat of the M1 category of vehicle.

The french experts will propose a detailed document for the december GRSP.

France, is opened to any comments during this time frame which could be incorporated in the document sent before September the 16th, 2004.

Annex

Safety Belt Reminder - Technical principles

Definition :

Safety Belt Reminder : system intended to alert the driver when he does not use the safety belt. The system is constituted by a detection of an unfastened safety belt and by two levels of driver's alert : a first level with visual signal and a second level with visual and audible signals.

Scope :

The Safety Belt Reminder applies to driver's seat position.
The Safety Belt Reminder applies to M1 category of vehicle.

Requirements :

When the safety belt is not fastened, the requirements are as follows :

- First alert level : ignition switch on (engine running or not), a visual alert shall be activated for [4] sec or longer. This visual alert shall be bright enough to be recognized in the daylight and distinguishable from other alerts.
- Second alert level : vehicle in forward motion and when any combination of the following thresholds is reached, depending on the manufacturer's choice :
 - Distance driven equal or greater to distance threshold (threshold \leq [500] m)
 - Speed equal or greater to speed threshold (threshold \leq [25] km/h)
 - Duration time (engine running) equal or greater to time threshold (threshold \leq [60] sec)

Both a visual and an audible signal shall be activated for [30] sec or longer. The visual alert may be achieved by remaining the first alert visual signal. This alert may remain activated until the safety belt is fastened. This signal may be continuous or intermittent.

The audible signal shall be loud and clear in order to be easily identified by the driver. The signal may be continuous or intermittent and may be constituted by more than one step.

The audible signal could be substituted by a vocal information.

When this visual and/or audible alert is designed to automatically switch off after a specified time duration and the safety belt has not been fastened, this visual and/or audible alert shall not be reactivated after a vehicle stop (engine running).