

**Amendment proposal  
for Annex 5 to the Consolidated Resolution on  
the Construction of Vehicles (R.E.3)  
-Introduction of Remote Controlled Parking System-**

The modifications to the existing text of the Consolidated Resolution on the Construction of Vehicles (R.E.3) are marked in bold for new.

**I. Proposal**

*Insert a new subparagraph to the paragraph 2 (Scope), to read:*

"2. Scope

ADAS can be classified into three categories: information provision, warning, and control. Guidelines for limiting driver distraction from in-vehicle information systems have already been established and are used on a self-commitment basis. Regarding warnings,....

This document discusses control systems that support and assist the driver's driving operations. Systems covered include those that involve a certain interaction (transfer of control) between the driver and the system,.....

In this document, we discuss systems that are used during normal driving, such as ACC (Advanced Cruise Control system),

.....regulated, but we include them in our discussion because they involve the transfer of control between the driver and the system.

**Additionally, the "Remote Controlled Parking System (RCP), including pulling out of parking space" with state-of-the-art technologies related to automated driving is also included.**

The present principles are applicable mainly to passenger cars (M1),....."

*Insert new line to the table, to read:*

"3. Existing regulations

There are existing regulations which are most relevant to the principles in this document.

UN Regulation No. 131	Advanced Emergency Braking Systems (AEBS)
<b>UN Regulation No.79</b>	<b>Steering equipment</b>

"

*Insert a new subparagraph to the paragraph 4, to read:*

"4. Control principles

The principles are divided into four sections:

Control elements;

Operational elements;  
Display elements; and  
Supplementary elements.

.....

In this document, normal driving refers to situations that do not require immediate responses from the driver and/or vehicle to avoid a collision. Critical driving refers to situations that do require immediate responses from the driver and/or vehicle to avoid or mitigate a collision.

**Additionally, the specific guidelines for RCP are introduced into the paragraph 4.5."**

*Insert new paragraphs 4.5. and 4.5.1., to read:*

**"4.5. The RCP system shall be designed so that its automatic maneuvering for parking and/or pulling out of parking space the vehicle can be:**

**(a) activated as long as the off-board driver who monitors the circumstances around the vehicle, continuously indicates the intention to activate it by operating the remote controller e.g. the automatic maneuvering continues only while the activation button of the remote controller is pushed by the off-board driver and it stops safely when the button is released., and**

**(b) safely terminated when such intention is no longer indicated.**

**4.5.1. The owner's manual of the vehicle shall contain an instruction regarding the caution of its remote operation that the driver shall monitor safety of circumstances around of the vehicle by driver's own immediate perception from an appropriate distance."**

## **II. Justification**

1. Current UN Regulations don't consider the "Remote Controlled Parking System (RCP)" with which the driver can remotely parking control and/or pulling out of parking space while the driver is off-board (outside the vehicle). With state-of-the-art technologies related to automated driving, such a system is considered as technically feasible and driver acceptance. On the other hand, if the requirements to keep the safety wouldn't be, the system cannot be stopped safely in an emergency situation and such systems may cause critical problems. However, it is not preferable to give an excessive design restriction to the new technology which has not been commercialized yet. Therefore, for ensuring a road safety, it is appropriate to establish the adequate guidelines for such a new system.

2. The necessary guidelines for the " RCP" is mentioned as following,

(a) The driver shall monitor safety of circumstances around of the vehicle by his own immediate perception from an appropriate distance, e.g. not exceeding 10m.

However, actually, since it would be difficult to restrict the distance of wireless communication transmission accurately from current technical point of view, it is reasonable that the owner's manual indicates the caution as vehicle construction guidelines.

(b) The system must have the function to terminate safely the parking system control by the remote controller.

(c) The secure and reliable communication between the vehicle and the controller to ensure the emergency termination of the operation.