

**Amendments to the draft AEBS  
(based on AEBS-LDWS-11-02-Rev.1 Draft AEBS M+A after  
telcon.doc)**

A1. PROPOSAL

Paragraph 5.3.1. amend to read;

5.3.1. The AEBS ~~{may/—shall}~~ provide the means for the driver to interrupt the collision warning phase.

B1. JUSTIFICATION

Automatic braking even in the emergency situations should be overridden if the driver intends to take over the vehicle control. This is also appropriate in terms of the Vienna Convention. However, as for the warning, prohibition of its continuation as long as the emergency phase continues should not be required by a regulation. Whether to introduce the function that the warning is overridden by the driver's action should be at the discretion of the car manufactures. The Vienna Convention also doesn't stipulate that the warning shall be overridden. In addition, the warning in ISO is provided as a "may" requirement. Therefore, the requirement for the warning should be described as "may", while for the braking should be "shall".

A2. PROPOSAL

Paragraph 6.6.2.2. amend to read;

6.6.2.2. ~~No~~ **At least two** warning mode shall be ~~generated~~ **provided not** later than [0.8]s before the start of the Emergency Braking phase.

B2. JUSTIFICATION

This amendment is added to clarify the requirement.

1. It could be more understandable if the need of two warning means are explicitly indicated in the "paragraph 6. test procedure", even the requirement of two warning means is described in the "paragraph 5. specification"
2. There is no intention to inhibit the warning later than [0.8]s.

### A3. PROPOSAL

Paragraph 6.6.4. and 6.7.4. amend to read;

~~{6.6.4. The Emergency braking phase shall not start before TTC reaches down to 3.0 seconds.}~~

~~{6.7.4. The Emergency braking phase shall not start before TTC reaches down to 3.0 seconds.}~~

### B3. JUSTIFICATION

The purpose of this proposal is just to eliminate the emergency braking system such as ACC systems from overreliance point of view. It doesn't impose design constraints if car manufacturers design rational systems.

With regard to the measurement of TTC, taking the information on the CAN-BUS might be an easy solution.

### A4. PROPOSAL

Paragraph 6.10. amend to read;

#### **6.10. False reaction test**

**6.10.1. The obstacles outside lane shall be two stationary vehicles of category M<sub>1</sub> AA saloon having their central longitudinal axis oriented parallel to the direction of the axis of the test course in both right and left lanes. The width of each lane shall be 3.5m; each vehicle being located on the centre of the respective outside lane.**

**6.10.2. Drive from more than 60m behind the obstacles outside the central lane and trace the centre of the lane at the constant speed of 50+/- 2km/h, until passing over the obstacles outside the lane.**

**6.10.3. The AEBS shall not initiate both the warning phase and the emergency braking phase.**

### B4. JUSTIFICATION

The test 1 of UK proposal is realistic with which vehicles may encounter at certain frequency in ordinal traffics. This test requires only two M1 AA saloon cars and is easy to conduct.

The test 2 of UK proposal is realistic with which vehicles may encounter in real environment with less frequency compared to the Test 1. To conduct this test from a point of view of the accuracy, the detail specification of a gantry structure for the

specified width of each vehicle should be needed in the regulation

The test 3 of UK proposal is realistic with which vehicles may encounter in real traffic with less frequency compared to the Test 1. To conduct this test, the subject vehicle and the target vehicle shall be in a curve and a large skid pad which can accommodate a circle with more than 125 m radius is necessary.

In the test NL suggested, the space between the subject vehicle and the target vehicles is about 0.5m and 0.2m between overhead structure and the subject vehicle. It is not realistic to drive through that space with the speed of 50km/h. The system may initiate warning and emergency braking phase because there is certain risk to have a contact between vehicles. .

In conclusion, the test 1 of UK proposal; passing stationary vehicles in adjacent lanes is most appropriate for the regulation. Conformity to other test conditions, which includes test 2 and test 3, should be reported by vehicle manufacturers by documentation.