



SAFER CHOICE AWARD

PROTOCOLS AND REQUIREMENTS

2024 Version 1.0

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INTRODUCTION

Global NCAP first launched the 'Safer Choice' Award in 2018 to encourage automakers to achieve higher levels of safety for cars and to excel current proposed protocols.

With an initial focus on India and Africa, to be eligible for the coveted award at that time, models must achieve a 5 star rating for adult occupant protection, at least a 4 star rating for child occupant protection, have Electronic Stability Control (ESC) fitted as well as meet pedestrian protection requirements.

To further encourage vehicle safety developments, the Safer Choice Award is now offered globally where there is an emerging market without a local NCAP, reflecting Global NCAP's commitment to democratizing safety. The Safer Choice Award remains an accolade awarded only to models that achieve high safety results and meets the strict criteria as set out in this document. The New Safer Choice award focuses on active safety technologies, like Autonomous Emergency Braking (AEB), Blind Spot Detection (BSD) and Speed Assist Systems (SAS).

The evolution of the Safer Choice Award and the updated protocol aims to catalyse a market for safety globally and to take the progress made to date to even higher levels.



REQUIREMENTS

To qualify for the Safer Choice award from 2024 onwards, a car model must meet all of the following requirements:

- A. The model must achieve a 5-star score for adult occupant protection in accordance with the latest version of the Global NCAP emerging market test protocol (Global NCAP 2022).
- B. The model must achieve 5-star score for child occupant protection in accordance with latest version of the Global NCAP emerging market test protocol. (Global NCAP 2022).
- C. The model must offer a Speed Assist System and achieve a 3 point score performance under the criteria described in Annex 1. Where the technology is offered as an option, the Speed Limitation Assist must be:
 - I. available on all the model variants; and
 - II. sold separately without any 'bundling' with other features (i.e. must be available as a stand-alone option); and
 - III. fitted as standard in at least 30% of sales volume across all variants, and after 2 years, it must be a standard fit to at least 50% of the sales volume in the country or region.
- D. The model must offer Autonomous Emergency Braking (AEB) and meet basic regulatory performance requirements described in the United Nations (UN) Regulation 152 (including two-wheeler scenarios) or higher performance criteria. The AEB must be capable of City scenarios (static target), Interurban scenarios (moving target) and VRU scenarios (Vulnerable Road Users). Where the technology is offered as an option, the AEB must be:
 - I. available on all the model variants;
 - II. sold separately without any 'bundling' with other features (i.e. must be available as a stand-alone option); and
 - III. fitted as standard in at least 20% of sales volume across all variants, and after 2 years it must be fitted as standard to at least 30% of the sales volume in the country or region.
- E. The model must offer Blind Spot Detection (BSD) as a stand-alone option and meet validation scenarios.
- F. Conformity with all of these requirements must be validated at a Global NCAP designated laboratory and by the provision of type approval certificates where applicable.

Global NCAP may review the fitment rates indicated in this document.



ANNEX 1

ASSESSMENT OF SPEED ASSIST SYSTEMS

1. Introduction

Speed is a key risk factor and one of the leading contributors to road fatalities and serious injuries globally. Effective speed management is critical for improving road safety, with one aspect being compliance with set speed limits which can be low in some regions of the world. Speed limits are intended to help promote the safe operation of the road network by keeping traffic speeds to a level appropriate for a given traffic environment to protect all road users – both inside and outside of the vehicle. Speed limits, when set appropriately and complied with, can help control energy levels in typical crashes to survivable limits, allow sufficient time for drivers to react to traffic situations, facilitate efficient traffic flow and promote safe driving conditions. Greater compliance with these limits could avert many crashes and mitigate the effects of those that do occur.

A voluntary speed limitation device is one way to assist drivers with achieving greater compliance with speed limits. Global NCAP hopes to encourage manufacturers to promote such speed-limitation devices and to fit them as standard equipment to generate greater consumer demand and an increased introduction of speed limitation systems into the fleet.

The margins for alarm activation set out in this document are based on prevailing speedometer accuracy, which is specified by regulation and typically overstates the vehicle speed by several km/h.

This version of the protocol contains technical requirements for only Manual Speed Assist (MSA) systems where the driver needs to set the speed to which the car is limited to. Intelligent Speed Assist (ISA) systems where the car itself is aware of the speed limit to be used in the warning or speed limitation function will also be assessed by Global NCAP in the current protocol but will be awarded with the same maximum score as MSA. The reason for this is due to the fact that speed signs are not harmonized globally, and in many cases absent. Additionally, Global Positioning Systems (GPS) and telecommunications technologies in some regions are not as advanced and accurate as in other regions of the world. There is also currently no official database of speed limits that could underpin the ISA systems fitted in vehicles. However, research has shown the effectiveness and safety benefits of ISA systems and thus Global NCAP strongly encourages its implementation in all world regions.



2. Definitions

Throughout this protocol the following terms are used:

- **Vindicated** – The speed the car is travelling at as displayed to the driver by the speedometer as in ECE R39.
- **Vlimit** – Maximum allowed legal speed for the vehicle at the location, time and in the circumstances the vehicle is driving.
- **Vadj** – Adjustable speed Vadj means the voluntarily set speed for the MSA/ISA, which is based on Vindicated and includes the offset set by the driver.
- **MSA** – Manual Speed Assistance. MSA means a system which allows the driver to set a vehicle speed Vadj.
- **SLIF** – Speed Limit Information Function (SLIF). SLIF means a function with which the vehicle knows and communicates the speed limit.
- **SLF** – Speed Limitation Function (SLF). SLF means a system which allows the driver to set a vehicle speed Vadj, to which the driver wishes the speed of their car to be limited to and above which they wish to be warned.
- **ISA** – Intelligent Speed Assist (ISA). ISA is a MSA combined with SLIF, where the Vadj is set by the SLIF with or without driver confirmation.
- **iACC** – Intelligent Adaptive Cruise Control (iACC). iACC is an Adaptive Cruise Control (ACC) with SLIF, where the speed is set by the SLIF with or without driver confirmation.
- **Vstab** – Stabilised speed (Vstab) means the mean actual vehicle speed when operating. Vstab is calculated as the average actual vehicle speed over a time interval of 20 seconds beginning 10 seconds after first reaching Vadj – 10 km/h.

3. Requirements for Speed Limit Information Function (SLIF) and Speed Control Functions

The Speed Assist Systems are developed in such a way that they allow different types of Speed Assist Systems to be assessed in two areas; Speed Limit Information Function (SLIF) and Speed Control functions which may be combined.

SPEED LIMIT INFORMATION FUNCTION

- Basic SLIF meeting the General Requirements
- Advanced Functions
- System Accuracy
- Warning Function

SPEED CONTROL FUNCTIONS

- Speed Limitation function (standalone function or combined with SLIF without coupling)



- Intelligent Speed Assist (SLIF and Speed Limitation function coupled)
- Intelligent ACC (SLIF and ACC coupled)

4. Speed Control Function

4.1 ACTIVATION / DE-ACTIVATION OF THE FUNCTION

- The speed control function must be capable of being activated/de-activated as well as have access to speed setting at any time with a simple operation. Multiple stage operations was accepted only until December 2022, after that date the model that scored SAS points must be updated to simple operation.
- At the start of a new journey, the system should be de-activated by default.

4.2 SETTING OF VADJ

Manually setting the speed

- It shall be possible to set Vadj, by a control device operated directly by the driver, by steps not greater than 10km/h (5mph) between 30km/h (20mph) and 130km/h (80mph).
- It shall be possible to set Vadj independently of the vehicle speed.
- If Vadj is set to a speed lower than the current vehicle speed, the system shall limit the vehicle speed to the new Vadj within 30s or shall initiate a warning (Section 6.4) no later than 30s after Vadj has been set and repeat the warning every 30s if the speed is still greater than Vadj.
- The Vadj value shall be permanently indicated to the driver and visible from the driver's seat. This does not preclude temporary interruption of the indication for safety reasons or driver's demand.

5. Warning Function

All MSA and ISA systems need to meet the warning requirements of section 5.1 to indicate to the driver that Vadj is exceeded. In addition, a supplementary warning is required, e.g. audible, haptic and head-up display meeting the requirements in section 5.2. A head-up display warning meeting the requirements of both 5.1 and 5.2 will be accepted. Vehicles with a Speed Limiter function activated do not need a warning function when active braking is applied to limit the vehicle speed.

It shall still be possible to exceed Vadj by applying a positive action, e.g. kickdown. After exceeding Vadj by applying a positive action, the speed limitation function shall be reactivated when Vindic drops to a speed less than Vadj.



5.1. Visual warning Requirements

- 5.1.1. The visual signal must be in the direct field of view of the driver, without the need for the head to be moved and the driver only moving their eyes not more than 15 degrees vertically and 15 degrees horizontally from the normal driving position, i.e. instrument cluster, rear view mirror and centre console.
- 5.1.2. The driver is informed when Vindicated of the vehicle is exceeding Vadj by more than 5 km/h.
- 5.1.3. The driver continues to be informed for the duration of the time that Vadj is exceeded by more than 5 km/h.
- 5.1.4. The warning signal does not preclude temporary interruption of the indication for safety reasons.

5.2. Supplementary warning requirements

- 5.2.1. The warning shall be clear to the driver.
- 5.2.2. No supplementary warning needs to be given when Vadj is exceeded as a result of a positive action.
- 5.2.3. The warning commences when the Vindicated of the vehicle is exceeding Vadj by more than 5km/h.
- 5.2.4. The total duration of the warning must be at least 10 seconds and must start with a positive signal for at least 2 seconds. Gaps of less than 1 second, which allow for signals which flash and audio signals that “beep”, are ignored. If the signal is not continuous for the first 10 seconds, it needs to be repeated every 30 seconds or less, resulting in a minimum total duration of at least 10 seconds.
- 5.2.5. The warning sequence does not need to be reinitiated for each exceedance of Vadj until Vindicated has reduced to more than 5km/h below Vadj.

5.3. Automatic setting the speed

Will be assessed according to Euro NCAP's Safety Assist assessment protocol Version 8.0.2 from November 2017, Chapter 4.

6. Speed Control

- 6.1. The vehicle speed shall be limited or controlled to Vadj.
- 6.2. It shall still be possible to exceed Vadj by applying a positive action – e.g. kickdown (SLF/ISA) or depressing the accelerator (iACC).



- 6.2.1. After exceeding V_{adj} by applying a positive action, the speed control function shall be reactivated when the vehicle speed drops to a speed less than or equal to V_{adj} .
- 6.2.2. The speed control function shall permit a normal use of the accelerator control for gear selection.
- 6.3. The speed control function shall ensure that when stable speed control has been achieved, V_{stab} shall be within $-10/+0$ km/h of V_{adj} (see Euro NCAP test protocol).
- 6.4. When the speed control function is not able to limit to and/or maintain V_{adj} and V_{adj} is exceeded by more than 5 km/h an audiovisual warning is issued, with a total duration of at least 10 seconds. No warning needs to be given when V_{adj} is exceeded as a result of a positive action.

Gaps of less than 1 second, which allow for signals that flash are ignored, but the signal may not start with a gap. If the signal does not remain for the first 10 seconds, it needs to be repeated every 30 seconds or less, resulting in a minimum total duration of at least 10 seconds.

For systems where active braking is applied to maintain and/or limit the speed, this warning requirement does not apply.

Note: The warning signal does not preclude temporary interruption of the indication for safety reasons.

7. Scoring

- 7.1. When all the previous requirements are met with the exception of 6 then 1 (one) point will be awarded for SAS.
- 7.2. When 6 is also met then extra 2 points will be awarded to SAS. 5.1 is a precondition to 5.2.



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