

IVISTA

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Intelligent Safety Index Safety Assist Side Support System Rating Protocol

(Version 2023)

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Side Support System Rating Protocol

1 Scope

This document specifies the rating methods of IVISTA China Intelligent Vehicle Index - Intelligent Safety Index - Safety Assist - Side Support System.

2 Normative References

The following normative documents contain provisions which, through reference in this text, constitute indispensable provisions of this document. For dated references, only the dated edition applies to this document. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 18385-2005 Electric Vehicles - Power Performance - Test Method

GB/T 24158-2018 General Specifications for Electric Motorcycles and Electric Mopeds

GB/T39265-2020 Road Vehicles - Performance Requirements and Testing Methods for Blind Spot Detection (BSD) System

GB/T 39263-2020 Road Vehicles - Advanced Driver Assistance Systems - Terms and Definitions

ISO 17387 Intelligent transport systems-Lane change decision aid systems (LCDAS)-performance requirements and test procedures

3 Rating Methods

The side support system test has a full score of 12 points, including 8 points for BSD test, 3 points for DOW test and 1 point for advanced assistance function verification test.

The side support system is an optional review item. For the VUT equipped with BSD and DOW systems, whether the BSD and DOW systems of the VUT have the required performance is assessed by reviewing the test report provided by the vehicle manufacturer issued by a qualified third-party testing organization and by reviewing the real vehicle.

3.1 Side support system scoring

Scoring is made according to Table C.1 Side Support System Scoring Rules. Full score will be given if the results of 2 tests under each condition comply with the corresponding scoring criteria; otherwise, no point will be given.

Table 1 Side Support System Scoring Rules

Rating Item	Test Scenario		Vehicle Speed (km/h)		Scoring Criteria		Condition Score	Total Score	
			Subject vehicle	Target vehicle					
BSD Functional test	Passenger car TV overtaking SV	Left blind spot	60	70	Warning start interval	After the head of TV passes line A Within 0.3 s after the head of TV passes line B	2	3	
		Right blind spot			Warning end interval	After the head of TV passes line C Within 1 s after the rear of TV passes line D	1		
		Left blind spot	60	120	Warning start interval	After TTC is less than 7.5 s Within 0.3 s after TTC reaches 3.5 s	2	3	
		Right blind spot			Warning end interval	After the head of TV passes line C Within 1 s after the rear of TV reaches line D	1		
	Two-wheeler TV overtaking SV	Left blind spot	20	30	Warning start interval	After the head of TV passes line A Within 0.3 s after the head of TV passes line B	1	2	
		Right blind spot			Warning end interval	After the head of TV passes line C Within 1 s after the rear of TV passes line D	1		
	DOW Functional test	Two-wheeler TV overtaking SV	Front left door	0	15	Warning start interval	After TTC is less than 7.5 s Within 0.3 s after TTC reaches 2 s	1	3
			Rear left door			Warning end interval	After the head of TV passes line C Within 1 s after the rear of TV reaches line D	0.5	
Front left door			0	30	Warning start interval	After TTC is less than 7.5 s Within 0.3 s after TTC reaches 2 s	1		
Rear left door					Warning end interval	After the head of TV passes line C Within 1 s after the rear of TV reaches line D	0.5		
Advanced assistance function verification	RCW function		—	—	Whether this function is provided		0.5	1	
	DOW rear-row independent alarm function		—	—	Verify that the rear row of the SV can give an independent alarm during DOW test		0.5		

Note: See Fig. 1 for Lines A, B, C and D mentioned in the table.

3.2 Warning zone diagram

The boundaries such as lines A, B, C and D involved in the side support system rating are shown in Fig. 1.

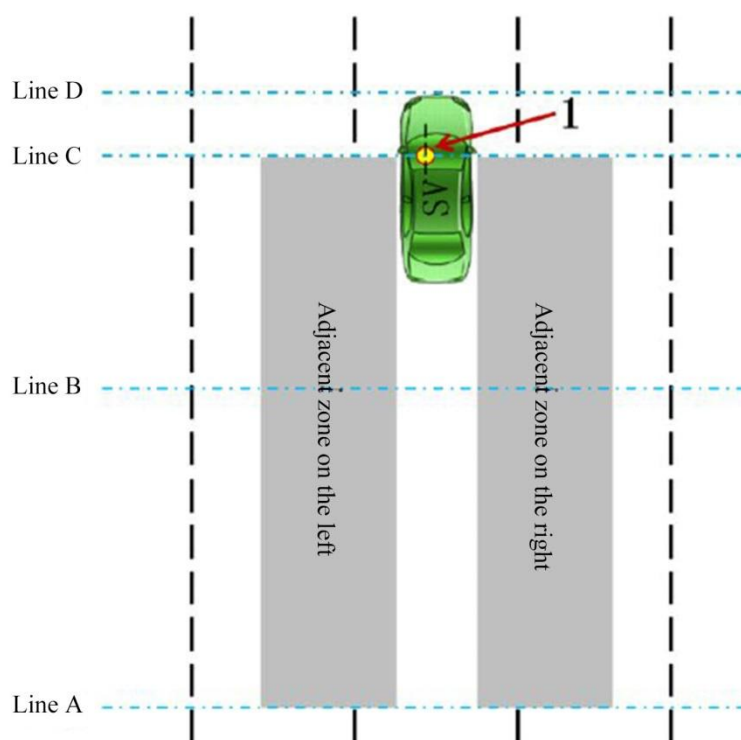


Fig. 1 Side Support Warning Zone Diagram

In the diagram,

- Line A shall be parallel to the rear edge of the SV and located 30 m behind it;
- Line B shall be parallel to the rear edge of the SV and located 3 m behind it;
- Line C shall be parallel to the rear edge of the SV and located at the center of the 95th percentile ellipse (the position marked with "1");
- Line D shall be parallel to the front edge of the SV and located on its extension line.