



SURFACE VEHICLE INFORMATION REPORT

J3339™

JUL2026

Issued

2026-07

Reverse Automatic Emergency Braking (AEB) Testing Summary

RATIONALE

At present, testing standards for Reverse Automatic Emergency Braking (AEB) Systems are lacking in the United States but are crucial to ensure they function properly in real-world scenarios.

It's important to evaluate not only their functionality but also their ability to address different situations that may arise.

Taking a balanced approach to testing can help ensure that these systems are safe and effective for all users.

1. SCOPE

This SAE Information Report provides a broad summary of existing Reverse Automatic Emergency Braking test protocols to help assess whether additional test protocols are needed.

Eventually, the task force may develop additional protocols to support testing of Reverse Automatic Emergency Braking systems.

2. REFERENCES

There are no referenced publications specified herein.

3. OVERALL SUMMARY

Tables 1A and 1B summarize AEB test protocols (see Table 1A) and potential damage prevention scenarios (see Table 1B). Each table includes the list of organizations where the information was collected from, such as NHTSA, EU NCAP, China NCAP, RCAR, AAA, and Korea NCAP.

SAE Executive Standards Committee Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2026 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, or used for text and data mining, AI training, or similar technologies, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 1-877-606-7323 (U.S. and Canada only)
Tel: 1-724-776-4970 (outside U.S. and Canada)
Fax: 724-776-0790
Email: CustomerService@sae.org
http://www.sae.org

SAE WEB ADDRESS:

Full document details: SAE J3339_202607

For more information on this standard, visit
https://www.sae.org/standards/content/J3339_202607/

Documents

Standard, visit Sharing Hub

Table 1A - Summary of AEB test protocols collected

SV Movement	SV Speed	Impact Location	Target	Orientation	Target Movement	Target Speed	Obstructions	Functions Under Test	NHTSA	EU NCAP	C-NCAP	RCAR	IIHS	AAA	KNCAP
Straight	Coast	Center	Child	90°	Stationary	0	None	All	X					X	
Straight	Coast	Left	Child	90°	Stationary	0	None	All	X						
Straight	Coast	Right	Child	90°	Stationary	0	None	All	X						
Straight	4 kph	Left	Child	90°	Stationary	0	None	All		X					
Straight	4 kph	Center	Adult	90°	Stationary	0	None	All		X					
Straight	4 kph	Center	Adult	90°	Crossing from left	5 kph	None	All		X					
Straight	4 kph	Right	Child	90°	Stationary	0	None	All		X					
Straight	8 kph	Left	Adult	90°	Stationary	0	None	All		X					
Straight	8 kph	Center	Child	90°	Stationary	0	None	All		X					
Straight	8 kph	Center	Child	90°	Crossing from left	5 kph	None	All		X					
Straight	8 kph	Right	Adult	90°	Stationary	0	None	All		X					
Straight	0 kph	N/A	Child	90°	Crossing from left	5 kph	Vehicles	Alerts			X				
Straight	0 kph	N/A	Child	90°	Crossing from right	5 kph	Vehicles	Alerts			X				
Straight	0 kph	N/A	Scooter	90°	Crossing from left	20 kph	Vehicles	Alerts			X				
Straight	0 kph	N/A	Scooter	90°	Crossing from right	20 kph	Vehicles	Alerts			X				
Straight	0 kph	N/A	E-bike	90°	Crossing from left	15 kph	Vehicles	Alerts			X				
Straight	0 kph	N/A	E-bike	90°	Crossing from right	15 kph	Vehicles	Alerts			X				
Straight	Coast	Center	Vehicle	90°	Crossing from right	24.1 kph	Vehicles	All						X	
Straight	Coast	Center	Vehicle	120°	Crossing from right	24.1 kph	Vehicles	All						X	
Straight	Coast	Center	Vehicle	90°	Crossing from left	10 kph	Vehicles	All							X
Straight	Coast	Center	Vehicle	90°	Crossing from left	30 kph	Vehicles	All							X
Straight	Coast	Center	Vehicle	90°	Crossing from right	10 kph	Vehicles	All							X
Straight	Coast	Center	Vehicle	90°	Crossing from right	30 kph	Vehicles	All							X
Straight	Coast	Center	Vehicle	120°	Crossing from left	10 kph	Vehicles	All							X
Straight	Coast	Center	Vehicle	120°	Crossing from left	30 kph	Vehicles	All							X
Straight	Coast	Center	Vehicle	120°	Crossing from right	10 kph	Vehicles	All							X
Straight	Coast	Center	Vehicle	120°	Crossing from right	30 kph	Vehicles	All							X

