

AVAILABILITY OF AUTONOMOUS EMERGENCY BRAKING (AEB) IN AUSTRALIA

JUNE 2021

PURPOSE

This document presents a status update on the availability of autonomous emergency braking (AEB) in the Australian new light vehicle market (passenger cars, sports utility vehicles and light commercial vehicles).

The status of AEB is determined through an analysis of the light vehicle market at a particular point in time. This report presents the status of AEB availability in June 2021.

DATA SOURCES

The analysis is based on vehicle specification information collected by ANCAP as part of its safety rating program, as well as publicly available vehicle specification information published by vehicle brands.

Sales data is used to estimate the market penetration of AEB. This data is sourced from the VFACTS National New Vehicle Sales Report, prepared by the Federal Chamber of Automotive Industries (FCAI).

FINDINGS

In June 2021, sales of 296ⁱ vehicle models totalling 105,393 light vehicle sales were reported by the VFACTS National New Vehicle Sales Report in Australia. The availability of AEB across all light vehicle models was investigated:

- **197 models offered AEB as STANDARD.**
These models represented 75 per cent of the light vehicle market (79,146 vehicles).
- **19 models offered AEB on HIGHER GRADE VARIANTS. AEB was not available on the base variant.**
These models represented 12 per cent of the light vehicle market (12,502 vehicles).
- **6 models offered AEB as OPTIONAL.**
These models represented 2.5 per cent of the light vehicle market (2,681 vehicles).
- **44 models were NOT AVAILABLE with any form of AEB.**
These models represented 10 per cent of the light vehicle market (10,737 vehicles).

Concentrating on the top 100 selling models, which accounted for 83 per cent of total light vehicle sales (87,470 vehicles):

- **74 models offered AEB as STANDARD.**
These models represented 62 per cent of all light vehicle sales and 75 per cent of the top 100 sellers (65,650 vehicles).
- **13 models offered AEB on HIGHER GRADE VARIANTS. AEB was not available on the base variant.**
These models represented 11 per cent of all light vehicle sales and 13 per cent of the top 100 sellers (11,557 vehicles).
- **1 model offered AEB as OPTIONAL.**
This model represented 2.5 per cent of all light vehicle sales and 3 per cent of the top 100 sellers (2,610 vehicles).
- **12 models were NOT AVAILABLE with AEB.**
These models represented 7 per cent of the light vehicle market and 9 per cent of the top 100 sellers (7,653 sales).

TABLE 1:
Availability of autonomous emergency braking (AEB)
in the Australian new light vehicle market
(June 2021)

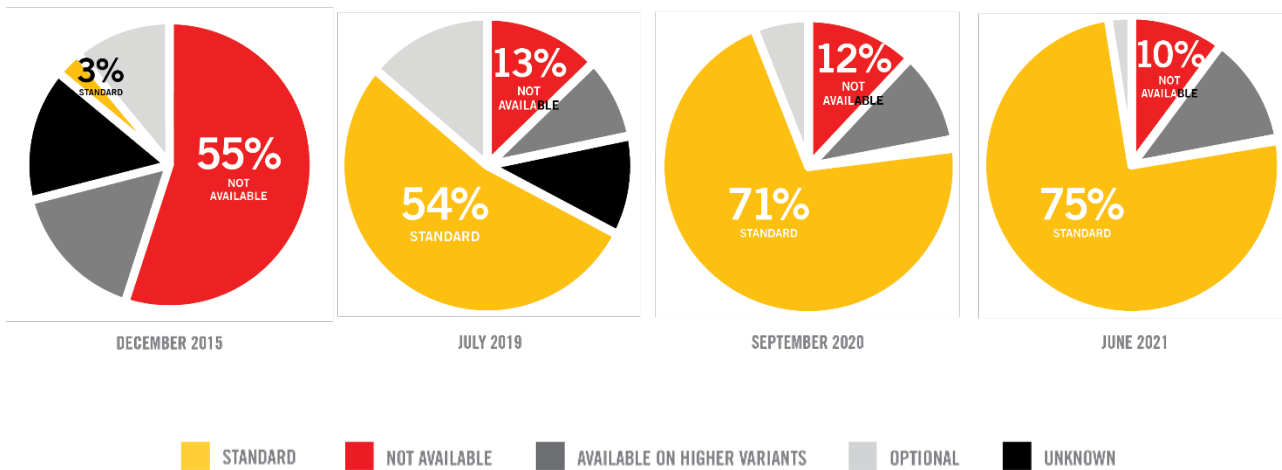
ALL SALES				TOP 100		
AEB STATUS	NUMBER OF MODELS	SALES VOLUME	MARKET SHARE	NUMBER OF MODELS	SALES VOLUME	MARKET SHARE
S = Standard	197	79,146	75.10%	74	65,650	62.29%
V = On higher variants	19	12,502	11.86%	13	11,557	10.97%
O = Optional	6	2,681	2.54%	1	2,610	2.48%
X = Not available	44	10,737	10.19%	12	7,653	7.26%
U = Unknown	30	327	0.31%	0	0	0
	296	105,393	100%	100	87,470	83.00%

PREVIOUS MARKET SNAPSHOTS

ANCAP has conducted market snapshots investigating the availability of AEB since December 2015. Over time, the number of models offered with AEB has increased as market demand builds, coupled with increasing maturity of the technology.

The results from market snapshots over the period December 2015 to June 2021 are included in **Figure 1** below.

FIGURE 1:
Availability of autonomous emergency braking (AEB)
in the Australian new light vehicle market
(2015 to 2021)



KEY OBSERVATIONS:

The number of new light vehicle models with AEB **available** increased to 90% of the market in June 2021:

- 222 models
- 94,329 vehicles sold

The number of new light vehicle models with AEB as **standard** increased to 75% of the market in June 2021:

- 197 models
- 79,146 vehicles sold

The number of top 100 selling new light vehicle models with AEB **available** increased to 76% of the market in June 2021:

- 88 models
- 79,817 vehicles sold

The number of top 100 selling new light vehicle models with AEB as **standard** increased from 6 models (3% of the market) in December 2015 to 74 models (62% of the market) in June 2021:

- 65,650 vehicles sold

The number of top 100 selling light vehicle models sold **without any form** of AEB decreased from 67 models (55% of the market) in December 2015 to 12 models (7% of the market) in June 2021.

LIMITATIONS

The analysis serves to provide a snapshot of the market at a particular point in time based on model sales of a single month. Sales volumes of individual models will fluctuate between months for a variety of reasons which can influence the model's market share. In turn, such fluctuations can influence the market share of the relative status of AEB.

Vehicles investigated were new vehicles from vehicle brands whose sales are reported as part of the VFACTS National New Vehicle Sales Report for the relevant month. There are vehicle sales which are not reported by VFACTS. It is understood that such sales equate to a relatively small volume.

The availability status of AEB on models has been determined through the model information collected by ANCAP as part of its safety rating program, as well as specification information published by vehicle brands. It is possible that AEB may be available on a model, however the safety feature is not promoted by the brand. In such a case, the availability of AEB may have been classified as not available. It is expected that such cases are unlikely.

The requirements for a system being considered a form of AEB were based on a functional definition of the technology. No further assessments of the technologies have been made as part of this exercise.

The functional definition of AEB is as follows:

- **Autonomous:** the system acts independently of the driver.
- **Emergency:** the system will intervene only in a critical situation.
- **Braking:** the system applies braking to avoid or mitigate potential collisions.

Generally, where AEB is available on the lowest specification variant it is also offered on higher grade variants within the model range, however there are some scenarios where this is not the case.

DEFINITIONS

AEB STATUS:	The availability of autonomous emergency braking (AEB) within a model range.
NONE:	AEB is not available on any variant within the model range.
OPTIONAL:	AEB is available as an option on at least the lowest specification variant. It may be standard on higher specification variants.
HIGHER VARIANT:	AEB is not available on the lowest specification variant of a model range however it is available on higher specified variants either as an option or as standard equipment.
STANDARD:	AEB is available as standard on the lowest specification variant.

TABLE 2:
Availability of autonomous emergency braking (AEB)
in the Australian new light vehicle market - Top 100 selling models
(June 2021)

MAKE	MODEL	ANCAP SAFETY RATING (stars)	AEB STATUS
Ford	Ford Ranger 4X4	5	STANDARD
Toyota	Toyota Hilux 4X4	5	STANDARD
Mazda	Mazda CX-5	5	STANDARD
Kia	Kia Cerato	5	STANDARD
Toyota	Toyota Prado	5	STANDARD
Isuzu	Isuzu Ute D-Max 4X4	5	STANDARD
Hyundai	Hyundai i30	5	STANDARD
Mitsubishi	Mitsubishi Triton 4X4	5	ON HIGHER VARIANTS
Mazda	Mazda 3	5	STANDARD
Toyota	Toyota RAV4	5	STANDARD
Toyota	Toyota Corolla	5	STANDARD
Mazda	Mazda BT-50 4X4	5	STANDARD
Mazda	Mazda CX-30	5	STANDARD
Nissan	Nissan Navara 4X4	5	STANDARD
Hyundai	Hyundai Tucson	5	STANDARD
Hyundai	Hyundai Kona	5	STANDARD
Subaru	Subaru XV	5	ON HIGHER VARIANTS
MG	MG ZS	4	ON HIGHER VARIANTS
Mazda	Mazda CX-3	5	STANDARD
Mitsubishi	Mitsubishi Outlander	5	ON HIGHER VARIANTS
Toyota	Toyota Kluger	5	STANDARD
Kia	Kia Seltos	5	STANDARD
MG	MG MG3	Not Rated	NOT AVAILABLE
Toyota	Toyota Landcruiser Wagon	5	ON HIGHER VARIANTS
Nissan	Nissan X-Trail	5	STANDARD
Toyota	Toyota Hilux 4X2	5	STANDARD
Toyota	Toyota Landcruiser PU/CC	5	NOT AVAILABLE
Toyota	Toyota Hiace Van	5	STANDARD
GWM	GWM Ute 4x4	Not Rated	STANDARD
Toyota	Toyota Camry	5	STANDARD
Mazda	Mazda CX-9	5	STANDARD
Mitsubishi	Mitsubishi Pajero Sport	5	STANDARD
Ford	Ford Everest	5	STANDARD
Isuzu	Isuzu Ute MU-X	5	NOT AVAILABLE
Kia	Kia Picanto	4	STANDARD
Subaru	Subaru Forester	5	STANDARD
Mazda	Mazda2	5	STANDARD
Kia	Kia Stonic	5	STANDARD
Nissan	Nissan Qashqai	5	STANDARD
Hyundai	Hyundai Venue	4	STANDARD
Mazda	Mazda CX-8	5	STANDARD
Volkswagen	Volkswagen T-Roc	5	STANDARD
Kia	Kia Sportage	5	STANDARD
Volkswagen	Volkswagen T-Cross	5	STANDARD
Isuzu	Isuzu Ute D-Max 4X2	5	STANDARD
Volkswagen	Volkswagen Tiguan Allspace	5	STANDARD
Volkswagen	Volkswagen Polo	5	STANDARD
MG	MG HS	5	STANDARD
Toyota	Toyota Fortuner	5	STANDARD
LDV	LDV T60 4x4	5	NOT AVAILABLE
RAM	RAM 1500	Not rated	ON HIGHER VARIANTS
Volkswagen	Volkswagen Amarok 4X4	5	NOT AVAILABLE

MAKE	MODEL	ANCAP SAFETY RATING (stars)	AEB STATUS
Kia	Kia Rio	5	ON HIGHER VARIANTS
BMW	BMW 3 Series	5	STANDARD
Volkswagen	Volkswagen Tiguan	5	STANDARD
Mitsubishi	Mitsubishi Pajero	5	NOT AVAILABLE
Kia	Kia Carnival	5	STANDARD
Ford	Ford Transit Custom	5	STANDARD
Honda	Honda HR-V	5	STANDARD
Subaru	Subaru Impreza	5	ON HIGHER VARIANTS
Hyundai	Hyundai Santa Fe	5	STANDARD
GWM Haval	Haval Jolion	Not Rated	STANDARD
Toyota	Toyota CH-R	5	STANDARD
BMW	BMW X1	5	STANDARD
Audi	Audi Q5	5	STANDARD
Hyundai	Hyundai Palisade	Not Rated	STANDARD
BMW	BMW X3	5	STANDARD
Ford	Ford Ranger 4X2	5	STANDARD
LDV	LDV G10	3	NOT AVAILABLE
Mercedes-Benz	Mercedes-Benz CLA-Class	5	STANDARD
Mitsubishi	Mitsubishi ASX	5	STANDARD
Ford	Ford Mustang	3	STANDARD
Volvo	Volvo XC60	5	STANDARD
Toyota	Toyota Yaris Cross	Not Rated	STANDARD
Jeep	Jeep Grand Cherokee	5	STANDARD
Kia	Kia Sorento	5	STANDARD
Mercedes-Benz	Mercedes-Benz A-Class	5	STANDARD
Ford	Ford Puma	5	STANDARD
Suzuki	Suzuki Swift	5	ON HIGHER VARIANTS
Subaru	Subaru Outback	Not Rated	STANDARD
Suzuki	Suzuki Jimny	3	STANDARD
BMW	BMW X5	5	STANDARD
GWM Haval	Haval H6	Not Rated	STANDARD
Chevrolet	Chevrolet Silverado 1500	Not Rated	STANDARD
Nissan	Nissan Navara 4X2	5	STANDARD
Suzuki	Suzuki Vitara	5	ON HIGHER VARIANTS
Mercedes-Benz	Mercedes-Benz GLB-Class	5	STANDARD
Mitsubishi	Mitsubishi Triton 4X2	5	STANDARD
Renault	Renault Trafic	Not Rated	NOT AVAILABLE
Mazda	Mazda BT-50 4X2	5	STANDARD
Mercedes-Benz	Mercedes-Benz GLE-Class	5	STANDARD
Volkswagen	Volkswagen Transporter	Not Rated	STANDARD
BMW	BMW 1 Series	5	STANDARD
Mercedes-Benz	Mercedes-Benz GLC-Class	5	STANDARD
Volvo	Volvo XC40	5	STANDARD
Mitsubishi	Mitsubishi Eclipse Cross	5	STANDARD

ⁱ The AEB status of 30 models is unknown.