

ANCAP Safety Rating: KIA CARNIVAL (December 2015 - onwards)



Frontal offset test at 64km/h

This ANCAP safety rating applies to:

Make / Model	Kia Carnival
Year Range	December 2015 - onwards
Variant(s)*	All variants
Vehicle Type	People Mover

The tested model of Kia Carnival was introduced in Australia and New Zealand in January 2016. This ANCAP safety rating applies to all Kia Carnival variants built from December 2015, when several safety-related improvements were introduced.

Dual frontal, side chest and side head airbags (curtains) are standard. The curtain airbags protect all three rows of seats. Electronic Brakeforce Distribution (EBD) and Emergency Brake Assist (EBA) are also standard. Advanced seat belt reminders are fitted to both front seats and outboard second-row seats. Several advanced crash avoidance features are available on higher-priced variants.

Injury Outcomes.

Frontal Offset



Passenger



Side Impact & Pole#



Whiplash Protection



GOOD
ACCEPTABLE
MARGINAL
POOR

Head protection only.

Test Results Summary.

Airbags	Dual Frontal, Side, Head
Frontal Offset Test	14.29 (out of 16)
Side Impact Test	16.00 (out of 16)
Pole Test	2.00 (out of 2)
Whiplash Protection	Good
Pedestrian Protection	Acceptable
ESC	Standard
Seat Belt Reminders	2.33 (out of 3)
Overall Score	34.62 (out of 37)
ANCAP Safety Rating	★★★★★
Rating Year^	2015

Occupant Protection.

Frontal Offset Test

Each body region is scored out of 4 points

Head / neck:	4.00 points
Chest:	4.00 points
Upper legs:	4.00 points
Lower legs:	2.29 points

The passenger compartment held its shape reasonably well in the frontal offset crash test, except for footwell and firewall separation. Pedal movement was excessive.

Side Impact Test

Each body region is scored out of 4 points

Head:	4.00 points
Chest:	4.00 points
Abdomen:	4.00 points
Pelvis:	4.00 points

The side impact test normally used by ANCAP simulates a small car striking the driver's door of the test vehicle. Experience shows that large, high vehicles like the Carnival can be expected to perform well in this test. ANCAP has adopted a policy of awarding these types of vehicles a default score of 16 points (out of 16).

Pole Test

Scored out of 2 points

Score:	2.00 points
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The vehicle was eligible for a side pole test because it has side curtain airbags. The vehicle scored the maximum 2 points for head protection in this test.

Whiplash Protection Test

Whiplash protection is assessed to the RCAR Protocol

Geometric test:	Good
Dynamic test:	Good
Overall whiplash rating:	Good

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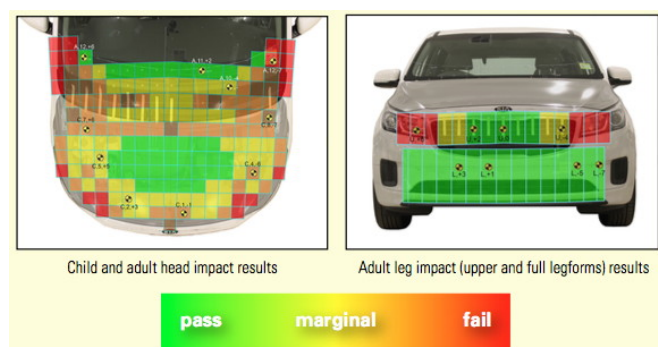
Pedestrian Protection.

Pedestrian Test

Scored out of 36 points

Adult & child head impacts: 15.63 points
Upper leg impacts: 3.04 points
Lower leg impacts: 6 points

This vehicle scored 24.67 out of 36 points (Acceptable). Points have been gained in the central area of the bonnet and central area of the upper leg zone. Maximum points have been gained for the lower leg areas. (v8.0)



Score Deductions.

Deductions from frontal offset test scores

Head / neck: No deduction
Chest: No deduction
Upper legs: No deduction
Lower legs / feet: -1.71 pts (excessive brake pedal rearward movement, 115mm, park brake pedal blocked 62mm, footwell rupture)

Deductions from side impact test score

No deductions (default score for high-seat vehicle)

Deductions from pole test score

Head: No deductions.

Safety Features & Technologies.

Descriptions of each of these safety features and safety assist technologies (SAT) and detail on fitting requirements for each star rating level can be found at ancap.com.au.

Safety Feature / Safety Assist Technology	Availability
Seat belts (three-point) for all forward-facing seats	S
Seat belt pretensioners (front)	S
Seat belt pretensioners (rear outboard)	X
Intelligent seat belt reminder (driver)	S
Intelligent seat belt reminder (front passenger)	S
Intelligent seat belt reminder (2 nd row seats)	S
Intelligent seat belt reminder (3 rd row seats)	X
Airbag - Front (driver)	S
Airbag - Front (passenger)	S
Airbag - Side, chest protection (front seats)	S
Airbag - Side, chest protection (2 nd row seats)	X
Airbag - Side, head protection (front seats)	S
Airbag - Side, head protection (2 nd row seats)	S
Airbag - Side, head protection (3 rd row seats)	S
Airbag - Knee (driver)	X
Airbag - Knee (front passenger)	X
Head restraints for all seats	S
Adaptive cruise control (ACC)	V
Antilock braking system (ABS)	S
Automatic headlights	S
Automatic high beam	V
Blind spot monitoring	V
AEB (Autonomous emergency braking) - City	X
AEB - Interurban	X
AEB - Vulnerable road user	X
Electronic brakeforce distribution (EBD)	S
Electronic stability control (ESC)	S
Emergency brake assist (EBA)	S
Lane support system (LSS)	V
Daytime running lights (DRL)	X
Hill launch assist	S
Reversing collision avoidance	S
Rollover occupant protection system	S
Rollover warning	S
Roll stability system	S

These specifications are subject to change. Please check with the manufacturer for the latest specifications.

S = Standard on all variants.
O = Optional on base variant. May be standard on higher variants.
V = Not available on base variant but standard or optional on higher variants.
X = Not available on any variant.
E = Available in Europe / USA but not available on any Australasian variant.

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Injury Values & Measurements.

Body Region	Frontal offset test at 64 km/h (v5.1)		Side impact test at 50 km/h (v5.1)
	Driver	Passenger	Driver
Head			
HIC	281.00	513.00	
Acceleration (g for 3ms)	38.7	53.0	
Neck			
Shear (kN)	0.48	0.26	
Tension (kN)	0.82	0.94	
Extension (Nm)	9.0	22.6	
Chest			
Acceleration (g for 3ms)	-	-	
Compression (mm)	22.0	21.0	
Viscous criterion (m/s)	0.09	0.06	
Abdomen			
Force (kN)	-	-	
Pelvis			
Force (kN)	-	-	
Upper legs			
Femur force left (kN)	0.20	0.09	
Femur force right (kN)	0.08	0.54	
Knee displacement left (mm)	0.53	0.32	
Knee displacement right (mm)	0.05	3.24	
Lower legs			
Force left (kN)	2.45	1.49	
Force right (kN)	1.30	1.25	
Index (upper / lower) left	0.76 / 0.61	0.26 / 0.15	
Index (upper / lower) right	0.47 / 0.55	0.26 / 0.42	
Intrusion Measurements*			
Steering column			
Forward (mm)	29		
Downward (mm)	12		
Sideways (mm)	25		
Pedals			
Brake - upward (mm)	35		
Brake - rearward (mm)	115		
A-Pillar			
Rearward (mm)	7		

+ Steering column and pedal movements are measured relative to the driver's seat.

* ANCAP safety ratings do not automatically extend to variants that have different body styles, engine configurations, driven wheels or occupant restraint systems (e.g. fewer airbags). In these cases, ANCAP considers technical evidence submitted by manufacturers before deciding on extending a rating to additional variants of a model. For further information about the application of ANCAP safety ratings to model variants, see the ANCAP Variant Policy.

^ The Rating Year denotes the year requirements against which a vehicle has been assessed. The Rating Year is determined by ANCAP and may be based on the year in which a new vehicle model is first launched into the Australian and/or New Zealand markets; the year in which the vehicle was tested (if tested by Euro NCAP); or, for vehicles which hold an existing ANCAP safety rating, the year in which the rating was updated (or earlier applicable year).

Assessment Details.

Tested Make / Model	Kia Carnival
Tested Vehicle(s) Built	23 December 2015
Tested Body Type	Wagon
Tested Vehicle Kerb Weight	2000 kg
Tested Vehicle Engine	3.3 V6 petrol
Tested By	ANCAP
Assessed By	ANCAP
Document Reference	CARNIVAL16
Document Created / Revised	10 March 2016 / 21 March 2017
Rating Published	17 March 2016

