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### Who is ANCAP?

The Australasian New Car Assessment Program (ANCAP) gives consumers consistent information on the level of occupant protection provided by vehicles in serious front and side crashes.

The vehicles purchased for the test program are typical of those vehicles available to new car purchasers.

The program is supported by Australian and New Zealand automobile clubs, the State governments of NSW, Victoria, South Australia, Queensland, Western Australia and Tasmania, the New Zealand government, NRMA Insurance and the FIA Foundation.

### Making Comparisons

ANCAP results are intended to compare the crash protection provided by vehicles in severe crashes.

All other factors being equal, occupants of heavier vehicles in real-world two-vehicle crashes typically fare better than occupants in lighter vehicles. This is why crash test results for vehicles with large weight differences should not be compared. However, in many single-vehicle crashes, weight offers no safety advantage. In Australia, 40% of fatal crashes are single-vehicle crashes.

### The Results

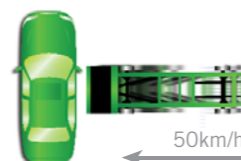
These crash tests are essential to determine how much protection these individual vehicles afford their occupants and pedestrians. The results in this report are based on a series of crash tests conducted at approved test laboratories on behalf of ANCAP and EuroNCAP.

Vehicle manufacturers were given the opportunity to examine their vehicles before and after the tests and to view the crash tests and data.

The test results indicate the relative protection provided to front seat occupants when seat belts are used. The results may not be representative for models that have different safety equipment fitted.

### ANCAP Crash Test Procedures

#### Side Impact



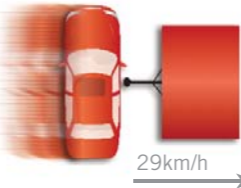
are used to measure the likely injuries to the driver in this type of crash. Experience has shown that vehicles with high seating positions, like many 4WDs, perform very well in this test. Therefore, ANCAP has decided to award those vehicles the full score for this component of the rating instead of conducting side impact crash tests.

#### Frontal Offset



The offset frontal crash test simulates colliding with another vehicle of similar size. In this test, 40% of the test vehicle, on the driver's side, initially makes contact with a crushable aluminium barrier at 64km/h. Instrumented dummies are used to measure the likely injuries to the driver and front passenger in this type of crash.

#### Pole Test



The pole test consists of running the test vehicle sideways into a pole 250mm in diameter, lined up with the driver's head, at 29km/h. This test is optional and is carried out at manufacturer's cost. It is only done if the vehicle performs well in the side impact test, is fitted with head protection side airbags and would obtain 5 stars with a successful pole test. It simulates a sideways collision with stationary objects such as a power pole or a tree. Instrumented dummies are used to measure the likely injuries to the driver in this type of crash.

### Occupant Protection Test Results

The occupant protection rating considers the injury outcomes of the driver and front passenger's head, neck, chest, abdomen, pelvis, upper and lower legs and the deformation of the vehicle's structure.

A star rating is assigned on the basis of crash test results from a frontal offset and side impact crash and includes any additional points awarded where advanced seatbelt reminders are fitted or an optional pole test is conducted.

To simplify the crash test results, ANCAP has assigned an occupant protection rating based on an overall score, which is portrayed as a star rating out of 5 – the more stars the better.

### Pedestrian Protection Test Results

Eighteen percent of all road fatalities in Australia and New Zealand are pedestrians and in urban areas pedestrians make up around thirty three percent of all road fatalities.

The pedestrian impact test estimates injuries to pedestrians struck by a vehicle travelling at 40km/h.

It consists of dummy components projected at the vehicle's front and bonnet to evaluate injury risk for the head of an adult and child, upper leg and knee.

To simplify the crash test results, ANCAP has assigned a pedestrian protection rating based on an overall score, which is portrayed as a star rating out of 4 – the more stars the better.

### ANCAP Pedestrian Crash Test Results

Vehicle Make & Model	Ped Rating
<b>4WD - LARGE</b>	
Toyota Kluger	★
<b>4WD - MEDIUM</b>	
Mazda CX-7	★

### ANCAP Pedestrian Crash Test Results

Vehicle Make & Model	Ped Rating
<b>4WD - COMPACT</b>	
Subaru Forester	★★★★
<b>LARGE CAR</b>	
Ford Falcon FG	★★
Holden Commodore Omega	★
<b>MEDIUM CAR</b>	
Holden Epica	★★
<b>SMALL CAR</b>	
Toyota Corolla Ascent	★★★★
Mitsubishi Lancer	★★
Hyundai i30 LHD	★★
Kia Rio LHD	★★
Hyundai Accent	★★
Hyundai Elantra	★
Kia Cerato LHD	★
<b>LIGHT CAR</b>	
Honda Jazz	★★★★
Nissan Micra	★★
<b>UTILITY</b>	
Ford Falcon FG Utility	★★
Holden Commodore VE Utility	★
Mazda BT50/Ranger 4x4	★
Holden Colorado 4x4	★
Isuzu D-Max 4x4	★
Mahindra Pik-Up	★
Nissan Navara D22 4x2	★

### EuroNCAP Pedestrian Crash Test Results

Vehicle Make & Model	Ped Rating
<b>4WD - LARGE</b>	
Suzuki Grand Vitara	★★★★
Mercedes M-Class	★
Kia Sorento Diesel	★
Hyundai Santa Fe	Nil
<b>4WD - MEDIUM</b>	
Mitsubishi Outlander	★★
VW Tiguan	★★
Renault Koleos	★★
Honda CR-V	★★
Nissan X-Trail	★★
BMW X3	★
<b>4WD - COMPACT</b>	
Nissan Dualis	★★
<b>LUXURY</b>	
Mercedes C-Class	★★
<b>MPV - PEOPLE MOVER</b>	
Skoda Roomster	★★
VW Caddy Life	★★
Kia Carens/Rondo	★
<b>LARGE CAR</b>	
Ford Mondeo	★★
Audi A4	★★
<b>MEDIUM CAR</b>	
Skoda Octavia	★★

### EuroNCAP Pedestrian Crash Test Results

Vehicle Make & Model	Ped Rating
Volvo V70	★★
Hyundai Sonata	★★
Citroen C5	★★
Renault Laguna 3	★★
Dodge Caliber	★
Kia Magentis	★
<b>SMALL CAR</b>	
Peugeot 308	★★★★
Daihatsu Materia NZ	★★
Ford Focus	★★
Hyundai Getz	★
Holden Astra	★
<b>LIGHT CAR</b>	
Mazda2	★★
Fiat 500	★★
Smart fortwo	★★
<b>SPORTS</b>	
Peugeot 207cc	★★
<b>UTILITY</b>	
Nissan Navara D40 4x4	★★
<b>VAN</b>	
VW Caddy Van	★★
VW Transporter	★

# Annual Safety Review

## Crash test results



Crash testing for safety

2008 RESULTS

### ANCAP Occupant Crash Test Results

Vehicle Make & Model	Occupant Rating
<b>4WD – LARGE</b>	
Toyota Kluger March 2008 on, Front, Side, Head and Knee Airbags	
<b>4WD – MEDIUM</b>	
Mazda CX-7 2006 on, Front, Side and Head Airbags	
<b>4WD – COMPACT</b>	
Subaru Forester March 2008 on, Front, Side and Head Airbags	
<b>LARGE CAR</b>	
Ford Falcon FG July 2008 on, Front, Side and Head Airbags	
Holden Commodore Omega December 2008 on, Front, Side and Head Airbags	
<b>MEDIUM CAR</b>	
Holden Epica Series 2 August 2008 on, Front, Side and Head Airbags	
<b>SMALL CAR</b>	
Mitsubishi Lancer 2007 on, Front, Side, Head and Knee Airbags	
Mitsubishi Lancer SBack 2008 on, Front, Side, Head and Knee Airbags	
Hyundai i30 SLX LHD, May 2008 on, Front, Side and Head Airbags	
Mitsubishi Lancer ES 2007 on, Dual Front and Driver Knee Airbags	

### ANCAP Occupant Crash Test Results

Vehicle Make & Model	Occupant Rating
Mitsubishi Lancer SBack 2007 on, Dual Front and Driver Knee Airbags	
Toyota Corolla Ascent 2007 on, Dual Front Airbags	
Hyundai i30 SX LHD, May 2008 on, Dual Front Airbags	
Holden Barina Mid 2008 on, Front, Side and Head Airbags	
Kia Rio LHD, 2007 on, Dual Front Airbags	
Hyundai Accent 2006 on, Dual Front Airbags	
Hyundai Elantra July 2007 on, Front, Side and Head Airbags	
Kia Cerato LHD, 2005 on, Dual Front Airbags	
Hyundai Elantra July 2007 on, Dual Front Airbags	
<b>LIGHT CAR</b>	
Honda Jazz September 2008 on, Dual Front Airbags	
Nissan Micra 2008 on, Dual Front Airbags	
<b>UTILITY</b>	
Ford Falcon FG Utility 2008 on, Dual Front Airbags	

### ANCAP Occupant Crash Test Results

Vehicle Make & Model	Occupant Rating
Holden Commodore VE Utility 2007 on, Dual Front Airbags	
Holden Colorado 4x2 2008 on, Dual Front Airbags	
Isuzu D-Max 4x2 2008 on, Dual Front Airbags	
Mazda BT50/Ranger 4x4 2007 on, Dual Front Airbags	
Nissan Navara D22 4x2 2008 on, Dual Front Airbags	
Holden Colorado 4x4 2008 on, Dual Front Airbags	
Isuzu D-Max 4x4 2008 on, Dual Front Airbags	
Mahindra Pik-Up 2007 on, No Airbags	

### EuroNCAP Occupant Crash Test Results

Vehicle Make & Model	Occupant Rating
<b>4WD – LARGE</b>	
Mercedes M-Class LHD, July 2008 on, Front, Side, Head and Knee Airbags	
Hyundai Santa Fe LHD, 2006 on, Front, Side and Head Airbags	
Suzuki Grand Vitara LHD, 2006 on, Front, Side and Head Airbags	

### EuroNCAP Occupant Crash Test Results

Vehicle Make & Model	Occupant Rating
Kia Sorento Diesel LHD, 2005 on, Dual Front Airbags	
<b>4WD – MEDIUM</b>	
VW Tiguan LHD, 2008 on, Front, Side and Head Airbags	
Mitsubishi Outlander LHD, Late 2006 on, Front, Side and Head Airbags	
Renault Koleos LHD, 2008 on, Front, Side and Head Airbags	
Mitsubishi Outlander LHD, Late 2006 on, Dual Front Airbags	
Honda CR-V RHD, 2007 on, Front, Side and Head Airbags	
BMW X3 RHD, 2008 on, Front, Side and Head Airbags	
Nissan X-Trail LHD, 2007 on, Front, Side and Head Airbags	
<b>4WD – COMPACT</b>	
Nissan Dualis LHD, 2007 on, Front, Side and Head Airbags	
Nissan Dualis LHD, 2007 on, Dual Front Airbags	
<b>LUXURY</b>	
Mercedes C-Class LHD, 2007 on, Front, Side, Head and Knee Airbags	

### EuroNCAP Occupant Crash Test Results

Vehicle Make & Model	Occupant Rating
<b>MPV – PEOPLE MOVER</b>	
Skoda Roomster LHD, 2007 on, Front, Side and Head Airbags	
VW Caddy Life LHD, 2006 on, Front and Side Airbags	
Kia Carens/Rondo LHD, 2008 on, Front, Side and Head Airbags	
<b>LARGE CAR</b>	
Ford Mondeo LHD, 2007 on, Front, Side, Head and Knee Airbags	
Audi A4 LHD, 2008 on, Front, Side and Head Airbags	
<b>MEDIUM CAR</b>	
Renault Laguna 3 LHD, June 2008 on, Front, Side and Head Airbags	
Citroen C5 LHD, 2008 on, Front, Side, Head and Knee Airbags	
Volvo V70 LHD, 2007 on, Front, Side and Head Airbags	
Dodge Caliber LHD, 2007 on, Dual Front and Curtain Airbags	
Skoda Octavia RHD, 2007 on, Front and Side Airbags	
Kia Magentis LHD, 2006 on, Front, Side and Head Airbags	

### EuroNCAP Occupant Crash Test Results

Vehicle Make & Model	Occupant Rating
Hyundai Sonata RHD, 2006 on, Front, Side and Head Airbags	
<b>SMALL CAR</b>	
Peugeot 308 XSE/XTE LHD, 2008 on, ESC, Front, Side, Head and Knee Airbags	
Holden Astra LHD, March 2008 on, Front, Side and Head Airbags	
Ford Focus LHD, April 2008 on, Front and Side Airbags	
Peugeot 308 XS LHD, 2008 on, Front, Side and Head Airbags	
Holden Astra CD LHD, March 2008 on, Front and Side Airbags	
Kia Rio LHD, 2007 on, Front, Side and Head Airbags	
Hyundai Getz 1.6 SX 5dr LHD, Mid 2008 on, Front and Side Airbags	
<b>LIGHT CAR</b>	
Fiat 500 LHD, 2008 on, ESC, Front, Side, Head and Knee Airbags	
Mazda2 LHD, 2008 on, ESC, Front, Side and Head Airbags	
Mazda2 LHD, 2008 on, Front, Side and Head Airbags	
Fiat 500 LHD, 2008 on, Front, Side, Head and Knee Airbags	

### EuroNCAP Occupant Crash Test Results

Vehicle Make & Model	Occupant Rating
Smart fortwo LHD, 2008 on, Dual Front Airbags	
<b>SPORTS</b>	
Peugeot 207cc RHD, 2007 on, ESC, Front, Side and Head Airbags	
<b>UTILITY</b>	
Nissan Navara D40 4x4 RHD, 2008 on, Dual Front Airbags	
<b>VAN</b>	
VW Caddy Van LHD, 2006 on, Front and Side Airbags	
VW Transporter LHD, 2008 on, Dual Front Airbags	

### Key to ANCAP / EuroNCAP Test Results

- The more stars, the better a vehicle protected its front seat occupant in the crash tests.
- The more stars, the better a vehicle protected a pedestrian struck by the vehicle.
- Optional Pole Test was carried out on this vehicle.
- ESC is standard on all variants of this model.
- ESC is optional on base variant of this model. It may be standard on higher variants.
- ESC is not available on some variants of this model, but is standard or optional on other variants.
- ESC is not available on any variant of this model.

### What is ESC? And why does ANCAP recommend it?

Electronic Stability Control (ESC) can help save you from a serious crash. Since 1 January 2008 the fitting of ESC to a vehicle has been a prerequisite for achieving a 5 star rating from ANCAP. This decision resulted from recent evidence which shows that ESC can dramatically reduce the chances of being involved in certain types of crashes. ESC senses when a driver is about to lose control by detecting differences between a vehicle's course and the driver's intended direction indicated by the steering wheel position. By selectively applying the brakes to individual wheels, ESC helps the driver to maintain control of the vehicle and to steer safely. This can make the difference between a crash and a near-miss. Vehicles fitted with ESC are significantly less likely to be involved in single vehicle crashes than those that are not. There are many other names for ESC.

Some examples of ESC are :

- Electronic Stability Program (ESP)
- Vehicle Stability Control (VSC)
- Dynamic Stability Control (DSC)
- Vehicle Stability Assist (VSA)
- Vehicle Dynamics Control (VDC)

ESC specifications are subject to change and consumers should check with the manufacturer for the most up to date information and specifications.

ANCAP strongly recommends that consumers specify ESC when they purchase a new vehicle.

### EuroNCAP Testing Procedures

European NCAP (EuroNCAP) testing procedures are substantially the same as ANCAP testing procedures. However, the EuroNCAP results are to be used as a guide only, as the structure and equipment of the European specification model may differ materially from that of the Australian or New Zealand vehicle of the same name.

Safety equipment, as tested by Euro NCAP, may not be standard on all variants in Australasia.