



Reward 2012

Volkswagen Proactive Occupant Protection



What is the safety benefit?

Occupant positioning is critical to effective protection during a collision: systems such as seatbelts and airbags do not work as effectively if the occupants are displaced from the expected sitting positions before the impact. However, the emergency manoeuvres often made before a collision, such as swerving or hard braking, often lead to out-of-position occupants. It is estimated that, if a system like Proactive Occupant Protection were fitted to all cars on the road, the system could help in addressing some 4000 fatalities and around 20,000 serious injuries.

How has the system been assessed?

Volkswagen used track testing to ensure that Proactive Occupant Protection intervened in all cases where an emergency manoeuvre was being made. Track tests were also used to monitor occupant displacement during emergency manoeuvres such as hard braking and swerving, and to assess the benefit of electrical pre-tensioning of the belts. Information from these tests was then used to conduct sled tests with dummies to show what the influence was on likely injuries of being out of position at the start of an impact.

Extensive real-world driving was done by test drivers to ensure that there were no false activations of Proactive Occupant Protection.

What are the limitations?

Proactive Occupant Protection is available only at speeds above 30km/h. Protection provided at lower criticalities is not provided if the driver chooses to deactivate that feature..



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