



## Electronic Stability Control

The Electronic Stability Control (ESC) is a further evolution of electronic braking technology such as ABS and also uses other systems such as traction control. It is intended as a way of correcting situations in which a driver has made an error by stabilising the vehicle quickly so as not to make any dangerous situations worse.

It will work in circumstances where steering is needed in order to turn the vehicle more effectively so as to provide a decreased risk of skid or loss of control.

### Other names for ESC

Different manufacturers use systems designed to achieve the same results in the same way but have used different names. The following systems used by different manufacturers are equivalent to ESC,

- Electronic Stability Program (ESP)
- Dynamic Stability Control (DSC)
- Vehicle Stability Control Systems (VSCS)

### How it works and its advantages

There are many situations where a vehicle could lose grip with the road, for example; entering a corner too fast, losing control of the vehicle due to an inappropriate driving speed for the conditions, and after steering sharply to avoid an unexpected obstacle.

In order to detect a problem of this nature, the Electronic Stability Control works by monitoring the position of the steering wheel and comparing it with the direction that the car is heading.

The ESC then works out the extent of the problem, it can calculate the speed of the tyres using the sensors which are already present as part of the ABS. The forces which are changing the vehicles heading can then be computed, for example the rotation of the car around its centre of gravity or the forces acting to push it out of line on a bend.

The system then restores the stability and control of the vehicle, by reducing the engine power to slow the car down, and braking individual wheels to rotate the car to face the direction wanted by the driver.



# Road Safety..... ..... **Information**

## **Electronic Stability Control and your vehicle**

You should find out from your driver's handbook if your car has a form of EPS and how it communicates with you that it is working when you start the car. If you are hiring a car you should enquire if it has stability control.

Electronic Stability Controls and other equivalent systems are designed to compensate for driver misjudgements and aid in keeping control of the vehicle during emergency manoeuvres. It cannot prevent all accidents involving skids and relies on the driver knowing the correct speed and behaving appropriately to the road conditions.