Car safety explained

What are Advanced Driver Assistance Systems?

Advanced Driver Assistance Systems (ADAS) are automated technologies to assist you while driving and parking, enhancing your vehicle and road security. Sounds pretty simple, right?

With an increasing number of options (and confusing acronyms) available, choosing the right vehicle and safety features can be daunting. So, we're here to make it all a little simpler.

Adaptive Cruise Control (ACC)

It automatically adjusts your speed to maintain a safe distance from the vehicles ahead, by using sensors to determine the distance from the vehicle in front of you.

Autonomous Emergency Braking (AEB)

This safety feature automatically applies the brakes to slow the vehicle down when detecting a potential accident. Some of these latest systems even come with sensors that can also detect cyclists, large animals or people.

Emergency Brake Assist

It's also known as Forward Collision Warning and it's not the same as AEB. This system only works if and when the driver makes an emergency brake, distributing the brake force appropriately between each wheel and helping your vehicle achieve maximum braking effectiveness.

Collision Avoidance System

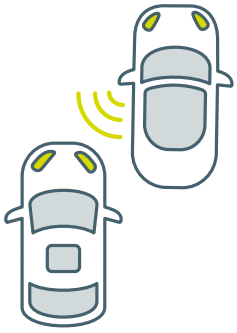
Another safety system to help reduce the risk of incidents using different sensors around the car. It's similar to AEB, but with additional support if the driver needs to make an evasive manoeuvre around an obstacle in the road to help prevent a skid or over steering.

Windscreen Calibration

This is the process of correctly aligning your car's cameras and sensors to guarantee its ADAS system work properly. As they're usually inside the car windscreen, a calibration is needed every time a glass is replaced to make sure their angle and position are correct. Otherwise, your ADAS features may not work properly, which may not be safe for you and others on the road.

Blind Spot Monitor

This device warns you when there's another vehicle in your blind spot, helping you preventing accidents when changing lane.



Cross Traffic Alert

When you're reversing from a parking space, the system will alert you if there's something in your blindspot. If you stop at a junction, this system will also warn you if you pull out and it detects traffic approaching from the sides.

Driver Monitoring System

This is quite an advanced safety feature that uses a camera to track the driver's performance and sends you alerts if and when you're distracted or drowsy.

Hill Hold Assist

This function applies the parking brake for a few moments when the sensors detect the vehicle is on an incline. As the accelerator is pressed, the parking brake is slowly released and the vehicle moves way.

Lane Departure Warning (LDW)

This system gives you an audible or visual warning when your car is about to veer out of the lane so that you can steer back on course.

Lane Keep Assist (LKA)

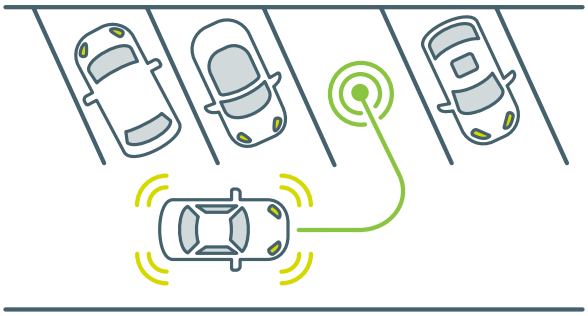
It's more advanced than LDW as it's designed to actually steer the vehicle back to the middle of the lane if it starts to unintentionally cross lanes.

Lane Change Assist

This one pretty much does what it says on the tin. The vehicle will only change lane if it is safe to do so by using the indicators and recognising any hazards that may prevent the manoeuvre.

Parking sensors

Ultrasonic or electromagnetic sensors on the front and rear bumpers help detect when the vehicle is in close proximity to another vehicle or object and will give you a warning. Some vehicles even have this technology all around the car.



Park Assist

Also known as automated parking, this feature allows the driver to hand control of the steering wheel over to the vehicle, while the accelerator and brake are both still required as an input to the on-board computer.

Traffic Sign Recognition

This system can read road signs to alert you of a change in road condition or speed and is usually displayed on the instrument panel or "virtual cockpit".

Don't forget

These systems need to be maintained like any other components and car equipment so they can be effective and helpful.