

Motorway assist

Motorway assist is a driver assistance system designed to support drivers in monotonous driving situations on motorways.

Function

Motorway assist is an advanced version of the lane keeping assist system. It is intended to make motorway driving easier for drivers. The system provides automatic acceleration, braking and - within certain limits - steering. Motorway assist is therefore a partially automated system. The driver has to constantly monitor the system and be ready to take over full control of the vehicle at any time.

The system works up to a specified maximum speed and combines the radar-based longitudinal control of adaptive cruise control (ACC) with the video-based lateral control of lane keeping assist in a single system.

Automatic distance control

Automatic distance control is an advanced driver assistance system to actively help motorists maintain a defined distance from the vehicle ahead. If the vehicle in front slows down, the automatic distance control system also reduces the speed. If the vehicle in front accelerates or changes lane, the system automatically accelerates to the speed set by the driver.

Automatic distance control makes use of a sensor to detect vehicles ahead and calculate their distance, direction and relative speed within the system limits. The system also calculates the course of the driver's own vehicle and can thus determine whether vehicles in front are relevant for automatic distance control.

Lane keeping assist

A lane keeping assist system helps prevent drivers from inadvertently moving out of a lane. Lane keeping assist systems employ a small video camera mounted behind the windscreen to detect lane markings in front of the vehicle and to compare these to the position of the vehicle in the lane. The system evaluates differences in contrast between the road surface and lane markings. The system becomes active if it detects that a defined minimum distance from the lane marking is not being maintained. The vehicle actively steers in the opposite direction to keep within the lane. Detecting lane markings and automatically controlling the electric steering enables the vehicle to be kept in the centre of the lane at all times, even on bends.

Safety

Monotonous driving situations are often encountered on motorways. On long journeys or in heavy traffic, the driver can become distracted or experience stress. Motorway assist eases the burden on the driver and helps to prevent critical driving situations on motorways and ensure relaxed driving.

Protection of the environment

Motorway assist can cut fuel consumption by minimising heavy braking and acceleration.

Images



Bosch

Source: <https://www.my-cardictionary.com/dictionary/driver-assistance-systems/motorway-assist>