

Congestion assist

Congestion assist is a partially automated driver assistance system that combines lane keeping assist with automatic distance control.

Function

Driving in slow-moving traffic and maintaining a safe distance from the vehicle in front is a tiring process requiring a high level of concentration. Congestion assist supports the driver and helps them to get to their destination safely and with as little stress as possible in heavy traffic or in traffic jams.

Congestion assist combines lane keeping assist with automatic distance control. The system continuously analyses the speed of nearby vehicles and compares it with the car's own speed. If the system detects a traffic jam or slow-moving traffic below a certain speed, the driver can enable the function. As a partially automated convenience function, congestion assist follows the vehicle in front and takes over starting, acceleration, braking and - within certain limits - steering in the current lane. However, the driver has to continuously monitor the system and must be ready to intervene at all times and take over control of the vehicle.

Automatic distance control

Automatic distance control is an advanced driver assistance system to actively help motorists maintain a defined distance from the vehicle ahead. Also referred to as Adaptive Cruise Control (ACC), the system builds on the functionalities of the cruise control system, which is designed to automatically maintain a specified vehicle speed.

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.

On the road, the automatic distance control system maintains a speed specified by the driver or can adapt this to changing traffic situations by automatically decelerating, braking or accelerating. A Stop & Go version can also automatically bring the vehicle to a standstill and then - depending on the system - start it up again automatically or if activated by the driver.

Lane keeping assist

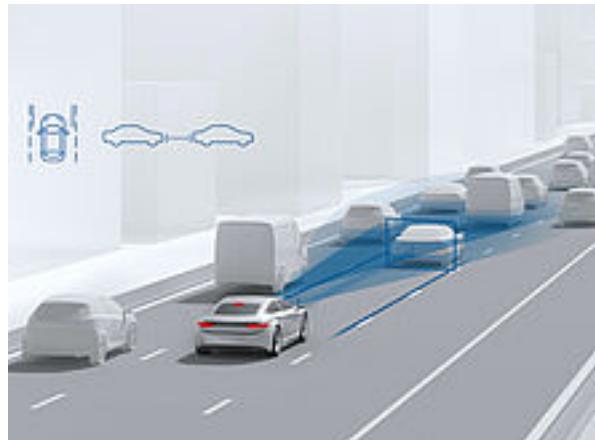
A lane keeping assist system helps prevent drivers from inadvertently moving out of a lane. Lane keeping assist systems employ a small video camera mounted behind the windscreen to detect lane markings in front of the vehicle and to compare these to the position of the vehicle in the lane. The system 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.

Safety

Congestion assist helps to prevent collisions in heavy traffic and traffic jams.

Images



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