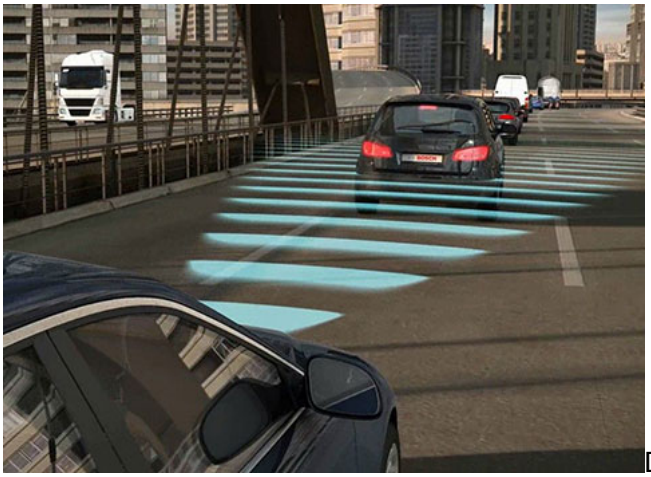
Automatic distance control

Driving in heavy traffic and maintaining a safe distance from the vehicle in front is a tiring process requiring a good deal of concentration. Automatic distance control is an advanced driver assistance...

Function



Driving in heavy traffic and maintaining a safe distance from the vehicle in front is a tiring process requiring a good deal of concentration. Automatic distance control is an advanced driver assistance system to actively help motorists maintain a defined distance from the vehicle ahead. Often 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.

Functions of automatic distance control

Function The driver enters a desired speed and the distance to be maintained from the vehicle in front. This can be set accordingly in several stages to suit the driving situation and personal driving style.

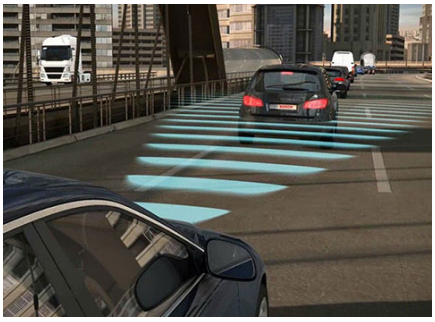
Automatic distance control makes use of a sensor to detect vehicles ahead and calculate their distance, direction and relative speed within the system limits. The system also calculates the course of the driver's own vehicle and can thus determine whether vehicles in front are of relevance for automatic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

Emergency braking systems

So-called "emergency braking systems" are an even more sophisticated form of automatic distance control. Such systems help to avoid collisions by being able to detect critical closeness to moving or stationary vehicles ahead and pedestrians and prepare the braking system for possible emergency braking. This makes full braking power available sooner. As soon as the driver presses the brake pedal, the system provides braking assistance to bring the vehicle to a halt before it reaches the obstacle if at all possible. If, on the other hand, the driver shows no reaction whatsoever and the emergency braking system considers a collision to be unavoidable, it triggers full braking to keep the effects of the impact to a minimum. Emergency braking systems designed for urban use generally operate up to 30 km/h. In this speed range collisions can often be avoided by automatically initiated full braking. Other systems provide motorists with assistance in all speed ranges both during the day and at night.

Bilder



Hersteller

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Quelle:
http://www.my-cardictionary.comhttps://www.my-cardictionary.com/cardictionary/hybrid/products/automatic-distance-control.html