

Lane keeping assist

A lane keeping assist system helps motorists to avoid inadvertently moving out of a lane. A distinction is made between systems without steering assistance ("Lane departure warning") and systems with steering assistance ("Active lane keeping assist").

Function



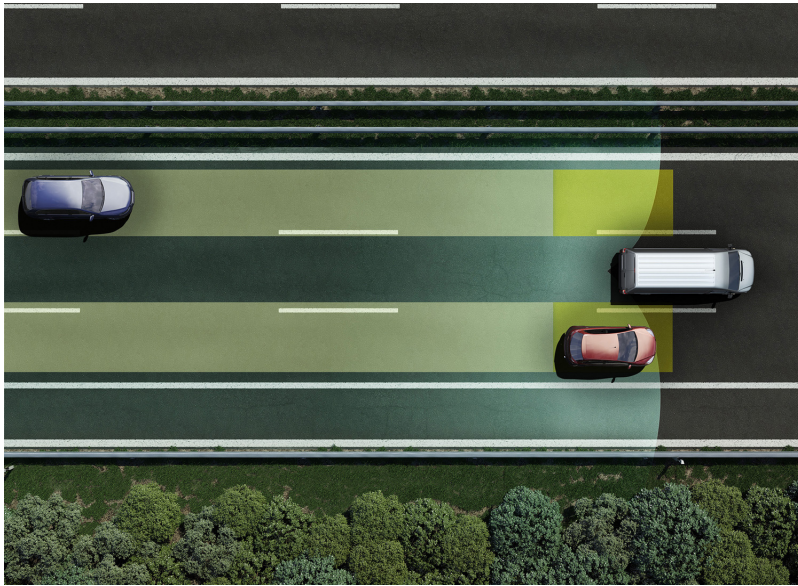
Lane keeping assist systems employ a small video camera mounted behind the windscreen to detect lane markings in front of the vehicle and to compare these to the position of the vehicle in the lane. The system evaluates differences in contrast between the road surface and lane markings. The system becomes active if it recognises that a defined minimum distance from the lane marking is not being maintained.

Different versions

Lane departure warning

If there is a risk of a vehicle unintentionally moving out of a lane, the lane departure warning provides an alarm in the form of a visual, acoustic and/or haptic signal, e.g. vibration of the steering wheel. The driver thus receives due warning of a deviation in course and has time to take the appropriate corrective action. If the driver actuates the turn signal indicator to change lane or turn off, the warning which would otherwise be given on coming critically close to the corresponding road marking is suppressed.

Active lane keeping assist

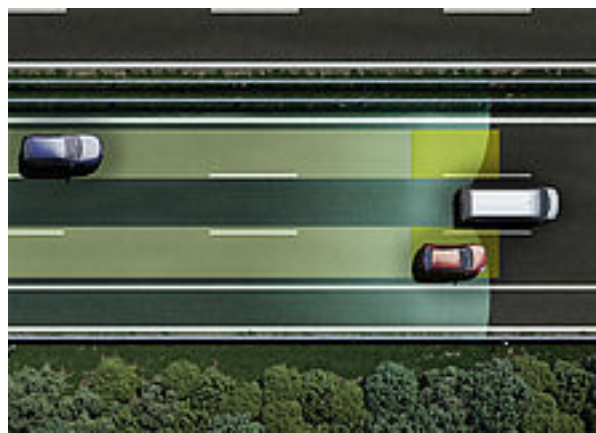


On vehicles with power steering, the active lane keeping assist can provide gentle but perceptible corrective steering action to keep the vehicle on course. The driver can override the system at any time and so remains in control of the vehicle. If the driver actuates the turn signal indicator to change lane or turn off, the intervention which would otherwise take place on coming critically close to the corresponding road marking is suppressed.

Lane change assist

The lane change assist system is similar to the lane keeping assist system. It is capable of preventing hazardous situations on changing lane and thus reducing the risk of accidents. The system is based on two radar sensors at the rear end of the vehicle which monitor the areas alongside and diagonally behind the vehicle. If the system detects vehicles in the blind spot or vehicles approaching rapidly from behind, it warns the driver with an illuminated symbol in the area of the side mirrors for example. If the driver actuates the turn signal indicator to change lane, the system can additionally provide an acoustic and/or haptic warning to call the driver's attention to the potential danger.

Images





HELLA



ZF



Valeo_EN



Continental



TRW KFZ Ausrüstung GmbH_EN



Bosch

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