

G30 Driver Assistance Systems

19. Parking Maneuvering Assistant

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30	Top Rear Side View Camera (TR SVC) control unit

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19.4. Control unit

In vehicles with the Parking Maneuvering Assistant, both the Park Distance Control and Parking Maneuvering Assistant functions are provided by the PMA control unit.



G30 Control unit for Parking Maneuvering Assistant (PMA)

19.5. Functional principle

The system measures potential parking spaces when driving past at a speed below approximately 22 mph (35 km/h) even without the system having been activated.

The parking spaces are measured by two additional ultrasonic sensors, which are integrated into the front wheel arch. Two additional ultrasonic sensors are installed in the rear bumper in the G30 to precisely detect the size of a perpendicular parking space during the parking maneuver. The additional ultrasonic sensors measure the distance to detected objects.

The four sensors are connected to the Parking Maneuvering Assistant (PMA) control unit, which also incorporates the Park Distance Control function. The function of the four ultrasonic sensors is similar to that of the Park Distance Control (PDC). Ultrasonic pulses are sent and echo impulses are received.

If a parking space of a sufficient length and width is found and the system is activated, the driver is shown the space on the Central Information Display.

When searching for a parking space and when parking, all relevant information is presented to the driver in an integrated display; from the parking space itself to the status of the parking assistant and corresponding handling instructions to distances from other objects.

The driver is still responsible for monitoring the vehicle environment and can intervene in the automatic parking maneuver at any time if required due to the vehicle environment.

The Parking Maneuvering Assistant (PMA) takes over complete control of the vehicle including steering, braking and gear selection.

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19.5.1. Personal responsibility

- Directly monitor gaps and the parking procedure and intervene if necessary, as otherwise there is a risk of accidents.
- If a parking space that has already been measured changes, the system does not take this into account.
- The system does not take loads that project above the vehicle into account during parking.
- The Parking Maneuvering Assistant (PMA) may steer the vehicle over or up onto curbs. You should therefore use the facility for active intervention at any time with caution as you may otherwise damage wheels and tires or the vehicle itself.



The Parking Maneuvering Assistant (PMA) does not relieve the driver of personal responsibility during parking. Therefore, be attentive in order to be able to actively intervene at any time. Otherwise, there is a risk of an accident.

19.6. Functional prerequisites

To use the Parking Maneuvering Assistant function, the following basic prerequisites must be met:

- The doors must be closed
- The trunk lid must be closed
- The driver's seat belt must be fastened
- The parking brake must be released

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19.6.1. Measuring parking spaces

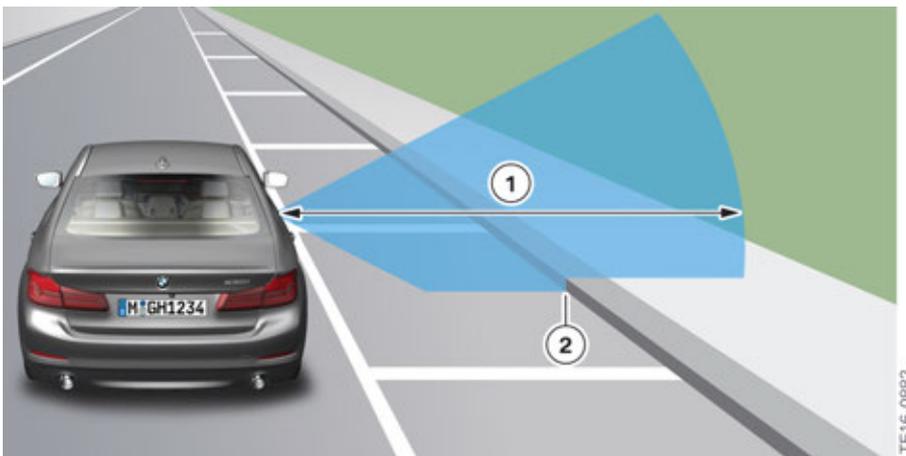
Parking spaces are measured while driving. The following parameters apply:

- Driving forwards straight-ahead up to approximately 22 mph (35 km/h)
- Maximum distance to the row of parked vehicles: 5 ft (1.5 m)

Detecting the curb

If a curb is detected within the range of the ultrasonic sensor while the system is searching for a parking space, the parking space is, for the most part, a space that is parallel to the road.

In the case of parking spaces that are perpendicular to the roadway, the curb is usually outside the detection range of the ultrasonic sensors (range approximately 14 ft (4.2 m)).



G30 Curb detection via the ultrasonic sensors

Index	Explanation
1	Range approximately 4.2 m; opening angle of ultrasonic sensors vertical $\pm 30^\circ$
2	Curb detection

Additional information on parking spaces suitable for the Parking Maneuvering Assistant may be found in the “G12 Driver Assistance Systems” reference manual (section 19.5.2-19.5.4).

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19.7. Operation

There are two ways to activate the Parking Maneuvering Assistant function:

- Activation via parking assistance button
- Activation by "Engaging reverse gear" followed by "iDrive controller operation"

Activation via parking assistance button

When the PMA is activated via the parking assistance button in the center console, the parking assistance menu in the Central Information Display (CID) is displayed. As soon as a parking space is found, the driver receives handling instructions that guide him through the parking procedure with the support of the system.



G30 Switch block with parking assistance button

Index	Explanation
1	Parking assistance button

Activation by "Engaging reverse gear" followed by "iDrive controller operation"

When reverse gear is engaged, the Parking Maneuvering Assistant menu is displayed on the Central Information Display accompanied by the status of the parking space search. The Parking Maneuvering Assistant (PMA) is, however, not yet activated. This is indicated to the driver by the Parking Maneuvering Assistant symbol in the toolbar of the Central Information Display. In order to park supported by the system, the parking operation must be activated via the controller by selecting the corresponding symbol in the symbol bar at the Central Information Display (CID).

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19.7.1. Park procedure

As soon as a parking space is found, the driver is instructed to stop the vehicle and confirm the parking space by using the turn indicator corresponding to the parking direction. During the entire parking procedure, the driver receives further instructions that guide him through the entire parking procedure with the support of the system.

The driver is prompted to take his hands from the steering wheel during automatic parking and hold down the parking assistance button until the parking procedure is complete.

19.7.2. Deactivation criteria

Manual deactivation criteria

The Parking Maneuvering Assistant (PMA) can be deactivated at any time, if necessary, by the driver via the controller by selecting the corresponding symbol in the symbol bar on the Central Information Display (CID). Another way to deactivate the Parking Maneuvering Assistant (PMA) is to release the parking assistance button in the switch block next to the iDrive controller.

If a fault develops, a Check Control message "The PDC has malfunctioned. Have system checked." is displayed in the Central Information Display (CID).

Automatic deactivation criteria

The Parking Maneuvering Assistant (PMA) is switched off automatically when the following events occur:

- The parking assistance button is released.
- The driver holds on to the steering wheel or steers himself.
- A gear is selected that does not correspond to the instruction on the control display.
- When accelerating.
- The parking brake is secured.
- The turn indicator opposite the required parking side is switched on.
- At speeds above approximately 6 mph (10 km/h).
- Possibly if the roadway is covered with snow or is slippery.
- The trunk lid is open.
- Possibly if the objects are difficult to overcome, e.g. curbs.
- If obstructions suddenly appear.
- A maximum number of parking maneuvers or the parking duration has been exceeded.

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19.8. Limits of the system

The detection of objects can test the ultrasonic measurement system to its limits. Several examples of this are shown below:

- With trailer towbars and couplings.
- If the objects are thin or wedge-shaped.
- If the objects are projecting and elevated, e.g. wall projections or loads.
- If the objects have corners and sharp edges.
- If the objects have fine surfaces or structures, e.g. fences.

Low objects that are already displayed, e.g. curbs, may fall within the blind spot of the sensors before or after a continuous alarm sounds. It would not be possible to detect objects that are higher up and projecting, e.g. wall projections. Parking spaces may be detected although these are not suitable.

There may be other functional limitations in the following situations, for example:

- If the sensors are soiled or iced up.
- Heavy fog, rain or snow.
- On uneven surfaces, e.g. gravel roads.
- On slippery surfaces.
- On steep inclines or downhill gradients.
- If leaves have gathered or snow has piled up in the parking space.

To ensure the ultrasonic sensors remain fully operational, they must be kept clean and free of ice. When cleaning the sensors using a high pressure cleaner, avoid direct and sustained contact with a high-pressure water jet. Furthermore, when using high pressure cleaners, a distance of at least 1 ft (30 cm) from the sensors must be maintained.



The Parking Maneuvering Assistant (PMA) cannot replace the driver's personal judgement of the traffic situation. Also check the traffic situation around the vehicle by looking around, otherwise there may be a risk of an accident as a result of road users or objects which lie outside the detection range of the Park Distance Control. Loud sound sources outside and inside the vehicle may mask the acoustic signals of the Parking Maneuvering Assistant (PMA) or the Park Distance Control (PDC).

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20. Remote Control Parking

The Remote Control Parking assistant became available for the first time in the G12. This assistance system enables the vehicle to be maneuvered in and out of a parking space remotely using the BMW display key. The system assists the driver to park in tight parking bays or enclosed spaces (such as garages or in multi-story car parks), where it is difficult for the driver to get in and out of the vehicle.



G30 Remote Control Parking

Automatic parking in and reversing out of bay parking spaces is possible by activating the "remote-controlled parking" function on the display key.

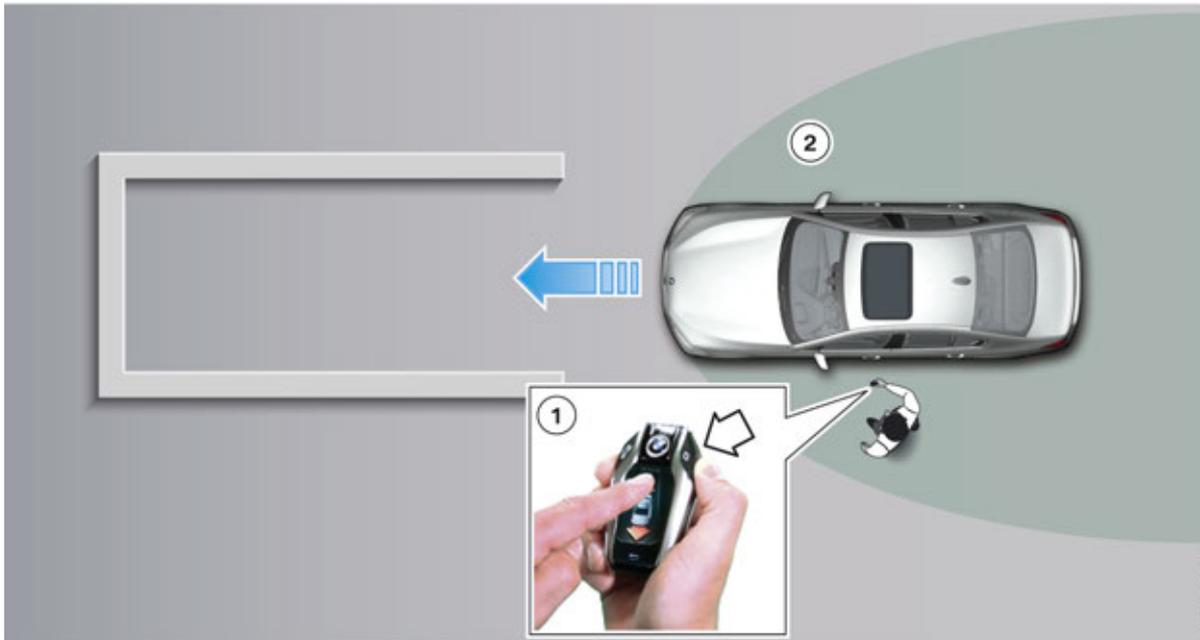
The Remote Control Parking, optional equipment (OE 5DV), is only available for certain models and national-market versions. In addition, the assistance system can only be ordered in conjunction with the following equipment:

- Steptronic sport transmission (OE 2TB)
- Comfort Access (OE 322)
- BMW display key (OE 3DS)
- Parking Assistant Plus (OE 5DN)
- Professional navigation system (OE 609)

The entire parking procedure is monitored by the Park Distance Control and Parking Maneuvering Assistant ultrasonic sensors and the Surround View cameras within their system limits. The driver is outside the vehicle while it is being parked. He must, however, check the situation around the vehicle by looking around and can cancel the parking procedure at any time using the BMW display key. If the driver leaves the operating range, the vehicle stops automatically.

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G30 Remote Control Parking

Index	Explanation
1	BMW display key
2	Operating area for remote controlled parking

20.1. Operation

The touch screen display and Remote Control Parking button on the BMW display key are used to operate the Remote Control Parking function. This makes the function intuitive to use and provides the driver with messages on the action required to operate the function and system limits.

The remote-controlled parking button must be pressed and held throughout the entire parking procedure, otherwise parking will not start or the vehicle will initiate emergency braking if the button is released (electromechanical parking brake subsequently applied). If the data transfer between the vehicle and BMW display key is interrupted, the vehicle is also decelerated to a standstill, as the data can only be transmitted in the vicinity of the vehicle.

If objects are detected, the system brakes the vehicle to a stop and prevents it from rolling away (activates the service brake and engages selector position "P"). A corresponding notification is shown to the driver in the BMW display key.



The braking process because of a detected obstacle is initiated only if this obstacle is permanently detected by the ultrasonic sensors. Objects that are, for example, too flat or are outside the detection range of the ultrasonic sensors cannot be detected. If the driver is not paying attention, there is a risk of an accident or danger of damage.

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The function can continue within 30 seconds if the detected object has been removed. If this time period expires, Remote Control Parking switches off the engine and applies the electric parking brake. The parking procedure can be continued by activating the system again.

The driver must meet the following basic prerequisites before the Remote Control Parking function can be used:

- Position the vehicle facing forwards and as centrally and straight as possible in front of the parking space (maximum 3° turn angle and 4 in (10 cm) offset to the center of the parking space are compensated for by small steering adjustments).
- The vehicle should be no more than approximately 6½ ft (2 m) away from the parking space.
- Apply the electromechanical parking brake to secure the vehicle against rolling away.
- Switch off driving readiness with the start/stop button.

The graphic below shows an overview of activation of the Remote Control Parking function and its operating logic.



Activation: Remote Control Parking

Index	Explanation
1	Activate the display by pressing the button on the side of the key and then unlock it by swiping your finger upwards on the display.
2	Establish a connection to the vehicle. To do so, either change to the Remote Control Parking menu and then hold down the Remote Control Parking button, or hold down the Remote Control Parking button immediately after unlocking the display.
3	Start the engine using the BMW display key.
4	Specify the direction of travel of the vehicle by pressing the corresponding arrow symbol on the button. The vehicle will move all the time the arrow symbol is touched. If the direction arrow is released, the vehicle brakes to a stop by means of a gentle brake intervention.

The maximum distance the vehicle will travel corresponds to 1½ times the vehicle length.

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The BMW display key can likewise show the driver a variety of targeted instructions and fault messages, giving him direct feedback and information on operating the Remote Control Parking function.



The system does not relieve the driver of personal responsibility for correctly judging the traffic and parking situation. Due to the limits of the system, it cannot automatically react adequately in all situations. There is a risk of an accident or danger of material damage. The driver should check the traffic conditions and parking situation, and react accordingly if required.



Unauthorized persons, e.g. children, can set the vehicle in motion using the BMW display key, without anyone being in the vehicle. There is still a risk of an accident. Protect the BMW display key from unauthorized use.

20.1.1. Cut-off events

Cut-off events include:

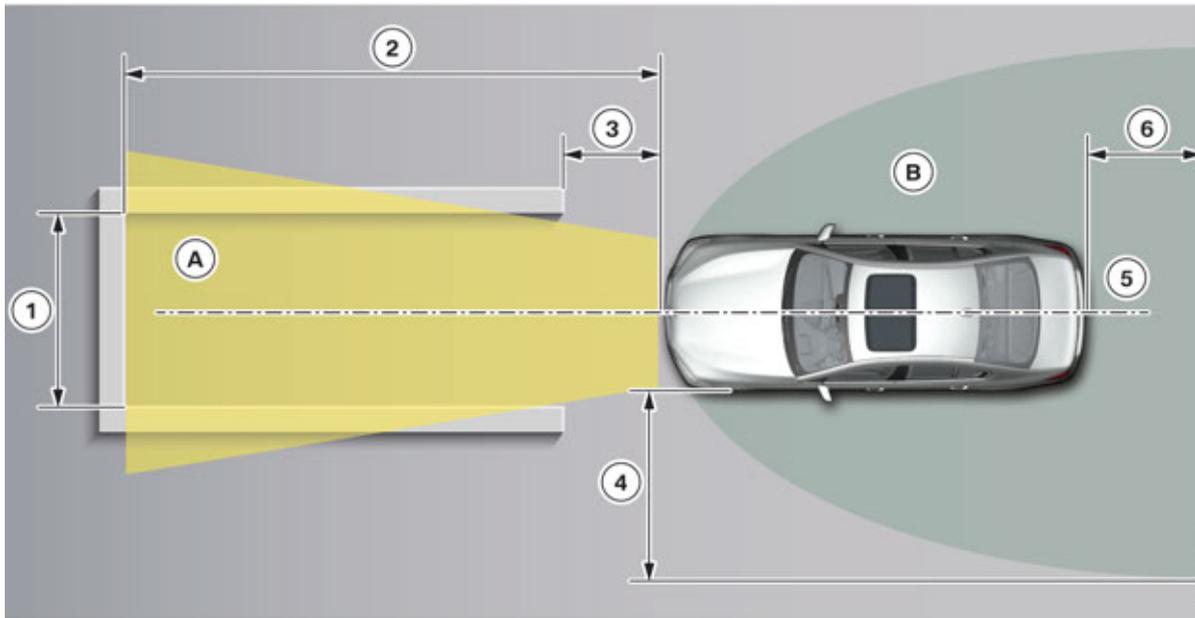
- Opening the doors, hood or trunk lid.
- Pressing the brake or accelerator pedal (carried out by a person inside the vehicle).
- Steering interventions.
- Operating the electric parking brake or gear selector switch (carried out by a person inside the vehicle).
- Exceeding the maximum movement range.
- Selecting another function using the BMW display key.
- System fault.
- Failure or contamination of the ultrasonic sensors.
- State of charge of the BMW display key battery too low (remote-controlled parking not possible below approximately 50% absolute state of charge).
- Releasing the Remote Control Parking button.
- Background noise.
- BMW display key outside the operating range.
- Maximum speed exceeded.
- Exceeding the 5% maximum incline or downhill gradient.

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20.2. Requirements on the parking space

The following graphic illustrates which conditions or prerequisites the parking space must meet to be able to use the Remote Control Parking function.



G30 Prerequisites for Remote Control Parking

Index	Explanation
A	Potential parking area
B	Operating range
1	Minimum parking space width 8.8 ft (2.7 m)
2	Maximum movement range 29.5 ft (9 m)
3	Distance to parking space, maximum 6.5 ft (2 m)
4	Maximum distance of driver from side of vehicle 5 ft (1.5 m)
5	Maximum 3° turn angle and 4 in (10 cm) offset to the center of the parking space are compensated for by small steering adjustments
6	Maximum distance of driver from rear of vehicle approximately 10 ft (3 m)

The Remote Control Parking assistance system can be used on gradients of no more than 5%. Use of the assistance system in two-level garages is **not** intended.

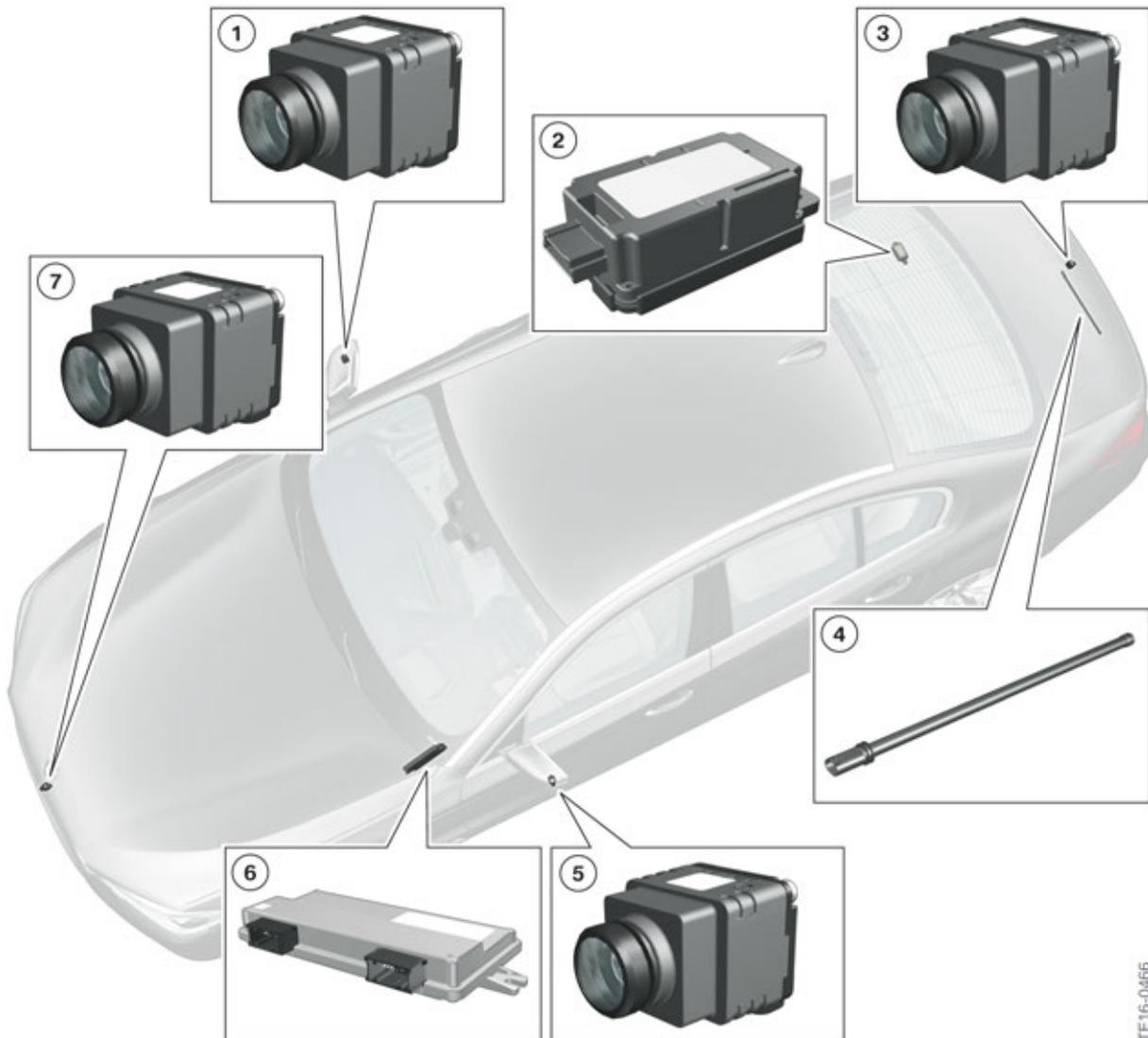
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20. Remote Control Parking

20.3. System overview

The Top Rear Side View Camera (TRSVC) and Optional Equipment System (SAS) control units are the central system components of the Remote Control Parking function. The Park Distance Control (PDC) and Parking Maneuvering Assistant (PMA) ultrasonic sensors, and the Surround View cameras record the area around the vehicle. The Comfort Access aerials and Remote Control Parking aerial are used to detect the location of the driver and BMW display key.

The following graphic shows the components required for Remote Control Parking in addition to those that make up the Parking Maneuvering Assistant function.



G30 Remote Control Parking system components

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20. Remote Control Parking

Index	Explanation
1	Right side view camera
2	Remote control receiver (FBD)
3	Rear view camera (RFK)
4	Remote Control Parking aerial
5	Left side view camera
6	Top Rear Side View Camera (TRSVC) control unit
7	Front camera

20.4. Limits of the system

Remote Control Parking cannot be used when trailer towing.

The function may be restricted in the following situations:

- On uneven surfaces, e.g. gravel roads.
- On slippery surfaces.
- On steep inclines or downhill gradients.
- If leaves have gathered or snow has piled up in the parking space.
- If the emergency spare wheel is fitted.
- If a parking space that has already been measured changes.
- If there are ditches or chasms, e.g. harbor edges.

Due to the technical system limits of the ultrasonic measurement, the system may react incorrectly or not at all.

Limits of the ultrasonic measurement

- If there are small children or animals.
- If the sensors are dirty, iced up, damaged or incorrectly adjusted.
- If trailer towbars and couplings are used to connect other vehicles.
- If the objects are projecting and elevated, e.g. wall projections or loads.

Further information about Remote Control Parking may be found in the “G12 Driver Assistance Systems” reference manual (section 17).

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21. Cruise Control

21.1. Introduction

Two cruise control functions can be used in the G30. The cruise control with braking function, Dynamic Cruise Control (DCC), is part of the standard equipment.

ACC Stop&Go can be obtained if the customer opts for the Active Driving Assistant Plus, optional equipment (OE 5AT), as it is contained in this equipment package.



The cruise control systems support the driver with adapting the speed, distance and driving style to the traffic conditions, but do not relieve him of his responsibility. The driver must actively intervene, e.g. by braking, steering or taking evasive action, as otherwise there is a risk of an accident.

21.2. Cruise control with braking function

The cruise control with braking function is included as part of the G30's standard equipment. The system is also known as "Dynamic Cruise Control" (DCC). Dynamic Cruise Control (DCC) supports the driver on roads with less traffic by keeping the speed constant irrespective of rolling resistances (incline, downhill driving and vehicle load). In spite of the support, the driver remains responsible for control of the vehicle. It is possible to override the DCC function at any time by braking or accelerating the vehicle.

21.2.1. Operation

The driver has the option of adjusting the set speed in small or large increments, which is then set and maintained by the system by controlling the drive and brakes. It can be changed using the left-hand switch block on the multifunction steering wheel (MFL). The speed is increased or reduced by 1 mph by tapping the rocker switch. Each time the rocker button is pressed beyond the pressure point, the speed increases or reduces by 5 mph. The DCC steadily maintains a selected speed from approximately 20 mph (30 km/h).

The set speed is indicated in the instrument cluster in the familiar way; by a mark that moves round the speed reading. Notes are added to the displays in the instrument cluster, if necessary.

If the vehicle's own deceleration is not sufficient to maintain the preset speed, the brake is activated accordingly.

If ECO PRO or SPORT mode is activated, cruise control is also set to a fuel-efficient or sporty driving style. Due to the fuel-efficient driving style in ECO PRO driving mode, in some situations the vehicle's speed may exceed or drop below the set speed, for example on downhill gradients or inclines.

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G30 Buttons of the Dynamic Cruise Control (DCC)

Index	Explanation
1	Button for activating or deactivating the Dynamic Cruise Control (DCC)
2	Rocker switch for changing the set speed
3	“SET” button for setting the speed of cruise control
4	Button for calling up a saved set speed/temporarily switching off the cruise control

The system is interrupted automatically in the following situations:

- If the brakes are used.
- If the selector lever position is moved out of position "D".
- If the Dynamic Traction Control (DTC) is activated or the Dynamic Stability Control (DSC) is deactivated.
- If the Dynamic Stability Control (DSC) is performing an adjustment.

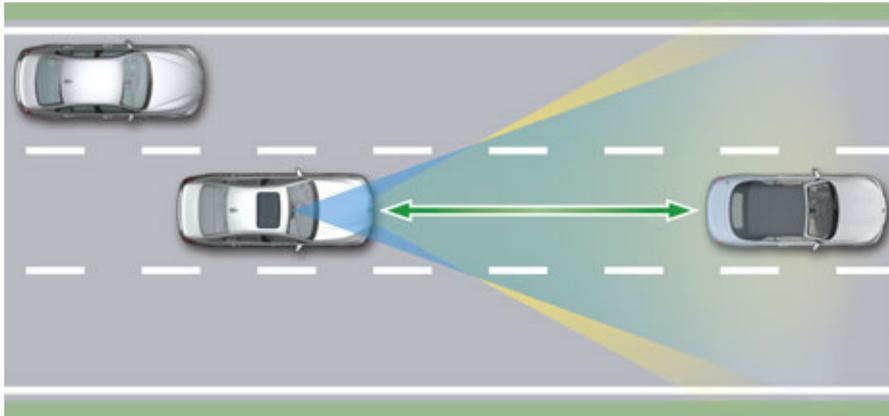
21.3. Active Cruise Control with Stop&Go function

The Active Cruise Control with Stop&Go function (ACC Stop&Go) is offered as a function of the Active Driving Assistant Plus, optional equipment (OE 5AT), for the G30.

ACC Stop&Go adjusts a driver-specified set speed and, if required by the traffic situation, also automatically adjusts the preselected following distance to the vehicle driving ahead (detected vehicles include passenger cars, trucks and motorbikes). The application range of ACC Stop&Go ranges from higher speeds down to a standstill. The distance and the speed are automatically adjusted in this range.

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21. Cruise Control



G30 Active Cruise Control (ACC) Stop&Go

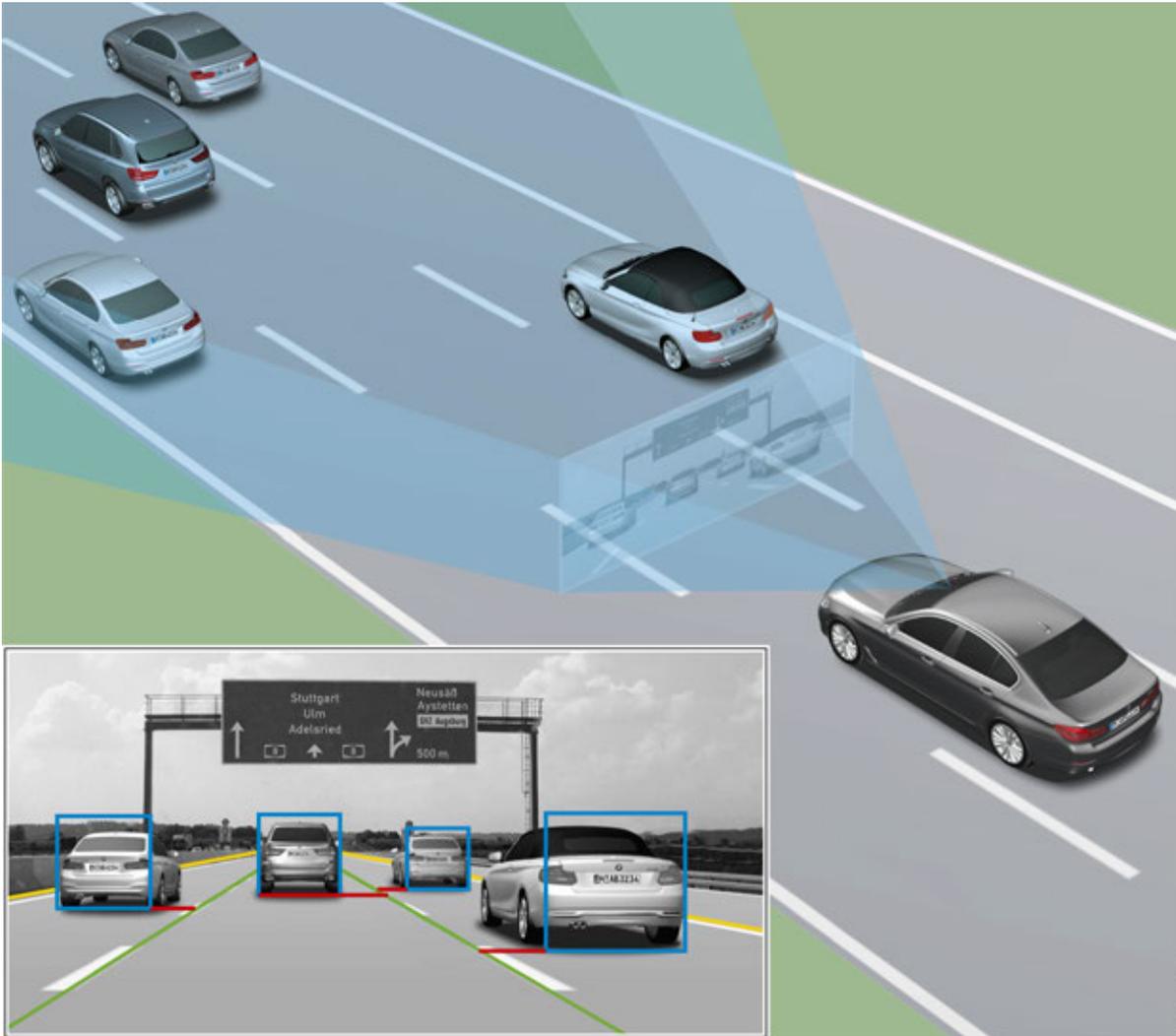
Depending on the stationary time, driving off from a standstill is performed automatically or in response to a prompt by the driver. ACC Stop&Go not only detects vehicles that are slowly coming to a stop, but also stationary vehicles.

Due to improved monitoring in front of the vehicle, the system is capable of reacting more quickly to vehicles swinging in and out and turning off.

The extended application range has been achieved by the incorporation of the KAFAS stereo camera. Image data is evaluated by the ACC Stop&Go system. The KAFAS control unit clearly detects vehicles when their rear ends are recorded by the camera. In addition, the KAFAS control unit ensures that the driving lane information, vehicle positions and movements are determined.

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21. Cruise Control



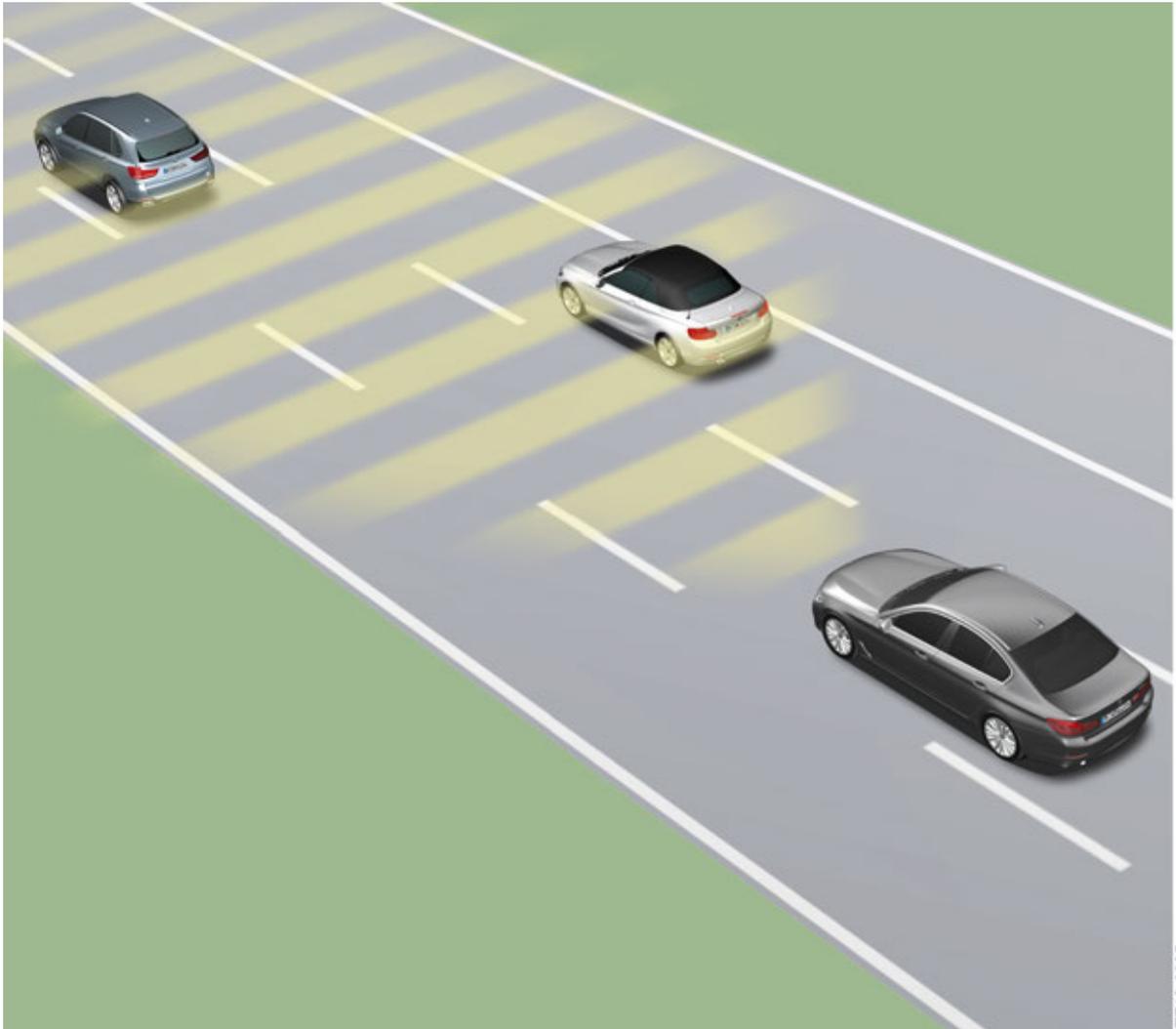
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Object detection provided by a combination of radar sensor and KAFAS stereo camera.

In addition to image data, radar data is also gathered and evaluated by the radar sensors. This fusion of image and radar data makes possible the clear identification of lane markings and the distinction between stationary vehicles and other fixed objects.

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21. Cruise Control



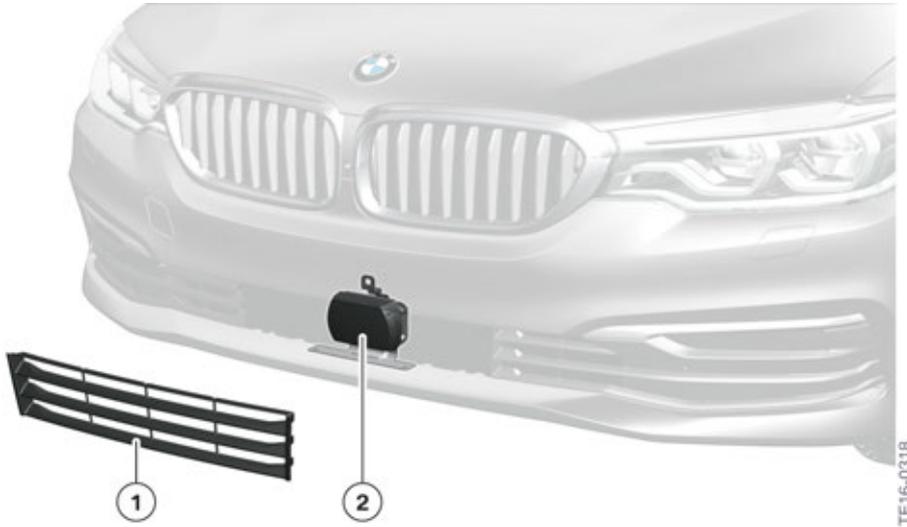
G30 Radar sensor/KAFAS stereo camera fusion: Radar sensor object detection

A 77 GHz radar sensor emits bundled electromagnetic waves. The echoes reflected by objects are received and evaluated by the radar sensor. This enables information about objects located in front of the radar sensor to be obtained. This information includes size, distance and the deduced speed. The system's radar sensor can identify vehicles ahead up to a distance of 650 ft (200 m), to a large extent irrespective of weather conditions.

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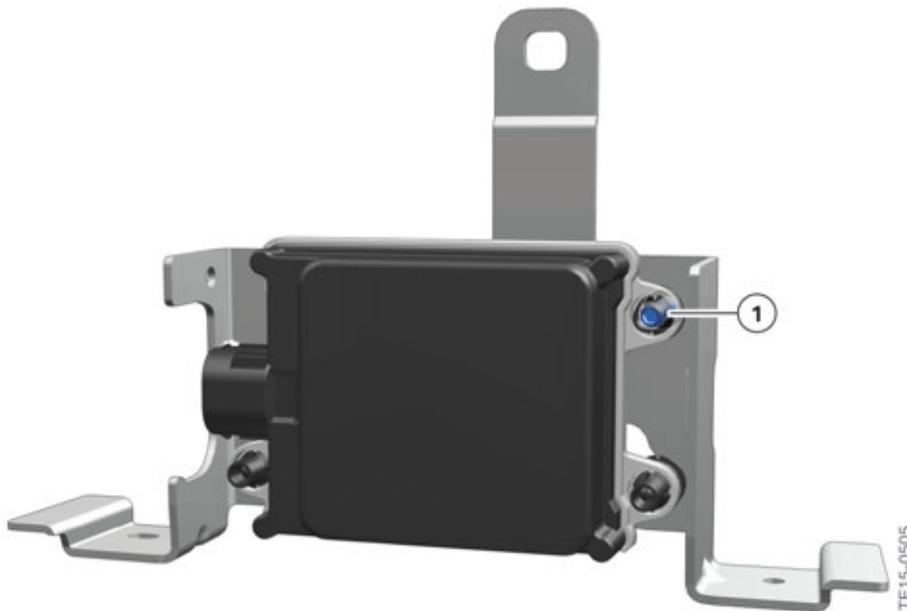
21. Cruise Control

The sensor is located behind the air inlet grille on the front bumper.



G30 Installation location of front radar sensor for ACC Stop&Go

Index	Explanation
1	Removable grille
2	Sensor for ACC Stop&Go



G30 Front radar sensor for ACC Stop&Go

Index	Explanation
1	Adjustment feature

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Thanks to the radar sensor's improved detection capability and alignment with the image data from the KAFAS stereo camera, vehicles in neighboring lanes are also detected. If these vehicles are driving in their own lane, then ACC Stop&Go adapts the speed to the vehicle pulling in or vehicle ahead. As a result, a time lag selected by the driver is constantly maintained.

ACC Stop&Go adjusts the speed if there is no vehicle driving directly ahead and automatically switches to distance control if the sensor system detects a slower vehicle in its lane. The system's Stop&Go function brings the vehicle to a complete standstill if necessary.

Detecting the vehicle in front of the vehicle in front

Additionally detecting the vehicle in front of the vehicle in front is likewise new on the G30.

This is analyzed using the sensors already fitted. Object detection is based on a fusion of the front radar sensor and the KAFAS stereo camera. Both sensors are, in principle, capable of detecting a vehicle two positions ahead.

In most cases, the vehicle in front of the vehicle in front is, however, concealed by the vehicle in front, which is why the camera can generally not detect it. The front radar, however, consistently provides good detection quality here by "looking under" the vehicle in front.

The advantages of this are as follows:

- Improved "driver-like" speed governing behavior
- Smoother following driving ("ACC cruising")
- Enhanced dynamics for traffic light-controlled journeys
- Driver-like behavior when approaching distant objects

Evaluation of ultrasound data

Since both the front radar sensor and the KAFAS stereo camera are only of limited use for close-range monitoring, the ultrasonic data for the ACC Stop&Go system is evaluated for the first time on the G30. The data is provided by the front ultrasonic sensors already described. These are needed to monitor the close range in front of the vehicle for freedom from obstacles.

Coupling to the navigation system

Improved cornering behavior is made possible by coupling ACC Stop&Go to the navigation system. This contributes to a further improvement of driver-like behavior. This also takes into consideration the intention to turn off the road and intersections, among other aspects.

Restart time

The restart time after automatic braking to a stop by ACC Stop&Go previously of approximately 3 seconds has been raised to **approximately 30 seconds** on the G30.

The prerequisite for extended restarting is that the vehicle is located on a highway or a divided highway outside the town.

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If the vehicle in front starts driving again after being stopped (for more than approximately 3 seconds or longer than approximately 30 seconds on highways and divided highways), a note is shown to the driver. To drive off again the driver must confirm this note by pressing the RES/CNCL button or the accelerator pedal.

Additional convenience is provided by the extended restart time without driver intervention.

ACC Stop&Go does not only support the driver in flowing traffic, but also in traffic jam situations, both on multiple-lane highways and ordinary roads and on urban arterial and ring roads.

The adjustment range for the set speed is limited to a maximum of 130 mph (210 km/h).

If ECO PRO or SPORT mode is activated, the Active Cruise Control with Stop&Go function is also set to a fuel-efficient or sporty driving style. Due to the fuel-efficient driving style in ECO PRO driving mode, in some situations the vehicle's speed may exceed or drop below the set speed, for example on downhill gradients or inclines.

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21.3.1. Operation

Activation and deactivation

The activation and deactivation of the ACC Stop&Go and the Dynamic Cruise Control are almost the same. ACC Stop&Go can either be activated while driving or at a standstill. For safety reasons, when the vehicle is at a standstill the function can only be put in Standby mode or deactivated while the foot brake is applied.

If the function is active, it can be interrupted by pressing the RES/CNCL button. The distance and speed will no longer be maintained and the set speed is greyed out in the instrument cluster.

The driver can select a desired distance in four stages using the left-hand multifunction button on the multifunction steering wheel (MFL). The following distance most recently selected is saved depending on the key being used.

- The following graphic shows the button assignment for the Driver Assistance Systems on the multifunction steering wheel (MFL) in vehicles **with** the Active Driving Assistant Plus optional equipment (OE 5AT):



G30 Buttons for ACC Stop&Go with Active Driving Assistant Plus optional equipment (OE 5AT)

Index	Explanation
1	Button for activating or deactivating the Active Lane Keeping Assistant and Traffic Jam Assistant
2	Button for activating or deactivating ACC Stop&Go
3	Rocker switch for changing the set speed
4	“SET” button for setting the speed of cruise control
5	Button for adjusting the distance of the driver's vehicle to the vehicle driving ahead
6	Button for calling up a saved set speed/temporarily switching off the cruise control

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21. Cruise Control

The following conditions must also be satisfied for activation:

- Seat belt fastened and doors closed
- Drive position "D" engaged and brake pressed
- Engine running
- Parking brake not activated
- Camera and radar sensor operational
- No system faults detected

The system is interrupted automatically in the following situations:

- If the brakes are used.
- If the selector lever position is moved out of position "D".
- If the Dynamic Traction Control (DTC) is activated or the Dynamic Stability Control (DSC) is deactivated.
- If the Dynamic Stability Control (DSC) is performing an adjustment.
- If the seat belt is unfastened and the driver's door is opened in a stationary vehicle.
- If the system has not detected an object for a long time, e.g. on rarely frequented sections of road with no distinct edge.
- If the detection range of the radar is impaired, e.g. due to contamination or heavy precipitation.
- Following a longer immobilization period, if the vehicle has been decelerated to a standstill by ACC Stop&Go.

The set speed is indicated in the instrument cluster in the familiar way; by a mark that moves round the speed reading. If ACC Stop&Go is activated, this mark is green, whereas in "Standby" mode it is grey and the last set speed is displayed. After the ACC Stop&Go function is activated or after the driver has adjusted the set speed, the current digital value is displayed. If the distance is changed, a symbol appears briefly as an acknowledgement. The symbol screen masks are for example the set speed and the distance bar. With each subsequent operation the display is shown for another three seconds.

The distances set by the driver, as well as the distances to any vehicles driving ahead, that must be maintained to ensure a safe distance are displayed between the two round instruments (speed reading and engine speed display). The distance setting is stored for the ID transmitter currently being used. As with DCC, the symbol screen masks are complemented, if necessary, with notes in the instrument cluster for ACC Stop&Go.

With active control the displays are also shown in the Head-Up Display (optional equipment OE 610).

If the system can no longer adjust a safe distance, for example due to very high differential speeds, then the driver is prompted to take over the vehicle handling by a flashing red vehicle symbol and an acoustic signal.

G30 Driver Assistance Systems

21. Cruise Control

Displays



Displays in the instrument cluster when ACC Stop&Go is activated

Symbols	Explanation
 <p>TE15-0971</p>	<p>Display lights up black/grey, no vehicle symbol shown: System has been interrupted.</p>
 <p>TE15-1033</p>	<p>Distance control briefly paused, as the accelerator pedal is depressed.</p>
 <p>TE15-0972</p>	<p>Vehicle symbol and distance bars flash red and a signal sounds: Request for intervention by braking and, if required, evasive action.</p>
 <p>TE15-0973</p>	<p>Distance control (ranging) active: ACC Stop&Go adjusts to the set distance (distance 1). The speedometer mark for the Active Cruise Control with Stop&Go function also lights up green in the speed reading.</p>