



DS 7 Crossback

2018

Highway Assist System



AD System Name	Connected Pilot	
Standard Active Safety Systems	AEB Car-to-Car	●
	AEB VRU	●
	LSS	●
	SAS	●
Available on	<a href="#">DS 7 Crossback</a>	

Comments

Connected Pilot on the DS 7 Crossback gives the driver a low level of support therefore maintaining the impression of the driver being in control with the car assisting them. The system is readily perceived as a system to assist the driver which aligns well with the information provided.

The name "Connected Pilot" does not clearly indicate that the system is a driver-assist system, and could be easily misunderstood. The limited scenarios tested show that the system is only assisting. The handbook mentions that the system is designed for main roads and motorways, but the system is not geofenced and can therefore be engaged on any road with distinct lane markings. The legally-required hands-off warning tells the driver to keep his hands on the wheel, but a slight steering input is sufficient to suppress this warning. In case of no response to the warning, the system will simply shut down but will not bring the car to a controlled stop.

In the longitudinal scenarios, the DS 7 Crossback shows a moderate level of support in the slower-moving and braking car scenarios. When approaching a stationary car, and in the 'cut-in' and 'cut-out' scenarios, the system offers no support at all.

Connected Pilot provides subtle steering support resulting in a good balance between the driver and the system in the S-bend scenario. In the absence of lane markings or other vehicles to act as a guide, Connected Pilot will change to a passive mode and will resume assistance when clear lane markings are detected.

Overall, the DS system needs the driver to be primarily in control with little risk of the driver becoming over-reliant on the system.

## Human Machine Interaction

System Name	The system name, Connected Pilot, does not clearly indicate that this is an Assist System and gives a wrong impression about the system capabilities	
Official Manufacturer Information		
System Features	<b>SPEED CONTROL</b>	
	Automatic Speed Limit Adaptation	—
	Speed Adjustment for Road Features	—
	<b>STEERING SUPPORT</b>	
	Assisted Lane Change	—
User Manual	Description of Operational Design Domain (areas where the system can be used)	●
	Description of the Driver's Role	●
	Description of Adaptive Cruise Control Limitations	●
	Description of Lane Centering Limitations	●
	Description of Hands OFF Warning Sequence	✘

● Explained in user manual

○ Feature fitted as part of the system

✘ Not explained in user manual

— Feature not available as part of the system

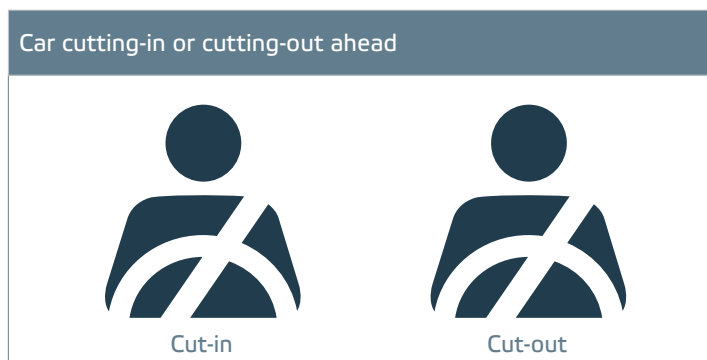
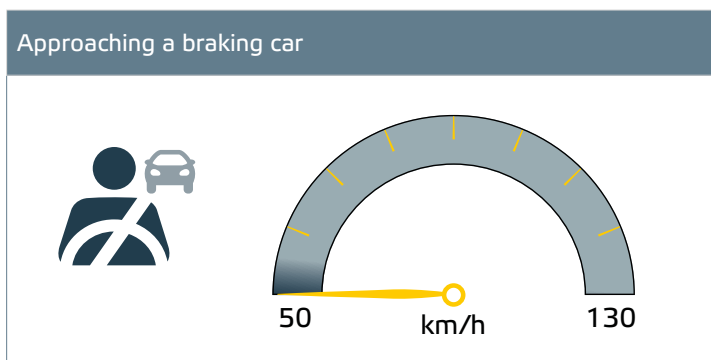
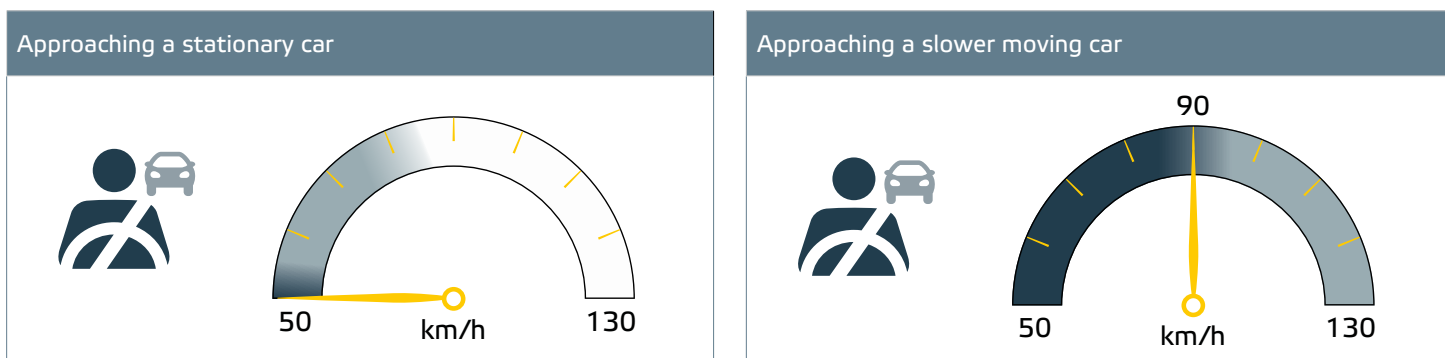
### Comments

While the user manual clearly explains the limitations of the system and where they can operate reliably, system use is not limited as geofencing is not implemented. The role of the driver during the use of the system is also clearly stated and is in line with the system design. Specific scenarios where the driver must be primarily in control or where no system response is expected are not mentioned in the handbook.

Enabling of the system is performed using a button on the dashboard. Engaging the system is simple and intuitive using a dedicated stalk next to the steering wheel.

Marketing information from DS clearly explains the design and intended use of the system.

## Adaptive Cruise Control Tests



<b>VEHICLE PRIMARILY IN CONTROL</b> Level of support may result in over reliance	<b>GOOD COOPERATION BETWEEN DRIVER AND VEHICLE</b> Balanced
<b>DRIVER PRIMARILY IN CONTROL</b> Limited support provided by the system	<b>NO SYSTEM SUPPORT AT ALL</b>

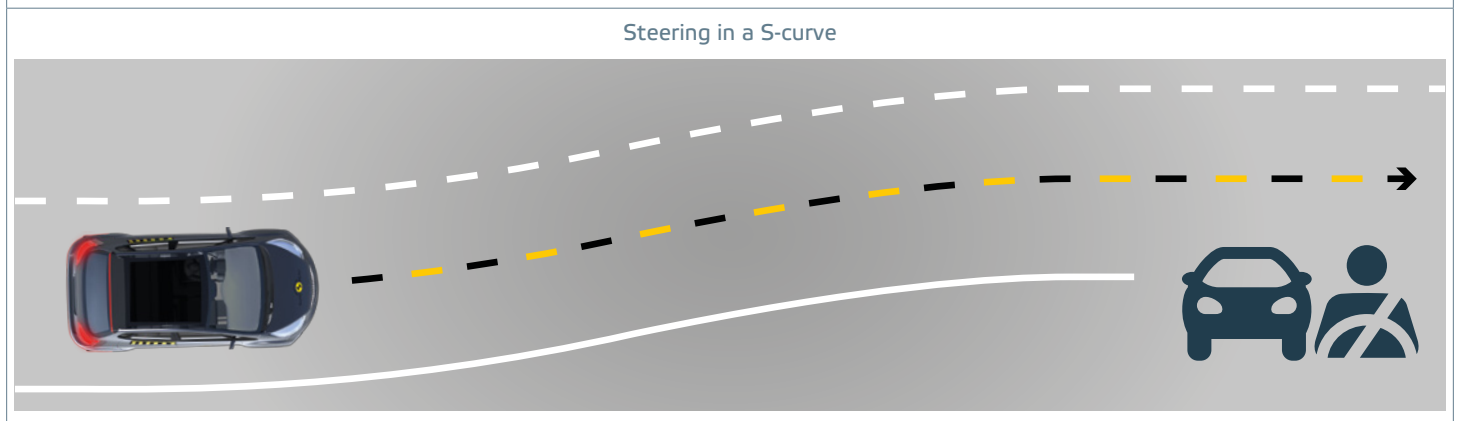
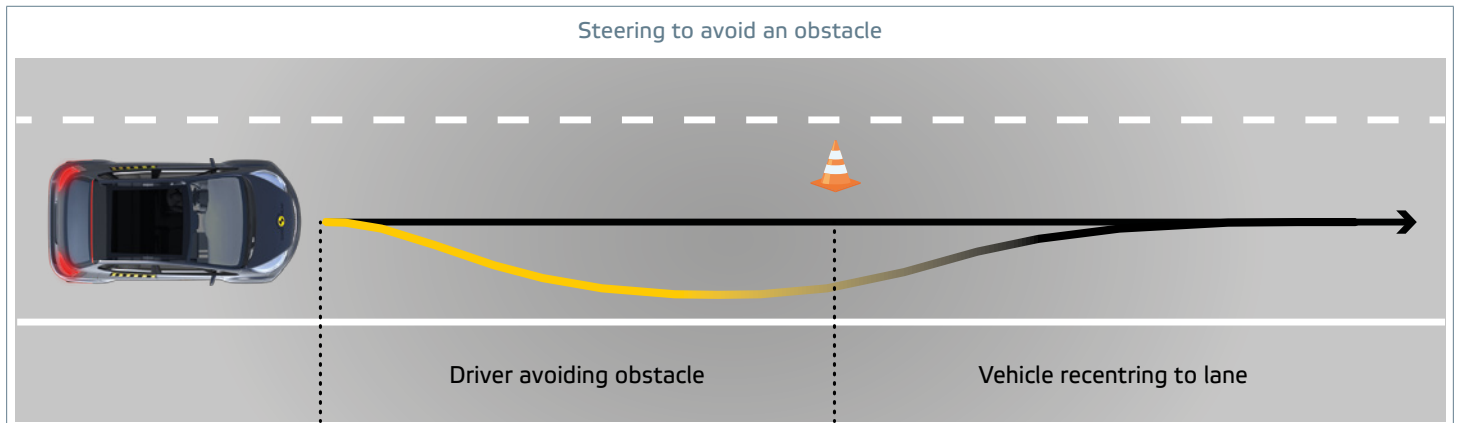
ACC DESIGN LIMIT	ACC BRAKING	EMERGENCY INTERVENTION	NO RESPONSE
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**Comments**

In the scenarios tested, Connected Pilot does not respond to a stationary vehicle directly ahead. The AEB/FCW system supports the driver only up to a speed of 80 km/h. In both the slower-moving and braking lead vehicle scenarios, the car responds but does not provide full support and emergency intervention by the system is required to avoid or further mitigate the collision. Very late or no ACC response was witnessed in the cut-in and cut-out scenarios which are critical and challenging scenarios due to the rapidly changing conditions. Very late or no warning was issued to alert the driver of the possible crash in these cases.

Overall the ACC system provides limited support and the driver has to stay primarily in control in all scenarios.

# Steering Support



<p><b>VEHICLE PRIMARILY IN CONTROL</b> Level of support may result in over reliance</p>	<p><b>GOOD COOPERATION BETWEEN DRIVER AND VEHICLE</b> Balanced</p>
<p><b>DRIVER PRIMARILY IN CONTROL</b> Limited support provided by the system</p>	<p><b>NO SYSTEM SUPPORT AT ALL</b></p>

— STEERING SUPPORT PATH
— DRIVER STEERING PATH

**Comments**

In the scenarios tested, Connected Pilot gives the impression that the driver is in control and the car is supporting them by providing steering assistance, which encourages good driver engagement. Where a driver wants to reposition the car within the lane, for example to avoid an obstacle or increase clearance to adjacent traffic, the system readily accommodates driver inputs and subsequently continues to provide steering assistance.