Alongside the launch of the Cayenne E-Hybrid, Porsche is expanding its range of assistance systems and optional features for the entire series with a variety of innovations. For the first time, head-up display is available in a Porsche. It projects all the relevant driving information directly into the driver’s line of vision in a full-colour display. The system therefore significantly reduces distractions for the driver. Other features now available in the Cayenne are the smart digital copilot Porsche InnoDrive with adaptive cruise control and active lane guidance, massage seats, a heated windscreen, independent heating with remote operation and 22-inch light metal wheels.

First Porsche head-up display

Porsche’s first head-up display can be found in the new Cayenne. The system generates a graphic display that appears to the driver as if around 2.3 metres away and is split into seven sections. The height, brightness and angle of the display can be adjusted via the PCM. Depending on how the car is equipped, the driver can choose between up to four presets in which different driving information can be displayed based on preselection. The standard view provides information on activities and the status of the assistance systems. This allows recognised and currently applicable road signs to be displayed, for example, and navigation information to be presented when heading to a specific destination. In connection with the Sport Chrono Package, the relevant preset provides dynamic driving information such as speed, lap time and lap number. When the Sport Response function is activated, the driver can see the remaining function time in the head-up display. The Offroad preset, in conjunction with the optional Offroad package (not available for Cayenne E-Hybrid), provides the driver with information on side tilting, steering movement, incline and Hill Descent Control. The fourth preset in the user-defined display allows the user to create their own individual configuration from the individual display features via the PCM. Irrespective of the preset selected, the system displays information relevant to the situation. Accordingly, for example, when the car is at risk of a collision, a large warning symbol is displayed. Relevant symbols are displayed for incoming calls or when voice commands are activated.

Exclusive to the Cayenne: the Offroad Precision app

With the new Offroad Precision app, Porsche gives the Cayenne driver the opportunity to document, evaluate and improve their trips on terrain. The ‘Trip’ section works in a similar way to popular running apps for mobile phones. If recording is activated, all relevant data is collected automatically: driver, car, route, times and GPS data. These are used to automatically create route and elevation profiles that can later be viewed on a map. At the same time, the journey can be recorded in its entirety as a video, using either a smartphone or an externally controlled action cam. The smartphone’s ‘sharing’ function allows the trips to be shared on social networks. In the app mode ‘Personal progress’, the driver’s individual performance is assessed with a bonus system. The app also provides the offroad newbie with sound basic knowledge explaining how to get around in a Cayenne on terrain. The tutorial is completed by an overview of offroad parks where you enjoy your first forays in a safe environment. The Offroad Precision app is available for iOS and Android.

More comfort, more value: independent heating, massage
seats, load compartment management

The expanded range of features for the Cayenne now includes a heated windscreen and a programmable independent heating with remote control and Porsche Connect connection. The new massage function for the optional comfort seats in front (14-way, electric) enhances not just comfort, but also the condition. Drivers and passengers can choose between five massage programmes performed by ten pneumatic massage pads in the seat backs. This not only provides added comfort when seated but also helps promote muscle activation and relaxation on long journeys. The new load compartment management also includes two attachment rails integrated into the load compartment floor, a telescopic rod, lashing eyes and a luggage area partition net.

New sports options

For sports-focused Cayenne drivers, Porsche is expanding its range of options to include new wheel designs – the 21-inch Cayenne Exclusive Design wheel and the 22-inch Cayenne Sport Classic wheel. The new 21-inch Cayenne E-Hybrid Design wheel is available exclusively for the Cayenne E-Hybrid. The new sport exhaust system creates dynamics you can experience acoustically. It generates an especially powerful sound experience in the Sport and Sport Plus modes in particular. The high-gloss double sport exhaust pipes in the exhaust system are available in silver or black. The Sport Design Package gives the new Cayenne models an even more sporty look. The stand-alone components in exterior colour ensure an even more unique appearance.

InnoDrive: an electronic copilot

The new Porsche InnoDrive, including adaptive cruise control, is exceptionally future-forward: the optimum acceleration and deceleration values are calculated for the next three kilometres using navigation data and activated via the engine, the Tiptronic S and the brake system. As part of this process, the electronic copilot takes into account curves, inclines and speed limits automatically. Current traffic conditions are captured by a radar and video sensor and arrangements are adapted accordingly. Developed exclusively by Porsche, InnoDrive improves efficiency. Car functions such as coasting, deceleration cut-off and braking are controlled in a more consumption-efficient way based on predictive navigation data.

Porsche InnoDrive also offers clear benefits in terms of comfort and dynamics. The system even recognises roundabouts and adapts the speed to existing conditions. When Sport mode is activated, InnoDrive also switches into a more dynamic approach. The integrated adaptive cruise control helps the radar and video sensor record the distance from the cars in front and adapts it on an ongoing basis. The active lane guidance permits assisted driving on well-developed roads and motorways (in a speed range of zero to 210 km/h). The system drives the car with light steering interventions and follows the line of cars ahead within system limits. It bases its approach on road markings and other cars on the road.

Sound world 1: BOSE® Surround Sound System

The Cayenne Turbo is fitted as standard with the new BOSE® surround sound system, optionally available for other models. With 14 speakers, including subwoofer, 14 amplifier channels and a total output of 710 watts, this system offers authentic sound in all five seats. With its Centerpoint® 2 technology, stereo tracks can be replicated in surround mode. This creates impressive acoustics. The AudioPilot® noise compensation technology
ensures the audio experience can be enjoyed irrespective of the driving situation. The innovative BOSE® SoundTrue enhancement technology replicates parts of music files lost in compression, such as in MP3 format, thus enhancing sound quality and dynamics.

**Sound world 2: Burmester® 3D High-End Surround Sound System**

The new Burmester® 3D high-end surround sound system with the new Auro 3D® algorithm offers yet another enhancement. This system creates a realistic concert hall atmosphere in the car’s interior. It includes 21 speakers with a two-way centre system and an active subwoofer with 400-watt Class D digital amplifiers. The entire output is 1,455 watts. The enhanced high end system offers exclusive technologies such as the Burmester® air motion transformer and the Sound Enhancer®. When listening to data-compressed music files, the sound can be enhanced even further using the Sound Enhancer®. The Auro 3D® algorithm is revolutionising the audio experience in the entire automotive sector. In collaboration with Galaxy Studios, renowned worldwide for perfect music reproduction, a special algorithm was developed that creates a perfect 3D impression in music reproduction. The Auro 3D® technology can help create a dynamic 3D audio experience from any source material.

**Function package: Remote Park Assist for independent parking**

With the new Remote Park Assist, Porsche has put together a comprehensive optional package of comfort and safety functions for the Cayenne which will be available for the new Cayenne generation in the next expansion phase. The driver can not only leave parking to the SUV, but also gets help in manoeuvring the vehicle and is warned of hazard situations when disembarking and leaving the parking space.

Active parking assistance makes parking much easier. With the help of the car’s ultrasound and camera systems, the system automatically recognises parking spaces and measures their size. Once the system has signalled that the space is big enough, the driver can press and hold the button on the central console to begin and control the parking process. The system takes over the steering and chooses the speed itself and controls the accelerator and brake automatically. All the driver needs to do is monitor the process. The active parking assistance is able to park the car in horizontal and diagonal parking spaces.

Park Pilot goes a step further, allowing the driver to bring the car in and out of parking spaces via remote control using a smartphone. Once the system has identified a suitable parking space, the driver can initiate parking by pressing the relevant PCM button before disembarking. The parking process is then continued by continuing to press the button on the smartphone app. The garage pilot works according to the same principle and is used when the car is being parked or brought out of a narrow garage without requiring the driver to stay inside the car. Once the Cayenne reaches its endpoint, the engine and ignition are automatically switched off and the car is locked. The garage pilot can also bring the car out of parking spaces. To make this happen, the driver starts the SUV with the smartphone app and lets it emerge for long enough until he can climb in comfortably.

**3D Surround View display creates a comprehensive overview**

The system also helps drivers manoeuvre by themselves. Remote Park Assist's 3D
Surround View display calculates a 360° view using four individual cameras to help with entering and leaving parking spaces and manoeuvring the car. One of the system’s major innovations is the perspective-based, three-dimensional display. The manoeuvring assistant with its kerb alert helps prevent collisions in narrow manoeuvring situations where visibility is poor. The function is triggered automatically at speeds up to 10 km/h and displays the parking situation in 3D on the PCM’s touch display. If there is a risk of a collision, there is a warning display on the PCM and, where necessary, a steering boost.

**Trailer manoeuvre assistance steers car itself when towing**

If the Cayenne is being used for towing, the trailer manoeuvre assistance makes reverse parking much easier. Once the function is activated, all the driver needs to do is simply put the vehicle in reverse and accelerate gently. They can use the PCM’s rotary adjuster to continually adjust the angle they would like to place the car in themselves. The image from the reverse camera on the PCM provides appropriate guide lines for orientation. The system activates the steering wheel itself and steers the trailer on the course selected by the driver.

**Warning functions when disembarking and exiting a parking space**

Two warning functions that enhance everyday safety significantly complete the package. The disembark warning indicates when cars are approaching from the rear as the door is opened. LEDs flash red in the interior door handles. The disembark warning remains in operation for another three minutes after the ignition is switched off. The function is also based on the sensors in the rear radar, like the exit warning. When parking assistance is activated, this gives a warning of other cars recognised as critical as the car emerges from a diagonal parking space, for example. The warning occurs on different levels – visually on the PCM display, acoustically and, where necessary, by brake shuddering.

1. The spread of the maximum electric range depending on the set of tyres in use is between 42 km and 44 km.