



European Premiere of the New Lexus LS

18 September 2020

- The latest evolution of the Lexus brand flagship
- Transformation in smooth performance of the LS 500h Multi Stage Hybrid, both in urban and long-distance driving through enhanced hybrid battery control
- New technologies applied for even greater refinement, comfort and safety
- Fully automated Advanced Park system with memory function
- Smartphone integration via Apple CarPlay™*1 and Android Auto™*1
- First application of a new exterior paint technology and colour, Lunar Silver, giving more pronounced shadow and highlighting effects
- Richly detailed interior influenced by traditional Japanese decorative crafts

Today Lexus hosts the European premiere of its new, updated LS saloon, introducing new technologies, equipment and design features that reinforce its status as the flagship of the brand. The new model is revealed ahead of its sales launch in the UK and Europe in late 2020.

Lexus International President Koji Sato said: "In developing the new LS, we aimed for further evolution of the exceptional quietness and comfort that have been a constant feature of the LS since its first generation, and the starting point of the Lexus brand."

More responsive, even smoother driving performance

The supreme smoothness, refinement and effortless power of the LS 500h have been further increased through technical revisions that strengthen the contribution of the lithium-ion high-voltage battery.

In making the changes, Lexus sought to improve the car's drivability by increasing the level of assistance the battery provides to the electric motor and expanding its range of operation. The focus was on the quality experienced in the "normal" driving that accounts for around 90% of the time on the road, when the driver is applying only moderate pressure on the accelerator pedal and only low G forces are generated.

As a result of the changes, less effort is needed to move faster; acceleration is smoother and more linear, keeping the vehicle stable and suppressing G forces. This provides more comfortable city driving, but there are also benefits when travelling on winding routes, or when pulling away on an uphill gradient. Only slight pressure on the throttle is all that's needed to make smooth and powerful progress.

With the hybrid battery playing a greater role, the engine is able to operate at lower rpm, which makes for even quieter running, for example when the engine restarts after a period of EV electric mode driving.

Ride comfort

Achieving the best possible ride comfort has always been a touchstone quality for the LS and in its latest revisions, Lexus has looked to the performance of the tyres, the Adaptive Variable Suspension (AVS), the anti-roll bars and even the construction of the seats to achieve improvements.

Where the tyres are concerned, the vertical stiffness of the sidewall has been reduced, without compromising their run-flat capability, to give a more comfortable ride.

The AVS benefits from a new linear solenoid and an enlarged flow path inside the control valve. This expands the dampers' variable width, giving better performance over rough surfaces. As well as added comfort, this supports better steering response and vehicle stability. Adjustments to the rigidity of the anti-roll bars achieve a better load transfer during vehicle roll for a more a more comfortable vehicle posture when cornering, and line-tracing that's more faithful to the driver's intentions.

The quality of the seats is critical to the comfort experienced by driver and passengers, so Lexus has made changes that include new urethane seat padding, an additional, softer layer on top of the cushion padding and deeper seams between the cushion/backrest and the bolsters. The result is more comfort, less vibration and better body-holding.

Fully automated Advanced Park

Lexus takes all the effort out of parking with its fully automated Advanced Park system, appearing for the first time on the new LS 500h. It is also the first Lexus system and the first in the luxury car segment to have a memory function that will recognise and store details of spaces the driver uses regularly, making the parking process even easier.

The system goes further than any previous Lexus parking assistance technology, by controlling steering, throttle, brakes and transmission to execute safe and accurate manoeuvres. As well as being smooth and precise, it also operates promptly – the time taken to execute a parking manoeuvre is quicker than rival systems.

After drawing up alongside a parking space, the driver engages the system which then uses clearance sonars and the Panoramic View Monitor camera to gain a 360-degree view of the area and any obstacles. It automatically calculates the most efficient and safe parking manoeuvre, suppressing the vehicle's speed if clearance is tight. The live image and clear graphics on the central display keep the driver informed of the vehicle's path and any obstacles.

It will also operate regardless of whether the space is marked out with lines, or if there are no adjacent vehicles.

New technologies for safety and driver assistance

The new LS makes use of new technologies to provide a higher level of safety and driver assistance. It follows the Lexus RX in adopting a BladeScan™ Adaptive High-beam System

(AHS) in which a fast-rotating mirror projects light from LEDs to provide smooth and fine illumination over a wider area than current, standard LED systems.

It also introduces a new digital rear-view mirror, which presents real-time images from the rear parking camera. This means the view is not impeded by headrests or passengers and is clearer in night-time and wet weather driving. The driver can switch from optical glass to digital display and adjust the image for brightness and up/down and left/right scaling using touch-icons along its lower edge.

Further upgrades include a pedestrian detection function for the 360-degree Panoramic View Monitor and additional motor assistance to tighten the seatbelts (in addition to the pretensioners) when the Pre-Collision System delivers emergency braking ahead of an imminent impact.

New multimedia system and improved HMI

The new LS adopts Lexus's latest generation multimedia system, with increased functionality and improved HMI for simple, intuitive operation.

The system is controlled by a new 12.3-inch touchscreen, located on top of the instrument panel, closer to and angled towards the driver. This means it sits within the natural reach of people of different heights and builds; its positioning also avoids intrusion in their sightline along the bottom edge of the windscreen.

The functions now include easy smartphone integration via Apple CarPlay™*1 and Android Auto™*1, giving access to popular apps for navigation, entertainment and messaging using the car's multimedia touchscreen*2.

With Android Auto, the Google Assistant and Google Maps*1 can be used and tailored information can be sourced based on the user's calendar, previous activity and established preferences.

Apple CarPlay allows users to access the familiar interface from their iPhone®*1 through the vehicle's multimedia display. An iPhone can be connected to obtain journey directions, make calls, send and receive message via Siri®, and gain access to apps such as Spotify, Audible and Apple podcasts.

The touchscreen functions also include a new call-up switch to give instant access to frequently used controls, such as adjustment of the seat and steering wheel heaters.

The auxiliary switches on the steering wheel now have a unified black finish and have been re-contoured for easier, intuitive use. Likewise, the air conditioning panel has a new piano black finish for a more unified interior appearance.

Exterior design

Lexus has applied exterior styling changes to the LS, focusing on details that emphasise the design's expression of strength.

The front bumper has been reshaped and the signature spindle grille has a new dark metallic finish to its inner surfaces. The headlight units have also been revised to a slim, triple projector unit that accommodates the new BladeScan™ AHS (see details above) and the daytime

running lights, arranged in an “L” motif. New contrast black and bright machined finish 20-inch alloy wheels are available for the Takumi grade model.

The small, subsidiary grilles in the lower bumper have been moved outwards and have a squarer shape, emphasising the car’s width and stance. This is amplified on the LS F Sport where the grilles now wrap around the corner of the bumper. Also on the F Sport, the inner grille treatment is a new low-gloss black, the wheels have a black, sputtered finish with black centre caps and the rear combination light units gain a piano black moulding.

New advanced paint finish

Lexus has explored new possibilities in paint technology to create Lunar Silver, a finish that throws the contours of the bodywork into sharp relief with contrasting brilliant highlights and deep shadowing. It is combined with the new Nishijin and Haku interior hand-crafted black and silver interior ornamentation (further details below).

Sonic technology is used to condense the paint into a layer that is just one micron thick. This means the aluminium particles it contains are packed more densely and are more uniformly aligned to give a flawless finish with a mirror-like shine. To achieve these results the surface of the base paint, primer and clear layers have also had to be rendered as smooth as possible.

Hand-crafted interior detailing

Lexus’s design provides many contemporary interpretations of traditional Japanese decorative arts and aesthetics. For the new LS it has combined two time-honoured skills to produce striking new interior detailing.

The Nishijin and Haku option for the door panels weaves together black and silver in an organic pattern inspired by waves shimmering in moonlight. This application of weaving and metalwork techniques is a “simulation” – the Japanese art of using diverse materials to express the beauty and character of the natural world.

The craft of *nishijin* has its roots in materials created for Japanese nobility. Metal foil is stretched on washi paper and cut into thin strips to make a flat yarn that is woven to produce an organic pattern in which the silver threads create a shimmering wave effect. Used within the new LS’ door panels, this is matched to a Haku door handle surround. *Haku* is a heritage craft dating back more than 400 years, in which metallic foil is flattened to a thickness of between one and two microns. Hand-applied by *takumi* craftspeople to the new LS, it has a delicate shine, evoking moonlight.

A new Laser Cut Special Ash Open Pore trim finish option uses natural wood that is dyed black to bring out its strong grain pattern. This creates a sharp contrast with the silver metal layer beneath, revealed by a highly skilled laser-cutting process.

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*2 Availability of Apple CarPlay and Android Auto may vary according to market.

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