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Lexus RX450h – Road Test

Published: January 4, 2021

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Online version: <https://www.wheels-alive.co.uk/lexus-rx450h-road-test-2/>



REFINEMENT GALORE OFFERED BY THE LATEST LEXUS RX 450H LARGE SUV...

...says David Miles (Miles Better News Agency).

The Lexus brand came to SUV prominence in 1998, actually year 2000 in the UK with the introduction of the original RX as a luxury, comfortable easy to drive large SUV. Now in its fourth generation spanning two decades the petrol-electric hybrid RX 450h 5-seater and RX L limousine style 6 or 7-seater premium large SUVs have received further improvements in specification, styling and driving appeal.

Global sales of the RX model brand of all types have to date totalled over three million units with 475,000 RX hybrid versions sold worldwide since 2005. In the UK 53,000 RX models have been sold since the first ones arrived here in 2000.



Lexus 400h – the original RX hybrid model.



The RX450h are relatively exclusive models in a new and used car market awash with SUV models of all sizes, types and prices. Its main premium brand competitors are the Audi Q7, BMW X5 and Land Rover Discovery and Range Rover Sport.

What sets the Lexus RX 450h and RX L models apart is that they are now only available as petrol-electric self-charging hybrids, no diesels and no longer with a 2.0 litre petrol engine option either. The latest models use a 3.5 litre, V6 petrol engine with one front electric motor driving the front wheels and a rear electric/generator motor which provides the rear wheel drive element of the E-Four 4WD system as well as charging the battery in conjunction with the regenerative braking energy capture system.





Prices for the RX 450h range from £51,565 to £62,365 through RX, F-Sport and Takumi spec levels. The 6-7-seat RX L versions are priced at £52,855 for the RX spec and

£64,500 for the Takumi version with its Captain's 6-seat configuration.

The most recent changes to the RX/RX L 450h ranges are what we know as most brands' mid-life refresh programmes. The RX/RX L as before look far more aerodynamic than their competitors, far less 'blunt' styling and the aerodynamic lines have changed again to offer a coherent flow from the nose to the tail. The new front end design includes a new version of the Lexus signature grille with mesh pattern radiating 'L' shapes forming a link design. This is flanked by slimmer headlights, and there's a more rounded front bumper, but there are



still some sharp 'Starship' pointed bodywork angles to provide an adventurous look. The rear end has a more powerful looking bumper that sweeps round the corners and links smoothly into the rear wings. The rear lights, reflectors, bumper under-guard and twin exhaust outlets are arranged in horizontal axis lines to emphasise the vehicle's width and stance. The new LED combination rear lights feature signature 'L' motifs.





The cabin has been improved with the availability of a new easier to reach, by both driver and front seat passenger, 12.3-inch central display and touchscreen. The multimedia functions can also be operated using a new trackpad version of Lexus's Remote Touch

Interface, or with voice control. I didn't find the trackpad any easier or accurate to use than the previous version, thankfully most of the controls and functions can be operated by easier routes. The latest RX also now has smartphone connectivity via Apple CarPlay and

Android Auto. Voice control can also be enabled via smartphones to Apple Siri or the Google Assistant.

As the RX range is mostly about premium-ness for the discerning buyer I'll take space to list



just some of the main spec items offered by the three grades. New features introduced include the latest generation of Lexus Safety System+, 12.3-inch multimedia touchscreen display, Apple CarPlay and Android Auto smartphone integration, heated steering wheel, paddle shift levers and two additional front USB ports.

The key other features by spec level are: RX/RX L has wireless phone charger, triple-eye LED headlights with automatic high beam, intelligent clearance Sonar, 12-speaker audio, Lexus Navigation, Tahara synthetic leather upholstery, Lexus Link connected services (via app), heated eight-way power-adjustable front seats. The RX F Sport offers the new feature of front and rear performance dampers, Adaptive Variable Suspension with 650 variable damping settings, active stabilisers are an option, sunroof is an option, the new triple-eye LED headlights with BladeScan Adaptive High-beam System, 20-inch F Sport alloy wheels, F Sport smooth leather seats, Sport exterior styling details and illuminated entry system. The top spec RX/RX L Takumi models have new design 20-inch alloy wheels, Blind Spot Monitor with Rear Cross Traffic Alert, Head-Up display, 360-degree panoramic view monitor, soluble dyes semi-aniline real leather upholstery, 10-way power-adjustable front seats with memory setting, four-way lumbar support on front seats, heated power-adjustable second row seats, Mark Levinson 15-speaker surround sound audio and panoramic roof for the RX and sunroof for the RX L.

The interior of the RX remains as luxurious and spacious as ever, just open the door and it still has the wow factor for the quality of fixtures and fittings. The front cockpit might look a bit switch and controls 'heavy' but after a few minutes it all seemed logical and mostly user-friendly. Rear space is ample and the RX L version with three rows of seats offers limousine like accommodation, and if wanted the middle row of seats can be ordered as individual cabin style so the 7-seat configuration becomes a 6-seater. With no transmission tunnel in the rear with either body style the rear floor section is flat so that helps with leg and foot space as well.

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The overall length of the RX 450h is 4,890 mm (16.04 ft) and the RX L 5,000 mm (16.40 ft) but the wheelbase is the same for both at 2,790 mm (9.15 ft). The width for all is 1,895 mm (6.22 ft) and height is 1,685 mm (5.53 ft). The boot and load space figures are RX at 453 litres (16.00 cu.ft) with the rear seats in use and 924 litres (32.63 cu.ft) with the rear seats folded. The RX L version, which has a longer rear section although the wheelbase is the same as the RX model, has a load space ranging from 176 litres (6.22 cu.ft) with the middle and third row seats in use which increases to 1,656 litres (58.48 cu.ft) with the two rows folded down. The braked towing weight for the RX models is 2,000 kg (4,409 lb), the RX L is not homologated for towing as its more MPV people carrier than SUV.

Driving dynamics have also received improvements although the RX/RX L have always been cruisers and waft-ers rather than sporting SUVs. However improvements have been achieved by giving the new RX a more rigid body using laser screw welding, additional spot welds and high-strength adhesive at key points around the platform. The suspension has been improved with a new stiffer rear anti-roll bar, stronger hubs and the use of a new Friction Control Device in the shock absorbers to reduce high-frequency vibrations from damaged road surfaces.

The Adaptive Variable Suspension is fitted to F Sport and Takumi versions to provide variable damping control at each wheel. The Vehicle Stability Control system gains Active

Cornering Assist aimed at controlling cornering understeer. The electric power steering has also been re-calibrated for a more linear steering feel and more accurate driver intended line-tracing.

In real-life the latest RX Takumi version I tried briefly during the lockdown period did what it has always done – provide a comfortable, well-balanced ride despite its 20-inch wheels. There is still some body roll during cornering and the steering could offer better feedback. That said it is still an impressive large SUV to drive, or be driven in, if premium brand road travel is your priority rather than a hard-riding muscular SUV which will still be the supreme off-roaders but with a compromised on-road ride quality. In my opinion of the



premium brand large SUVs the Range Rover remains the best on/off-roader, the BMW X5 the sharpest handling on-road but like the Audi Q7 they both have hard-ride road travel characteristics with limited off road performance.



Other new features include the latest version of the Lexus Safety System+ that provides additional protection to help prevent an accident happening or lessen the consequence if the vehicle is involved in an impact. The Pre-Collision System's functionality has been increased with pedestrian detection by day and night and daytime detection of cyclists in the car's path.

The RX F sport and Takumi versions have the new BladeScan Adaptive High-beam System which uses a rapidly rotating blade-shaped mirror to direct light from the LED headlamps. It



provides finer and deeper automatic forward illumination and also operates with no risk of dazzling drivers of vehicles ahead. It seemed to work just fine and another piece in the impressive jigsaw of specification the latest RX provides.

As a self-charging hybrid, a sort of half-way measure between combustion engine powered models and plug-in electric or pure electric SUV models offered by other brands, Lexus/Toyota are well known for their self-charging hybrid technology. It optimises the reliability and long driving range of a combustion engine with support from an electric motor to assist with performance and potentially help lower fuel use and CO2 emissions.

The RX/RX L continues to use a 3.5 litre, V6, 24-valve, DOHC variable valve timing petrol engine which combined with the electric motors provides a total system power output of 308 bhp with 335 Nm (247 lb.ft) of torque available immediately from the first revolution of the electric motors. The front electric motor drives though the front wheels and the rear motor drives the rear wheels via the E-Four system when extra grip is required, as well as acting as a generator and captures energy through regenerative braking. The Nickel metal-hybrid battery pack is positioned under the rear seats.

The top speed is 124 mph and the zero to 62 mph acceleration time is 7.7 seconds. The powertrain includes a CVT electronic automatic transmission and there is a Drive Mode Select function which allows the driver to select Normal, Eco and Sport modes. Where the RX is fitted with Adaptive Variable Suspension that adds Sport S, Sport S+ and Customise modes, and for all versions all modes are engaged at the turn of a rotary control positioned in the centre console. It's logical and easy to use. There is also an EV button which allows the driver to select electric driving power only but that only lasts for a very few miles.

The RX 450h Takumi version with panoramic roof I tried has the top on-the-road price in the RX range at £62,365. The WLTP official Combined Cycle fuel consumption figures are 35.3/35.7 mpg and my week of test driving, mainly local roads but with one essential longer journey allowed, returned 31 mpg. The CO2 emissions are 179 g/km so First Year VED road tax costs £860 in the Alternative Fuel category followed by the Standard rate of £140 but as



it costs over £40k there is an annual £325 supplement to be added to that cost for 5-years. Company car drivers will still pay the maximum 37% Benefit-in-Kind tax even though it is a hybrid vehicle. Insurance is Group 42E and Warranty is 3-years/60,000 miles with the Hybrid Warranty at 5-years/60,000 miles.

Engine/transmission performance is best described as refined. Its V6 smooth engine is quiet and vibration free, the move between engine and electric motors switching in and out is seamless and even the CVT auto transmission didn't have the usual high pitched moan when acceleration performance was asked of it.

The performance can feel sedate but then you look at the speedo and realise you are travelling at a much higher speed than you thought which is down to the driving refinement the RX continues to offer. At motorway cruising speeds the performance is effortless and near silent.



VERDICT

The RX is not a nimble cut and thrust brash looking SUV driving machine, it's one you travel in style in with lots of space and comfort, with loads of driving support safety features, and with the Lexus brand exclusivity and reliability record valued by discerning UK owners.

For: Further refinements throughout for the latest updated models, smooth and strong self-charging petrol-electric powertrain, no driving range anxiety, comfortable ride, impeccable build quality, classy roomy interior design and quality, refined exterior styling, the best RX yet.



Against: High-ish tax/fuel costs despite its hybrid technology, soft handling during cornering, trackpad inaccurate for touchscreen operations, steering lacked feedback, ungenerous warranty.



Milestones and Wheels-Alive Tech. Spec. in Brief:

2021 Lexus RX 450h Takumi, auto self-charging large 5-door SUV.



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Price: £62,365.

Powertrain: 3.5 litre, V6 petrol engine plus one electric motor driving the front wheels and another electric motor/generator at the rear driving the rear wheels when E-Four 4WD is needed and operating the regenerative braking function, CVT auto gearbox with Drive Mode Select. Total power, 308 bhp, total torque 335 Nm (247 lb.ft).

Performance: 124 mph, 0 - 62 mph 7.7 seconds.

Fuel consumption: WLTP Combined Cycle 35.3/35.7 mpg (31 mpg on test).



Emissions and taxation: CO2 179 g/km, WLTP First Year Alternative Fuel rate VED road tax £860 then Standard rate of £140 plus £325 annual supplement for 5-years as it costs over £40k, BiK company car tax 37%.

Insurance Group: 42E.

Warranty: 3-years/60,000 miles/hybrid elements 5-years/60,000 miles.

Dimensions/capacities: L 4,890 mm (16.04 ft), W 1,896 mm (6.22 ft), H 1,685 mm (5.53 ft), wheelbase 2,790 mm (9.15 ft), boot/load space 453 to 924 litres (16.00 to 32.63 cu.ft), braked towing weight 2,000 kg (4,409 lb), 5-doors/5-seats.