

Hyundai Genesis

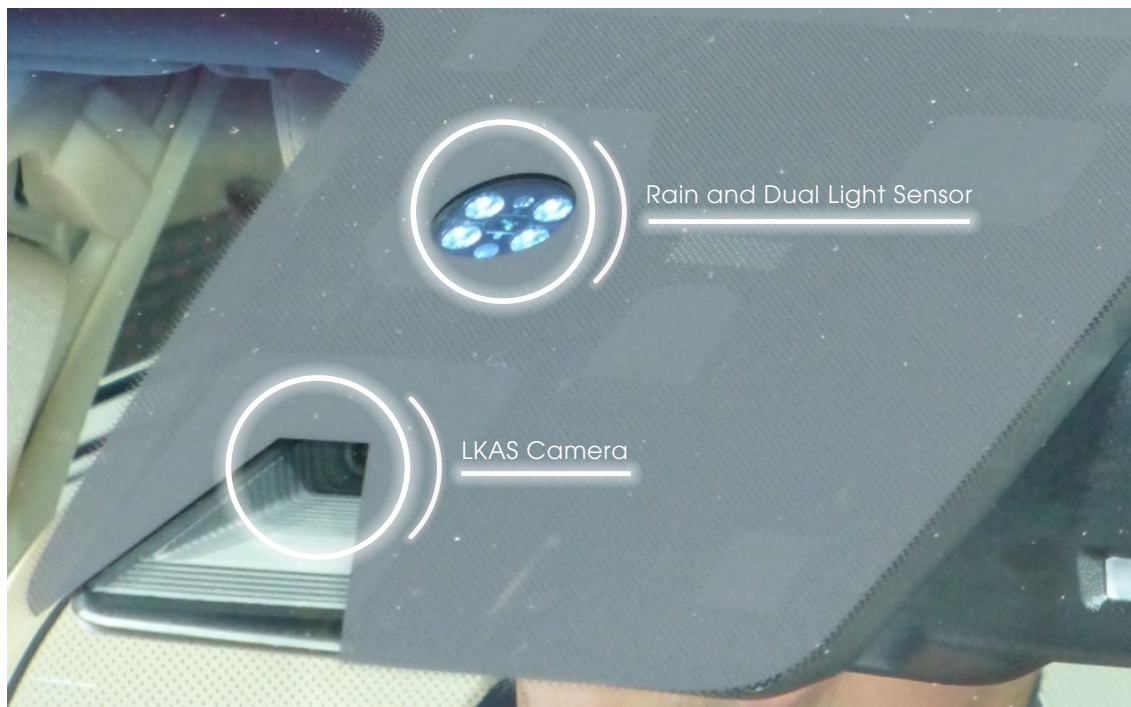


The Genesis is the new top of the range saloon from Hyundai, featuring AEB (Autonomous Emergency Braking) and an advanced mixed-material body structure.



ADAS

The Genesis features Smart Cruise Control (ACC) which includes an AEB system that functions at speeds between 5 and 50 mph. This system employs a fusion of windscreen camera and front radar to provide information. The radar also provides data for the Adaptive Cruise Control system, maintaining a driver-selected speed and distance from the car ahead.



The radar will require calibration in cases where it is replaced, or potentially moved. This process requires a simple alignment (horizontally and vertically) with a spirit level, and a dynamic calibration with the Hyundai diagnostic tool on a road test. **This road test for calibration should take 15 minutes.**

This camera is also used to provide data for the Lane Keep Assistance system, an active system that applies reverse steering torque via the electric power steering to correct the vehicle drifting out of lane at speeds above 44 mph. There is a Hyundai requirement for a dynamic calibration process (involving a road test) that will be required for a windscreen replacement. **This calibration should be completed within 10 minutes or the process will fail and will need to be repeated.**



The Genesis has a Head-Up Display projecting key driving information including vehicle speed, navigation directions and ADAS warnings directly onto the windscreen. **This requires a specific windscreen specification with a (WEDGE) film on the inside.** For this reason a screen tint would compromise the display performance, as would the driver wearing polarised sunglasses. The windscreen features a dual light sensor that needs to be functional for the HUD to work.

The rear bumper features radar sensors for the Blind Spot Warning system, and for the rear Cross Traffic Alert system that alerts the driver to another vehicle passing across the vehicle's path as it reverses (function restricted to reverse at speeds below 6 mph).

There are front and rear parking sensors and a 360° Around View Monitor system to provide all round vision for low-speed manoeuvres using cameras in the grille, boot lid (between the licence plate lamps) and door mirrors. Therefore a calibration procedure is required if a door mirror is replaced. Additionally, Smart Park Assist can take over the steering to automate parking.



Structure

The platform for the Genesis is unique to this model, with in excess of 50% AHSS (Advanced High Strength Steel) content to provide strength and much improved torsional and bending rigidity, including hot-stamped sill reinforcements. Due to the demanding material specification, laser welding has been utilised. Cast aluminium suspension strut towers in the inner wheelhouse give additional stiffness. The engine mounting brackets are also moved wider apart to aid stiffness and rigidity.

To give the car a premium NVH performance, 38 kg of soundproofing material has been used, including an additional cowl bulkhead and thicker door insulation.

Body length is 4990 mm, 1890 mm width, 1480 mm, with a wheelbase of 3010 mm.

The Genesis features a full length panoramic sun roof.

Technology

The Genesis features front driver airbag, front seat passenger airbag, driver's knee airbag, side curtain airbags and front and rear side airbags. A Thatcham category 6 tracking system is fitted with a 5 year subscription.

Advanced Traction Cornering Control works in conjunction with ESC to apply discreet braking to the inside wheels on cornering which, in conjunction with the Traction Controls, enables better cornering stability.

There is hands free automatic boot lid opening after the smart key has been close to the boot lid for 3 seconds. The Genesis features a Tyre Pressure Monitoring System.

For pedestrian protection an active bonnet is fitted.

Trim levels

There is only one trim level for the Genesis. HID headlamps, front LED fog lamps, LED tail lamps, automatic headlamps and wipers, and the Head-Up Display are all standard fit, and the Genesis has 19" alloy wheels with 245/40 R19 front tyres and 275/35 R19 rear tyres.



Paint Colours

There are 3 colour options for the interior, all leather: Beige, Grey, or Black.



Powertrains

For the UK market, just the 3.8 V6 petrol engine is available, driving the rear wheels only through an 8-speed automatic transmission. This 3778 cc, 24-valve (Euro 5 compliant) unit produces 308 bhp and 397 Nm of torque, using low friction pistons and employs a two-stage oil pump for additional efficiency. CO2 emissions are 261 g/km.

Fuel tank capacity is 77 litres.

The Genesis employs variable assistance electric power steering and has independent 5-link suspension front and rear, with improved travel over the predecessor model.

