# 2017 GENESIS G80 MID-LUXURY SEDAN SETS THE STANDARD FOR ADVANCED SAFETY AND ULTIMATE CONVENIENCE

ID: 384



- Standardized advanced safety technology with a full suite of active driver and vehicle protection features
- Genesis G80 provides enhanced owner experience with exclusive service valet and maintenance programs
- Two refined rear-wheel drive powertrains: 5.0-liter V8 and a 3.8-liter V6 which is also available with HTRAC® all-wheel drive system

The 2017 Genesis G80 mid-luxury sedan delivers an unprecedented combination of refined performance, human-focused technology and segment-leading safety features. The G80 standardizes advanced safety technology with a suite of active safety features for superior passenger and vehicle protection including Automatic Emergency Braking, Lane Keep Assist and Blind Spot Detection. Even more, the G80 carries an unparalleled Genesis Experience that provides the highest-levels of customer benefits with enhanced maintenance programs and



connected services.

#### **EXTERIOR DESIGN**

The Genesis G80 expresses a truly modern design through distinctive exterior styling with a sleek, upscale appearance. The G80 features a striking hexagonal front grille as a key geometric element, an elegant crease accent running along the flanks of the car, and a dynamic rear design. Design surfaces convey a kinetic elegance, relying more on voluminous body sections than surface details to create dramatic forms.

The single-frame crest grille ensures the front end of the Genesis G80 is not only striking, depicted in semi-gloss chrome, but also encompasses standard Bi-Xenon HID headlights with LED Daytime Running Lights and available LED fog lights. The profile of the G80 is expressive, with fluid lines and blended surfaces, and a sleek C-pillar helping to emphasize the sporty styling. The rear of the vehicle benefits from a sculptural aesthetic with jeweled and full-LED wrap-around taillights that provide a sense of visual width and feeling of stability.

#### MODERN INTERIOR DESIGN

The cabin layout of Genesis G80 has been designed to benefit all occupants with a spacious, comfortable ambience. The simplified switchgear and instrument panel ensure an intuitive layout and open feel. This user-centric design has sought to connect the various interior parts effectively, particularly the center stack with the console, upper-instrument panel and B-pillar with the headliner. The G80 displays an ultra-precise fit and finish, with ergonomic seat design and a generous, natural feel. Particular design attention has been paid to the storage of practical items such as mobile electronics of many shapes and sizes, along with the flexibility of the cup holders.





Total interior volume is an impressive 123.0 cubic feet which includes an expansive 15.3 cubic feet of cargo volume, offering a clear advantage over segment competitors. As part of this spacious interior design, the G80 provides best-in-class front leg room, head room and rear shoulder room.

# **GENESIS G80 INTERIOR VOLUME COMPARISION**

	Genesis G80	Cadillac CTS	Lexus GS	Infiniti Q70	BMW 5-Series	Mercedes E-Class
Passenger Volume	107.7	97	99	103.6	102	98
Cargo Volume	15.3	13.7	14.3	14.9	14	13
Total Interior Volume (cu. ft.)	123	110.7	113.3	118.5	116	111

The Genesis design team focused on the interior design principles - safety, intuitiveness and simplicity - in designing all primary controls to deliver maximum ease of use. Ease of reach and control have been meticulously evaluated and executed using a specially-designed laboratory tool created to measure occupant operational force for optimal ergonomics.

The G80's interior surfaces have been developed to decrease relative interior reflections and brighten dashboard surfaces, while available high-grade materials such as genuine aluminum and matte-finish wood ensure a luxurious feel. Cohesion between the center fascia and audio controls is evident through its streamlined design, making the two separate sections appear as one. To further ensure harmony within the interior, the G80 was intensely scrutinized for its use of materials, with extensive analysis of the relationship of different materials, their texture and color coordination.



Driver and passenger posture are optimized using enhanced seat pad density, improved seat support technologies, such as adjustable driver's seat power bolsters and seat cushion extension. The G80 offers standard 12-way power front seats, including 4-way power lumbar, heated front seats with available ventilation, as well as heated rear seats on HTRAC AWD models. Seat materials and stitching quality utilize double, rather than single stitching. The driver's seat incorporates functionality with an available air-pressure pump and controller valve, providing seatback bolster adjustment through individual air-cells located in the seat. With a total operating time under 8-seconds, the G80 benefits from both a faster activation process and greater range of adjustment than many competitive rivals.

## **ULTRA-RIGID PLATFORM**

The 2017 Genesis G80 platform employs advanced high-strength steel, composing more than 50 percent of its total platform composition. The strategic benefits of high-strength steel are immediately evident in the G80's torsional and bending rigidity - it is stiffer in both torsional and bending rigidity than the BMW 5-series.

Ensuring a smooth ride over rough roads was a top development focus, achieved by a robust connecting structure, extensive laser welding, reinforced body and chassis mounting points, hot stamping and dipping techniques for the B-pillar and roof sides, and a high level of high-strength steel in the chassis. Front shock towers are made of aluminum, and a diamond-shaped strut bar maximizes front structure rigidity for precise steering response.

Sustained durability and high-performance handling driving tests took place on the Nürburgring Nordschleife circuit in Germany to precisely calibrate ride, braking and handling characteristics.

#### **PERFORMANCE CHASSIS**

Fully leveraging this rigid chassis is a rear multi-link suspension, with optimized 5-link geometry and increased suspension travel for a broad range of both dynamic performance and ride comfort. Lateral suspension stiffness and overall ride comfort refinement were top priorities in its dynamic development. The fully-independent, 5-link front and rear suspension designs increase suspension travel, for greater wheel articulation and bump absorption over a variety of road surfaces. 18-inch and 19-inch alloy wheels resist deflection forces for precise suspension response to changing road surfaces. Handling and road holding also benefit from a well-balanced 52/48 ratio of front-to-rear weight distribution.

In addition, special focus was given to the development of Rack-mounted Motor Driven Electric



Power Steering (R-MDPS), with a Variable Gear Ratio (VGR), helping to provide high-speed stability and a direct feel at low and medium speeds. These driving qualities are attained while retaining the incremental fuel economy benefits of an electric system over the higher parasitic losses of hydraulic systems.

# HTRAC® AWD AVAILABILITY

The Genesis G80 is offered with a choice of rear-wheel-drive or HTRAC® All-Wheel-Drive (AWD) configurations. The HTRAC AWD system was developed as a multi-mode system, providing an electronic, variable-torque-split clutch with active torque control between the front and rear axles.

The driver-selectable HTRAC Normal and Sport modes help provide confident control in all-weather conditions. The Sport setting gives a more agile feel by sending more available torque to the rear wheels, for a sporty rear-drive dynamic feel when desired. Further, to maximize efficiency, the system can direct more available torque to the rear wheels during steady-state highway cruising for reduced drivetrain frictional losses and noise. This system has a wider range of torque distribution variability than many competitive systems and has been tuned to variable conditions such as straight-line acceleration, medium- and high-speed cornering, and hill-starts. All modes are programmed in concert with Genesis' Intelligent Drive Mode select.

## **POWERFUL 5.0-LITER V8 ENGINE**

The heart of the Genesis G80 is the award-winning 5.0-liter Tau V8 engine producing 420 horsepower at 6,000 rpm and 383 lb. ft. of torque at 5,000 rpm. The Tau V8 engine family has been named to Ward's prestigious Ten Best Engines list three times. With high-pressure direct injection for impressive power, low emissions and superb efficiency, this latest version of the Tau V8 benefits from an optimized intake runner length, enhanced timing chain for reduced friction and NVH, low-torque exhaust manifold, increased compression ratio and upgraded multiple-injection mapping. These enhancements combine to produce a flatter torque curve at lower rpm for even better driveability.

The Tau's high 11.8:1 compression ratio increases thermal efficiency and output. The Tau also has a rigid bed plate for improved block rigidity and lower NVH (Noise, Vibration, and Harshness), as well as camshaft carriers and a roller timing chain to improve valvetrain stability. Even more, this V8 offers Dual Continuously Variable Valve Timing (D-CVVT), a tuned variable induction system, and low-friction coatings on piston skirts. This Tau engine will also run on regular fuel with only a small reduction in peak power, and no negative driving effects, whenever desired.





The Tau 5.0-liter V8 is mated to an eight-speed automatic transmission that offers enhanced shift logic and speed, better acceleration, sport-mode mapping, shifting smoothness and transmission efficiency. All eight-speed transmissions include SHIFTRONIC® manual shift capability with conveniently-located steering wheel paddle shifters to enhance shifting ease.

## **DIRECT-INJECTED LAMBDA 3.8-LITER V6 ENGINE**

The Genesis G80 3.8-liter direct-injected Lambda engine is optimized to deliver a flatter overall torque curve at low rpm for superb drivability. This engine includes a three-stage variable intake system, triangular-pattern fuel injector for improved combustion, an air-gap exhaust manifold for better NVH, and an upgraded cylinder block with a variable-vane 2-stage oil pump for reduced parasitic losses. In keeping with its 5.0-liter V8 sibling, the G80 3.8-liter Lambda engine utilizes direct-injection and produces 311 horsepower at 6,000 rpm and 293 lb.-ft. of torque at 5,000 rpm, delivering the most standard horsepower against key segment competitors. It also has a high compression ratio of 11.5:1 for greater thermal efficiency. The Lambda engine will run on regular fuel with only a small reduction in peak power, and no negative driving effects.

#### **GENESIS G80 STANDARD POWERTRAIN COMPARISION**



	Genesis G80 3.8L V6	Lexus GS 3.5L V6	BMW 528i 2.0L I4 Turbo	Cadillac CTS 2.0 I4 Turbo	Audi A6 2.0T 2.0L Turbo
Horsepower (SAE)	311@6000	306@6400	240@5000	272@5500	252@5000

The 3.8-liter engine also has Dual Continuously Variable Valve Timing (D-CVVT), variable induction, an all-aluminum block and heads, steel timing chain and iridium-tipped spark plugs. Besides horsepower and torque gains, direct-injection technology produces a significant reduction in emissions. All 3.8-liter engines are coupled to the same eight-speed automatic transmission as the 5.0-liter.

In addition, all powertrains feature a driver-selectable Intelligent Drive Mode that allows users to select from four drive modes depending on conditions and driving preferences. Each drive mode alters transmission mapping, throttle responsiveness and stability control, with specific modes adapted to function seamlessly for G80s equipped with HTRAC.

Intelligent Drive Mode	Type of Driving
ECO	Fuel Economy
NORMAL	Balanced
SPORT	Dynamic Focus
SNOW	Low-traction conditions

In addition to the above modes, Genesis features an Emergency Steering Support Mode which automatically changes the setting of electronic stability control (ESC) in the direction suitable for emergency steering, to help avoid frontal crash situations.

# **UNPARALLELED SAFETY TECHNOLOGIES**

The Genesis G80 employs an unrivaled standard suite of active driver safety technologies. These features cover the full spectrum of safety, from driver alertness and focus to total occupant



safety, and even the safety of other drivers on the road.

### **GENESIS G80 STANDARD SAFETY FEATURES COMPARISON**

	2017 Genesis G80	2017 Mercedes E300		2017 Volvo S90
Automatic Emergency Braking	S	S	O	S
Smart Cruise Control (Start/Stop)	S	О	О	S
Blind Spot Detection	S	О	О	О
Lane Keep Assist	S	О	О	S
High Beam Assist	s	О	0	О
Rearview Camera	S	О	О	S

The G80 offers Automatic Emergency Braking (AEB), using sensor fusion technology to help avoid a potential collision or reduce its impact in certain circumstances. With this supplemental system, the G80 will employ automatic braking when it detects another vehicle at an unsafe closing rate of speed. This system uses Smart Cruise Control and the forward camera from Lane Departure Warning (LDW) to provide this extra margin of safety.

Automatic Emergency Braking (AEB) Functional Range			
Speed	Brake Application	AEB Result	
50 - 112 mph	Partial Braking	Collision Warning	
5 - 50 mph	Full Braking	Collision Mitigation	

The G80's Smart Cruise Control (SCC) incorporates stop-start functionality that operates seamlessly with the standard electronic stability control system. This feature allows full function



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down to zero mph in stop-and-go traffic conditions, using the front-grille-mounted radar sensor. SCC enables the G80 to maintain safer, consistent spacing with the vehicle ahead in varied traffic conditions. The system can also help deploy the Automatic Emergency Braking system should an impending collision situation be detected with a vehicle ahead.

In addition, the G80 features Blind Spot Detection (BSD) with Lane Change Assist (LCA) and Rear Cross-traffic Alert (RCTA). The BSD system helps monitor traffic around the car by using radar sensors in the rear bumper to warn the driver of an approaching vehicle in his or her blind spot via an indicator on the side mirrors. If the driver activates the lane change indicator and attempts to change lanes, ignoring warning indicators, BSD additionally issues an audible warning and haptic steering wheel vibrations. In addition, for G80s equipped with the Head's-Up Display, the BSD system indicators also project onto the windshield, nearer to the driver's view of the road, a segment first.

Using the same sensors as BSD, Lane Change Assist (LCA) performs a similar function to help detect vehicles approaching in adjacent lanes at high speeds and warns the driver if a lane change is unsafe. Rear Cross-traffic Alert (RCTA) also utilizes those sensors to scan areas on each side of the car while in reverse to detect any unseen cross-traffic.

From the front, the Lane Departure Warning (LDW) system uses the forward-facing camera to detect lane departure, and will activate a warning signal on the instrument panel while issuing a haptic steering wheel vibration warning. Working in concert with LDW, Lane Keep Assist (LKA) additionally provides a driver-adjustable level of steering assist to help prevent inadvertent lane departure and provides haptic steering wheel vibration feedback.

For extra convenience and safety, the G80 is equipped with High-beam Assist (HBA) to detect both oncoming traffic and vehicles in the same lane ahead at night.

The feature will automatically switch between high-beams and low-beams as appropriate, to reduce the blinding effect on other drivers and re-activate high beams to improve the driver's range of vision. To maximize driving visibility, the G80 also features HID headlights with dynamic auto-leveling that compensates for varying vehicle loads.

To help ensure maximum driver alertness, G80 also benefits from an innovative CO2 sensor control system, located under the glove box. Engineers discovered that occupants start to get drowsy when CO2 levels reached more than 2,000 parts per million, so the ventilation system helps ensure the cabin maintains a CO2 concentration well below that level at all times using



freshly-ventilated ambient air. The system monitors the vehicle's intake of fresh or re-circulated air using a dedicated CO2 sensor.

The G80 also offers a parking assistance system with eight ultrasonic sensors located on the front and rear bumpers. The sensors, along with the rearview camera, help detect how close objects are when parking. Distance is indicated on the in-dash screen and is accompanied by an audible warning tone.

The entire Genesis G80 structure was engineered to meet the Insurance Institute for Highway Safety (IIHS) Top Safety Pick + standard. The G80 is equipped with Electronic Stability Control (ESC), energy-absorbing front seats and nine airbags including advanced dual front airbags, driver's knee airbag, front and outboard rear seat-mounted side-impact airbags, and roof-mounted side curtain airbags for both front and rear outboard seat occupants. Standard LED Daytime running lights improve vehicle visibility and a tire pressure monitoring system (TPMS) provides individual tire pressure readouts.

G80 is brought to a halt by large four-wheel anti-lock disc brakes with Brake Assist and Electronic Brake Distribution (EBD). The 3.8 models have 13.6-inch front rotors, while the 5.0 has even larger 14.2-inch front rotors. Both braking systems use four-piston fixed monobloc calipers for precise braking responsiveness.

# **REFINED & QUIET CABIN**

In pursuit of refined quietness within the cabin, special attention was paid to the increased application of sound-absorbing materials and additional noise-reduction enhancements. Acoustic laminated glass, a low-noise fuel pump, improved cowl bulkhead insulation and sealing, and increased overall bodyshell rigidity to help minimize vibrations all contribute to G80's quiet interior. Insulation of the rear differential helps reduce booming and vibration, resulting in lower audible noise inside the passenger cabin. During acceleration, sound quality has been achieved through mid- to high-frequency noise reduction, and dynamic engine sound improvements were achieved through intake and exhaust system tuning.

# **DRIVER CONVENIENCE TECHNOLOGIES**

The Genesis G80 provides a high level of premium driver convenience technologies focused around human-centered innovation. Other competitors with hands-free trunk-opening technology use a leg-kick sensor under the rear bumper to enable the driver to open the trunk. Instead, the G80's hands-free smart trunk system was designed to open the trunk automatically if the smart key is detected in a pocket or purse within a few feet of the rear bumper for longer than three



seconds. This system allows the driver to keep both feet comfortably on the ground, while waiting by the trunk a few seconds for it to open automatically. It also provides an audible warning and flashing light prior to opening.

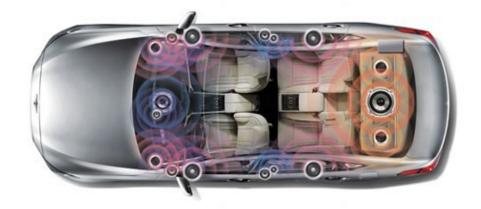
Taking inspiration from aircraft technology, an available Head's-Up Display (HUD) projects a virtual image onto the windshield, enabling the driver to keep his or her eyes on the road using a system of mirrors combined with a TFT LCD display. The system features adjustable brightness to ensure both excellent daytime and nighttime visibility. Driving information such as speed, Smart Cruise Control status, navigation, Blind Spot Detection, Forward Collision Warning, speed limit, Lane Departure Warning and audio system data is projected at a perceived virtual distance approximately seven feet ahead of the driver for maximum legibility while driving.

The G80 also features an electronic parking brake with Automatic Vehicle Hold for ultimate convenience when driving in traffic. Automatic Vehicle Hold automatically holds the G80 at a stop until the accelerator pedal is depressed, such as at a traffic signal or in stopped traffic. The vehicle hold re-engages whenever the vehicle is brought to a complete stop. G80 also includes proximity-key entry convenience with push-button start as standard equipment.

#### MEDIA AND NAVIGATION SYSTEMS

For audiophiles, Genesis G80 offers an ultra-premium, Lexicon® Discrete Logic 7 Surround audio system with 17 speakers, Logic 7 Surround Sound processing and 12-channel digital amplifier with 900-watts of equivalent output, sure to satisfy the most demanding listeners. This system is paired with a premium DIS navigation system featuring a 9.2-inch High Definition display, with 720p high definition and a 64GB Solid State Drive (SSD) for multimedia. It also includes Gracenote® album art, junction view with lane guidance, advanced voice recognition, and music/image/video storage via USB download (approximately 30GB of usable storage).





Additionally, the G80 is available with a 14-speaker Lexicon system with Discrete Logic 7 Surround processing and a 12-channel DSP amplifier with 900-watts of equivalent output. This system is accompanied by G80's standard 8-inch touchscreen navigation packed with integrated technology, including Apple® CarPlay and Android® Auto with additional hands-free and appsupporting software. The G80's smartphone integration provides seamless and intuitive operation of the most commonly used smartphone functions including app-based navigation, streaming audio, voice-controlled search capabilities, plus any approved smartphone apps.

The G80 also features standard Bluetooth, SiriusXM® Radio, HD Radio, and iPod/USB auxiliary media input jacks. The instrument cluster displays utilize high-resolution, electroluminescent TFT LCD technology, with a standard 4.3-inch TFT LCD cluster display, and an available 7.0-inch TFT LCD cluster display.

## ADVANCED INFOTAINMENT SYSTEM

The Genesis G80 advanced infotainment system features:

- Integration with Apple's Siri-powered "Eyes Free" mode
  - Functionality allows owners of compatible vehicles to perform a variety of in-car tasks without taking their eyes off the road
  - SD Navigation
  - Pandora® integration with smartphone
  - SiriusXM® Audio 6 presets (record, play, pause, back)



o SiriusXM® Travel Link (Traffic & Data) complimentary for 3 years

## **GENESIS CONNECTED SERVICES**

All Genesis vehicles offer Genesis Connected Services to bring seamless connectivity directly into the car with technology like Remote Start with Climate Control, Destination Search powered by Google®, Remote Door Lock/Unlock, Car Finder, Enhanced Roadside Assistance, and Stolen Vehicle Recovery. Genesis Connected Services can be easily accessed from the buttons on the rearview mirror and center stack, the web or via an exclusive Genesis owners' smartphone app.

In addition, to further provide owners with another level of luxury convenience and stress-free ownership, all Genesis vehicles will include exclusive customer benefits. From valet service appointments scheduled using the Genesis mobile app, to complimentary maintenance and Genesis Connected Services, the Genesis Experience is designed to provide time-saving conveniences.

- . 3 years/36K miles Complimentary Scheduled Maintenance
- . 3 years/36K miles Complimentary Valet Services
- . 3 years Complimentary Genesis Connected Services including Connected Care, Remote, and Guidance
- . 3 years Complimentary SiriusXM® Travel Link (Traffic & Data)
- . 3 years Complimentary Map Care map updates. Best-in-Industry Warranty with Enhanced Roadside Assistance and Concierge Services

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