



2011 GS 450h Product Information

Note: Items in **bold** are new for 2011

EXTERIOR DIMENSIONS	
Wheelbase	112.2 in.
Overall Length	190.0 in.
Overall Width	71.7 in.
Overall Height (unloaded)	56.1 in.
Tread Width - Front	60.4 in.
- Rear	60.6 in.
Ground Clearance (unloaded)	5.1 in.

INTERIOR DIMENSIONS	
Seating Capacity	5
Headroom - Front	37.8 in. (with moonroof)
- Rear	37.0 in. (with moonroof)
Legroom - Front	43.5 in.
- Rear	36.4 in.
Shoulder Room - Front	56.3 in.
- Rear	55.1 in.
Hip Room - Front	54.4 in.
- Rear	51.4 in.
EPA Passenger Volume	110.5 in.
EPA Cargo Volume	10.6 cu. ft.

WEIGHTS AND CAPACITIES	
Curb Weight	4,134 lbs.
GVWR	5,200 lbs.
Weight Distribution – Percent Front/Rear	51/49
Fuel Capacity	17.2 gal.



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HYBRID POWER SYSTEM		
Type		Series/parallel system with gas engine and electric motors
Total System Power		340 hp (253 kW)
ENGINE		
Type, Materials		V6, aluminum block and cylinder heads
Designation		2GR-FSE
Valvetrain		DOHC 24 valve with dual continuously Variable Valve Timing with intelligence (VVT-i)
Displacement		3.5 liter
Bore x Stroke		3.70 in. x 3.27 in.
Compression Ratio		11.8:1
Horsepower (SAE)		292 hp @ 6,400 rpm
Torque		267 lb.-ft. @ 4,800 rpm
Fuel System		Dual Injection (DI & SFI); Electronic Throttle Control System with intelligence (ETCS-i)
Fuel Requirement		Premium 91 octane unleaded
Emission Certification		SULEV II/Tier 2/Bin 3
ELECTRIC MOTORS		
Motor Generator 1 (MG1)	- Function	Primary generator, engine starter, controls engine speed
	- Type	Permanent magnet motor
	- Max. voltage	650V (DC)
	- Max. output	180 hp (134 Kw)
	- Cooling system	Water-cooled
Motor Generator 2 (MG2)	- Function	Drives rear wheels; regenerative braking
	- Type	Permanent magnet motor
	- Max. voltage	650V (DC)
	- Max. output	197 hp (147 Kw)
	- Cooling system	Water-cooled
HYBRID BATTERY PACK		
Type		Sealed Nickel Metal Hydride (Ni-MH)
Cell Quantity		240 cells (6 cells x 40 modules)
Cell Type		Plastic case
Nominal Voltage		288V (can be boosted to 650 volts with power circuit)
Power Output		35 Kw



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DRIVETRAIN	
Layout	Front engine, rear-wheel drive
Transmission Type	Electronically-controlled Continuously Variable Transmission (ECVT) with two-stage torque multiplication, power and snow modes
Designation	L110
Differential Ratio	3.769

CHASSIS AND BODY	
Body/Frame	Unitized steel body/frame structure
Suspension	<ul style="list-style-type: none"> - Front: Double wishbone with high-mount upper arms, coil springs, gas-filled shock absorbers, stabilizer bar - Rear: Multi-link with high-mount upper arms, coil springs, gas-filled shock absorbers, stabilizer bar - Variable Suspension: Adaptive Variable Suspension (AVS) with driver-selectable shock absorber damping
Steering	<ul style="list-style-type: none"> - Type: Electric Power Steering (EPS): Vehicle speed-sensing progressive power rack and pinion with electric power assist; Variable Gear Ratio Steering (VGRS) integrated with Vehicle Dynamics Integrated Management (VDIM) - Overall Ratio: 12.4 - 17.21:1 - Turns, Lock to Lock: 2.7-3.2 - Turning Circle (curb to curb): 36.7 ft.
Brakes	<ul style="list-style-type: none"> - Type: Anti-lock Braking System (ABS); Electronic Brake-force Distribution (EBD); Brake Assist (BA), Electronically Controlled Brakes (ECB), TRAC and VDIM system - Front: 13.1 in. ventilated discs - Rear: 12.2 in. ventilated discs



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CHASSIS AND BODY- CONTINUED	
Anti-lock Braking System	Four channel, four sensor
Wheel Size/Type	18 x 8 JJ five-spoke aluminum alloy (with chrome-like finish on center spokes)
Tire Size/Type - Optional	245/40R18 Z-rated summer tires 245/40R18 all-season run-flat tires
Spare Tire and Wheel	Temporary spare, except when equipped with Active Stabilizer
Tire Brand(s)	Dunlop, Bridgestone, Yohokama
Tire Pressure Monitor System (TPMS)	Direct sensing type

PERFORMANCE	
0-60 mph Acceleration (mfr. results)	5.2 seconds
30-50 mph Acceleration (mfr. results)	2.7 seconds
0-1/4 Mile Acceleration (mfr. results)	14.0 seconds
Top Track Speed (mfr. results – electronically limited)	131 mph
EPA Estimated Fuel Economy* (City/Hwy/Combined)	22/25/23
Coefficient of Drag (C _d)	0.27

*2011 EPA MPG estimate. Actual mileage will vary.

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STANDARD EXTERIOR FEATURES

Overall Exterior Styling/Body Design

- Aggressive front lower valance with integrated fog lamps
- Blue “Hybrid” badging on front and rear logo, engine cover
- Color-keyed exterior mirrors with turn signals
- High-Intensity Discharge (HID) headlamps
- Hybrid badging located on lower rear door molding
- Large, exposed dual exhaust with stainless steel tips
- LED rear combination lamps with unique clear lens design
- Lower hood and overall height; wider rear tread creates sporty appearance
- Modern exterior design featuring classic elements including long hood and pulled-back cabin with “slingshot” rear side windows
- Shark fin antenna
- Ultraviolet and infrared ray-reducing tinted glass for all windows
- Water repellant front door glass

Body Structure and Paint

- Exterior colors: Black Opal Mica (hybrid exclusive), Opaline Pearl, Obsidian, Mercury Metallic, Matador Red Mica, Starfire Pearl
- Flat underbody for improved aerodynamic and noise performance
- Galvanized rust-resistant steel
- Lightweight asphalt sheets for interior noise reduction; additional sound-absorbing asphalt sheets behind the instrument panel
- Narrow and precise body gaps
- One piece color-keyed Super Olefin Polymer front and rear bumpers

Convenience Features

- Auto on/off headlamps with 30 second delay-off feature
- Auto-dimming electrochromic side mirrors
- Headlamp washers
- Heated electrochromic auto-dimming outside rearview mirrors with power-retract and reverse tilt-down functions and puddle lamps
- Intuitive Park Assist (IPA) system
- One-touch open/close moonroof
- Power trunk closer
- Rain-sensing automatic wipers with mist cycle
- Rear window defogger with auto-off timer
- SmartAccess keyless entry and push-button engine start system

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STANDARD INTERIOR FEATURES

Interior Trim

- Assist grips: two front and two rear
- Carpeted floor mats (carpeted trunk mat is optional)
- Cut pile carpeting
- Fabric sun visors and headliner
- Full door trim with integrated armrests and foldable front storage pockets
- Fully carpeted trunk with integrated hooks for cargo net
- Regency leather-trimmed seats available in Parchment, Black or Light Gray
- Stainless steel "Lexus" stamped scuff plates on all door sills
- Three wood trim selections: Golden Birds-Eye Maple (with Parchment leather interior); Red Walnut (with Black leather interior); Dark Gray Birds-Eye Maple wood trim (with Light Gray leather interior) and brushed-aluminum shift-plate surround
- Wood and leather-trimmed shift knob
- Wood and leather-trimmed three-spoke steering wheel with audio and multi-information display controls
- Wood trim on door switch plate

Seats

- 10-way power driver's and front passenger's seats (power adjustments: fore-and-aft slide; fore-aft recline; front and total vertical height; lumbar support; four-way manual headrest adjustment, fore-and-aft and height)
- Fold-down rear center arm rest
- Heated and ventilated front seats
- Height adjustable headrests for all seating positions, including rear center
- Seatback pockets behind front seats

Instrumentation and Controls

- Combined LCD climate control function and temperature display
- Drop-down panel located left of steering wheel conceals switches for: outside mirrors; fuel lid opener; trunk release; combination meter brightness control; odometer/trip meter reset; headlamp washer; rear sunshade; park assist; AFS off; interior lights
- Electronic digital odometer and twin trip meters
- Electronic digital quartz clock
- Relocated fuel lid opener; trunk release
- Seven-inch multi-information touch screen with rear back-up camera
- Steering wheel audio and multi-information display controls
- Three-pod analog instrument cluster with Electro Chromatic Device (ECD) variable transparency glass feature for high visibility in varied light conditions with revised instrument panel font and appearance, combination meter

Convenience Features

- Auto-dimming electrochromic interior rearview mirror
- Bluetooth[®] wireless telephone technology
- Cruise control
- Electrochromic rearview mirror with compass (**without Navigation system**) and HomeLink[®] programmable garage door opener

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STANDARD INTERIOR FEATURES – CONT.**Convenience Features – cont.**

- Electric trunk and fuel filler door releases with valet lockout feature for trunk
- Individual front and rear reading lamps
- Integrated, retractable coat hooks
- Lexus Memory System to control driver's seat (except lumbar), outside mirrors and steering wheel
- Lexus Personalized Settings (LPS) allows certain electronic settings to be tailored to owner preference
- One-touch open/close moonroof with tilt/slide and jam protection
- Power door locks with anti-lockout feature and driver door two-turn unlock system
- Power tilt-and-telescopic steering wheel with automatic tilt-away
- Push button engine start
- Rear A/C vents on the back of center console
- Retained accessory power feature for operation of power windows and moonroof
- Soft-touch automatic climate control with dual-zone separate driver's and front passenger's temperature control, auto-recirculation feature with smog sensor and micro dust/pollen removal filter
- Sun visors with illuminated vanity mirrors

STANDARD AUDIO SYSTEM**Lexus Premium Audio System**

- 10 speakers
- AM/FM/six-disc CD changer with MP3/WMA capability
- Aux and iPod®/USB input plugs
- Digital signal processing with Automatic Sound Levelizer (ASL)
- Electronic crossover network
- Integrated XM Radio receiver (complimentary 90-day trial subscription available)
- Rear glass-imprinted radio antenna with separate FM diversity antenna
- Theft-deterrent design

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STANDARD SAFETY AND SECURITY

Safety

- Adaptive Front-lighting System (AFS)
- Automatic Locking Retractor (ALR)/Emergency Locking Retractor (ELR) seat belt function on all seating positions except driver (ELR only)
- Brake pedal regression construction to help reduce rearward movement of brake pedal in order to reduce impact on driver's lower body during a severe frontal collision
- Daytime Running Lights (DRL)
- Driver and front passenger airbag Supplemental Restraint System (SRS) with occupant-detecting front passenger airbag cutoff mechanism (designed to prevent the front passenger airbag from inflating when the front passenger seat is vacant)
- Driver and front passenger knee airbag SRS
- Electronically Controlled Brakes (ECB)
- Force-limiting seat belts with pretensioners for driver, front passenger and outboard rear seats
- Four-channel, four-sensor Anti-locking Braking System (ABS) integrated with Brake Assist (BA), VSC and Electronic Brake-force Distribution (EBD)
- Front and rear energy-managing crumple zones
- Front and rear side-curtain airbag Supplemental Restraint System (SRS)
- Seat-mounted side airbag SRS for front and rear seats
- Three-point belts for all seating positions, including rear center position, and height adjustable front shoulder belt anchors
- Tire Pressure Monitor System (TPMS); direct type
- Vehicle Dynamics Integrated Management (VDIM) with cut-off switch integrates and manages ECB, ABS, BA, EBD, VSC and Electronic Power Steering (EPS)
- Vehicle Stability Control (VSC) system

Security

- Access-linked illuminated entry: puddle lamps, interior lights and engine start button ring illuminate when doors are unlocked (remains illuminated for 15 seconds or until door is opened)
- Engine immobilizer and remote window-down feature
- Entry system with lock, two-stage unlock, trunk open and "panic" features, volume-adjustable confirmation tone and rolling code technology
- Headlight off delay feature: After locking vehicle, headlights remain illuminated for a certain period of time before automatically shutting off
- Safety Connect[®] with Automatic Collision Notification, Stolen Vehicle Location, Emergency Assist Button, and Enhanced Roadside Assistance (complimentary one-year trial subscription included)
- Vehicle theft deterrent system



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STANDARD MECHANICAL FEATURES

- Brake override system
- Computer controlled ignition system with separate knock sensors for each cylinder bank, and Electronic Spark Advance (ESA) to optimize ignition timing
- Dual exhaust system for maximum power
- Fluid-filled front engine mounts to reduce noise and vibration

FACTORY OPTIONS

- Active Power Stabilizer with All-Season Run-Flat Tires (without spare)
- All-Season Run-Flat Tires (with spare tire)
- Lexus HDD Navigation System
 - Bluetooth® hands free phone and phonebook download capabilities
 - Lexus Enform® with SafetyConnect®: Automatic Collision Notification, Stolen Vehicle Location, Emergency Assist Button (SOS), Enhanced Roadside Assistance, Destination Assist, and eDestination (complimentary one-year trial subscription)
 - Lexus Insider™
 - Rear back-up camera
 - Voice command casual-language voice recognition system
 - XM NavTraffic®/Weather™ and Sports and Stocks (complimentary 90-day trial subscription)
- Mark Levinson® Premium Surround Sound system with HDD Navigation
 - 14 speakers with 7.1-channel speaker architecture
 - 330 watts of continuous power at less than 0.1% Total Harmonic Distortion (THD)
 - CD and DVD audio/video capability
 - Discrete 5.1 Surround Sound
 - Ultra-low crossover distortion
 - Bluetooth® hands free phone and phonebook download capabilities
 - Lexus Enform® with SafetyConnect®: Automatic Collision Notification, Stolen Vehicle Location, Emergency Assist Button (SOS), Enhanced Roadside Assistance, Destination Assist, and eDestination (complimentary one-year trial subscription)
 - Lexus Insider™
 - Rear back-up camera
 - Voice command casual-language voice recognition system
 - XM NavTraffic®/Weather™ and Sports and Stocks (complimentary 90-day trial subscription)
- Pre-Collision System (PCS) with Dynamic Radar Cruise Control
- Rear spoiler