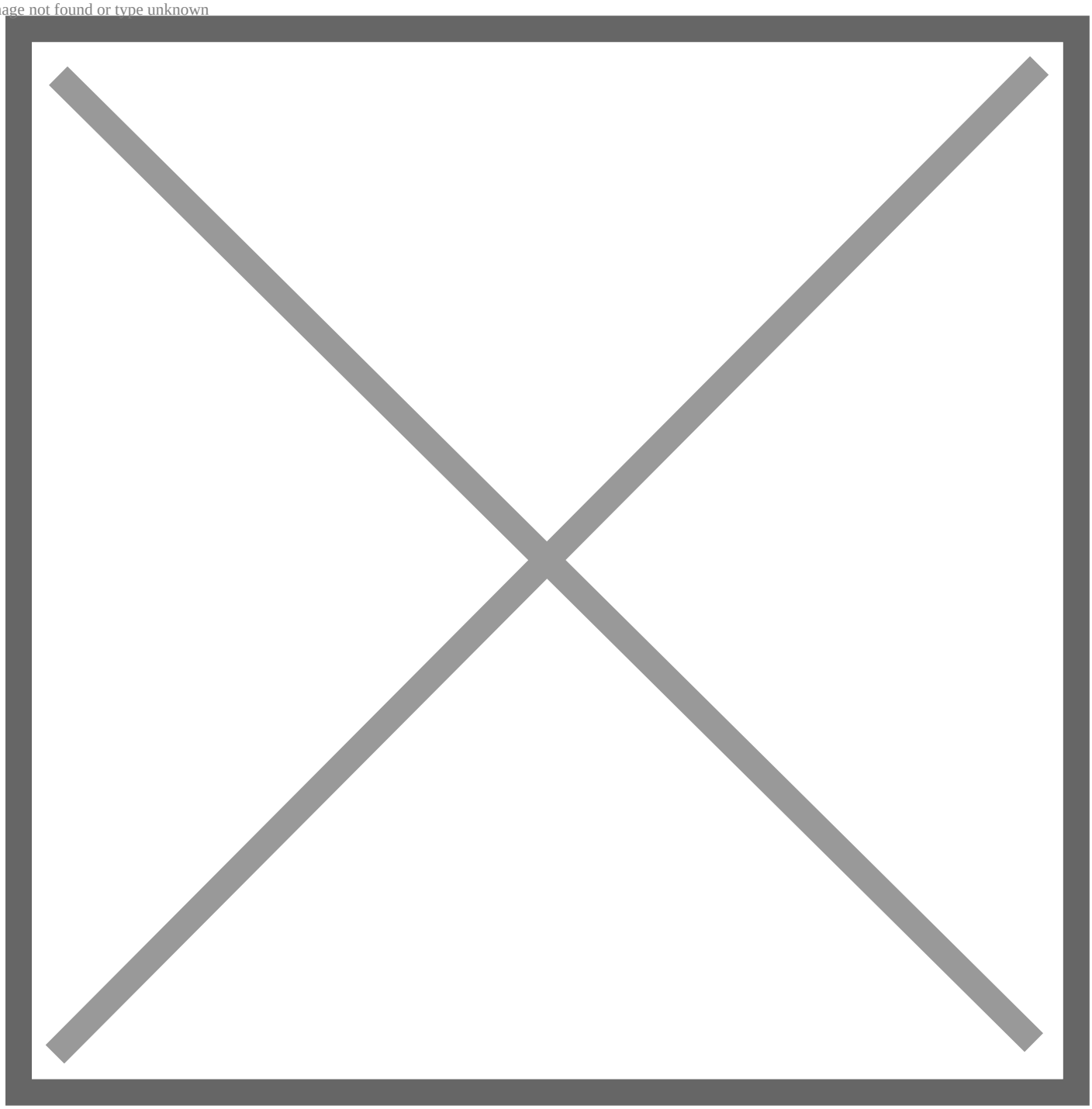
Lexus Introduces Second-Generation GX 460 Luxury SUV for 2010

November 23, 2009

Image not found or type unknown



2010 Lexus GX 460 078

- New 301-hp V8 with Six-Speed Transmission
- Standard 10 airbags and Available Pre-Collision System
- More Versatile Interior with a New Standard Power Fold Third Row

Lexus has introduced an all-new, second-generation GX 460 luxury utility vehicle for 2010 that is more powerful, more efficient, quieter and more luxurious than the GX 470 model it replaces. The 2010 GX 460 achieves all of these significant developments while its 10 standard airbags and the available Pre-Collision System help enhance safety.

Positioned between the brand's LX 570 premium luxury utility vehicle and unibody-based RX models, the 2010 GX 460 combines "right sized" midsize packaging with family-friendly comfort and premium craftsmanship. The GX 460 has a standard seven-passenger configuration. Once again built with rugged body-on-frame construction, the 2010 GX 460 is also equipped with full-time four-wheel drive and the advanced Kinetic Dynamic Suspension System (KDSS) to help provide both exceptional on-road ride and handling and true off-road capability.

The 2010 Lexus GX 460 is powered by an all-new 4.6-liter V8 that is both more powerful and more efficient than the 4.7-liter V8 it replaces. The new engine produces 301 horsepower and 329 lb.-ft. of peak torque, and is teamed to a new six-speed automatic transmission with sequential shift. Combined city/highway fuel economy is improved by 13 percent to an EPA-estimated 17 mpg (vs. 15 mpg in the 2009 GX 470) — better than other V8 luxury utility vehicles and competitive with some six-cylinder models. The GX 460 has an EPA-estimated 15 mpg city and 20 mpg highway.

With the same vehicle footprint as the GX 470 it replaces, the 2010 GX 460 provides a more versatile interior. The second row seat slides 4.1 inches fore/aft to maximize passenger and cargo carrying ability. The foldable and reclining second row seats also feature a 60/40 walk-in function to access the standard power fold-flat third row seats. The rear door window uses a flip-up glass panel for added convenience.

Luxury is enhanced in the 2010 GX 460 by an even quieter cabin, as well as new additional standard features and options. The 2010 GX 460 features standard heated and ventilated front seats for example. Among the new luxury options are semi-aniline leather, a heated steering wheel, and heated outer second-row seats. New multimedia features – both standard and optional – expand onboard family entertainment choices.

Engine/Transmission/Drivetrain/Performance

The 2010 GX 460 takes its model designation from an all-new 4.6-liter V8 engine. The new 32-valve DOHC engine features aluminum alloy cylinder heads and block with dual Variable Valve Timing with Intelligence (VVT-i), which controls valve timing and overlap on both the intake and exhaust camshafts to optimize power, fuel efficiency and emissions. (The previous 4.7 had VVT only on the intake camshafts.) Peak torque is also up for the new 4.6, now 329 lb.-ft. at 3,500 rpm vs. 323 lb.-ft. at 3,400 rpm for the 4.7-liter engine.

The new 4.6-liter V8 is teamed to a six-speed electronically controlled automatic transmission, compared to a five-speed automatic with the previous 4.7-liter, benefiting both performance and fuel economy. The new transmission fits in the same space as the previous five-speed and features a higher top gear ratio. The new powertrain helps make the 2010 GX 460 feel more responsive in everyday driving and quieter than the previous model. The 2010 GX 460 retains the same 6,500-lb. towing capacity as the GX 470 offered.

The GX 460 comes equipped with standard full-time four-wheel drive using an electronically controlled transfer case and a TORSEN® torque-sensing center differential. It also offers a low range for off-road driving. The TORSEN differential distributes power 40:60 under most driving conditions and changes the ratio as needed based on steering input and wheel slip.

The ability to change to a 30:70 ratio during steering maneuvers helps enhance vehicle tracking through curves. If the rear wheels spin, the center differential can change the ratio to 50:50 to help control the slippage. The TORSEN differential also helps make the GX 460 less prone to slippage caused by sudden changes in road-surface conditions, such as driving through a puddle or over an ice patch. The rear differential has also been strengthened for 2010.

Chassis/Body/Suspension/Tires/Brakes

The 2010 Lexus GX 460 is one of the few premium brand luxury utility vehicles that can deliver genuine trail driving capability. Combining that capability with Lexus luxury and on-road performance makes it even more exceptional. Lexus studied vehicle usage of current owners and found that many use their GX models for family hauling during the week and vacations and camping trips on weekends. They often tow a boat or watercraft and sometimes drive to areas with unpaved and rugged trails.

Like the previous GX 470, the 2010 GX 460 has robust body-on-frame construction and does not compromise on- or off-road performance; the high-strength chassis and dynamic suspension control technology support both.

The available Adaptive Variable Suspension (AVS) with three modes: Normal, Sport and Comfort, and independent front suspension delivers a smooth on-road ride without compromising rugged off-road capabilities. The 2010 GX 460 rides on larger standard 18-inch alloy wheels with 265/60 R18 tires, versus 17-inch wheels for the 2009 GX 470 model.

The power rack-and-pinion steering system helps make it easier to maneuver the GX 460 in tight spaces. Rear Adjustable Height Control (AHC) enhances the vehicle's flexibility in a wide range of driving situations.

Kinetic Dynamic Suspension System (KDSS)

KDSS is standard on the GX 460, and enhanced for 2010 with steering and yaw sensors. By adjusting roll resistance provided by the front and rear stabilizer bars, KDSS can reduce maximum body-roll angle by as much as 50 percent to help enhance both on-road handling response and off-highway capability.

Using hydraulic cylinders acting on each stabilizer bar and linked by a pressure-sensing valve, KDSS reduces the degree of roll stiffness provided by the stabilizer bars in response to changing road conditions and driver inputs. Because KDSS allows the stabilizer bars to disengage in certain situations like off-road driving, the nominal stiffness of the bars can be notably increased to help reduce body-tilt and improve on-road handling.

During on-road cornering, when both front and rear cylinders are compressed, no fluid flows in the system and the stabilizer bars work conventionally to help reduce body lean. In off-road driving situations, KDSS allows the wheels on each axle to move with a larger degree of side-to-side independence, helping to minimize any tendency for wheel lift. When the GX 460 encounters an uneven surface, one compressed cylinder causes fluid to flow between the front and rear cylinders, allowing the stabilizer bars to move freely. That action increases wheel travel and articulation and helps to equalize wheel loading.

Crawl Control and Downhill Assist Control

In addition to KDSS, the 2010 Lexus GX 460 offers optional Crawl Control a new technology that helps make driving off-road easier. The Crawl Control feature automatically modulates the throttle and brake, allowing the driver to concentrate on steering. Crawl Control is also useful for helping to free the vehicle from sand, mud or

snow.

When the transmission is shifted into low range, Crawl Control regulates engine speed and output, along with braking force, to propel the vehicle forward or in reverse at one of five low-speed settings. This allows the driver to maintain focus while steering over very rough level ground or steep grades, without having to also modulate the throttle, or brake, pedals. Crawl Control also actuates the front and rear "virtual" locking differentials to help reduce tire slippage and optimize chassis behavior.

Without canceling Crawl Control, the driver can reduce vehicle speed by braking or adjusting the crawling speed with a selector switch. Hill-start Assist Control (HAC) provides additional control for off-road driving by helping to keep the vehicle from rolling back while starting on a steep incline or slippery surface.

Downhill Assist Control (DAC) is designed to augment the low-speed descending ability of the transmission's low range by helping to hold the vehicle to a target speed with no intervention from the driver. Active traction control (A-TRAC) provides the traction benefits of having locking front and rear differentials, but with lower weight. The system can apply the brake to a slipping wheel, while transferring torque to the wheels with better traction.

A steering angle indicator in the gauge panel shows the driver at a glance which direction the front wheels are pointing – useful for situations where this can be difficult to discern, such as driving off-road or when parking.

Safety/Security Features

The GX 460, like all Lexus models, is equipped with an array of dynamic safety systems. Vehicle Stability Control (VSC) helps keep the GX 460 going on its intended course by detecting front- and rear-wheel slide during cornering and attempting to control either condition with a combination of torque intervention and individual wheel braking. Electronic Brake-force Distribution (EBD) utilizes the anti-lock brake system (ABS) and distributes proper brake force between the front and rear wheels according to driving conditions and wheel-load.

Brake Assist (BA) is designed to determine if the driver is attempting emergency braking, and if the driver has not stepped firmly enough on the brake pedal to engage ABS, the system supplements the applied braking power.

The Supplemental Restraint System (SRS) includes a class-leading standard 10 airbags: dual front and side airbags; driver and front passenger knee airbags; second-row seat-mounted side airbags, and roll-sensing side curtain airbags covering all two or three rows. The front airbags are designed to inflate according to collision severity. The roll-sensing side curtain airbags are designed to deploy when a severe tilt angle, roll or lateral G-force is detected.

The optional Pre-Collision System (PCS) can help reduce collision damage. The package includes Dynamic Radar Cruise Control, which uses millimeter-wave radar to measure and help maintain a pre-set distance from a vehicle traveling ahead. The multi-information display within the combination meter will show a car icon with the selected following distance. If, based on a variety of inputs, PCS determines that a collision is unavoidable, the system preemptively retracts the front seat belts and pre-initializes BA so that increased braking will be applied the instant the driver depresses the pedal.

In addition, an available Pre-Collision System with Driver Attention Monitor and Lane Departure Alert (LDA) is now available for the 2010 GX 460. Using two small cameras mounted at the front of the vehicle that work in conjunction with millimeter-wave radar, the system is sensitive enough to detect certain nonmetallic objects. The Driver Monitor System uses a third camera, mounted on the steering column, monitors the orientation of the

driver's face.

If the camera detects that it appears the driver is not looking directly ahead for a few seconds or more, and if an obstacle is detected ahead, then it alerts the driver, first with a warning chime and a flashing light. As the car gets closer to the obstacle, PCS can begin to gently apply the brakes on its own.

To help assist the driver in maneuvering around the obstacle, the system reprograms the steering ratio, amplifying the intensity and quickness of the steering response. At the same time, PCS automatically retracts the front seatbelts and prepares the brake system to respond with full force when activated by the driver in anticipation of a possible impact.

LDA alerts the driver of unintentional lane departure by sounding a warning buzzer and displaying an alert. It does not steer the vehicle independently and it requires the driver to maintain active steering control.

New for 2010, active front headrests move up and forward almost instantly in the event of certain lower speed rear-end collisions when the force of the occupant's body is applied to the seat back. Also new, the available Adaptive Front lighting System (AFS), illuminates a turn or curve as the driver steers into it and includes high intensity discharge (HID) headlights. The available Pre-Collision System with Driver Attention Monitor Package includes new Intelligent High Beams with headlamp cleaners automatically adjust the high beams to avoid blinding drivers in oncoming vehicles. The cleaners help ensure optimal headlight performance in all weather conditions.

Luxury/Comfort/Convenience
The GX 460 presents a luxurious passenger environment with the fit and finishes expected in a Lexus. Standard features include: 10-way power-adjustable, heated/ventilated front seats; automatic climate control; leather trimmed seats and surfaces; steering wheel audio controls; rain-sensing windshield wipers; power moonroof; a wood and leather-wrapped steering wheel and shift knob; memory system for the driver's seat, steering wheel position and outside mirrors; and an overhead console with integrated HomeLink® transmitter.

Equipped for family multimedia entertainment, the 2010 GX 460 comes standard with a Lexus Premium nine-speaker audio system with integrated iPod® control and XM® Radio receiver. Bluetooth® capability includes music streaming and hands free phone.

A rear back-up camera is standard on the 2010 GX 460. The camera provides the driver a view of what its lens can detect behind the vehicle when engaged in reverse gear, projecting the image on the standard 4.2-inch multi-information display, or the optional navigation system's LCD display.

Luxury Options
Lexus makes personalizing the GX 460 easy for 2010 by offering a Convenience Package and a Comfort Plus Package, as well as making many of the packages' features available as stand-alone options. The Convenience Package includes electrochromic exterior mirrors with power retract, and Intuitive Parking Assist. The Comfort Plus Package includes semi-aniline leather; heated second-row outer seats; wood-trimmed steering wheel and shift knob; and three-zone automatic climate control.

The new-generation hard disc drive (HDD) navigation system is a standalone option for 2010 and features Voice Command casual language-based voice recognition system and Bluetooth phonebook download to enhance owner convenience. The available Mark Levinson Premium Audio system is the platinum standard for OEM mobile audio and for 2010 features 17 speakers, up from 14 in the 2009 model. The available Rear Seat Entertainment (RSE) system now includes two LCD screens, one in each of the front seat backrests. Three-zone automatic climate control for enhanced third-row passenger comfort is also available as a standalone option.

The newly available Wide-view Front and Side Monitor, which debuted on the 2009 LX 570 premium luxury utility vehicle, is designed to enhance visibility in tight settings, such as parking garages, and to help the driver view blind spots when pulling out of parking spaces into traffic, and stopped at intersections and T-junctions. The new available Intuitive Parking Assist helps the driver detect obstacles at the front, rear or corners of the vehicle and helps guide the GX into street or garage parking spaces.

Exterior Design
Lexus designed the 2010 GX 460 to combine function and elegance, with unmistakable brand identity rooted in the L-finesse design language. The overall effect conveys the vehicle's full-range capability and luxury credentials. A key goal of the designers was to have the vehicle create the impression of being sculpted from a single block of metal.

The distinctive grille features three horizontal bars and, upon closer inspection, intricate detail and texture that conveys renowned Lexus attention to detail. Distinctive character lines on the hood and a chrome surround frame the grille. The front bumper features standard integrated fog lamps.

Functional design elements include low-profile roof rails and an acoustic insulation windshield that help reduce wind noise. Tasteful luxury touches abound, including green-tint UV protection front glass, privacy glass on rear windows, and running board courtesy lamps.

Interior Design
The 2010 GX 460 provides the luxury appointments and workmanship of a Lexus sedan. Reduced drivetrain noise, especially in the 3,000-4,000 rpm range, combined with new sound insulating, dampening and absorbing materials used throughout the frame and body, provide an even quieter cabin than before. Adopting a feature from the flagship LS sedans, the GX 460 uses one-touch power windows with motors that reduce speed near the closure point to minimize the sound of the window closing.

The instrument panel is designed to appear as if formed from a single metal bar and is arranged to place all vital controls within easy reach. Optitron® instrument gauges are a traditional and functional Lexus design element. Leather-trimmed seat facings, headrests, armrests, door trim, shift knob and steering wheel also add to the Lexus touch. For 2010, expanded wood trim, instrument panel stitching and soft-touch surfaces enhance the luxury feel. The GX offers three interior colors for 2010: Ecru, Black and Sepia.

Lexus Enform™ with Safety Connect™
Two all-new telematics features are available on the 2010 GX 460 by subscription. Safety Connect™ is standard on all vehicles, while Lexus Enform™, is available on navigation-equipped vehicles. Complimentary one-year trial subscriptions to Safety Connect are included on all purchases of new Lexus vehicles, while complimentary one-year trial subscriptions to Lexus Enform with Safety Connect are included with all purchases of new Lexus vehicles equipped with navigation. The Lexus Enform and Safety Connect response centers operates 24 hours a day, 7 days a week – every day of the year.

Safety Connect, the cornerstone of the services, is standard on all GX 460 vehicles and offers four safety and security features: Automatic Collision Notification, Stolen Vehicle Location, Emergency Assistance (SOS), and Enhanced Roadside Assistance, which adds GPS data to the already included warranty-based Lexus roadside service.

Lexus Enform, available on navigation-equipped vehicles, includes all of the Safety Connect features and builds upon them with the premium services of Destination Assist and eDestination. Destination Assist agents are available via the on-board cellular equipment and can help drivers find a specific address, a business by name, or

a type of business (e.g., gas station, movie theater, etc.), and even Zagat®-rated restaurants, and then send the coordinates to the navigation system for routing.

With eDestination, drivers can go online via LexusDrivers.com to save and sort destinations in up to 20 folders, each holding as many as 10 destinations. Then drivers can send the locations—up to 200 at a time—to their vehicle, where they will be available for download into the navigation system. Online, drivers can create personalized location names (e.g., "Favorite sushi," "1 PM Appt," "Kids' doc," etc.) and even list notes about their saved locations, all helping them see exactly the information they choose in the vehicle.

Lexus Insider™, a complimentary, opt-in service is also available without a subscription on all Lexus Enform-equipped vehicles. This feature offers in-vehicle audio casts that provide owners access to useful vehicle tips and event information, and insights into exclusive owners' benefits – all designed to further enhance the Lexus experience.

XM – Beyond Radio

As part of the Lexus Enform navigation platform, the GX 460 is factory-ready for a variety of innovative services including XM NavTraffic®, XM NavWeatherTM and XM® Sports and Stocks.

XM NavTraffic informs the driver of current traffic conditions with real-time traffic displays. When traffic problems are detected the navigation system alerts the driver so that the route can be adjusted.

XM Sports and Stocks features in-vehicle updates on sports and stocks so drivers can stay connected to their favorite teams and investment data while on the road. XM Sports provides game results and schedules for up to five personally selected North American national league sports teams while XM Stocks supplies data for up to 10 personally selected stocks. After inputting their selections, drivers can access the reports either by the navigation system, or by using the voice command system, adding a new level of flexibility.

XM NavTraffic and XM NavWeather are available via individual XM subscriptions while XM Sports and Stocks is included with an XM Radio subscription. All XM services offer complimentary 90-day trial subscriptions.

Warranty

All new Lexus vehicles come with a 48-month/50,000-mile basic limited warranty with roadside assistance for 48 months/unlimited miles. Powertrain and restraint system coverage is provided for 72 months/70,000 miles. Corrosion perforation protection is covered for 72 months, regardless of mileage.

###