

Lexus IS Sedans Get Revised Styling And Handling For 2009

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The Lexus IS sedans showcase revised styling and gain enhanced interior function and improved handling for 2009. New suspension and steering tuning improve stability and control, and the IS 250 model, in both rear-wheel drive and all-wheel drive models, gets the advanced Vehicle Dynamics Integrated Management (VDIM) system. Already standard on the IS 350 model, VDIM integrates all of the car's dynamic-control systems to provide superior handling and traction.

The IS grille and front bumper cover are revised, as are the rear bumper cover and taillight clusters. New turn signals are now integrated into the exterior mirrors, and the 17-inch and 18-inch alloy wheels feature new designs for 2009. On rear-wheel drive models, the 18-inch wheels can now be equipped with all-season tires.

Inside the IS Lexus enhanced form and function with a revised instrument panel center cluster. The paddle shifters now function in D mode, and some controls have been changed for improved convenience. The rear seat headrests are now foldable to aid rear visibility. New interior colors include Ecu (replacing Cashmere) and Light Gray (replacing Sterling), both accented by new contrast stitching on the seats, door panels, and console lid.

Among luxury brands, Lexus alone offers a unique choice in the entry-luxury segment: The rear-wheel-drive and all-wheel-drive IS models emphasize the brand's sportier side, and the front-wheel-drive ES 350 is focused on ultimate comfort.

Engine/Transmission/Drivetrain/Performance

The 2008 IS line offers three models: The rear-wheel-drive IS 350, the rear-drive IS 250 and an all-wheel drive IS 250. The IS 250's 2.5-liter V6 engine delivers 204 horsepower at 6,400 RPM and 185 lb.-ft. of peak torque at 4,800 rpm. The IS 350's 3.5-liter V6 delivers 306 horsepower at 6,400 RPM along with 277 lb.-ft. of torque at 4,800 rpm and can accelerate the car from zero-to-60 mph in just 5.3 seconds. Both engines use aluminum cylinder blocks and heads and employ dual Variable Valve Timing with intelligence (VVT-i), which controls timing on both the intake and exhaust camshafts.

A direct-type fuel-injection system provides a cooling effect in the cylinders, enabling the high compression needed to extract maximum energy from the fuel. Aside from its larger displacement, the 3.5-liter V6 differs chiefly in that it augments the direct fuel injection with port fuel injectors. In light- and medium-load conditions, these additional injectors help produce a precise burn, increasing power and efficiency. A dual exhaust system reduces backpressure at higher engine speeds. All 2009 Lexus IS models meet the Ultra-Low Emission Vehicle II (ULEV II) certification

An advanced six-speed automatic transmission with steering-wheel-mounted paddle shifters is standard on the IS 350 and the IS 250 all-wheel drive model. The rear-wheel drive IS 250 comes standard with a crisp-shifting six-speed manual transmission, with the paddle-shift automatic offered as an option.

Chassis/Body/Suspension/Tires/Brakes

The Lexus IS is engineered to provide for a sporty driving experience. Its double-wishbone front suspension features a high-mount upper control arm, and the lower arm uses a large, liquid-filled bushing at the rear to minimize vibration and harshness. The multilink rear suspension emphasizes precise control of geometry in all dynamic conditions, helping make the Lexus IS sport sedans ultra-stable for confident driving. High-strength steel and aluminum suspension components reduce unsprung weight, helping the IS remain stable on bumpy surfaces and improving ride comfort.

The sophisticated monotube shock-absorber design utilizes multi-leaf linear control valves to optimize damping force, plus internal rebound springs for firmer body control without degrading ride comfort. Available sport suspension with 18-inch wheels further enhances handling response.

The IS 250's available all-wheel-drive system provides extra traction in diverse driving conditions. A planetary-gear center differential and a wet-type multi-disc clutch control front-to-rear power distribution. The system normally sends 70 percent of available power to the rear wheels to provide the performance advantages of a rear-drive car and will vary the torque-split ratio from 30:70 to 50:50 in response to driving conditions and driver input. The AWD system's electronic-control strategy takes inputs such as steering and throttle angle from driver activity combined with vehicle signals from wheel speed and yaw rate sensors.

Combining input from a variety of sensors, VDIM is designed to anticipate the onset of a vehicle skid or slide and help correct the situation with a combination of braking and throttle control. VDIM integration provides precise management for Electric Power Steering (EPS), Vehicle Stability Control (VSC), Anti-lock Braking System (ABS), Brake Assist (BA), Electronic Brake force Distribution (EBD), and engine torque (via the electronically controlled throttle). The driver can disengage VSC via the "Trac off" switch, which can be desirable in certain situations.

The Electric Power Steering (EPS) helps to provide linear steering response, precise control and excellent straight-line stability. The vehicle-speed-sensitive system eliminates parasitic loss from a hydraulic pump, and reduces weight and complexity. Both IS models feature a four-wheel disc brake system, with the IS 350 equipped with larger ventilated front and rear rotors. In addition, the IS 350's aluminum

four-piston front calipers aid in heat dissipation and stopping power and reduce unsprung weight. Standard all-season performance tires measure 225/45R17 in front and 245/45R17 for the rear (225/45R17 on IS 250 AWD).

Available as a stand-alone option or as part of the Sport Suspension, summer 225/40R18 front tires and 255/40R18 rear tires reward the enthusiast driver with even higher cornering grip. The IS rear-wheel-drive models offer the sporty "X Package" option that combines sport suspension and five-spoke, 18-inch alloy wheels with a boldly styled front-lip spoiler and sport pedals.

Safety/Security Features

Passive-safety technology in the Lexus IS begins with a reinforced passenger compartment that helps protect the occupants with front- and rear-crush structures. Seatbelt pre-tensioners and force limiters are used for the front and outboard rear seats.

In addition to the dual-front airbags and front seat-mounted side airbags, the Lexus Supplemental Restraint System (SRS) for the IS includes side-curtain airbags that extend from A-pillar to C-pillar, and a knee airbag for both the driver and the front passenger. Advanced dual-stage front airbags are designed to deploy at one of two speeds, according to impact force. The driver's front airbag also includes an extra low stage designed to deploy based, in part, on the seat's position on its track. The front passenger airbag features two chambers, creating an indentation in the center impact area that helps to disperse the force of the bag.

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 set distance from a vehicle traveling ahead. PCS relies on the radar sensor to detect obstacles in front of the car, and a PCS computer with sensor inputs from vehicle speed, steering angle and yaw rate is designed to determine whether a collision is unavoidable. In such a situation, PCS preemptively retracts front seat belts and pre-initializes Brake Assist so that increased braking will be applied the instant the driver depresses the pedal.

The available High Intensity Discharge (HID) headlamps with Adaptive Front-lighting System (AFS) helps to illuminate a curve as the driver steers into it. The rear back-up camera, included with the optional navigation system, automatically projects an image of what its lens can detect behind the car onto the navigation screen when the transmission is in reverse gear.

The optional Intuitive Park Assist (IPA) system uses ultrasonic sensors to detect objects close to the car's front and rear bumpers, alerting the driver and showing distance to objects in the multi-information display within the speedometer. When any IS model is also equipped with the optional navigation system, information on objects detected is shown in greater detail on that system's seven-inch touch screen display.

Luxury/Comfort/Convenience

Standard amenities for the IS models include 10-way power front seats, dual-zone automatic climate control with rear-seat vents and a pollen filter (plus a smog filter on IS 350), power moonroof with one-touch open/close and seven open-position settings, manual tilt-and-telescoping steering wheel, all power windows with automatic up/down feature and jam protection, and an auto-dimming rear-view mirror. The IS 250 AWD model in addition features standard heated, leather-trimmed seats.

A multi-function switch allows the driver to set an adjustable speed warning and an adjustable RPM shift light in the tachometer. The SmartAccess keyless entry and push-button-start ignition allows the driver to keep the access fob in a pocket or purse. The standard HomeLink® programmable garage door opener also operates home security devices and other systems.

The standard Lexus Premium Audio System features a six-disc, in-dash CD changer, 194 watts of total power and 13 speakers. Automatic Sound Levelizer (ASL) maintains consistent sound levels at varying vehicle speeds. A convenient mini-jack in the center console enables connection of an iPod® or other digital music player.

Luxury Options

A Premium Plus Package that is optional for all IS models includes wood trim, perforated leather seating trim and heated and ventilated front seats. The comprehensive "Sport" and "Luxury" option packages also include three-position memory for seats, steering wheel and outside mirrors, rain-sensing wipers, power tilt and telescopic steering column and auto-dimming outside mirrors.

Like all Lexus models, the IS offers its own version of the Mark Levinson® Premium Surround Sound Audio system, which is available as a stand-alone option or in conjunction with the optional DVD touch-screen navigation system. This 14-speaker audio system features discrete 5.1 multi-channel playback with 7.1-channel speaker architecture. Its 10 amplifier channels provide 300 watts total output at 0.1 percent total harmonic distortion (THD). The Mark Levinson system plays conventional CDs and DVDs, plus MP3/WMA-formatted CDs. DVD movies can be viewed on the optional navigation system's color seven-inch touch screen when the parking brake is engaged.

Exterior Design

The Lexus IS sedans show a strong family resemblance to the Lexus GS models while establishing their own distinctively sporty identity. A notably wide stance and long wheelbase, coupled with tightly drawn bodywork, give the IS an athletic, road-hungry yet sophisticated style. Carefully shaped body contours, a subtle ducktail-curved trunk lid and "air kick" tail lamps contribute to a low 0.28 coefficient of drag (Cd).

The sound of powerful V6 engines will resonate with driving enthusiasts, yet all vehicle occupants will appreciate Lexus' ability to minimize undesirable noises. A highly rigid body structure is the starting point for controlling noise intrusion. Strategically placed noise-suppression materials, including special window and door seals, acoustic windshield glass and asphalt sheeting, take over from there. No detail has been overlooked, down to the sound-absorbing sun visors.

Interior Design

The IS models' luxurious cabin features intelligently designed displays and controls that are easy to see and use. Bright, clear Optitron gauges and smartly integrated metallic trim, or available Bird's-eye Maple trim, help create an elegant yet sporty environment. Premium interior materials and meticulous attention to detail convey the Lexus identity.

Lexus offers a refreshing approach to designing controls as compared to some competitors that are making controls more complex to learn and distracting to use. One example is the multi-information display located within the speedometer. This versatile feature integrates a trip computer that provides outside temperature, driving range, average fuel consumption, average fuel consumption since refueling (per tank), current fuel consumption, and average speed. The display also includes an oil-maintenance reminder and system warnings, all grouped in one convenient location.

Additional features are added to the multi-information display depending on selected options. When an IS model is equipped with Dynamic Radar Cruise Control, the display can show a car icon with the selected following distance. When equipped with Intuitive Park Assist (IPA), the display can show a car icon with the location and distance of objects detected near the bumpers.

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.

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