TENTH-GENERATION TOYOTA COROLLA OFFERS STANDOUT PERFORMANCE, QUALITY, ECONOMY AND SAFETY

Forty years after Toyota introduced the first Corolla to American drivers, the all-new, 10th-generation Corolla introduced for the 2009 model year again provides customers with a high-quality, high-MPG choice.

Corolla has long been synonymous with Toyota quality, style and value, earning a distinction as one of the most trusted cars in America. Virtually every aspect of the Corolla has been improved in the new model, offering more safety features, comfort and performance while still returning up to 35 MPG in highway driving. Since 1966, more than 30 million Corollas have been sold worldwide.

Performance and Efficiency

The 2009 Corolla is offered with a choice of fuel-efficient four-cylinder engines, a new 1.8-liter and a re-engineered 2.4-liter. The Corolla Standard, LE and XLE are equipped with the all-new 1.8-liter DOHC four-cylinder engine, which produces 132 hp at 6,000 rpm and 128 lb-ft of torque at 4,400 rpm. Dual VVT-i (Variable Valve Timing with intelligence) controls valve timing on both the intake and exhaust camshafts to help optimize performance and fuel economy. Internal components are optimized to reduce friction, while valve-train components are downsized to provide a compact valve layout.

A five-speed manual transmission comes standard with the 1.8-liter engine; a four-speed automatic Electronically Controlled Transmission (ECT) also is available. Its torque converter uses flex lockup for enhanced fuel efficiency. Uphill/downhill shift control selects the proper gear for conditions and helps provide moderate engine braking during downhill driving.

The sporty Corolla XRS exclusively features the 2.4-liter four-cylinder engine. Every engine part was changed to reduce friction and ensure smooth, quiet operation. The 2.4-liter produces 158 hp at 6,000 rpm and 162 lb-ft of torque at 4,000 rpm. A balance shaft suppresses vibration, and oil jets help piston cooling. The exhaust system is engineered for reduced backpressure and improved performance.

The 2.4-liter engine transmits power through the five-speed manual transmission and is available with a five-speed automatic. Like the four-speed automatic paired with the 1.8-liter engine, the five-speed uses a torque converter with flex lockup for increased fuel efficiency, as well as uphill/downhill shift control. The five-speed automatic can be

manually shifted by moving the shift lever to the left from its “D” position into the “S” position, then pushing forward for upshifts and back for downshifts. An indicator inside the combination gauge shows the gear selected.

Handling and Ride

The 2009 Corolla is built around a stiff body structure that relies on high tensile-strength steel, gussets and crossmembers for its strength, rigidity and lightweight construction. Front suspension is by compact, rigid L-arm-type MacPherson strut with a stabilizer bar. The Corolla XRS is equipped with a front sport strut tower brace, as well. The Corolla’s torsion beam rear suspension employs a coil-over-shock arrangement that allows efficient packaging along with secure handling and outstanding ride comfort.

Brakes consist of 10.8-inch vented discs up front for all models, with 10.2-inch solid rear discs on XRS. A new rack and pinion steering assembly is lighter and more rigid than in the previous model. An electric power-assist steering system uses a compact motor, speed reducer and torque sensor built into the steering column. The system varies the amount of assistance according to engine rpm and vehicle speed. The result is appropriate weight and responsiveness at higher speeds, and light effort at low speeds. Electric power steering reduces parasitic losses to the engine, thereby aiding fuel economy. It is also environmentally efficient because it does not require hydraulic oil. Additionally, a direct tire pressure monitor system comes standard on every Corolla grade.

Safety

The 2009 Corolla is engineered to efficiently absorb and disperse impact energy throughout the entire body structure. Strengthened door beltline reinforcements help share the impact load, which in side impacts is also directed to the underbody.

The new design addresses the issue of collisions between compact and full-size cars. Toyota's Anti-lock Braking System (ABS) is standard on all Corolla models for 2009. Vehicle Stability Control (VSC) with Traction Control (TRAC) and off switch are available as options.

All Corolla models are equipped with standard advanced frontal airbags and front seat-mounted side airbags, plus front and rear curtain side airbags. Seatbelt pretensioners cinch the seat belt at the time of a frontal collision, and the dual-stage force limiter helps limit the seat belt force applied to the chest of the passenger. Front seats integrate active headrests. If the vehicle is struck from the rear with sufficient

force, a cable-actuated mechanism in the active headrest moves the headrest upward and forward to help limit the movement of the occupant's head.

Comfort and Convenience

The all-new Corolla upholds a 40-plus year heritage for providing outstanding value in standard equipment. The Standard grade features P195/65 R15 tires; a heavy duty rear window defogger; satellite radio-capable AM/FM/CD audio with four speakers; air conditioning with air filter; driver and front passenger airbags; front seat-mounted side airbags and side curtain airbags; intermittent windshield wipers; two 12-volt power outlets; daytime running lights; black manual folding power mirrors; tilt and telescopic steering wheel; 60/40 split folding rear seats; and much more.

The LE grade adds power windows with driver-side one-touch-down power door locks and color-keyed manual-folding power mirrors. In addition to features on the LE grade, the XLE grade adds P205/55 R16 tires with full wheel covers; variable intermittent wipers; remote keyless entry; Optitron gauges; center console with sliding armrests; wood grain trim; and driver and passenger rear-seat pockets.

The sporty Corolla S grade builds on the Standard grade, adding 205/55 R16 tires with full wheel covers; color-keyed front and rear underbody spoilers; fog lamps; front sport seats; leather-wrapped steering wheel with audio controls; black headlamp housing; chrome exhaust tip; and AM/FM/CD satellite capable audio with six speakers.

At the top of the 2009 Corolla line, the XRS grade adds a rear deck spoiler; alloy wheels with 215/45 R17 tires; sport strut tower brace; VSC with TRAC and off switch; XRS scuff plate; leather-trimmed shift lever and knob; cruise control; and interior chrome accent.

Options

Options available on Standard Corolla include cruise control; AM/FM/six-disc CD changer with MP3/WMA playback capability; satellite radio (subscription required) and six speakers; and an All Weather Guard package. The LE grade also offers 16-inch alloy wheels and remote keyless entry.

In the XLE, the customer can add a tilt and slide moonroof, VSC with TRAC and off switch, 16-inch alloy wheels and 205/55 R16 tires; plus a JBL audio system with AM/FM/six-disc CD changer with MP3/WMA playback capability, XM® satellite and eight speakers. All audio systems have an auxiliary audio jack and Automatic Sound Levelizer (ASL), which adjusts volume levels according to vehicle speed. An available navigation

system for the XLE, a first for Corolla, features a large, easily visible screen.

Options for the S grade include an available Power Package, Sport Package, and leather-trimmed seats, steering wheel and shift knob. The XRS can be equipped with the S option packages, as well as the JBL Audio, navigation system and XM satellite radio with NavTraffic capability. Leather-trimmed seats, steering wheel and shift knob are also available in the XRS grade.

Exterior Design

The new-generation Corolla's design, created with input from styling studios in Turin, Italy, strikes a decidedly sportier profile than before while maintaining the exterior footprint and interior roominess of the previous model. The Corolla provides room for five, and its trunk has enough space for four golf bags. The new-generation Corolla is less than a half-inch longer than the previous version, less than 2.5 inches wider, and approximately one inch shorter, on the same 102.4-inch wheelbase.

The sporty profile is the result of pulling the A-pillar forward and the C-pillar rearward, which also enhances aerodynamic performance for optimal fuel efficiency. Character lines sweep from the hood toward the A-pillars and carry back from the top edge of the front bumper into the subtle yet muscular front-fender flares. Other character lines carry rearward at the level of the door handles, emphasizing the Corolla's low profile, and sweep down from the C-pillar and along the top edges of the rear fenders.

Just above the dense mesh grille that helps form the now familiar Toyota T-face, an interlayer of anti-chipping coating is used to help minimize paint damage from stone chips. Below the grille, a low air intake emphasizes the car's greater width. The side-view mirrors are enlarged for improved visibility; heated side-view mirrors are available. The standard body kit on S and XRS models lends a sporty look while also enhancing aerodynamics. The kit includes a front spoiler, rocker moldings, upper and lower rear spoilers, and for improved air management under the car, engine undercovers.

Toyota designers focused much attention on reducing wind noise, a top demand for customers in all segments today. The A-pillar is specially profiled for this purpose. The windshield is made from acoustic glass and the window frame structure is designed to reduce vibration of side glass. The new windshield molding, wiper blade covers and shape of the cowl air intake louvers are all designed to minimize noise. Windshield washer nozzles are partially shielded by the rear edge of the hood, instead of atop the hood or cowling. Inside, the carpeting is designed to better absorb noise.

Interior Design

The Corolla maintains similar headroom, legroom and shoulder room of the previous model, but is redesigned to provide improved comfort, usability and storage. The new driving position is tailored to a wider range of driver heights than before. A tilt and telescope steering wheel in all models makes it easier for taller drivers to find a comfortable position. Reshaped front seats provide improved comfort and support are also integrated to accommodate a greater range of occupant heights.

The doubled-browed instrument panel bezel contains the tachometer, speedometer, engine-coolant temperature gauge and fuel-level gauge. The speedometer contains a digital odometer/trip meter and shift indicator. Toyota's Optitron gauges, which are illuminated with bright white light and red needles, are featured on Corolla XLE and XRS. Gauges in the other models have red needles illuminated with amber light.

In addition to the basic three-spoke wheel, there are two available steering wheel types – a three-spoke leather-trimmed wheel with audio switches, and that same wheel with both audio and cruise control switches. Bluetooth® and voice-recognition switches are also available. The improved air-conditioning system features a pollen filter.
A multi-information display, featured on XRS and XLE models, presents a variety of information, including current fuel mileage; clock; outside temperature gauge; average fuel mileage and fuel consumption gauges; current driving range; average speed; and elapsed time.

The rear bench seat offers space and comfort for three adults. Changing the exhaust system routing contributed to a near-flat rear floor, enhancing comfort for the middle passenger. New rear seatbelt guides also improve comfort.

A variety of useable, easy-to-reach storage spaces add convenience and usability inside the Corolla. These include center console side pockets; a storage box above the usual glove box; front and rear door pockets that can safely hold 20-ounce bottles; a console box with a large-capacity main tray and a smaller accessory tray; an overhead console useful for storage of sunglasses or garage-door openers; and a rear-seat center armrest with an integral drink holder.

Three interior color schemes are available: Ash, Dark Charcoal and Bisque. The Bisque is paired with Ash Brown trim. Seat fabric varies by model grade. A leather-trim interior is available on the S and XRS grades.

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