

# Toyota Revs Up Avalon Attitude with First-Ever TRD Model for 2020; Twisty Roads, Beware

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**PLANO, Texas (September 1, 2019)** – The Toyota Avalon, which marks its 25th year for 2020, takes its name from an island of mythical and mystical legend. If the island were real, perhaps it might have the kind of twisting, coast-hugging roads with breathtaking scenery that would beckon a drive in the first-ever Toyota Avalon TRD.

The fifth-generation Avalon, introduced for 2019, came on strong with a striking new coupe-like design built around the advanced Toyota New Global Architecture (TNGA).

Much more than a new body structure, TNGA brings together new approaches to engineering, design, production and materials. The mechanical manifestation of that process is the TNGA platform, which forms the basis for Avalon and several other new-generation Toyota models.

The high-strength TNGA is the ideal foundation for an exceptionally athletic luxury-sport sedan, and the Avalon XSE grade offered the first glimpse of such capability. Now, for 2020, the Avalon TRD – which joins the 2020 Camry for the debut of the first-ever Toyota sedans to wear the TRD badge – is for the driver who wants even more aggressive road grip.



The Avalon TRD combines a track-tuned chassis and a 301-hp V6 engine with head-turning design in a comprehensively equipped model grade based on the content in the XSE grade. The new model exemplifies TRD's holistic approach to performance development, which it has applied to all types of competition vehicles for 40 years. Like its Camry TRD sibling, the Avalon TRD is as sophisticated and comfortable in its road manners as it is quick and agile.

That's not to say the new-generation Avalon has sacrificed any of its renowned comfort and luxury. On the contrary, the Avalon remains Toyota's flagship sedan, with the TRD essentially sharing top-of-line billing with

the Touring and Limited grades. The fifth-generation Avalon mixes a bevy of Toyota-firsts such as standard Apple CarPlay compatibility and available Dynamic Auxiliary Turn Signals, plus available aluminum and authentic Yamaha wood cabin accents. Athletic handling imbues the Avalon with a sporty demeanor while preserving its luxury feel. This combination is made especially vivid with Adaptive Variable Suspension (AVS), also a Toyota first and made standard in the Touring grade model.

The new TRD joins Avalon's four other grades: XLE, XSE, Limited and Touring. The XLE, XSE and Limited grades are also available as Avalon HV (Hybrid Vehicle) models that have fuel efficiency unheard of in this class. All grades of the 2020 Avalon are equipped with the Toyota Safety Sense-P (TSS-P) suite of active safety systems, which includes:

- Pre-Collision System with Pedestrian Detection (PCS w/PD)
- Dynamic Radar Cruise Control (DRCC)
- Lane Departure Alert with Steering Assist (LDA w/SA)
- Automatic High Beams (AHB)

Blind Spot Monitor (BSM) with Rear Cross Traffic Alert (RCTA) and Intelligent Clearance Sonar (ICS) with Rear Cross Traffic Braking (RCTB) are also available.

All Avalon models are equipped with a standard backup camera. In addition, the available Bird's Eye View Camera with Perimeter Scan uses front-, side-, and rear-mounted cameras to display a composite view as seen from above. All 2020 Avalon models are equipped with 10 standard airbags and Toyota's Star Safety System, which includes Enhanced Vehicle Stability Control, Traction Control, Electronic Brake-force Distribution, Brake Assist, Anti-lock Braking System, and Smart Stop Technology.

### **TRD: A Racy Personality for the Road**

The bold "TRD" graphics on off-road-capable Toyota SUVs and pickup trucks reflect the company's involvement with off-road racing. Now, Toyota has begun introducing TRD-tuned passenger cars to reflect the motorsports division's 40-year heritage of tarmac racing. The Toyota Racing Development trophy case marks IMSA GTO and GTP championships, open-wheel racing success including the Indy 500 and, today, a nearly unbeatable combination for NASCAR victories.

Embodying TRD's holistic approach to production-vehicle performance enhancement, the Avalon TRD is as sophisticated and comfortable in its road manners as it is quick and agile. It's powered exclusively by Toyota's direct-injected, 301-horsepower DOHC 3.5-liter V6 teamed with the Direct-Shift eight-speed automatic transmission featuring sport mode and paddle shifters. A specially TRD-tuned cat-back dual exhaust system conveys a more aggressive idle and acceleration sound.

TRD went through the Avalon chassis to sharpen agility while preserving ride compliance. "Track-tuned" means exactly that. The engineers developed this special Avalon's dynamic characteristics through extensive testing at Toyota Arizona Proving Ground, TMC Higashi-Fuji Proving Ground (Japan), and MotorSport Ranch (Texas).

Thicker underbody braces increase torsional rigidity, and unique coil springs lower the Avalon TRD by 0.6 inches for a reduced center of gravity.

The chassis is further enhanced with stiffer coil springs and stabilizer bars for increased roll stiffness of 44% in the front and 67% in the rear. A unique set of TRD shock absorbers complete a chassis enhancement that adds to body control, handling agility, and steering precision. The 19 x 8.5-inch matte-black alloy wheels typify the thoroughness of TRD chassis tuning, reducing unsprung mass by 18 pounds compared to the 19-inch wheels on

the Avalon XSE grade.

The front brakes are larger with 12.9-inch diameter rotors and dual-piston calipers, compared to 12.0-inch rotors and single piston calipers on the Avalon XSE. Brake performance is tuned to provide more direct feedback.

The TRD treatment takes the Avalon's bold design and makes it almost sinister looking.

The exclusive aerodynamic body kit, which includes the front splitter, side aero skirts, trunk lid spoiler, and rear diffuser, blends bold styling elements while also improving high speed vehicle stability. Available exterior colors include Supersonic Red (exclusive to TRD), Wind Chill Pearl, Celestial Silver Metallic and Midnight Black Metallic. Red pinstriping on the aero body elements complete Avalon TRD's styling makeover.

Inside, Avalon TRD features Black Sport SofTex-trimmed heated front seats with Ultrasuede inserts and red accents. It also gets red-stitched TRD embroidered headrests, a leather-wrapped steering wheel with red stitching, red seatbelts, a shift knob with an embossed TRD logo, and unique TRD floor and trunk mats.

### **Flagship, Defined?and Refined**

For the Avalon's fifth generation design, Toyota steered its flagship sedan down a more emotional road. That's what made it the ideal starting point to be one of the first TRD sedans. In fact, two keywords guided Avalon's development: Authenticity and Exhilaration, with a philosophy of *Technical Beauty* driving the exterior design.

*Technical*, which aligns with Authenticity, represents purpose and performance – tangible elements of the sedan's style. *Beauty*, which aligns with Exhilaration, represents emotional reaction to Avalon's taut lines and sleek, coupe-like silhouette, the latter made possible by the low-slung TNGA platform architecture.

Built on a two-inch longer wheelbase than its predecessor, the Avalon is also lower by 1.0-in. overall and wider by nearly as much. The sedan's expressive shape reflects the mixture of a performance-focused personality, the invigorating driver experience, and a premium, spacious cabin. Unique, never-before-used stamping methods enabled use of sculpted forms and complex shapes. One example is the way in which Avalon's door handles blend with the bold character line in the door.



Form follows function in Avalon's design. The lateral vents at the front, the rear spoiler, and the substantial underbody panel coverage help optimize aerodynamic efficiency and give Avalon a 0.27 coefficient of drag. That translates into higher fuel efficiency and lower wind noise. Connected, three-dimensional "aero fin" style LED taillamps emphasize the vehicle's width and "planted" stance.

Differences between the Avalon grades are clear. A dark gray front grille with chrome border identifies the XLE and Limited versions. Both also feature machined-silver-colored LED headlight bezels, body-color rearview mirror housings, and exclusive-design wheels ranging in diameter from 17 to 19 inches, plus chrome badges and

dual exhaust tips.

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XSE and Touring show a sportier bent with a piano-black mesh grille, machine-finish and gloss-black wheels, as well as black outer mirror housings, headlight bezels, trunk lid spoiler and badging. For XSE, Touring and new TRD, a grade-specific lower diffuser is set above and between quad tailpipes.

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Avalon colors include Opulent Amber, Harbor Gray Metallic Celestial Silver Metallic, Midnight Black Metallic, Parisian Night Pearl, Wind Chill Pearl, and Ruby Flare Pearl.

## **Lighting the Way**

Avalon's available LED Vision Tech headlamps on XLE and XSE grades use a cluster of three reflectors for Daytime Running Lights (DRL) and low- and high-beam functions, providing exceptional light disbursement including in low-visibility weather.

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For Limited and Touring, each headlamp is comprised of thin lighting modules – one for low beam, another for high – plus, an Adaptive LED Cornering Lamp and a Dynamic Auxiliary Turn Signal. (Each is a Toyota First.) The innovative cornering lamps enhance visibility around corners and curves. The lamp fades in and out for seamless activations and transitions and adds 60-percent more foreground width to the low beam's pattern. The Dynamic Auxiliary Turn Signal bolsters visibility to other drivers by activating each auxiliary diode sequentially.

Technical Laser Ablation, a technology used for the DRLs and parking lights, creates a specialized texture from intricate patterning made by a laser-ablated, metallized inner lens. Avalon's Limited and Touring grades' taillights and Dynamic Auxiliary Turn Signals also implement laser ablation.

## **Cockpit Meets Cocoon**

Avalon's fluency in luxury and exhilaration isn't restricted to its exterior design. From inside the cabin the TNGA platform's thin pillars and broad windshield lend to the wide, open feeling for passengers in the front and back. Rear seat roominess, long an Avalon hallmark, is illustrated by measurements in three categories: shoulder room (57.1 in.), leg room (40.3 in. for V6; 40.4 in. for HV), and headroom (37.5 in. for V6; 37.1 in. for HV).

Elegance emerges from simple and purposeful placement of amenities and controls, along with authentic materials including Yamaha-sourced wood trim and aluminum pieces for arm rests accents, center console, and instrument panel. Soft-touch materials abound, along with piano-black and satin chrome-finish trim elements. Rear passengers are treated to air vents, available seat warmers, and USB charging ports.

Differentiation of materials between grades is minimal; engineered wood trim is found on XLE, while Limited features real wood trim. Aluminum pieces adorn the TRD, Touring and XSE grades' cabins. A mix of perforated SofTex and Ultrasuede wraps seating in Touring and XSE; the XLE's SofTex-trimmed seats feature artistic vertical stitching, and Limited adds a special perforation and two-color stitches – both unique to Toyota – plus a distinctive quilt pattern.

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Limited's leather seating surfaces are available in Cognac, beige, or gray; XSE and Touring can be had in either Gray or Black Perforated Ultrasuede; XLE receives a trio of color offerings with Gray, Beige, or Black Softex. TRD features exclusive Black Sport SofTex-trimmed heated front seats with Ultrasuede inserts and red accents.

The Avalon deftly integrates advanced tech with elegantly crafted luxury. A slim center stack houses the 9-inch Toyota Audio system, displaying audio and navigation and also integrating the automatic climate control system. Satin chrome-finish trim surrounds the center cluster panel that "floats" above the instrument panel.

Below the panel, passengers have easy access to the slide-open eBin containing a 12-volt plug and the standard wireless Qi mobile device charger (optional for XLE). A trio of USB power ports (for five total) is located inside the center console. A part cup-holder, part phone cradle located atop the front console, sits adjacent to the gear shift lever. Supple padding lines both sides of the console's lower tunnel at knee height.

A three-spoke steering wheel features smooth, satin chrome-finish accents and conveniently placed multifunction controls. The steering wheel can be wrapped in a two-tone leather-surface when outfitted in Cognac or Gray interior colors.

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In the driver's line of sight, a 7-inch Multi-Information Display (MID) shows vehicle information, turn-by-turn navigation, and various vehicle settings (including those pertaining to TSS-P functions and available Intelligent Clearance Sonar, Blind Spot Monitor with Rear Cross-Traffic Alert, and Head-Up Display).

HV grades receive the same central 7-inch screen, but to its left is a Hybrid System Indicator showing the vehicle's regeneration status in CHG (charge), ECO (economy), or PWR (power) in real time. The tachometer/hybrid powertrain meter and speedometer on XSE, Limited, and Touring are surrounded by 3D Glow Rings. A chrome ring borders the entire meter cluster on all grades.

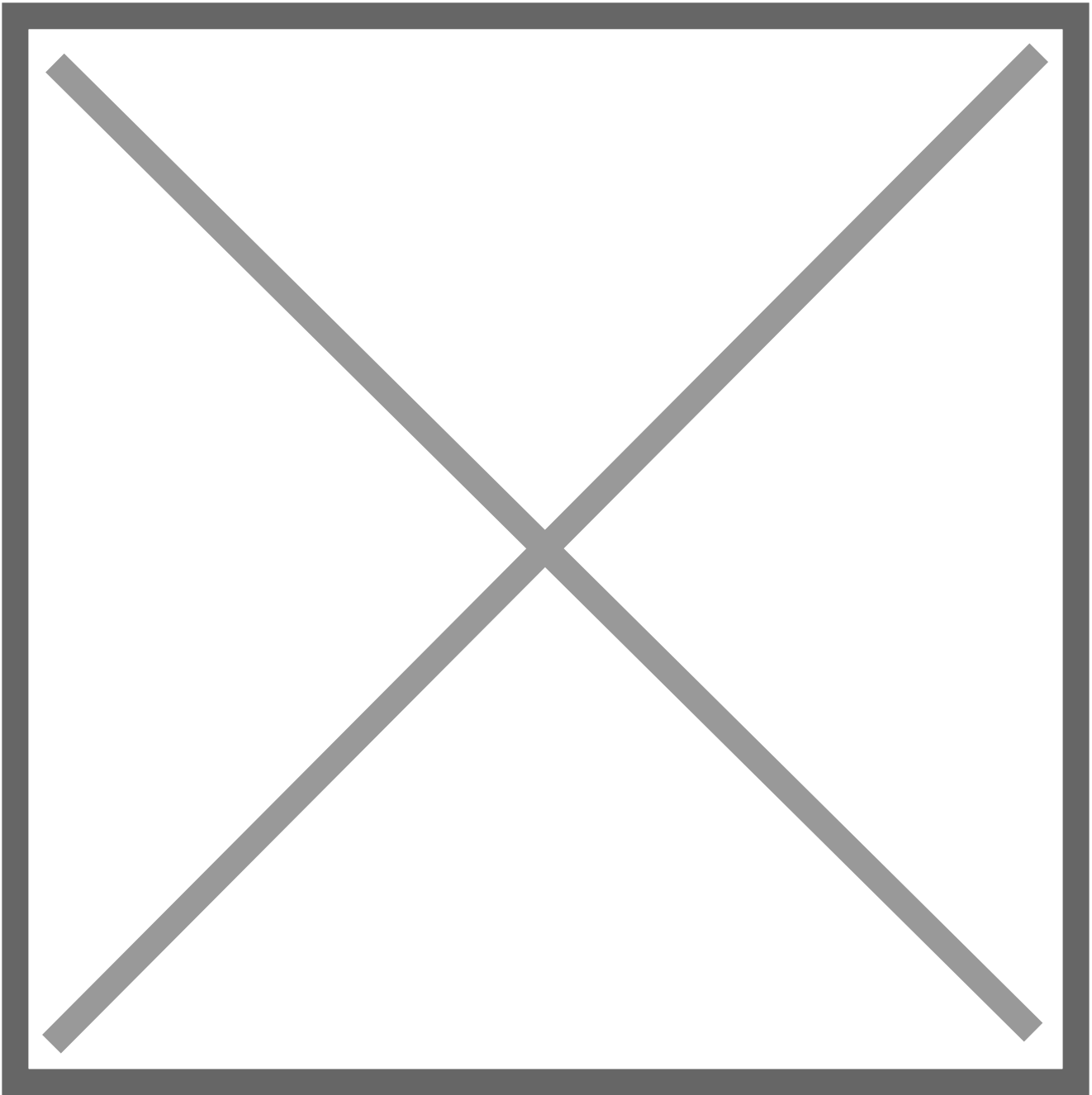
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Limited and Touring's standard color 10-inch Head-Up Display (HUD) – the largest in the segment – projects important info, such as vehicle and engine speeds, turn-by-turn directions, audio settings, and drive mode onto the lower portion of the windshield.?

### **Start Your Engine – with a Smartwatch**

Avalon XLE, XSE and TRD grades have a standard Audio Plus 8-speaker system with Connected Navigation Scout GPS Link App and App Suite Connect, featuring new in-vehicle third-party applications. The system's 9-inch capacitive touchscreen uses smartphone-like pinch and flick gestures. In addition, Apple CarPlay is standard on all grades. Toyota Premium Audio with JBL, standard in Limited and Touring and optional for others, features a 14-speaker sound system, the most speakers in the segment. Both systems can be equipped with embedded Dynamic Navigation.





Connected Services include: Safety Connect and Service Connect with a 3-year trial period, and Remote Connect with a 6-month trial. Wi-Fi Connect Powered by Verizon trial with up to 2GB within 6 months is subscription-free.

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Avalon also features Toyota's first integration of smartwatch or Amazon Alexa-enabled device connectivity, as part of Toyota Remote Connect. The latter allows drivers to lock/unlock the car's doors, start the engine, or check fuel level, all from the convenience of an Apple Watch, compatible smartwatch or Amazon Alexa-enabled device. It's voice controllable and compatible with select Android or Apple devices.

**Toyota Avalon U.S. Concert Tour**

For the top-of-line Toyota Premium Audio with JBL, engineers benchmarked the best audio systems two vehicle classes up from Avalon. The result: A 14-speaker, 1200-watt, precisely-tuned 7.1-channel surround sound music experience that features:

- 12-channel next-generation, Class-D HID12 amplifier
- Four 1-inch freestanding JBL horn tweeters
- One 10-inch dual voice coil subwoofer
- 6-inch wide-dispersion speakers in the rear doors
- 8×9-inch wide-dispersion woofers in the front doors
- Five 3-inch wide-dispersion midrange speakers throughout
- Clari-Fi technology restores crucial audio quality to digital formats
- Quantum Logic Surround (Toyota First) creates a 7.1-channel surround-sound listening experience from any signal source
- Sealed inner doors for cleaner, more powerful bass

### **Premium Mid-Size Power, Small-Car Efficiency**

The new-generation Avalon amplifies hustle, athleticism, and fuel-efficiency with two TNGA powertrains: a 3.5-liter V6 and Toyota Hybrid System II (THS II).

The 24-valve, DOHC 3.5-liter V6 engine is equipped with the D-4S fuel injection system, which combines direct injection with supplemental port fuel injectors. In addition, the engine uses a specially-developed VVT-iW (Variable Valve Timing-intelligent Wide) variable valve timing system for the intake, with VVT-i on the exhaust. The VVT-iW system can switch the engine to the Atkinson cycle, which reduces pumping losses by delayed closing of the intake valves, helping to reduce fuel consumption.

Power output for the V6 is 301 horsepower at 6,600 rpm and 267 lb.-ft. of peak torque at 4,700 rpm. Yet, the V6 Avalon XLE has exemplary fuel efficiency with an EPA-estimated rating of 22 city/32 highway/26 mpg combined (22/31/25 for XSE, Limited, Touring and TRD).

### **Eight Gears, No Waiting**

Avalon V6 models are equipped with the Direct Shift 8-speed automatic transmission that delivers satisfyingly smooth, quick-shifting for a remarkable blend of performance and refinement. Closely spaced mid-range ratios help with passing performance over the 6-speed automatic transmission in the previous-gen Avalon.

The transmission's torque converter offers a wider range of lock-up compared to the previous 6-speed automatic transmission for a more direct driving feel while helping to contribute to better fuel efficiency. Control logic optimizes precise matching of engine torque on downshifts for smoother transitions. Steering wheel-mounted paddle shifters are standard on TRD, optional for XSE and Touring. When downshifting, the transmission automatically "rev-matches" for smoother shifts.

### **Avalon HV: The Most Fuel Efficient Avalon Ever**

The 2020 Avalon Hybrid has EPA-estimated fuel economy numbers that would be the envy of a subcompact car: 43 city/44 highway/44 mpg combined for XLE HV (43/43/43 mpg for other HV grades).

The big jump in fuel economy over the previous-generation Avalon Hybrid owes to the more efficient Toyota Hybrid System (THS II), which is also engineered to provide spirited performance and driving enjoyment. THS II combines the output of a new 2.5-liter Dynamic Force four-cylinder engine and an electric motor (MG1),

while using that motor and a second motor (MG2) for hybrid battery charging.

The super-smooth inline four cylinder implements Toyota's wide array of advanced engine technologies: Dual VVT-i with VVT-iE (Variable Valve Timing intelligent system by Electric motor); D-4S direct and port injection and laser-clad valve seats; high compression ratio (14:1); multi-hole direct fuel injectors; a variable cooling system; cooled Exhaust Gas Recirculation (EGR) system, and a full variable oil pump.

The gas engine is tuned to produce 176 hp and 163 lb.-ft. of torque, and total THS II system net output is 215 hp. On the Hybrid XSE, Sequential Shiftmatic technology allows the driver to "shift" the electronically controlled continuously variable transmission (ECVT). It mimics a quick-shifting six-speed automatic transmission via paddle shifters or with the console-mounted shift lever.

The TNGA platform's packaging allows the nickel-metal hydride (Ni-MH) battery pack to be installed beneath the rear seat, rather than in the trunk area, as it was in the previous-generation Avalon Hybrid. That enables a larger trunk while the battery's position contributes to a lower center of gravity for agile handling. The power control unit (PCU) is lighter and more compact than in the previous Avalon Hybrid, as a result of integrating microcontrollers and using a power stack structure. This construction allows the unit to be packaged directly above the transaxle, thereby lowering the vehicle's overall center of mass and allowing a lower hood height.?

### **Drive Modes to Suit Driver Moods**

The 2020 Avalon Hybrid models feature NORMAL, ECO and EV drive system modes, plus a new SPORT mode that allows for an increase in power from the hybrid system for better acceleration response relative to pedal input.

The clever Auto Glide Control (AGC) feature helps enhance fuel efficiency by calculating efficient coasting logic. When activated, AGC limits the loss of vehicle speed through engine braking, acting more like a neutral gear to allow longer coasting. An AGC indicator light illuminates on the multi-information display when AGC is in operation to alert the driver of reduced engine braking. (AGC can be activated only when the vehicle is being operated in the ECO drive mode.)

### **Multi-Link and Multi-Talented**

The Avalon's multi-link rear suspension is key to its positive performance attributes, such as a wider rear track, lower center of gravity, and an aggressive stance. The XSE and Touring grades feature sport-tuned suspension, while the Touring also adds exclusive Adaptive Variable Suspension (AVS), an electronically controlled damping system usually seen on luxury brands.

AVS helps to increase controllability and handling agility without sacrificing one for the other. The setup reduces Avalon's posture fluctuations under hard or sudden directional changes, limits body movements, and yet absorbs road undulations for a comfortable, flat ride.

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Levels of AVS damping force are continuously variable, with a maximum of 650 steps. Changes in solenoid force on each shock absorber that restrict fluid flow and, thus, damping, occur in an incredible 20 milliseconds.

Drivers can adjust Avalon's ride feel with the push of a button: Normal mode prioritizes comfort, while Sport+ emphasizes tauter handling without diminishing Avalon's renowned ride suppleness. Sport+ also amplifies Avalon's liveliness by quickening throttle response, increasing feedback in the Electronic Power Steering (EPS) and enhancing engine sound in the cabin.

### **The Sounds of Silence ... or Power**

Numerous dynamic enhancement systems add more spice to the driving experience. Intake Sound Generator (ISG), grade-specific exhaust baffle tuning, Active Noise Control (ANC), and Engine Sound Enhancement (ESE) exemplify the fifth-generation Avalon's extroverted personality.

The XLE, XSE and Limited grades have a three-level drive mode selection (ECO, NORMAL, SPORT), while TRD and Touring grades feature a more comprehensive four-level drive mode selection, including ECO, NORMAL, SPORT/ SPORT+, and CUSTOM.

Through SPORT+ mode, passengers hear a symphony of exciting, natural sounds through an exhaust system with sport-modified baffles, an Intake Sound Generator (ISG), Active Noise Control (ANC), and Engine Sound Enhancement (ESE).

ISG amplifies the engine's intake sound and, on the exhalation end, the all-new exhaust with baffle tuning ups the sound character at start-up, idle, and acceleration. ANC and ESE work to cancel any unwanted exterior noise while simultaneously enhancing engine sound via the JBL audio system's in-cabin speakers. For example, a hearty "flare" of sound occurs right before idle upon start-up. At wide-open-throttle acceleration, more engine grunt is heard throughout the rev range.

All can be switched off to enjoy the serenity of Avalon's civilized, library-quiet interior. The TNGA-K platform utilizes additional seals where the front fenders meet the front doors and where the doors merge at the B-Pillar. More sound absorption material is found in the engine bay, within the carpet pad, under the floor, and in the wheel well liners. The exterior rearview mirrors not only reduce drag, but also wind noise.?

### **Assembled with Pride in Kentucky**

The fifth-generation Avalon is a collaborative development by Toyota's U.S.-based design, engineering, and manufacturing entities at Caltex Design Research Inc. (Caltex) in Ann Arbor, Michigan; Toyota Motor North America Research and Development (TMNA R&D) in Saline, Michigan; and Toyota Motor Manufacturing, Kentucky, Inc. (TMMK) in Georgetown, Kentucky. The latter has been Avalon's sole manufacturing home for more than two decades. All Avalons sold in America and around the globe are assembled there by proud American team members.

### **Limited Warranty and ToyotaCare**

Toyota's 36-month/36,000 mile basic new-vehicle warranty applies to all components other than normal wear and maintenance items. Additional 60-month warranties cover the powertrain for 60,000 miles and corrosion with no mileage limitation.

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Standard ToyotaCare is a no additional cost plan covering normal factory-scheduled maintenance for 2 years or 25,000 miles, whichever comes first, and 24-hour roadside assistance for two years, unlimited mileage.