

# All-New 2022 Toyota GR 86: Thrills Around Every Corner

August 17, 2021

Image not found or type unknown



**PLANO, Texas** (August 17, 2021) – Thrills are just around the corner with Toyota’s all-new 2022 GR 86. For the next-generation coupe, the same fanatics behind Toyota Gazoo Racing’s championship racecars looked to engineer even greater curve-hugging precision, with a focus on added stability, power and improved aerodynamics. The result? A track-ready, driver’s car made for pure fun.

How’d they do it? To start, the GR team built upon the nimble attributes of the current generation 86 chassis by adding strategically placed high-strength steel, new cross members up front and a full-ring frame in the rear. Then, they engineered nearly 18% more horsepower and 11% more torque by utilizing a larger, naturally aspirated 2.4-liter, horizontally opposed four-cylinder engine. They tuned it so the peak torque arrives far earlier in the powerband at 3700 RPM, versus 6600 RPM on the previous generation, making for a responsive and powerful driving experience – especially when coming out of the curves and onto the straightaways. It’s available in a manual transmission (MT) or paddle-shifted automatic (AT), so drivers can choose an experience that fits their style.

GR engineers knew that keeping a low center of gravity and svelte curb weight was vital for maximum fun. Constructed with a weight-saving aluminum roof and front fenders, the GR 86 base grade weighs in at only 2,811 pounds for the MT (2,851 pounds in the AT), making it among the lightest sports cars on the market. The combination of 53:47 front:rear balance, a low-slung 51.6-inch overall height and a compact flat-four engine gives GR 86 all the right ingredients for firmly planted sports car handling.

GR 86 comes in seven exterior color choices, Track bRED, Halo White, Steel Silver, Pavement Grey, Raven Black and Neptune or Trueno Blue. With 2+2 seating for everyday functionality and a fold-flat rear seat for extra space, it’s available in two grades: GR 86 and GR 86 Premium.

The Premium grade features a large duckbill spoiler, black 18-inch aluminum alloy wheels, perforated Alcantara and leather-trimmed, dual-mode heated front seating and an eight-speaker multimedia audio system. The GR 86 base model sits on 17-inch wheels and comes with black G-embossed fabric seats and a six-speaker multimedia audio system. An available 200W subwoofer adds bass to the sound system on either grade.

### **Power & Design for a New Generation**

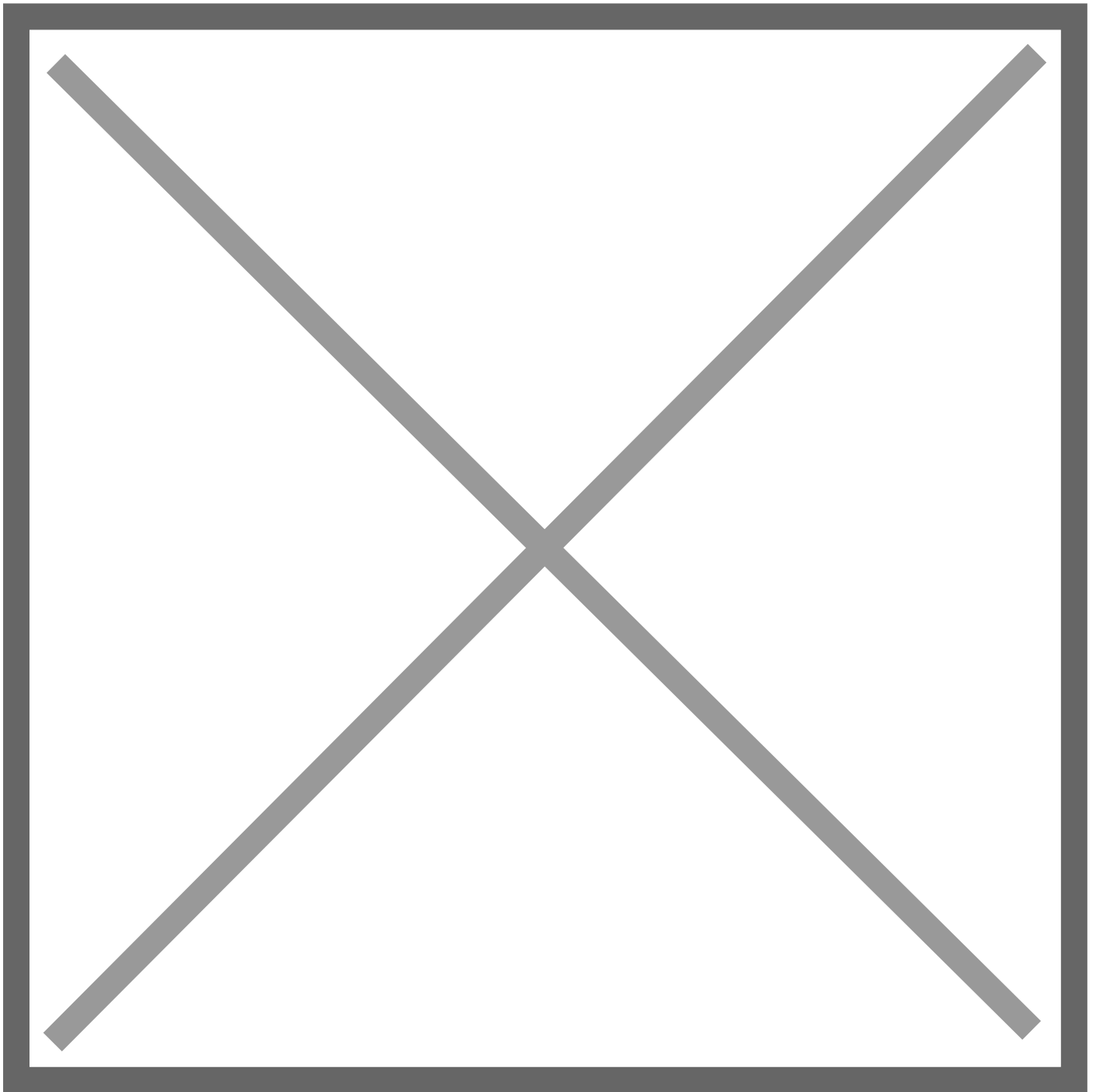
The Toyota Gazoo Racing (TGR) team spent late nights in the garage under flickering fluorescent lights to enhance performance on the new GR 86.

With the move from a 2.0L to 2.4L flat-four engine, the 2022 GR 86 increases its engine bore diameter to 94mm (previously 86mm) for nearly 20% more displacement, bumping up from 1,998cc to 2,387cc. The bigger engine improved zero-to-60 times from 7.0 to 6.1 seconds for the MT and from 8.0 to 6.6 seconds for the AT; manufacturer estimated fuel economy is 19 city/26 highway/21 combined MPG (6-Speed M/T) and 20 city/30 highway/24 combined (6-Speed A/T).

Toyota’s D-4S dual injection technology is re-tuned to deliver more aggressive throttle input. This system combines direct fuel injection and port-injection technologies. The direct-injection system provides a cooling effect in the cylinders, which allows the engine to use a very high 12.5:1 compression ratio for maximum power. The port fuel injectors come into play during light- and medium-load conditions to help maximize combustion efficiency.

The intake manifold’s port diameter and length have been optimized to support linear torque and acceleration and the air intake has also been redesigned to maximize airflow. The fuel system has a new pump design and wider transfer tube for a steady fuel flow during cornering. The cooling system gets a new high-speed water pump, five-level water-cooled oil cooler and a new high-capacity 200W radiator output motor. And the exhaust’s larger 5.6L center pipe capacity delivers a satisfying growl, with an Active Sound Control system that

augments engine sound in the cabin.



### **Highly Rigid Body Structure**

The GR team also reworked the chassis and body to complement GR 86's increase in power.

Up front, diagonal cross members were added to the joints between the front suspension and frame, improving load transmission input from the front tires and reducing lateral bending. The hood has an internal diagonal

frame structure for stability, modified from a honeycomb design on the prior generation. High-strength fasteners connect the frame and suspension mounts. Additional rigidity is added to the rear thanks to a new full-ring structure that completely ties the upper and lower chassis together. High-strength fasteners connect the rear frame and suspension mounts to handle the g-forces in corners.

The materials used in the chassis were also carefully selected to optimize handling. Crafted from a combination of high-strength steel, hot-stamped steel and aluminum, each material is strategically placed in the frame to bring drivers a balance of roll and pitch that maximizes control. For additional reinforcement, structural adhesive throughout the underbody creates a taut, connected frame.

## **Driven by Control**

GR 86's three-spoked, leather-wrapped steering wheel puts drivers in direct control of its agile handling. With a 13.5 overall ratio that requires just 2.5 turns clock to clock for tight maneuverability, it features a new Electronic Power Steering (EPS) system with a column-mounted integrated motor and control unit that reduces both weight and space. GR engineers even changed the steering gear box mount, making it more rigid with a hard rubber bushing and reshaped mounting bolt washer.

Sport-tuned independent MacPherson<sup>®</sup> front struts feature refined damping performance and gain new rebound springs to enhance handling characteristics. A double-wishbone style, multi-link rear suspension features a Torsen<sup>®</sup> limited-slip rear differential for improved traction while cornering. To complement GR 86's increased torque, the rear axle offers additional reinforcement, and the strut stabilizer bar is now connected directly to the subframe for maximum stability. Sport-tuned rear shock absorbers feature stiffer springs to provide planted, predictable handling for the front-engine, rear-wheel drive coupe.

The GR 86 base grade sits on 17-inch, V-shaped machined-finish 10-spoke aluminum alloy wheels, wrapped in Michelin<sup>®</sup> Primacy HP<sup>®</sup> tires. The GR 86 Premium comes with 18-inch 10-spoke black aluminum alloy wheels that feature a Japanese-sword-inspired look and Michelin Pilot Sport 4<sup>®</sup> tires. The 18-inch wheels have truss cross-sectional spokes for structural rigidity and minimally fringed nut holes that create a compact hub. Braking comes from power-assisted 11.6-inch front and 11.4-inch rear ventilated disc brakes.



### **Manual or Automatic – You Choose**

Sports car purists will love GR 86's six-speed manual transmission. With the push of a button, MT drivers can engage Track mode or switch off Vehicle Stability Control (VSC). The shape of the shift lever is optimized for smooth, enjoyable shifting, whether you're moving from 2<sup>nd</sup> to 3<sup>rd</sup> or downshifting from 5<sup>th</sup> to 4<sup>th</sup>. Additionally, a carbon synchronizer was added to improve shifting into 4<sup>th</sup> gear. The MT uses new low-viscosity oil and bearings for smooth shifting operability with the higher torque output of the 2.4L boxer engine.

For the Automatic Transmission (AT), steering-wheel-mounted paddle shifters offer enthusiasts a dynamic driving experience. Drivers can choose between Normal, Sport, Snow or Track modes. When in Sport mode, the AT senses brake and accelerator operation and vehicle behavior to automatically shift into the optimal gear, bringing drivers the control they want. Additional clutch discs and a new high-capacity torque converter allow for smooth delivery of the engine's added power.

### **Purist Sports Car Design, Track Ready Aerodynamics**

First introduced in 2012, the first-generation 86 was a tribute to the fun-to-drive, AE-86 Corollas of the 1980s. The new GR 86 keeps that spirit alive with its focus on sporty design and weight management.

Parabola-shaped transparent lens components give its LED headlights a fearless look, with the same sweeping, internal L-shape as the GR Supra. A GR sports car exclusive G-mesh-shaped matrix grille feeds air to the intake, and functional molding on the front bumper features a textured shark skin-inspired design to reduce drag.

On the side, its front fender and large rocker molding form side sill spoilers with integrated air outlets, improving aerodynamics at the door drop. The air outlets allow air inside the front wheel arch to escape, reducing wheel well turbulence and supporting stability. Along the doorline, a low, horizontally aligned underbody combines with the accentuated fender tops to express a strong front-rear posture. Black side mirrors add contrast and are slightly larger than the previous generation, with a curved shape to maximize airflow.

At the rear, inverted wheel arches express a wide stance and arch fins control air flow. Aerodynamic fins have been added to the lower rear bumper for further stability. On the Premium Grade A large, duckbill spoiler sweeps up from the rear deck for increased downforce. The license plate holder has been dropped down to the rear bumper, simplifying the trunk opening and contributing to its low center of gravity. Three-dimensional rear taillights wrap around the rear deck and blend into trim molding along the trunk line to form a wide, connected rear.

GR engineers also stretched their creativity in seeking weight savings on the GR 86. The front fenders and roof panel are now constructed of aluminum, in addition to an already-aluminum hood. Other examples of weight-shaving ingenuity come from the use of structural adhesives in the underbody, a resin fuel door, new light-weight front seat frames, the redesigned EPS and changes to the driveline and engine block.



### **Driver-Focused Cockpit**

GR 86 features Toyota's Smart Key System that functions on both the driver and passenger door. Once inside, drivers will find a horizontally configured instrument panel for a clean field of view. A push-button start fires up a GR 86-logo animation on its 7-inch Thin Film Transistor (TFT) multi-information display. Display content varies based on whether drivers are in Normal, Sport, Snow or Track mode (MT offers Track mode only). Sport Mode throws a red ring around the speedometer for an aggressive look. Track Mode was developed with race driver input and prominently displays an RPM-band in the center, oil and water coolant temperatures and lap

timer.

The HVAC system has added independent left/right temperature adjustments, and new, large LED dials and piano-key switches are arranged on the center console for easy operation. A leather-wrapped steering wheel has integrated controls for the audio system, hands-free calling, voice-recognition system, display meters and cruise control; AT adds an ACC display option button. The Premium Grade gains aluminum sport pedals and footrest. Power windows come with auto up/down and pinch protection.

The Premium Grade's six-way adjustable black and silver accented front seats feature two-level heating and come upholstered in perforated Alcantara with leather side bolsters. Black and silver accents continue through to the steering wheel, shift boot and hand brake. The base grade has six-way adjustable black G-embossed fabric with sport fabric side bolsters. Rear seats are covered with Alcantara on the Premium and sport fabric on the base grade.

A split opening center console provides two cup holders or storage as needed, with one auxiliary audio and two USB connections inside. The AT version has an open storage area in the center as well. Door armrests have a long pull-handle with easy access to in-door storage space.

An 8-inch touchscreen multimedia system with a six-speaker audio system comes on the base grade; that increases to an eight-speaker system on the Premium. The eight-speaker system now adds a powerful mode to the equalizer function for an acoustic effect that emphasizes low and high tones. For those who want even more rumble, a dealer or factory-installed 10-inch, 200W subwoofer is available for either grade. Either system comes complete with Wired Apple CarPlay® and Android Auto™ compatibility, Bluetooth® for hands-free phone capability, a SiriusXM® 3-month Platinum Plan trial and a trial access to a suite of available connected services (with additional subscription).

### **New Era Customized**

Drivers that want even more from their GR 86 can tap into an all-new line of Toyota Gazoo Racing accessories.

For some extra growl, there's a dual cat-back GR performance exhaust with stainless steel bent pipes, black chrome tips and debossed GR logo. There's also a GR performance air intake kit, with a larger airbox and performance air filter. A bolt-on GR strut tie brace and GR performance stabilizer bar are also available.

MT aficionados can split seconds between gears with a GR quick shifter kit. A GR etched logo shift knob is available for MT or AT. GR front brake pads are also available, and for added style, there's 18-inch black or 17-inch bronze GR wheels.

Gloss black, larger GR logoed fender vent inserts add a touch of shine. Add a clear film paint protection kit for the hood, fender and front bumper or stainless steel door edge guards to keep dings away. All-weather GR branded floor mats and cargo tray or carpet GR floor mats help protect the interior. And for drivers looking to make a statement, there's a vinyl GR graphic for the side rocker and a GR 86 logoed rear bumper applique.

### **Complimentary 1-year NASA Membership**

Every 2022 GR 86 comes with a complimentary 1-year membership to the National Auto Sport Association (NASA). GR 86 owners will enjoy a host of benefits, including one free High Performance Driving Event (HPDE) and discounted admission to NASA-sanctioned events.

### **GR 86 Safety & Connected Services**



The Automatic Transmission GR 86 comes with a standard active safety system that includes Pre-Collision Braking, Adaptive Cruise Control, Pre-Collision Throttle Management, Lane Departure Warning, Sway Warning, Lead Vehicle Start Alert and High Beam Assist. An anti-theft system with engine immobilizer and alarm are also standard.

All grades of the GR 86 come with Toyota's Star Safety System™, which includes Vehicle Stability Control (VSC), Traction Control (TRAC), Anti-lock Brake System (ABS), Electronic Brake-Force Distribution (EBD) and Brake Assist (BA). It also includes Smart Stop Technology® (SST), Vehicle Stability Control (VSC), Track Mode and Hill Start Assist Control (HAC). Additional safety features include LATCH (Lower Anchors and Tethers for Children) with lower anchors on outboard rear seats and tether anchors on all rear seats and a Tire Pressure Monitor System (TPMS). Seven airbags are standard on all models, including a driver's knee airbag for 2022.

Remote services are now available for enhanced safety and security. Available services include:

#### **Remote Connect (Requires Subscription)**

- Engine Starter
- Advanced Climate Control
- Vehicle Locator
- Lock/Unlock, Hazards/Lights
- Diagnostic Alert
- Monthly Vehicle Health Reports
- Service Usage Report
- Geo Fencing, Speed Alert, Curfew
- Horn

#### **Safety Connect (Requires Subscription)**

- Enhanced Roadside Assistance
- SOS Emergency Assistance
- Automatic Collision Notification
- Stolen Vehicle Recovery Service

#### **Maintenance Included, Limited Warranty & Price**

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.

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.

The 2022 GR 86 will start at under \$30,000; exact pricing will be shared prior to its expected arrival at Toyota dealerships in November 2021.