

MEDIA RELEASE

08 November 2022

All-New Toyota GR86 – For the Love of the Drive

- New GR86 coupe is the third global Toyota GR model, developed with technical expertise from TOYOTA GAZOO Racing
- Designed for pure driving pleasure, an “analogue car for the digital age”
- An evolution of the qualities that defined the acclaimed GT86 coupe, retaining a classic front engine/rear-wheel drive drivetrain, naturally aspirated
- New 2.4-litre naturally aspirated “boxer” engine delivers significant increases in power and torque
- Focus on increased body rigidity, lighter weight and lower centre of gravity for even more engaging handling
- Design retains cues referencing Toyota’s sportscar heritage while adopting motorsports-sourced aerodynamic features

In a world of homogenous automotive design, there is one car that stands head and shoulders above the rest, the all-new Toyota GR86. Aptly described as an “analogue car for the digital age” and embodying all the qualities that defined its acclaimed GT86 Hachi-Roku predecessor, this new model stays true to that original “Waku Doki” fun-to-drive brief - and that is to offer pure, unadulterated driving pleasure.

Sticking to the classic front engine/rear-wheel drive formula and kitted with the now-familiar naturally aspirated “boxer” engine, the newcomer ups the ante in three significant areas: a boost in performance courtesy of a bigger displacement 2.4-litre powerplant; enhanced dynamics thanks to increased body rigidity, lighter weight and a lower centre of gravity; and sharper aesthetics aka ‘functional beauty’ as a result of adopting motorsports-sourced aerodynamic features.

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The new GR86 is Toyota's third global GR model, providing a fitting entry point to the current GR range and creating a powerful triad of pure-bred sports cars, alongside GR Supra and GR Yaris. Like its GR stablemates, the newcomer benefits directly from Toyota's multi-championship-winning involvement in top-level international motorsport with TOYOTA GAZOO Racing.

(Just as a reminder, the GR pyramid comprises four tiers starting with the GR Parts cosmetic package; followed by the GR Sport suspension package which is currently occupied by the LC 300 GR-S, Hilux GR-S and Corolla Cross GR-S; the GR power package which is where the GR86 and its siblings slot in; before we finally get to the top tier which is the domain of bespoke sports models such as the Yaris GRMN.)

New 2.4-litre Engine

Just as with the GT86, the horizontally opposed "boxer" engine is a defining element of the new GR86, the heart of its performance and a key contributor to its low centre of gravity. But in its current execution, the capacity has increased from 2.0- to 2.4 litres, for extra power, more torque and faster acceleration.

Naturally aspirated, the engine gives a smooth acceleration feel, right from the bottom to the top of the rev band (also keeps things more affordable by not going the turbocharged route)

Retaining the same high, 12.5:1 compression ratio, the engine delivers more power: maximum output has risen by around 17% from 147 kW to 174 kW at 7,000 rpm. As a result, the 0-100 km/h acceleration time has been cut by more than a second, to 6.4 seconds (6.8 seconds auto).

The GR86's maximum speed is 226 km/h when mated to the manual box; 216 km/h for the auto. The auto turns the tables when it comes to fuel consumption however, consuming 8,8 litres per 100km in the combined cycle, while the manual settles for 9,5 l/100km.

In a nutshell, the basic structure and every part of the engine have been optimised, but its dimensions and weight are unchanged. Steps have been taken to ensure the higher performance doesn't have a negative impact on durability; likewise, heat treatment from the increased exhaust volume has been carefully managed.

Greater use has been made of D-4S technology (port injection and in-cylinder injection have been optimised), while intake and exhaust functions have been thoroughly enhanced and friction has been reduced to enhance torque at all speed ranges.

On the point of torque, the peak 250 Nm is delivered earlier – at 3,700 rpm – compared to 205 Nm at 6,600 rpm in the GT86. This helps to convey smooth, powerful, stress-free acceleration up to dizzyingly high engine speeds (max. 7,500 rpm), giving rewarding performance, particularly when accelerating out of a bend. Torque output is the same with both manual and automatic transmissions.

To combat noise and vibration, the GR86 has a new aluminium engine mount bracket and the damping characteristics of the liquid-filled mounts have been optimised, contributing to passenger comfort, even on long journeys. There is also a revised, stiffer oil pan structure with a new cross-rib shape and engine mount attachment points.

In terms of the acoustics, all you need to know is that the exhaust produces an even more satisfying “growl” under acceleration in the new GR 86. It’s augmented by an Active Sound Control (ASC) system that transmits the sound of the engine to the cabin through a dedicated speaker in the centre of the instrument panel. ASC volume in the GR86 automatic is adjusted according to the drive mode selected – higher for Sport than Snow or Normal mode.

The six-speed manual transmission in the GR86 has been majorly revised in line with the engine’s increased power and torque and is key to this car’s essential fun-to-drive quality. But, in line with the times, the big news is the addition of an all-new six-speed auto which does not dilute the fun factor one iota.

The close-ratio manual transmission is designed to handle the car’s higher output and makes controlling the vehicle more enjoyable. Clutch capacity and gear strength have been increased and clutch operation has been calibrated to handle the increase in engine torque. Using a new low-viscosity oil and new bearings ensures shift smoothness is maintained with the higher engine output. Introducing a carbon synchroniser gives the frequently used fourth gear a light-shifting feel.

The shift lever has been redesigned for a short, precise stroke and snug fit in the driver's hand, while using low-viscosity oil and strut bearings in the mechanism reduces operation force by around 30% in low temperatures.

To fully exploit the car's performance potential, the driver can switch to Track mode, or switch off the Vehicle Stability Control.

The electronically controlled, six-speed, intelligent automatic transmission features paddle controls for the driver to take manual control of gear shifts. Its performance can be adapted in four different drive modes: Normal, Sport, Snow and Track.

In Sport mode, the transmission automatically selects the optimum gear in line with the driver's use of the brake and throttle and the vehicle's dynamic behaviour. To ensure smooth harnessing of the engine's higher power, additional clutch discs and a new high-capacity torque converter have been introduced.

To reduce noise and vibration levels in the cabin, the use of sound-absorbing and insulating materials has been revised with a larger transmission tunnel insulator (on the manual model) and changes to the specification of the transmission undercover. Bonnet and instrument panel insulators are also used, together with new sound insulation sheets in the floor mats adjacent to the centre tunnel (manual model).

Chassis & Handling

Superb handling was a hallmark of the GT86, something Toyota wanted to take to an even higher level with the GR86, to deliver the thrill of a car that moves exactly how the driver wants it to.

To ensure the engine's extra power translates into rewarding handling and responsiveness, the chassis and body have been reworked with the use of light but high-strength materials to provide extra rigidity while reducing weight, and the addition of reinforcements in key areas such as the installation of new front diagonal cross members, front body lateral rigidity has been increased by 60% while overall, body rigidity has been increased by 50%.

The focus on weight reduction (kerb weight is almost unchanged compared to the outgoing GT86)

and bringing down the car's centre of gravity is reflected in the use of strong and lightweight materials in key areas; this has helped lower the centre of gravity by 1.6 mm and shift 0.05% of the weight distribution to the rear of the car.

These include high-strength and hot-stamped steels and aluminium, which help control roll and pitch behaviour. More extensive application of structural adhesives throughout the underbody adds to the taut, connected quality of the car's frame.

Aluminium is now used for the roof panel and front wings as well as the bonnet, with further weight savings from new front seat, silencer and prop shaft designs. These are key in giving the GR86 a 53:47 front/rear weight balance and making it the lightest four-seat sports car on the market, with the lowest centre of gravity.

In terms of drivetrain specifics, the newcomer retains the rear Torsen limited-slip differential which provides reassuring traction when cornering. Heat dissipation fins have been added to the casing to assist with cooling and the rubber used for the differential mounts has been optimised for better heat resistance, in line with the increased engine output.

Likewise with the suspension, the GR86 carries forward the front independent MacPherson strut and rear double-wishbone setup of its predecessor but with considerable performance tuning for an even higher level of response and stable handling.

Shock absorber damping and coil spring characteristics have been optimised throughout to give the car planted, predictable handling. With more torque being generated by the 2.4-litre engine, the rear suspension has been reinforced with the anti-roll bar now connected directly to the subframe to gain maximum stability. The subframe itself has been made more rigid and the connection position of the lower strut has been changed. The result is a more rigid set-up, but with reduced weight to support sports car-style light handling performance.

The new electric power steering system (EPS) has a 13.5:1 ratio and requires just 2.5 turns of the GR86's three-spoke steering wheel to move from lock to lock, giving easy manoeuvrability. The wheel has a tactile genuine leather trim and features the GR logo on the bottom edge.

Switches are integrated into the wheel for frequently used functions – audio and phone controls to the left and meter operation and voice recognition to the right. These are shaped for a natural feel and intuitive operation. The automatic model has additional black cast-metal paddles mounted on the wheel.

The steering system has a new column-mounted integrated motor that reduces weight and takes up less space, while also improving responsiveness and the car's "light" handling. The gear box mount has been made more rigid with hard rubber bushing and a reshaped mounting washer.

Ventilated disc brakes are fitted front and rear, with 294- and 290 mm diameters respectively, and the pad friction material has been optimised. The floor-mounted, lever-type parking brake is appropriate for the car's performance profile.

Braking control systems – ABS, Brake Assist (BA), Traction Control (TRC), Vehicle Stability Control (VSC), Hill-start Assist Control (HAC)– are provided as standard, together with an emergency brake signal system. These have been refined to improve performance and safety.

The VSC can be adjusted in five different modes to suit the driver's preference or the driving conditions. These include a sport driving mode with no VSC support and traction control turned off.

Exterior Design

The design concept for the GR86 is "functional beauty," a marriage between functionality - which can make the difference between winning and losing on the track - and stylish looks that are part and parcel of the sportscar genre.

The GR86's exterior design is an evolution of the taut, low-slung look of the GT86, expressing its classic front engine/rear-wheel drive set-up. Short overhangs add to the agile look, together with a wide and low stance, while the front and rear wings and cabin are individually accentuated, generating the dynamic feel of an authentic sportscar. Design details reference some of Toyota's great sports cars of the past, such as the 2000GT and AE86 Corolla.

The overall dimensions are close to those of the GT86, but notably the height has been lowered by 10 mm (to 1,310 mm) and 5 mm have been added to the wheelbase (2,575 mm). The successful

lowering of the centre of gravity (by 1.6 mm) is central to the car's handling and the driving experience – supported by a 5 mm lowering of the driver's hip-point.

The new, parabola-shaped LED headlights have an internal L-shaped arrangement like those on the GR Supra, while the grille has a GR-exclusive "G" motif mesh pattern. The front bumper has a new textured moulding that is functional as well as sporty, helping to reduce drag; it also features deep air ducts at each side, which aid manoeuvrability. Together, the low-set grille and front ducts form the "functional matrix grille" that is a trademark design feature of Toyota's GR models.

In profile, the powerful front wings and large rocker mouldings form side skirts, while the horizontally aligned underbody, running across the top of the wings and through the doorline, projects a strong front-to-rear posture. The rear wings are equally powerful in appearance, while the tapered rear cabin emphasises the car's wide stance and low centre of gravity.

The rear light clusters have a strong three-dimensional form and blend into a garnish that runs across the width of the car; the licence plate has been moved down to the bumper – another detail in the drive for a lower centre of gravity. The rear wheel arches are pulled in more tightly, emphasising the car's wide stance.

A series of aerodynamic features have been introduced, including a front air dam and fully functioning air vents combined with aero fins, created with TOYOTA GAZOO Racing's motorsport expertise to better manage airflow and reduce turbulence around the tyres, enhancing steering stability. The front bumper structure is designed for superior cooling efficiency and the surface area of the front grille aperture has been optimised, with wind deflectors added to each side. The floor beneath the lower front bumper has been inclined at 45 degrees and designed with a streamlining flange to aid stable performance.

The new black-finished door mirrors have a gently curved design and the mirror mounting posts are also slightly curved, to prevent the air flow being blocked.

The slim, blade-like spokes of the anthracite 18-inch rims are inspired by a Japanese sword motif. The tyre pressure warning system gives individual pressure readings for each tyre in the multi-information display and can be calibrated for two different sets of tyres. There's a full-size spare wheel.

The exterior colour choices for the GR86 include three GR-specific finishes inspired by TOYOTA GAZOO Racing's famous white, red (Phoenix Red) and black (Night Shadow) competition livery. Other hues include Storm Blue, Magnetite Grey and Bright Blue. Phoenix Red is a highly saturated red, created using an unprecedented high-saturation solid colour achieved by multi-layering – with three coats instead of two.

A number of GR-badged accessories are on offer, including a front-, rear- and boot spoiler as well as a side skirt garnish.

Driver-focused Cockpit

The GR86's interior design goal was to deliver the best possible layout for usability and operation of the car's systems, with a strong horizontally configured instrument panel that gives the driver a wide field of vision and helps them focus on the business of driving. Throughout, there is a sense of harmony in the design.

Around the driver, function controls are designed and located for intuitive recognition and operation, including an air conditioning panel in the centre console with large LED-illuminated dials and piano key switches, and door armrests with integrated release handles and long pull handles. The functionality of the centre armrest has been improved with cup/small bottle holders, two USB ports and an AUX socket. The cupholder has a new split-opening lid that can be used as an armrest when closed. The eight-inch multimedia display is angled for easy viewing from the driver's seat.

The new-shape front sports seats feature supportive pads that are independent of each other, ensuring a slim design and good body-holding. A walk-in release lever on the front seat shoulder makes for easy access to the rear. The new seat frame weights 3 kg less than in the GT86, making a significant contribution to the car's weight reduction programme. Upholstery is a combination of Ultrasuede™, which gives good body-holding performance, paired with genuine leather.

The left side of the display presents the multi-information data, audio and tyre pressure information and the driver assistance function settings.

Detail changes in the cabin include new-shape air vents for a better direction control and spread of air flow. Handy touches include a 25% increase in the size of the glove box and the addition of a

bottle holder in the door panel. Overhead front map lamps and courtesy lamps on the lower edge of the doors have also been installed.

The two rear seats can be folded down using release catches in the cabin, or a release strap in the boot. When folded, there is load space big enough to take four wheels – ideal for those driving their GR86 to and from track days.

The luggage compartment door has been engineered to open (to a higher point) and close with ease and at a constant speed, so items can be loaded or unloaded more easily.

Multimedia

The GR86's special sports car status is acknowledged in details such as GR branding in the start-up animations for the eight-inch centre touchscreen and the driver's seven-inch multi-information display.

The multimedia system has increased CPU computing power, giving faster response. Standard features include DAB reception, Bluetooth and Apple CarPlay® and Android Auto® smartphone integration. USB ports and AUX socket are also provided for device connection and recharging. (Particular attention was paid to the integrated six-speaker audio system which was identified by GT86 customers as an area needing some improvement.)

The centre screen also provides a real-time view from the car's reversing camera, with steering guidelines.

The driver's instrument binnacle features a multi-information display, to the left of the single-dial tachometer with central speed read-out. The display contents can be selected, reset and scrolled using switches on the steering wheel. In Sport mode, the meter gains red highlights.

When the driver switches to Track mode, a different display appears, designed with help from TOYOTA GAZOO Racing's professional drivers. The read-out shows a central bar display of the engine rpm, plus the selected gear, speed and oil and water temperatures, allowing the driver to instantly recognise the car's status and achieve better shift timing.

The display has an opening animation which builds the GR logo before presenting the meters, adding a sporting prologue to every journey.

Safety

The GR86's body structure has impact-absorbing elements to soak up and channel forces in the event of an impact. At the front, a crush box structure has been adopted in front of the A-pillar and the reaction support components – torque box, upper front pillar and rocker panel – have been strengthened, giving better performance in front-overlap collisions.

Side impact protection includes the use of high-strength materials around the cabin: a hot-stamped steel door ring framework and door beam, plus a new inner frame structure with reinforced connections.

Seven airbags are provided as standard in the cabin: front side and curtain shield airbags, plus a driver's knee airbag.

The safety and driver assistance package provides a high level of driver support, with functions including:

- Pre-crash system
- Rear Cross Traffic Alert
- Blind Spot Monitor
- Lane Departure Alert
- Adaptive Cruise Control
- Automatic High Beam Assist
- Collision Damage Mitigation Braking

Please note that the aforementioned safety package is standard on the range-topping auto model. On the manual variant, the safety components are restricted to Rear Cross Traffic Alert, Blind Spot Monitor and Cruise Control (non-adaptive). This package was thus tailored in order to keep the new GR86 as affordable as the previous generation, as developing the additional safety components specifically for a manual-transmission vehicle would have compromised pricing. Research also confirmed that M/T customers prefer no safety or driver assistance features especially when they attend track days or similar events.

Toyota Gazoo Racing

Toyota’s development of its global GR models – the GR Supra two-seat coupe, the rally-inspired GR Yaris and now the GR86 – fulfils its mission to use experience and know-how gained from motorsport to make ever-better cars for the road and to give people opportunities to enjoy the pure joys of driving.

The success of TOYOTA GAZOO Motorsport in worldwide competition provides a strong platform on which to build enthusiasm for Toyota among fans worldwide and to develop new technologies and techniques that can be transferred from racing and rallying to everyday motoring.

This evolving GR product base adds credence to Toyota’s local GR Motorsport initiatives which comprise the GR Junior Academy (karting), GTC Series, GR Cup (media driven), SA National Rally Champs, SA Cross Country Championships (Rally Raid) and the halo Dakar event which has both international and direct South African connections.

USPs & Pricing

Here’s a quick rundown of the USPs of the new GR86:

Exterior	<ul style="list-style-type: none"> • New body design with aero-spired detailing • New black 18” wheels with a full-size spare wheel • Four new colours (7 in total)
Interior	<ul style="list-style-type: none"> • New driver-focused cockpit • Digital dashboard with meter design change • Ultrasuede & Leather trim • Armrest added
Multimedia	<ul style="list-style-type: none"> • New eight-inch centre touchscreen and driver’s seven-inch multi-information display • Integrated six-speaker sound system with Apple CarPlay & Android Auto • Track-mode-specific display
Safety	<ul style="list-style-type: none"> • New Safety & Driver Assistance Package with added functions on the A/T • Redesigned impact-absorbing structure
Technical	<ul style="list-style-type: none"> • Active Sound Control • Suspension enhancements

	<ul style="list-style-type: none">• Rear diff and exhaust modifications• Improved cooling performance• Power steering improvements• Power upgrade (now 174kW & 250Nm) courtesy of the new 2.4-litre “boxer” engine• Overall body rigidity improved by 50%• Weigh reduction - lightest four-seat sports car on the market, with lowest centre of gravity
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Toyota GR86 6MT – R698,100

Toyota GR86 6AT – R733,700

Peace of Mind

All GR86 models are sold with a 6-services/90 000 km service plan (intervals set at 15 000 km) and carry a 3-year/100 000km warranty. Service and warranty plan extensions can also be purchased from any Toyota dealer (220 outlets).

All Toyota models come equipped with Toyota Connect, including a complimentary 15 Gb in car Wi-Fi allocation, vehicle telematics and enhanced user features via the MyToyota app.

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