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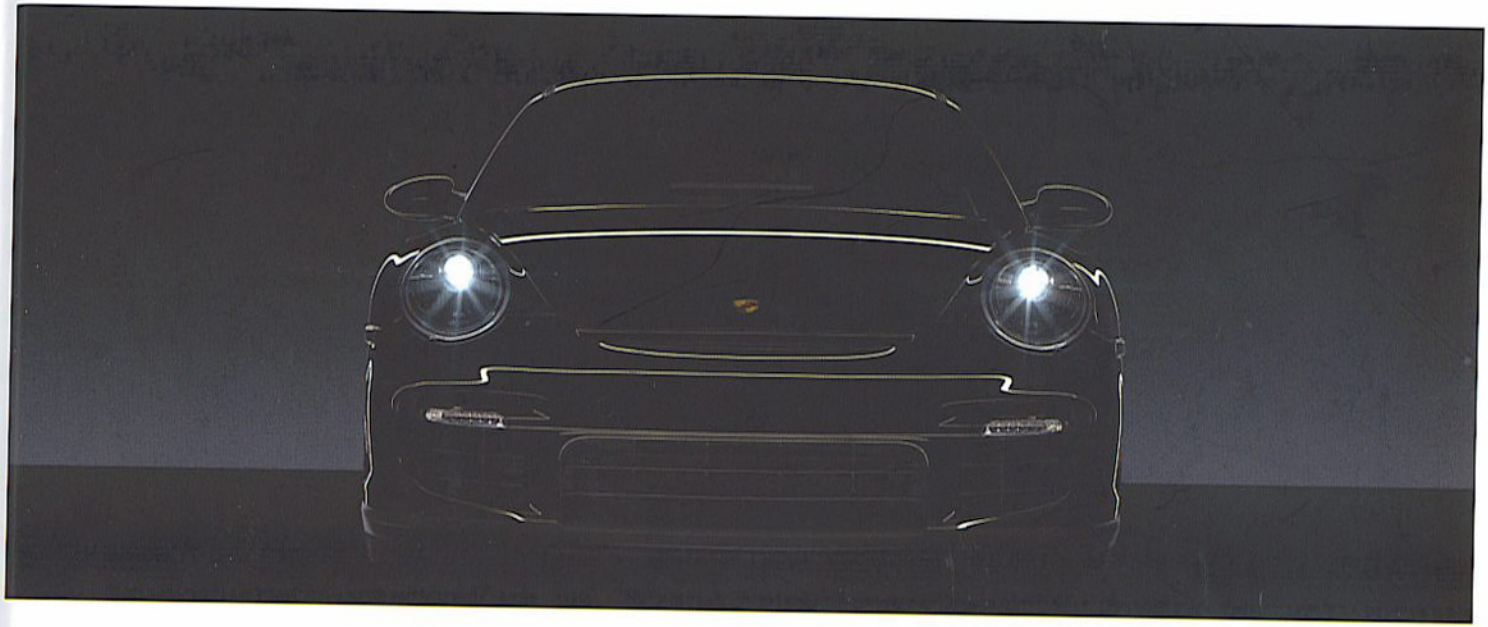
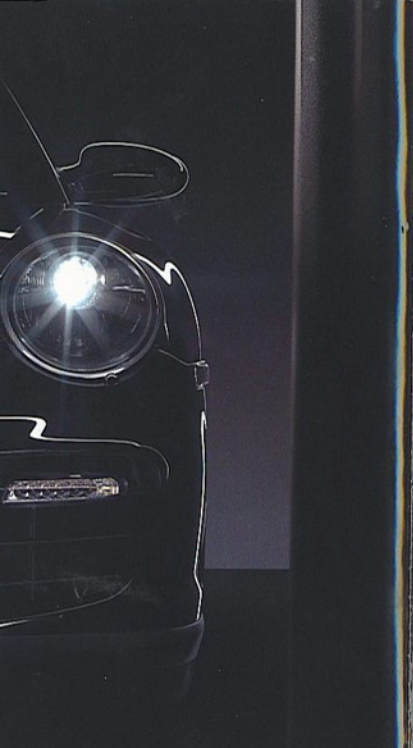


Respect required

The new 911 GT2

Porsche Stability Management (PSM).
The new 911 GT2 has a specially adapted version of Porsche Stability Management (PSM). In addition to ABS, the package includes two automatic driver aids: stability control (SC) and traction control (TC).

Stability control (SC), which is responsible for lateral dynamics, uses a range of sensors to monitor the direction, speed, yaw velocity (speed of rotation around the vertical axis) and lateral acceleration of the car. Using this information, it is possible to calculate the actual direction of travel at any given moment. If the car begins to oversteer or understeer, selective braking is applied on individual wheels to restore control at the optimum speed. Traction control (TC), with its integrated ABD (automatic brake differential), ASR (anti-slip regulation) and EDC (engine drag control) functions, is responsible for the long dynamics of the car. Configured for sports-o driving, traction control improves handling u acceleration on surfaces with inconsistent g also prevents the rear from 'stepping out' if a loses traction under full power. The trigger th is relatively high, which means it is rarely em in normal dry conditions.



Always composed. Even in extremes.

Designing a new 911 GT2 requires a new approach to old ideas. It means questioning convention, crossing the limits, thinking beyond the norm. It means not being confined to road or track, straight or bend, comfort or sports performance. It means having the freedom to leave what you know and examine new possibilities. The result: the most powerful road-going 911 ever made.

The source of that power is a 3.6-liter flat-six boxer engine based on the current 911 Turbo. Special features include VarioCam Plus and twin turbochargers with Variable Turbine Geometry (VTG) enabling faster response at lower engine speeds. Together, they generate even greater power: a mighty 530 hp at 6,500 rpm.

Performance and efficiency have both been improved, mainly through changes to the turbocharging system. The flow-optimized turbines and compressor units have been specially adapted to the engine output and offer a more effective turbocharging process. In addition, the new model has an 'expansion' intake manifold – a totally new technology that is radically different to the existing induction principle for turbocharged engines.

Another improvement is the higher rate of exhaust flow through the new main silencer – now made from ultra-lightweight titanium.

Rear-wheel drive provides driving dynamics that are similar to those of a racing car. The lightweight build keeps the overall weight low for a power-to-weight ratio of 5.99 lbs/hp.

For some, that number means little on paper – but it all becomes clear on the road. With a driving experience – and an engine sound – that can only be conceived in the Porsche 911 GT2.

Design.

Power. Torque. Acceleration. All in plentiful supply. Nothing else can match that energy – except the car's design. A single glance is all it takes to realise that fact. Even when stationary, the 911 GT2 is a car that commands respect.

The front-end aerodynamics have also been revised to compensate for the increased cooling requirements of the engine and brakes. The large air intakes enable a higher throughput of air to the central radiator and front brake units.

The integral air outlet ahead of the front lid makes a major contribution to front-end downforce. The airstream from the central radiator is channelled up over the car, forcing the front end downwards, thereby enhancing balance and steering response.

The importance of air in the performance of the 911 GT2 is also apparent from the large intake openings in the rear side panels which supply the intercooler units. The combined effect of all these aerodynamic modifications is a drag coefficient of just 0.32 as well as positive front and rear downforce.

Behind the wheel, that means better grip, better directional stability and exceptional handling characteristics. Technically and visually, the result is the same: a breathtaking driving machine.


911 GT2

odynamically.

When was the last time a sportscar took your breath away?

Aerodynamics is the study of forces generated on a body in flow. With the new 911 GT2, we've even questioned that: it doesn't have to move to take your breath away.

The most impressive view is also the one that others will see most of all: the rear. The fixed rear wing with integral lip spoiler ensures optimum stability at speed. As the car accelerates and you're pressed into your seat, air is forced through the intake openings on the rear wing uprights and into the engine turbo-charging system. This 'ram air' effect has a key role to play in the exceptional efficiency of the engine. Since air is already being forced into the turbos, there is less resistance from the compressors and therefore less back-pressure in the exhaust, which means greater engine performance.

The engine cover, featuring the GT2 logo, is made from lightweight glass-fiber reinforced plastic (GRP). Twin titanium tailpipes are elegantly incorporated within the rear apron design. Warm air is vented from the engine compartment via cooling slits at the rear.


GT2
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Drive.

For the driver, the new 911 GT2 instantly commands respect. Its flat-six engine builds on the capability of the latest 911 Turbo. Not only through refinement of existing features, but also through some revolutionary developments.

For some, the aim is high performance. For us, that's merely the result.

At Porsche, our aim is not to increase power – except through increased efficiency. Which is why we began with the 911 Turbo when developing an engine for the new 911 GT2. Its power is combined with rear-wheel drive for racing-car driving dynamics.

But how is it possible to improve on an engine that is already so close to perfection? How did we introduce even greater potential – and the character of a racing engine? The answer: by simply increasing efficiency.

The six-cylinder boxer unit has flow-optimized turbines featuring Variable Turbine Geometry (VTG) and larger compressors on the intake side. Together with VarioCam Plus, they boost performance while reducing emissions over the entire engine speed range. Other important features include the revolutionary new expansion intake manifold, dry-sump lubrication with external oil reservoir and the new titanium main silencer.

The results: 530 hp from a 3.6-liter displacement at 6,500 rpm. Maximum torque of 505 lb-ft is available from 2,200 to 4,500 rpm. The benchmark sprint 0–60 mph is completed in 3.6 seconds; 0–100 mph requires just 7.4 seconds and top track speed is 204 mph.

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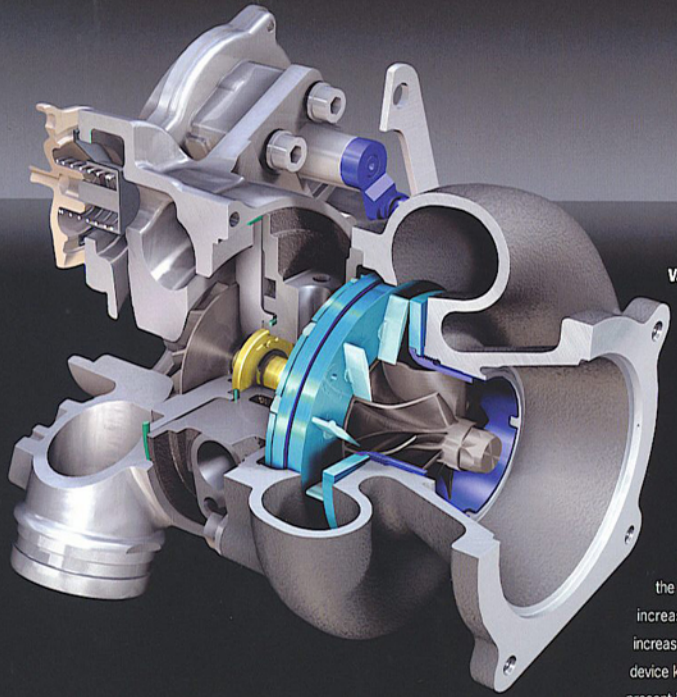

Variable Turbine Geometry (VTG).

Porsche has a long and celebrated tradition of using turbocharged power on both road and track. On the new 911 GT2, we've enhanced this technology with Variable Turbine Geometry (VTG).

On a conventional turbocharger, the exhaust flow drives a turbine that is connected to a compressor on the intake side. By compressing the incoming air, the amount of oxygen in a given volume is increased. Since compression also causes an increase in temperature, the air must be cooled in a device known as an 'intercooler'. With more oxygen present in each cylinder charge, more fuel can be burnt yielding greater energy. Since higher exhaust pressures generate greater loads on the intake side, the intake pressure must be carefully controlled in order to protect the engine. On the new 911 GT2, this 'boost pressure' is limited using 'wastegate' valves that bypass excess pressure around the twin exhaust turbines.

Another important factor in the system is the size of the turbochargers. Since a smaller turbine has a lower mass, it responds more quickly to increasing pressure, spinning up easily to its optimum speed. The key disadvantage of using a smaller turbo is that the back-pressure generated at higher engine speeds causes a significant reduction in performance. Resistance is caused by the smaller cross-sectional

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To overcome this problem, the twin water-cooled turbochargers on the new 911 GT2 feature Variable Turbine Geometry (VTG). With this technology, the gas-flow from the engine is channelled onto the turbines via electronically adjustable guide vanes. By changing the vane angle, the system can replicate the geometry in all types of turbo, large or small, and thus achieve the optimum gas-flow characteristics. The guide vanes are controlled by the engine management system. The result is a high turbine speed – and therefore higher boost pressure – even at low engine rpm. With more air available, the combustion is increased, yielding greater power and torque.

Special features on the new 911 GT2 include flow-optimized turbines and larger compressors which generate a higher boost pressure. Maximum torque is achieved at low rpm and sustained across much of the engine speed range. With 505 lb-ft available between 2,200 and 4,500 rpm, the resulting acceleration is nothing less than phenomenal.

Expansion intake manifold.
More power than a 911 Turbo – from the same flat-six engine. No, it wasn't easy, which is why it required yet another worldwide innovation.

The air intake manifold on the new 911 GT2 employs a totally new principle unlike anything ever featured on existing induction systems. Our 'expansion' intake manifold is a radical new development that is the polar opposite of the resonance principle used on conventional turbo-charged engines.

A resonance manifold increases engine output by forcing additional air into the combustion chambers. To do this, the manifold is designed in such a way that the air – which vibrates due to the action of the valves – is in a compression phase as it passes through the inlet ports. Unfortunately, compression not only increases air volume, it also increases air temperature. The result is poorer ignition.

Our new expansion manifold simply turns that principle around. The internal geometry is radically different from that on a resonance intake system. Key modifications include a longer distributor pipe, with a smaller diameter, and shorter intake pipes.

As a result, the air is in the expansion phase as it enters the combustion chambers. Since expansion always cools, the air/fuel temperature is lower and ignition is significantly improved – thereby increasing performance. Of course, the amount of air that enters the engine under expansion is less than it would be under compression.

To compensate for this, we've simply increased the boost pressure from the turbos by approximately 2.9 psi. The resulting increase in temperature – again through compression – is immediately offset by the uprated intercoolers.

Instead of hot compressed air entering the combustion chambers, we now have cooler air generating more power and torque. The result: a major improvement in engine efficiency and therefore lower fuel consumption even under heavy loads and high rpm.

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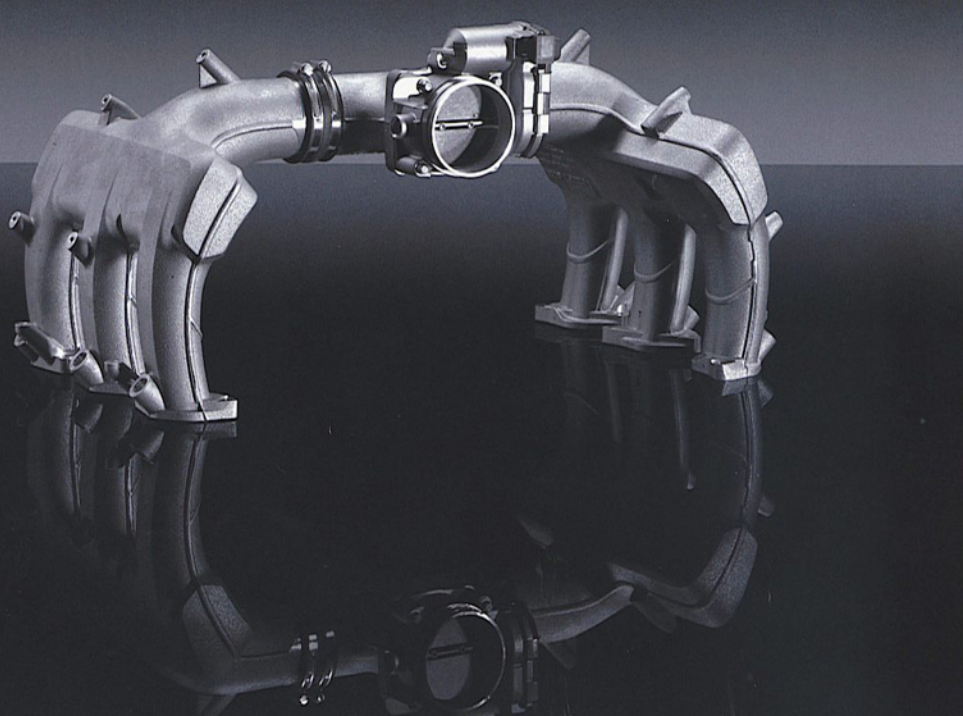

Exhaust system.

For the first time ever, the main silencer and tailpipes on the new 911 GT2 are made from ultra-lightweight titanium. This reduces the load across the rear axle, thereby improving driving dynamics. The exhaust leaves the engine through high-performance manifolds into separate tracts for each of the two banks of cylinders. Twin three-way catalytic converters clean the two streams before they converge in the main silencer unit. The twin titanium tailpipes are fully integrated within the rear apron moulding. Large-diameter tubes reduce back-pressure on the engine, thereby increasing performance. The catalytic converters are close to the engine, enabling faster warm-up and therefore improving efficiency. When starting from cold, the process is assisted by a secondary air injection system.

The result: a warm, deep and bass-rich sound – even when the engine is idling.

Six-speed manual gearbox.

The six-speed manual gearbox in the new 911 GT2 is specially adapted to the car's powerful performance. The gear lever throw is pleasingly short and precise.

Combined with cable-operated linkage and a dual-mass flywheel, it offers high precision and comfort. The close ratio spread enables powerful acceleration within the optimum engine power band.

Launch control.

Another major innovation is the use of launch control for the first time ever in a road-going Porsche. As the name suggests, the system is designed to maximize acceleration from a standing start. To activate the function, simply depress the clutch and accelerator pedals. When the boost pressure rises to approximately 13 psi, release the clutch as quickly as possible and maximum acceleration automatically ensues. Normally on a turbocharged vehicle with manual gearbox, the boost pressure

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Traction is maintained under acceleration with the aid of an all-new anti-slip regulation function. Wheel-spin is controlled via the engine management system thereby avoiding unnecessary clutch wear.


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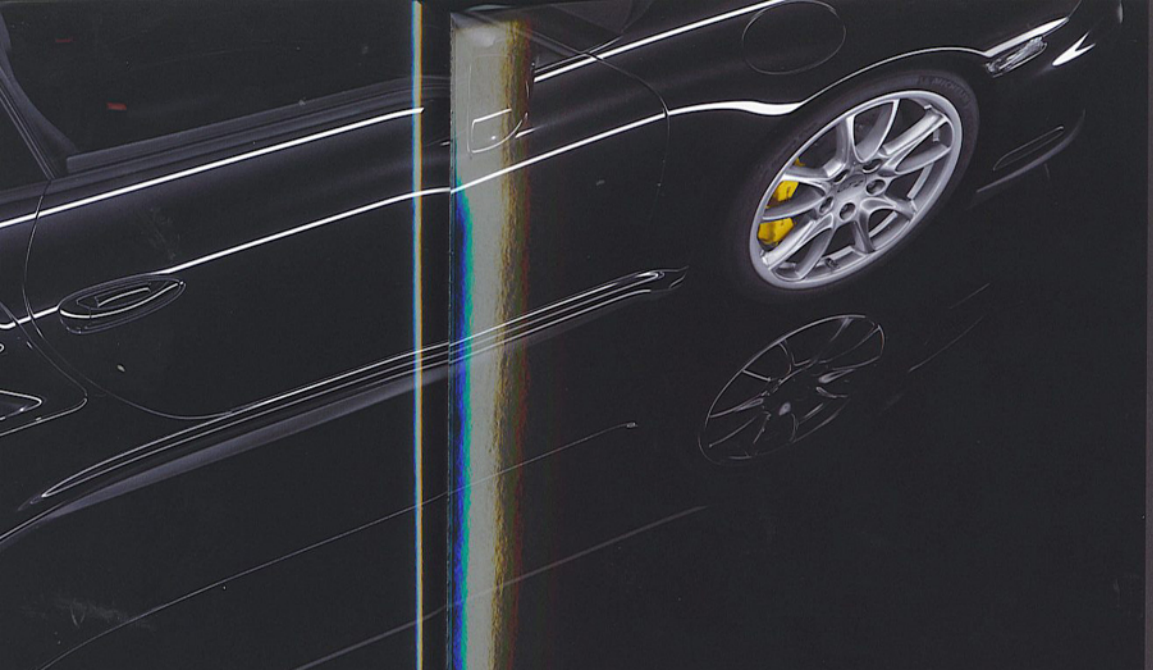

Chassis.

Driving dynamics are a fundamental part of the 911 GT2 experience. As in motor racing, the key characteristics are agility, immediacy and precision.

Racetrack. Highway. Wherever the road goes.

The new 911 GT2 chassis is designed for racecar-like performance on every type of tarmac from highway to track. The car's lightweight build has reduced overall weight as well as the unsprung masses. Agile and responsive, it is stable and secure – particularly during cornering maneuvers.

As on every racing Porsche, there's a range of suspension setup options. Ride height, camber, toe angle and anti-roll bar settings can all be adapted to individual circuit characteristics.

Porsche Active Suspension Management (PASM).

The new 911 GT2 is now equipped with Porsche Active Suspension Management (PASM) as standard. This active damping system offers continuous adjustment of individual damping forces based on current road conditions and driving style.

The driver can choose from two basic setup modes: 'Normal' and 'Sport'. 'Normal' mode is designed for general road driving and wet circuit use. 'Sport' mode enables greater lateral acceleration and increases traction on the racetrack. A range of sensors are used to monitor the movement of the body during acceleration, braking and cornering maneuvers, as well as on poor road surfaces.

The PASM control unit then evaluates this data and modifies the damping force on each individual wheel in accordance with the selected mode. The result is a major reduction in body movement as well as better contact with the road.

Wheels.

The new 911 GT2 runs on one-piece 19-inch GT2 wheels with anti-theft protection and wheel centre caps featuring the GT2 logo. The wheels are extremely light for their size thanks to their special lightweight construction. The resulting reduction in unsprung mass improves driving dynamics and performance.

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Among the unique features of PSM in the new 911 GT2 are the relatively high intervention threshold on both control systems – enabling a more natural drive – and the two-stage disable function for maximum driver control. Stage 1 disables the stability control (SC), which means the throttle can be used to help steer the car. Traction control (TC) remains active as before. Stage 2 disables the traction control as well,

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Going to extremes.
In safety.

Porsche Ceramic Composite Brake (PCCB). Power is also an essential factor in the active safety of any car. Not only when taking evasive action, but also when it comes to braking. The new 911 GT2 is therefore equipped as standard with the race-proven Porsche Ceramic Composite Brake (PCCB). PCCB enables shorter braking distances in even the toughest road and race conditions. Excellent fade resistance ensures greater balance when slowing from racetrack speeds.

The key advantage of PCCB is the total weight saving of approximately 50% over comparable metal discs. The mounting bells on both front discs are made from weight-saving aluminum. As well as enhancing performance and fuel economy, the result is a major reduction in both the unsprung and rotating masses. This, of course, improves comfort and road-holding on uneven road surfaces as well as general handling and agility.

Passive safety systems. The new 911 GT2 has a specially strengthened bodyshell structure and a total of six airbags. The two full-size front airbags have a two-stage inflation function which deploys each airbag separately in accordance with the force and nature of the impact. The dual front Advanced Air-

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Interior.

When it comes to setting up a high-performance car, there's more to consider than just the engine and chassis. In the new 911 GT2, we've designed the interior exclusively around the driver.

We've demanded your respect. Now have ours.

A car like the new 911 GT2 requires an ergonomically efficient driving environment with unhindered access to all key information. Clearly visible at the center of the cluster of five instruments is a large rev counter with GT2 logo and titanium-coloured dial. All instrument needles and dial markings are colored yellow for easy visibility. A new feature on the new GT2 is the upshift light on the rev counter. Centrally positioned and clearly visible, the arrow-shaped indicator is automatically illuminated when an upward gearshift is required. The result: optimum acceleration..

Sport bucket seats.

A car that is capable of such extreme lateral loads requires a seat with exceptional support. The standard sport bucket seat has manual fore/aft adjustment plus two additional features rarely encountered on comparable seat designs: a folding backrest and an integral thorax airbag in the side support. The folding function enables easy access to the rear luggage area. The backrest pivots are positioned high in the side bolsters, providing optimum support for the torso, pelvis and legs. This unprecedented design combines the lateral support of a genuine racing seat with the convenience of a folding backrest.

The backrest shell has a glass-fiber reinforced plastic core and a carbon-fiber surface with visible weave pattern. This construction provides excellent rigidity while also reducing weight. The seat is compatible with a six-point racing harness.

Chrono Package Plus.

The optional Chrono Package Plus combines a dash-mounted analog/digital timer with a range of useful functions. Lap or journey times can be viewed, stored and analyzed using the performance display in PCM. The information available includes time elapsed and distance travelled on the current lap, as well as the number of laps completed and their respective times. You can also view the current fastest lap and remaining range until empty. Driving times can be recorded for any stretch of road, and benchmark times can be defined.

In short: whether you're crossing a continent or setting a fastest lap, the new 911 GT2 is a truly exclusive and rewarding drive.

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Summary.

With the new 911 GT2, we've pushed our limits so you can discover yours. Which means every time you step behind the wheel, there's always something new to explore.

The new 911 GT2.
Technical data.

Engine	
Cylinders	6
Displacement	3,600 cc
Horsepower	530 hp
@	6,500 rpm
Torque (max.)	505 lb-ft
@	2,200 – 4,500 rpm
Transmission	
Layout	Rear-wheel drive
Manual gearbox	6-speed
Weights	
Curb Weight	3,175 lbs
Gross Vehicle Weight Rating	3,858 lbs
Performance	
Top Track speed	204 mph
Acceleration 0–60 mph	3.6 secs
Acceleration 0–100 mph	7.4 secs
Fuel ecomony	
City mpg	TBD
Highway mpg	TBD

** Provisional data only. Official data unavailable at the time of going to print.

Experience the new 911 GT2 at our dedicated Inte
including videos and engine sounds:

www.porsch

911 GT2 microsite:

Porsche Cars North America, Inc.
980 Hammond Drive, Suite 1000
Atlanta, Georgia 30328

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www.porsche.com/pla-en/911gt2colorator

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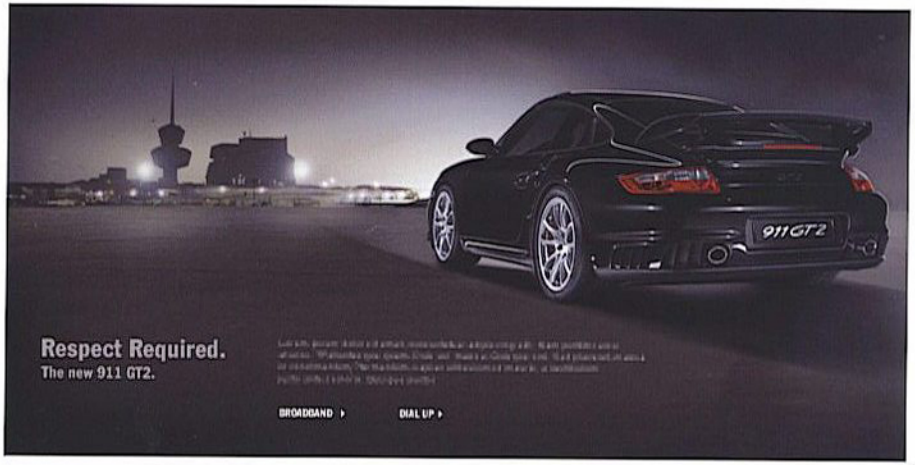

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