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The new 911 Turbo

Effiency demands performance

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This catalogue is produced by Porsche for use in English speaking markets around the world. The standard specification of the Porsche 911 Turbo in Australia, however, is substantially above the one presented in this catalogue.

The table below shows features which are referred to as “optional” but which in fact are **standard in Australia**.

	911 Turbo Coupé	911 Turbo Cabriolet	Page
ParkAssist (parking sensors at rear)	●	●	83
Electric slide/tilt sunroof	●		-
Rear wiper	●		-
Windscreen with grey top-tint	●	●	-
Cruise Control	●	●	83
Heated seats		●	-
Six-disc CD/DVD changer	●	●	84
Universal Audio Interface (iPod®, USB, Aux)	●	●	86
Telephone Module (SIM Card insertion or Bluetooth® connectivity)	●	●	85

Please note that Factory Collection, ISOFIX mountings and Vehicle Tracking System is not available for Australian delivered vehicles.
Porsche Cars Australia Pty Ltd, October 2009.

The 911 Turbo

Were those moments when you exercised moderation always the crucial ones?

The efficiency of the new 911 Turbo models.

According to the definition, efficiency is the ratio of work input to work output. If something is highly efficient, it keeps work input low, whilst maximising work output. A principle that unreservedly applies to the new 911 Turbo. But not necessarily to the work that went into developing it.

To understand the evolution of the 911 Turbo, you have to go back to 1974. To France, and the Paris Motor Show. To the first turbocharged 911. The wrong car at the wrong time. At least that's what some journalists, doubters and waverers thought.

Their reservations were entirely understandable. After all, times were hard and oil was in short supply. Then Porsche launched a car that anticipated the concept of the super sportscar, with its power output of 260 hp, maximum torque of 343 Nm and 5.5-second sprint from 0 to 100 km/h (62 mph).

What on earth was going on at Zuffenhausen? Was it a lack of understanding of the needs of the market? A blinkered desire for power? Perhaps even over-confidence and a lack of awareness?

Certainly the desire for power could not be denied. But it had a goal. And the way to that goal followed a unique path. A glance at the data sheet was enough. Alongside the fabled engine output, torque, acceleration and top speed figures were other, no less impressive figures.

A 3-litre displacement and six cylinders in a boxer configuration were all that the first 911 Turbo needed to turn the sportscar world (where the motto was 'size equals power') upside down.

In other words, the car on show on the stand in Paris wasn't just a car bursting with power. Here was an idea, an opportunity.

To get more from less. To optimise the ratio of work input to work output. In short, efficiency needs power. That was the principle. And it still stands to this day.

The car was made technically possible by an invention from 1905. The Swiss engineer Dr. Büchi utilised the energy of the flow of exhaust gases to increase the efficiency of combustion engines.

You don't need to be an engineer to understand the practical benefits of this. Turbocharging means a tremendous gain in power for comparatively small engine displacements. The advantage of small-displacement engines is particularly felt in the lower and middle load ranges – in other words, during everyday driving on the road. In these conditions, fuel consumption and CO_2 emissions figures are significantly lower than those for larger engines.

Another advantage is the compact engine size which reduces weight. The engine takes up less space and keeps the overall vehicle weight down. In short, agility and dynamic performance are increased and fuel consumption is decreased.

Of course, in 1974 the technology was still in its infancy. The idea needed to mature, but the fact remained that it worked. What started out as a scheduled production run of 400 vehicles has become a lifetime's work.

Over the years, alongside continual increases in power output, the 911 Turbo has seen the introduction of a wide variety of technologies to improve handling and dynamic performance as well as fuel consumption and efficiency.

Examples include the cross-drilled brake discs from 1977 which increased braking performance and reduced unsprung masses. The twin-turbo engine introduced in 1995 performed excellently, delivering a significantly more harmonious build-up of power and making the 911 Turbo a much more composed and thereby more fuel-efficient vehicle. All-wheel drive was introduced for the first time, increasing both traction and safety.

A major step towards greater efficiency was achieved in 2000 with the launch of the 911 Turbo, based on the Type 996. This saw the use of technologies that are also to be found on the new 911 Turbo. VarioCam Plus reduced fuel consumption drastically, whilst the extending rear wing, through its ability to change position, complemented the already exemplary aerodynamic performance.

In 2006, the launch of the 911 Turbo based on the Type 997 revealed a revolution in turbocharging, with the advent of Variable Turbine Geometry (VTG). More power. More torque. Less fuel. Less CO_2. Porsche was the first car manufacturer that was able to use this technology in standard-production petrol engines. And so far is the only one to do so.

And today? The principle behind the 911 Turbo is still one of power and efficiency and consequently is just as valid as ever.

Direct fuel injection (DFI) improves power output, torque and engine response whilst also reducing fuel consumption and CO_2 emissions. The optional Porsche Doppelkupplung (PDK), or double-clutch gearbox, shortens gearshift times, eliminates any interruption in the flow of power and increases efficiency thanks to the long-ratioed 7th gear. Also doing their bit are the expansion intake manifold and on-demand oil pump.

Let's get down to the details.

Dreamers. Idealists. Environmental activists. We are naturally proud of our engineers.

The technology behind the new 911 Turbo models.

The development of a new 911 Turbo demands meticulous work. Often, that work goes unseen. But you always feel it.

Let's start right at the beginning. Or should we say, at the rear. With the engine – the all-important heart of the new 911 Turbo models. Newly designed, its performance credentials need no questioning. The compact, lightweight power unit has a displacement of 3.8 litres from which it produces 368 kW (500 hp) and 650 Nm of torque.

Responsible for this are the two exhaust gas turbochargers with Variable Turbine Geometry (VTG) and VarioCam Plus, as well as technologies such as Direct fuel injection (DFI, page 30) which is being used on a 911 Turbo for the first time, and the expansion intake manifold (page 38) which has turned all previous principles about air supply for turbocharged engines completely on their heads.

With DFI, mixture formation takes place entirely in the combustion chamber. The metered fuel is injected directly with millisecond precision. The result is optimum mixture formation and combustion and consequently more power, more torque and increased efficiency. Depending on the model, fuel savings of up to 16% and reductions in CO_2 emissions of up to 18% can be achieved.

Porsche Doppelkupplung (PDK, page 40), available as an option for the 911 Turbo for the first time, is based on a Porsche development that caused a sensation on the world's racetracks back in the 1980s when it was fitted into Porsche racecars.

PDK, with both manual shift and automatic mode, has two half-gearboxes incorporated into one housing and a total of seven forward gears and two clutches. Gear-changing is completed in a matter of milliseconds, with no interruption in the flow of power. Compared with a conventional manual gearbox, PDK in the new 911 Turbo significantly improves acceleration whilst reducing fuel consumption. Driving feels even more dynamic and agility is increased. Available if required in combination with PDK is the new three-spoke sports steering wheel with gearshift paddles.

The further-enhanced active all-wheel drive system, Porsche Traction Management (PTM, page 46), ensures outstanding traction and vehicle dynamics. Giving dynamic performance a further boost is the optionally available Porsche Torque Vectoring (PTV, page 48). Used for the first time in a production Porsche, it distributes variable amounts of drive torque to each rear wheel.

911 Turbo

Porsche Stability Management (PSM, page 54) and Porsche Active Suspension Management (PASM, page 51) are provided, of course, as standard.

One exclusive option for the new 911 Turbo models is the Sport Chrono Package Turbo with dynamic engine mount system and overboost function (page 56). It has a whole host of performance-enhancing functions. The overboost, for example, briefly raises boost pressure when accelerating in the mid-engine speed range to provide an additional 50 Nm of torque. When combined with PDK, the SPORT PLUS button can activate 'Launch Control', for optimum acceleration from a standing start, or the motorsport-derived gearshift strategy for racing-style gear changes.

The dynamic engine mount system improves ride comfort and vehicle dynamics whilst also providing more stable handling. The system reduces the oscillations and movements of inert masses in the drive assembly by automatically changing the stiffness and damping characteristics of the engine mounts.

As is so typical of the 911 Turbo, comfort and sound are not neglected either. Porsche Communication Management (PCM, page 84), including a navigation module and 6.5-inch touchscreen, and the BOSE® Surround Sound System both come as standard.

It sounds, therefore, as though the new 911 Turbo models have got it all. Apart from weight, that is. The doors and bonnet are made of aluminium and the engine is particularly lightweight thanks to the use of light alloys and integral dry-sump lubrication. New 19-inch forged Turbo II wheels keep the unsprung masses low. The result is a power-to-weight ratio of 3.1 kg/hp for the Coupé and 3.3 kg/hp for the Cabriolet.

The technology of the new 911 Turbo models has enabled a balance to be achieved. On the one hand, it has once again significantly increased power and performance. On the other, it has substantially reduced both fuel consumption and CO_2 emissions. Showing that, at Porsche, efficiency and power are inseparable.

911 Turbo Cabriolet

It is precisely in turbulent times when we need a place of calm.

The design of the new 911 Turbo models.

Keeping the tried-and-tested without ignoring innovation. Another example of the efficiency of the 911 Turbo.

The styling is dynamic without being fussy. Sporty without being ostentatious. In short, no gimmicks, no showiness, no doubts.

The side air-intake grilles in the front apron now have titanium-coloured painted slats. To the right or left respectively of the grilles are the new daytime running lights, positioned low down. Like the indicators, they utilise LED technology to provide increased illumination and give a characteristic look.

Optional dynamic cornering lights are an additional safety feature.

Rear wing lowered

Rear wing raised

Glancing over the sides of the vehicle, you will notice the linear, no-frills twin-spoke design of the new 911 Turbo II wheels. Elements of the spokes and wheel rim have a high-sheen finish. The wheels are forged and the sophisticated technology facilitates a lightweight, yet highly rigid design.

The new exterior mirrors ensure better rearward visibility.

The rear features new LED taillights that extend right round to the wings where they taper to a point. The LED brake lights respond extremely quickly, thereby increasing active safety. In other words, the traffic behind is warned sooner.

The two tailpipes now have larger diameters. They are positioned neatly in the recesses of the rear apron and provide a visual reminder of the engine's increased power.

The typical well-balanced aerodynamics of the 911 Turbo remain unchanged. The rear wing extends at 120 km/h (75 mph), retracting again when vehicle speed drops to around 60 km/h (37 mph).

The drag coefficient is just 0.31 (Cabriolet: 0.32).

The interior design reveals all the typical characteristics: sporty, uncluttered and ergonomically refined. Careful consideration has been given to the interior geometry and there is a generous amount of occupant space.
The gear lever design is exclusive to the 911 Turbo models. Available for the first time is the optional three-spoke sports steering wheel with shift paddles for vehicles with PDK.

In short, a design which is classic without being outdated.

You don't have to depart this life to become a legend.

Model range.

Closed or open. There are many ways to interpret the 911 Turbo concept. But one thing remains the same: making a choice never means making a compromise on power and efficiency.

The new 911 Turbo.

Although the figures provide succinct proof of its power, there is one value in particular that makes a 911 Turbo what it is: constancy. Of course, much has changed in the course of seven generations, but the basic principle remains the same.

The new 911 Turbo handles its power effortlessly and with composure. Power is available at all times. The six-cylinder boxer engine with DFI now outputs 368 kW (500 hp) at 6,000 rpm and summons up 650 Nm of torque between 1,950 rpm and 5,000 rpm. Despite the extra power, it has been possible to reduce fuel consumption and CO_2 emissions significantly, by up to 16% and 18% respectively, depending on the model.

Here are some more fascinating facts: with the standard six-speed manual gearbox, the traditional 0 to 100 km/h (62 mph) sprint is achieved in just 3.7 seconds. With the optional PDK and Sport Chrono Package Turbo with dynamic engine mount system, this time is reduced even further, to 3.4 seconds. The 200 km/h (124 mph) mark is reached in 11.9 and 11.3 seconds respectively. Top speed is 312 km/h (194 mph).

These figures undoubtedly brand the new 911 Turbo as a super athlete. Yet the amazing thing is the ease with which the driver can achieve them. Helping to make it all so easy are the standard-fitted Porsche Traction Management (PTM) active all-wheel drive, Porsche Stability Management (PSM), Porsche Active Suspension Management (PASM) and new optional Porsche Torque Vectoring (PTV). What's also interesting is that these technologies not only produce impressive performance figures, they also vastly improve the car's everyday practicality.

The same can be said for the comfortable interior. Leather trim, a new-design three-spoke sports steering wheel and the multi-way electrically adjustable comfort seats with driver memory function come as standard. Porsche Communication Management (PCM) with a GPS navigation system features intuitive controls, while the standard BOSE® Surround Sound System provides an impressive sound experience. Seat ventilation, steering wheel heating and many other personalisation options are available on request.

The new 911 Turbo. Whether you perceive it as a no-compromise embodiment of the power principle or as a technology platform that effortlessly combines efficiency with comfort and a sporty edge depends on one thing above all else: your point of view.

The new 911 Turbo Cabriolet.

If life is a journey, wouldn't it be a tragedy not to enjoy it to the full? Perhaps it's this – admittedly somewhat philosophical – outlook that best explains the desire for a 911 Turbo Cabriolet.

It's all about that intense experience of driving with the hood down. Coupled with the impressive way in which the new 3.8-litre boxer engine unleashes its power. Its performance figures are identical with those of the Coupé. The drag coefficient when the hood is closed is 0.32, barely any different from the Coupé.

When fitted with the manual gearbox, the 911 Turbo Cabriolet sprints from 0 to 100 km/h (62 mph) in just 3.8 seconds. With PDK and Sport Chrono Package Turbo with dynamic engine mount system, it takes even less time, just 3.5 seconds. Top speed is 312 km/h (194 mph).

To prevent body flexing as much as possible, the body is designed for high torsional and flexural strength. As a result you get the same precise, direct driving experience as you do in the Coupé. Despite being heavier, fuel consumption is comparable with that of the Coupé.

The dynamic engine mounts of the optional Sport Chrono Package Turbo reduce oscillations and vibrations which further improves ride comfort.

Where safety is concerned too, the Cabriolet meets the most stringent requirements. Like the 911 Turbo, it has full-size airbags for driver and passenger as well as Porsche Side Impact Protection System (POSIP, page 70). The safety package is supplemented by the effective roll-over system (page 70) and reinforced A-pillars.

As with all its predecessors, the new 911 Turbo Cabriolet also has a fabric hood. This is for very good reasons: it saves weight in the right places and keeps the centre of gravity low. When open, it takes up significantly less space than a folding metal roof. And it preserves the classic 911 Turbo Cabriolet look.

Hood.

The fully automatic hood of the new 911 Turbo Cabriolet is lightweight and robust. The hood frame is a lightweight structure, whilst the glass rear screen is scratch-resistant and heated – to provide excellent rearward visibility. A rain channel on the hood reduces dripping when the doors are opened.

Electrically powered, the hood is opened using a button on the centre console or via the key remote.

The concertina action ensures optimum protection for the interior lining. The entire operation – be it opening or closing – takes approximately 20 seconds. For added convenience, the hood can be operated while the vehicle is travelling at speeds of up to 50 km/h (31 mph).

The interior hood lining is made from a sound and heat-insulating fabric. The resulting noise levels are astonishingly low – even when travelling at high speed. Ensuring you hear almost nothing – apart from that typical Porsche sound.

Wind deflector

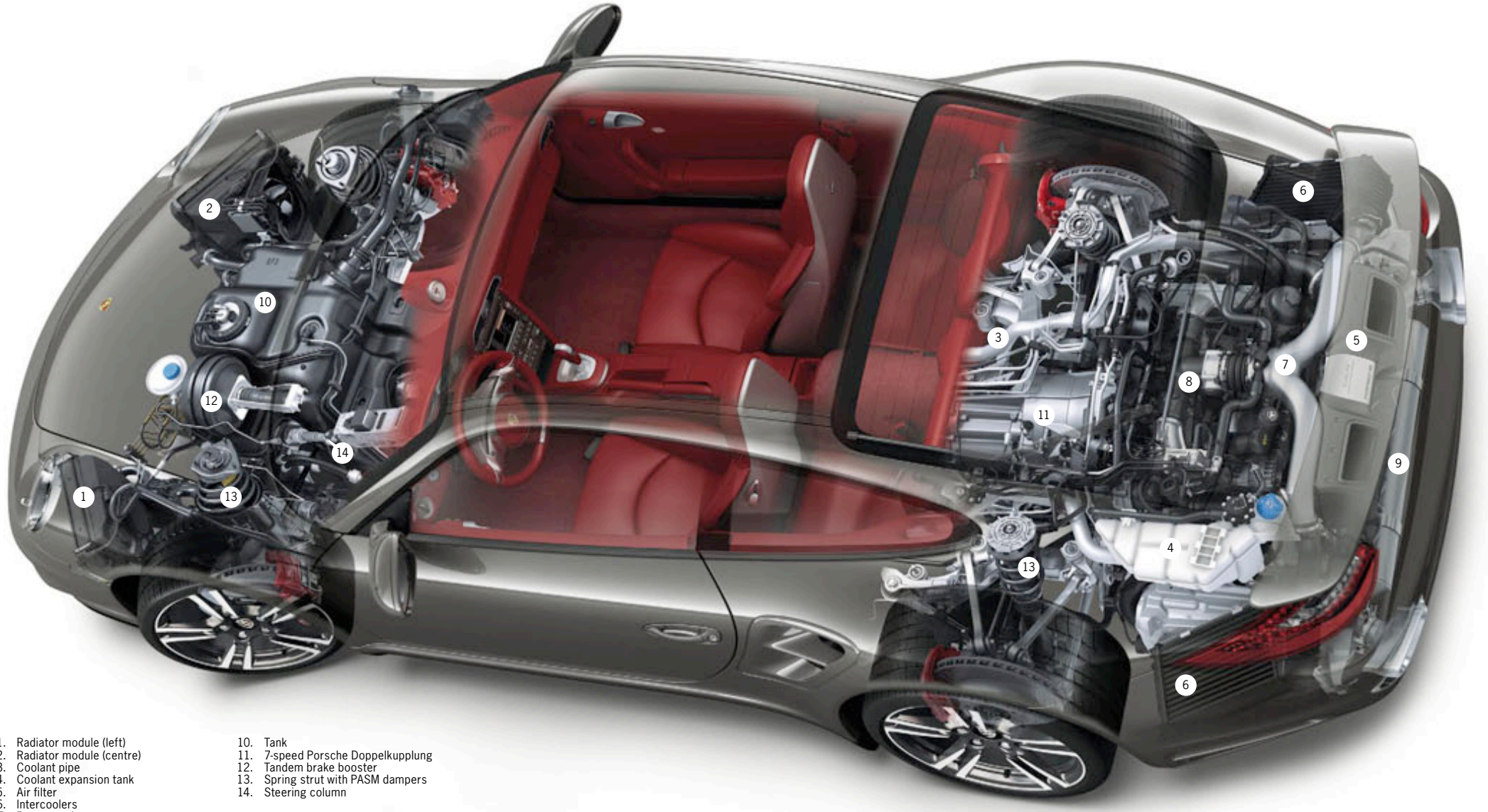
Wind deflector.

The 911 Turbo Cabriolet comes with a detachable wind deflector as standard. Developed in the Porsche wind tunnel, it reduces turbulence and noise at high speed. It is easy to fit and can be folded and stowed in the luggage compartment.

Hardtop.

Optional equipment includes a tough and lightweight aluminium hardtop which is also easy to fit. The interior is lined with a sound-absorbent fabric that complements the passenger compartment.

Performance



1. Radiator module (left)
2. Radiator module (centre)
3. Coolant pipe
4. Coolant expansion tank
5. Air filter
6. Intercoolers
7. Pressure pipe
8. Expansion intake manifold
9. Exhaust system
10. Tank
11. 7-speed Porsche Doppelkupplung
12. Tandem brake booster
13. Spring strut with PASM dampers
14. Steering column

Pressure generates composure.
Another example of why things are done a little bit differently at Porsche.

Engine.

Engine of the new 911 Turbo

The power concept of 1974: a rear-mounted turbocharged engine. The efficiency concept of today: DFI, VarioCam Plus and VTG.

The location of the six-cylinder boxer engine is not up for discussion. Neither is the use of two exhaust gas turbochargers with Variable Turbine Geometry (VTG). These are permanent fixtures in a successful concept. But that is no reason for Porsche engineers to rest on their laurels.

A new generation of engines is being used for the current 911 Turbo models. Displacement has been increased by 0.2 litres to 3,800 cm^3, output to 368 kW (500 hp) at 6,000 rpm and torque to 650 Nm between 1,950 rpm and 5,000 rpm (700 Nm with the overboost function of the optional Sport Chrono Package Turbo with dynamic engine mount system). Compared with the previous model, more torque is available for the same engine speed, ensuring you can relax even more behind the wheel – and relax about fuel consumption too.

Fuel consumption is a consideration that at present is becoming at least as important as performance figures. Including – perhaps particularly – for a sportscar of this genre.

Despite the increase in power, the new 911 Turbo with a standard six-speed manual gearbox uses 9% less fuel. It has been possible to reduce CO_2 emissions by up to 11%. The car complies with the Euro 5 emissions standard.

This has required the use of sophisticated technologies and processes. Examples include the new direct fuel injection (DFI) system, VarioCam Plus, Variable Turbine Geometry (VTG) and the new expansion intake manifold.

On balance, the engine of the new 911 Turbo models demonstrates power, even when it's not just about power in the traditional sense of the word. The following pages of the Performance chapter are dedicated to this concept.

Direct fuel injection (DFI).

On the new 911 Turbo models, DFI injects the fuel with millisecond precision directly into the combustion chamber at up to 140 bar via electromagnetically actuated injection valves, thus assuring homogeneous distribution of the air/fuel mixture and consequently efficient combustion.

In the direct injection system, the EMS SDI 3.1 engine management system adjusts the injection timing individually for each cylinder and the injection quantity for each cylinder bank. This optimises both the combustion curve and fuel consumption.

Dual injection is implemented at engine speeds of up to 3,200 rpm and triple injection up to 2,700 rpm to ensure faster catalyst warm up after a cold start and more torque in the upper load range.

The required quantity of fuel is distributed to two or three successive injection processes per cycle.

DFI improves the internal cooling of the combustion chamber by forming the mixture directly in the cylinder. This has made it possible to increase compression (9.8:1), resulting in more engine power and even greater efficiency.

Integrated dry-sump lubrication.

Integrated dry-sump lubrication ensures a reliable supply of oil even when a sporty driving style is adopted. It also has additional cooling functions. The oil tank is located in the engine, thereby eliminating the need for an external oil tank.

A total of seven oil pumps ensure the supply of oil. Six of those return the oil from the cylinder heads and exhaust gas turbochargers directly to the oil sump where a seventh oil pump feeds oil directly to the lubrication points in the engine.

To reduce drive losses and increase efficiency, an electronic on-demand oil pump is used. This means that the oil pump is operated at high power when there is high demand and at low power when there is low demand. The result is an optimised oil supply appropriate to requirements, lower fuel consumption and fewer emissions.

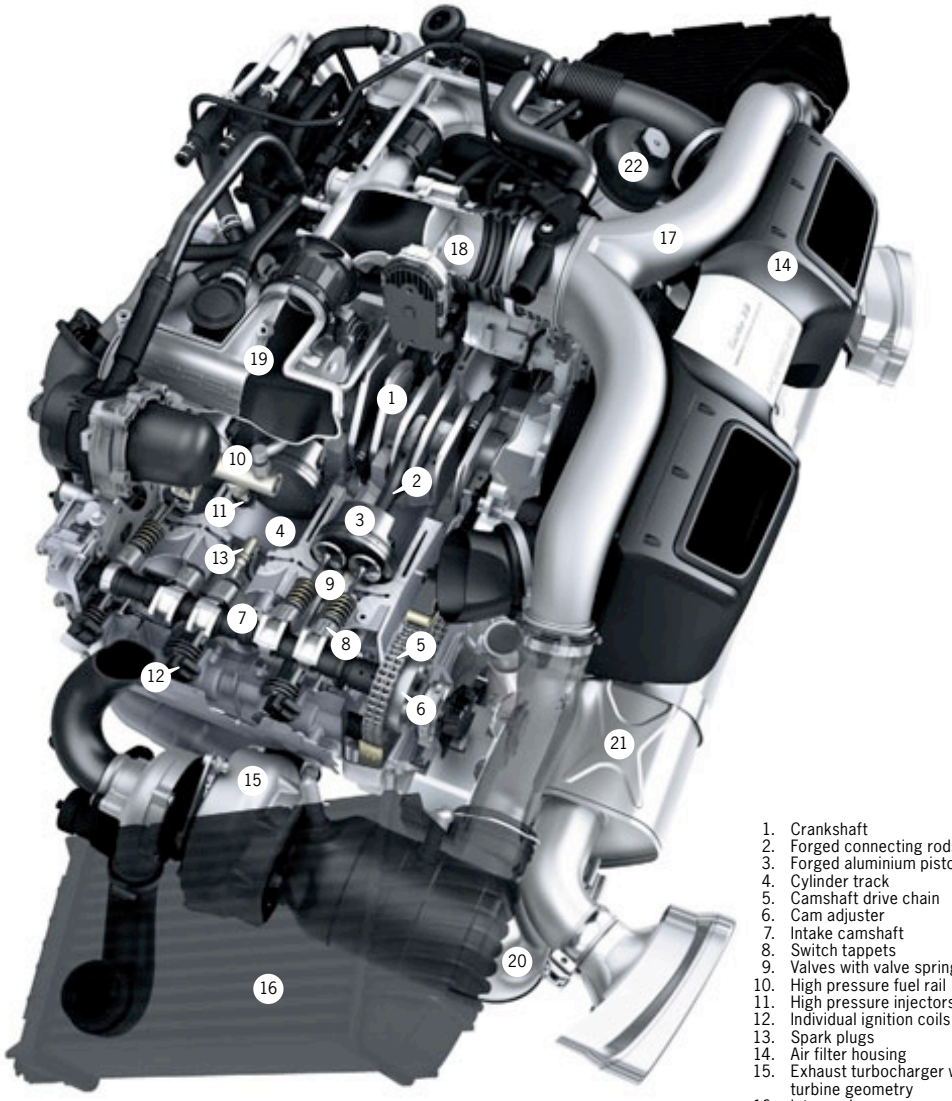
Lightweight design.

An alloy engine means less weight and consequently reduced fuel consumption. The intelligent engine design also saves weight.

The alloy crankcase is divided vertically, with the cylinders integrated into the crankcase. Forged connecting rods are used. For optimum durability, we've used forged aluminium pistons running in cylinders made from an aluminium/silicon alloy and cooled via individual oil-spray jets.

Integrating the camshaft bearing system fully into the cylinder heads has also saved weight.

The subsequent low levels of engine friction and the efficient design of the oil supply system have helped to reduce fuel consumption even further.



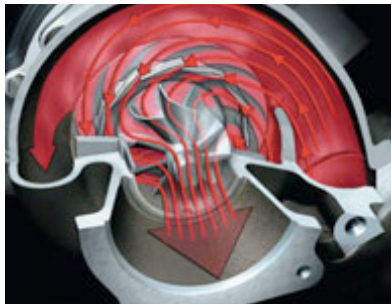
1. Crankshaft
2. Forged connecting rods
3. Forged aluminium pistons
4. Cylinder track
5. Camshaft drive chain
6. Cam adjuster
7. Intake camshaft
8. Switch tappets
9. Valves with valve springs
10. High pressure fuel rail
11. High pressure injectors
12. Individual ignition coils
13. Spark plugs
14. Air filter housing
15. Exhaust turbocharger with variable turbine geometry
16. Intercoolers
17. Pressure pipe
18. Throttle valve
19. Expansion intake manifold
20. Catalytic converters
21. Exhaust system
22. Oil filter

Variable Turbine Geometry (VTG).

The 911 Turbo is straightforward, almost matter-of-fact, when it comes to handling power. VTG has contributed enormously to this.

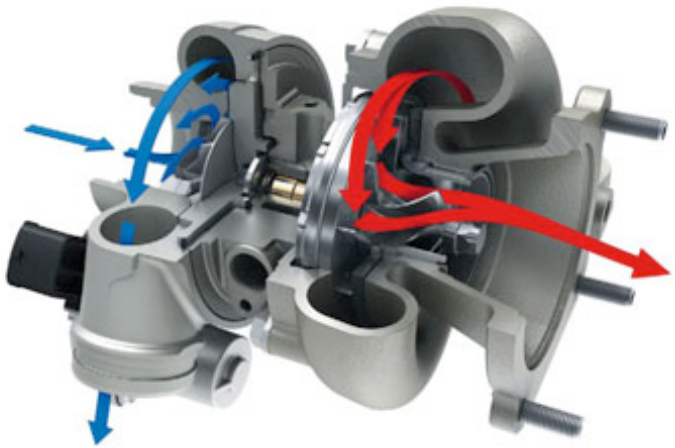
The variable turbine geometry of the twin water-cooled exhaust gas turbochargers on the new 911 Turbo models goes a long way to resolving the conflict of aims of normal turbochargers. With this technology, the gas flow from the engine is channelled onto the turbines via electronically adjustable guide 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. Maximum torque is reached at lower rpm and is retained across a wider rev range. A full 650 Nm is available from as low as 1,950 rpm up to 5,000 rpm. Every throttle input is met with exceptional response and phenomenal acceleration.



Guide vanes closed

Guide vanes open



When the boost pressure reaches its maximum value, the guide vanes are opened further. By varying the vane angle, it is possible to achieve the required boost pressure over the entire engine speed range. As a result, there is no need for excess-pressure valves as found on conventional turbocharged engines.

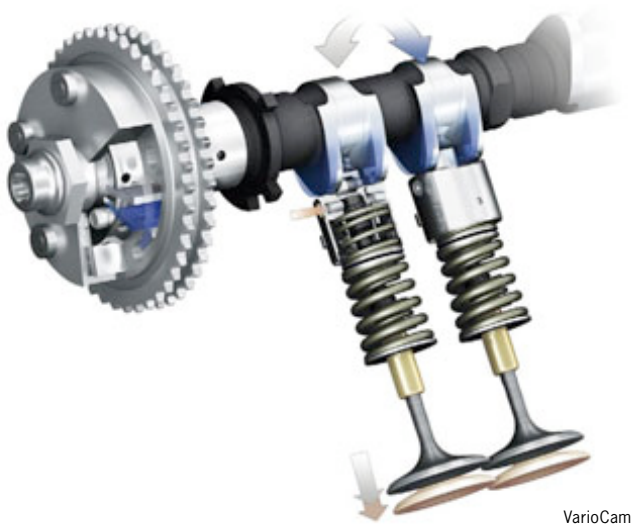
Engine performance can be further enhanced by selecting the 'SPORT' mode on the optional Sport Chrono Package Turbo with dynamic engine mount system (page 56). Under full acceleration, the boost is temporarily increased in the lower and medium speed ranges by approximately 0.2 bar. During this phase, the engine develops as much as 50 Nm of additional torque. Matching the exceptional performance of the car is the efficiency with which it is generated. Despite the increase in power and torque, the 911 Turbo models achieve a further reduction in fuel consumption. Because power alone is not enough.

VarioCam Plus.

VarioCam Plus is a variable valve timing system on the inlet side which also features two-stage valve lift. For excellent smooth-running performance, better fuel economy and fewer emissions. And greater power and torque.

The timing of each valve is steplessly and electro-hydraulically controlled by means of a rotary vane adjuster.

For optimum responsiveness during the warm-up phase, VarioCam Plus will select the higher valve lift setting and retard valve timing. At medium revs and low engine loads, the lower valve lift setting is selected and timing advanced in order to reduce fuel consumption and emissions. For maximum power and torque, the higher lift setting is selected and the timing of the valves is advanced.



VarioCam Plus

Engine management.

The EMS SDI 3.1 engine management system ensures optimum performance at all times.

It is responsible for all engine-related functions and assemblies, resulting in improved fuel economy, emission levels and performance, regardless of driving style.

Another important task performed by the engine management system is cylinder-specific knock control. Since conditions tend to vary across the engine, each cylinder is monitored separately. If a risk is detected, the individual ignition timing is adjusted to protect the cylinders and pistons at high engine speeds and loads. The EU-compliant on-board diagnostics system provides continuous fault detection as well as early warning for the exhaust and fuel supply systems. This actively prevents harmful emissions while maintaining consistent rates of fuel consumption.

Ignition system.

The ignition system is a static high-voltage system. Each individual spark plug has a separate ignition coil, ensuring perfect combustion every time.

Expansion intake manifold.

More power for less fuel. What sounds absurd is sometimes quite simple. You just have to have the nerve to question principles that are seemingly written in stone.

The new 911 Turbo models have an innovative expansion intake manifold that was used for the first time on the latest 911 GT2. Its unique operating principle is 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 turbocharged 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.

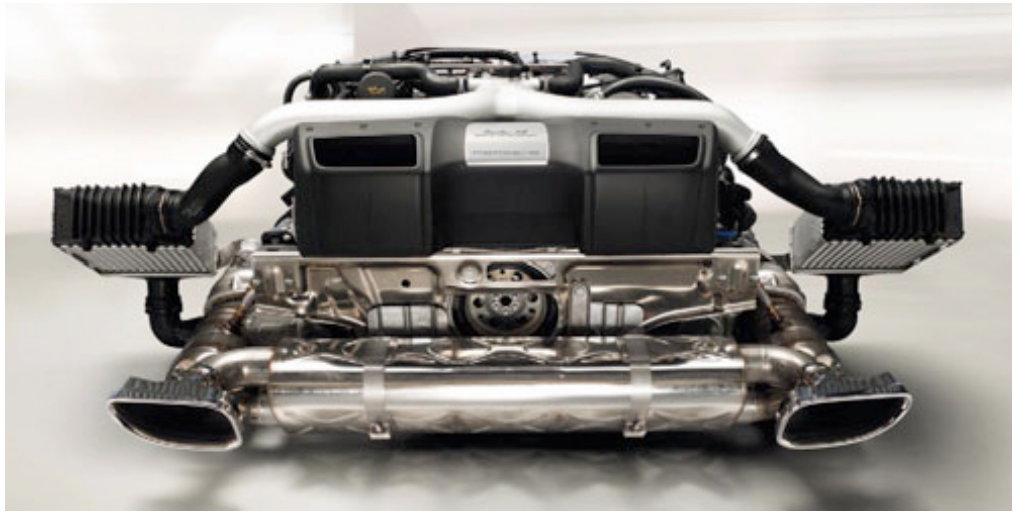
Unfortunately, compression not only increases air volume, it also increases air temperature and this has a negative effect on ignition.

Our 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. 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. As a consequence, there is a major improvement in engine efficiency and therefore lower fuel consumption even under heavy loads and at high revs.

As we said, sometimes you just have to question established ideas.



Engine and exhaust system of the new 911 Turbo

Exhaust system.

The exhaust system is made from stainless steel. Its catalytic converters are extremely heat-resistant, yet quick to reach temperature – and thus optimum performance – when the engine is started from cold.

Thanks to advanced exhaust gas technology, the new 911 Turbo models comply with the strict emissions standards of Euro 5 in Europe and LEV II in the USA.

Servicing.

The 911 Turbo models are designed for a long life. A self-adjusting belt drives the generator, power-steering pump and air-conditioning compressor. Valve clearances are adjusted hydraulically, thus avoiding the need for any adjustment work. The camshafts are driven by timing chains that require no maintenance and the ignition system, with the exception of the spark plugs, is also maintenance-free. The cars come with a two-year unlimited mileage warranty.

The long service intervals (see separate price list) keep costs and labour times down and save resources, since fewer service products and consumable parts are used.

Calm. Storm.
Which way round is up to you.

Transmission.

The principle is simple: the transmission ensures that the 500 hp output of the new 911 Turbo isn't manifested as a blaze of noise and smoke. Unless that's what you really want.

Porsche Doppelkupplung (PDK).

Derived from motorsport, PDK, available for the 911 Turbo for the first time, achieves one thing above all else: it provides the perfect balance between uncompromisingly dynamic performance and exceptional levels of comfort. It's purely about point of view. The driver's especially.

The optional PDK with both manual and automatic modes enables extremely fast gear changes with no interruption in the power flow.

Selector lever for the Porsche Doppelkupplung (PDK)

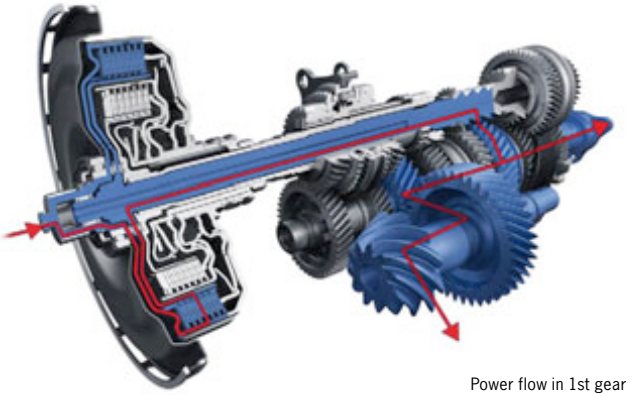
For improved acceleration and significantly lower fuel consumption – without having to dispense with the advantages of an automatic.

The driver experiences a sportier, even more dynamic drive with more agility. Depending on driving style, gear changes range from exceptionally comfortable to exceptionally sporty.

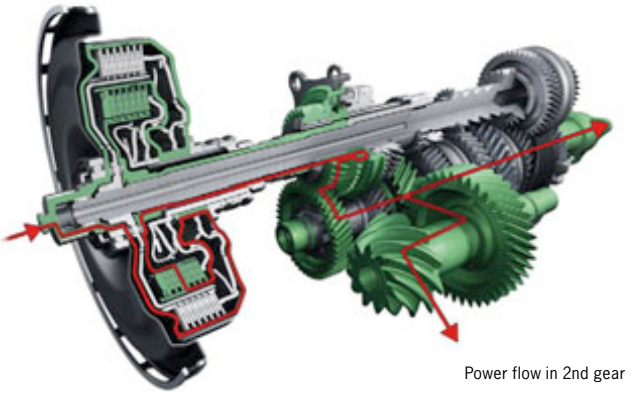
Manual gear changes are performed using the PDK's ergonomically designed gear lever or the switches on the steering wheel: nudge forwards to change up, pull back to change down. The logic behind the optional three-spoke sports steering wheel with gearshift paddles comes from motorsport: pull to the right to shift up, pull to the left to shift down.

PDK has been specially tuned to the characteristics of the new 911 Turbo models. It has seven gears at its disposal. Gears 1 to 6 have a sports ratio, with the top speed being reached in 6th gear. The 7th gear has a long ratio and helps to reduce fuel consumption even further.

PDK is essentially two half-gearboxes in one and thus requires two clutches – designed as a double wet clutch transmission.



Power flow in 1st gear



Power flow in 2nd gear

This double clutch provides an alternating, non positive connection between the two half-gearboxes and the engine by means of two separate input shafts (input shaft 1 is nested inside the hollowed-out input shaft 2).

The flow of power from the engine is only ever transmitted through one half-gearbox and one clutch at a time, while the next gear is preselected in the second half-gearbox. During a gear change, therefore, a conventional shift no longer takes place. Instead, one clutch simply opens and the other closes at the same time. Gear changes can therefore take place within milliseconds.

Clutch 1 controls the first half-gearbox, which contains the odd gears (1, 3, 5, 7) and reverse. Clutch 2 controls the second, which contains the even gears (2, 4, 6).

The optional Sport Chrono Package Turbo with dynamic engine mount system provides PDK with two additional functions, 'Launch Control' and 'motorsport-derived gearshift strategy' (page 56).

PDK – sporty, comfortable and efficient. Characteristics that have been given some thought elsewhere too: in the specification for the new 911 Turbo models.

Three-spoke sports steering wheel with gearshift switches.

If combined with the optional PDK, the standard-fitted three-spoke sports steering wheel has two ergonomic switches.

One press with the thumb and the PDK shifts up. One pull with the index finger and the PDK shifts down. Either the right or left hand can be used.

The steering wheel rim and airbag module are covered in smooth leather, whilst the spoke covers are painted in Lava Grey.

When combined with the optional Sport Chrono Package Turbo with dynamic engine mount system, there is an additional display above the airbag module. It tells you whether the SPORT, SPORT PLUS and Launch Control functions are activated.

On request, the sports steering wheel for PDK is also available as a multifunction steering wheel (in leather, Aluminium Look, carbon or macassar). Steering wheel heating is available as an option for any PDK steering wheel.

Three-spoke sports steering wheel with gearshift paddles.

The optional three-spoke sports steering wheel with gearshift paddles allows you to make motorsport-style gear changes. The paddles are made from a strong alloy and are ergonomically located behind the right and left steering wheel spokes. Pull a paddle to the right and the PDK shifts up. Pull to the left and the PDK shifts down.

Visually, the steering wheel is distinguished by its distinctive high-quality twin-spoke design and silver-coloured galvanised spoke cover.

This steering wheel also has an additional display when combined with the Sport Chrono Package Turbo with dynamic engine mount system. Located in the left and right-hand steering wheel spokes, it tells you whether SPORT, SPORT PLUS and Launch Control are activated.

Another feature reminiscent of the world of motorsport is the top centre marking on the steering wheel rim.

Three-spoke sports steering wheel with gearshift switches

Three-spoke sports steering wheel with gearshift paddles

Six-speed manual gearbox.

The six-speed manual gearbox is specifically adapted to the unique characteristics, including extremely high torque, of the 911 Turbo engine. Designed primarily for sports driving, it features a perfect ratio spread enabling a smooth transition through the gears. The gear lever throw is short and precise, with only minimal effort required. Thanks to a dual-mass flywheel, this performance is achieved without any compromise in comfort.

The linkage provides a direct connection with the gearbox unit while insulating the lever from engine vibration.

One final detail – the gear lever design is exclusive to the 911 Turbo models.

Hill-start assist.

Hill-start assist comes as standard for both manual and PDK transmissions. It assists the driver in making a smooth and roll-free start on an incline.

After braking, the system automatically detects whether the vehicle has come to a stop on a hill. When the driver releases the footbrake with the car still in gear, the brake pressure is retained on all four wheels for around two more seconds. This temporarily prevents the vehicle from rolling backwards. When the driver accelerates (or accelerates and releases the clutch in the case of manual models), the brake pressure is reduced once sufficient revs have been generated.

Gear lever

Porsche Traction Management (PTM).

Genuine high performance calls for more than just a powerful engine. It also requires an effective means of delivering that power to the road. One solution to this is all-wheel drive. An even better one is the further-enhanced Porsche Traction Management (PTM), consisting of active all-wheel drive with electronically controlled multi-plate clutch and including an automatic brake differential (ABD) and anti-slip regulation (ASR).

PTM improves vehicle dynamics even further whilst ensuring that none of the customary traction and driving safety is lost. The result is an even more enjoyable sporty ride combined with exceptional stability.

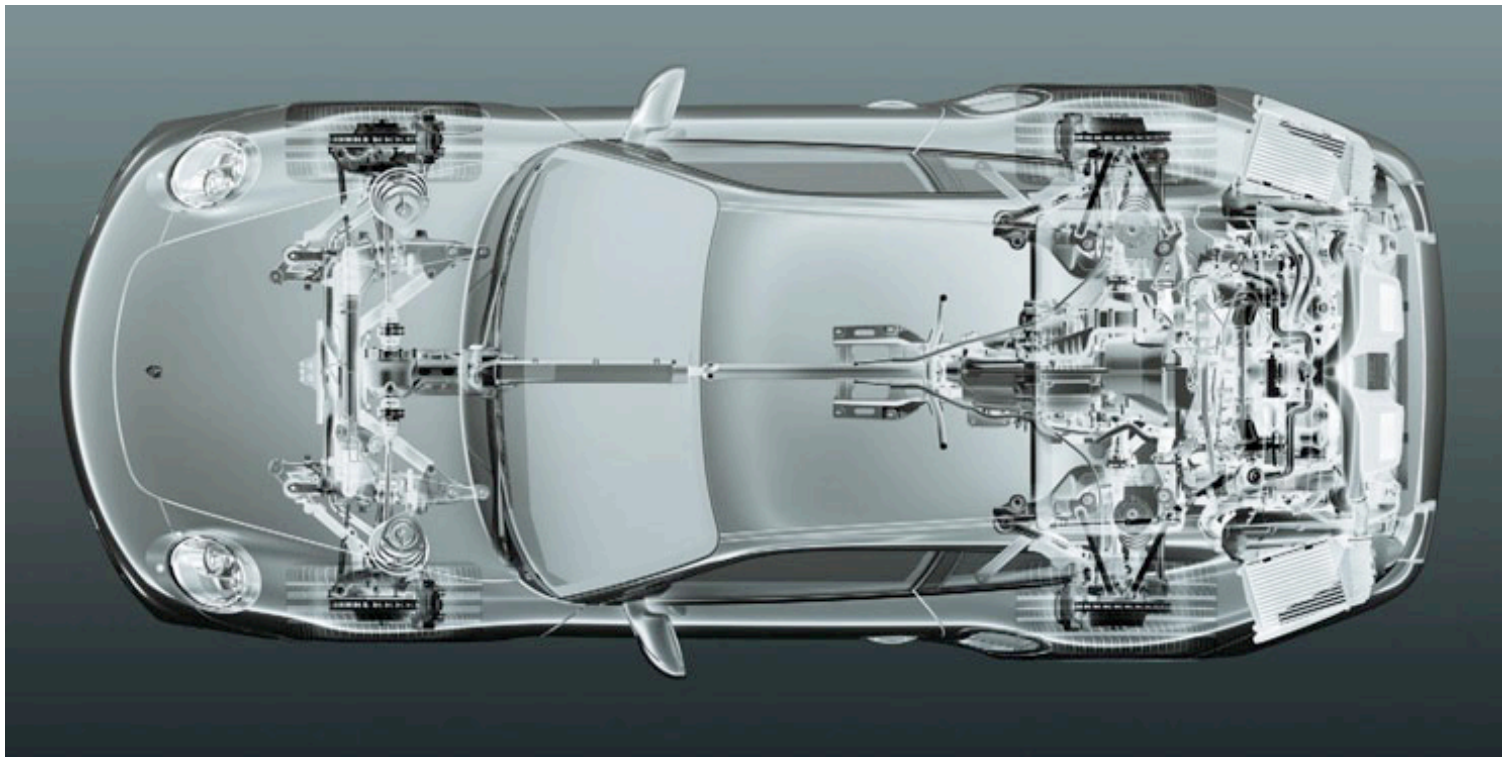
Torque is distributed actively – and exceptionally quickly – via an electronically controlled multi-plate clutch.

The advantage is that, through continuous monitoring of the driving conditions, a more immediate response to changing scenarios can be achieved. The status is monitored with the aid of on-board sensors. These are used to measure a range of values, including the rotational speed of all four wheels, the lateral and longitudinal acceleration of the car, and the current steering angle. The sensor data is analysed in 'real time', enabling immediate adjustments in front-end drive torque as and when required. If, for example, the rear wheels lose traction under acceleration, a greater proportion of drive torque is automatically transmitted to the front axle. At the same time, ASR prevents the rear wheels from spinning by adapting the engine power. When cornering, the system controls drive to the front wheels in order to maintain optimum lateral grip. On variable-grip surfaces, traction is enhanced using the automatic brake differential (ABD). If a wheel threatens to spin, PTM brakes it via ABD and in doing so transfers more drive torque to the other wheel on the same axle.

Assisting PTM is Porsche Stability Management (PSM). Combined, these systems provide excellent torque distribution – and therefore outstanding performance – in all driving conditions.

The benefits of PTM are most evident in wet and snowy conditions. In these conditions, the 911 Turbo models offer breathtaking acceleration.

In short, PTM provides greater active safety and greater performance, combined with exemplary balance.



Porsche Torque Vectoring (PTV).

Available for the 911 Turbo for the first time is the optional Porsche Torque Vectoring with variable torque distribution to the rear wheels and a mechanical limited-slip rear differential.

PTV is a system that actively enhances vehicle dynamics and stability. As a function of steering angle and steering speed, accelerator pedal position, yaw rate and vehicle speed, PTV is able to improve steering response and steering precision significantly by specific braking of the right or left rear wheel.

In simple terms, this means that when the car is driven assertively into a corner, moderate brake pressure is applied to the inside rear wheel. At the same time, different amounts of drive torque are distributed to each rear wheel via the rear axle differential. Consequently, there is more drive force at the outside wheel and a rotational pulse (yaw movement) is generated around the vehicle's vertical axis. This assists the steering input and results in a more assured steering manoeuvre.

At low and medium vehicle speeds, the system significantly increases agility and steering precision, whilst at high speeds, and in combination with the mechanical limited-slip differential, it additionally ensures greater driving stability.

The system, combined with Porsche Traction Management (PTM) and Porsche Stability Management (PSM), also puts its stabilising effect to good use on road surfaces with varying levels of grip and on snow and ice.

As PTV increases the car's dynamic performance, the system remains active when driving on the racetrack, even if PSM has been deactivated.

Where efficiency is concerned, this enhanced performance and stability are achieved without the need for any additional components, apart from the mechanical limited-slip rear differential. In other words, a more enjoyable drive with no additional weight.

What's the advantage of being well-balanced? Not letting the smallest thing bother you.

Chassis.

Perhaps the most efficient way of overcoming everyday obstacles is to rely on one's own experience. No one knows that better than our own chassis engineers.

The independent front suspension combines McPherson-type struts with longitudinal and transverse links. Each front wheel is precisely located, ensuring excellent handling and directional stability.

The rear axle assembly is a race-proven design featuring multi-link LSA (Lightweight, Stable, Agile) subframe-based suspension. Its lightweight construction offers excellent dynamic properties. The axle kinematics improves stability under acceleration by reducing excessive compression.

The lightweight strut has an aluminium damper instead of conventional steel to help improve handling and agility.

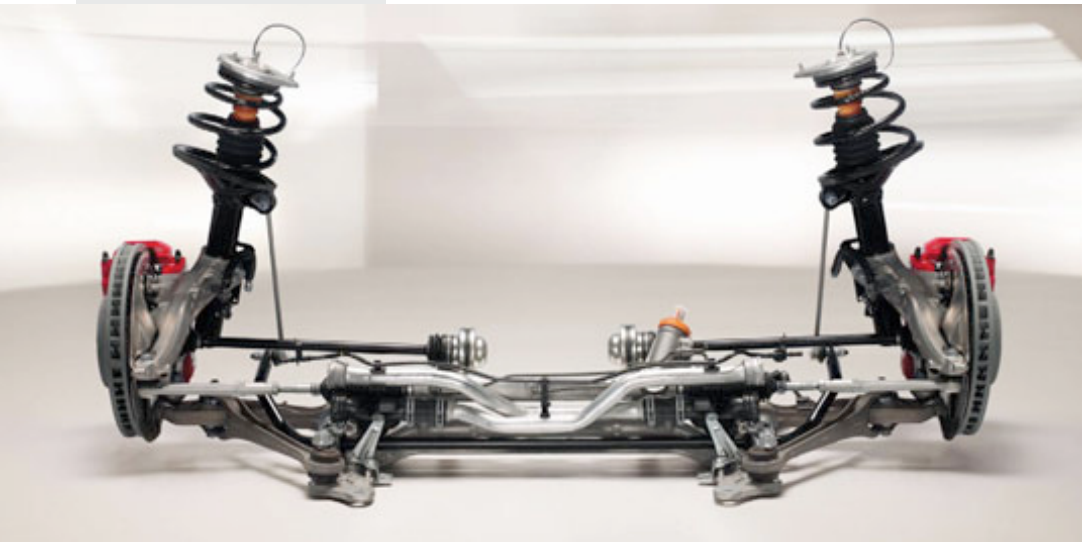
The resulting suspension enables smooth high-speed manoeuvres in all road and track scenarios. Pitch and roll are reduced to a minimum, as are tyre noise and vibration. The car offers exceptionally high levels of stability.

Porsche Active Suspension Management (PASM).

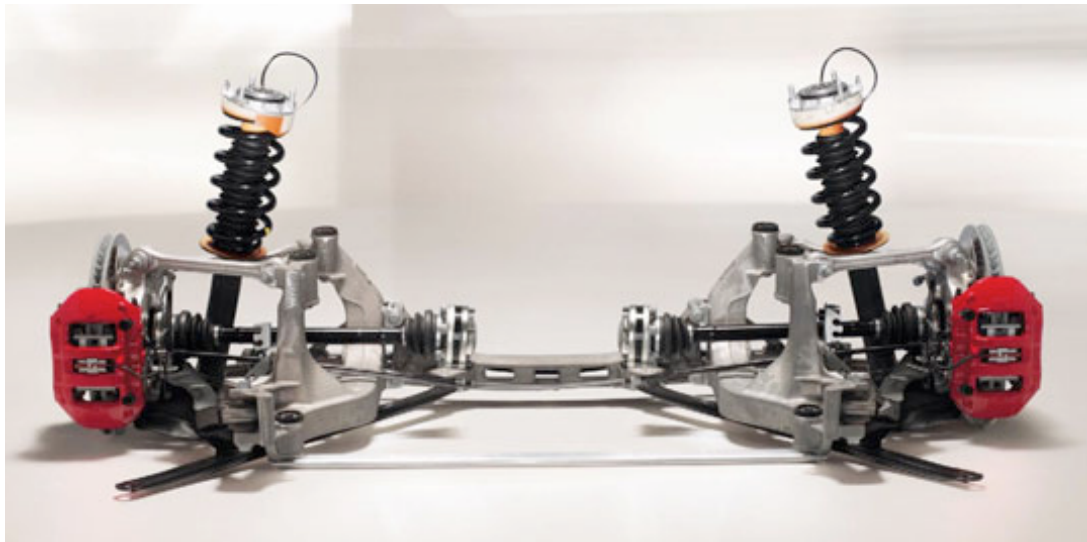
Included as standard equipment, Porsche Active Suspension Management (PASM) is an electronic active damping system. It offers continuous adjustment of the damping force on each wheel, based on current road conditions and driving style.

At the press of a button, the driver can choose between two modes.

While 'Normal' mode provides a blend of performance and comfort, the 'Sport' setup mode has a much firmer range of settings. The system responds to changing road conditions and/or driving style by continuously varying the individual damping forces within the parameters defined for the selected setup mode ('Normal' or 'Sport'). Pitch and roll are reduced, whilst contact of each wheel with the road is optimised.



Front axle (911 Turbo)



Rear axle (911 Turbo)

Steering.

Sensitive and direct, the power-assisted steering also offers accurate feedback from the road. For a sportscar, driver effort is minimal. In short: all the precision of a race-designed system, yet perfect for everyday road use.

One of the key features of the steering system is the variable-ratio gearing. Around the straight-ahead position, the ratio is less direct, enabling smoother manoeuvres on the motorway. It also reduces the risk of excessive steering inputs which could destabilise the car at high speed. Agility and feedback, however, are maintained.

Turn the wheel harder and the ratio becomes more direct, enabling better control through low-speed corners as well as easier parking manoeuvres. The turning circle is a modest 10.9 metres.

Wheels.

The standard-fitted 19-inch Turbo II wheels successfully deliver the tremendous power of the new 911 Turbo to the road.

The car has 8.5 J x 19 wheels at the front combined with 235/35 ZR 19 tyres. At the rear are 11 J x 19 wheels with 305/30 ZR 19 tyres. The wheels are forged, of course, to reduce weight and unsprung masses. The material is also very strong, making it possible to achieve a fine spoke wheel design which provides better ventilation of the brakes.

The five-spoke design is stylish and distinctive. The linear twin spokes have a high-sheen surface finish, contrasting with the titanium-coloured base paint. Part of the wheel rim also has a high-sheen finish.

The new 19-inch Turbo II wheels. Proof that dynamism can be expressed visually.

19-inch RS Spyder wheel with central locking device.

Available on request is a light-alloy wheel with a silver-coloured paint finish. In terms of both design and function in equal measure, this wheel is an expression of the experiences gained on the world's racetracks. Visually, it is reminiscent of the wheels of the RS Spyder racecar. Forged as one piece, the wheel features a central locking device.

Tyre Pressure Monitoring (TPM).

Tyre Pressure Monitoring, included as standard equipment, warns against tyre pressure loss. The driver is informed via the on-board computer display.

The driver can check the pressures of all four tyres from the instrument cluster. Each time the tyres are re-inflated, or whenever a wheel has been changed, the updated tyre pressures are displayed quickly – for increased comfort and safety.

19-inch Turbo II wheel

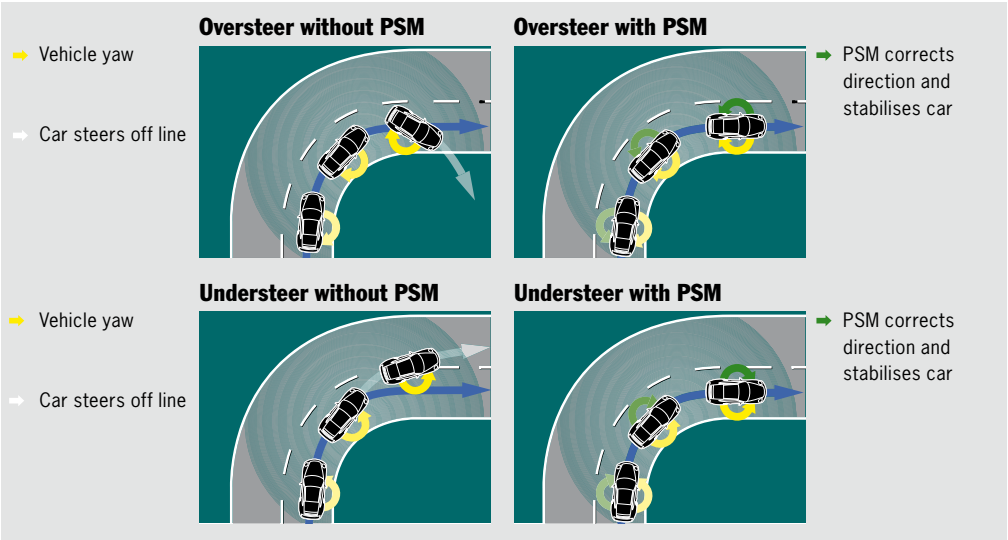
19-inch RS Spyder wheel with central locking device

Porsche Stability Management (PSM).

PSM, an automatic vehicle stability control system designed to aid the driver in critical road scenarios, is fitted as standard. Sensors 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, PSM applies selective braking on individual wheels to restore stability and optimum speed. Whenever PSM is required to intervene, an indicator light in the cockpit flashes.

When accelerating on wet or other low-grip surfaces, PSM combines with PTM and uses the automatic brake differential (ABD) and anti-slip regulation (ASR) functions to maintain traction and stability. Included as standard equipment, PSM assists with high-precision inputs that enhance the agility of each model. When 'Sport' mode is selected on the optional Sport Chrono Package Turbo with dynamic engine mount system (page 56), the PSM threshold is raised higher still to enable greater driver involvement – particularly at speeds of up to 70 km/h (44 mph).

PSM includes ABS to help minimise braking distances. System inputs are smooth and precise for greater driver comfort.



Active safety is further enhanced with the aid of two additional brake functions: electronic brake prefill and brake assist.

The prefill function is automatically enabled whenever the throttle pedal is suddenly released. The pressure in the brake lines is marginally increased, bringing each of the pads into light contact with the corresponding disc. If the driver then decides to use the brakes, the system can apply the maximum force with virtually no delay.

The brake assist function, by contrast, is specifically designed for use in emergency stops. When the speed of brake pedal application and the pressure on the brake pedal exceed a predefined threshold, the hydraulics automatically apply the necessary pressure to achieve maximum deceleration.

For a more actively involved driving experience, PSM can be manually disabled. PSM remains present in the background and will only intervene under heavy braking where at least one front wheel requires ABS assistance (in 'Sport' mode, if both front wheels require assistance). The automatic brake differential (ABD) remains active at all times.

Sport Chrono Package Turbo with dynamic engine mount system.

The 911 Turbo is a prime example of the ongoing evolution of Porsche engineering. For another step up in all-round performance, there's the optional Sport Chrono Package Turbo with dynamic engine mount system and overboost. This integrated system provides simultaneous enhancement for engine, chassis and transmission.

Key features include the 'overboost' function, a digital and analogue timer located on the dashboard, a SPORT select button on the centre console, a performance display and personal memory function in the standard Porsche Communication Management (PCM) and – in combination with PDK – the SPORT PLUS button and an additional display on the steering wheel which informs the driver if the SPORT buttons and Launch Control have been activated.

When 'Sport' mode is selected, the EMS SDI 3.1 engine management system creates a much more aggressive response to pedal inputs. To do this, it implements an alternative throttle map which relates the pedal position in the footwell to a wider angle of opening in the throttle body. In higher gears, it uses a hard rev-limiter to protect the engine under power.

Under full acceleration, the 'overboost' function provides a temporary increase in available boost pressure of approximately 0.2 bar. The overboost is applied across the low and medium rev ranges, briefly raising the standard 650 Nm of torque to as much as 700 Nm.

Steering wheel display with PDK and Sport Chrono Package Turbo

In addition to the engine, 'Sport' mode is enabled in the standard Porsche Active Suspension Management (PASM) suspension. The dampers become firmer, enabling faster turn-in as well as better contact with the road.

In automatic mode of the optional PDK, the basic gearshift pattern is switched to high-performance mode. The gear change action is virtually instantaneous, while the shift points are timed for maximum acceleration. Lift off the throttle – even at high revs – and the system automatically shifts down to apply engine braking. In manual shift mode, gear changing is faster and more dynamic.

Porsche Stability Management (PSM) is also adapted, with the intervention threshold raised. As a result, the car has a more natural response to lateral and longitudinal forces. Cornering agility is greatly enhanced, when both braking to turn in and applying power on exit – particularly in low-speed bends. For even greater driving pleasure.

For maximum manoeuvrability, PSM can be partially disabled while the car is still in 'Sport' mode. PSM simply monitors the forces acting on the car and will only intervene in the most critical scenarios, e.g. when ABS assistance is required on both front wheels.

In conjunction with PDK, the Sport Chrono Package Turbo with dynamic engine mount system has two additional functions that can be activated via the SPORT PLUS button, for a sporty drive that borders on a motorsport experience.

The first function is 'Launch Control', which, for example when performing laps, helps you achieve optimum acceleration from a standing start, a racing start in other words.

The function works like this: press the SPORT PLUS button when the transmission is in 'D' or 'M'. Then, with your left foot, press the brake pedal and accelerate fully with the right foot. The car recognises 'Launch' mode from the accelerator kickdown action and adjusts the engine speed to the optimum level, which is around 5,000 rpm. At the same time, boost pressure is increased to approximately 0.5 bar, engine torque is increased and the clutch is applied lightly. 'Launch Control' now appears in the PDK steering wheel display. Now release the brake as quickly as you can – and feel the acceleration power of the new 911 Turbo models.

The second function is the 'motorsport-derived gearshift strategy'. Using this, Porsche Doppelkupplung (PDK) is geared up for the shortest possible shift times and optimum shift points for maximum acceleration – ideal for the racetrack.

A key component of the Sport Chrono Package Plus with dynamic engine mount system is the timer mounted on the dashboard. Porsche Communication Management (PCM, page 84) has a special performance display to view, store and evaluate lap times or other driving times. It shows the total driving time, lap distance, lap number and the lap times recorded so far. You can view the current fastest lap and the remaining range until empty. Travelled distances can be recorded and benchmark times defined.

The personal memory function of the Sport Chrono Package Plus can also be used to store personalised settings for a range of systems, including the orientation lighting or air conditioning.

Operation of the dynamic engine mount system.

Stiffness and softness as required. That's the principle behind the dynamic engine mount system now being offered for the first time as part of the optional Sport Chrono Package Turbo. Essentially, it's an electronically controlled system for controlling the stiffness of the engine mounts.

The engine is bolted to the body using two mounts and follows Newton's law of inertia, namely that a body will continue to move in a uniform straight line unless it is made to change its direction by a force acting upon it.

Put more simply: when you are driving into a bend in your new 911 Turbo, the vehicle will follow your steering but, at first, the mass of the engine won't. This means that the rear of the vehicle is pushed outwards because of the inert forces from the engine's mass acting on it.

The new dynamic engine mount system minimises this effect. The steering angle longitudinal and lateral acceleration values are constantly recorded by sensors and the stiffness of the two engine mounts is changed automatically according to the driving style. This is achieved using a magnetisable (magnetorheological) fluid and an electrically generated magnetic field. The magnetisable particles align with each other and the fluid's viscosity changes. This alters the stiffness and absorption of the engine mounts: softer for greater comfort and less vibration when driving normally, harder for a more direct driving feel when driving more sportily.

The dynamic engine mount system also reduces the vertical oscillations of the engine when accelerating under full load. The result: greater and more uniform force on the rear axle, increased traction and better acceleration. All this means two things: perceptibly more stable handling under load change conditions and in fast corners and a step closer to the ultimate sporty drive – combined with enhanced levels of comfort.

Responsibility

One effective way of relaxing: breathe steadily.

Safety.

Quickening pulses whilst simultaneously creating calm. Yet another apparent contradiction typical of the performance of a 911 Turbo.

Headlights.

The 911 Turbo models are fitted as standard with a Bi-Xenon headlight system. The brightness of the lights is approximately twice as great as that of conventional halogen lights. Light output is improved and the road illuminated more uniformly on both dipped and main beam, helping to minimise driver fatigue. Also included is dynamic range control to prevent hazardous dazzling of oncoming vehicles due to undulations in the road or the loading of the car. A headlight cleaning function is also incorporated.

Dynamic cornering lights

Available as an option are the new dynamic cornering lights offering particularly effective illumination of the road ahead, especially through bends.

Sensors continuously monitor the speed, lateral acceleration and steering lock and, from these variables, calculate the course of the bend. This determines the angle of illumination for the dipped beam lights, up to a maximum of 15 degrees. On twisting roads, this means the course of the road and obstacles can be seen earlier by the driver.

Lighting concept.

Here too, the new 911 models are using the latest technology, in the form of high-performance LEDs for the horizontal front indicators and now also for the separate daytime running lights, the new taillights and the third brake light in the rear wing.

In addition to the distinctive look that makes the car very recognisable, the lighting also provides high illuminating power. The brake lights also respond very quickly, meaning that following traffic is alerted sooner. Plus the lighting saves energy, is environmentally sound and has a longer service life in comparison to conventional bulbs.

When the vehicle is opened or closed using the key remote, the 'Welcome Home' lighting function automatically switches on the LED daytime running lights.

Two additional lights inside each door ensure you see and are seen better when getting into and out of the car.

Brakes.

On the new 911 Turbo models, there is one thing above all else that both the accelerator and brake pedals deliver when you press them – and that's excitement.

The standard braking system features six-piston fixed calipers at the front and four-piston fixed calipers at the rear.

The red-painted calipers have a monobloc (one-piece) aluminium construction offering greater stability, better 'bite' characteristics under heavy braking and a further reduction in unsprung weight. The brakes are quick to apply and release, whilst the pedal travel is short and the bite point precise and consistent.


Standard front brake (911 Turbo)

The front and rear discs have a generous diameter of 350 mm. All four discs are cross-drilled for better performance in the wet. The distinctive drill-hole pattern enables a faster response by allowing rapid dispersal of the water vapour generated under braking.

The discs are also internally vented for better heat dispersal. The result: excellent stability in all conditions. Cooling air is directed onto the brakes to further improve performance. A powerful 9-inch tandem brake booster unit enables easier pedal inputs.

Braking distances are further reduced with the aid of two functions in the standard Porsche Stability Management (PSM): electronic brake prefill and brake assist (page 55).


PCCB

Porsche Ceramic Composite Brake (PCCB).

If required, we can provide a braking system which has already proved it can withstand even the toughest racing conditions, such as those encountered in the Porsche Mobil 1 Supercup. That system is the Porsche Ceramic Composite Brake (PCCB).

The ceramic discs have a diameter of 380 mm at the front and 350 mm at the rear. The discs are made from a specially treated carbon-fibre compound that is silicated in a high-vacuum process at 1,700°C. The resulting material is not only much harder than metal, it is also more resistant to heat.

Even at high temperatures, the thermal resistance of the PCCB disc ensures excellent dimensional stability. The ceramic material is totally resistant to corrosion and offers excellent acoustic damping properties.

The pads are mounted in six-piston monobloc aluminium fixed calipers at the front, with four-piston units at the rear. The resulting brake forces are both extremely high and remarkably consistent. The pedal response is fast and precise with only moderate input required.

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 metal discs with similar construction and dimensions. As well as enhancing performance and fuel economy, this represents a major reduction in both the unsprung and rotating masses. This, of course, produces additional benefits in terms of comfort and road-holding on uneven road surfaces as well as general handling and agility.

Please note that circuit racing, trackday use and other forms of performance driving can significantly reduce the service life of even the most durable pads and discs. As with conventional high-performance braking systems, we recommend that all brake components be professionally inspected and replaced where necessary after every track event.

Sheet steel
Tailored blanks
High-strength steel
Super high-strength steel
Aluminium

Driver and passenger airbags.

The two full-size airbags can be inflated in two stages, depending on the severity of the impact. In a low-speed crash, the airbags are only partially inflated, thereby minimising discomfort to the occupants.

Bodyshell structure.

The reinforced bodyshell contains a highly resilient passenger cell offering exceptional crash protection. At the front of the car, the cell is protected by a patented system of longitudinal and transverse members (1). In the event of an accident, it disperses the force of the impact and minimises deformation of the passenger cell. Additional features include an ultra-rigid bulkhead cross-member (2) made from super high-strength steel. This element is designed to absorb impact forces from the longitudinal members and thus protect the front footwells.

The reinforced doors (3) also contribute to the overall rigidity of the car. An additional load path (4) is used to channel energy through the upper part of the shell and thus further protect the passenger cell.

In minor collisions, easily replaceable impact absorbers (5) protect the bodyshell.

Porsche Side Impact Protection (POSIP).

POSIP, fitted as standard consists of side impact protection beams in the doors and two side airbags on each side, namely a thorax airbag located in the side of each backrest and a head airbag incorporated within each door. Each airbag has an approximate volume of 8 litres, ensuring excellent protection in the event of side impact.

Additional safety features include the headrests which form an integral part of each seat, an energy-absorbing steering column, three-point seat belts with height adjustment (Coupé only), seat belt pre-tensioners and force limiters and energy-absorbing elements in the dashboard.

Safety in the 911 Turbo Cabriolet.

One fundamental principle at Porsche is to provide high levels of occupant protection, regardless of whether the vehicle is a closed or open-top design.

Torsional rigidity and flexural strength are exemplary for a two-plus-two convertible. Body flexing is minimal even on the most poorly surfaced roads, ensuring better handling and greater active safety.

The occupants are protected if the car overturns by an automatically deploying roll-over system. Two spring-loaded roll-over bars are neatly incorporated behind each of the rear seats. The roll-over sensor – part of the airbag control unit – continuously monitors the car's pitch and roll,

contact with the road, as well as lateral and longitudinal forces. If the car overturns, the top-padded bars are instantly deployed.

Of course, the new 911 Turbo Cabriolet also comes as standard with the Porsche Side Impact Protection (POSIP).

What's urgently expected of today's management teams? Responsibility.

Environment.

Think twice about every additional ounce. Get more power out of every drop of fuel. Examine every path to a solution. Why? Well, because it's our duty. And because our efforts to achieve greater efficiency will also give us the engineering lead.

In an era of intensifying debate about CO_2 emissions, every automotive manufacturer is being asked the question, 'What is your answer to the issue of fuel consumption?' Our answer has long been the same: maximum efficiency.

Porsche has been reducing the CO_2 emissions of its vehicles by an average of around 1.7%* every year for the past 15 years. In relation to engine power, Porsche is already among those manufacturers achieving the lowest CO_2 emissions. This has been achieved through efficient drive concepts (e.g. DFI), lightweight construction, optimised aerodynamics and low rolling resistance.

This high level of environmental responsibility is demonstrated by our approach to environmental management at the Porsche development centre in Weissach. Here, all technological developments are carried out with environmental protection in mind. The objective is to achieve pure performance, but not at the expense of the environment.

You will find more information in our separate brochure 'Porsche and the Environment' or at www.porsche.com.

Exhaust emission control.

The new 911 Turbo models comply with stringent emissions standards, including Euro 5 in Europe and LEV II in the USA. Porsche vehicles demonstrate that even high-performance sportscars can achieve moderate emission values in their respective category. This makes the 911 Turbo models not just extremely exciting sportscars, but very clean ones too.

* The stated reduction in fuel consumption has been calculated from the NEDC (New European Drive Cycle) fuel consumption figures for the respective model years of the vehicles and in relation to the applicable European legislation.

Fuel consumption and recycling.

Intelligent lightweight construction is a fundamental aspect of design at Porsche. For both economic and ecological reasons. This forms the basis for achieving low fuel consumption values combined with outstanding performance.

It is economical thanks to the high proportion of cast aluminium alloys, magnesium, plastics and high-strength sheet steel, the latter being much stronger and lighter than conventional steel. The 911 Turbo models consist of almost 20% lightweight alloys.

It is also ecological because all materials used are carefully selected. Only the latest, environmentally sound components are used. All lightweight materials are easily recyclable, while the variety of synthetic components has been reduced. Recycled plastics are used in all areas of the car where they meet our exacting technical requirements. To simplify processing, all materials are labelled for separate recycling.

In short, approximately 85% of today's 911 Turbo can be recycled.

Porsche primarily uses environmentally-friendly water-based paints. All areas of the 911 Turbo are free from asbestos, CFCs and components manufactured using CFCs. Because at Porsche, helping the environment doesn't start at the end of a vehicle's life. It starts right at the beginning at the planning and development stages.

Fuel.

The new 911 Turbo models are already compatible with fuels that have an ethanol content of up to 10%. A 'biofuel' made from naturally replenishing materials, ethanol has a positive impact on the carbon dioxide balance since the plants grown for its production also absorb carbon dioxide from the atmosphere.

Hydrocarbon emissions from the fuel supply system are low, achieved through a combination of an active carbon filter and a special fuel-tank coating. All fuel lines are made from aluminium, whilst those carrying vapours are made from multi-layer plastic.

Noise.

The 911 Turbo models comply with all current noise regulations – without resorting to engine encapsulation. To achieve this, we've eliminated noise at source: engine components are more rigid, moving parts lighter and tolerances reduced to a minimum. High-efficiency silencers and resonators in the intake system help to reduce noise even further. For the entire service life of the car.

Personality

Why do you need huge gestures when the signs are clear?

Comfort.

An expressive design. Well conceived technology. A consistently sporty style. No gimmicks. Why should the rules for performance be any different for the interior?

Interior.

Efficient ergonomics is the guiding theme for the interior. The new three-spoke sports steering wheels for manual and PDK models offer 40 mm of adjustment for both height and reach. Multifunction controls and steering wheel heating are available for all standard-fitted steering wheels. The exclusive gear lever is easy to operate.

Porsche Communication Management (PCM) with touchscreen is fitted as standard, as is the integral GPS navigation module with hard drive navigation (page 84). The air-conditioning system with an active carbon filter is fully automatic.

The leather finish on the seats, dashboard, doors and rear side panels is pleasing to the touch.

The centre console and door storage compartments provide storage space for personal items. Below the passenger airbag are two cup holders and below these is the glove compartment with CD storage.

Two 12-volt sockets (including the cigarette lighter) provide power for a range of electrical devices.

Instruments.

The classic Porsche grouping of five round instruments offers a clear overview of all key information.

The digital display in the centre-left dial (speedometer) provides main and trip odometer readings. The central rev counter, featuring the 'turbo' logo, includes the standard on-board computer display. This multipurpose field contains a permanent digital speedometer as well as the upshift display on manual models. The following optional information can also be displayed: boost pressure, average speed, average fuel consumption, tyre pressure, current radio station, navigation instructions and remaining range till empty. When 'SPORT' mode is selected on the optional Sport Chrono Package Turbo with dynamic engine mount system, the temporary increase in torque is clearly indicated using an arrow symbol in the boost pressure display. The third display, in the centre-right dial, shows the time and outside temperature.

Standard seats.

The standard comfort seats feature full electric adjustment of fore/aft position, height, backrest angle, squab angle and lumbar support.

The high side bolsters provide excellent lateral support, without restricting occupant comfort. The generous range of adjustment options on the standard seats means that virtually every driver can find the ideal position, regardless of physical build. A memory function stores personal preferences for seat position, lumbar support and exterior mirrors.

Standard seat with seat ventilation

Sports seats.

Available as a no-cost option, these mechanical sports seats offer firmer upholstery as well as higher side bolsters on the backrest and squab for added lateral support. The fore/aft position and height are manually adjustable, while the backrest is electrically controlled.

Adaptive sports seat

Adaptive sports seats.

This alternative seat option offers individual electric adjustment of fore/aft position, height, backrest angle, lumbar support, squab side bolsters and backrest side bolsters for maximum comfort on long-distance journeys or lateral support on the racetrack.

The additional memory function covers both exterior mirrors and all seating positions on the driver's side, except side bolster settings.

Sports bucket seat

Sports bucket seats.*

For the ultimate sports experience, choose the new sports bucket seats featuring a folding backrest, integral thorax airbag and manual fore/aft adjustment. The backrest shell is made from glass/carbon-fibre reinforced plastic and has a stylish carbon-weave finish.

Unusually, the pivot points of the seat backrest are positioned high in the side bolsters, guaranteeing lateral support – characteristic of racing bucket seats – in the pelvis area too. Unlike conventional bucket seats, the folding backrest enables easy access to the rear luggage area.

Seat ventilation.

As an option, seat ventilation is available for the standard comfort seats when fitted in combination with heated seats. Active ventilation of the perforated seat centre pad and backrest, along with passive ventilation on the side bolsters, generates a flow of air.

Rear compartment space

This provides a comfortable seating environment, even in the hottest weather.

Rear seats.

The rear seats are surprisingly comfortable for a sportscar. The seat backrests fold down, giving you a generous rear luggage area of 190 litres (155 litres in the 911 Turbo Cabriolet).

Child seats.*

Child seats with and without ISO-FIX mountings can be fitted to the 911 Turbo models. The Porsche Tequipment accessory range includes the necessary fittings and a deactivation function for the passenger airbag. The complete range of child seats is available from Porsche Tequipment. Please ask your Porsche Centre for details.

* Child restraint systems may not be used in conjunction with sports bucket seats.

Luggage compartment with two PTS ‘Ultralight edition’ trolley cases, size M

HomeLink®.

The optional freely programmable garage door opener is incorporated into the roof console and offers remote control of up to three garage door, gate, home lighting and/or alarm systems.

Luggage compartment.

In addition to the rear luggage area, the 911 Turbo models have a luggage compartment capacity of 105 litres. The entire luggage compartment is lined with high-quality scratch-resistant materials.

Roof transport system.

The optional roof carrier system for the 911 Turbo (Coupé version only) is aerodynamically efficient, extremely lightweight and easy to fit. The system can be combined with a range of attachments, such as a roof box and carriers for bikes, skis and snowboards. Maximum roof load is 75 kg.

Anti-theft protection.

Both 911 Turbo models have an engine immobiliser with in-key transponder as well as a powerful alarm system featuring contact-sensitive exterior protection and radar-based interior surveillance.

Vehicle tracking system.

Both 911 Turbo models can also be equipped with an optional factory-fitted preparation enabling future installation of a vehicle tracking system obtainable from Porsche Tequipment. This system allows a stolen vehicle to be traced throughout most of Europe. The package includes a special wiring loom and a high capacity battery. A tilt sensor for the alarm system is also part of the preliminary fittings.

Roof transport system

Automatically dimming mirrors.

An auto-dimming function is included as standard for the interior and exterior mirrors. Also included is an integrated rain sensor for the front wiper system.

ParkAssist.

This optional parking aid is automatically enabled whenever you select reverse gear. Move too close to a stationary object and a warning signal is emitted. Continue to reverse and the tone increases in frequency. The ultrasonic sensors are neatly concealed in the rear bumper.

Cruise control.

This convenient option has an effective speed range of 30–240 km/h (19–149 mph). The system is operated using a separate control stalk on the steering column and can even be used in first gear.

Porsche Communication Management (PCM)

Cordless handset

Porsche Communication Management (PCM).

The new 911 Turbo models are fitted as standard with the latest PCM. As the powerful central control unit for audio, navigation and communication, it is both multifunctional and very easy to operate.

The main feature is the 6.5-inch touchscreen for intuitive control.

For radio listeners, there is an FM twin tuner with RDS, which constantly scans for the best signal for the selected station, and up to four radio aerials for optimum reception.

The integrated single CD/DVD drive, in combination with the standard BOSE® Surround Sound System, can replay music from audio and video DVDs in 5.1 Discrete Surround Format. As an option, a six-disc CD/DVD autochanger can also be integrated in the PCM. Also optionally available is a TV tuner which receives unencoded analogue and digital television broadcasts.

The standard GPS navigation module has a hard drive with map data for most European countries. When viewing a map, it is possible to select either a 3D perspective or a 2D display.

Electronic logbook.

The optional electronic logbook enables automatic recording of mileage, route distance, date and time, starting point and destination for each journey.

TV tuner.

A TV tuner, available as an option, receives unencoded analogue and digital television broadcasts (DVB-T) to provide entertainment between journeys. For your safety, the TV picture cannot be displayed while the vehicle is in motion.

Voice control system.

Almost all of the functions of PCM can be controlled via the optional voice control system. The main menu item is read aloud exactly as it is displayed on the screen and the voice control system recognises commands or number sequences, irrespective of the speaker. It gives audible feedback and guides you through the functions. There is no need to 'train' the system. Phone book entries can be retrieved, a radio station selected or the navigation destination entered directly by speaking whole words.

Telephone module.

The optional GSM telephone module offers convenience and excellent reception. By inserting a SIM card directly into the PCM's integral SIM card reader, calls can be made using either the hands-free facility or the optionally available cordless handset. For even more convenience, the Bluetooth® capability of a mobile phone can be used to make calls via the SIM Access Profile (SAP).* Once automatic pairing is complete, the mobile phone's aerial is switched off to conserve battery charge and the phone operates via the car aerial. Depending on the mobile phone model, this gives access not only to the numbers on the SIM card, but also to the phone's internal memory. Depending on the phone, it can also be controlled using PCM, the multifunction steering wheel or the voice control system, without it ever leaving your pocket.

* Note: see page 102.

Mobile phone preparation.

As an option, the mobile phone preparation kit (with and without bracket) is available for Bluetooth® connection of mobile phones which only support the hands-free profile (HFP). For connection by HFP, PCM acts merely as a hands-free system. Here too, the mobile phone can remain tucked away. Only the basic phone functions can be operated using PCM. The GSM connection is established via the aerial of the mobile phone.*

Universal audio interface.

With this optional feature, the storage compartment in the centre console will contain three connections: one for your iPod®, one for a USB stick/MP3-player and one as an AUX interface for any chosen compatible audio source. The iPod® or USB stick can be operated conveniently and safely via PCM, multifunction steering wheel or the voice control system.

BOSE® Surround Sound System.

The standard BOSE® Surround Sound System is optimally matched to the specific interior acoustics. A total of 13 loudspeakers (12 in the 911 Turbo Cabriolet), including an active subwoofer and central speaker, and a seven-channel digital amplifier with a rated output of 385 watts ensure an impressive sound experience.

When playing music from audio or video DVDs, the system now has the impressive sound spectrum of digital 5.1 recording.

Five dedicated audio channels (front left, front right, centre, surround left, surround right) and a power channel for the bass frequencies deliver a sound that is as authentic as it is natural. The 5.1 Discrete Surround Sound is balanced, lifelike and crystal clear. A 360-degree sound experience that is as close to a live performance as you could imagine.

Naturally, you can also play conventional CDs, either in stereo or in one of the surround modes generated by the BOSE® Centerpoint® technology. The algorithm of Centerpoint® II extracts a precise and realistic sound from the stereo signal.

To complement these features, the BOSE® Surround Sound System offers a comprehensive selection of equaliser presets for customised sound. The dynamic loudness function emphasises the bass notes as the volume decreases to compensate for the diminishing sensitivity of the human hearing at these frequencies. In addition, the AudioPilot® Noise Compensation Technology uses a microphone to continuously measure the ambient noise inside the vehicle and adapts music playback automatically, to give a constant sound quality in all driving conditions.

In short, you are sitting in a concert hall – one of the fastest there is.

1. System electronics
2. 7.0-cm mid-range centerfill speaker
3. 2.5-cm Neodym high-range speakers
4. AudioPilot® microphone
5. 8.0-cm Neodym mid-range speaker
   20.0-cm Nd® low-range speaker
6. 2.5-cm Neodym high-range speaker
   8.0-cm Neodym mid-range speaker
7. 911 Turbo: two 13.0-cm low-range speakers in 14-litre bass reflex enclosure with TSM switching amplifier.
   911 Turbo Cabriolet: one low-range speaker in bass reflex enclosure with TSM switching amplifier in front passenger footwell

* Note: see page 102.

Why it's worth letting your imagination run free.

Personalisation.

The success story of the 911 Turbo is always a very personal one. Because power also means providing plenty of scope for individual interpretation.

Colours.

Choice of colour is always an expression of personal character. So it's good that our wide variety of colour options does this principle justice.

In total, you can choose from four solid and eight metallic colours, five 'special' paint finishes and four hood colours. Plus for the interior, there's a choice of nine colours and three two-tone combinations.

If you can't find the colour you'd like, we can probably mix it for you. For more information, see the Porsche Exclusive 911 catalogue.

To see how your individual choices would look on your car, visit www.porsche.com and use the online Porsche Car Configurator.

Solid exterior colours.*

Black

Guards Red

Carrara White

Speed Yellow

Metallic exterior colours.*

Basalt Black Metallic

Arctic Silver Metallic

Dark Blue Metallic

Ruby Red Metallic

Macadamia Metallic

Meteor Grey Metallic

Aqua Blue Metallic

Porsche Racing Green Metallic

Special exterior colours.

Cream White

GT Silver Metallic

Atlas Grey Metallic

Malachite Green Metallic

Nordic Gold Metallic

Hood colours.

Black

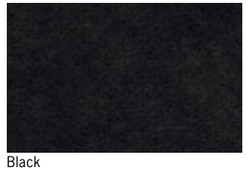
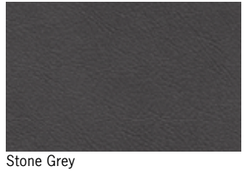
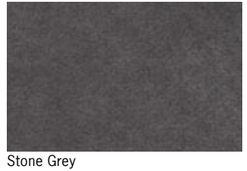
Stone Grey

Metropole Blue

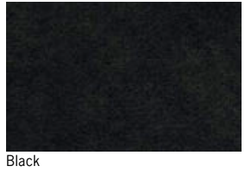
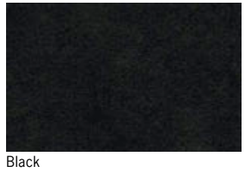
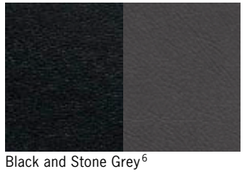
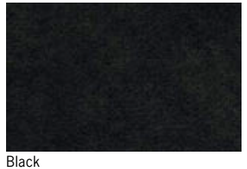
Cocoa

* Solid and metallic colours are all no-cost options.

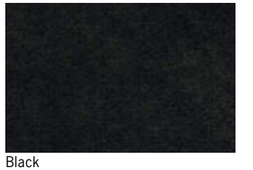
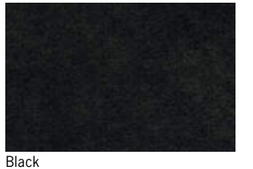
Standard interior colours.

Leather/soft-touch paint.[1] Interior colour.	Carpet.	Rooflining.[2]
 Black	 Black	 Black
 Stone Grey	 Stone Grey	 Stone Grey
 Sand Beige	 Sand Beige	 Sand Beige
 Ocean Blue	 Ocean Blue	 Ocean Blue

Special/two-tone interior colours.[3]

Leather/soft-touch paint. Interior colour.	Carpet.	Rooflining.[2]
 Terracotta[4]	 Terracotta	 Black
 Cocoa[4]	 Cocoa	 Black
 Black and Terracotta[5]	 Terracotta	 Black
 Black and Stone Grey[6]	 Stone Grey	 Black
 Black and Sand Beige[6]	 Sand Beige	 Black

Natural leather interior.

Leather/soft-touch paint. Interior colour.	Carpet.	Rooflining.[2]
 Dark Grey[7]	 Dark Grey	 Black
 Natural Brown[4]	 Natural Brown	 Black
 Carrera Red[4]	 Carrera Red	 Black

See price list for recommended colour combinations.

[1] Soft-touch paint in interior colour; sun visors and inner door-sill guards with film finish in interior colour.
[2] Rooflining in Alcantara (911 Turbo) or black fabric (911 Turbo Cabriolet).
[3] Two-tone interior: black leather finish on dashboard upper section including instrument shroud, dashboard forward section including front passenger airbag cover, steering wheel rim and airbag module, door upper panels, rear side panel upper sections, A-pillar/windscreen top trim, B/C-pillar trim (911 Turbo only). All other surfaces in chosen combination colour.
[4] Soft-touch paint in interior colour; sun visors and inner door-sill guards with black film finish.
[5] Soft-touch paint in interior colour or black; sun visors and inner door-sill guards with black film finish.
[6] Soft-touch paint in interior colour or black; sun visors with black film finish, and inner door-sill guards with film finish in interior colour.
[7] Soft-touch paint in black; sun visors and inner door-sill guards with black film finish.

Personalisation options and factory collection.

Is there anything better than a 911 Turbo? Of course there is. Your 911 Turbo. What better way to complement this captivating sportscar than by using the power of your imagination?

To enhance the individuality of your car – both inside and out – you can choose from a range of individual items of equipment and equipment packages. Detailed information can be found on the following pages and in the separate price list.

To make your 911 Turbo even more of an individual statement, please ask about the Porsche Exclusive factory-fitted modifications. You can also continue to enhance your car with Porsche Tequipment. Numerous examples can be found in the respective brochures. For more information, please consult your Porsche Centre.

Then comes the moment when you take delivery of your new 911 Turbo. Where better to do it than at the place where the success story began, in Zuffenhausen? For full details about the factory collection option, please consult the price list.

911 Turbo Cabriolet with interior in two-tone combination (Black/Stone Grey)

Option	911 Turbo	911 Turbo Cabriolet	I no.	Page
Exterior.				
• Special colours	○	○	Code	91
• Individual colours	○	○	Code	
• Dynamic cornering lights	○	○	603	62
• Deletion of model designation	W	W	498	
• ParkAssist (parking aid at rear)	○	○	635	83
• Aerokit Turbo	○	–	XAF	97
• Rear wiper	W	–	425	
• Grey top tint on windscreen	○	●	567	
• Electric slide/tilt sunroof	○	–	650	
• Hardtop	–	○	550	23, 97
• Roof transport system	○	–	549	82
Engine, transmission and chassis.				
• Porsche Doppelkupplung (PDK)	○	○	250	40
• Porsche Ceramic Composite Brake (PCCB)	○	○	450	66
• Porsche Torque Vectoring (PTV)	○	○	220	48
• Sport Chrono Package Turbo with dynamic engine mount system	○	○	640	56
• Wheel centres with full-colour Porsche Crest	○	○	446	20
• 19-inch RS Spyder wheels with central locking device	○	○	422	52

The vehicles pictured in the chapter on personalisation may include additional options not featured in this catalogue.
For information on these options, please consult your Porsche Centre.
For information on the options featured in this catalogue, please refer to the price list.

911 Turbo with Aerokit Turbo

911 Turbo Cabriolet with hardtop

– not available ○ I number/extra-cost option ● standard equipment W no-cost option

Option	911 Turbo	911 Turbo Cabriolet	I no.	Page
Interior.				
• HomeLink® (programmable garage door opener)	○	○	608	82
• Cruise control (automatic speed control)	○	○	454	83
• Preparation for vehicle tracking system	○	○	674	82
• Sports seats	W	W	P77	80
• Adaptive sports seats with driver memory	○	○	P01	80
• Sports bucket seats	○	○	P03	81
• Heated seats	○	○	342	
• Seat ventilation	○	○	541	81
• Steering wheel heating	○	○	345	
• Fire extinguisher	○	○	509	
• Floor mats	○	○	810	
Interior: leather and natural leather.				
• Leather interior package				92
– in special colour	○	○	Code	
– in two-tone combination	○	○	970	
– in natural leather	○	○	998	100
– in individual colour	○	○	Code	
• Three-spoke multifunction steering wheel	W	W	844	100
• Three-spoke sports steering wheel with gearshift paddles	○	○	840	42
• Soft ruffled leather on seats	○	○	982	

The vehicles pictured in the chapter on personalisation may include additional options not featured in this catalogue.
For information on these options, please consult your Porsche Centre.
For information on the options featured in this catalogue, please refer to the price list.

Option	911 Turbo	911 Turbo Cabriolet	I no.	Page
Interior: macassar (dark wood with satin finish).				
• Macassar interior package	○	○	801	100
• Three-spoke multifunction steering wheel in macassar	○	○	847	100
Interior: carbon.				
• Carbon interior package	○	○	803	101
• Three-spoke multifunction steering wheel in carbon	○	○	845	101
• Door sill guards in carbon	○	○	X69	
Interior: painted Aluminium Look/aluminium/stainless steel.				
• Three-spoke multifunction steering wheel in Aluminium Look	○	○	XPU	101
• Gear and handbrake levers in aluminium I	○	○	ECA	101
• PDK selector and handbrake lever in aluminium	○	○	ECB	

– not available ○ I number/extra-cost option • standard equipment W no-cost option

Interior in two-tone combination (Black/Stone Grey), three-spoke multifunction steering wheel

Carbon interior package, three-spoke multifunction steering wheel in carbon

Macassar interior package, three-spoke multifunction steering wheel in macassar

Three-spoke multifunction steering wheel in Aluminium Look and selector and handbrake lever in aluminium

The vehicles pictured in the chapter on personalisation may include additional options not featured in this catalogue.
For information on these options, please consult your Porsche Centre.
For information on the options featured in this catalogue, please refer to the price list.

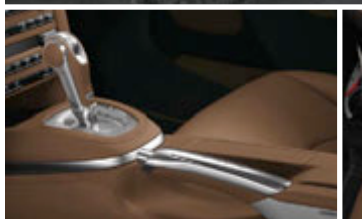
Option	911 Turbo	911 Turbo Cabriolet	I no.	Page
Audio and communication.				
• Electronic logbook	○	○	641	84
• Voice control system	○	○	671	85
• Telephone module */**	○	○	666	85
• Cordless handset for telephone module	○	○	669	84
• Mobile phone preparation */**	○	○	619	86
• Mobile phone preparation with bracket */**	○	○	618	86
• Six-disc CD/DVD autochanger ***	○	○	693	84
• Universal audio interface (AUX, USB, iPod®)	○	○	870	86
• TV tuner	○	○	676	85
• External aerial	W	W	461	

Universal audio interface

* For information on compatible mobile phones, please contact your Porsche Centre or visit www.porsche.com.
** Mobile phone preparation: the use of a mobile phone inside a vehicle may cause an increase in the interior electromagnetic field strength and accordingly in the levels of electromagnetic radiation to which passengers are exposed, although these remain within the limits permitted for mobile phones. If a cradle is used to mount the mobile phone, the field strength inside the vehicle can be reduced by connecting to the exterior aerial (depending on how specific mobile phones connect to the cradle). For more information about the availability of a cradle for your mobile phone (in conjunction with a mobile phone preparation only), please contact your Porsche Centre. Use of the telephone module for PCM prevents exposure to electromagnetic radiation as only the vehicle's exterior aerial is used.
*** May be incompatible with some copy-protected audio CDs/DVDs.

– not available ○ I number/extra-cost option ● standard equipment W no-cost option

The vehicles pictured in the chapter on personalisation may include additional options not featured in this catalogue.
For information on these options, please consult your Porsche Centre.
For information on the options featured in this catalogue, please refer to the price list.



Porsche Exclusive

State-of-the-art. And to your specification.

With Porsche Exclusive you can make your Porsche even more special. Direct from the factory.

Individually and exclusively tailored to your wishes. Aesthetically and technically, inside and outside, using high-quality materials and with customary Porsche quality. The principle: tailor-made by craftsmen. You will find a wide range of design options in the separate Porsche Exclusive 911 catalogue.

Either your Porsche Centre or the customer centre in Zuffenhausen (tel. +49 (0)711 911-25332) will be pleased to answer all your enquiries. Please note that delivery times may be extended for certain Porsche Exclusive equipment.

Porsche Centres
Your Porsche Centre can assist you with every aspect of purchasing and owning your Porsche. You will also find a wide range of products and services, including genuine Porsche parts and accessories.

Porsche Assistance
Enjoy peace of mind with our exclusive breakdown and accident recovery service. Membership is free when you buy a new Porsche.

Porsche Financial Services
Our innovative suite of financial services is specially tailored to the needs of Porsche owners. Products range from attractive finance and leasing options to vehicle insurance and the Porsche Card.

Porsche Exclusive
Realise your vision of the perfect Porsche with our factory customisation programme. From styling enhancements to performance upgrades, all modifications are uniquely handcrafted for your Porsche.

Porsche Tequipment
Personalise your Porsche at any time after purchase with the Tequipment range of approved accessories. Designed exclusively for your car, every product is fully guaranteed.

Porsche Design Driver's Selection
With products ranging from fashion and accessories to tailored luggage, this unique collection combines quality and style with everyday practicality.

Service

Porsche Online
For all the latest news and information from Porsche, go to www.porsche.com.

Porsche Used Car Programme
Porsche Approved is the simple way to find the perfect pre-owned Porsche, anywhere in the world. Every car is rigorously tested and comes with a comprehensive vehicle warranty.

Porsche Classic
Your specialist source for genuine Porsche parts and technical documentation as well as servicing, repair and restoration for all types of classic Porsche. Find out more at www.porsche.com/classic.

Christophorus
Our bi-monthly magazine for Porsche owners has news, interviews and a wide variety of features from throughout the world of Porsche.

Porsche Clubs
Since the first Porsche Club was founded in 1952, their number has grown to 613 with a total of 120,000 members worldwide. To find out more, call +49 (0)711 911-78307 or go to www.porsche.com.

Porsche Driving Experience
1. Porsche Travel Club.
Exclusive driving holidays and incentive ideas combining luxury and adventure, worldwide. To find out more, call +49 (0)711 911-78155. E-mail: travel.club@porsche.de

2. Porsche Sport Driving School.
Develop your skill and explore your Porsche with the Porsche Sport Driving School. To learn about events at some of the world's most famous racing venues, call +49 (0)711 911-78683. E-mail: sportdrivingschool@porsche.de

Ask your Porsche Centre for the latest brochures from Porsche Exclusive, Porsche Tequipment, Porsche Design Driver's Selection and the Porsche Driving Experience.

Summary

The new 911 Turbo.
It's our inventory of what is technically possible.

In terms of driving performance. In terms of everyday practicality. In terms of efficiency.
And it's proof that the unique path we started along back in 1974 was a valid one:
Efficiency needs power.

Technical data

		911 Turbo	911 Turbo Cabriolet
Engine			
Cylinders		6	
Displacement		3,800 cm^3	
Max. power (DIN) at		368 kW (500 hp) at 6,000 rpm	
Max. torque at		650 Nm at 1,950–5,000 rpm with overboost 700 Nm at 2,100–4,000 rpm	
Compression ratio		9.8:1	
Transmission			
Layout		All-wheel drive with electronically controlled multi-plate clutch	
6-speed manual gearbox		Standard	
7-speed PDK		Optional	
Chassis			
Front axle		McPherson strut suspension	
Rear axle		LSA multi-link suspension	
Steering		Variable steering ratio, power-assisted (hydraulic)	
Turning circle		10.9 m	
Brakes		6-piston monobloc aluminium fixed calipers at front, 4-piston monobloc aluminium fixed calipers at rear, discs internally vented and cross-drilled	
Vehicle stability system		Porsche Stability Management (PSM)	
Anti-lock braking system		ABS 8.0	
Wheels	Front	8.5 J x 19 ET 56	
	Rear	11 J x 19 ET 51	
Tyres	Front	235/35 ZR 19	
	Rear	305/30 ZR 19	

Some of the vehicles illustrated in this brochure are fitted with optional equipment which is available at additional cost.
All information regarding supplied equipment, appearance, performance, dimensions, weight, fuel consumption and running costs is correct to the best of our knowledge at the time of going to press. Porsche reserves the right to alter specifications and other product information without prior notice.

* Weight is calculated in accordance with the relevant EC Directives and is valid for vehicles with standard specification only. Optional equipment increases this figure. The figure given includes 68 kg for the driver and 7 kg for luggage.
** Figures for PDK include the optional Sport Chrono Package Turbo.

	911 Turbo	911 Turbo Cabriolet
Weights	Manual gearbox/PDK	Manual gearbox/PDK
Unladen weight (DIN)	1,570 kg/1,595 kg	1,645 kg/1,670 kg
Unladen weight (EC)*	1,645 kg/1,670 kg	1,720 kg/1,745 kg
Permissible gross weight	1,935 kg/1,960 kg	1,995 kg/2,020 kg
Performance	Manual gearbox/PDK	Manual gearbox/PDK
Top speed km/h (mph)	312 (194)/312 (194)	312 (194)/312 (194)
0–100 km/h (0–62 mph)	3.7 s/3.6 s (3.4 s**)	3.8 s/3.7 s (3.5 s**)
0–160 km/h (0–99 mph)	7.8 s/7.7 s (7.4 s**)	8.1 s/8.0 s (7.7 s**)
0–200 km/h (0–124 mph)	11.9 s/11.6 s (11.3 s**)	12.4 s/12.1 s (11.8 s**)
Flexibility 80–120 km/h (50–75 mph) in 5th gear	3.7 s/–	3.8 s/–
Acceleration 80–120 km/h (50–75 mph)	–/2.1 s	–/2.2 s
Fuel consumption/emissions*	Manual gearbox/PDK	Manual gearbox/PDK
Urban in l/100 km	17.3 (16.3)/17.0 (16.6)	17.5 (16.1)/17.2 (16.4)
Extra urban in l/100 km	8.3 (34.0)/8.1 (34.9)	8.3 (34.0)/8.2 (34.4)
Combined in l/100 km	11.6 (24.4)/11.4 (24.8)	11.7 (24.1)/11.5 (24.6)
CO_2 emissions g/km	272/268	275/270
Dimensions/aerodynamics		
Length	4,450 mm	4,450 mm
Width (incl. exterior mirrors)	1,852 mm (1,952 mm)	1,852 mm (1,952 mm)
Height	1,300 mm	1,300 mm
Wheelbase	2,350 mm	2,350 mm
Luggage compartment volume (VDA)	105 litres	105 litres
Tank capacity (refill volume)	67 litres	67 litres
Drag coefficient	c_d = 0.31	c_d = 0.32

*** These data were obtained using the Euro 5 measurement method (715/2007/EC and 692/2008/EC) in the NEDC (New European Driving Cycle) with standard equipment. The information does not refer to an individual vehicle and is not part of the offer, but is simply provided so that comparisons can be made between different types of vehicle. Further, up to date information on the individual vehicles can be obtained from your Porsche Centre. Consumption figures were obtained on the basis of standard equipment. Special equipment may affect consumption and performance. 911 GT3 RS: Provisional figures as there were no official figures available at the time of going to print. Please contact your Porsche Centre for the final and officially certified values.

Index

The models featured in this publication are approved for road use in Germany. Some items of equipment are available as extra-cost options only. The availability of models and options may vary from market to market due to local restrictions and regulations. For information on standard and optional equipment, please consult your Porsche Centre. Details of design, supplied equipment, appearance, performance, dimensions, weight, fuel consumption and running costs are correct to the best of our knowledge at the time of going to press. Porsche reserves the right to alter specifications and other product information without prior notice. Colours may differ from those illustrated. Errors and omissions excepted.

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