PORSCHE

The new 911 Turbo

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Variable Turbine Geometry (VTG).
Electronic all-wheel drive.

Just when you thought it couldn't get any better…

The new 911 Turbo

The new 911 Turbo | The new 911 Turbo

From a stroke of genius.
From strength to strength.

The new 911 Turbo.

In 1905, the Swiss engineer, Dr. Alfred Büchi, filed the first ever patent for a turbocharged piston engine. The fundamental principle, now a century old, remains unchanged to this day: to use the energy latent within the exhaust flow from the engine to increase overall performance.

The first turbocharged engine was built in 1910 by the firm of Murray-Willat. The concept was embraced by the aviation industry, which required an effective means of compensating for the loss of power caused by reduced oxygen levels during high-altitude flight.

Porsche was among the first to recognise other benefits of the technology, including higher performance potential from relatively small displacement engines. This would lead to the development of powerful new engines with very modest dimensions and weight.

The basic principle of a turbocharged engine is to use the exhaust gas flow to drive a radial turbine which in turn drives a compressor in the air intake tract. The rotation of the compressor generates a higher intake pressure, thereby delivering a greater amount of oxygen to the engine. With more oxygen available, more fuel can be burnt, and higher performance can be achieved. The density of the air can be further increased by cooling it prior to combustion. The first ‘intercooler’ device on a production Porsche appeared in 1977 on the 911 Turbo 3.3.

911 Turbo 3.0 (1974), 911 Turbo (2006)

The first Porsche racing car to feature turbocharged power made its debut in the early 1970s. The 12-cylinder engine in the legendary 917 used a twin turbo system to achieve a colossal 1,000 bhp. In 1972, the 917/10 with 5-litre turbo engine claimed the North American CanAm championship. In the following season, the 917/30, developing 1,100 bhp from a 5.4-litre unit, became the most powerful racing Porsche of all time.

This invaluable race experience inevitably found its way into our production road car development. Just one year later, in 1974, the 911 Turbo was born. Preceded as it was by the 1973 oil crisis, it was considered a bold undertaking by Porsche. As history would show, it was the first of many surprises in the evolution of this legendary car.

The original 911 Turbo featured widened wheel arches as well as specially developed front and rear spoilers. These major aerodynamic refinements were essential requirements given the increased engine performance. Developing 260 bhp, the first 911 Turbo could reach 100 km/h (62 mph) in as little as 5.5 seconds. Maximum torque output of 343 Nm was unprecedented in a 3-litre engine. This exceptional performance necessitated a new gearbox design featuring specially reinforced gears. Thus began a new type of Porsche that would soon acquire mythical status.

The second 911 Turbo, launched in 1977, developed 300 bhp from a 3.3-litre intercooled engine. Brake performance was similarly enhanced, combining four-piston aluminium fixed calipers with cross-drilled discs.

In 1993, Porsche launched the final 911 Turbo to feature dedicated rear-wheel drive. Based on the Type 964 platform, it used a 3.6-litre engine to achieve a major boost in output to 360 bhp. Its Type 993 successor, launched in 1995, set a range of new benchmarks in supercar performance. All-wheel drive provided greater active safety as well as better driving dynamics. The system also had a rear-axle bias that retained the familiar Porsche handling characteristics. Twin exhaust turbochargers offered better response and a more harmonious build-up of power. The last 911 Turbo to have an air-cooled engine, it offered maximum output of 408 bhp from a 3.6-litre displacement.

The first water-cooled 911 Turbo, the Type 996, made its debut in the year 2000. Also equipped with all-wheel drive, it used VarioCam Plus to achieve a major improvement in all-round fuel economy. The engine capacity remained at 3.6 litres, while output rose to 420 bhp for a maximum speed of 305 km/h (190 mph). The Type 996 model was the first 911 Turbo with the option of Tiptronic S transmission. The subsequent launch of the Turbo S version saw a further rise in output to 450 bhp.

Now, the evolution of this remarkable car has reached a new pinnacle of achievement. Over the following pages, we will explore every aspect of the new 911 Turbo.

Pioneering technology, dependable results.

Engineering the new 911 Turbo.

The primary objective for every 911 Turbo is to challenge the limits of technical feasibility. Not only in terms of performance and dynamics, but also when it comes to ride comfort. On this latest evolution, we've completely redesigned a number of systems and components. The result builds on the achievements of the previous 911 Turbo – a car widely acknowledged as the ultimate in sportscar design.

911 Turbo meets the highest expectations in terms of engine performance. The classic flat-six unit develops 353 kW (480 bhp) at 6,000 rpm from a 3.6-litre displacement. Maximum torque of 620 Nm is available between 1,950 and 5,000 rpm. To achieve that capability, we've combined VarioCam Plus with twin turbo-charger units featuring Variable Turbine Geometry (VTG) – a totally new technology on a petrol-engined car. With a standard manual gearbox, the new 911 Turbo requires just 3.9 seconds to reach 100 km/h (62 mph). Equipped with the latest optional Tiptronic S transmission, the car is 0.2 seconds quicker on the standard sprint. Benchmark times to 200 km/h (124 mph) are 12.8 and 12.2 seconds, respectively. Maximum speed with either transmission is 310 km/h (193 mph).

One of the most important engine technologies, appearing for the first time on a Porsche, is Variable Turbine Geometry (see page 32). The main components on this system are the adjustable guide vanes which channel the exhaust flow onto the turbines, enabling higher turbine speeds at lower engine rpm. The most difficult challenge when developing this technology was the high exhaust-gas temperature of around 1,000 °C, which is unique to a petrol engine. This enormous thermal load is considerably greater than the 700 °C typically encountered on a diesel-powered car. It was only possible to bridge this gap using materials developed for aerospace applications. The primary benefits of Variable Turbine Geometry include faster response, higher torque output from lower engine speeds, and greater top-end power. Maximum torque is also available over a wider engine speed range. By eliminating the problem of 'turbo lag', the traditional weakness of the turbocharged engine is finally a thing of the past.

To apply these benefits efficiently to the road, we required another innovation in sportscar design: all-wheel drive with Porsche Traction Management (PTM). Using an electronically controlled multi-plate clutch, this intelligent technology provides variable drive to each axle. The front/rear split is continuously adjusted based on current road conditions and driver inputs. Although biased towards the rear, the front receives more power whenever the situation requires. Porsche Traction Management is specifically designed to optimise driving dynamics. The additional traction provided by both the all-wheel drive system and PTM represents a major improvement in active safety, especially in the wet or on snow.

Another benchmark technology on the new 911 Turbo is the standard braking system. The front and rear discs have a generous diameter of 350 mm. On the optional Porsche Ceramic Composite Brake (PCCB), the front diameter is increased to 380 mm.

Other standard features on the new 911 Turbo include a new evolution of Porsche Stability Management (PSM) as well as Porsche Active Suspension Management (PASM) featuring electronic damper control. A limited-slip differential is available for the rear axle as an option.

For even greater performance, the car can be equipped with the optional Sport Chrono Package Turbo. Key features include an 'overboost' function which provides as much as 60 Nm of additional torque under acceleration. When the throttle is fully open, the boost pressure is increased temporarily by approximately 0.2 bar. The electronic throttle map is also adjusted to give a more dynamic response to pedal inputs.

Other modifications when 'Sport' mode is selected include a major rise in the trigger threshold used by Porsche Stability Management (PSM). The all-wheel drive system featuring PTM provides a similar increase in driver involvement by sending a greater proportion of drive torque directly to the rear wheels. PASM provides a stiffer suspension setup enabling faster turn-in and better road contact.

Another major development on the new 911 Turbo is the car's lightweight design and construction. The doors and front lid are made from aluminium which offers a range of benefits in terms of both performance and economy. Every gram of weight on every component is there for a specific reason. As a result, the standard model

(with six-speed manual gearbox) weighs just 1,585 kg. Even more impressive are the power-to-weight ratio of 302.8 bhp per tonne and surprisingly low fuel consumption.

This powerful potential is, of course, matched by exemplary ride quality on every type of road. This rare combination of performance and comfort is one of the distinguishing features of the 911 Turbo.

Poised for action, yet always relaxed.

Designing the new 911 Turbo.

The extreme capability of the new 911 Turbo is elegantly enclosed in a highly distinctive exterior. While signalling the unique athleticism of the car, it remains unmistakably 911.

The aerodynamics are exceptionally well balanced, with positive downforce at the rear. The drag coefficient is remarkably low at just 0.31. With its streamlined shape and lightweight build, the new 911 Turbo offers excellent fuel economy as well as superlative performance.

The standard Bi-Xenon headlights with integral cleaning system are compact, stylish and elegantly incorporated within the new front-end design. The front apron moulding is an entirely new development, featuring high-performance LED indicators in the outer air intake ducts. The compact front foglights are neatly positioned on the outer edges of the front apron.

The side air intakes, to the rear of the doors, provide optimum air delivery to the twin intercooler units. Equally efficient are the cooling air ducts to the front and rear brake assemblies. This enhanced cooling action is an important factor in the excellent performance of the standard braking system.

The body of the car is much wider across the rear than the front. A generous wheel track is combined with wider tyres to achieve enormous lateral grip. The engine lid is another totally new design and features an integral bi-plane rear spoiler. The upper wing element is automatically raised at approximately 120 km/h (75 mph) and lowered at around 60 km/h (37 mph).

The rear apron moulding has also been redesigned to blend with the rest of the car. The side air outlets and fully enclosed twin tailpipes are a further indication of the power within. Black plastic sills along the sides of the body provide effective protection against stone chips.

Elegantly matched to the exterior of the car is the all-new wheel design. The 19-inch forged alloys have a standard two-tone finish as well as wide, low-profile tyres. The standard tyre dimensions are 235/35 ZR 19 (front) and 305/30 ZR 19 (rear).

Rear wing retracted

Rear wing deployed

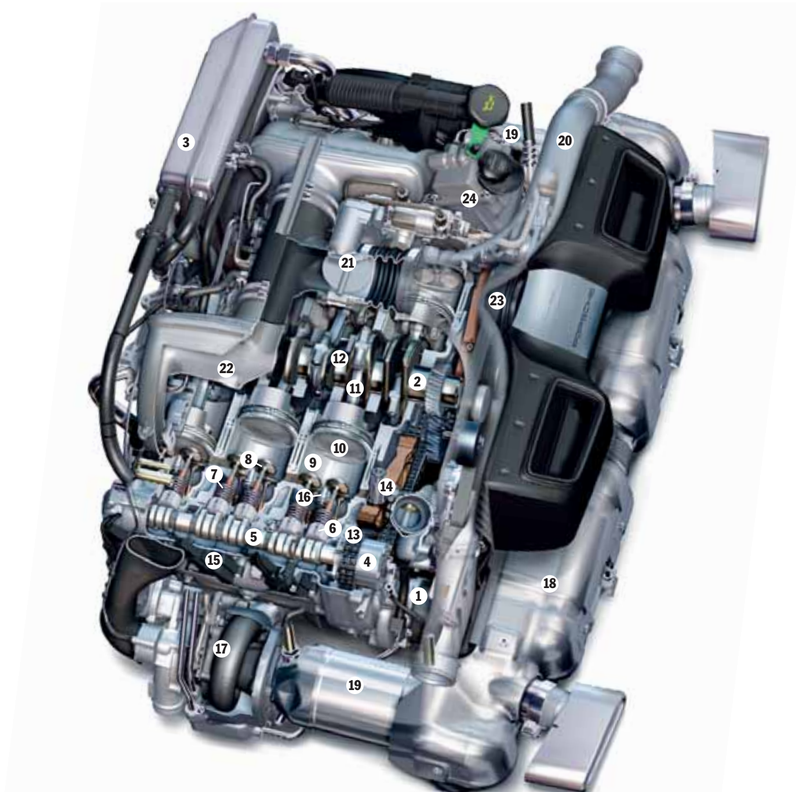
The interior of the car is equally compelling and entirely designed around the driver. The high-quality surfaces include a full leather finish on the standard electric seats as well as the dashboard, doors and rear side panels. Two sports seat options are also available, one featuring adaptive adjustment. The standard equipment package includes a new gear-knob design – created exclusively for the 911 Turbo – and a three-spoke sports steering wheel featuring 40 mm of height and reach adjustment.

The overall design of the new 911 Turbo marks another new phase in the ongoing evolution of this remarkable car. Wholly integral to the fundamental vehicle concept, every detail is a direct expression of power, composure and comfort.

Some say power is all about muscle.
For us, it starts with the mind.

Drive

1. Radiator module (left)
2. Radiator module (centre)
3. Radiator module (right)
4. Coolant pipe
5. Coolant expansion tank
6. Air filter
7. Exhaust-gas turbocharger with Variable Turbine Geometry (VTG)
8. Intercoolers
9. Pressure pipe
10. Throttle valve (electronically actuated)
11. Exhaust system
12. Oil filter
13. Engine oil reservoir (dry-sump lubrication)
14. Generator
15. PASM damper
16. Tandem brake booster
17. 6-speed manual gearbox
18. Front differential
19. Fuel tank



1. Oil scavenge pump
2. Oil-pressure pump (obscured)
3. Engine oil reservoir (dry-sump lubrication)
4. Camshaft adjuster (VarioCam Plus)
5. Intake camshaft
6. Tappets (with hydraulic valve clearance adjustment)
7. Valve springs
8. Intake valves
9. Nikasil-coated cylinder bore
10. Forged aluminium piston
11. Forged connecting rod
12. Crankshaft
13. Camshaft drive chain
14. Camshaft drive chain tensioner with guide rail
15. Single-spark ignition coil
16. Spark plug
17. Exhaust-gas turbocharger with Variable Turbine Geometry (VTG)
18. Exhaust system
19. Catalytic converter
20. Pressure pipe
21. Throttle valve (electronically actuated)
22. Plenum chamber
23. Ancillary drive belt
24. Fluid reservoir for power-steering system

The new 911 Turbo | Drive

Engine.
Heart and soul of the new 911 Turbo.

911 Turbo engine

Every 911 shares the same fundamental engine characteristics. Key among these are the 'flat-six' cylinder layout and rear-mounted installation.

There is, however, one essential feature that is unique to the 911 Turbo. The twin turbocharger system that gives the car its name now includes Variable Turbine Geometry (see page 32). Thus equipped, the 3.6-litre engine develops 353 kW (480 bhp) at 6,000 rpm. Weighing 1,585 kg, the standard 911 Turbo (with manual gearbox) has an excellent power-to-weight ratio of 302.8 bhp per tonne. Specific power output is 133 bhp per litre of engine displacement.

Maximum torque is a phenomenal 620 Nm, rising to 680 Nm with the overboost function in the optional Sport Chrono Package Turbo (see page 60). Thanks to VarioCam Plus (see page 38) and the new turbocharger system, all of that torque is fully available between 1,950 and 5,000 rpm.

The resulting acceleration is inspirationally quick. Equipped with Tiptronic S, the new 911 Turbo requires just 3.7 seconds to reach 100 km/h (62 mph), and just 12.2 seconds for 200 km/h (124 mph). Facilitating this performance is the additional traction provided by the new electronically controlled all-wheel drive system (see page 48). In appropriate track conditions, the car's maximum speed is 310 km/h (193 mph).

The new 911 Turbo | Drive

Lightweight design.

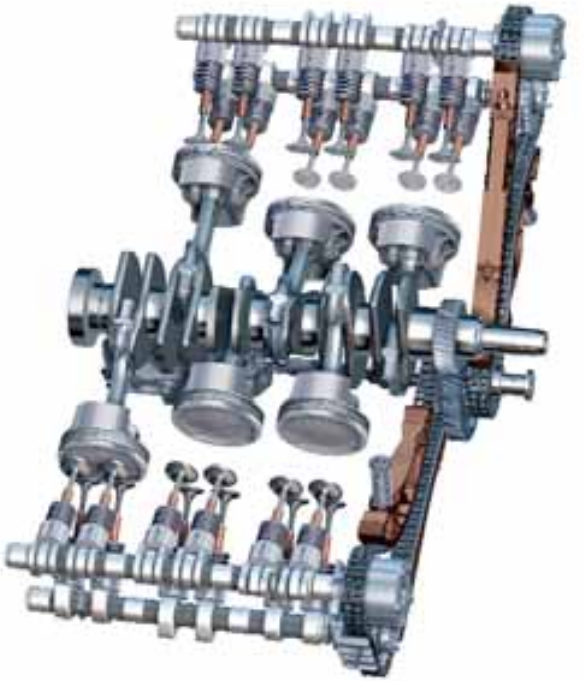
The six-cylinder boxer engine is a highly compact unit offering excellent cylinder charging and torque characteristics as well as optimum balance and minimal vibration. With the cylinders arranged horizontally on either side of the crankshaft, the layout is key to the car's low centre of gravity.

The alloy crankcase consists of two main sections, each containing one bank of cylinders. The crankshaft runs in eight main bearings and is driven by forged connecting rods. For optimum durability, we've used forged aluminium pistons running in Nikasil-coated aluminium liners and featuring individual oil-spray cooling. Key benefits include lower frictional resistance and longer service life.

The cylinder heads are made from a lightweight alloy which is extremely resistant to high temperature. Each bank of cylinders has two overhead camshafts driving a set of four valves – two inlet and two exhaust – on each individual cylinder. The valves are arranged in a 'V' configuration and feature a highly efficient dual-spring design. Engine performance is further enhanced with the aid of both Variable Turbine Geometry (VTG – see page 32) and VarioCam Plus (variable valve timing and lift on inlet side – see page 38). The benefits are not only greater power and torque, but also better fuel economy and lower emissions.

Dry-sump lubrication.

This classic dry-sump system with separate oil reservoir ensures consistent oil pressures throughout the engine. In doing so, it compensates for even the most extreme and prolonged gravitational loads.



Main rotating assembly and valve gear

After passing through the engine, every drop of oil is returned directly to the external reservoir. The flow is driven by two pairs of scavenge pumps in the cylinder heads and a further two pumps in the crankcase. Gas is removed from the returning oil by means of a defoaming device in the reservoir. As a result, the oil level in the reservoir remains virtually constant at all times. The oil is returned to the lubrication points in the engine by means of a dedicated oil-feed pump. With a further scavenge pump in each of the twin turbocharger units, the new 911 Turbo has a total of nine separate pumps to drive the lubrication system.

The oil level can be checked from inside the car via the standard on-board computer. This solution is not only cleaner and more convenient than a conventional dipstick, it is also significantly more accurate.

Variable Turbine Geometry (VTG).
Creating the optimum turbo for every scenario.

Turbocharger with Variable Turbine Geometry (VTG)

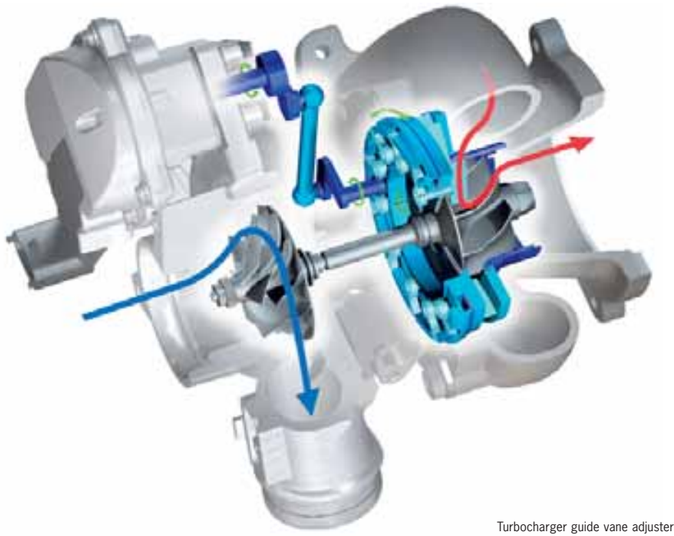
The 911 Turbo has always been synonymous with performance. Now the car is more capable than ever thanks to a new twin turbo system featuring Variable Turbine Geometry (VTG).

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

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

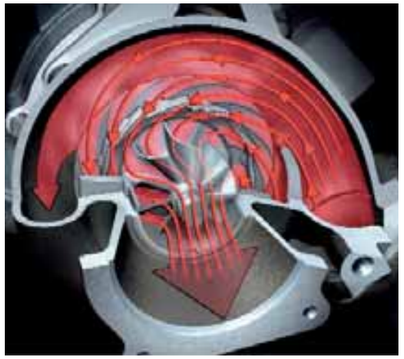
Larger turbo units, which create lower back-pressure at higher rpm, take considerably longer to spin up under power due to the large cross-sectional area and relative inertia of the heavier turbine. Generally, this type of turbo will only be effective in the medium rpm range. This phenomenon, known as 'turbo lag', means there is virtually no turbocharging effect at lower engine speeds. To overcome this problem, the twin water-cooled turbochargers on the new 911 Turbo feature Variable Turbine Geometry (VTG). With this technology, the gas-flow from the engine is channelled onto the turbines via electronically adjustable guide vanes. By changing the vane angle, the system can replicate the geometry in all types of turbo, large or small.

With Variable Turbine Geometry (VTG), it is possible to achieve higher turbine speeds, and thus higher boost pressure, at lower engine rpm. Cylinder charging is significantly improved, with a corresponding increase in both power and torque. Maximum torque is reached at lower rpm and is retained across a wider rev range. A full 620 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. 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.



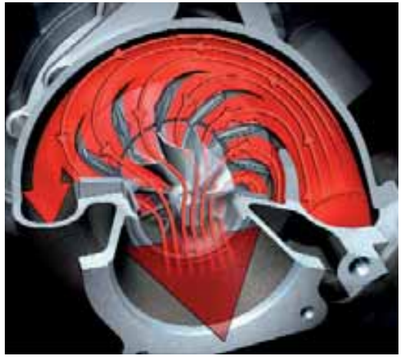
Turbocharger guide vane adjuster

Guide vanes closed

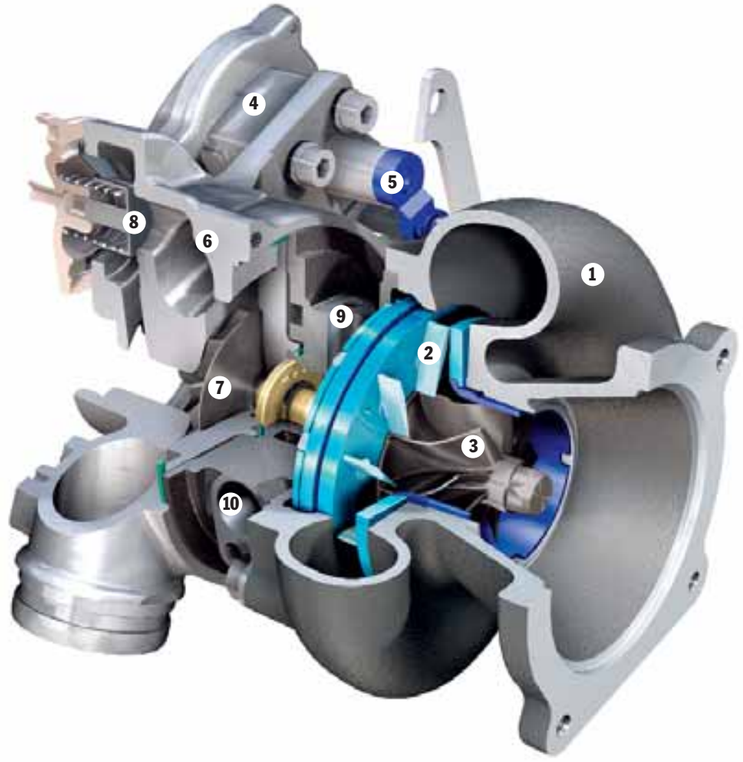


Guide vanes closed

Guide vanes open



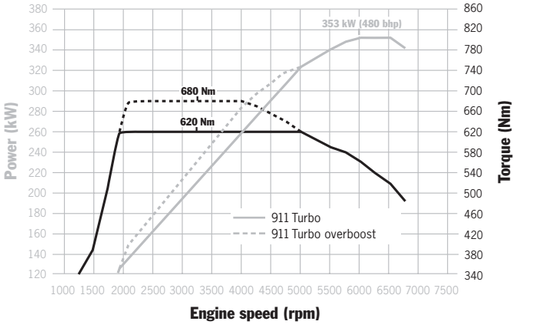
Guide vanes open



1. Turbine casing
2. Movable guide vanes
3. Turbine wheel
4. Electric motor for guide vane adjustment
5. Guide vane adjuster
6. Compressor casing
7. Compressor wheel
8. Excess-pressure valve
9. Oil inlet
10. Coolant inlet

The capability of the engine can be further enhanced by selecting 'Sport' mode on the optional Sport Chrono Package Turbo (see page 60). Under full acceleration, the boost is temporarily increased by approximately 0.2 bar. During this phase, the engine develops as much as 60 Nm of additional torque.

Matching the superlative performance of the car is the efficiency with which it is generated. In spite of the increase in power and torque, the new 911 Turbo offers a further reduction in fuel consumption.



VarioCam Plus.
Optimum valve timing, optimum valve lift, in all load conditions.

VarioCam Plus combines variable valve timing with two-stage valve lift on each inlet camshaft. The resulting benefits include greater power and torque at all engine speeds, as well as smoother running, better fuel economy and fewer exhaust emissions.

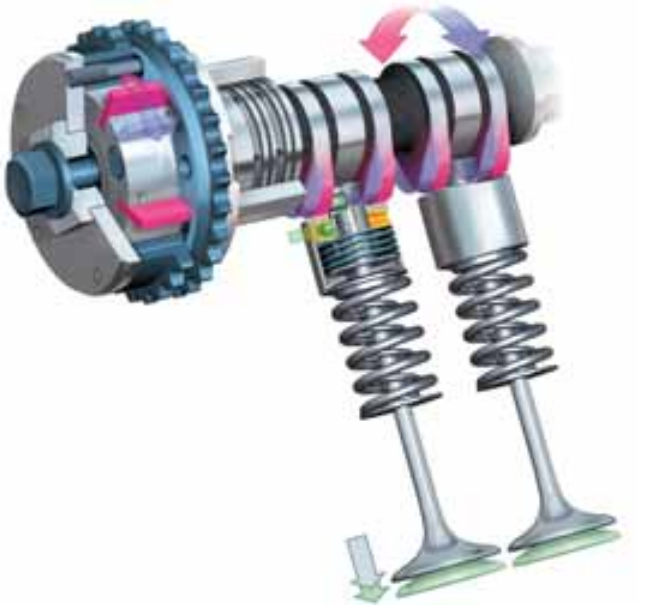
Essentially, VarioCam Plus offers two engines in one. The first is designed for normal road driving, the second for high-performance use. The system switches seamlessly between the two as driver inputs change. All operations are centrally controlled by the engine management system. The result: emphatic acceleration and smoother running.

The two-stage lift mechanism on each inlet valve consists of an electro-hydraulically switchable tappet. Each of the 12 tappets has two concentric lifters which can be locked together by means of a pin. When the tappets are locked, the outermost ring – which is driven by two large profile cams – is in direct contact with the valve. When the pin is removed, the innermost lifter – operated by a smaller cam lobe – has sole influence over the amount of valve lift. The timing of each valve is steplessly controlled by means of an electro-hydraulic rotary vane adjuster at the head of the corresponding camshaft.

To improve responsiveness during warm-up in cold weather, 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. The economy of the engine is particularly enhanced at lower engine speeds. For maximum power and torque, the higher lift setting is selected and the timing of the valves is advanced.

From the driver's perspective, the results are clear: copious torque with exceptional fuel economy, particularly in comparison with much larger yet similarly rated engines.



Engine cooling.

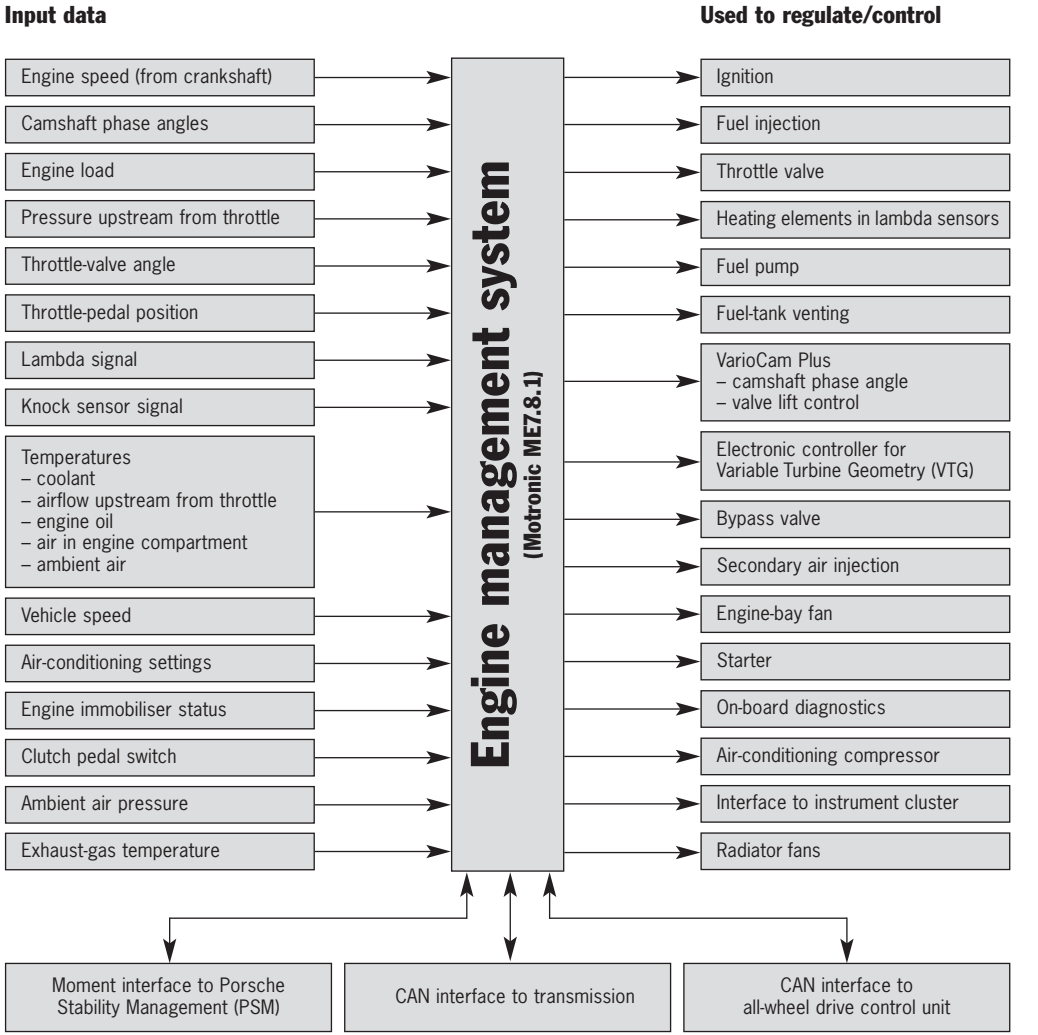
The 911 Turbo engine features cross-flow water cooling with fully integrated coolant management. This technology ensures a consistent flow of coolant to each of the engine's cylinders. All coolant passages are integral to the block, thus eliminating the need for external hoses. Each cylinder receives a fresh supply of coolant which has not been pre-warmed by the engine. As well as improving reliability, this helps to minimise maintenance requirements. Waste heat from the oil is transferred to the coolant via two oil/water heat exchangers. The coolant is routed through twin radiator modules ahead of the front wheels and a centrally placed unit in the nose.

Engine management.

Optimum performance is assured at all times with the aid of the Motronic ME7.8.1 engine management system. On the new 911 Turbo, this powerful ECU is responsible for all engine-related functions and assemblies (see diagram). Key among these are the Variable Turbine Geometry (VTG), VarioCam Plus and electronic throttle system – one of the essential prerequisites for the standard Porsche Stability Management (PSM). The results: optimum economy, emissions and performance, regardless of driving style.

Another important task performed by the engine management system is cylinder-specific knock control. By preventing pre-ignition at high engine speeds, this function can avert costly damage to the pistons and cylinders. Since temperatures tend to vary in different parts of the engine, each cylinder is monitored separately. If a risk is detected, the individual ignition timing is adjusted.

The EU-compliant on-board diagnostics system provides continuous fault detection and early warning for the exhaust and fuel supply systems. The resulting benefits are active prevention of harmful emissions as well as consistent rates of fuel consumption.



Fuel injection.

Fuel is supplied to each of the six cylinders by means of sequential fuel injection. The timing of each injection and the volume supplied to each bank of cylinders are controlled by the Motronic ME7.8.1 engine management system. Adjustments are based on a range of variables, such as throttle position, engine speed, boost pressure, coolant temperature and exhaust gas composition. The results are optimised combustion and fuel consumption. A hot-film air mass sensor monitors the density of the incoming air to ensure the optimum air/fuel mixture, regardless of weather and altitude.

Ignition system.

The 911 Turbo is equipped with a static high-voltage ignition system. Each individual plug has a separate ignition coil, ensuring perfect combustion every time. The role of distributor is performed by the engine management system, which operates the coils directly. The result: optimum performance with minimal fuel consumption.

Exhaust system.

The exhaust system on the 911 Turbo is made from highly durable stainless steel. The system consists of two separate tracts, one for each bank of cylinders. The catalytic converters are extremely heat-resistant, yet quick to reach temperature (and thus optimum performance) when the engine is started from cold.

Twin lambda sensors in each of the exhausts enable continuous monitoring of the combustion process. An additional pair of sensors* is used to measure the efficiency of the catalytic converters.

Servicing.

Another pleasant surprise on the new 911 Turbo is the standard service schedule. Running costs are reduced thanks to lengthy replacement intervals for both the engine oil (18,000 miles) and air filter unit (36,000 miles). The spark plugs require changing after 36,000 miles or a maximum of every four years. The generator, power-steering pump and air-conditioning compressor are all driven by a single self-adjusting belt with a service life of 54,000 miles. The hydraulic tappets provide automatic adjustment of all valve clearances, while the drive chains on the camshafts and auxiliary shafts will also last the life of the car.

Basic servicing is required after 18,000 miles or a maximum of two years on the road. The first major service is due at 36,000 miles or every four years at the latest. The results: lower running costs and virtually uninterrupted enjoyment from your Porsche.

* Not in markets with leaded fuel.

Six-speed manual gearbox.
Superlative power requires equal precision.

The new six-speed manual gearbox in the 911 Turbo is specifically adapted to the car's high levels of engine torque. Designed primarily for sports driving, one immediate characteristic is the perfectly judged spread between successive ratios as you upshift through the gears. The gearshift throw is short and precise, with only minimal force required. Thanks to a dual-mass flywheel, this uncompromising setup means there's never any compromise in comfort. The linkage provides a direct connection with the gearbox while insulating the lever from engine vibration.

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

Gear lever exclusive to 911 Turbo

Tiptronic S.
Manual and automatic in one versatile solution.

Tiptronic S control on steering wheel

The 911 Turbo is available with optional five-speed Tiptronic S offering a highly rapid gearshift action. This versatile option offers fully automatic five-speed operation as well as direct manual control.

In manual mode, you can change gear by hand using gearshift controls on the steering wheel. Simply press up to change up, and down to change down. The clutch function is fully automatic.

In automatic mode, the standard gearshift pattern, designed for maximum fuel economy, can be steplessly varied up to a dedicated 'Sport' configuration for optimum high-performance driving. Each gearshift point is automatically selected based on current driving style and road conditions. Within a short space of time, you'll develop a feel for the system and begin to influence gearshifts using the throttle alone.

The benefits of Tiptronic S are particularly apparent when exploring the car's potential. Even in automatic, the rapid gearshift action enables remarkable agility under acceleration. The immediacy of response, with virtually no interruption in drive, is now more than comparable with a Porsche manual gearbox. At just 3.7 seconds, the new 911 Turbo with Tiptronic S is 0.2 seconds quicker to 100 km/h (62 mph) than the standard manually equipped car.

While still in automatic, you can change gear by hand using the rocker controls on the steering wheel. If there is no manual input for a period of 8 seconds, the system reverts to automatic mode.

If the car is driven more assertively, the system automatically selects the 'Sport' gearshift pattern, i.e., there is no need to use a kick-down function. Unlike conventional automatic systems, Tiptronic S does not shift up when the throttle is released, thus enabling optimum acceleration when exiting a corner with no loss of stability due to changes in load. Mid-corner gearshifts are also prevented, thereby enhancing stability and safety. Under heavy braking, the system shifts down, using engine braking to slow the car. The function is enabled during high-performance use when the driver releases the throttle to apply the brake within a period of 1.5 seconds. These active downshifts enhance the car's performance, particularly when braking for a corner. Under prolonged braking, additional downshifts are performed based on the amount of brake force applied. An incline sensor improves uphill acceleration and makes better use of engine braking on descent. This, of course, helps to reduce the load on the braking system. If traction is lost under braking in the wet or on snow, the system automatically changes up to restore lateral grip and bring the car back into line.

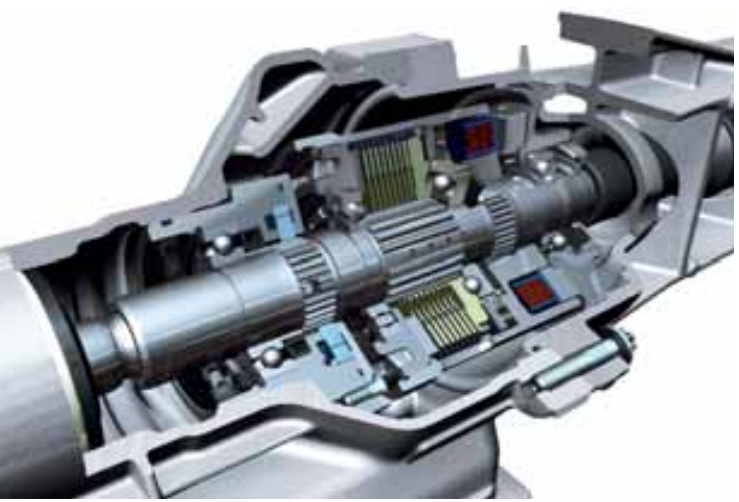
Tiptronic S gear selector lever

Tiptronic S also includes a warm-up function designed to minimise exhaust emissions. When the car is started, the engine speed is increased so that the catalytic converters reach their optimum operating temperature within the shortest possible time.

Electronically controlled all-wheel drive with Porsche Traction Management (PTM).
The intelligent application of power and torque.

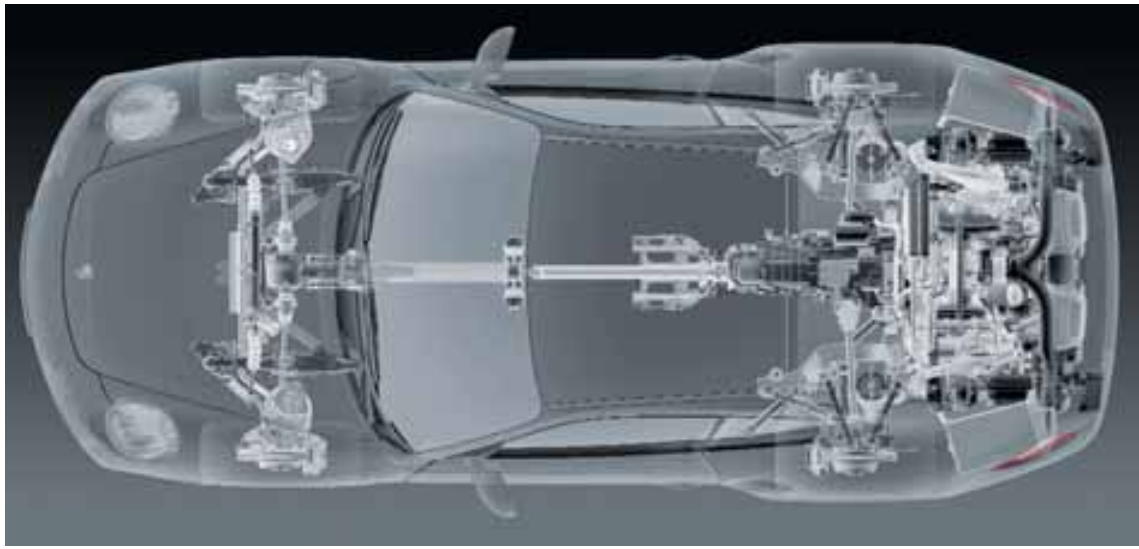
Genuine high performance calls for more than just a powerful engine. It also requires an effective means of applying that power to the road. On the 911 Turbo, this is achieved by means of permanent all-wheel drive and an all-new version of Porsche Traction Management (PTM). The key mechanical feature within the AWD system is the electronically controlled multi-plate clutch. Integral functions within PTM include an automatic brake differential (ABD) and anti-slip regulation (ASR).

The electronically controlled clutch is used to vary the drive torque transmitted to the front axle. The previous 911 Turbo had a multi-plate clutch filled with a viscous fluid, which 'passively' determined the front/rear torque split. On this latest evolution, the fluid is replaced by active, electronic control.



Electronically controlled multi-plate clutch

While the viscous-fluid system responds to relative differences in front/rear axle speed, the new electronic clutch offers a more direct response to changing road scenarios. The status of the car is continuously 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' by PTM, 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. The integral ASR function is also used to minimise wheel-spin. 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) function. For optimum traction, manual gearbox cars can also be equipped with an optional mechanical limited-slip rear differential (see page 56).



All-wheel drive system

Assisting PTM is a new and specially uprated version of Porsche Stability Management (PSM – see page 58). Combined, these systems ensure optimum torque distribution – and thus optimum drive – in every type of road scenario, including high-speed straights, hairpin bends and challenging, variable-grip surfaces. Under heavy braking where ABS is required, the multi-plate clutch severs all front drive so that each front wheel can be controlled separately by the ABS without being influenced by the rear wheel dynamics.

The traction benefits of the new electronically controlled system are particularly apparent in the wet or on snow. In these conditions, the new 911 Turbo offers breathtaking acceleration.

In short, PTM offers greater active safety, greater performance, and even more of the positive handling and agility you'd expect from a 911 Turbo.

Designed to reach the heights of performance.
With all four wheels on the ground.

Chassis

Suspension.
Precision, strength and lightweight design.

Front axle 911 Turbo

Rear axle 911 Turbo

To transmit power with optimum efficiency, the front and rear suspension must be as stable, and as light, as possible. Reducing weight, particularly on the unsprung masses, brings major benefits in terms of driving dynamics.

The new 911 Turbo is equipped with an electronic damping system as standard. For more information on Porsche Active Suspension Management (PASM), see page 56.

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. Brake spoiler elements provide efficient cooling for each of the front brake units.

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

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

Combined, the 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. Overall, the car offers a level of stability that is equal to the car's performance potential.

Steering.
Accuracy, comfort and excellent road contact.

The power-assisted steering is not only sensitive and direct, it also offers accurate feedback from the road. Minimal driver effort is required when parking, while the turning circle is small at just 10.9 metres – despite the generous tyre width.

One of the key features of the new 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. Turn the wheel harder and the ratio becomes more direct, enabling better manageability through low-speed corners as well as easier parking manoeuvres. In all scenarios, the system provides excellent feedback while complementing the car's natural agility.

In short: all the precision of a race-proven system, yet perfect for everyday road use.

Wheels.

The final elements in the drivetrain system are, of course, the wheels and tyres. On the new 911 Turbo, we've used 19-inch forged alloys as standard. The front wheel dimensions are 8.5J x 19 with 235/35 ZR 19 tyres. Rear wheel size is 11J x 19 with 305/30 ZR 19 tyres. The new wheel design features a special two-tone look for even greater visual impact. The sides of each spoke have a titanium paint finish, while the entire front surface, including the flange, has a polished finish.

Tyre Pressure Monitoring (TPM), included as standard equipment, provides early warning of tyre pressure loss. The driver is informed via the on-board computer display as well as a separate indicator light.

A range of optional 18 and 19-inch winter wheels (all snow chain-compatible) are available from Porsche Tequipment. Vehicles equipped with the optional Porsche Ceramic Composite Brake (PCCB) may only be fitted with 19-inch winter wheels.

19-inch Turbo wheel

Porsche Active Suspension Management (PASM).
From ultimate comfort to optimum performance,
all at the push of a button.

The new 911 Turbo is equipped with Porsche Active Suspension Management (PASM) as standard. This electronic active damping system offers continuous adjustment of the damping force on each wheel based on current road conditions and driving style.

PASM has two driver-selectable setup modes, 'Normal' and 'Sport', which share a minimal degree of overlap. While 'Normal' 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').

PASM uses a range of sensors to monitor any movement in the body of the car (e.g., under acceleration, braking or on uneven road surfaces). The PASM control unit uses this data to obtain a real-time evaluation of the forces acting on the car. The system responds continuously with a corresponding modification of individual damping forces in accordance with the selected setup mode. The results are a reduction in both pitch and roll as well as consistent road-holding from all four wheels.

If 'Sport' mode is selected, the suspension is set to a harder damper rating. If the quality of the road surface falls below a certain threshold, the system immediately changes to a softer rating within the 'Sport' setup range. This adjustment enhances occupant comfort as well as traction and grip. When the road surface improves, PASM automatically reverts to the original, harder rating.

If 'Normal' mode is selected, and the car is driven more assertively, PASM automatically switches to a harder rating within the 'Normal' setup range. As the dampers become stiffer, the car becomes more stable, ensuring higher levels of active safety as well as greater enjoyment from your Porsche.

Limited-slip differential.

The manual gearbox version of the new 911 Turbo is available with an optional mechanical limited-slip rear differential. Key benefits include greater rear-end traction when exiting hairpin bends as well as on variable-grip surfaces. It also compensates for changes in wheel loads caused by throttle modulation when cornering.

Rebound in 'Normal' mode – damper piston with bypass valve open

Rebound in 'Sport' mode – damper piston with bypass valve closed

Compression in 'Normal' mode – damper piston with bypass valve open

Compression in 'Sport' mode – damper piston with bypass valve closed

Porsche Stability Management (PSM).
Enhanced stability control for the new 911 Turbo.

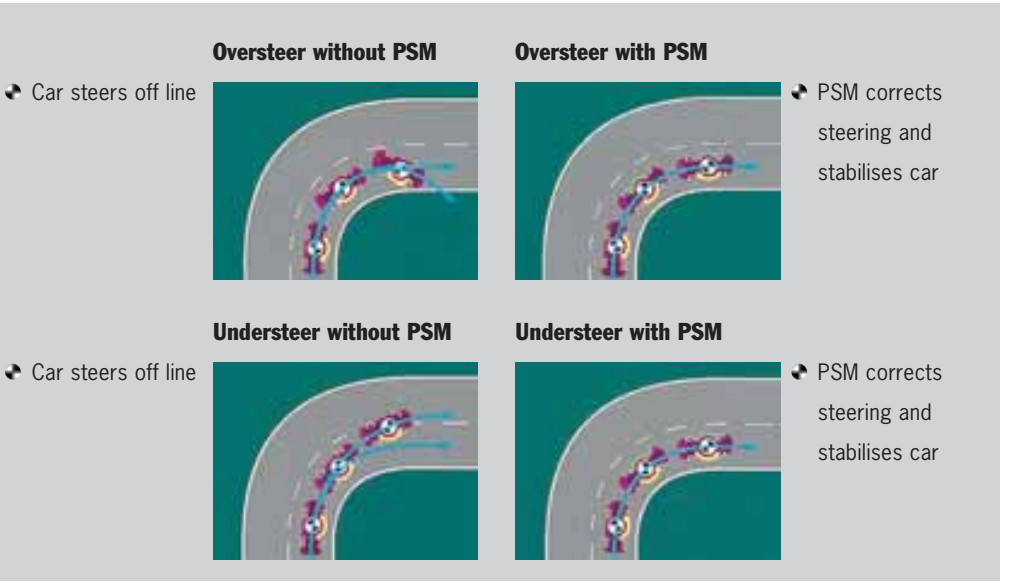
This latest evolution of Porsche Stability Management (PSM) provides automatic assistance in critical road scenarios. A powerful driver aid, it uses a range of sensors to monitor the direction, speed, yaw velocity (speed of rotation around the vertical axis) and lateral acceleration of the car. With this information, it can then calculate the actual direction of travel. If the car begins to oversteer or understeer, PSM applies selective braking on individual wheels to bring it safely back into line. Whenever PSM is required to intervene, an indicator light in the cockpit is illuminated.

Another scenario in which PSM is invaluable is when applying the throttle on wet or other low-grip surfaces. Here, PSM uses the ABD (automatic brake differential) and ASR (anti-slip regulation) functions in PTM to maintain traction and stability.

Standard equipment on the 911 Turbo, PSM assists with high-precision inputs that enhance the athleticism and agility of the car. When 'Sport' mode is selected on the optional Sport Chrono Package Turbo (see page 60), the PSM threshold is raised higher still enabling greater driver involvement – particularly at speeds of up to 70 km/h (44 mph).

The integral ABS ensures shorter braking distances in critical road scenarios. 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 is specifically designed for use in emergency stops. When the pressure on the brake pedal exceeds a predefined threshold, the brake assist function uses the PSM hydraulics to apply the pressure required for maximum deceleration. The result: shorter braking distances.

For a more natural drive, PSM can be manually disabled leaving only the automatic brake differential (ABD) in place. Although essentially inactive, PSM remains present in the background and can intervene immediately under heavy braking where at least one front wheel requires ABS assistance. In 'Sport' mode, PSM will only respond when ABS is active on both front wheels.

In short, PSM provides the ideal balance between electronically assisted active safety and freedom to enjoy the car's potential.

Sport Chrono Package Turbo.
Additional power, precision timing.

The new 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. This integrated system provides simultaneous enhancement for engine, chassis and optional Tiptronic S transmission.

Key features include a digital and analogue timer located centrally on the dashboard, a 'Sport' select button on the centre console, a performance display in the standard Porsche Communication Management (PCM), a personal memory function in PCM, and a special 'overboost' function unique to the new 911 Turbo.

When 'Sport' mode is selected, the engine management system applies a new set of variables creating a much more aggressive response. A modified throttle map relates the pedal position in the footwell to a wider angle of opening on the throttle. As a result, the engine has a much more positive reaction to every pedal input. In the higher gears, a hard rev-limiter helps 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 medium rev range, raising the standard 620 Nm of torque to as much as 680 Nm.

The modified throttle is matched by PASM, which also switches to 'Sport' mode. The dampers become firmer, enabling faster turn-in as well as better contact with the road.

On vehicles with Tiptronic S, the basic gearshift pattern is automatically switched to high-performance mode. The gearshift 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. There are no unwanted upshifts in manual mode when approaching the engine rev limit. Since the driver has control over every upshift, the handling of the car is smooth and assured, particularly when braking for a corner.

To minimise assistance from PSM, the trigger threshold for this system is raised. The result is a more natural and involving response to both lateral and

'Sport' button on centre console

longitudinal forces. Mid-corner agility is considerably enhanced, with greater scope for oversteer on turn-in and exit. This added freedom is particularly apparent in lower-speed sequences and bends. For even greater driving pleasure, the all-wheel drive system applies a greater proportion of drive torque to the rear.

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 of situations, e.g., when ABS assistance is required on both front wheels.

To help you quantify this increased performance, the Sport Chrono Package Turbo includes a swivel-mounted timer on the dashboard. Functions are accessed via the control stalk for the on-board computer. Analogue dials measure hours, minutes and seconds, while a separate digital field displays whole seconds, tenths and one hundredths of a second. The digital field runs in parallel with a second display which is conveniently located in the instrument cluster.

Individual lap times can be viewed, stored and analysed using a special 'performance display' added to Porsche Communication Management (see page 86). Available information includes the time and distance travelled on the current lap, as well as the number of laps completed and the respective times. The system can also display the current fastest lap and remaining range till empty. Driving times can be recorded for any stretch of road and benchmark times can be defined. Other useful features include a memory function accessible via PCM. This can be used to store a range of personal preferences, such as daytime driving lights, 'Welcome Home' light function, air conditioning, rain sensor activation and door-lock mode.

What is the secret of
uncompromising performance?
Always put safety first.

Safety

Active safety: lighting system.
Bright ideas for the darkest night.

The standard lighting system on the new 911 Turbo features the latest Bi-Xenon gas-discharge technology offering a light quality similar to daylight. The compact main headlights provide a broad swathe of light, ensuring greater active safety in all road scenarios.

Each headlight unit contains a gas-discharge lamp featuring dynamic range control. This automatic adjustment of the light-beam angle prevents hazardous dazzling of oncoming vehicles due to small undulations in the surface of the road or heavy rear-end loads.

The brightness of the lights is approximately twice as great as that of a halogen lamp. Other standard features integral to the system include a headlight cleaning function.

The horizontal indicators in the outer front air intakes feature high-performance light-emitting diodes (LEDs) for optimum visibility.

The standard front foglights on the front apron moulding are another distinctive design feature on the new 911 Turbo.

At the rear of the car, the High-Level third brake light is also equipped with fast-response LEDs.

A pair of additional lights on the inside of each door offer greater convenience and safety at night. The kerb light (white) provides greater visibility when exiting the car. The safety light (red) warns traffic approaching from the rear that the door is currently open.

Bi-Xenon headlight

High-Level third brake light

Active safety: braking system.
Always quick when you have to be slow.

Power, torque, acceleration, and flexibility: in every respect, the new 911 Turbo is more accomplished than ever before. The logical adjunct to all these improvements is a corresponding increase in brake performance.

To achieve that capability, the standard braking system combines six-piston fixed calipers at the front of the car with newly devised four-piston units at the rear.

Standard brake unit (front axle)

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, while the pedal travel is short and the bite point precise and consistent.

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.

Other features include four-channel ABS offering a smoother, low-pulse action. Brake spoiler elements provide effective cooling for all key brake components. A powerful tandem brake booster unit enables easier pedal inputs.

Braking distances are further reduced with the aid of two new functions in the latest evolution of the standard Porsche Stability Management (PSM): electronic brake prefill and brake assist (see page 58).

Porsche Ceramic Composite Brake (PCCB).
When it comes to developing new brake technology, nothing holds us back.

PCCB

The new 911 Turbo is also available with an optional high-performance braking system: the Porsche Ceramic Composite Brake (PCCB). Successfully tested in the toughest endurance racing, this unique technology has been further refined for even greater road performance.

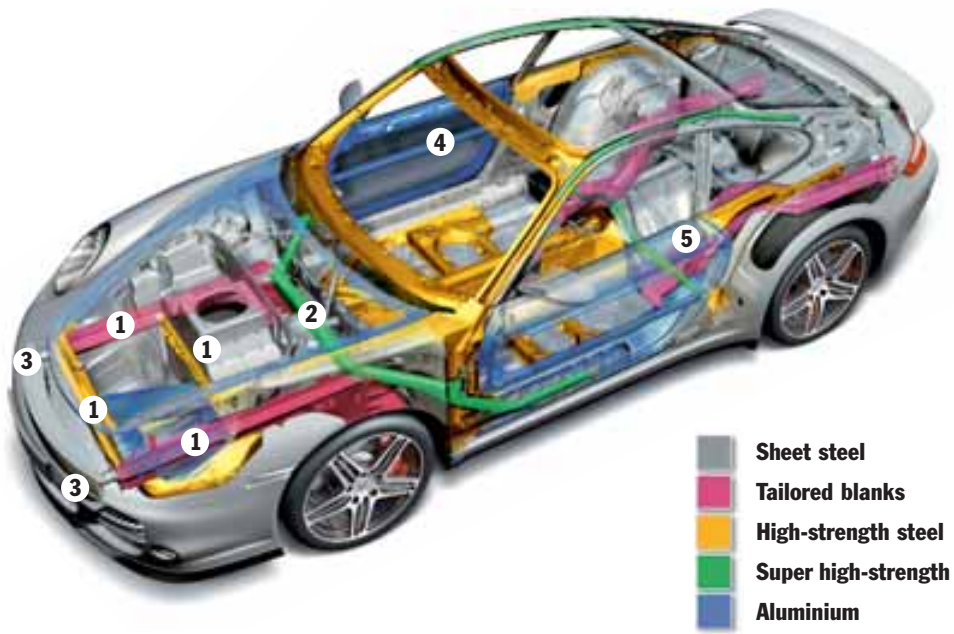
The key components in PCCB are the moulded ceramic discs (front/rear diameter: 380 mm/ 350 mm). The larger front discs provide greater leverage and therefore better brake performance. The discs are made from a specially treated carbon-fibre compound that is silicated in a high-vacuum process at 1,700 °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 not only extremely high, they are also exceptionally consistent. The pedal response is fast and precise, with only moderate input required.

The key advantage of PCCB is the total weight saving over comparable metal discs of approximately 50%. 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. For more information, see the latest PCCB brochure available from your Porsche Centre.

Passive safety: bodyshell structure. Adding strength, reducing weight.



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

The 911 Turbo easily complies with all statutory requirements in all markets worldwide in respect of frontal, side, diagonal and rear impact protection.

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, energy is absorbed by three separate load paths, one above the other, which disperse the force of impact and minimise 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. In a minor collision, a system of easily replaceable impact absorbers (3) prevents costly damage to the underlying bodyshell structure.

The upper section of each door features additional reinforcements (4) which enhance the rigidity of the car. An additional load path (5) is used to channel energy through the upper part of the shell and protect the passenger cell.

In 1985, Porsche began using super high-strength steel elements in its door design to provide greater occupant protection. On the new 911 Turbo, this integral reinforcement is made from robust yet lightweight aluminium. By increasing the proportion of aluminium alloys and high-strength steel, we've also increased the car's power-to-weight ratio. No less than 20% of the new 911 Turbo is made from aluminium.

As you would expect, the entire bodyshell structure receives a highly effective anti-corrosion treatment. Thirty years ago, Porsche became the first manufacturer in the world to use a hot-dip galvanised steel shell. This exacting process is absolutely fundamental to the legendary durability of our cars. It also ensures a consistently high standard of crash protection, even after many years on the road. To underline our confidence in this exceptional build quality, the 911 Turbo comes with a ten-year anti-corrosion warranty, three-year paint warranty and two-year warranty on the car as a whole.

Passive safety: airbags.
Added side protection with intelligent deployment.

The new 911 Turbo has a unique passive protection system featuring six separate airbags. The full-size front airbags for driver and front passenger have a two-stage inflation capability. With this technology, the deployment of each airbag is dependent on the force and nature of the accident (e.g., frontal or diagonal impact). In a low-speed crash, the airbag is only partially inflated, thereby minimising discomfort to the occupants.

The airbag control unit is located in the centre tunnel where it receives additional information from a pair of impact sensors near the headlights. This arrangement enables faster and more accurate evaluation of impact forces in the event of a crash.

Complementing the front airbags is the latest generation of Porsche Side Impact Protection (POSIP). This comprehensive package includes two additional airbags for each front seat: a thorax airbag in the side of each backrest, and a head airbag located in each door. Each side airbag has an approximate volume of 8 litres, ensuring maximum protection over the entire seat adjustment range. Also incorporated within the POSIP package are side-impact protection beams in the doors.

Other standard features include integral head restraints, an energy-absorbing steering column, height-adjustable three-point seat belts with pre-tensioners and force limiters, energy-absorbing structures in the dashboard area and flame-retardant materials throughout the interior.

Uncompromising engineering deserves
to be appreciated.
Which is why we never compromise
on comfort.

Comfort

Interior.
For the pure enjoyment of performance.

The passenger compartment in the new 911 Turbo is another example of uncompromising design. As you would expect, it offers the highest standards of ergonomics, comfort and quality. The seats, dashboard, doors and rear side panels are finished in leather as standard. At the centre of the cockpit is a new gear lever design that's exclusive to the new 911 Turbo.

Other standard features include a three-spoke sports steering wheel offering 40 mm of adjustment for both height and reach. A three-spoke multi-function steering wheel – available as optional equipment – provides direct access to audio, navigation and (if fitted) telephone functions.

The standard audio package is the latest evolution of Porsche Communication Management (PCM). This comprehensive system features satellite navigation with a separate DVD drive in the luggage compartment for the single navigation disc.

The one-touch switches on the centre console are logically positioned for optimum ease of use. All instruments are perfectly placed within the driver's field of vision. The air-conditioning system is fully automatic and features a highly effective active carbon filter. This added convenience gives you greater freedom to enjoy the driving experience.

The tinted front glass and generous rear screen offer excellent fore-and-aft visibility. The front side windows have a water-repellent finish, which automatically disperses moisture and dirt. The result: optimum visibility in poor weather conditions.

Instruments.

The classic arrangement of five round instruments provides 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 multi-purpose field contains a permanent digital speedometer as well as the following optional information: 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, 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, contains a clock and external temperature.

The dot-matrix technology used in each of these displays provides a high resolution for icons and text. Design and legibility are further enhanced with brilliant white backlight illumination.

Standard seat (full electric adjustment)

Adaptive sports seat

Standard seats.

The standard seats feature full electric adjustment of fore/aft position, height, backrest angle, squab angle and lumbar support. Comfort is assured thanks to excellent lateral support, a lowered seat base offering greater headroom, and a dedicated spring system that is specifically designed to match the car's suspension characteristics. The high side bolsters provide excellent lateral support, without restricting occupant comfort. The generous range of adjustment options 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.

Sports seats.

Available as a no-cost option, this stylish design offers firmer upholstery than the standard seat 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 seats.

This alternative seat option offers full electric adjustment of fore/aft position, squab height, backrest angle, lumbar support, squab side bolsters and backrest side bolsters. By varying the side bolsters, you can increase occupant comfort on long-distance journeys or maximise support on the racetrack. A driver memory function includes the exterior mirror position on the driver's side as well as all seat settings except for the squab and backrest side bolsters.

Rear seats.

The folding rear seats are surprisingly comfortable for a car of this performance capability.

The generous rear storage area offers valuable loadspace, even when the seats are in use. Fold the backrests down and there's an additional 190 litres of luggage space.

Child seats.

The front passenger seat has been specially designed to carry an ISOFIX-compatible child seat. For the necessary preparation – including airbag deactivation – see the Porsche Tequipment catalogue for the new 911 Turbo. A comprehensive range of child seats, also from Porsche Tequipment, is available at your Porsche Centre.

Rear seat and storage area

Glove compartment

Storage compartments.

The new 911 Turbo is not only a powerful performer, it is also highly versatile. Added to the comfort and ergonomics of the interior are a range of practical features.

The storage compartments in the doors and centre console feature matching upholstered lids. These are positioned at precisely the same height to form comfortable armrests on longer journeys. Beneath the front passenger airbag, behind a fold-down trim, are two cupholders for driver and front passenger. Beneath the cupholders is a lockable glove compartment featuring integral CD storage.

Two 12 V sockets (including the cigar lighter) provide power for electrical equipment. An optional fire extinguisher is also available, installing neatly out of sight but always within reach directly ahead of the driver's seat.

'Welcome Home' lighting.

This standard function provides generous illumination via the foglight units when the key remote is used to lock or unlock the car. As the name suggests, it is particularly convenient when returning home after dark. On vehicles equipped with the optional Sport Chrono Package Turbo, the timing delay can be programmed via the Porsche Communication Management (PCM) terminal.

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 within the rear apron moulding.

Cruise control.

This optional system is available from 30 to 240 km/h (20–149 mph) and can even be used in first gear. The system is operated using a separate control stalk on the steering column.

HomeLink®.

This optional garage-door opener is integral to the car and offers full remote control for up to three garage doors. It can also be used with gate, home lighting and alarm systems. Compatible with virtually all garage and gate systems.

Rear wiper.

Also available as an option, the rear wiper system includes a flat and streamlined 'aero' blade which blends with the exterior of the car.

Interior and exterior mirrors.

All three rear-view mirrors on the new 911 Turbo feature auto-dimming glass as standard. The interior mirror also includes an integral rain sensor for the front wiper system.

Slide/tilt sunroof.

This electrically operated and steplessly adjustable slide/tilt sunroof is also available as an option. In the tilted position, it offers comfortable ventilation of the passenger compartment, even when travelling at high speed.

Slide/tilt sunroof

Luggage compartment

Luggage compartment.

In addition to the loadspace in the rear seat area, the new 911 Turbo has a 105-litre front luggage compartment. The bulkhead panelling conceals the standard audio amplifier for the BOSE® Surround Sound System, as well as the DVD drive for the navigation module. The optional CD autochanger is installed on the right-hand side of the compartment (looking forwards). The entire compartment is lined with high-quality, scratch-resistant materials.

Roof transport system.

The optional roof transport system is made from lightweight aluminium, making it extremely easy to fit. It is also styled to match the exterior design as well as the car's aerodynamics. The basic load-carrying bars can be combined with a range of attachments from Porsche Tequipment, including a roof box and carriers for bikes, snowboards and skis. Maximum roof load is 75 kg.

Anti-theft protection.

Standard anti-theft equipment on the new 911 Turbo includes an engine immobiliser with in-key transponder. The comprehensive alarm system features contact-sensitive exterior protection and radar-based interior surveillance.

Vehicle tracking system.

Optional protection includes a factory-fitted preparation enabling future installation of a vehicle tracking system from Porsche Tequipment. In the event of theft, the system enables remote tracking of the stolen vehicle across most European countries. Also requires special wiring loom and higher capacity battery.

Roof transport system

Porsche Communication Management (PCM).
Want to make the most of every journey?
Let PCM show you the way.

Porsche Communication Management (PCM)

The standard 911 Turbo is equipped with Porsche Communication Management (PCM) featuring a high-resolution colour display. PCM is an integrated system combining radio, CD player, audio controls, on-board computer and satellite navigation, as well as optional CD autochanger, telephone module and electronic logbook. The integral CD drive is also compatible with MP3 audio files. In addition, PCM provides direct control of the performance display and memory function included with the optional Sport Chrono Package Turbo.

Radio features include 20 FM and 20 MW presets, Dynamic AutoStore, and RDS two-tuner frequency diversity. The two-tuner function uses one tuner to play the selected station and another to search for the best possible signal throughout your journey.

Satellite navigation.

The PCM system on the new 911 Turbo includes satellite navigation as standard. The DVD drive for navigation data is neatly concealed in the luggage compartment. The standard CD drive in PCM can therefore be used exclusively for audio CDs.

Special features on the GPS navigation module include dynamic route guidance with TMC (Traffic Message Channel). This function provides a visual overview of traffic congestion as well as automatic calculation of alternative routes. Another feature of the navigation module is the easy-to-use menu structure. After you enter your destination, the system automatically establishes your current position before guiding you there via the best possible route.

The DVD drive offers faster data access, and therefore faster route calculation, than equivalent CD systems. The number of zoom levels has also been increased to make map reading easier. Navigation data for most European countries is included on a single DVD.

Navigation expansion module.

In combination with PCM, this optional expansion module enables automatic navigation along a previously recorded route (reverse route navigation) as well as compass and GPS-based navigation in regions not covered by your navigation DVD.

Antenna diversity.

The PCM package includes four separate antennae which are discreetly incorporated within the windscreen glass. This simple solution enables the twin-tuner radio system to find the strongest possible signal, thereby enhancing FM reception.

On-board computer.

The PCM computer offers a wide range of information, including average fuel consumption, average speed, range till empty, journey time and external temperature. It can also be used to view data from the optional Tyre Pressure Monitoring (TPM). The computer is operated using a separate control stalk, displaying key information in the central instrument dial. The same control stalk is used to operate the timing functions in the optional Sport Chrono Package Turbo.

Electronic logbook.

This optional addition to PCM enables automatic logging on every journey of mileage, route distance, date and time as well as starting location and destination. Data can be downloaded from PCM via an infrared port and processed on a computer using software included with the package. This easy-to-use option fulfils all the requirements for automatic logbooks as specified by the German revenue authorities.

Telephone module.

The optional GSM telephone has a 12-digit keypad and a hands-free facility offering excellent call quality. The hands-free microphone is located next to the steering column and is ideally positioned for the driver. The telephone system supports SMS (text) messaging as well as card-free calls to emergency services. An optional passive (keyless) handset with leather-trimmed console enables clearer communication as well as greater privacy when making a call.

CDC-4 CD autochanger.

This optional CD autochanger has a total capacity of six audio CDs and installs beneath a panel in the luggage compartment. An autochanger preparation is included as standard.

Passive (keyless) handset

BOSE® Surround Sound System.
One powerful sound experience meets another.

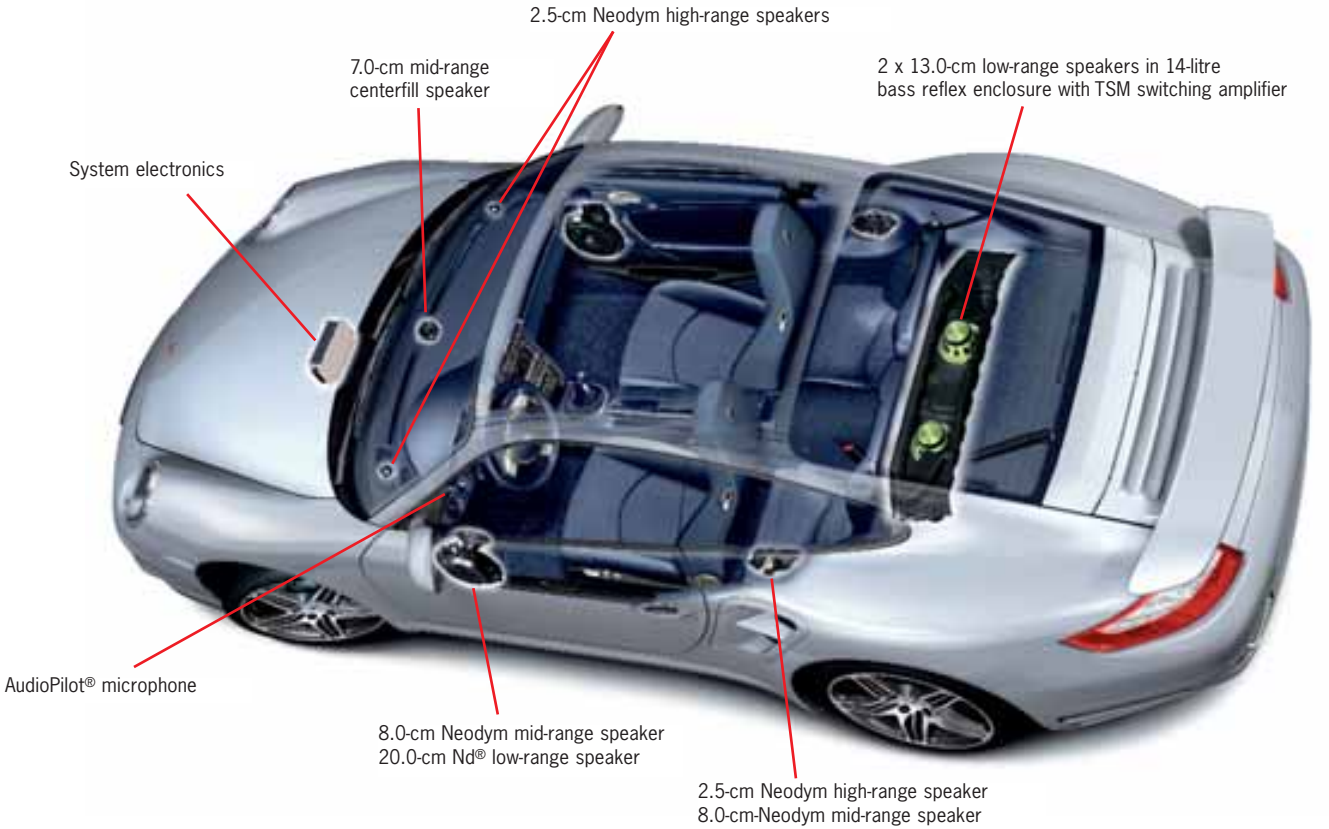
Mid-range speaker in door

The BOSE® Surround Sound System has a unique acoustic presence. Just like the new 911 Turbo. Which is why we chose to develop them together as a single, integrated whole.

The standard BOSE® Surround Sound System in the new 911 Turbo has a nominal output of 325 Watts. Power is supplied by a seven-channel MOST®-based digital amplifier, featuring 5 x 25-Watt linear amps and 2 x 100-Watt switching units. MOST® (Media Orientated Systems Transport) is a fibre-optic bus network offering fast data transfer and perfect signal quality.

A total of 13 loudspeakers, including active subwoofer and centerfill speaker, create a unique sound at all four seat positions that complements the driving experience. The balanced, lifelike and crystal-clear sound is the product of numerous audio technologies.

BOSE® Surround Sound uses independent channels at front and rear to create a push-button panorama of space and sound. Adding to this experience is the patented BOSE® Centerpoint® technology, which can split even stereo recordings into five separate channels. These are then passed to selected speakers with the aid of BOSE® SurroundStage™ signal processing.



Extensive equalisation circuitry ensures perfectly tailored sound in every situation.

Since the system was developed in conjunction with the car, all sound output, across the entire frequency spectrum, is custom-engineered to the unique interior acoustics of the new 911 Turbo. The dynamic loudness function offers a considerable improvement over conventional loudness circuitry. By enhancing the lower frequencies in low-volume sound, it actively compensates for the reduced sensitivity of the human ear at the lower end of the audio spectrum. Another important feature of the BOSE® Surround Sound System is AudioPilot® Noise Compensation Technology. Using a microphone in the dashboard, AudioPilot® monitors the sound in the cockpit and automatically compensates for any ambient noise. The result is a clearer and more consistent sound, with no need for manual adjustment.

BOSE® and Porsche: two legendary sounds, perfectly matched in the new 911 Turbo.

We've always believed that less is more.
Which is why we make the most of every resource.

Environment

The 911 Turbo is dedicated to performance.
Also with respect to the environment.

At Porsche, we're exploring every possibility to improve the environmental compatibility of our cars: modern materials, reduced fuel consumption, cleaner emissions, fewer pollutants and better recyclability. This commitment is a Porsche tradition that began in the 1960s. With the latest evolution of the 911 Turbo, the rewards are even greater than ever.

Exhaust emission control.

Combine engineering expertise with a commitment to the environment and the resulting benefits are twofold: exceptional performance and lower emissions. One of the cleanest sportscars in the world today, the new 911 Turbo easily complies with both the stringent Euro 4 standard in the European Union as well as LEV II regulations in the United States.

The technologies used to achieve this compliance include twin 'lambda' or oxygen sensors for each of the two cylinder banks. One pair of sensors is used to measure the levels of oxygen in each of the twin exhaust tracts. An additional pair of sensors – again, one in each tract – enable the engine management system to monitor the efficiency of the catalytic converters.*

Recycling.

Lightweight construction, long-term durability, exceptional recyclability: just three of the techniques employed by Porsche to improve the environmental compatibility of our cars.

On the new 911 Turbo, we've used weight-saving design and lightweight materials to achieve excellent fuel economy.

All materials and manufacturing processes have been carefully selected and specifically refined to reduce any impact on the environment. A prime example is the twin exhaust system, which is made entirely from stainless steel. All lightweight materials are easily recyclable, while the variety of synthetics has been significantly reduced. Recycled plastics are used in every area of the car where our exacting specifications allow. To simplify processing, all materials are labelled for separate recycling. Approximately 85 % of today's 911 Turbo is compatible with current recycling techniques.

Water-based paints are used throughout the car, thus reducing the need for chemical solvents in both production and subsequent servicing. Other harmful materials omitted from the vehicle include asbestos, CFCs, and components manufactured using CFCs.
The result is a car in which environmental protection is an integral part of the overall design.

* Not in markets with leaded fuel.

Servicing.

Longer service intervals are not only easier on resources, they also reduce ownership costs. The new 911 Turbo has very modest servicing requirements of 18,000 miles or every two years (standard service) and 36,000 miles or every four years (major service). The replacement intervals for parts and fluids have also been significantly extended: engine oil and filter every 18,000 miles, air filter every 36,000 miles, spark plugs every 36,000 miles or four years, and fuel filter every 56,000 miles.

Noise.

The new 911 Turbo complies with all noise regulations worldwide. Instead of resorting to engine encapsulation, we've eliminated noise at source: engine components are more rigid, moving parts are lighter, and tolerances have been reduced to a minimum. High-efficiency silencers in durable stainless steel help to minimise noise throughout the life of the car. All that remains, both inside and out, is the famous Porsche sound.

Fuel system.

Key developments in the fuel supply system include a further reduction in the evaporation of hydrocarbons. This is achieved through a combination of active carbon filter and specially coated fuel tank. All fuel lines are made from robust aluminium, while those carrying vapours use multi-layer plastic.

Our only limits:
The ones that you set.

Personalisation

Colours.

The 911 Turbo is a powerful expression of character and individuality. One of the most important considerations in this respect is, of course, your choice of colour. Exterior options range from four solid and eight metallic colours to five special paint finishes. These can be combined with a choice of nine interior colours as well as three different two-tone combinations.

If you cannot find the colour you require, we can usually prepare it for you. After all, when you choose a car as special as the new 911 Turbo, it should look exactly how you want it to.

To see the colours as they appear on the car, visit www.porsche.com and use the Porsche Car Configurator.

Solid exterior colours.*

Black

Guards Red

Carrara White

Speed Yellow

Metallic exterior colours.*

Basalt Black Metallic

Arctic Silver Metallic

Midnight Blue Metallic

Carmon Red Metallic

Atlas Grey Metallic

Meteor Grey Metallic**

Cobalt Blue Metallic

Forest Green Metallic

Special exterior colours.

Slate Grey Metallic

GT Silver Metallic

Lapis Blue Metallic

Lagoon Green Metallic

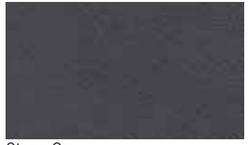
Dark Olive Metallic

* Solid and metallic colours are all no-cost options.
** Introduction planned for 08/2006.

Standard interior colours.

Leather/soft-touch paint.[1)]

Black


Stone Grey

Sand Beige

Palm Green

Ocean Blue

Carpet.

Black

Stone Grey

Sand Beige

Palm Green

Ocean Blue

Rooflining.[2)]

Black

Stone Grey

Sand Beige

Palm Green

Ocean Blue

Special interior colours.

Leather/soft-touch paint.[3)]

Terracotta

Cocoa

Carpet.

Terracotta

Cocoa

Rooflining.[2)]

Black

Black

Natural leather interior.

Leather/soft-touch paint.

Dark Grey[4)]

Natural Brown[3)]

Carpet.

Dark Grey

Natural Brown

Rooflining.[2)]

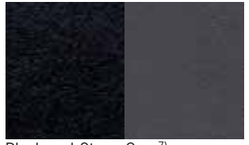
Black

Black

Two-tone interior.[5)]

Leather/soft-touch paint.

Black and Terracotta[6)]


Black and Stone Grey[7)]

Black and Sand Beige[7)]

Carpet.

Terracotta

Stone Grey

Sand Beige

Rooflining.[2)]

Black

Black

Black

See price list for recommended colour combinations.

[1)] Soft-touch paint in interior colour, film finish in interior colour on sun visors and inner door-sill guards.
[2)] Rooflining in Alcantara.
[3)] Soft-touch paint in interior colour, black film finish on sun visors and inner door-sill guards.
[4)] Black soft-touch paint, black film finish on sun visors and inner door-sill guards.
[5)] Black leather finish on following surfaces: dashboard upper section including instrument shroud, dashboard forward section including airbag cover, steering wheel rim and airbag module, door upper panel, rear side panel (upper section), A-pillar/windscreen top trim, B-pillar trim and C-pillar trim. All other surfaces finished in selected interior colour.
[6)] Soft-touch paint in interior colour or black, black film finish on sun visors and inner door-sill guards.
[7)] Soft-touch paint in interior colour or black, black film finish on sun visors, film finish in interior colour on inner door-sill guards.

We've realised many dreams with the new 911 Turbo.
Now you can realise yours.

The new 911 Turbo has a comprehensive standard specification. It also offers exceptional scope for your own personalisation ideas.

With the wide range of options presented here, you can make the new 911 Turbo unique. Combined, they enhance the individuality of your Porsche – inside and out – as well as its performance and comfort.

Over the following pages, you'll find the full range of options listed by category. For more information on individual items, please refer to the 911 Turbo price list.

For the ultimate in personalisation for the 911 Turbo, ask about the Porsche Exclusive programme of factory-fitted modifications. You can also continue to enhance your car with Porsche Tequipment aftermarket accessories.

For more information, please contact your Porsche Centre.

911 Turbo with PCCB

911 Turbo with side skirts painted

Exterior.

Option		I no.	Page
• Special colours	○	Code	103
• Colour to sample	○	Code	
• Deletion of model designation	W	498	
• ParkAssist (parking aid at rear)	○	635	82, 109
• Rear wiper	W	425	83
• Grey top tint on windscreen	○	567	
• Electric slide/tilt sunroof	○	650	83
• Side skirts painted	○	XAJ	108
• Roof transport system	○	549	84

○ extra-cost option W no-cost option
For more information on optional equipment, please refer to the 911 Turbo price list.

Engine, transmission and chassis.

Option		I no.	Page
• Tiptronic S	○	249	46
• Porsche Ceramic Composite Brake (PCCB)	○	450	70, 109
• Sport Chrono Package Turbo	○	640	60
• Short shifter	○	XCZ	
• Limited-slip rear differential (mechanical)	○	220	56
• Wheels painted in exterior colour	○	XD9	
• Stainless steel tailpipes, chrome-plated	○	X54	

Porsche Ceramic Composite Brake (PCCB)

ParkAssist

Interior.

Option		I no.	Page
• HomeLink® (programmable garage-door opener)	○	608	83
• Cruise control	○	454	83, 110
• Instrument dials in interior colour* Sand Beige	○	XFD	
• Instrument dials in exterior colour* Speed Yellow/Carrara White	○	XFH/XFJ	111
• Preparation for vehicle tracking system*	○	674	84
• Sports seats	W	P77	80
• Adaptive sports seats	○	P01	80

Sports-style footrest

Cruise control

Instrument dials in exterior colour (Speed Yellow)

Interior.

Option		I no.	Page
• Sports seat backrests painted	○	XSA	
• Seat heating	○	342	
• Seat belts in Silver Grey/Guards Red/ Speed Yellow	○	XSH/XSX/ XSY	
• Rear centre console painted	○	XME	
• Fire extinguisher	○	509	82
• Sports-style footrest (only available in LHD markets)	○	XXZ	110
• Floor mats with nubuck edging and embroidered Porsche logo (front mats only)	○	810	

* Introduction planned for 07/2006.
○ extra-cost option W no-cost option
For more information on optional equipment, please refer to the 911 Turbo price list.

Interior with special leather colour (Cocoa) and other optional equipment

Interior: leather.

Option		I no.	Page
• Soft ruffled leather on seats	○	982	117
• Leather interior package (includes seats, dashboard upper/lower sections, door panels and rear side panels in smooth-finish leather)			
– in special colour	○	Code	112
– in two-tone combination	○	970	113
– in natural leather	○	998	
– in colour to sample	○	Code	

○ extra-cost option W no-cost option
For more information on optional equipment, please refer to the 911 Turbo price list.

Interior: leather.

Option		I no.	Page
• Extended trim package (dashboard) in leather	○	EAA	
• Instrument surround in leather	○	XNG	
• Steering column casing in leather	○	XNS	
• Three-spoke steering wheel in smooth-finish leather	○	459	
• Three-spoke sports steering wheel in smooth-finish leather, padded	○	XPA	
• Three-spoke multifunction steering wheel in smooth-finish leather	○	431	113

Interior with two-tone colour combination (Black/Stone Grey) and other optional equipment

Interior: leather.

Option		I no.	Page
• Extended trim package (doors) in leather	○	XTV	
• Sports seat backrests in leather	○	XSB	
• Porsche Crest embossed on head restraints	○	XSC	114
• Passive handset in leather	○	XEA	114
• Rear centre console in leather	○	XMZ	112
• Rooflining in leather	○	XMA	
• Sun visors in leather	○	XMP	
• Interior light surround in leather	○	XZD	
• Inner door-sill guards in leather	○	XTG	

Passive (keyless) handset

Porsche Crest embossed on head restraint

Interior with macassar trim and other optional equipment

Interior: macassar (dark satin wood).

Option		I no.	Page
• Macassar interior package	○	801	115
• Extended trim package (dashboard) in macassar	○	EAB	115
• Three-spoke multifunction steering wheel in macassar	○	451	115
• Extended trim package (doors) in macassar	○	XTT	115
• Rear centre console in macassar	○	XJT	115

○ extra-cost option W no-cost option
For more information on optional equipment, please refer to the 911 Turbo price list.

Interior with sycamore trim and other optional equipment

Interior: sycamore (light satin wood).

Option		I no.	Page
• Sycamore interior package	○	802	116
• Extended trim package (dashboard) in sycamore	○	EAC	116
• Three-spoke multifunction steering wheel in sycamore	○	452	116
• Extended trim package (doors) in sycamore	○	XTU	116
• Rear centre console in sycamore	○	XJU	116

○ extra-cost option W no-cost option
For more information on optional equipment, please refer to the 911 Turbo price list.

Interior: carbon.

Option		I no.	Page
• Carbon interior package	○	803	117
• Extended trim package (dashboard) in carbon	○	EAD	117
• Three-spoke multifunction steering wheel in carbon	○	453	117
• Extended trim package (doors) in carbon	○	XTL	117
• Rear centre console in carbon	○	XMJ	117
• Outer door-sill guards in carbon	○	X69	

Interior with carbon trim and other optional equipment

Interior with Aluminium Look trim and other optional equipment

Interior: aluminium/stainless steel.

Option		I no.	Page
• Dashboard trim package with Aluminium Look paint finish	○	EAE	118
• Instrument surround with Aluminium Look paint finish	○	XCL	118
• Three-spoke multifunction steering wheel with Aluminium Look trim	○	XPV	118
• Door trim package with Aluminium Look paint finish	○	XTW	118
• Gear/handbrake levers in aluminium*	○	ECA	
• Rear centre console with Aluminium Look paint finish	○	XCK	118
• Sports seat backrests with Aluminium Look paint finish	○	XCG	
• Outer door-sill guards in stainless steel	○	X70	

* Introduction planned for 10/2006.
○ extra-cost option W no-cost option
For more information on optional equipment, please refer to the 911 Turbo price list.

Audio and communication.

Option		I no.	Page
• Navigation expansion module	○	672	87
• Electronic logbook	○	641	89
• Telephone module for PCM	○	666	89
• Passive handset for telephone module	○	668	89
• CDC-4 CD autochanger (six-disc)**	○	692	89, 119
• External antenna	W	461	

** May be incompatible with some copy-protected audio CDs.

CDC-4 CD autochanger (six-disc)

Factory collection 911

From our hands to yours.

Where better to experience the first moments with your Porsche than at the home of Porsche engineering.

Almost 60 years ago, our first large-scale production models were crafted by hand in a modest red-brick building, here in Zuffenhausen. From those humble beginnings, the factory has evolved into one of the most advanced production facilities in the world. Today, it's home to a new generation of legends: the 911, the Boxster, the Cayman S and, of course, your Porsche.

Our factory collection programme offers a unique insight into the origins and making of your Porsche. Like your car, a visit to Zuffenhausen is an absorbing mix of past and future, history and innovation, heritage and creativity.

To take advantage of this exclusive opportunity, please inform your Porsche Centre when you place your specification. A collection date can then be arranged when final information regarding the build of your car has been confirmed. Your Porsche can be collected on any working day* (Monday to Friday) at a time that suits your requirements.

The easiest way to travel from outside Germany is to fly to either Stuttgart or Frankfurt and then continue by train, taxi or hire car.

Please note that there are a number of formalities that must be completed when you take delivery of your car. For full details, please consult your Porsche Centre, who will also be happy to assist when it comes to planning your trip.

* Please note that collection is not possible during the factory shutdown periods.

Make the most of your journey. And discover more about your Porsche.

Our factory tour offers a detailed insight into the latest production processes. These range from engine assembly and the preparation of upholstery, to the 'marriage' of powertrain and body.

The factory tour is one of our oldest traditions, and is usually conducted by a retired member of staff. Each of our guides is a genuine Porsche enthusiast with a genuine passion for the marque. On average, the tour takes around one-and-a-half hours to complete, and follows every stage in the building of a Porsche.

Next, you can visit the Porsche Museum, where you'll find a fascinating cross-section of legendary Porsche models from every era of our history.

If there's time, you can relax with a refreshment in the customer lounge or browse in the Porsche Design Driver's Selection shop. You can also enjoy a three-course lunch at our exclusive guest restaurant.

The highlight of your visit, however, will undoubtedly be the moment when you finally take delivery of your Porsche. The keys will be presented by a member of the Factory Collection Team who will explain everything you need to know about the car.

You can now take your place behind the wheel, and experience what it means to drive your own Porsche. For the perfect introduction to the pleasure of Porsche ownership,* you may wish to combine your visit with one of the exclusive offerings from the Porsche Travel Club. Each one offers a fascinating blend of culture, adventure and first-class hospitality.

* Depending on insurance regulations for your market.

Porsche Museum

Porsche factory in Zuffenhausen

Porsche Design Driver's Selection shop

Porsche Centres
Your Porsche Centre is there to assist you with every aspect of purchasing and owning your Porsche, offering a wide range of services, genuine Porsche parts and accessories.

Porsche Assistance
Our Europe-wide breakdown and accident recovery service provides Porsche drivers with comprehensive assistance benefits. Membership is automatic when you purchase your Porsche.

Porsche Financial Services
We've developed a range of innovative financial services, carefully tailored to the needs of Porsche owners, including competitive finance and leasing schemes, insurance and the Porsche Card.

Service

Porsche Used Car Programme
The Porsche Used Car Programme is designed to help you find the very finest examples of pre-owned Porsche vehicles. Each car is rigorously tested to the highest Porsche standards and comes with comprehensive warranty cover.

Porsche Classic
Specially tailored for all Porsche vehicles over 20 years old, Porsche Classic offers a dedicated resource for genuine spare parts and expert repairs, as well as general advice on making the most of your historic Porsche.

'Christophorus'
As a Porsche owner, you will receive a complimentary copy of our bimonthly magazine, Christophorus. Each edition is packed with news, articles and exclusive interviews covering every aspect of the Porsche marque.

Porsche Exclusive
With our factory-fitted personalisation programme, you can now create your perfect Porsche. In terms of styling, specification or both. All modifications are uniquely handcrafted for your car.

Porsche Tequipment
This select range of aftermarket accessories is available from your Porsche Centre. Specially developed and approved for your Porsche,Tequipment products do not affect your vehicle's warranty.

Porsche Design Driver's Selection
This exclusive collection of clothing and accessories combines timeless elegance and unmistakable quality to complement the Porsche model range.

Porsche online
For all the latest news and information from Porsche, visit www.porsche.com.

Porsche Clubs
With more than 110,000 members worldwide, Porsche Clubs organise a wide range of social and motorsport events. For more information, visit www.porsche.com.

Porsche Driving Experience
1. The Porsche Travel Club.
Our exclusive collection of driving holidays combines luxury and adventure, on and off road. For more information, call +49 (0) 711 911-78155 to 78157. E-mail: travel.club@porsche.de

2. The Porsche Sportfahrschule.
Improve your driving skills and discover more about your Porsche on some of the world's most famous racing circuits. For more information, call +49 (0) 711 911-78315. E-mail: sportfahrschule@porsche.de

The latest Exclusive, Tequipment, Porsche Design Driver's Selection and Porsche Driving Experience brochures are now available from your Porsche Centre.

For every cubic centimetre,
even greater power and torque.
For every extra horsepower,
even lower weight.

For pure driving pleasure and
emphatic performance.

The new 911 Turbo.

Summary

Technical data

	911 Turbo
Engine	
Cylinders	6
Displacement	3,600 cm^3
Max. power (DIN)	353 kW (480 bhp)
at	6,000 rpm
Max. torque	620 Nm (with overboost: 680 Nm)
at	1,950 – 5,000 rpm (with overboost: 2,100 – 4,000 rpm)
Compression ratio	9.0:1
Transmission	
Layout	All-wheel drive with electronically controlled multi-plate clutch
Manual gearbox	6-speed
Tiptronic S (optional)	5-speed
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	PSM (updated version)
Anti-lock braking system	ABS 8.0
Wheels	Front: 8.5J x 19 ET 56
	Rear: 11J x 19 ET 51
Tyres	Front: 235/35 ZR 19
	Rear: 305/30 ZR 19

	911 Turbo
Weights	Manual/Tiptronic S
Unladen weight (DIN)	1,585 kg/1,620 kg
Unladen weight (EC)*	1,660 kg/1,695 kg
Permissible gross weight	1,950 kg/1,980 kg
Performance	Manual/Tiptronic S
Top speed	310 km/h/310 km/h (193 mph/193 mph)
0–100 km/h (0–62 mph)	3.9 secs/3.7 secs
0–160 km/h (0–99 mph)	8.4 secs/7.8 secs
0–200 km/h (0–124 mph)	12.8 secs/12.2 secs
Flexibility 80–120 km/h	3.8 secs/3.5 secs
(50–75 mph) in second highest gear	
Fuel consumption/emissions	Manual/Tiptronic S
In accordance with 80/1268/EC as valid at time of going to press**	
Urban	18.8/19.8 l/100 km (15.0/14.3 mpg)
Extra urban	9.5/9.6 l/100 km (29.7/29.4 mpg)
Combined	12.8/13.6 l/100 km (22.1/20.8 mpg)
CO_2 emissions	307/326 g/km
Dimensions/aerodynamics	
Length	4,450 mm
Width	1,852 mm
Height	1,300 mm
Wheelbase	2,350 mm
Luggage compartment volume	105 litres
Tank capacity	67 litres
(refill volume)	
Drag coefficient	0.31

* Weight is calculated in accordance with the relevant EC Directives and is valid for standard specification vehicles only. Optional equipment means greater weight. The figure given includes 68 kg for the driver and 7 kg for luggage.

** Provisional data only. Final data unavailable at the time of going to press.

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Dr. Ing. h.c. F. Porsche AG
Porscheplatz 1
D-70435 Stuttgart
www.porsche.com

Edition: 12/05
Printed in Germany
WVK 220 820 06 E/WW

S IQ 911