

PORSCHE



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The new 911 Turbo

# 911 Turbo

Some would argue that poetry is not one of life's essentials. Others may cheerfully file an epic seven-hour performance of one of Wagner's greatest Operas under "n" for "non-essential". And there are certain people who will never see the relevance of a twin turbo that delivers 408 hp and 540 Nm of torque.

But does the lack of obvious utility detract from an achievement?

Could it be that the very commitment to excellence is what gives significance to the seemingly insignificant, reason to the apparently unreasonable?

We are proud to introduce you to the new 911 Turbo. Seldom has a car belonged so closely to its time as this.



# 911 Turbo

**Performance.**

**Is this a concept that has had its day?**

Like no other car maker in the world, Porsche is committed to the principle of performance.



For Porsche, this is not merely a matter of generating horsepower. It is about defining a concept in performance engineering.

And it is also a commitment to particular breed of driver – a driver prepared to

embrace the principle of performance without condition.

This car, the result of more than two decades of development, is the embodiment of this commitment. Performance, pure and simple, in every aspect.





**How would you feel about driving a road car which can also hold its own on any racetrack?**



The new 911 Turbo is the state-of-the-art in performance engineering – the ultimate validation of the 911 concept. Yet first and foremost the new 911 is a car built for every-

day use. The steering and throttle are perfectly tuned to normal driving conditions. You can take a Porsche 911 Turbo and use it everyday. Moving smoothly

through rush hour traffic at 20 mph either 3rd, 4th or 5th gear will work equally well and the smoothness of the engine's response at all times is impressive. In fact, it is quite

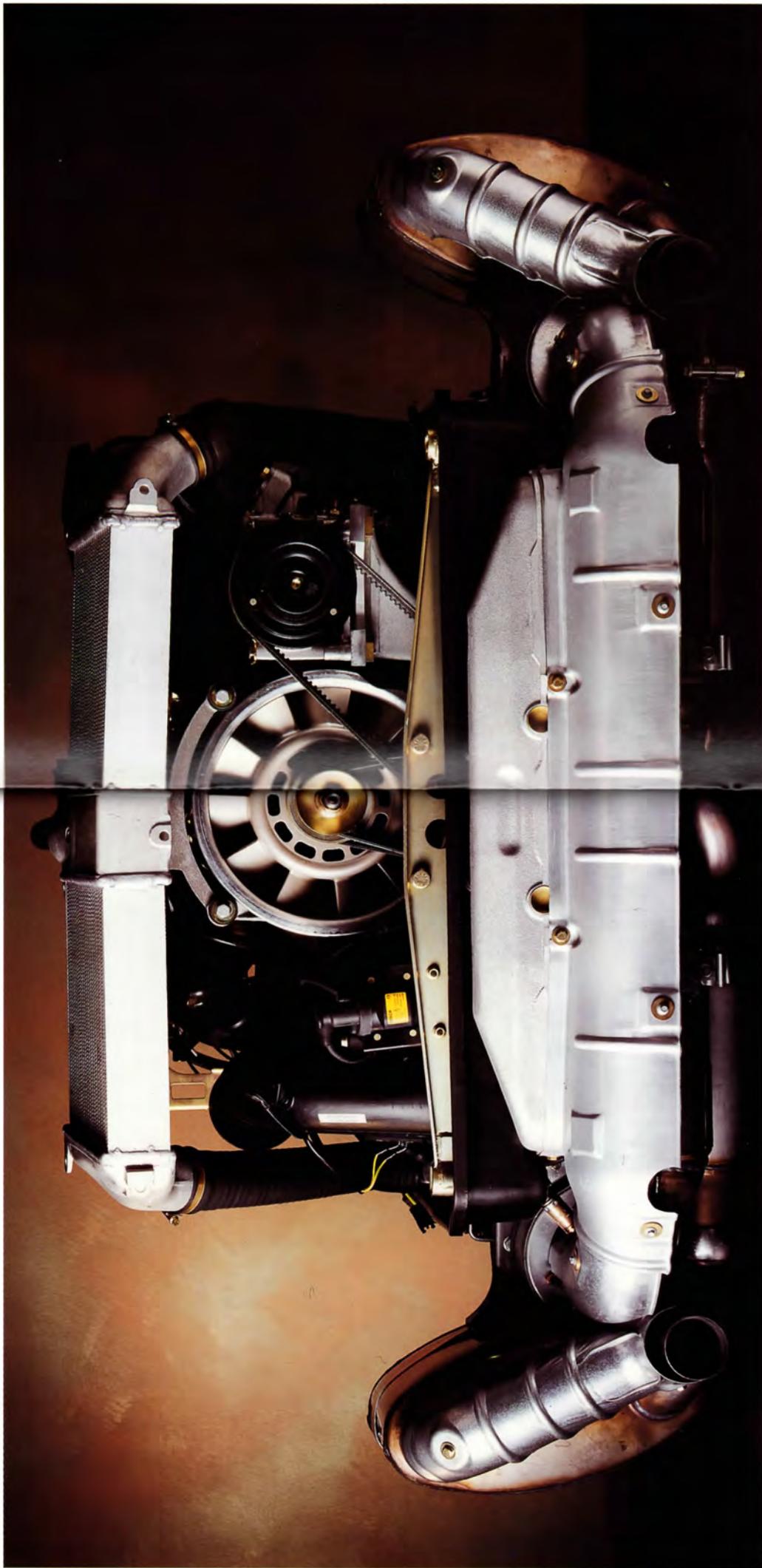
possible to drive the new 911 Turbo for days, weeks, or even months before catching even a glimpse of its hidden personality.



The 911 Turbo has been conceived, engineered and built by motorsport enthusiasts. We are proud of this car. Proud of its power to weight ratio of 5.0 kg/kW. Proud of its astounding 540 Nm of torque at 4,500 rpm.

Our dream is that the new 911 Turbo should be the perfect expression of personal freedom for those who drive this car. A sense of freedom that comes from individuality, achievement and performance.

# Performance



- 2 exhaust turbochargers.
- 2 intercoolers.
- 2 bypass valves.
- 2 catalytic converters.
- 1 hot film air



mass probe.  
The result: 408 hp  
instant response, a  
maximum turbocharge  
pressure of .8 bar.

**There's more to the engine than performance.** valves – and thus running costs – and cuts down on exhaust emissions while the engine via vibration absorbers which retard ignition when they sense uncontrolled firing and



For the 911 Turbo, Porsche's legendary horizontally opposed 6-cylinder engine has been completely revised. The new design provides a smoothness comparable to that of an 8-cylinder. One of many enhancements is new hydraulic valve adjustment technology. Constant valve play reduces service inter-

warms up. To withstand the tremendous mechanical stress, the engine features pressed cylinders and reinforced cams. In addition, the revs of the cooling fan have been increased 15%.

Engine functions are controlled by a Motronic engine management system. Knocking is monitored

automatically reduce the turbocharging pressure.

**An enhanced cooling system keeps pace with a hotter performance.**

On the new 911 Turbo, valve play is balanced hydraulically to save the time and expense of regular valve adjustment intervals.

Its engine cooling system puts the new 911 Turbo in a special position within its class. The air cooling system is not only

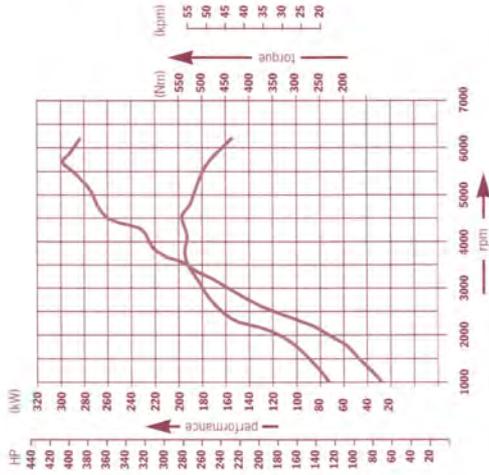
virtually maintenance-free but also designed to eliminate heat build-up. Cooling air is aspirated through the grille of the rear spoiler and the intercooler by the cooling fan and flows over the ribbed engine cylinders before being passed out to the ground.

The materials used in the cooling system were carefully selected to keep engine weight to a minimum. For high-stress casing elements, aluminium is used, with the lower stress components being made from synthetic compounds or magnesium.

**The new 911 Turbo – emissions testing included.** A vehicle emissions test is now an important part of the MOT, but even this means

that problems or defects in the exhaust and fuel system could continue unnoticed for months. This can't happen with the new 911 Turbo. The on-board diagnostic system (OBD II) monitors exhaust emissions continuously and immediately warns the driver of any problems. Not only is this better for the environment – it is also better for the car. It means that any problems can be diagnosed at an early stage, saving on repair bills, over-rich emissions and decreased fuel efficiency.

OBD II works by combining sophisticated sensor technology with additional oxygen probes on both sides behind the catalytic converters, effectively monitoring and controlling all exhaust components and systems for optimum performance.



**Why a twin turbo?**

For two reasons: high torque at low revs. Impressive power at high revs: giving superior mid-range response and awe-inspiring acceleration.

**The 911 Turbo only comes with four-wheel-drive.**

Let's keep it short.

The twin turbo flat-6 engine only delivers its 408 hp in conjunction with our new four-wheel-drive. This guarantees that the performance you want will be transferred to the road safely and precisely right when you need it.

A car with this potential for high performance is, to our mind, simply ideally suited to four-wheel-drive. It is the most effective way to achieve optimum driving dynamics whilst ensuring ideally balanced and safer handling with maximum traction.

**We believe that the 911 Turbo is one of the safest cars on the road.**

**And we can prove it.**

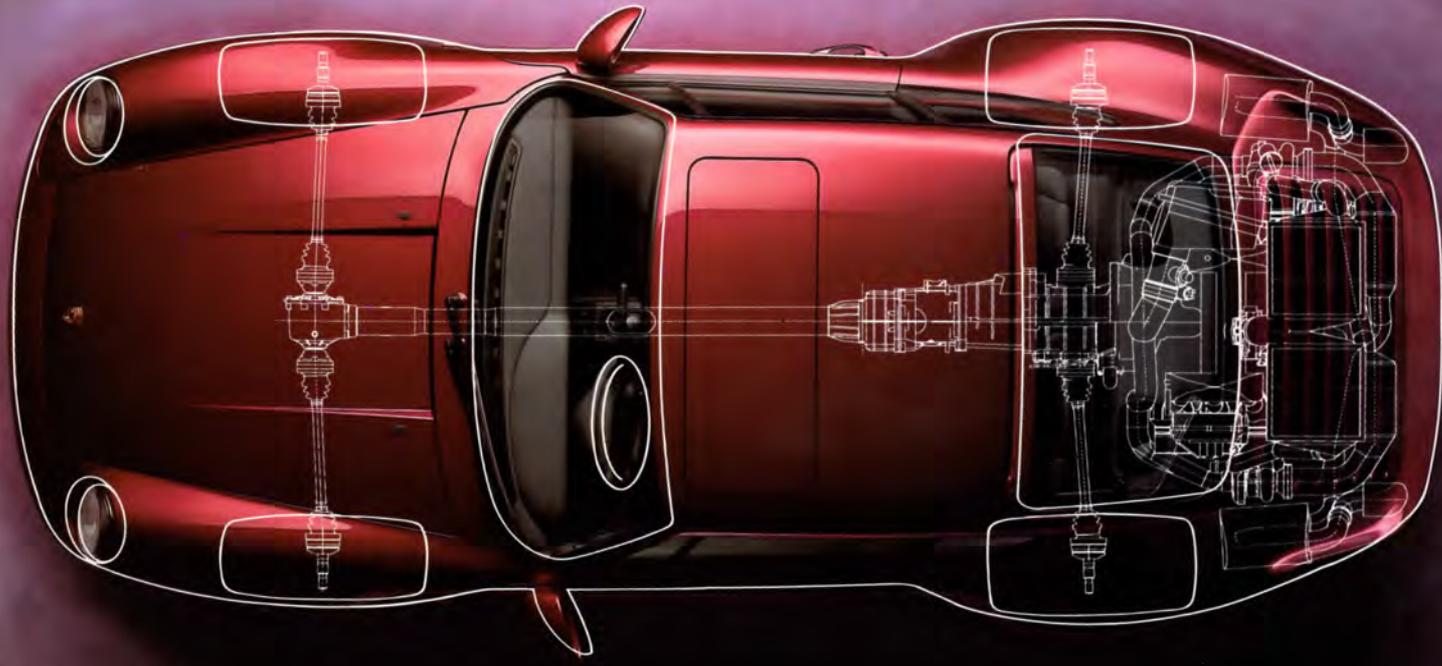
With the 911 Turbo, power is constantly tempered by complete control. Whether driving conditions are normal or in extreme situations like driving in stormy weather, cornering on tight bends or coping with alternating road surfaces, the engine performance is constantly fine tuned. Power immediately reaches the wheels which need it most. Constantly.

agility. It simply reduces unnecessary workload on the driver. Leaving you free to concentrate on and enjoy the road ahead.

**On all fours.**

A viscous coupling in the transmission casing controls the power distribution to the front and rear axles. The outside clutch pack is part of the casing, and separated from the corresponding gear linked to the hub. The area in between is filled with a silicone lubricant. As soon as there is a variation in rotation speed between the front and rear wheels, the fluid's friction properties act to redirect the torque from the faster to the slower spinning wheel.

At least 5 % of the engine's power is permanently applied to the front axle. Under normal driving conditions, this ratio increases to 35 %, and up to 40 % in extreme driving situations.



**The new 911 Turbo doesn't cut corners.**

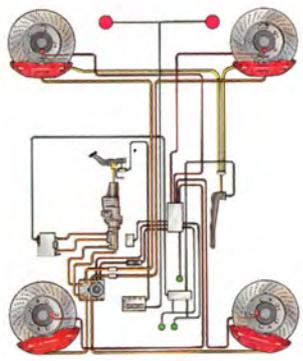
We took a completely fresh look at cornering with the 911 Turbo. The result is a completely revised front axle, a refined rear axle and new four-wheel-drive with a drive-dynamic lock system (combining active brake differential and limited slip differential).

The McPherson front axle was improved for better straight-line tracking, handling and braking stability. The camber setting was refined as well.

The LSA rear axle earns its name with Lightweight design, Stability and Agility.

The two-plane multi-link A-arm rear suspension has already proved its worth in motorsport. Maximum lateral acceleration is now 1 G – so there is no lack of comfort at the wheel during faster cornering. The optimised driveline dramatically minimises noise vibration and provides excellent anti-dive and anti-squat characteristics.

The driveline of the new 911 Turbo is the perfect alliance of safety and all-round ability together with the handling and performance characteristics that define motorsport.



The ABD active brake differential prevents spinning of the rear wheels up to 45 mph (70 km/h).



The mechanical limited slip differential lock reduces load factor shifts when cornering. The locking ratio for the rear axle is 25 %, increasing to 40 % when easing off on the accelerator.

**The body of the new 911 Turbo: no extra weight and improved torsional rigidity.**

The subframe consists of a self-supporting steel body with a welded cage and bolted front wings. This increases torsional stiffness without increasing overall weight. The metal is galvanised on both sides to last longer and avoid any loss of rigidity through corrosion. The lid of the boot compartment was raised by 40 mm, increasing luggage capacity nearly 20 % to 123 litres.

The front wings were adopted from the 911 Carrera and slightly modified to fit the new front end. The front end structure as well as the position of systems and containers remain unchanged. Air inlets at the front were

enlarged to meet the increased cooling requirements of the more powerful engine.

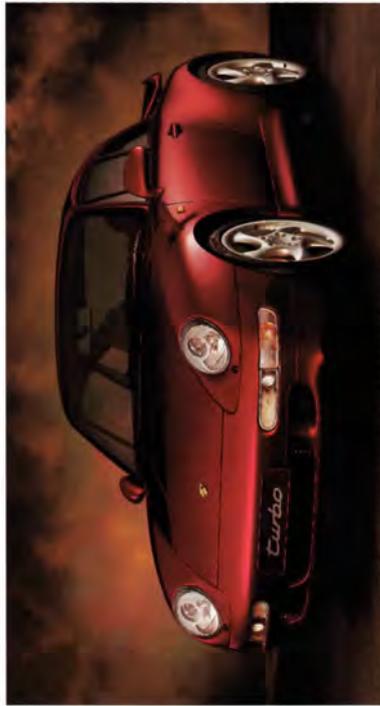
**The starting point was the 911 Carrera. The result is pure 911 Turbo.**

The rear end was redesigned to accommodate the new rear axle and exhaust system. The new wider rear wings give the car an overall width of 1,792 mm, making it exactly 57 mm wider than the 911 Carrera. The sill panels are integrated in the rear lateral body element. The rear wing was modified to save body weight.

The door handles finished in the vehicle's body colour are also new. And a new technique for glass insertion minimises wind noise, improves aerodynamics and further

enhances overall torsional rigidity.

**Aerodynamics are defined by speed and engine performance. The 911 Turbo has a lower ground clearance, a front air dam and a new rear spoiler. The result: extremely low air resistance and extremely high road-holding ability.**



**How to make lightweight aluminium wheels even lighter.**

The design of the aluminium wheels on the 911 Carrera has already pushed technology to the limit – so we pushed ourselves further. Our new wheel manufacturing concept introduces hollow spokes. In the case of our new 8Jx18-inch wheel, the weight saving versus a conventional wheel is 3 kilograms – a 25 % reduction achieved without altering wheel design or compromising strength. Weight savings on non-flexible mass components effectively translate into a smoother, quieter ride. The new 911 Turbo is the first car to benefit from this new technology as standard.

**Discovering new uses for existing technologies.**

The wheel rim and face are two separate elements. This allows for a significant increase in stability.



The wheel rim and face are two separate elements that become an inseparable entity following a friction welding process. This welding method has never before been applied to the standard production of alloy wheels. The rim thickness is approximately the same as that achieved in conventional manufacturing processes, and a ribbed profile improves stiffness in critical areas. At the same time, the tubular spokes ensure a sig-



A braking manoeuvre on the motorway – within the speed limit, naturally – is an incredible experience at the wheel of the 911 Turbo. The car reduces speed in a fraction of the time (and braking distance) conventional vehicles would require to do the job.

Your first braking manoeuvre in a 911 Turbo (or a glance at the following pages) may well be your first opportunity to sense just how much we have achieved with the transfer of 40 years' experience in high-performance motorsport to a road car.



# Safety



**Maximum braking performance to match maximum engine performance.**

There was only one criterion for the new 911 Turbo's brake system: to combine motorsport-proven braking characteristics with optimum fading safety. Thermal stability is an absolute

must. Especially on circular race tracks where the brake system is relied on for fast braking from extremely high speeds.

The new 911 Turbo relies on cross-perforated, internally vented disc brakes for improved heat dissipation and stability – even under the



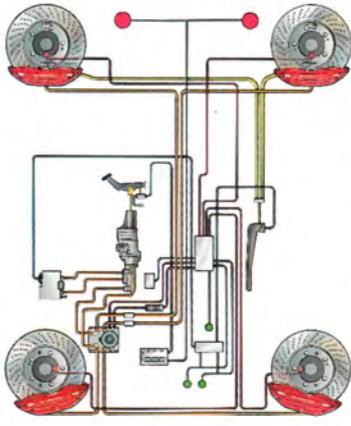
most extreme stress. They are designed to eliminate steam pressure quickly, allowing the brakes to deliver optimum performance even on wet roads. The

entire brake circuit is perfectly attuned to the car's performance potential. The diameter of the discs on the rear-wheel brakes, for example, is an impressive 322 mm.

This also reduces wear as the disc brakes lose less of their mass due to heat friction. Braking ability is further optimis-

ed with an electronic/hydraulic brake servo. The composition of the disc brakes eliminates the risk of cracks whilst ensuring best possible heat conductivity – which is also enhanced through the perforated design. Fresh air induction channels at the car's bow and the open wheel architecture

assist the cooling process. Subframe air ducts and internal deflectors provide additional cooling at high speeds. At lower speeds, the spoked design of the wheels



ensures adequate aeration of the wheel wells. The latest generation of ABS, ABS 5, features refined monitoring and control systems for shorter braking distances

ces on uneven terrain. The result: smoother braking power dissipation and reduced pulsing of the brake pedal. You can brake with much more precision in any situation.

In short: the braking system of the new 911 Turbo is well up to motorsport standards.

**Passive safety in the new 911 Turbo.**

redesigned the steering wheel plate to create a racier feel.

The horn is exactly where you would expect it to be: in the centre of the wheel.

Motorsport sets the standards for airtight fuel tank design and passenger safety, and our experience on the track is directly applied to our road cars.

The 911 Turbo combines built-in energy-absorbing crumple zones in the front end structure, with a stiffer passenger safety shell.

The supporting structure of the body optically absorbs the energy of a potential impact, providing the highest possible measure of passive safety.

The fuel tank is located behind the front crumple zone and so can't be damaged in the case of a collision. Naturally, twin airbags for both the driver and passenger are fitted as standard.

At the same time, we



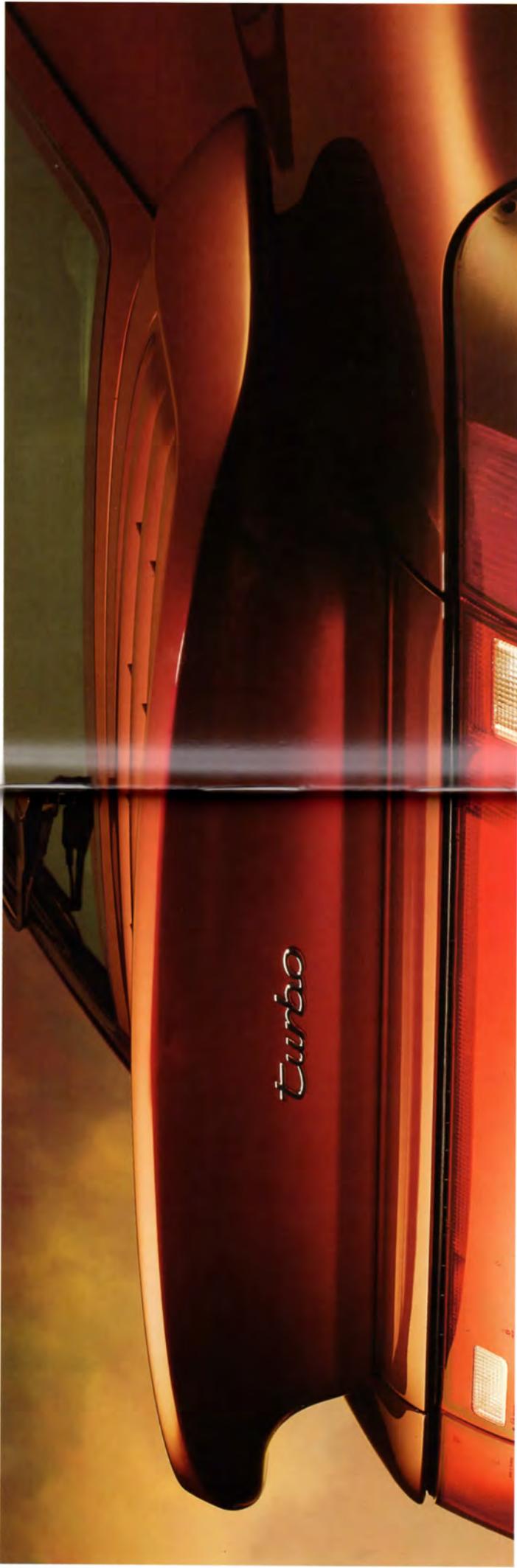
Since 1985, all Porsche models have featured reinforced side impact door sections. Premium VZA German steel is used in the new 911 Turbo for an added measure of safety.

**More safety.**

The fifth gear provides the new 911 Turbo with acceleration from 50 to 75 mph within 5.3 seconds. The engine responds with joyful spontaneity to the slightest touch of the accelerator.

Overtaking manoeuvres become brief and safe power excursions, part of a smooth routine that makes the roads a safer place to enjoy the pleasure of driving.





The fixed rear spoiler has been redesigned, the contouring PU lip replaced by an integrated air dam. This reduces force on the rear axle, resulting in increased driving stability at higher speeds. All to put your safety first.





The new Litronic lighting system dramatically improves headlamp performance. Driving at night is no longer a tiring experience because

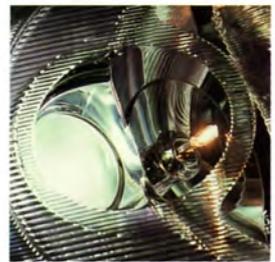
the light projected is virtually of the same wavelength as daylight. A special lens and a poly-ellipsoid reflector increase the

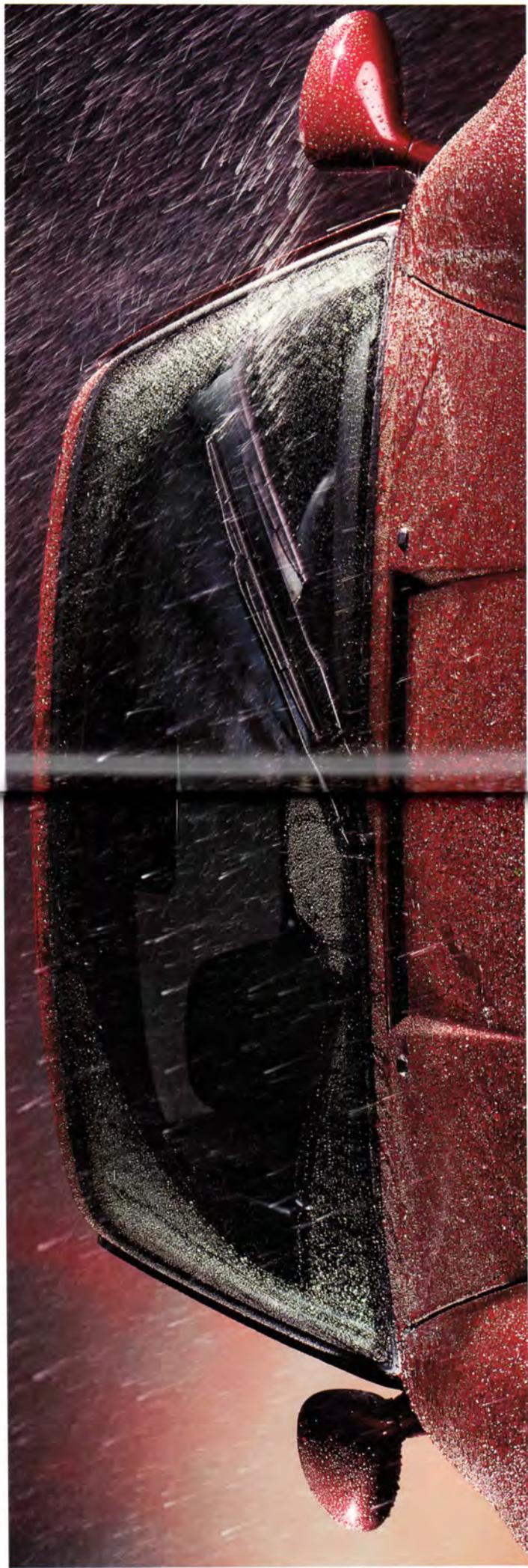
range of the headlamp beam both to the front and to the sides. A definite advantage, especially on meandering roads. Litronic takes advan-

tage of the properties of a gas discharging lamp whose light intensity is almost double that of a conventional halogen lamp. And there is no

mechanical wear, either. Note: The Litronic lighting system is not available in certain coun-

tries. Please contact your Official Porsche Centre for information about availability.





**Visibly better safety in the near 911 Turbo.**

The new ellipsoid headlamp system, optimised rear spoiler and all-wheel-drive are not all the new 911 Turbo has to offer in terms of safety. The wiper system has been redesigned to clear a larger area of the windscreen – 80 % of the total glass surface is cleared. So the driver enjoys streak-free visibility even at high speeds whilst build-up of ice and dirt is kept to a minimum.



The new 911 Turbo is the consummate performance engineering machine.

You can select your Porsche in a wide variety of colours and equipment specifications. Its interior refinements have reached a new level of sophistication, both visually and technically. A host of details combine to make your drive in the 911 Turbo a unique experience each time you take the wheel.

With so many possibilities, the most difficult part of owning the new 911 Turbo may be the job of deciding on the right specification for you.



# Equipment



The interior of the new 911 Turbo is comfortable and soothing without dulling the senses. The redesigned front sports seats offer enhanced thigh support as well as electrically powered adjustment as standard. The rear seats have been modified to suit and feature an embroidered "Turbo" symbol.

### The new 911 Turbo. A study in detail.

For the interior of the 911 Turbo we have avoided change for changes sake. We have only made minor adjustments to improve visibility and make interior controls more accessible.

Logically associated functions are grouped where common sense would dictate.

New leather sports seats offer snug comfort with improved lateral support to leave you energised even after longer distances of spirited driving: they

feature a contoured seat shell, adjustable backrest and upholstery with lumbar supporting calibrated specifically for the car's suspension. Naturally, the seats may be adjusted electrically horizontally, vertically and in incline

to achieve your ideal driving position.

The door mouldings have also been redesigned. The door handle and latch form a single unit with the redesigned sound package which also comes as standard.

The sound system comprises door woofers, a tweeter on each side below the front kneebars, and two 2-way speakers in the rear, all activated via a 150-Watt amplifier. You can choose from a range of high-end stereos.

**Two minutes of your time for something we developed in two years.**

As an option you can specify your 911 Turbo with advanced Digital Sound Processing – DSP – for your stereo. Music and speech are

digitised and tuned perfectly to suit the car's interior, speed and your particular listening preferences. So you can simulate the acoustics of a cathedral or an opera house, all from the comfort of your cockpit.

The new 911 Turbo also features enhanced heating and ventilation. An additional heat

cool\* feature to maintain a comfortable interior temperature even in very hot weather.



exchanger is placed near the catalytic converter, which increases the available heating capacity. Particle filters and air-conditioning are all part of the standard specification. The air-conditioning now includes a "max.

The new 911 Turbo reflects our awareness of our responsibility towards the environment. In spite of its tremendous horsepower, fuel consumption and emissions are comparable to those of a mid-size saloon car.

Even now it comfortably meets all current and anticipated standards throughout the world. The design of the twin catalytic converters increases the efficiency with which they clean vehicle emissions. They are designed to continue working efficiently over a long period of time.

We don't turn a deaf ear to noise pollution.

The 911 Turbo meets noise abatement standards without

even the luxury of an engine cover – which was rejected for weight reasons.

We make it a question of principle to use materials that have minimum environmental impact. Naturally, they are asbestos-free such as gaskets, clutch and brake pads and CFC-free e. g. insulation, cooling.

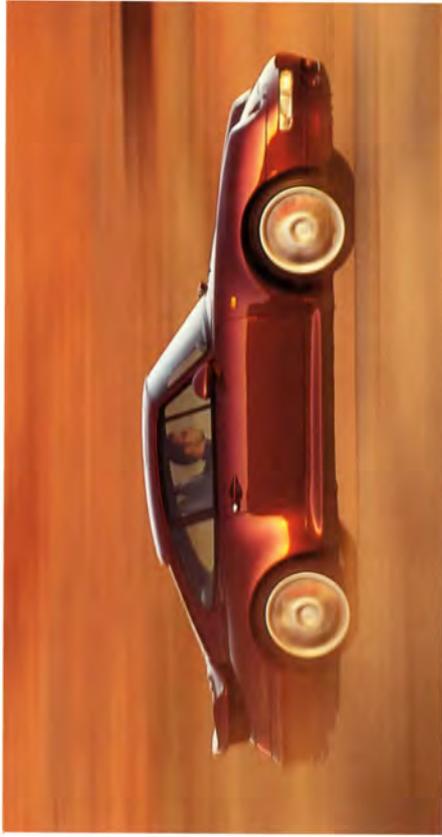
All materials are carefully selected with an eye to future recycling. Lightweight materials such as aluminium, magnesium and plastics can be recycled a number of times. All plastic

components weighing more than 50 g are marked for more efficient dismantling, sorting and recycling in the future.



# Environment





The new 911 Turbo marks a new threshold in performance engineering. It delivers power effortlessly with seemingly inexhaustible reserves. It is a car that responds to the uncompromising demands of drivers who are just as uncompromising in the demands they put on themselves.

Every command you give your 911 Turbo is executed with uncanny precision. It is quite simply without peer.

Because the 911 Turbo weds high performance to precise control. Although undoubtedly sophisticated, you will discover that the 911 is better adapted for everyday driving than any other car you could compare it with.

# Summary



We are certain of  
one thing.  
The performance you  
will experience at the  
wheel of the new  
911 Turbo has less  
to do with unleashing

power and more with  
awakening a sense of  
perfect serenity.



Porsche is one of a very few car makers whose involvement in motorsport is not prompted by marketing or commercial reasons. With us, it is passion pure and simple.

Here is the latest product of this passion: the 911 GT2.

In its homologated racing version, it fully meets the requirements of the GT2 motorsport category.

The race cars driven in these events share many similarities with production vehicles.

The rules and guidelines determine the competitiveness of various car types

through technical specifications. This way, the playing field is levelled for highly diverse cars to compete against each other for national and international trophies.

Within this category the quality of market-tested engineering is the determining factor. And a shared enthusiasm for the art – and the pure thrill – of racing.

The GT2 is all race car in its engineering. And yet it is not so distant a cousin of the 911 Turbo. It also comes with two air-to-air intercooled turbochargers, a displacement of

3.6 litres, 450 hp (330 kW) and it features rear-wheel drive.

The leap from the underlying philosophy of this 911 GT2 on to the winner's podium at Le Mans is not a quantum one. Both cars share, in principle, the same concept. Only the level on which they perform is different.

# GT2



As fast as it may be in seconds, this is a car that is built to last through the years.

One of our most important goals is longevity. A sports car that accelerates from 0 to 60 mph in 4 seconds and loses even a fraction in precision after 4 years is not a Porsche.

We have our own Le

Mans philosophy: enduring performance even under the most extreme conditions.

In fact, the chances are that however hard you drive even after four or eight years you will be unable to sense any perceptible change in your car's performance.



For example, all sheet steel elements are galvanised on both sides – as they have been for the past 20 years.

Porsche was the very first car maker to offer this kind of corrosion protection as standard.

That is why we are able to offer you a 10 year warranty against rust perforation, 3 years on the paint work and 2 years unlimited mileage on the entire vehicle.



Porsche Tequipment: a range of equipment to enhance your Porsche – even a Porsche 911 Turbo.



There are several ways to make the experience of owning a Porsche more complete.

Porsche Selection: a collection of selected accessories and apparel designed with you and your Porsche in mind. Chosen because they are timeless, exclusive and individualistic.

Please contact your Official Porsche Centre for more information.

with a wide range of options for the private individual or business user. Whether fixed rate or variable rate, a finance plan can be tailor-made for your requirements.

And Porsche Exclusive: a number of suggestions on how you can have your Porsche customised as it is being built, and make it a truly unique car.

# FINANCE

Porsche Finance makes the experience of owning the new 911 Turbo an affordable one. The monthly payments can be as flexible as you want



The models shown in this brochure feature specifications for the German market. They may also show special equipment which is not part of standard specifications and available only at additional cost. Availability may vary from country to country due to local restrictions and specifications.

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