

## Carrera 4S and 2S: long live the 'Turbo look'!

The enthusiastic public response to the 993 series persuaded the Porsche management

to give the range a facelift, the so-called 'Turbo look'.

Aggressive and visually striking, it infused the styling of the brand-new Carrera models: the 4S and the 2S.

By 1996, the Porsche 993 series had reached the pinnacle of its own development and was also firmly established in the car market. This was mainly due to the fact that it represented a natural technical, stylistic and functional evolution of the excellent 964, with the benefit of a whole range of considered refinements and improvements carried out over a period of time.

Moreover, thanks to the unarguable quality of its thoroughly developed four-wheel drive, it was now possible to offer a model fitted with a turbo engine and four-wheel drive for the first time. The favourable reception given to the whole range, the turbocharged version in particular, made the Porsche directors feel that the time had come to return to the 'Turbo look' concept, which appealed to a large proportion of enthusiasts. The term had been used in the past to describe some versions of the 911 range fitted with normally aspirated engines but with widened and lowered bodywork, substantial aerodynamic attachments and tyres of near-racing width.

So many owners had shown a taste for this more aggressive styling that Porsche decided

The Porsche 911 Carrera 4S, presented in 1985, was derived in part from the Carrera 4 and in part from the 911 Turbo.



2S

and

4S

911 Carrera

incorporating a third brake light. The transmission, engine and rear wing (retractable instead of fixed) all came from the normally aspirated Carrera 4. The wheels, although similar in style to those fitted to the Turbo, were different and designed exclusively for the new model. In the autumn of 1995, Porsche sent promotional material to the automotive press announcing the model in the following terms: 'In the model range, the 4S – located between the Carrera and the Turbo – denotes a model combining strong sporting character (hence the S in its badging) with a highly civilized environment, making it the ideal business express for the more demanding driver.'

**The Carrera 4S: the 911 at its best**  
Road tests quickly showed that the changes to the Carrera 4's chassis had given the car a stiffer and more sporting character. The new suspension set-up, the general lowering of the car and the use of wider and lower profile tyres made this 911 more aggressive and increased driving pleasure at the same time. The brakes were instantly recognized as extraordinary. The manufacturer claimed that the maximum braking power (calculated from a formula based on the 270 km/h maximum

speed and the dry-kerb weight of the car plus the driver) would be 1,200 kW, equivalent to 1,631 CV. This made it possible to bring the 4S to a standstill from 100 km/h in only 2.6 seconds. By contrast, the acceleration time necessary to reach 100 km/h from a standing start was 5.3 seconds. It should also be said that there was no shortage of creature comforts for drivers who could live with the relatively firm ride. The interior was among the best equipped on the market, while the engine delivered its 285 CV in smooth and progressive fashion, thanks to the VarioCam system (variable camshaft timing) and a six-speed manual transmission, enabling the best use to be made of the available power at all times. In particular, the all-wheel drive gave the car extraordinary sure-footedness on almost any road surface (an unfamiliar pleasure to owners of Turbo-look 911s based on earlier 3200 cc models). Given all these elements, the recipe virtually guaranteed excellence, and the Carrera 4S was an almost instant success.

Much of the credit should go to the strong aesthetic appeal of the body which, with a few carefully considered alterations, became the very embodiment of all the improvements the 911 had ever needed.

Customer affection for the air-cooled 911 stimulated the development of the Carrera S. It was similar to the 4S, but had some substantial differences, notably in the interior trim and the grille on the rear wing, which recalls the glorious 356.

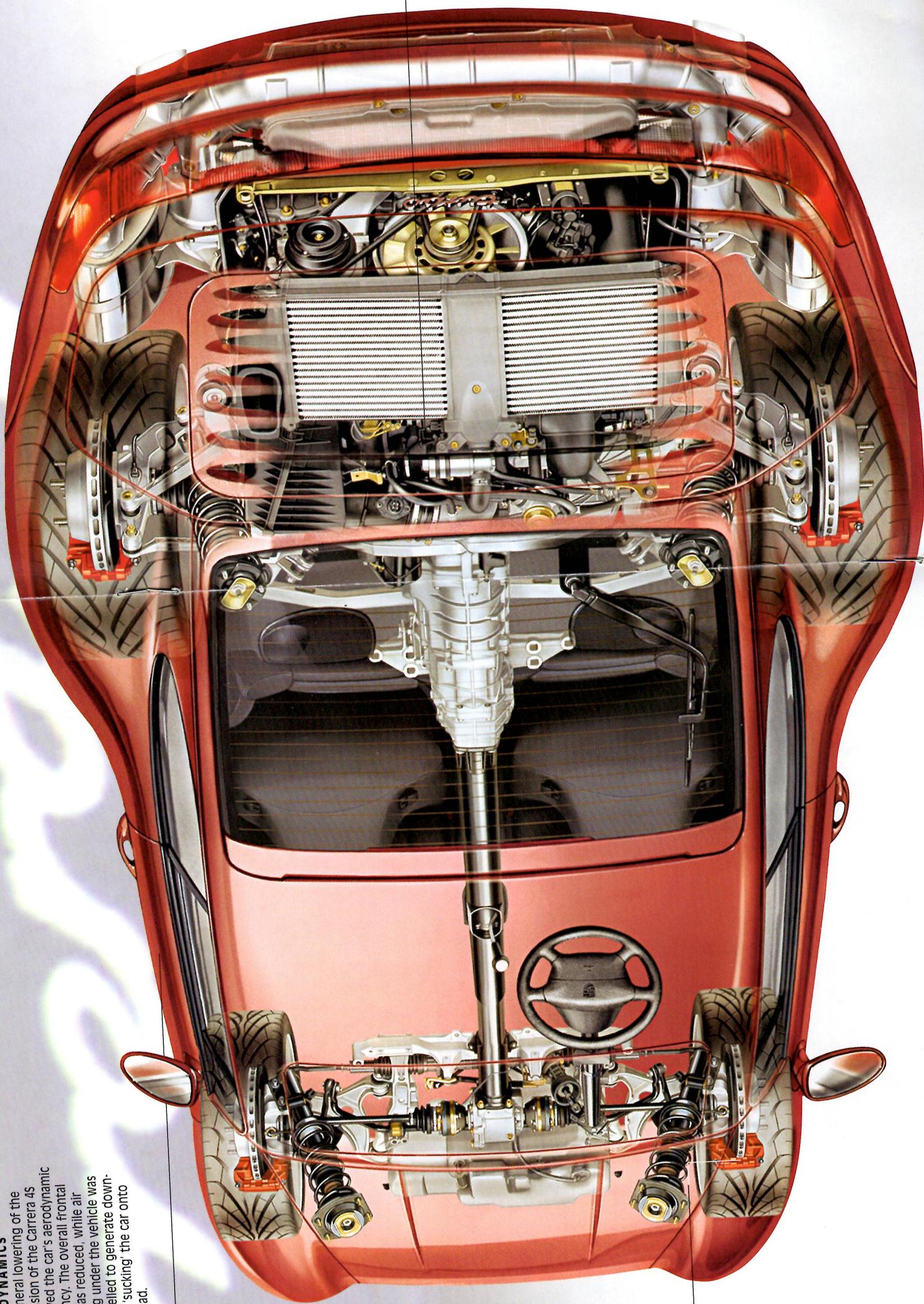


**Four- or two-wheel drive?**  
Low, wide and very aggressive without losing its elegance, the 4S was – in many ways – the ideal and final version of the range. It was seen as such by enthusiasts, and their approval helped take the model's production run to a total of 14,114 examples (a lot, considering the list price that was far from cheap even in Germany at DM 158,110). The immediate success of this 'definitive' 993, and a feeling that there were still customers out there for air-cooled 911s provided they were continuously refined and developed, resulted in August 1996 in the appearance of a version very similar to the 4S, but based on the rear-wheel-drive model. Simply called the Carrera S, the version looked similar to the four-wheel drive one but with some differences in interior trim. The brakes were like those of the standard 993,

without the red calipers of those fitted to the Turbo, and the distinctive external detail of the grille over the rear wing was separated into two parts in a pleasing echo of the last 356s. To make it more special and attractive, Porsche gave this latest version of the rear-wheel-drive Carrera a further aesthetic boost in the form of a special exclusive colour: a particular dark blue/violet metallic shade called 'Vesuvius'. The rest of the body was very similar to the 4S, widened, with lowered suspension and broad wheels. However, most enthusiasts regard the Carrera S as more or less the 'younger sister' of the 4S, which – over time – acquired what can only be called iconic status. Among the many reasons for this view was probably the fact that the Carrera S was less pleasant and relaxing to drive than its fabulous 'sibling'.



# 911 Carrera 4S and 2S



**AERODYNAMICS**  
The general lowering of the suspension of the Carrera 4S improved the car's aerodynamic efficiency. The overall frontal area was reduced, while air passing under the vehicle was channelled to generate down-force, 'sucking' the car onto the road.

**ENGINE**  
The six-cylinder boxer of the Carrera 4S produced 285 CV, capable of launching the car from a standing start to 100 km/h in just 5.3 seconds and going on to cover a kilometre in only 24.8 seconds. Fuel consumption (with a combined value of 12.2 litres per 100 km) was quite acceptable, thanks to the use of the VarioCam variable valve timing system.

**BRAKES**  
The new Porsche 911 Carrera 4S used the braking system from the 993 Turbo and, consequently, had excellent deceleration values, maintaining the same figures as the turbocharged model. The car had larger diameter front and rear brakes fitted with fixed, bright red four-piston callipers. The discs were cross-drilled and internally ventilated. The effectiveness of the system, supported by ABS, enabled deceleration from 100 km/h to rest in just 2.6 seconds. Overall, the braking efficiency proved to be of exceptional quality even in the most difficult situations, for example in competition use.



The Cabriolet version of  
the 911 Carrera from the  
2000 model year.

#### THINGS GO MUCH BETTER WITH VARIOCAM

For a high-performance car used in all weather and road conditions to achieve a good compromise between response at low engine speeds and optimum power output, Porsche technicians designed the VarioCam system. Electronically controlled and hydraulically activated, the system makes ingenious use of a longer-than-normal camshaft drive chain to vary the relative positions of the sprockets attached to the twin camshafts. The effective lengths of the chain-runs between the sprockets are altered by hydraulically powered

tensioners, changing the valve timing in a controlled and progressive fashion through three programmed settings. It is because of VarioCam that the 285 CV produced by

the 911 Carrera 4S is deployed so

smoothly and progressively, giving

unequalled driving pleasure.

#### THE CARRERA 4S PARADES THE TURBO LOOK

It was only on a superficial level that the Carrera 4S, announced in 1995, was derived from the 'standard' Carrera and the 993 Turbo. Like the 993 Turbo, for example, it had widened rear wheel

arches to accommodate the larger tyres used in the Turbo look. However, the side air intakes present in the turbocharged version for increased cooling were missing from this car. Its improved aerodynamic attachments gave the Carrera 4S a drag coefficient (Cx) of 0.34, regarded as very impressive at the time. Other features of the Carrera 4S included the front spoiler with three air intakes and – borrowed from the standard Carrera 4 – a third brake light between the rear window and the retractable wing, which came out automatically above a certain speed to reduce aerodynamic lift.

Below: Two images that show the aesthetic qualities of the body designed by Porsche for the Carrera 4S, marketed from 1996.

## 911 Carrera 4S (Carrera 2S) 1996: technical specifications

**Body:** Coupé, body-chassis structure in steel sheet, 2 doors, electrically controlled retractable rear spoiler  
**discs, ABS (Bosch ABS 5)**

**Brakes:** front and rear with fixed 4-piston calipers, internally ventilated and cross-drilled

**WHEELS AND TYRES:**

front 8 J x 18 with 225/40 ZR 18 (Carrera S 7 J x 17 with 205/50 ZR 17)  
 rear 10 J x 18 with 285/30 ZR 18 (Carrera S 10 J x 18 with 245/40 ZR 17)

**WEIGHT:**

empty weight 1,470 kg (Carrera S 1,400 kg)  
 total permitted mass 1,790 kg (Carrera S 1,740 kg)

**DIMENSIONS:**

	length	width	height
<b>stroke</b>	4,245 mm	1,795 mm	1,285 mm
<b>capacity</b>	3,600 cc		
<b>compression ratio</b>	11.3:1		
<b>power</b>	285 CV at 6,100 revs/min		
<b>max. torque</b>	340 Nm at 5,250 revs/min		
<b>engine management</b>	digital mapping, electronic system, charge monitoring by hot wire sensors, automatic anti-pinking adjustment, multi-point sequential injection in inlet manifold		
<b>fuel type</b>	Super s.p. (98 RON)		
<b>electrical installation</b>	12 volt at 75 A, alternator 115A/1,610W		

**PERFORMANCE:**

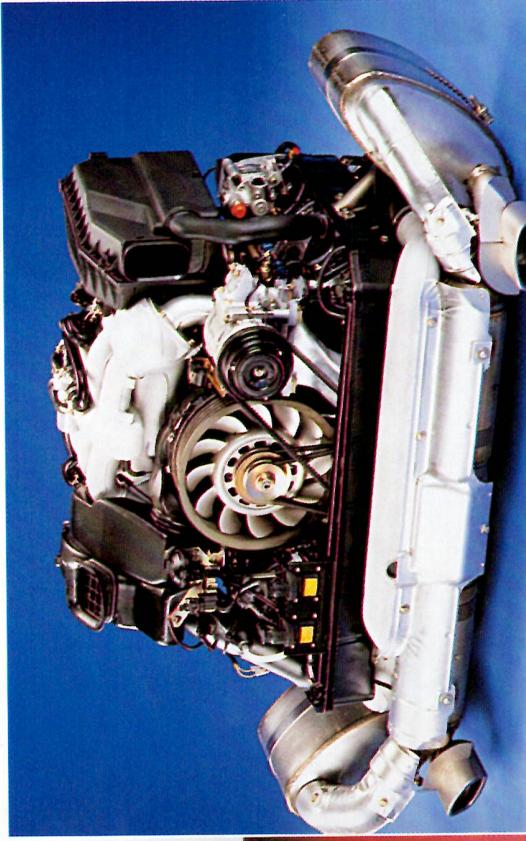
	top speed	acceleration 0-100 km/h in sec	acceleration 0-100 m in sec	Consumption (EU NORMS):
	270 km/h	5.3	25	overall: 12.2 litres Carrera S 12.0 litres
				urban cycle 17.9 litres Carrera S 17.7 litres
				extra urban cycle 8.9 litres Carrera S 8.8 litres

**TRANSMISSION:**

6-speed transaxle, 4-wheel drive, transmission shaft with torsional elasticity housed in the torque tube between the rear and front differential, variable torque distribution between axles via viscous coupling (Carrera 2S: rear-wheel drive only and 6-speed gearbox)

**SUSPENSION:**

	front	rear
	MacPherson struts with twin-tube shock absorbers and anti-roll bars	multi-link with LSA system, twin-tube shock absorbers and anti-roll bars



**Right:** The powerful 3600 cc six-cylinder boxer engine gives the Carrera 4S a top speed of 270 km/h.

**Below:** The overall aesthetic elegance of the Carrera 4S includes extreme attention paid to the internal finishing.

