

Total 911

INSIDE: LAUNCH CONTROL
How you can optimise 997
PDK 0-60mph times



www.total911.com

THE PORSCHE MAGAZINE

S DYNASTY

Every RS from
1973 to 2010
profiled



1997 Sport Classic
C4 Lightweight
180hp 993 Turbo
in a GT3
GT2



TRACK 911
RSR REMIXED

CLASSIC ROAD TEST
1983 911SC



ISSUE 54

£4.50

54





Pg 90 WIN! A Citizen Watch
 "With black ion plating and black dial, this futuristic timepiece is set to cause a stir"

Features

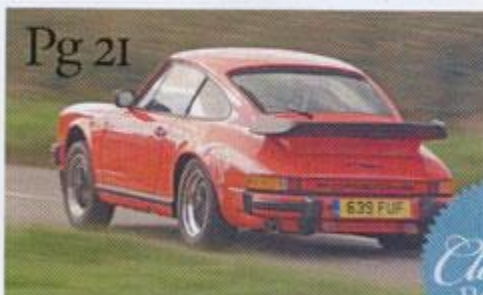
- 006 **Light might**
 The 964 Carrera 4 Lightweight – effectively a 4x4 RS
- 014 **New 997 Sport Classic**
 Porsche unveils a limited-edition retro-look 911. We love it!
- 021 **Road test – 911SC**
 We put this Eighties classic 911 to the test – in period style!
- 034 **Orange order**
 Meet Paul Howells and his stunning 1974 RSR race car
- 044 **Complete Guide: RS**
 The legend that is RS dates back to 1973 and continues today
- 054 **Greatest 911 of the Nineties**
 The decade 911 changed a lot, but which was the greatest 911?
- 056 **Appeasement**
 New 997 too dull for you? Check out this subtly modified PDK
- 067 **Prepare for take off...**
 Launch Control is a new 911 feature, but do you really need it?
- 072 **Jewel in the crown**
 A host of supercars, one stands out – a 600bhp 993 Turbo
- 080 **Right car, right place**
 A 996 GT3 is perfect for a trip to the Alps. Come with us next time!
- 086 **Complementary therapy**
 There are times when a 911 just isn't big enough. This was one



Pg 54 Top of the decade
 "The 993 GT2 is an animal of a car. Tame it and it will thrill you like no other. Upset it and it will bite – hard"



Pg 18 Gadgets
 "A week-to-view desk diary styled just like a Haynes Manual, complete with wipe-clean hard cover"



Pg 56

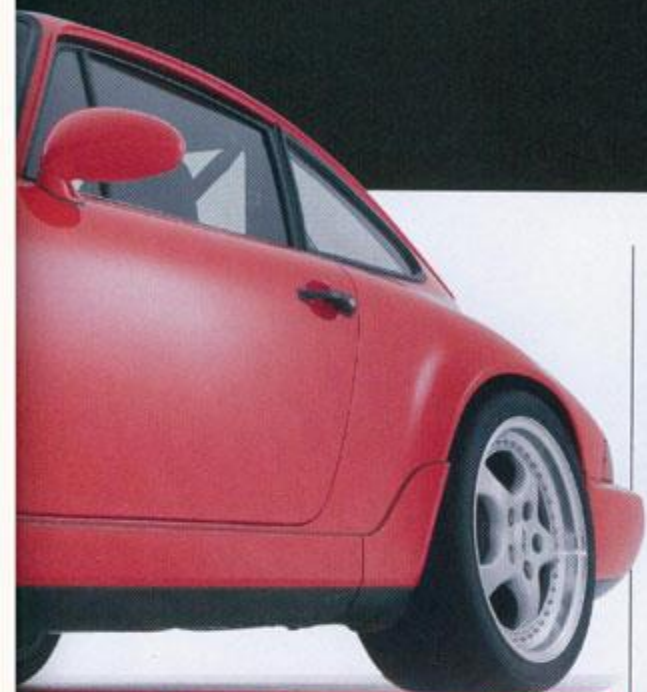


911 Classic Road test

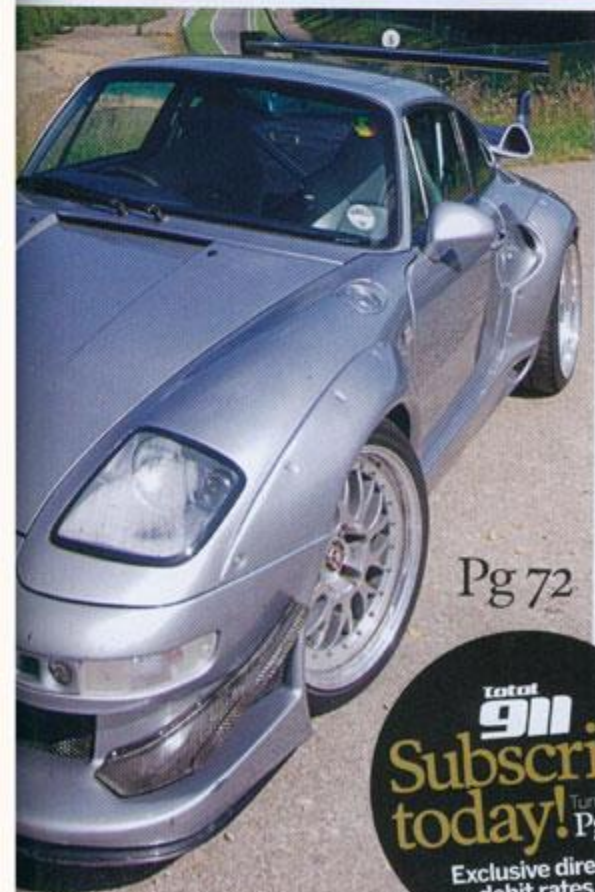


Data file
 The ultimate 911 resource

Turn to... **Pg 101** ● Every 911 listed
 ● Spotlight on



RS
Pg 44



Pg 72

Total 911
Subscribe today! Turn to... **Pg 92**

Exclusive direct debit rates available



Written and photographed by Michael Febbo

Appeasement

For some people, all the improvements to the latest 997 simply aren't enough. That's why one American company has created its own interpretation of the PDK-equipped Carrera S



It is human nature never to be satisfied. I'm convinced that I could walk outside while it's raining money and, without a doubt, there would be at least one person complaining about how it was causing a crick in his neck having to look upwards to gather the wealth. This applies to cars as well - namely the new 997. It's more powerful, handles better, runs cleaner and is more efficient, yet there are still a fair number of people complaining that it just doesn't look different enough from the previous 997. And these are probably the same

people who complained that the 996 looked too different from earlier 990s...

In an effort to appease the unappeasable, SharkWerks in Fremont, California, USA, has created the 997 Carrera S PDK you see here. You might notice that it looks a little more aggressive than a run-of-the-mill Carrera S, yet the difference is subtle. The essence of the 997 hasn't been changed, just massaged into something more purposeful and sleek.

SharkWerks was founded by two Porsche fanatics, Alex 'Sharky' Ross

and James Hendry. James has a long background in modifying and servicing Porsche cars with some of the best workshops in the USA. Years of hands-on experience with Stuttgart's hardware has given him the skill needed to turn out amazing machines like this one. Alex started out as a true tech geek in the dot-com boom of the Nineties. He started one of the most successful hardware review websites in the world and became one of the foremost experts in his field. Once the money started flowing in, he figured out what the rest of us

The modifications are subtle - most noticeably the extended side skirts

“Although SharkWerks has become well-known for wild conversions – including larger displacement conversions for the already awesome GT3 RS – this particular car is far more restrained”

already knew – cars are way cooler than computers. His experience with tuning began by modifying his own 996 Turbo, which is how he came to meet James. Alex soon began investing so much time and effort into Porsche tuning, it was decided that he should try to make a living at it – and SharkWerks was born.

Although the company has since become well known for wild conversions – including 600bhp Turbos and larger displacement conversions for the already awesome GT3 RS – this particular car is far more restrained.

To start things off, the body was sculpted using TechArt's latest aerodynamic kit, designed specifically for the new 997. The huge replacement bumpers with vampire fangs and enormous rear wings are nowhere to be found; instead, air dams with functional vents and a small addition to the speed-activated factory rear spoiler are the most noticeable of the additions. A variety of other special touches can be seen around the car as well, but only by the trained eye.

Starting at the front, the lip spoiler attaches to the bottom of the factory bumper. The centre vent is actually functional, directing air to the standard brake ducts, which normally scavenge air travelling under the bumper. Pulling clean air off the front of the car has proved to be more efficient than taking turbulent air from underneath. Small

touches like these are what separate high-end tuners from simple body parts builders. At the sides of the car sit sideskirt extensions that manage airflow around the sills. They are not as effective as the front spoiler but still important in airflow management. The twisted beam shape not only emphasises the shape of the rear wheel-arch flair, but also works to pull air from underneath the car. At the rear is a small diffuser trim piece that helps extract air from under the car to decrease high-speed lift.

On the topsides of the car, you will find more nods to aesthetics. The headlights have body-coloured trim rings; the headlight washers have body-coloured covers, while the side mirrors have aluminium inserts. At the rear, a roof extension at the top of the window helps keep airflow travelling down the back of the car instead of separating. This flow is then put to work creating downforce with the spoiler addition, which is a small basket-handle-style wing that adds an aggressive yet subtle look. At the time of writing, TechArt did not have technical data on the aerodynamic

Front lip spoiler (below) and fixed rear spoiler (right) courtesy of TechArt. The latter sits on top of the retractable spoiler





kit's performance, but past experience with the company's components leaves us confident that it offers a real performance advantage.

One of the biggest differences the average person will notice on this car is the beautiful HRE wheels. These are a new line of wheels for HRE and a big departure for a company that is well known for three-piece modular designs. The wheel seen here is a P43 monoblock forged model. Its clean lines and low weight make it perfect for applications like this. These wheels are up to 30 per cent lighter than the factory items, reducing not only unsprung mass, but rotational inertia as well. Everything from ride quality, acceleration and braking, handling and even aesthetics are all improved, thanks to the gleaming

HRE wheels. Not many modifications can improve every aspect of a car's performance quite like a set of good road wheels.

To improve acceleration, Alex and James worked tireless hours retuning the factory ECU. Chip tuning is all the rage in turbocharged cars; simply using the computer to add more boost is quick and easy horsepower. Things get more complicated on normally aspirated cars like this Carrera S, however. Power has to be found by optimising the timing and fuelling maps that control engine operation. Not only is this a long process of educated trial and error, it is complicated by the low quality fuel found in California. While other parts of the world relish 100 RON fuel, Americans limp by on 95 RON. ➔

What's been added?

Engine

SharkWerks' 405bhp Powerkit, consisting of exhaust system and EVOMSiit software tuning

Body

TechArt Type 1 AeroKit with front lip incorporating brake-cooling ducts, sideskirts, rear spoiler, rear diffuser and roof spoiler

Suspension

TechArt 20mm lowering spring kit
RSS/SharkWerks adjustable thrust arm bushing kit
RSS/SharkWerks monorail lower control arm kit
RSS/SharkWerks adjustable toe steer kit
RSS/SharkWerks adjustable rear link kit
RSS adjustable antiroll bars, front and rear

Wheels

19-inch HRE P43 Monopoly (brushed/clear)

www.sharkwerks.com

www.techart.de

Yes, it's a PDK (right) but then some 70 per cent of new 997s are



The rear roof spoiler (opposite) harks back to the 993 and will be welcomed by fans of older 911s



Polished mirror housing inserts are a subtle touch

To optimise combustion, the guys at SharkWerks created a new middle section for the factory exhaust. Here in the States it is only legal to modify the exhaust downstream of the factory catalytic converters, so it was agreed those would stay in place. It was also decided the factory rear silencers were up to the task and no further power could be found by replacing them. In the factory middle section, though, the exhaust path makes a U-turn, with an inner radius slightly less than the tubing diameter. Abrupt changes in direction like this might be good for sound attenuation, but not for flow. Pipes were designed that would allow the left-

hand exhaust to cross over to the right silencer and vice versa, straightening the path and increasing flow. Decreased resistance, along with the remapped ECU, has increased power from 385bhp to an estimated 420bhp; that's close to GT3 numbers for those keeping score.

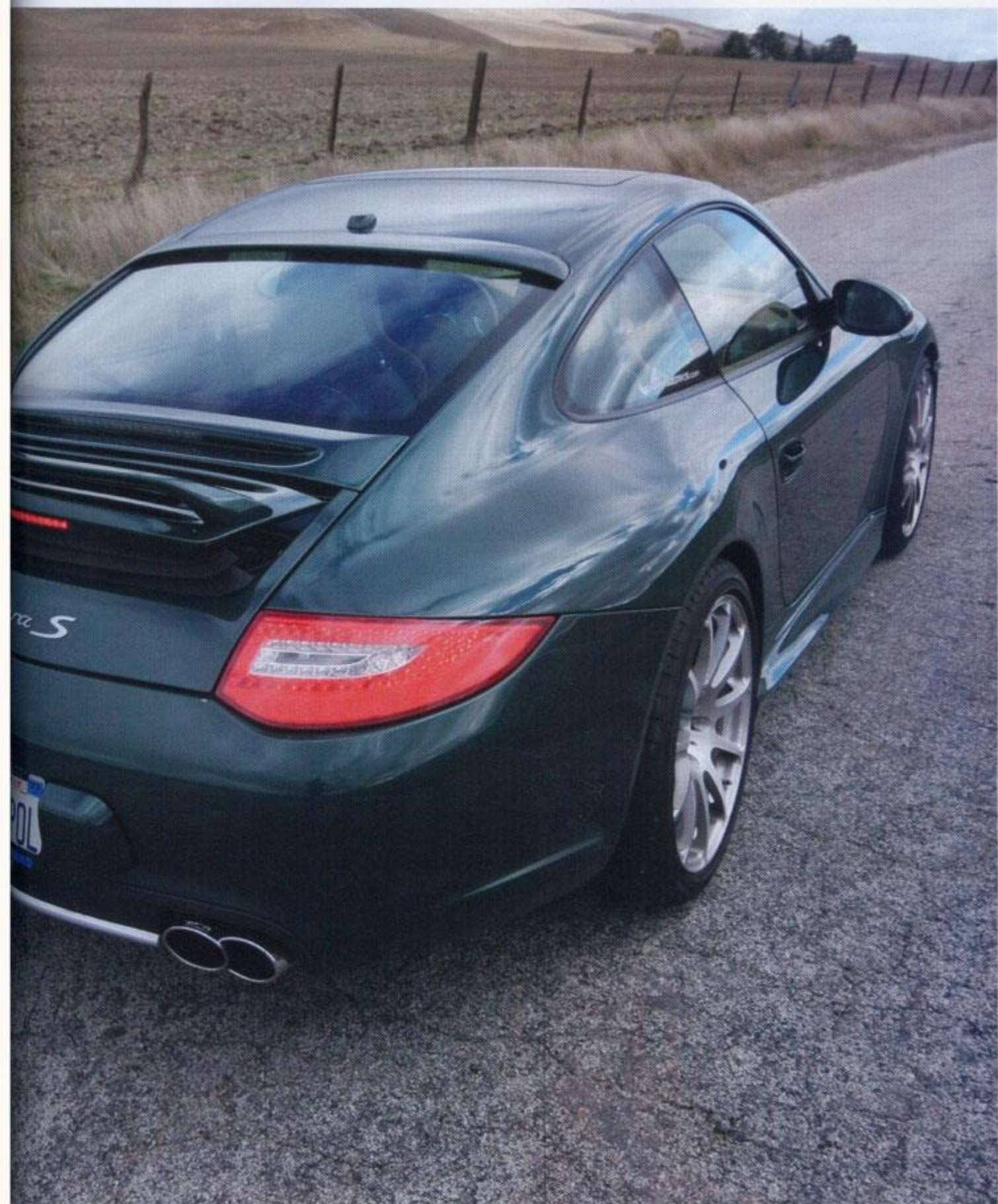
To see what all these improvements added up to, we take the car out to some of central California's wonderfully deserted farm roads. Alternating between terrain-tracing twisty sections and long straight ribbons of black stretching over golden fields of open land, we find the perfect environment.

The new direct-injection system has given the 997 a slight diesel clatter at idle. SharkWerks' new exhaust, however, effectively masks that sound with a low growl befitting the slippery predator. Inside the car, the extra decibels are barely noticeable, as the PDK shifter is chunked back into Drive and Sport mode is selected with a push at the dash. It's certainly not as satisfying as the mechanical snick that you feel from your fingertips to your shoulder as a shifter engages first, but after dropping the throttle you soon forget.

The power comes on with that smoothly building shove you only get in a normally aspirated car. The power is right there underfoot in an instant. The thrust is surprising, given the car's

"We take the car to some of central California's wonderfully deserted farm roads. Alternating between terrain-tracing twisty sections and long straight ribbons, we find the perfect environment"







The TechArt exhaust system gives the 997 a louder voice and also looks great

decidedly mid-level station in Porsche hierarchy. One is left to wonder how necessary forced induction cars will be if technology continues its march. This car will virtually melt distance upon command, is there a need to vaporise it as well?

Once the landscape dictates a directional change, things get even more interesting. With a slightly lowered ride height, courtesy of H&R sport springs and various other SharkWerks tweaks (see panel on page 59), the lateral capabilities of this car rivals a GT3. The responses may not be quite as scalpel sharp, but neither are the

“One is left to wonder how necessary forced induction cars will be if technology continues its march”

blunt impacts of uneven pavement. The factory ride quality is retained, as is complete function of the PASM and PSM systems. The entire car feels adhered to the road, the front end now has a level of grip not commonly associated with previous 997s. Turn-in feels urgent and there is no lifting of the front axle on uneven surfaces or at high speeds, as on previous cars. The inside front always feels as though it is doing an equal share of work to dig in and hook the car around turns; an unusual sensation for a car that historically has been known for carrying the inside front through turns.

What's more, shifting while accelerating out of turns is now a much less hair-raising adventure than it was in the past. The PDK gearbox makes shifts fast; almost instantaneous. Porsche has built logic into the system that will lessen the jerk, even in Sport mode, when it detects high lateral loads. This means smooth fast gearchanges that

don't upset the car's balance. In a straight line, however, the PDK will rip off shifts with almost brutal efficiency and force.

Using the steering-wheel-mounted shifters feels closer to purchasing a snack out of a vending machine than operating what is probably the best piece of automotive gearbox technology in the world. With every long plastic-like throw of the button I expect a Mars Bar to fall from the steering column. The shifters themselves may be better than the window switches previously used on Tiptronic cars, but paddles would still be preferable, and I can't wait until these come online later this year.

SharkWerks has sharpened the edges on the new 997. It is faster, handles better and is even more aggressive than the factory car. The average Joe will not mistake this for an off-the-lot 997. Will it be enough to appease the unappeasable? If you are lucky enough to drive a car like this, you shouldn't care. **911**

