

997 GT3 RS

Revered as much for its reputation as it is for its performance and dynamics, the 997 GT3 RS is the ultimate expression of the road-racing automobile

Written by **Kieron Fennelly** Photography by **Phil Steinhardt**



The Gen2 GT3 RS has wider front arches than the Gen1, to accommodate for slightly wider wheels and tyres

Centre-locking wheels hide huge 380mm brake discs and iconic Big Red callipers

The GT3 RS enjoys extra vents in the front bumper, with the front centre grille being colour coded

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Specification

997 GT3 RS Gen 2 (2010)

Engine

Capacity: 3,797cc water-cooled flat six
Compression ratio: 12.2:1
Maximum power: 450bhp @ 79.00rpm

Maximum torque: 430Nm @ 5,500bhp

Transmission: Six-speed manual

Suspension

Front: Lower wishbones and MacPherson struts with combined coil springs and dampers; antiroll bar

Rear: Multi link with parallel wishbones; combined coil springs and dampers; antiroll bar

Wheels & tyres

Front: 8.5x19-inch alloys and 245/35/19 tyres

Rear: 12x19-inch alloys and 325/30/19 tyres

Dimensions

Length: 4,435mm

Width: 1,770mm

Weight: 1,385 kg

Performance

0-60mph: 4.0 secs

Top speed: 193mph

When the GT3 appeared in 1999, there was no RS version. This turned out to be as much a question of timing as anything else, but it did leave enthusiasts wondering whether the original lightweight concept had disappeared with the demise of air cooling. However, the original 996 GT3 was built to Euro 2 emissions levels only, so all production had to be registered (for European markets) before January 2001, and is also why the model was not offered in the USA, where EPA requirements were ahead of Euro norms. Given the major development programme at Weissach with the Cayenne and the next Boxster/911 generation in the pipeline, it would be three years before Porsche was ready with an updated GT3. The strength of demand for this model, as well as its predecessor, convinced Porsche that even with the 997 launch only a year away, there was a market for a more obviously track-orientated 996 GT3, which in the hallowed Porsche tradition was duly called the RS.

In the days of air cooling, RS denoted a significantly lightened car. The original RS 2.7 was homologated at 975kg when the production 2.4 S weighed 1,080-1,100kg. The 1991 RS 964, that exemplar of weight saving, was 140kg lighter than the 964 C2. But in the 21st Century, the need to meet crash requirements meant that taking weight out of a car's structure became more difficult. There was initially disbelief when Porsche revealed that the first 996 GT3 was 30kg heavier than the base Carrera until it was understood that the GT3 used the more substantial Carrera 4 bodyshell, which had greater torsional rigidity. Only the wholesale use of exotic materials such as carbon fibre could reduce its weight significantly, as McLaren's F1 demonstrated, but this was not practical in a production car selling at roughly a sixth of the price of the boutique-volume F1. Nevertheless, by introducing an RS derivative, Porsche was able to show that the GT3 could be lightened.

The 996 GT3 RS was revealed at Frankfurt in 2003. Besides having the GT3's optional Clubsport

cabin – a half roll cage, lighter racing seats and simplified door trim – a further 50kg was saved over the stock GT3 thanks to a bonnet, rear wing, mirror housings and rear window in polycarbonate. Enhancing the new RS's credentials further, Weissach fitted a stiffer, lower suspension and the engine was modified with the Cup car's intake and exhaust ports. Reportedly, this added 20bhp, but Porsche still homologated the GT3 RS at the 381bhp of the standard car. A blue or red RS flash harking back to the 2.7 distinguished the GT3 RS. Still something of an experiment, only 300 were built, none of which were sent to North America, where the 'base' GT3 had only just been launched.

When the 997 GT3 was presented in 2006, the RS was not far behind. Once again at its heart was Porsche's superb 3.6 'Mezger' engine, now rated at 415bhp. But if this represented only a marginal increase over the 996 GT3 RS, the real development was in the chassis. The first GT3 was a product of a philosophy that favoured circuit handling qualities over the road user, which was why people bought



The dual centre-exit exhausts are continued on the 991 GT3, while the carbon rear wing is multi-adjustable

RS TIMELINE

1955

1500 RS: the first RS dominated the 2.0-litre class for five seasons and came third overall at Le Mans.

1972

Carrera 2.7 RS: the grandfather of the GT3 and iconic 911, one of the twin pillars with the Turbo of Porsche's reputation.

1983

Carrera SC RS: a lightweight designed for a successful rally career which never entered series production.

1991

Carrera 964 RS: admired, uncompromised and lightweight, it reprised much of the character of the 2.7 RS.

1999

996 GT3: ballistic performance from the flat six showed competition instincts at Porsche had not died with air cooling.

2011

997 RS 4.0: a unique blend of racing technology in a manual gearbox and eminently usable road car.

SPECIALIST VIEW

"Fittingly, the 997 GT3 RS is a truly sensational Porsche to mark the end of the purest era, and is soon to be a collector's car for sure. Our superb example seen here has been known to us for some time and has driven just 8,295 miles from new in 2010. Factory-fitted options include touchscreen satellite navigation and Sport Chrono Pack Plus. With the GT3 RS, prepare to frequently replace your tyres – they come with less tread than conventional road cars and the increased performance means they'll wear quickly."

Mark Sumpter, Paragon Porsche



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GT3s. Their unyielding suspension always made both the earlier and later 996 GT3s something of a compromise for road driving though and the RS, which sat 30mm lower with firmer springs, dampers and bushing, was simply too hardcore to drive far off the smooth bitumen of the track.

The 997 GT3 RS would overcome this compromise thanks to the fitting of PASM, which offered the choice of normal and sports damper settings. If such sophistication suggested that RS ethos was being compromised, this was outweighed by the new RS's improvement in ride quality and usability, despite having firmer springs and dampers than the standard car. To justify a price increase of around 20 per cent over the stock GT3, such upgrades were important. Again, the RS showed a weight saving of 20kg over the GT3

thanks to the same polycarbonate body panels as its predecessor and fitting of a single mass flywheel; the cabin again was based on the GT3 Clubsport specification, including carbon fibre bucket seats.

The other major advance over the 996 GT3 RS was in aerodynamics. Weissach was aware of the tendency of the front 996 to lift at high speeds, and the body of the 997 RS showed the results of the research that had gone into correcting this. The rear wing was derived from the GT3 Cup cars and together with the new front valance made the 997 more stable as it approached its maximum velocity.

A change in FIA GT competition rules meant that from 2008, maximum capacity rose from 3.6 litres – the engine size which Porsche had homologated for the 997 GT3 – to 4.0 litres, and Weissach took advantage by developing a 4.0-litre race engine. ➔



THE 997 RS: WHICH TO PICK?

A difficult question, this one. In a perfect world we would probably choose the 4.0, but with such a limited series there is a danger that this model will become like the RSRs and be salted away as an investment. Rumours suggest that 4.0s have already changed hands for 30 per cent premiums. The 3.6 and 3.8 offer almost the same sensations and are altogether more accessible. The 3.8's more sophisticated suspension may sway the decision for some buyers, but what is important is to understand the GT3 RS. A hugely rewarding car, it is nevertheless an intense drive, and ownership of one requires commitment.



The 4.0-litre may be the very pinnacle, but the Gen1 3.6-litre and Gen2 3.8-litre are superb 911s



The absence of leather inside is immediately noticeable, where the steering wheel in particular gives off distinctly race-bred connotations in both looks and touch. Technology is not in short supply, however, and this model is treated to Porsche satellite navigation and air conditioning. Contrasting extremes of both road and track are therefore evident



The interior of a 997 GT3 RS is a great place to be. The colour-coded roll cage immediately excites with its mark of intent, and the bucket seats are purposeful but comfortable over long periods. The driver has a choice of road belts (as shown here) or race-bred harnesses, widening the car's accessibility as a road or track sports car



BUYING TIPS

There are several main differences over daily life with a base 911. There's less usable cabin space while the clutch and gearshift are firm, especially from cold, and the RS demands a more involved maintenance regime. Road noise levels and internal comfort are not much worse.

- **Service it regularly:** Understand service requirements and do not take shortcuts.
- **Trust your seller:** Buy from known specialists or Porsche Club members and make a geometry check part of the sale.
- **Make sure you have comfy seats:** Ensure you are comfortable over long distances in standard bucket seats.
- **Don't discount racers:** Don't dismiss a car with a track history; it may have a more thorough service record.
- **Choose your accessories wisely:** One worth looking for is a/c: its weight and power requirements are almost negligible, and the RS in particular demands that the driver is in an alert state.

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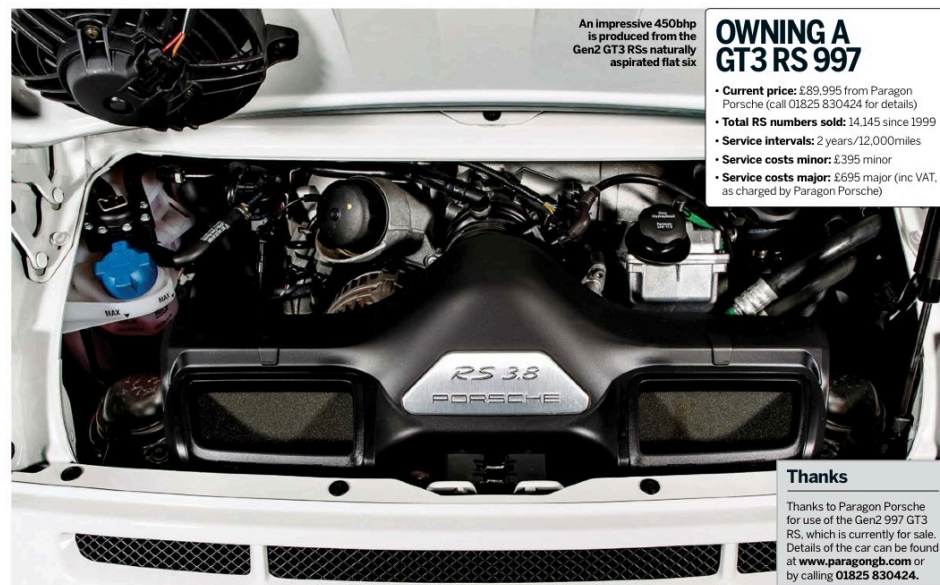
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Rather than install this in the road-going RS, however, Porsche introduced it in two stages. The Gen2 997 GT3 RS 3.8 appeared in 2010. Visually, it incorporated the final round of changes to the 997 – the new front and rear lights; a racing-inspired, aluminium leg-suspended rear wing with ‘3.8’ embossed on each side distinguishing it from its predecessor, as did its centre-lock wheels. The additional 200cc brought 15bhp and 25Nm, and contributed more to ease of driving than increased performance figures, but the main advance with the Gen2 was once again in suspension and aerodynamics. The PASM was augmented by stability management which could be brought in with or without traction control or turned off altogether, a system said to be particularly reassuring on wet surfaces. The RS also featured the first application of Porsche's Active Engine Mounts. The revised front and rear bodywork, again derived from the previous season's racing, more than doubled downforce, Porsche claimed. Certainly, when he tried this RS for **Total 911**, Ian Kuah, who has followed every development of the GT3 and before that its RSR forebears, noted its stability at 300kph.

With two generations of the 997 GT3 RS in five years and the 991 due for launch in 2011, the second 3.8 should have been the swansong of the 997 RS – but Porsche had other ideas. The 4.0-litre engine had not been offered initially for reasons of cost: with the bore at maximum, capacity was increased by raising the stroke to 80.4. This required a bespoke crankshaft and other reworking of the engine. Weissach also revised the suspension with components in aluminium and new spring and damper rates; externally the 4.0 featured the GT2's polycarbonate front wings and bonnet and carbon fibre bumpers. The ‘dive planes’ enhanced downforce by 15 per cent, and the 4.0 clearly had an unimpeachable competition heritage. The result was an RS weighing 1,360kg and a power-to-weight ratio of 365bhp/tonne compared with the 3.8's 329bhp/tonne. Yet the outcome was as far from an undrivable, fire-breathing monster as could be imagined. Project manager Andreas Preuninger says he proved this to his satisfaction by commuting in the 4.0: “It is astonishingly usable and the engine is bulletproof.” With this final batch of GT3 production, Porsche wanted to sign off with a flourish and make this pure racing technology and “god-like engine,” as Preuninger put it, available on the street.

Of course Porsche was hardly going to sell the 4.0 at a loss. However, even priced with a premium of around 25 per cent over the GT3 RS 3.8, the announced production run of 600 units sold out



An impressive 450bhp is produced from the Gen2 GT3 RSs naturally aspirated flat six

OWNING A GT3 RS 997

- **Current price:** £89,995 from Paragon Porsche (call 01825 830424 for details)
- **Total RS numbers sold:** 14,145 since 1999
- **Service intervals:** 2 years/12,000miles
- **Service costs minor:** £395 minor
- **Service costs major:** £695 major (inc VAT, as charged by Paragon Porsche)

Thanks

Thanks to Paragon Porsche for use of the Gen2 997 GT3 RS, which is currently for sale. Details of the car can be found at www.paragonb.com or by calling 01825 830424.

in a matter of weeks. By comparison, a decade ago Porsche struggled to reach its target of 1,500 Carrera GTs, stopping at production of 1,200 cars.

The brilliance of the GT3 RS is in the way it brought the dynamic qualities and finesse of a track car to the road. As the model developed, it became ever better at this, squaring the circle of providing ever-greater performance with more forgiving handling and everyday drivability and comfort. On the track, the Porsche's larger-engined and mid-engined competitors may have proved quicker in recent seasons, but none of them can build a homologation road car that is more than a token gesture to its track sister. The GT3 RS is not just the benchmark sports car; it is quite unique. **911**

“I’VE GOT ONE”

San Diego-based Tony McGuiness regards his 3.8 RS as the pinnacle of his driving career: “The way it responds, handles and goes verges on perfection. I bought it with trackdays in mind, but I didn't want to risk it in close combat. It has such reserves and balance and it's so sure-footed, you always have confidence you'll never get into trouble. It's as if you strap this car on and it becomes a part of you. The RS is the last of the analogue 911s and surely the best.”



Tony McGuiness

