

# Autobahn Ambition

The PORSCHE Tuner Magazine

2010 Winter Issue

## Preview: 24 Hr of Daytona

2010 Pre-Race Coverage - 'Roar Before the 24'



Porsche Racing Updates

> 2009 24 Hours of Nurburgring

**GT3 Cup**

2010's 997 Racecar ■

**GT3 R**

2010 FIA Racecar ■

**PDK**

SpeedWerk's 997 DFI tune ■

### >> Top Story

12 | 'Roar Before the 24' - Rolex 24 at Daytona Race Preview

>> Article By: Kevin Sims



### >> Features



23 | SharkWerks 997

Tuning a 9A1 powered Porsche 997S with PDK.

SpeedWerks is the first tuner to crack the DFI and PDK tuning barrier.

>> Article By: Kevin Sims



8 | 2010 997 GT3 Cup

A new Cup Car that's ready to take on the world.

Porsche Motorsport release a Cup car based on the GT3 RS. Want details?

>> Article By: Kevin Sims



10 | 2010 997 GT3 R

One for European Race tracks.

Changes in FIA rules requires a new racer to replace the GT3 Cup S.

>> Article By: George Kaplan

### >> Additional Coverage



04 | Current Trends - Porsche & VW

31 | 2009 24 Hours of Nurburgring

29 | TechArt GT Street Wins Record

03 | Staff

# Current Trends

## Stuttgart-Wolfsburg Strategic Options

By: Robert Besl



The acrimonious power struggle had come to an end, a sufficient number of burnt offerings to appease the new powers-that-be had been administered, most claims had been staked, the process of re-building could be finally be tackled in earnest - ancient battle sagas are told of in such or similar fashion. Our story, however, takes place in 2009, right in the industrial heart of Germany. Much has been written of the heroes, villains, and supporting acts in this play as well as of how things could unfold starting with the seemingly harmless acquisition of Volkswagen stocks (and options) by Porsche four years ago. Willing readers may refer to the pertinent sources to learn all of what transpired, here we shall try and take a look into the future.

Let us first discuss what could obviously happen, and then outline some scenarios. Fully integrating Porsche into the parent company Volkswagen shall include numerous work packages such as streamlining IT standards, accounting, and administrative functions, just to name a few. It is quite safe to assume very little to nothing at all on these initiatives being rolled out and implemented will be heard of in the press. Step 2 should be leveraging Volkswagen's purchasing power to bolster ROI by applying the trusted same-parts approach. Target areas initially would most certainly lie in the realm of C-parts. Depending on the respective development cycles, we can expect these

changes to be introduced towards the middle of the next generation to current models' life cycles. Volkswagen has demonstrated with the likes of Lamborghini or Bentley that it knows which areas to (not) touch for the sake of profitability without compromising a vehicle's identity. It thus makes sense to expect we won't be seeing anything like FIAT levers in a Ferrari cockpit or Ford AC control buttons in an Aston Martin. Integration shouldn't be a one-way street; Porsche's production know-how might prove beneficial as well. Both manufacturers will most likely have sent in their shock troops of consultants

to see which stones can be turned. Again, hardly anything of these activities will be known by the public. Its occasionally revealed in a benchmark study or corporate PowerPoint presentation.

Moving on to talking strategy, it is obvious Volkswagen took control of a company offering considerable assets. Wendelin Wiedeking's tenure as CEO turned an ailing takeover candidate into a profit powerhouse, re-inventing the 911 and successfully expanding into related segments. That which was outlined above will happen regardless; now we shall look into how these operative actions could be embedded within the larger strategy context for the new company.

### Scenario I: Full leverage

Volkswagen is a textbook example of how economies of scale and scope can be used to a company's advantage. Stretching out the platform and shared-parts strategy over all the brands resident in the Volkswagen house yielded enormous benefits in terms of volume and thus cost. This applies to all areas ranging from development to purchasing to production. Looking at the premium segment, Audi has used the vast resources and potentials to transform itself into a highly profit-





**2010 Special Editions** - Top: 911 Sport Classic - Based on RWD Carrera with 4S body and 23 extra hp. Middle: Boxster Spyder - Lightest Porsche at 2811 lbs with 320 hp. Bottom: Cayenne S Transsylvanica - Based on endurance race winner (405 hp, DFI).



able rival to BMW and Mercedes. Having Porsche as an additional brand will help extend the current leading position. Applying Volkswagen's successful strategy to Stuttgart could result in numerous new models. The New Porsche could look like this:

>> Sub-entry type: Audi A1/Volkswagen Polo platform, available with top-of-the-line TDI and TFSI engines, sporty setup, typical Porsche exterior, Porsche bits and pieces on the inside, priced above the Audi A1. Competitors would be the likes of Mini Cooper S or maybe even Aston Martin Cygnet.

>> Entry type, option A: Roadster using the peddled midship-rear platform. Think of it as a smaller, more affordable Boxster. TFSI and possibly even TDI engines could be used, maybe featuring upgraded performance over their corporate brethren to justify the considerable mark-up or more than four cylinders. Would compete against a BMW Z4 or Mercedes SLK.

>> Entry type, option B: Coupé based on either the Scirocco or the TT platform. Turboed inline four or five engines should provide adequate power, performance upgrades could be an option (same train of thought as above). Few makes compete in this segment; this model could replace the Cayman.

>> Mid type: Roadster and coupé are covered; however, there's still room to squeeze in a Porsche version of Audi's nifty A5. AWD, V6 turbo or V8 engines. Maserati GT, Mercedes CLK, behold!

>> Top type: Successor to the 911 using the R8/Gallardo platform. The proven variations could be realized just as well; 2WD, 4WD, coupé, roadster, full-spec equipment, lightweight versions, V8 normally aspirated engine as the volume model, V8 turbo is self-explanatory, V10 N/A for the GT3, V10 turbo for the GT2. Would cover all bases as with the current 911.

>> SUV type: Q5, Touareg/Cayenne, and Q7 would offer up to three sizes available. Differentiation on the outside and on the inside through adoptions of the well-known Porsche design elements, engines done in the style as described, and a hefty price premium would be all it takes to make it happen. There'd be com-

## Current Trends

petitors ranging from BMW's X3 to the Lexus RX.

>> Sedan type: A sportier A8, anyone? Use the platform, offer it with AWD only, Porsche the looks, select the appropriate engines, and the new Panamera's done. Maserati Quattroporte, Jaguar XJ, and BMW 7 series would be the usual suspects waiting in the wings.

Rolling out this strategy would offer numerous advantages. Further economies of scale and scope in R&D have been discussed already; the volume increase would prove beneficial to costs per unit as well. In addition, Porsche's overall fuel consumption according to CAFE and NEFZ standards would decrease compared to today; a healthy mixture of TDIs and the more powerful gasoline engines would prevent hurting the company's fleet mileage. While shareholders might rejoice at the prospects, a multitude of risks need to be considered before making any decision:

>> Expanding the Porsche model range as far as into the sub entry segment would heavily dilute the brand. A key el-

ement to desirability is a product not being readily available and affordable when new. Comparing used car prices of the 996 and to an extent even the 997 to those of a 964 or 993 proves Porsche's more volume-based strategy has almost brought an oversupply to the market. Plus purchasing a not-entirely-new Boxster and Cayman does not excessively stretch one's wallet these days.

>> Audi has established itself nicely in the premium segment, commanding significant price premiums over the respective Volkswagen specimen - a fact customers are well aware of. Porsche offering what would basically be the same model facing off against the same competitors at an even higher price point would at best lead to new customers from other brands, at worst it would cannibalize Audi sales and might render the company's overall pricing policy implausible in the long term.

>> Attempts to eliminate the rear engine layout of the 911, upgrading to a seemingly more "modern" configuration proved disastrous in the past. Years of

consistent chassis and suspension refinement helped keep a concept appearing outdated on paper in the top performance echelon of sports cars. While the laws of physics couldn't and can't be broken, Porsche managed to bend them enough to eliminate the wilder antics only hardcore drivers used to appreciate. A fully decked out C4s is as comfortable and easy to handle as it gets, a GT 2 or GT 3 spec 997 driven at 10/10 still offers all the thrills a petrol head could dream of. On a different note, the much-loved 911 silhouette would no longer be presentable with any other layout than the rear one.

>> What applies to the vehicle itself holds true to the flat six engine just as well. Current volumes together with improvements in production and assembly and the engine family being further spread out to the Turbo contributed to creating a healthy profitability.

Summing up, a strategy this extreme would be highly effective to provide short-term profits while simultaneously degrading the Porsche brand, sustainably damaging its value and alienating cus-



Above: The Sportec tuned Carrera GT.



tomers. Let us now take a look at a more sensible approach.

### Scenario II: *Discrete brand re-alignment*

Detractors widely criticized Porsche for cashing out on vehicles offering standard technology at the most. Recent upgrades including, among others, fuel straight injection, improved double clutch transmission, and new turbo engine introduced much needed state-of-the-art features. Having Porsche as a full fledged Volkswagen family member opens excellent opportunities to expand upon these achievements. Today's Zeitgeist would most certainly favor such action as chances are environmental awareness won't blow over any time soon. Add to it the fact that Audi got their fair share of flak for not introducing anything hybrid or electro with their new A8, and we have the perfect scenario for Porsche to fill in the gap. Complementing the successful portfolio of sports cars (and their not-100%-sporty relatives), Zuffenhausen could become Volkswagen's showpiece for "green", sustainable technological solutions.

>> This year's racing season will see a hybrid GT 3 make its debut at the Nordschleife 24 hours. Panamera and Cayenne

are scheduled for hybridization as well, spreading the technology out to Audi's A8 and possibly SUVs as well. It would thus be only logical for Porsche to take a hint from Lexus and position the hybrid versions as top-of-the-line models. Installation in the GT 3/GT 2 would create an instant, credible transfer, outlining the necessity of racing activities to push again useful developments for every-day use.

>> Hybrid technology brings with it added weight. Volkswagen resources would allow Porsche to realize significant advancements in material sciences. Developments Weissach used to shun away from due to cost reasons could now be implemented and – successively – be rolled out to other corporate brands. Research focus would be on "intelligent" material mixes such as combining high-rigidity steel alloys for the chassis with aluminum doors and lightweight body parts. Carbon fiber could finally find its way into larger production volumes if shared between the right cars. As with the airbag, ESP and whatnot, these developments would in time trickle down to lower priced segments as well.

>> Shedding pounds and hybridization would help both fuel consumption and vehicle dynamics. Still, imagining a 911 with a, say, 1.8l flat six turbo deliv-

ering some 290 hp doesn't sound right. From an engineering point of view, working on power train improvements without having to tread the much-hyped road of downsizing would be an attractive playground. Competition between differing ICE concepts within the Volkswagen corporation surely won't hurt finding better solutions.

>> All the developments described above would also greatly benefit the larger Cayenne and Panamera. Taking the main points of criticism – high weights and thirsty engines – out of the equation, Porsche would be able to continue these models without the risk of forfeiting acceptance with a public perception and clientele growing more and more emissions conscious.

A Porsche thus redefined would be an ideal strategic fit, retaining what made it successful up to the present day while simultaneously ensuring future demands. The other brands' core values would not be cannibalized by such an alignment, either. Being part of the greater whole that is Volkswagen offers a world of potential to all parties involved. Chances are the powers-that-be will not squander such an opportunity. **AA**

# 2010 Porsche 997 GT3 Cup

Blurring the Difference Between Street and Track

By: Kevin Sims  
Photos By: Porsche Press



Since the modern era of sports car racing started in 1999, the Porsche 911 has over 130 class victories - more than any other manufacturer. In addition, Porsche has won seven of ten GT2 manufacturers' championships and eight of ten drivers' championships in the ALMS. Furthermore, the 911 has won seven of nine GT championships in the Grand-Am series; including an overall victory at the Rolex 24 Hours at Daytona.

Porsche plans to continue its track record of excellence with the introduction of the 2010 997 GT3 Cup car. Simply stated, the new GT3 Cup car is faster, wider, and more robust.

For the first time, the GT3 Cup is based on the street-legal 2010 GT3 RS version. However, it continues to be assembled on the same production line as all road-going Porsche 911 in

## 2010 997 GT3 Cup



Stuttgart-Zuffenhausen.

Like the flat-six in the new GT3 RS, displacement is increased by 0.2 liters to 3.8 liters and produces 30 more horsepower – 450 hp with a maximum RPM of 8,500. Additionally, it comes with a sequential six-speed manual gearbox and weighs 2,646 lbs.

Also like the GT3 RS, the GT3 Cup car features the 1.73-inch wider body of the current 997 Carrera 4S. Wider front wheel arches allow for three-piece alloy rims measuring 9.5 J x 18 utilizing 24/64-18 racing tires. On the rear axle the alloys are up by one inch in width, now measuring 12 J x 18 with 27/68-18 tires.

The new GT3 Cup is clearly recognizable through the special design of the front end. The striking daytime driving lights come straight from the current generation 911. Another carryover from the GT3 RS is the front body panels that have proven to be more aerodynamically-efficient for racing. The front spoiler lip is more than 0.5-inches lower to provide significantly more downforce.

On the rear axle, downforce is also increased by a rear wing that's over 9-inches wider than the street version, 66.9 inches vs. 57.5 inches respectively. The rear air dam, with its air vent openings, and the rear LED lights come straight from the road model.

Unibal joints are featured on the track control arms. The front and rear anti-roll bars are now adjustable to seven different positions, allowing for an even more precise set-up.

The cockpit of the new GT3 Cup caters even more to the specific needs of the driver. An additional vent in the upper part of the front lid, for example, provides the driver with a better supply of fresh air. The controls for the 'Info Display' are now positioned directly on the steering wheel. And in addition to fore-and-aft adjustment, the steering wheel may now also be adjusted for height as on the regular production car. **AA**

# 2010 997 GT3 R

## One for the 'Ring

By: George Kaplin  
Photos By: Porsche Press



The 997 GT3 R is built to comply with 2010 FIA rules and is not available in the US.

The GT3 R replaces last year's Cup S to comply with 2010's FIA GT3 regulations. As another racing incarnation of the street-legal Porsche 911 GT3 RS, it sports a 4.0 liter water-cooled, flat 6 powerplant that produces a racetrack explosive 480 hp. That's 30 ponies more than the 3.8 engine found in the 2009 Cup S. Dry sump lubrication is equipped to prevent oil starvation under high-G cornering. The new car's carbon-fiber body work integrates tacked-on fenders to allow for more aggressive *renn* rubber. The resulting bulged fenders give the GT3 R a wider track as compared to last year's offering. In addition, the GT3 R is graced with the rear LED lamps as it is based on the face lifted 997. Aerodynamic alterations were made to reduce drag while increasing downforce. Power is transmitted through a sequential six speed gearbox.

Porsche's main focus with the GT3 R is to provide its customers with a race warrior that's not only more competitive, but reduces strain on the pilot. Since the

car will be used by teams in the 24 Hours of Nürburgring, Porsche's aim at reducing driver fatigue in long haul contests should benefit any team that campaigns it. Especially considering that most of the teams in the 'Ring classic are amateur and semi-pro race drivers. Sure there are factory pilots such as Bernard, Lieb and Dumas that take the wheel at the famed 21-mile track, however, even drivers with top credentials would appreciate a bronco with a bit less buck. Porsche meet its goal by employing an anti-lock brake system, traction control, and a new e-gas system featuring a 'blip throttle' function.

The GT3 R's delivered weight is approximately 2,646 pounds and falls in line with FIA rules. As should be expected, the GT3 R features safety equipment as a welded cage, a single bucket racing seat with flame resistant seat cover and a six-point race belt that can be used with HANS head and neck support. At \$415,000, all of Porsche's yearly allotment has already been sold. **AA**

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# 2010 Roar Before the 24

Grand Am >> Rolex 24 Hours at Daytona Preview

By: Kevin Sims  
Photos By: Randy Stevens



Daytona, FL – January 10, 2010 – The 'Roar Before the 24' practice event held 20 days prior to the Rolex 24 opened the 2010 Grand Am season with weather conditions that were far from ideal. Cold temperatures and precipitation that included light snow, freezing rain mixed with sleet presented race teams with a challenging environment. Test sessions were postponed several times to remove ice patches from the famed Florida 3.56-mile road course. However, spectators and media alike had their first glance at the 2010 Grand Am Series race entries. Porsche was heavily represented in the DP and GT .

In the DP class, the Porsche world looks a bit different. Penske Racing





departed from Grand Am in lieu of a solid 2009 performance that yielded three podium finishes. Brumos Racing, winner of last year's Rolex 24, will return minus a car. Attempting to win back-to-back Rolex 24's, they will solely rely on running the #59 Porsche-Riley. It will be piloted by a five person "Dream Team" consisting of Hurley Haywood, Butch Leitzinger, Raphael Matos, Darren Law and David Donohue. Butch and Raphael have both won the Rolex 24 in the past. Darren and David, full time team drivers for 2010, were part of last year's Brumos victory. The 'Dream Team' line-up adds pressure to Brumos as expectations are high. This year's race will be Hurley Haywood's last attempt to capture a sixth victory at the Rolex 24 as he has decided to retire after 2010.

Brumos will be the only team supplied by Porsche Motorsports with a GT3 RS derived 3.9 liter, flat-6 engine. The remaining Porsche powered teams will be



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## Roar Before the 24

supplied with a Cayenne-based V8 developed by the Lozano Brothers from New Braunfels, TX. The engine was raced last season by the Spirit of Daytona team. It was mounted to an older Coyote frame with reasonable success. Toward the season's end SOD switched to the most-current Coyote frame and believes it's a winning combination for 2010. The #90 SOD Porsche-Coyote will have a four driver team featuring IRL veteran Darren Manning, Buddy Rice, Antonio Garcia and NASCAR talent Paul Menard.

Action Express Racing, a new team in Grand Am, will be also operating a Lozano Brother Porsche V8 but within a Riley frame. The team will have strong ties to Brumos as Bob Johnson, the team's owner, has been a long time affiliate with the Jacksonville, FL team. The Action Express Riley frame is not last year's Brumos #58 Porsche-Riley. Bob provided his team with a Riley frame that he independently owned. Michael Colucci Racing in Denver, NC will be managing and operating the Brumos and Action Express teams. So, essentially the teams are siblings. Action Express decided to run the V8 after comparison testing held at VIR in November yielded promising results. The #9



## Roar Before the 24

Porsche-Riley will be piloted by Joao Barbosa and former Rolex champion Terry Borcheller for the duration of the season. Mike Rockenfeller and Ryan Dalziel will round out the Action Express team's efforts at the Rolex 24.

In the GT class, there will be 13 Porsche GT3 Cup cars racing in the Grand Am series. Many of the teams will look familiar. Not present in 2010 is last year's GT class champion - Farnbacher-Loles. The void is expected to be filled by Kevin Buckler's TRG, which will be running five Porsches in the Rolex 24. The #67 Porsche GT3 Cup will be jointly operated between TRG and Flying Lizard Racing. The driving talents of Jorg Bergmeister, Patrick Long, Johannes van Overbeek and Lizard team principal Seth Neiman will be employed.

In addition, TRG will be running car #71 with another celebrity driver line-up at the Rolex 24. Porsche factory drivers Timo Bernhard and Roman Dumas will join former NASCAR champion Bobby Labonte and Tim George Jr. at the helm of a Porsche GT3 Cup. For Timo and Romain, the TRG effort will allow them another chance to tackle the Rolex 24. Labonte will be enjoying his first Rolex 24 effort. The combination of European sports car and American NASCAR styles within a single driving team should present spectators with a lesson in diplomacy. Furthermore, the Porsche GT3 Cup will be operated in the Rolex 24 by Alex Job Racing #23, Magnus Racing #44, JLow Racing #64, Bullet Racing #33, Miller Barret Racing #48, Autometrics Motorsports #14, Orbit Racing #88, and Matt Connolly Motorsports #20.

On the first day of testing, Max Angelelli led the DP class in the #10 Suntrust Ford Dallara with a lap of 1:40.466 (127.566mph). The quickest Porsche DP lap was laid down by Brumos Racing with a 1:42.555 (124.967) time. DP times were slower in the afternoon as drizzly weather played a factor. In GT, however, the afternoon saw the best times. Patrick Long ended the session with a lap of 1:49.961 (116.550) in the #67 TRG/Flying Lizard Porsche GT3 to be the fastest of the day.

Weather continued to influence performance on day two. The Saturday morning session was canceled due to icy conditions on the track. Michael Valiante recorded the fastest lap in DP with a 1:41.237 (126.594)



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## 2010 Rolex Grand Am Series Schedule

- January 30-31 *Rolex 24 at Daytona*
- March 6-7 *Homestead Miami Speedway*
- April 9-10 *Barber Motorsports Park*
- April 24-25 *Virginia International Raceway*
- May 28-31 *Lime Rock Park*
- June 5-6 *Watkins Glen*
- June 19-20 *Mid-Ohio Sportsscar Park*
- July 2-3 *Daytona International Speedway*
- July 17-18 *New Jersey Motorsports Park*
- August 6-7 *Watkins Glen*
- August 27-28 *Montreal*
- September 11-12 *Miller Motorsports Park*

time in the #6 Michael Shank Racing Ford Riley. Placing a second for the day was David Donohue with a time of 1:42.088 (125.539) in a Brumos Porsche-Riley. During the night session, Leh Keen captured the fastest GT lap of the day with 1:49.214 (117.347) in the #41 Dempsey Racing Mazda RX-8. The #67 TRG/Flying Lizard Porsche GT3 driven by Jorg Bergmeister earned the third quickest GT lap of the day with a time of 1:50.604 (115.873).

After two days of frigid weather, the final day of testing proved to be the charm as skies remained sunny and the temperature hovered around 40 degrees Fahrenheit. The #10 Sun Trust Ford Dallara driven by Max Angelelli ran the best time of the day and the event with a blistering 1:40.888 (127.032). He is favored to win the pole on January 28, 2010. The DP Porsches only ran in the final day's second session. Brumos Racing scored the quickest lap for Porsche with a 1:41.768 (125.933). In GT, the #23 Porsche GT3 of Alex Job Racing delivered the fastest final day lap with a 1:49.627 (116.906). **AA**

# Roar Before the 24









# SharkWerks 997S PDK

## Performance Tuning the 9A1 DFI Engine

By: Kevin Sims  
Photos By: Michael Febbo

James Hendry and Alex Ross of SharkWerks took full advantage of getting an early 9A1 powered 997S and developed the only tuning package currently available for it. Equipped with a PDK transmission, the SharkWerks machine serves as testimony to the benefits of tuning for a street car. With a smoother power application and a quicker response, the SharkWerks 997S PDK provides its driver with real world performance.

SharkWerks is relatively new to Porsche tuning. The Northern Californian firm has been enhancing Porsches since the summer of 2005. However, the company's impact has been immediate and lasting. They prefer to work with partners such as Evolution Motorsport, Road Sport Supply and TechArt, but don't think that means they shy from innovation. On the new SharkWerks 997 GT3 RS 3.9, featuring an in-house 3.9 liter, flat-6 packing 500 horsepower, they performed all the design work. Let that be caution to all the tuners swimming in the sea - beware of their bite.





We are delighted to have a conversation with Alex Ross on the 9A1 tuning program.

**>> What inspired the 997S PDK tuning?**

*Alex Ross* – We were looking forward to the next series of 911 engines. So, when the 9A1 was released we wanted one. We got the first 997 with the 9A1 in Northern California. I realized that many of our customers would be driving PDK, so we needed to get to know it. Having the car early and learning its limits helped in our learning curve for the 9A1. We worked closely with Todd at Evolution Motorsports. As a result of our 997S tuning, Todd picked up a 2010 997 Turbo with PDK. In a sense, the 997S tuning was a trail run for the Turbo program.

**>> What was involved in tuning the new 997S with DFI and PDK?**

*AR* – The ECU is completely different than previous models. It's not a Bosch ECU, so it's not been tuned before. Luckily, Todd at Evolution Motorsport had some experience with the new generation DFI

The SharkWerks 997S PDK tuning program provides a “real world” 12 to 13 RW horsepower increase as compared to stock. Not bad for a normally aspirated engine.



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with the Cayenne. He had a year to play with it. When we got our 997S, we used our front end tools to download the ECU files. We looked at them in the same way that Porsche would at the factory. Once we are able to tune it we had other equipment to essentially burn back the file to the ECU. We had tools that tell us which areas of the mapping were being used for a particular operating condition. When on the dyno, we could actually read what part of the map was being utilized. It took the guess work out of the job and saved time. It was live dyno tuning. An emulator was linked directly into the ECU. We programmed from our laptop as it was seating in the passenger seat. There were multiple ignition ranges. What we did with fine tuning was match the mapping to the situation. Under full load we wanted to use the most aggressive map. It's all about communicating with the Siemen's ECU. We employed EVOM Sit software and no one else has it. The new Siemen ECU doesn't have as many backdoors as the Bosch unit. Todd's previous work on the Cayenne DFI gave us a big head start. As a result of our tuning and exhaust, we produced a real 12 to 13 horsepower at the wheel or 20 or horsepower at the fly. That's quite good for a normally as-

pirated engine. Keep in mind that tuning a PDK required we use a Mustang Dyno, because it had to be mechanically linked. Otherwise, the PDK goes into limp mode and you get stuck in a gear. With a 6-speed car on a Dyno-Jet slightly higher numbers are possible. Torque is up from the moment you get on it. At maximum, we are producing about 20 ft-lbs more torque. There are also other performance aspects that don't translate on a dyno. All these cars have eGas and possess electronically controlled throttle bodies, so there were areas of the mapping that we tuned that gave us much better throttle response. With PDK, we can't just throw in a light weight flywheel to improve response. In fact, it's in the throttle response that most drivers most of the difference. We conducted lots of drivability testing that went beyond the dyno. We tuned on the street to ensure that the car isn't totally crazy. With our tune, we wanted the car to be life-friendly.

### >> What was the most challenging aspect?

AR – In California, the highest octane available was 91. The octane limitation presented a tough challenge. In Arizona, the weather conditions were dry and

present another challenge. The fact that we generated horsepower on 91 octane was a real achievement. The factory settings under 91 meant that every time one blipped the throttle the ECU pulled a different map. It was quite complex. Under 93, it was a stable situation as the mapping was consistent. However, tuning a car for California and Arizona required us to use 91 fuels.

### >> What suspension modifications were made on the car?

AR – I've never been a believer in lower springs. In the past, I've always wanted to do a coil over kit with matched shocks and springs. But the PASM system in the new 997s was so much better, the damping is about perfect. We usually do a Bilstein coilover kit, but I felt it wasn't necessary for a street car. Lowering it with TechArt progressive springs improved handling. With them the car didn't pogo around, it was smooth riding. Once I got it lowered, I installed some RSS adjustable sway bars that were 50% stiffer. RSS made us some aluminum adjustable thrust arms to replace the neoprene bushings to cut out some of the mushiness. Plus, we went with RSS mono-ball lower control arm, adjustable toe steer and rear link kits. Turns were now much sharper. We found that our tune, exhaust and suspension upgrades made the 997S perform with more response and further precise handling. It brings the stock 997S closer to a GT3 without giving up real world driving ability. We did it right as TechArt now sells our 9A1 engine tunes. AA



## SharkWerks 997S PDK



*We logged 10,000 miles on our tuned 997 PDK before we released it to the public. We don't beta test on customer cars.*

# SharkWerks 997S PDK



# TechArt GT Street RS

## Shattering the Lap Record at Sachsenring

By: Kevin Sims  
Photos By: Porsche Press



The TechArt GT Street RS, derived from Porsche's 997 GT2, claimed the Sachsenring's lap record. It sprinted around the 2.99 mile circuit in 1:31.94 minutes.

TechArt proved their performance tuning worth by achieving the track record at the Sachsenring in Hohenstein-Ernstthal, Germany. Competing at a test comparison held by Auto-Bild SPORTSCAR, the TechArt GT Street RS completed the 2.299 mile circuit in a blazing 1:31.94 minutes. The mad dash narrowed the previous record by 4.47 seconds. TechArt competed against the Sportec GT2 SP750 (1:33.89) and the 9ff BT2 800 (1:34.86).

Primarily known for MotoGP racing, the Sachsenring presents a sportscar with a genuine challenge. Its 14 turns are compressed within a brief distance. Within its first half are 12 turns. To be fast at Sachsenring one must not only be fast, they need to be sure-footed and quick. Only well-balanced cars are rewarded as the circuit is highly technical. The GT Street RS possessed all the necessary ingredients to tame the circuit. With a 691hp, flat-6 with twin VTG turbos, the GT Street RS also won the '09 Tuner Grand Prix. **AA**

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Porsche dominates at the 2009 'Ring 24 Hour race. Manthey Racing claims their fourth consecutive 'Ring 24 victory by our gunning Audi R8's and a Ford GT.

Nürburg, Germany – May 24th, 2009 – Porsche captured a fourth consecutive overall victory at the 2009 24 Hours of Nürburgring. The Manthey team won with Timo Bernard, Marc Lieb, Romain Dumas, and Marcel Tiemann covering a distance of 3,933km in the 24 hours. The team's 480hp 997 GT3 RSR yielded a single lap advantage over the second place Audi R8. The effort eclipsed the event's distance record by 101km that was previously set by Manthey Racing in 2006.

"We wrote motorsport history today. To win this race four times in a row with this team and now to become the driver with the most victories at the 24 Hours of Nürburgring (5 wins) means a great deal to me," celebrated Marcel Tiemann.

The pole-setting Ford GT driven by Dirk Adorf led the race for the first hour. The Ford spun after attempting to lap a slower racecar. The Manthey team capitalized on Ford's misfortune by taking the lead. The Audi R8's provided the most competition from this point forward. Regulations allowed the Audi's to run a 20-liter larger fuel tank than the Porsches. As a result, the Audi's were able to complete one more lap on a tank of fuel.

"To counteract this we had to take more risks and turn one qualifying lap after another to stay ahead," commented

Timo Bernard, "It was only when the Audi's experienced technical problems that we could take it a little more carefully during the last hours of the race." Romain Dumas believed the most decisive factor in the race was the team's ability to "maintain their unbelievable pace and that their driving team didn't make the slightest mistake."

The 445hp 997 GT3 Cup S of Manthey Racing also clinched the third place position. Seven 997s were in the top ten. **AA**

