

Audi Sport GmbH Communications Audi Sport customer racing D-85045 Ingolstadt

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# Audi R8 LMS GT4 (2017)

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 $<sup>^{\</sup>star}$  The fuel consumption and CO<sub>2</sub> emissions of all models named above and available on the German market can be found in the list in the last chapter of this basic information.



#### Audi Sport in GT4 racing

# Audi Sport customer racing headed for growth

Audi Sport GmbH's customer racing program has been experiencing rapid growth. Following Audi Sport's launch of the Audi R8 LMS GT3 race car in 2009, the presentation of the second generation of this success model in 2015, and the RS 3 LMS for the TCR category in 2016, the portfolio of models Audi offers to customers has been extended once again in 2017. The Audi R8 LMS will be unveiled in its GT4 variant before the New York International Auto Show on April 11, 2017. In racing, the production-based GT sports car will make its public debut in the Nürburgring 24 Hours from May 25 to 28. With that, the brand will be filling another growing category in international motor racing. The GT4 class, which originated in Europe, will be intensively marketed on an international scale starting in 2017, with fielding opportunities available in North America, Europe, Asia and Australia.

GT racing fascinates an increasingly large fan community. Alongside the popular GT3 category the GT4 class is extending its presence on a global scale starting in 2017. Audi Sport has developed a new customer racing model for this promising category – the R8 LMS GT4. The GT3 model's "little brother" reflects an even closer orientation to the Audi R8 Coupé\*, shares more than 60 percent of its assemblies with the road-approved sports car, and is produced at the Böllinger Höfe site in Germany, as well. As a result, Audi creates synergies from which the customers of the new race car will benefit in terms of purchasing cost and cost of ownership.

Audi is developing the GT 4 model, which can deliver up to 364 kW (495 HP) of rating-dependent power output, in the course of the 2017 season before achieving a final homologation state and requesting approval for racing. During the second half of the year, the team of Chris Reinke, Head of Audi Sport customer racing, will be preparing the production of the race car so that the new Audi R8 LMS GT4 can start to be handed over to customers by the end of the year.

For the R8 LMS GT4, Audi Sport draws on an extensive global network of services, spare parts logistics and professional support. Audi Sport customer racing has established this infrastructure for the GT3 project on four continents and will be using this proven network for the GT4 model range as well.



#### Interview with Chris Reinke

# "Numerous synergistic effects benefit the customer"

Chris Reinke has been Head of Audi Sport customer racing since 2016 and sees major growth potential in the GT4 category.

Just shortly following the R8 LMS (2015) and the RS 3 LMS (2016), Audi Sport GmbH is presenting the R8 LMS GT4 in April 2017. What are your expectations of the new model?

Since 2009, we have delivered more than 200 units of the R8 LMS and are ranking among the leading brands in the global GT3 market that keeps growing. The Audi RS 3 LMS we've been offering since November 2016 has been meeting with tremendous response by customers in TCR touring car racing. The new Audi R8 LMS GT4 perfectly fills the gap in between, as GT4 racing is the ideal stage for gentlemen and amateurs that would like to race sports cars but find GT3 racing to be too complex.

The Audi R8 LMS GT4 is a production-based sports car. What does that mean?

First of all, the regulations do not permit any major variations from the production standard. As a result, it's particularly beneficial for a model to have the qualities that the Audi R8 V10 already brings to the track from the factory. This powerful and balanced base makes it possible for us to manufacture the production and the race cars at the same facilities. Accounting for more than 60 percent, the number of shared components is even higher than those between the GT3 model and the production sports car, about half of which are identical. By the way, the GT4 sports car also benefits from the experiences we've been gaining with the Audi R8 LMS across two generations. In aspects of safety, we've adopted the standard.

#### Are there any other synergies?

The Audi R8 LMS GT4 perfectly fits our customer sports kit – in terms of technology and logistics. In addition to the close linking with production, we even use the same parts as in the GT3 race car. For support and logistics we utilize the same network as the global GT3 program. The GT4 market is seeing rapid development in the important regions of North America, Europe, Asia and Australia, with highly attractive business potential for us. The numerous synergistic effects are positive for the customers as well because the economic aspects of the race car are very attractive – both in terms of purchasing cost and cost of ownership.



#### Audi R8 LMS GT4

# Dynamic, customer-friendly and safe

The Audi R8 LMS GT4 stands for production-based racing. The race car that is directly derived from the road-approved Audi R8 Coupé V10 is powerful, offers a high level of safety yet remains economical in terms of purchasing cost and cost of ownership. It is the ideal race car for amateur campaigners, completely in line with the spirit of the GT4 regulations carrying on a great sports car tradition in which fascinating road-going sports cars were a popular base for GT racing more than half a century ago.

A veritable powerhouse: The V10 engine of the new Audi R8 LMS GT4 can deliver up to 364 kW (495 HP) – depending on the applicable Balance of Performance rating that is designed to ensure fair competition between all race cars. The 5.2-liter naturally aspirated engine is produced by Audi Hungaria at the Győr location and only receives a new exhaust system, the restrictor plate prescribed by the regulations and modified mapping of the production-level electronic control unit (ECU). Audi Sport has previously demonstrated the durability of this unit, which requires maintenance only after 10,000 kilometers and rebuild after 20,000 kilometers, in the GT3 model. Afterwards, many customers complete additional cycles in racing operation.

As quattro four-wheel drive is prohibited in the GT4 class, Audi Sport utilizes a 7-speed double-clutch transmission combined with rear-wheel drive. Two electrohydraulically operated wet-type multi-plate clutches ensure shortest shifting events without tractive force interruption. A mechanical limited slip differential is used on the rear axle.

The suspension of the road-going version featuring double wishbones on all four wheels offers perfect prerequisites for racing. Rebound and compression adjustable racing-specific dampers and springs, as well as adjustable stabilizers, complete the suspension system. A new steel disc braking system with modified brake calipers in combination with the production-level ABS control system ensures optimum deceleration. Special brake cooling ducts at the front and rear guarantee braking stability also in racing. For the steering system, Audi Sport has adopted the hydraulic rack-and-pinion unit from the GT3 model, albeit with an electrically operated pump. In spite of the cost benefits offered by the 5-hole cast aluminum wheels they have been



specifically designed for racing purposes. Audi Sport also offers a tire pressure warning system as an option.

In terms of passive safety, Audi Sport again sets high standards. In addition to standard equipment such as a fire extinguishing system, safety nets for the driver and crash foam in the doors, Audi Sport exceeds the minimum requirements in many areas. The Audi Sport customer racing PS3 safety seat represents the most recent evolution of the PS1 model. It is standard equipment in the GT4 model as well as in the Audi customer racing models for GT3 and TCR racing. The safety nets are attached to the seats for optimum connection, and the 6-point harness corresponds to the GT3 standard. The axial and height adjustable steering wheel in combination with the seat are optimally suited for diverse body sizes. The team can fit the seat shell in various positions longitudinally, ensuring a safe and comfortable setup for each driving posture. A roof hatch facilitates rescue operations following an accident. To reduce the loads acting on the driver's spinal column, the helmet can be removed upward and a Kendrick Extrication Device applied. Inside the car, the steel safety cage is mounted at six points to the Audi Space Frame (ASF) featuring an aluminum-CFRP mixed-material construction, plus there are two connections to engine bay braces. The FT3 safety fuel cell is filled using a dripless rapid-refueling system for racing.

In the ergonomically designed cockpit, the driver can activate and adjust various driving functions via the steering wheel and the center console. A central multifunction display within the driver's view and a data logger create transparency with respect to operating conditions and data analysis.

The body components are largely identical to those of the production car but have been optimized to support the race car's aerodynamics and thermal management of the cooling and braking systems. The GT4 race car is closely oriented to the production model. Its chassis is produced at the same manufacturing facilities as the one of its road-approved sibling. Consequently, there are synergies for the Audi R8 LMS GT4 in terms of production and the Group-wide pool of components as well as service and maintenance – directly benefiting the customers.





# Technical Data Audi R8 LMS GT4 (2017)

As of: March 2017

Model Audi R8 LMS GT4 (2017) Vehicle Vehicle type Two-seat sports car according to GT4 regulations (SRO) Audi Space Frame (ASF) featuring an aluminum-CFRP-composite Chassis design with weld-in and bolted steel safety cell, Bodywork Fiber composite materials and aluminum **Engine** 90° V 10 gasoline engine with combined multi-point and gasoline direct Type injection, 4 valves per cylinder, four double overhead camshafts, longitudinally mounted in front of the rear axle Upstream oxygen sensor, metal catalytic converters Emission control system Engine management 2 x Bosch MED 17 (master-slave concept) Dry sump Engine lubrication Cubic capacity 5,200 cc Up to 364 kW (495 HP) \* Power output Over 550 Nm \* Torque Drivetrain/transmission Type of drive Rear-wheel drive Clutch Two electrohydraulically operated wet-type multi-plate clutches Transmission 7-speed double-clutch S tronic transmission with paddle shifters Mechanical limited-slip differential Differential Drive shafts Constant-velocity joint shafts Suspension/steering/brakes Electrohydraulic rack-and pinion steering, height and length adjustable Steering steering wheel Suspension Double wishbones front and rear, 2-way gas pressure dampers, ride height, toe, camber and stabilizers adjustable Brakes Hydraulic dual-circuit braking system, steel brake discs front (380 x 34 mm) and rear (365 x 32 mm) 5-hole cast aluminum wheels, Wheels front: 11" x 18" ET 63; rear: 12" x 18" ET 56 Front: 305/645 R18; rear: 325/705 R18 Tires Weight/dimensions Length/width/height 4,467 mm/1,990 or 2,037 mm \*\*/1.240 mm Wheelbase 2,650 mm Dry weight/minimum weight 1,460 kg + X \* Fuel cell capacity 118 I (FT3 safety fuel cell) **Performance** 0-100 km/h Under 4 seconds \* Top speed Over 250 km/h \* Equipment Fire extinguishing system Lifeline acc. to FIA Standard 8865-2015

Audi Sport customer racing Protection Seat PS3 acc. to FIA Standard 8862-2009

Rapid refueling system for racing acc. to GT4 or VLN regulations

Production level, modified for motorsport purposes

Seat system

Refueling system

Electrical system

<sup>\*</sup> depending on BOP (SRO Balance of Performance)

<sup>\*\*</sup> like Audi R8 Coupé: without/with side view mirrors

## <mark>Audi</mark> MediaInfo



#### The GT4 category

# A sports car class loaded with potential

The GT4 category will be invigorated starting in 2017. That is when the SRO Motorsports Group is going to introduce this race car class, which has existed since 2007, in new racing series and systematically market it around the globe.

The concept of the GT4 class uniquely addresses privateer drivers. Minor modifications of the production model and affordable purchasing and ownership costs clearly distinguish this category from more complex, faster and more expensive GT3 models. As a result, the GT4 class lends itself as an attractive road-going sports car category that is ideally tailored to meet the needs of amateur campaigners.

In terms of technology, there are hardly any modifications permitted to the race cars compared with the base models, and the materials of the bodywork have to correspond to those used in the production-level components. There are only few areas for which the SRO grants waivers on request. This has two advantages. Only individual component assemblies may be optimized by racing-specific designs, which is a rule that supports a level playing field. At the same time, the race car's proximity to the production model prevents an escalation of costs, as the regulations prohibit the development and homologation of generally more complex technology. For instance, the manufacturers have to submit reference parts for various areas such as the electronic control units of the engine, transmission and ABS braking system. This ensures that a comparison with the production model can be made at any time.

The major breakthrough for the GT4 category in 2017 going forward will result from intensive marketing activities. The SRO Motorsports Group is in the process of introducing this class in a large number of regions and countries, promoting existing GT4 competitions in the process and has created global fielding opportunities through international agreements. In Europe, for example, a North and South classification will be introduced. The French GT Championship from 2017 on will exclusively rely on GT4 models. In the United Kingdom, Italy, Australia and China, plus in the new Blancpain GT Series Asia, they are part of a more comprehensive GT field. In North America, the two major sports car series, the IMSA Continental Tire Sportscar Challenge and the Pirelli World Challenge, are additionally opening their fields to the GT4 models. Other series, such as the VLN in Germany and the 24-Hour Endurance Series, complete the list.



#### **GT4** fielding opportunities

## **GT4** international

The GT4 category is revving up internationally. In exclusive GT4 series or in separate classes – GT4 sports cars are becoming increasingly popular.

**North America** 

IMSA Continental Tire Sportscar Challenge www.imsa.com

Pirelli World Challenge www.world-challenge.com

Asia

Blancpain GT Series Asia www.blancpain-gt-series-asia.com China GT Championship www.chinagt.net.cn/en/list/62/

**Australia** 

Australian GT Trophy www.australiangt.com.au

**Belgium** 

Belcar Endurance Championship www.kronosevents.be

Germany

VLN www.vln.de

24 Hours Nürburgring www.24h-rennen.de

**France** 

FFSA Championnat de France GT www.sro-motorsports.com/gt4-european-series-

southern-cup

**United Kingdom** 

British GT Championship www.britishgt.com

International

GT4 European Series Northern Cup www.gt4series.com
GT4 European Series Southern Cup www.gt4series.com
24H Endurance Series www.24hseries.com

Italy

Campionato Italiano Gran Turismo www.acisport.it/en/CIGT/home



#### **Audi Sport customer racing**

# GT3, Audi Sport TT Cup, TCR and now GT4

Audi Sport has been active in international GT3 racing since 2009 and is ranking among the global players in this growth market. Audi Sport customer racing is responsible for the brand's customer racing program. It is firmly rooted on four continents, has won dozens of international titles and long achieved three-digit production figures. Audi Sport has produced more than 200 R8 LMS cars to date.

"Audi Sport has become a truly global player," says Stephan Winkelmann, Managing Director of Audi Sport GmbH. "Our customer racing cars in the highly competitive GT3 market have already exceeded 200 examples and these have collected numerous trophies and titles. In addition to GT3, we have extended the product portfolio even further by entering TCR competition and now the GT4 category as well, two growing formulas offering our customers more worldwide racing opportunities. In doing so, the brand of Audi Sport is becoming even more prominent. The new GT4 car further emphasises the connection between our road and race car technology. 60 percent of the components in the Audi R8 LMS GT4 are shared with its road-going sibling."

In the Audi Sport TT Cup launched in 2015, Audi Sport customer racing offers young talents an opportunity to enter motorsport with Audi as well. The vehicles in this one-make cup are centrally fielded by Audi Sport and are not for sale. In 2016, Audi customer racing premiered the Audi RS 3 LMS as an entry-level race car available directly from the factory, combined with support similar to the one its GT3 customers are accustomed to. Of major benefit is the fact that the Volkswagen Group with Audi, SEAT and Volkswagen is represented in the TCR three times and, as a result, has logistic advantages in supporting customers.

Now, the Audi R8 LMS GT4 fills the gap between the RS 3 LMS and the R8 LMS. During the 2017 season, Audi Sport is developing the mid-engine sports car to be ready for use in racing, followed by the production launch in the second half of the year. Starting at the end of the year, customers around the globe will be able to order the production-based sports car. "With that, we're covering a wide range from a one-make cup for up-and-coming drivers through to top-flight GT3 racing," says Chris Reinke, Head of Audi Sport customer racing.



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# \*Fuel consumption and emissions

Audi R8: Combined fuel consumption in I/100 km: 12.3-11.4;

Combined  $CO_2$  emissions: 287–272 g/km