

Porsche 911 GT3 R - 2016 -2018

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For the 2018 season, customer teams once again line up on the grids of many international racing series with the Porsche 911 GT3 R. The successful customer sport 911 GT3 R model receives an upgrade for the 2018 GT3 season. The parts kit includes a new front lid for the optimisation of thermal management plus side flicks at the front spoiler to improve the aerobalance.

The first race outing for the 500 hp 911 GT3 R mounted with the cutting-edge, four-litre, flat-six engine with direct fuel injection was at the 24 Hours of Daytona in January 2016. Setting pole position in the GTD class immediately underlined the enormous potential of the new customer sports racer. 2017 also proved successful for the GT3 R in the Pirelli World Challenge, the IMSA SportsCar Championship as well as in the Nürburgring VLN Long-Distance Championship and in the ADAC GT Masters. The 911 GT3 R also lines up on the grid of the long distance classics in Spa and on the Nürburgring.

Racing around the world

In the Intercontinental GT Challenge, Porsche supports at least one local team at all races with a 911 GT3 R in the Pro-class. The works driver trio Dirk Werner, Romain Dumas and Frédéric Makowiecki contest all races in a bid to clinch the driver's championship title. These three will also share the cockpit of a 911 GT3 R in the Blancpain GT Series Endurance Cup. The 911 GT3 R will also run in many other international and national GT series such as the Pirelli World Challenge, the Japanese Super GT Series, the GTD class of the IMSA WeatherTech Championship and the Nürburgring Long Distance Championship. At the ADAC 24h race on the Nürburgring, a total of eight Porsche 911 GT3 R racers are expected to line up on the grid.

Perfect foundation

Adopted from its production sibling, the 911 GT3 R features the distinctive double-bubble roof, and a wheelbase that has been lengthened by 100 millimetres compared to the previous generation. This ensures a more balanced weight distribution and more predictable handling, particularly in fast corners. By applying systematic lightweight solutions for the body, add-on parts, and suspension, the engineers once again significantly optimised the centre of gravity position of the GT3 R compared to the predecessor model. The lightweight body design of the 911 GT3 RS production sports car featuring intelligent aluminium-steel composite construction has proven to be the ideal basis for the race car. The roof, front lid and fairing, wheel arches, doors, side and tail sections as well as the rear lid are made of particularly light carbon-fibre composite material (CFRP). All windows – even the windscreen – consist of polycarbonate.

Powering the new 911 GT3 R is a cutting-edge four-litre, flat-six unit which is largely identical to the high-performance production engine of the road-legal 911 GT3 RS. Direct petrol injection, which operates at pressures up to 200 bars, as well as variable valve timing technology ensure a particularly efficient use of fuel. Moreover, the normally-aspirated engine offers significantly

better driveability and a broader usable rev range. Power from the rear engine is transferred to the 310 mm rear wheels via a Porsche sequential six-speed constant-mesh gearbox. As in the GT road-going models of the 911, the driver changes gears via shift paddles conveniently positioned on the steering wheel.

Aerodynamic balance

The aerodynamics of the 911 GT3 R also follows the example of the road car. The distinctive wheel arch air vents on the front fairings increase downforce at the front axle. Measuring 1900 mm in width by 400 millimetres in depth, the rear wing lends aerodynamic balance. From its 911 RSR big brother, the GT3 R has adopted the concept of the centrally-positioned radiator. By eliminating the side radiators, the centre of gravity was improved, the radiator is better protected against collision damage, and the venting of hot air through louvers in the front cover was enhanced.

The brake system of the 911 GT3 R also underwent further modifications and, thanks to increased stiffness and more precise control of the ABS, is even better suited to sprints and long distance racing. At the front axle, six-piston aluminium monobloc racing brake callipers combined with ventilated and grooved steel brake discs with a diameter of 380 millimetres ensure outstanding braking performances. Fitted at the rear axle are four-piston callipers and discs measuring 372 millimetres. Another development focus was on the safety features of the GT3 R. Compared to its predecessor, the capacity of the reinforced FT3 safety fuel cell was increased by twelve litres to now hold 120 litres, with the tank now featuring a fuel cut-off safety valve. The doors and the side windows can be removed, and the escape hatch in the roof was enlarged. In the event of an accident, the racing bucket seat offers pilots even better protection.

Technical description

Engine	Water-cooled six-cylinder boxer engine (rear mounted); 4,000 cm ³ ; stroke 81.5 mm; bore 102 mm; output: over 368 kW (500 hp) subject to FIA BoP (air restrictor); four-valve technology; direct fuel injection; dry sump lubrication.
Transmission	Porsche sequential six-speed constant-mesh gearbox; mechanical slip differential; pneumatic gear-shift activation (paddle shift).
Bodyshell	Lightweight body featuring intelligent aluminium-steel composite design; integrated (welded) roll-cage according to FIA Appendix J; removable escape hatch in roof; lightweight exterior design: CFRP doors, rear cover, rear wing, wheel arches, front and rear fairing; polycarbonate glazing; removable polycarbonate door windows; FT3 safety fuel cell, approx. 120 litres, with fuel cut off safety valve in accordance with FIA regulations; air jack system (four jacks).

Suspension	Front axle: McPherson strut, adjustable in height, camber and toe; wheel hubs with centre-lock wheel nuts; adjustable anti-roll bar blades (left and right); power-assisted steering with electro-hydraulic pressure feed. Rear axle: multilink independent rear suspension, adjustable in height, camber, toe; wheel hubs with centre-lock wheel nuts; adjustable anti-roll bar blades (left and right)
Brake system	Two separate brake circuits for front and rear axles; adjustable by the driver via brake balance bar system. Front axle: six-piston aluminium monobloc racing brake calliper; ventilated and grooved steel brake disc, D = 380 mm. Rear axle: four-piston aluminium monobloc racing brake calliper; ventilated and grooved steel brake disc, D = 372 mm.
Wheels/tyres	One-piece BBS alloy wheels according to Porsche specification and design, 12.0J x 18 offset 17, tyre dimension: Michelin 300/650-18 front; 13J x 18 offset 37.5, tyre dimension: Michelin 310/710-18 rear.
Electrical system	BOSCH engine control unit MS 6.4; COSWORTH power module IPS32; race ABS; traction control.
Weight/dimensions	Total weight: ca. 1,220 kg homologation weight; total length: 4,604 mm; total width front axle: 1,975 mm, total width rear axle: 2,002 mm; wheelbase: 2,463 mm.