

## **2009 Porsche 911 Carrera 4/Carrera 4S Cabriolet**

As expected of Germany's proud, independent sports car maker, any Cabriolet wearing the Porsche crest is far more than a Coupe with its roof removed. When Porsche engineers set out to develop the newest 911 Carrera 4 and Carrera 4S Coupes, they simultaneously worked on equivalent open-top models.

The 2009 Porsche 911 Carrera 4 Cabriolet and Carrera 4S Cabriolet share the same internal 997 model designation as their Coupe siblings. They also share the Coupes' broad-shouldered lower body design necessary to accommodate their wide track, large wheels and tires. Other than their folding soft tops, the Carrera 4 and Carrera 4S Cabriolets boast the same essential architecture, interior appointments, suspensions, and potent new drivetrains as their Coupe stablemates.

The result is a pair of open-top sports cars that deliver the same exhilarating all-weather acceleration and dynamic response as the Carrera 4 and Carrera 4S Coupes.

### **Highlights**

#### **New for 2009**

Though the 2009 911 Carrera 4 and Carrera 4S Cabriolets boast several important refinements over the 2008 cars, the cars carry the same internal 997 designation as their immediate predecessors. Chief among those refinements are new, more powerful and fuel-efficient engines, the availability of Porsche's seven-speed double-clutch transmission, the PDK, in place of the optional Tiptronic S, and a new all-wheel drive system borrowed from the awesome Porsche 911 Turbo.

The new, more potent and more fuel efficient engines boast direct fuel injection systems among other enhancements for improved performance and better fuel economy.

In lieu of the optional Tiptronic S transmission, Carrera 4 and Carrera 4S Cabriolet owners may now specify the driver-shiftable Porsche Doppelkupplungsgetriebe, or PDK. This ground-breaking seven-speed double-clutch automatic transmission is lighter, more efficient and quicker shifting than the previous Tiptronic S.

For 2009, engine power is distributed to all four wheels via the same electronically controlled Porsche Traction Management system found previously only on the Porsche Turbo. The electronic controls respond to driving conditions even more

instantaneously than the previously used hydraulically activated all-wheel drive system.

Commensurate with the increased performance potential, Porsche engineers have increased the Carrera 4 and Carrera 4S Cabriolets' braking ability. Night visibility is also enhanced as both cars come standard with BI-XENON™ headlights and L.E.D. driving lights as well as brake- and taillights.

Driver and passenger comfort and convenience have also been enhanced for 2009 with the availability of ventilated front seats and through the redesign of the Porsche Communication Module which boasts a larger screen, simplified operation, Bluetooth® connectivity and the ability to play music from such external sources as an iPod® and MP3 players.

### **More Power from Less Fuel**

Both the 911 Carrera 4 Cabriolet and 911 Carrera 4S Cabriolet receive new engines for 2009. The engines both boast direct fuel injection, new two-piece crankcases and revised intake and exhaust systems along with Porsche VarioCam Plus intake-valve timing and lift system.

The results are felt and appreciated immediately by the Carrera 4 Cabriolet's driver. Thanks to a 6.2 percent increase in horsepower, the 3.6-liter engine goes from 325 to 345 hp. Similarly, there's a 5.5 percent gain in torque, from 273 to 288 lb.-ft. Thanks to these improvements, a manual gearbox-equipped 2009 911 Carrera Cabriolet accelerates from 0 to 60 mph (96 km/h) in 5.0 seconds.

Even more impressive, when the car is equipped with the new PDK Porsche double-clutch in place of last year's Tiptronic S, the Carrera 4 accelerates from 0 to 60 mph in 4.8 seconds, more than a full half second more quickly than its predecessor

The 3.8-liter engine in the still-more potent 911 Carrera 4S Cabriolet exhibits equally awesome results, delighting its driver by sprinting to 60 mph in only 4.7 seconds when equipped with a manual gearbox and making that run in a mere 4.5 seconds with the PDK. This hedonistic acceleration is compliments of the new 3.8-liter engine's gain of 30 hp, from 355 to 385 hp, or 8.4 percent, and a 5 percent improvement in torque, from 295 lb.-ft. to 310.

Despite the substantial increases in horsepower and torque over the predecessor models, neither the 2009 3.6-liter 911 Carrera 4 Cabriolet nor the 3.8-liter 911 Carrera 4S Cabriolet carries the stigma of a gas-guzzler penalty. And both engines

earn their respective cars federal Low-Emissions Vehicle, category two (LEV-II) certification.

### **Two Clutches, No Clutch Pedal**

To take full advantage of the newly designed engines, Porsche is offering drivers a transmission that delivers quicker acceleration than is possible with the standard manual gearbox while maximizing fuel efficiency. The new PDK (from the German Porsche-Doppelkupplungsgetriebe), or Porsche double-clutch transmission, replaces the Tiptronic S as the optional gearbox in both the 911 Carrera 4 and 911 Carrera 4S Cabriolets.

Porsche was the first automaker to successfully use this transmission technology back in the 1980s when the transmission was developed for the mighty Porsche 962 Group C race car. The 911 Carrera 4 Cabriolet or Carrera 4S Cabriolet driver can allow the seven-speed PDK to shift up and down automatically, or he may opt to shift personally via steering-wheel mounted paddles or the console-mounted lever, the same as with the Tiptronic S.

Essentially, the PDK Porsche double-clutch is a conventional, seven-speed manual gearbox with two electro-hydraulically controlled, oil-bathed multiplate clutch packs. One clutch pack controls the odd-numbered gears and Reverse, the other the even-numbered gears. As one clutch pack engages the appropriate gear based on engine speed, load, and vehicle speed, the other clutch simultaneously disengages the previous gear. The results are seamless, instantaneous up- and downshifts, performed more quickly than could be done by even a skilled test driver.

### **Gains Through Loss**

The newly revamped engines, both 3.6-liter and 3.8-liter, each weighs about 6 kg, or 13.2 pounds, less than its predecessor. The new engines offer increased structural rigidity for a quieter, more comfortable driving experience as well as improved durability. The innovative PDK, despite offering more gear ratios than the Tiptronic S, is about 10 kg, or 22 pounds, lighter than last year's Tiptronic.

Through such careful weight management, Porsche engineers were able to keep the 2009 911 Carrera 4 Cabriolet within 50 pounds (23 kg) of last year's car, while the 911 Carrera 4S Cabriolet weighs only 11 pounds (5 kg) more than its predecessor, despite the new cars' added equipment and features.

### **All-Weather Maximum Performance**

Mechanically, the Porsche 911 Carrera 4 and Carrera 4S Cabriolets are defined by their all-wheel drive capabilities. For 2009, these cars benefit from the same electronically controlled Porsche Traction Management (PTM) found under the iconic Porsche Turbo. PTM can vary the torque split infinitely and absolutely between front and rear wheels as needed for optimum traction. However, since most purists feel—and Porsche's engineers staunchly believe—that rear-drive is critical for optimum sporty driving, PTM directs two-thirds of the engine's torque to the rear wheels under normal driving conditions.

When the system determines it's needed, PTM diverts engine power and torque to the front axle in millisecond cycles. Particularly at very high speeds, all the driver feels is the car's significant stability.

### **Bigger, Grippier Brakes**

Among the added features are even more potent brakes than before. Porsche engineers firmly believe that a car's deceleration ability must always out-perform its ability to accelerate. Commensurate with the gains in engine performance, the 2009 911 Carrera 4 and Carrera 4S Cabriolets receive added braking capability. All four brake rotors on both cars are cross-drilled, inner vented and now 12.99 inches (330 mm) in diameter.

In addition, the monobloc, four-piston calipers are now the same as those used on the 911 Turbo. Critical refinements have been made to the airflow around the wheels to increase brake cooling all around as well.

### **Distinct Yet Readily Familiar**

As dramatic as are the changes in the Carrera 4 and 4S Cabriolets' drivetrains this year from last, is how elegantly subtle the exterior differences are. Knowing full well that Porsche owners prize the classic shape of the 911 Carrera, and that wanton and radical redesigns simply for the sake of change undermine a marque's value, Porsche's designers and engineers allowed only minor refinements to the appearance of the model range for 2009.

When viewed head on, the most notable differences are the new, horizontal covers for the BI-XENON™ headlights and the L.E.D. daytime running lights, which extend over the air inlets. Also noteworthy are those air vents which boast larger cooling openings. The keen-eyed observer will also note the absence of a center radiator on cars equipped with the PDK.

The side view reveals new, larger exterior mirrors with aerodynamic twin-arm mounts as well as new lightweight alloy wheels. The standard wheels on the 911 Carrera 4 Cabriolet are 18 inches in diameter, the Carrera 4S Cabriolet comes with 19 inch wheels.

In the rear, all the lighting elements, save the reversing lamp, are now light-emitting diodes, for improved luminosity, longer life and instantaneous response. Finally, in the back, the 911 Carrera 4 Cabriolet sports two single oval exhaust pipes while the 911 Carrera 4S Cabriolet shows dual round polished exhaust outlets.

The 911 Carrera 4 and Carrera 4S Cabriolets are visually distinct compared to their two-wheel drive siblings by their brawny stance and their muscular fenders. The all-wheel-drive versions of the Porsche 911 Carrera are 1.73 inch (44 mm) wider than their two-wheel-drive counterparts. Despite the extra width, the Carrera 4 and Carrera 4S Coupes are stunningly aerodynamic. With their tops up, the Carrera 4 Cabriolet has a coefficient of drag of only 0.30 and the Carrera 4S Cabriolet also generates less drag with a Cd of only 0.30, despite their larger tires.

### **More Sophisticated and Comfortable**

Interior refinements include a revamped center console highlighted by a new Porsche Communication Management system (PCM) and the availability of ventilated front seats.

The latest iteration of the PCM boasts a 12 percent larger screen than before, 6.5 inches vs. 5.8. In addition, the PCM is now controlled via an easy-to-clean touchscreen which incorporates a simpler keyboard. The optional navigation module now has a 40 GB hard drive. Other available features with the newest PCM include an internal GSM mobile phone module with Bluetooth® handsfree operation, as well the ability to connect with external music sources such as iPod® or USB memory sticks.

Interior comfort may be enhanced regardless of front seat selection thanks to optional seat ventilating fans, available in conjunction with heated seats. These circulate air through the seatback and cushion upholstery to expedite cooling, heating and/or drying the driver and passenger.

All-weather capabilities or not, the cabin is luxuriously appointed and, like all Porsche automobiles, offers its occupants the protection of six airbags: dual frontal-impact airbags as well as two seat-mounted thorax-protecting side-impact airbags and two head-protecting side-impact curtain door-mounted airbags.

**Open Top Motoring, Porsche Style**

The Porsche 911 Carrera 4 and Carrera 4S Cabriolets boast unparalleled low weight among Cabriolet roof structures. This light folding top assembly stows below the cars' beltlines for a low center of gravity which translates to superb vehicle dynamic control.

The entire roof assembly—including its operating mechanism—weighs only 77 pounds (35 kg). All told, the new 911 Carrera Cabriolet tips the scales at 3428 pounds (1555 kg) or only about 165 pounds more than the new Carrera Coupe.

The fully automatic top opens and closes completely in about 20 seconds at the touch of a button and may be deployed while the car is moving if needed. The Carrera and Carrera S Cabriolets come standard with a wind deflector for a quiet and buffeting-free passenger cabin, top down or up.

In addition to the six airbags found in every Porsche, the safety of the Carrera and Carrera S Cabriolets' occupants is further enhanced by special rollover protection, given the lack of a fixed steel roof. The windshield A-pillars are reinforced and along with the windshield frame form a front rollbar. A second, rear rollbar is mounted behind the rear seats and deploys instantly if its sensors detect an impending rollover.