

2.8 Sport Chrono Package Turbo (option)

The Sport Chrono Package Turbo option (I-no. 640) is available for the first time on the new 911 Turbo. The features correspond to the Sport Chrono Plus package which is familiar from the current 911 Carrera generation, plus the functions Overboost, PTM intervention and a modified moving off program in the Tiptronic S option.

Similarly to the Sport Chrono Plus package, the Sport Chrono Package Turbo offers the following basic features:

- Analogue and digital stopwatch on the dashboard
- Sport mode for engine, chassis (PASM) and transmission (Tiptronic S) incl. Sport button for activation
- Performance display in the PCM
- The ability to set/change individual memory settings

Additional Overboost function

Overboost involves briefly increasing the boost pressure (max. 10 seconds) for enhanced acceleration at full load (accelerator pedal fully pressed). This function is activated on pressing the Sport button on the center console. The increase in boost pressure is attained with the aid of the boost pressure control system and raises the maximum boost pressure by approx. 0.2 bar (2.9 psi) (+20 %). As a result, the maximum torque rises from 620 Nm (460 lb.-ft.) to 680 Nm (505 lb.-ft.) between 2,100 rpm and 4,000 rpm, enabling markedly improved acceleration and elasticity especially in the middle rev range.

The higher boost pressure gives rise to a sudden substantial increase in the mechanical stress on the components and, above all, in heat-induced stress. This results above all from the continually rising charge air and combustion chamber temperatures.

With regard to these processes and the maximum possible stress on the components, the Overboost function is limited to 10 seconds. After this period, the original full-load pressure without Overboost is set. As soon as the stress on the engine is relieved briefly as a result of closure of the throttle valve (e.g. after gear-shifting), the Overboost function can be activated again.

Overboost mode is indicated by an arrow symbol in the digital boost pressure gauge on the instrument dials. The arrow next to the boost pressure gauge indicates the brief Overboost, which is only possible when the Sport function is active (the word "SPORT" is to be seen on the display).

The Sport Chrono Package Turbo is complemented by more agile all-wheel-drive tuning and, in conjunction with optional Tiptronic S, by a modified starting program. When the "SPORT" button is pressed, drive-off is effected in 1st gear, instead of 2nd gear.



Fig.25: Air cleaner, air ducts, intercoolers

2.9 Intercoolers

The intercoolers have been adopted from the 911 Turbo (996) and optimized. In order to improve charge-air cooling, the ducts in the rear side sections of the body have been modified. By increasing the cross-section of each duct by approx. 10 % it has been possible to reduce flow resistance and to improve the air flow into the radiator cores. This results in more efficient intercooling for increased power and torque.