



Press Release

The Lamborghini Aventador S: Elevating the benchmark for super sports cars

- **The next generation of the V12 Lamborghini flagship**
- **New iconic design features focused on aerodynamic performance**
- **New four-wheel steering system**
- **Significantly enhanced suspension and electronics, and customisable driving modes**
- **More powerful naturally aspirated V12 engine outputting 740 hp**
- **0-100km/h in 2.9 seconds, top speed of 350 km/h**

Sant'Agata Bolognese, 19 December 2016 - The new Lamborghini Aventador S is characterized by new aerodynamic design, redeveloped suspension, increased power and new driving dynamics. The 'S' is the suffix of previous enhanced Lamborghini models and defines a new benchmark for the V12 Lamborghini.

"This is the next generation Aventador as well as the expression of new technological and performance milestones in super sports car development," says Automobili Lamborghini Chairman and Chief Executive Officer Stefano Domenicali. "The Aventador S is visionary design, cutting-edge technology and driving dynamics in pure harmony, and elevates the concept of super sports cars to a new level."

Design and Aerodynamics

The design of the new Aventador S clearly indicates the new Aventador generation. The Aventador S features a number of exterior developments, particularly in front and rear, while its profile remains clearly an Aventador. Every modified component is redesigned for a purpose, achieving maximum aerodynamic efficiency while accenting the Aventador's complex, muscular dynamism. Furthermore, Lamborghini Centro Stile has intelligently integrated certain elements of past icons, such as the lines of rear wheel arches reminiscent of the original Countach.

A more aggressive nose and longer front splitter redirect airflow for better aerodynamic efficiency, improved engine cooling and increased cooling to the radiators. Two air ducts in the side of the front bumper reduce aerodynamic interference from the front tires and optimize wake flow to the rear radiator.

The rear of the Aventador S is dominated by a black diffuser, available on request in carbon fiber, characterized by a number of vertical fins that amplify the airflow effects, reduce drag through pressure recovery and

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generate downforce. Three single exhaust outlets exit through the rear bumper.

The active rear wing is movable in three positions depending on speed and drive select mode, and optimizes the car's improved overall balance, working with vortex generators created in the front and rear of the chassis' underside that maximize air flow as well as assist in brake cooling.

The Aventador S design results in significantly enhanced aerodynamic performance. Front downforce has been improved by more than 130% over the previous Aventador coupé. When the wing is in its optimum position the overall efficiency at high downforce is improved by over 50%, and in low drag by more than 400% compared to the previous model.

Four masterpieces evolve driving emotion:

Four-wheel drive, new active suspension, new four-wheel steering system and the new EGO driving mode

The Aventador S chassis retains the Aventador's unique and extremely rigid lightweight carbon fiber monocoque with attached aluminum frames resulting in a dry weight of just 1,575 kg.

The Aventador S is redeveloped around a 'total control concept' to provide a superior drive, ride and performance; every aspect of the car's suspension and electronic control systems has been advanced, with the goal of particularly enhanced control and driving emotion.

Enhanced **lateral control** comes from new four-wheel steering, adopted for the first time on a series production Lamborghini. The system provides improved agility at low and medium speeds and more stability at high speed. On the front axle it is combined with Lamborghini Dynamic Steering (LDS), tuned for a more natural and responsive feel with a sharper turn-in. It is specially adapted to integrate with the active Lamborghini Rear-wheel Steering (LRS) on the rear axle: two separate actuators react in five milliseconds to driver's steering movements, allowing a real-time angle and cornering stiffness adjustment.

At low speeds, rear wheels face in opposite direction to the steering angle, thereby virtually reducing the wheelbase. With less steering wheel angle required, the Aventador S is more agile with a reduced turning radius, ensuring higher performance in curves and making it easy to maneuver in town and at low speeds.



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Conversely at higher speeds both front and rear wheels share the same steering angle, thus virtually extending the wheelbase, providing increased stability and optimizing the responsiveness of the car.

Vertical control comes from Lamborghini's updated pushrod and Lamborghini Magneto-rheological Suspension (LMS), with revised kinematics adapted to the new four-wheel steering. New suspension geometry, optimized for Lamborghini Rear-wheel Steering, includes upper and lower arm and wheel carrier to reduce caster and load on the system. A new real-time variable damping system optimizes wheel and body control, and balance and ground stiffness is maximized. New rear springs also enhance the car's balance.

Longitudinal control is achieved via an improved ESC strategy with faster and more precise control of traction control and vehicle dynamics, depending on the driving mode selected. Extensively tested on surfaces such as snow and ice, the Aventador S has improved adhesion detection to maximize grip in all conditions and enhance its handling capabilities. The Aventador S permanent four-wheel drive has been calibrated for the stabilizing effect of the new Lamborghini Rear-wheel Steering, allowing more torque to the rear axle: when powering off the throttle, less torque is shifted to the front axle to allow over-steer behavior and a sporty, but safe drive.

Lamborghini engineers have integrated the smart Lamborghini Dinamica Veicolo Attiva (LDVA) control unit to manage these systems in the car. LDVA is the new brain of the car, which receives real time and precise information on body motion via input from all sensors of the car. It instantly defines the best set-up of all active systems in order to guarantee the best vehicle dynamics in each and every condition.

EGO concept - customizable driving modes

The Aventador S allows the driver to select between four different driving modes: STRADA, SPORT, CORSA and the new EGO mode, which influence the behavior of traction (engine, gearbox, 4WD), steering (LRS, LDS, Servotronic) and suspension (LMS).

STRADA stands for maximum comfort and daily use. SPORT provides a sporty, rear-wheel drive feel and CORSA is suitable for maximum track performance.

EGO is the new driving mode option. This provides several additional and individual set-up profiles, customizable by the driver, selecting his preferred criteria for traction, steering and suspension within the STRADA, SPORT and CORSA settings.



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All driving modes have been recalibrated in the Aventador S, improving ESC integration with all-wheel drive and the interface between engine torque management system and traction control reaction. The continuous torque split to front and rear axles in each driving mode is recalibrated for the Lamborghini Rear-wheel Steering and the differentiation between the driving modes is enhanced.

In STRADA, the progressive damping is smoothed for better comfort and stability on rough roads. Torque is split 40/60 to the front and rear as standard: safe and stable with maximum adhesion, the car is easily driven and controlled.

In SPORT mode, the stabilizing effect of the Lamborghini Rear-wheel Steering allows up to 90% torque to the rear wheels for maximum sportiness and driving fun on curving roads. Driving precision and driver feedback is improved, while maintaining safety and without compromising on comfort. When powering off the accelerator, less torque is shifted to the front axle to enhance the car's agility, with oversteer and drifting easy using light throttle and steering wheel control.

In CORSA, drivers experience less intrusive dynamic and traction control intervention while maintaining driving precision and traction. High levels of damping force maximize driver feeling and feedback from driver inputs including steering, braking and throttle. Counter-phase steering is enhanced in high-performance situations and torque is balanced to both axles, with a maximum 20/80 split to front and rear for more neutral behavior and to maximize track-oriented performance.

The engine and exhaust

The Lamborghini Aventador's naturally aspirated twelve cylinder, 6.5 liter engine outputs an additional 40 hp over its predecessor, to a maximum 740 hp, with a 690 Nm of torque at 5,500 rpm. To achieve the power increase, both VVT (Variable Valve Timing) and VIS (Variable Intake System) have been optimized in order to obtain an enriched torque curve. Additionally, the maximum engine revs have been increased from 8,350 to 8,500 rpm. A dry weight of just 1,575 kg provides a weight-to-power ratio of just 2.13 kg/hp. Acceleration from 0-100 km/h is reached in 2.9 seconds, with a top speed of 350 km/h. Transmission is provided by Lamborghini's lightweight Independent Shifting Rod (ISR) 7-speed shifting system, providing robotized gear shifts in up to 50 milliseconds.

The Aventador S adopts a new exhaust system developed as the result of a significant R&D project. More than 20% lighter than its predecessor and the product of testing multiple configurations, the results are an enhanced



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Lamborghini sound and resonance from the already inimitable V12 aspirated engine, with the three single pipe outlets at the rear of the Aventador S a visual reminder of the new exhaust system.

As in its predecessor, the Aventador S is equipped with a stop-and-start system and cylinder deactivation for optimized engine efficiency. When full engine capacity is not required, six of the twelve cylinders are temporarily deactivated by switching off one cylinder bank. When the driver accelerates, the system switches back instantaneously to twelve-cylinder mode, with the changeover virtually impossible to detect by the driver.

Tires and braking system

The Aventador S sits on a new, specially developed set of Pirelli P Zero tires. Designed to optimize steering, traction, lane changes and braking efficiency, the tires are specifically designed to respond to the dynamic behavior induced by the Lamborghini Rear-wheel Steering, ensuring handling consistency and driver feedback. With improved force generation from both front and rear tires, the Pirelli P Zero tires provide a higher lateral acceleration and reduce understeer characteristics.

Carbon ceramic brakes are standard equipment for the Aventador S. The ventilated and perforated carbon ceramic discs (Ø 400 x 38 mm - Ø 380 x 38 mm) enhance braking performance from 100 km/h to standstill in 31 m.

Aventador S - a driver's environment

The cockpit of the Aventador S brings new functionality and refinement. A new TFT digital dashboard can be customized according to the driver's preferences, with different kombi screens for STRADA, SPORT and CORSA in conjunction with the EGO mode. Selected from the driving modes options on the control panel, the EGO button reveals further options on pop-up digital screens, allowing the driver to choose his preferred settings.

AppleCarPlay comes as a standard specification, allowing the cockpit's occupants to manage voice activated communications and entertainment from personal Apple devices.

The Lamborghini telemetry system is an optional specification: recording lap times and track performance as well as trip data, the telemetry system is especially appealing to the owner who wants to take his car on track.

The interior specification of the Aventador S is virtually limitless through Lamborghini's Ad Personam customization program.



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Price of the Lamborghini Aventador S and market delivery

The first customers will take delivery of the new Lamborghini Aventador S in Spring 2017 at suggested retail prices as follows:

Europe:	EUR 281.555,00 (suggested retail price taxes excluded)
UK:	GBP 225.955,00 (suggested retail price taxes excluded)
USA:	USD 421.350,00 (suggested retail price - GGT included)
China:	RMB 6.739.673,00 (suggested retail price taxes included)
Japan:	YEN 41.578.179,00 (suggested retail price taxes included)

For other photos and video material:

media.lamborghini.com

For further information on Automobili Lamborghini:

www.lamborghini.com



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Technical Data - Lamborghini Aventador S

CHASSIS AND BODY

Frame	Carbon fiber monocoque with aluminum front and rear frames
Body	Carbon fiber engine bonnet, movable rear spoiler and fixed air inlets; Aluminum front bonnet, front fenders and doors; SMC rear fender and rocker covers
Suspension type	Push rod magneto-rheological active front and rear suspension with horizontal dampers and springs
Suspension geometry	Aluminum double wishbone fully independent front and rear suspension
ESP	ESC/ ABS Bosch 8.0 with different ESC characteristics managed by drive select mode
Brakes	Dual hydraulic circuit brake system with vacuum brake booster; front and rear CCB, (6-cylinder brake calipers, 4-cylinder brake calipers)
Ventilated discs (front – rear)	Carbo ceramic discs (Ø 400 x 38 mm – Ø 380 x 38 mm)
Steering	Steering Gear with 3 different servotronic characteristics coupled with Lamborghini Dynamic Steering (LDS) and Lamborghini Rear-wheel Steering (LRS), managed by drive select mode
Steering wheel ratio	10:1 – 18:1
Steering wheel turns lock to lock	2,1 – 2,4
Steering wheel diameter	358 mm
Tires (front – rear)	Pirelli P Zero 255/30 ZR20 – 355/25 ZR21
Wheels (front – rear)	9" JX20" H2 ET 32.2 – 13" JX21" H2 ET 66.7
Kerb-to-kerb turning circle	11.5 m (37,73 ft.) - average value, variable due to dynamic condition, thanks to LRS



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Mirrors	External mirrors heated, electrically adjustable and foldable
Rear spoiler	Movable – 3 positions depending on speed and drive select mode
Airbags	Front dual stage driver airbag and front adaptive passenger airbag; seats with side “head-thorax” airbags; passenger and driver knee airbags in selected markets

ENGINE

Type	V12, 60°, MPI
Displacement	6498 cc (396.5 cu. In)
Bore and stroke	Ø 95 mm x 76,4 mm (3,74 in. x 3 in.)
Valve per cylinder	4
Valve gear	Variable valve timing electronically controlled
Compression ratio	11.8 ± 0.2
Maximum power	740 hp (544 kW) at 8.400 rpm
Specific Power output	113,9 hp/l (83,7 kW/l)
Maximum torque	690 Nm at 5.500 rpm
Engine speed, maximum	8.500 rpm
Power to weight ratio	2,13 kg/hp
Emission class	EURO 6 - LEV 2
Emission control system	Catalytic converters with lambda sensors
Cooling system	Water and oil cross flow cooling system with variable air inlets
Engine management system	Lamborghini Iniezione Elettronica (LIE) with Ion current analysis
Lubrication system	Dry sump



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DRIVETRAIN

Type of transmission	4WD with Haldex generation IV
Gearbox	7 speed ISR, shifting characteristic depending on drive select mode
Standard	AMT
1 st gear ratio	3,909
2 nd gear ratio	2,438
3 rd gear ratio	1,810
4 th gear ratio	1,458
5 th gear ratio	1,185
6 th gear ratio	0,967
7 th gear ratio	0,844
Reverse ratio	2,929
Final drive ratio (rear – front)	2,867 - 3,273
Clutch	Dry double plate clutch, Ø 235 mm (9,25 in.)

PERFORMANCE

Top speed	350 km/h (217 mph)
Acceleration 0-100 km/h [0-62 mph]	2,9 sec.
Acceleration 0-200 km/h [0-124 mph]	8,8 sec.
Acceleration 0-300 km/h [0-186 mph]	24,2 sec.
Braking 100-0 km/h [62-0 mph]	31 m



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DIMENSIONS AND WEIGHT

Wheelbase	2,700 mm (106.29 in.)
Overall length	4,797 mm (188.86 in.)
Overall width (excluding mirrors)	2,030 mm (79.92 in.)
Overall height	1,136 mm (44.72 in.)
Track (front – rear)	1,720 mm (67.71 in) - 1,680 mm (66.14 in.)
Ground clearance (standard – lifting)	115 ± 2 mm (front with lifting 155 mm)
Dry weight	1,575 kg (3,472 lb)
Weight distribution (front – rear)	43% - 57%

CAPACITIES

Fuel tank	85 liters
Engine oil	13 liters
Engine coolant	25 liters
Luggage compartment	140 liters

CONSUMPTION*

Urban cycle	26,2 l/100 km
Extra urban cycle	11,6 l/100 km
Combined	16,9 l/100 km
CO ₂ emission	394 g/km

** In accordance with
Dir. 1999/100/CE*