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Avant RS2

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Equipment details, data and prices stated here refer to models available in Germany.
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Avant RS2

The compact high-performance estate

Audi and Porsche have joined forces to create a new passenger-car category: the Avant RS2, a compact high-performance estate car. The most appealing aspect of the Avant RS2 is that it combines the dynamic performance normally only found in a top-of-the-range sports car with the Avant body concept, which permits a wide range of uses.

The Avant RS2 has been developed jointly by Audi and Porsche. Taking the Audi Avant S2 as a basis, Porsche developed specific RS2 features and was responsible for final design tuning on the Avant RS2.

The turbocharged 2.2 litre, 20-valve Audi engine has been given a modified turbocharger and a larger charge-air intercooler to boost its performance still further, and the exhaust system matched to this increase in power output.

The sports suspension, with Audi's permanent four-wheel drive technology, includes Porsche's 17-inch light-alloy wheels and its high-performance brake system, which can readily be identified from the outside by the red brake calipers with Porsche lettering.

The Avant RS2 is an outstanding example of the superlative performance and refinement that result when two expert car manufacturers pool their very best technological ideas. The RS2, which performs like a thoroughbred sports car, none the less has five seats and a variable load area which can be used in any number of different ways. A high-performance sports estate car, in other words, with an exclusive pedigree.

The Avant RS2 has been available since April this year on the German market, where the cars are sold through the Audi dealer network. The RS2 has been well received in over 20 markets throughout the world. For this reason, about 2,000 RS2s will have been built by the end of the year, almost 1,200 of them for the domestic market. The RS2 sells at DM 99,600 in Germany (recommended price, ex works, including V.A.T.).

A fine performer

The 20-valve five-cylinder turbo engine in the Avant RS2 develops 232 kW (315 bhp), which is the highest power rating for this engine in production form. In the 1980s this power unit, with its four valves per cylinder, was used with great success in world-class rallying, where it delivered nearly 400 bhp.

With a power-weight ratio of 6.9 kg/kW (5.1 kg/bhp), the Avant RS2 is a quite outstanding performer: this potent estate car sprints from 0 to 80 km/h in only 3.9 seconds, reaching 100 km/h after 5.4 seconds. Its top speed is 262 km/h.

The free-revving turbocharged engine with its ample torque combine harmoniously with the sports ratios of the six-speed gearbox, with its light shift action.

The power developed by this high-performance unit is translated into forward travel in its ultimate form, thanks to permanent four-wheel drive. The variable torque split from the Torsen interaxle differential ensures that more power is directed to whichever pair of wheels has the better contact with the road surface and can therefore achieve the greater tractive effect. Even when accelerating hard, four-wheel drive keeps the car reliably on course, so that it responds predictably and no involved steering manoeuvres are needed.

As a result, this dynamic four-wheel-drive high-performance estate with its exceptionally effective brake system is very easy, stimulating and enjoyable to drive.

**Power pack:
turbocharged five-cylinder
developing 232 kW (315 bhp)**

Audi's robust, tried-and-tested five-cylinder engine with a displacement of 2226 cm³ reveals its exceptional power reserves in the Avant RS2: in standard form, this turbocharged engine with four valves per cylinder, charge-air intercooling and electronic boost pressure control has a power output of 232 kW (315 bhp) at 6500 rpm.

It is a free-revving unit with an exceptionally high amount of torque at the driver's disposal. It develops 400 Nm across a wide rev band from 2800 rpm to 4900 rpm, and peak torque of 410 Nm is available from 3000 rpm upwards. This is an agile, remarkably flexible engine that possesses tremendous pulling power.

It is based on the unit used in Audi's S2 models, which develops 169 kW (230 bhp). The higher power output was achieved by modifying the air intake and exhaust systems and by using a modified turbocharger and a larger charge-air intercooler. The engine management system and the valve timing have also been precision-tuned.

The turbocharged engine, with a compression ratio of 9.3, is designed to run on premium plus fuel (98 RON). Since it has selective knock control with two knock sensors, it can also run on Euro-Super (95 RON) with only a slight loss of power. The fuel consumption figures are 14.3 litres per 100 km for the urban driving cycle, 7.7 litres/100 km at a constant 90 km/h and 9.2 litres/100 km at a constant 120 km/h (according to 80/1268 EEC).

Permanent four-wheel drive for refined driving pleasure

The Avant RS2's impressive level of refinement owes much to the permanent four-wheel drive system, which transmits the engine's copious power reliably to the road surface.

The race- and rally-proven four-wheel drive system, with self-locking Torsen interaxle differential, guarantees optimum traction, excellent cornering stability and a neutral self-steering response. To assist in pulling away when road conditions are difficult, the rear-axle differential can be locked manually. It is automatically released if a speed of 25 km/h is exceeded.

The power-assisted rack-and-pinion steering has a very direct ratio, for precise steering control and directional stability. The system has been tuned for precise handling and plenty of road "feel" at the steering wheel.

Whereas no major modifications to the four-wheel drive were required despite the turbocharged engine's impressive power, this necessitated the use of high-performance brakes. Porsche's competition-tested high-performance brakes are used on the Avant RS2, for outstanding rates of deceleration. The brake calipers have a characteristic red outer housing with Porsche lettering.

Avant RS2:

Dramatic appearance, sports interior equipment and trim

The Avant RS2's external appearance is entirely in keeping with its spirited five-cylinder turbo engine. The nose has large air intake apertures, to allow sufficient air to reach the charge-air intercooler and cool the front brakes. Typical Porsche styling features have been included in the form of narrow fog lights at the front and Porsche's aluminium wheels and door mirrors. The red, blue and silver RS2 emblem adorns the front and rear of this high-performance estate car, alongside the Porsche lettering.

The dynamic overall impression created by the Avant RS2 is enhanced by the striking rear section with continuous light strip and another typical Porsche feature, the low licence plate position.

The lowered sports suspension has firm settings. Extra-wide 245/40 ZR 17 tyres on 7 J x 17 light-alloy wheels reflect the fact that the Avant RS2 is an exceptional car in terms of both engine power and visual presentation.

The Avant RS2's sporting look extends to the interior, with satin-finish napa leather seat upholstery in anthracite as standard.

A luxurious interior trim is available exclusively for the RS2 Avant at no extra cost; the centre panels of the seats are upholstered with alcantara fabric in blue or silver-grey, as are the door trims.

Recaro sports seats with electric height and seat-back adjustment for the driver and front passenger provide excellent lateral support and comfort.

The RS2 emblem and Porsche lettering adorn the leather-covered three-spoke Audi steering wheel, which contains a full-size airbag. A front passenger's airbag is also fitted as standard.

All the analogue instrument dials are in white, with black surrounds on the four main instruments. Carbon-fibre inserts on the instrument panel and door trims add to the dynamic appearance of the interior.

The standard specification includes electric window lifters at front and rear, four sports headrests, electrically adjustable and heated exterior mirrors designed by Porsche, an auto-check system and on-board computer, an electronic immobiliser, headlight washers and of course the fully-galvanized bodyshell.

There is also a range of optional extras, including roof rails, automatic air conditioning, an electric sliding/tilting sunroof, cruise control and a dividing net for the luggage compartment.

Walter Röhrl:

"Engine power, road behaviour, brakes:
the perfect match"

Walter Röhrl, three times world rally champion, is enthusiastic about the RS2. "The car is very responsive and genuinely easy to drive. You simply touch the accelerator, and the RS2 with its permanent four-wheel drive goes where the steering tells it to. Despite its high performance, I find the Avant RS2 absolutely stress-free to drive. This is what's so fascinating about it."

Walter Röhrl on the subject of suspension settings, on which he is an accepted expert: "The Avant RS2 understeers slightly when it's close to the handling limit. You just ease off the accelerator and the car comes back on course. It responds so good-naturedly. The brakes are very substantial indeed for a roadgoing car. I'm glad the manufacturers decided to use this high-performance concept on the Avant RS2."

The engine and gearbox also met with definite approval: "The response of the turbocharged engine is sensational, especially when pulling hard at the lower end of the speed range. Plenty of torque and all this engine power are the perfect match for the six-speed sports gearbox. But if you want to, you can just let the Avant RS2 cruise along in sixth gear."

In conclusion, the world rally champion remarked: "In this day and age, one of this model's biggest advantages is that it looks like normal family transport but performs like a thoroughbred sports car. The Avant RS2 is a real alternative to a sports car, but one with plenty of space for people and luggage. The power, road behaviour and brakes all blend together - they're a perfect match for each other."

The Avant RS2: technical data

Specification for Germany

Status: November 1994

Engine and electrical system

Engine type	Five-cylinder inline engine, DOHC
Effective displacement, cm³	2226
Bore x stroke, mm	81.0 x 86.4
Max. power output, kW/rpm acc. to 80/1269 EEC (bhp)	232/6500 (315)
Max. torque, Nm/rpm acc. to 80/1269/EEC	410/3000
Mixture preparation and Ignition system	Electronic multipoint injection with integral map ignition; exhaust-driven turbocharger; charge air intercooling; solid-state high-voltage ignition distribution; 5 coils; selective knock control; 2 knock sensors; fuel shutoff on the overrun
Compression ratio	9.3
Fuel grade	Unleaded premium plus, 98 (RON); alternatively unleaded premium, 95 (RON), in which case power output slightly lower
Exhaust emission control acc. to 91/441 EEC, with	2 catalytic converters, heated oxygen sensor
Alternator/battery, A (Amp/h)	120/300 (63)

Drive system

Drive principle	Permanent four-wheel drive
Clutch	Hydraulically actuated single dry-plate clutch with asbestos-free pads; double-mass flywheel
Gearbox	Six-speed manual gearbox, all-synchromesh
Ratios, 1st gear	3.500
2nd gear	1.889
3rd gear	1.320
4th gear	1.034
5th gear	0.857
6th gear	0.711
Reverse	3.445
Final drive ratio	4.111

Suspension

Suspension	Sports suspension
Front	Track-stabilizing McPherson spring-strut front suspension with triangulated lower wishbones, anti-roll bar
Rear	Double-link rear suspension, control arm, anti-roll bar
Steering, type/ratio	No-maintenance rack-and-pinion steering, power-assisted/14.5
Wheel size	7 J x 17 light-alloy wheels, Porsche design
Tyre size	245/40 ZR 17
Brake system	Disc brakes with four-piston brake callipers at front and rear, ABS
Brakes, front/rear	Ventilated discs; servo and power regulator (pressure-dependent)

Body

Vehicle body; comfort dimension, mm	Unitary design, fully galvanized; deformation zones at front and rear, additional reinforcing bars in side doors; 5 doors; 1882
Seat width/seat depth/elbow width at front, mm	510/504/1369
Seat width/seat depth at rear, mm	1360/442
Length/width/height, mm; cu x A	4510/1695/1386; 0.36 x 1.94 m²
Exterior noise levels: stationary/drive-past, dB(A)	82/73
Luggage area volume, l (VDA); loading width/lip height, mm	370, with seat back folded down: 1200; 1073/608
Wheelbase: track, front/rear, mm	2597, 1448/1474
Turning circle, app. m; max. ground clearance, mm	11.5; 101
Unladen weight/gross weight limit, kg	1595/2100
Axle load limit, front/rear, kg	1100/1110
Trailer load limit, braked, 12/8 % gradient/unbraked, kg	1600/1800/640
Roof load limit/nose weight limit, kg	75/50

Performance/fuel consumption

Vmax, km/h	262
V/1000 rpm in top gear, km/h	39.6
Acceleration, 0-80 km/h/0-100 km/h, s	3.9/5.4
Fuel consump., 90/120 km/h/urban cycle (80/1268/EEC), l/100 km	7.7/9.2/14.3

Maintenance/warranty

Filling capacities: engine oil + filter/coolant + heating, l	4.5/8.5
Fuel tank, l/activated charcoal filter (ACF)	64 (ACF)
Intervals: inspection/oil change, km	30,000/15,000 (max. 1 year)
Warranty: vehicle/paint/rust penetration, years	1 (no distance limit)/3/10