

Corporate Communications Department

Audi Australia Pty Ltd  
895 South Dowling St  
Zetland NSW 2017

June 2012

## **The Audi A4 – bestseller with new strengths**

Summary	2
At a glance	6
Full version ---Exterior design	7
Body	8
Interior	9
Engines	11
Drivetrain	14
Chassis	16
Driver assistance systems	18
Multimedia systems	19
Pricing	20

## Summary

### **A successful car is now even more attractive --the new Audi A4**

**A bestseller is now even more attractive: Audi has updated the A4 model series. New drivetrain, chassis and infotainment solutions, along with an even more attractive design, attest the “Vorsprung durch Technik” achieved by the A4 Sedan, the A4 Avant and the S4.**

The A4 is the best-selling Audi model. Now in its eighth generation, it is the focal point of the brand. Over the last 39 years, Audi has sold roughly 10 million units of the A4 and its predecessor, the Audi 80. All variants of the model series - --Sedan, Avant and S4 --have now been extensively updated.

The design is even cleaner and more distinctive. The horizontal lines at the front are more pronounced, and the engine hood is more arched. The upper corners of the single-frame grille are tapered, and the cross ribs and the Audi rings are highlighted three-dimensionally. Depending on the version, the grille is either grey or black. The redesigned bumpers are striking with their angular air inlets, their new grilles and - in the Sedan and the Avant - --the flat front fog lights.

The headlights have also been updated. Their lower edge forms a subtle wave; their interior has been restructured. With the optional xenon plus headlights, the LED daytime running lights form an elegant clasp. Audi also offers the adaptive light system with dynamic cornering light and static turning light.

The design of the headlights carries over to the tail lights, which are optionally available with LED strips. The bumper with the diffuser insert has been redesigned. There is a selection of 15 paint finishes, including six new tones. The S line exterior package is available as an option for the Sedan and the Avant.

### **Interior**

The interior of the A4 models is now more elegant than ever. Audi offers a wide range of newly designed steering wheels, including a flat-bottomed leather sport steering wheel. Many control elements are framed in narrow chrome clasps; the steering column stalks and the ignition key have been redesigned.

The ergonomics have been painstakingly fine-tuned. The MMI navigation plus infotainment system now has just four buttons; the volume knob now includes a skip function. Other improvements concern operation of the automatic transmission, the heated seats and air conditioning system, Audi drive select and the leather multifunction steering wheel.

Excellent workmanship and tasteful colour and trim selections are a given with Audi. All interior colours - --except black ---have been re-coordinated. The upholstery range has also been revised, with Fine Nappa leather replacing Valcona leather as an option.

The new, one-piece fascia of the instrument cluster is colour-coordinated with the interior. Inlays are available in Aluminium Trigon, with Walnut Dark Brown, Fine Grain Ash Natural and Beaufort Oak layered wood available as options. The S line sport package available for the Sedan and the Avant drapes the interior in black and accentuates it with elegant applications. 18-inch wheels and a sport suspension that lowers the vehicle body by 30 millimetres round out the package.

### **Engines**

The Audi A4 update has reduced fuel consumption levels by 15 percent on average, despite the increased power and torque of many of the engines. The Sedan and the Avant are available with a choice of three TDI and four petrol engines. All engines feature forced induction and direct injection for tremendous pulling power, and all come standard with the start-stop system.

The A4 series also presents the very latest developments in petrol engine technology. A new highlight of the TFSI family is the new 1.8-litre engine, available for the Sedan and the Avant. This four-cylinder unit features major innovations in a number of areas: the control of the valves and their lift, the thermal management concept, the injection system, the turbocharger and the integration of the exhaust manifold into the cylinder head.

### **Drivetrain**

The wide range of drivetrains available in the A4 family is typical of Audi. A continuously variable transmission is standard on the Sedan and Avant models with front-wheel drive. The quattro versions have either the manual transmission or the seven-speed S tronic on board.

All transmissions are distinguished by a wide spread of gear ratios – the long ratios in the higher gears reduce fuel consumption, while the short ratios in the lower gears provide the sporty performance expected of an Audi.

The quattro permanent all-wheel drive system is standard on the A4 2.0 TFSI, 3.0 TDI 180kW and both 3.0 TFSI variants. Torque vectoring, an intelligent software solution, uses minuscule braking interventions to further refine quattro performance. Audi also offers the sport differential as an additional module in the V6 quattro models. It actively distributes the power between the rear wheels as needed.

### **Chassis**

The chassis of the A4 impresses with its sporty precision, excellent ride comfort and outstanding safety. The characteristics of the rear trailing arms and the shock absorber have been re-tuned. New in the A4, the electromechanical power steering provides precise road feedback. The system requires no energy for straight-ahead motion,

thereby reducing fuel consumption by up to 0.3 litres per 100 km. This is equivalent to a reduction in CO<sub>2</sub> emissions of up to 7 g/km .

Another high-end feature that gives the A4 a special status in its class is Audi drive select. In the basic package, the driver can switch the characteristic of the accelerator, the shift points of the automatic transmission, the power steering and the automatic air conditioning between four modes. If there is an onboard navigation system, an additional, largely freely programmable mode is also included.

A number of optional modules round out Audi drive select: the sport differential for top versions, the chassis with adaptive damper control and dynamic steering. The latter continuously adjusts the steering ratio depending on the driven speed; at the handling limits small interventions compensate for understeer and oversteer. Audi also offers a particularly sporty version of the chassis as an option.

All front-wheel-drive models of the A4 feature the electronic stabilisation program (ESP) with electronic limited slip differential. In dynamic driving, the system further improves handling and safety by means of minimal brake interventions at the front wheel that is subject to a reduced load on the inside of the curve.

### **Assistance systems**

Audi offers numerous assistance systems for the A4 family, the latest of which is standard on all models: The driver information system with break recommendation function uses steering motions and additional parameters to detect if the driver is getting tired and recommends taking a break.

The most complex assistance system available in the model series is Audi adaptive cruise control. The radar-based system maintains the proper interval between the A4 and the car in front at all times. At speeds below 30 km/h, it initiates maximum braking in the event of an impending collision. Audi active lane assist helps the driver to maintain the lane, and Audi side assist monitors the area behind the A4 to make lane changes safer.

### **The Audi S4**

The Audi S4, available in the Sedan and Avant versions, features the top engine in the line ---the 3.0 TFSI with 245 kW and 440 Nm torque. Average fuel consumption in the Sedan is just 8.1 litres per 100 km, yet there is still tremendous performance available to the driver. The S4 sprints from zero to 100 km/h in 5.0 seconds and reaches an electronically limited top speed of 250 km/h.

The updated S4 is identifiable from the changes to the headlights, the bumpers, the air inlets and colours. Subtle updates have also been made to the interior. The most important technical advancements are quattro drive with torque vectoring and electromechanical power steering. The S sport suspension and 18-inch wheels featured on the S4 deliver outstanding road grip.

## Pricing

Manufacturer List Pricing (MLP) --excludes dealer delivery and statutory charges

A4 1.8 TFSI manual	125kW	\$52,700
A4 1.8 TFSI multitronic	125kW	\$55,500
A4 2.0 TDI multitronic	130kW	\$57,900
A4 2.0 TFSI quattro manual	155kW	\$61,700
A4 2.0 TFSI quattro S tronic	155kW	\$64,500
A4 3.0 TDI multitronic	150kW	\$68,900
A4 3.0 TDI quattro S tronic	180kW	\$88,000
A4 3.0 TFSI quattro S tronic	200kW	\$93,400
A4 Avant 1.8 TFSI multitronic	125kW	\$58,500
A4 Avant 2.0 TDI multitronic	130kW	\$60,900
A4 Avant 2.0 TFSI quattro S tronic	155kW	\$67,500
A4 Avant 3.0 TDI multitronic	150kW	\$71,900
S4 3.0 TFSI quattro S tronic	245kW	\$120,400
S4 Avant 3.0 TFSI quattro S tronic	245kW	\$123,900

## At a glance

### **The new Audi A4**

#### **Design and body**

- Two versions: Sedan and Avant, plus two S models
- Harmonious, elegant design with new sporty flourishes
- Xenon plus headlights with LED daytime running lights and LED tail lights as standard and optional equipment, depending on the model

#### **Interior and controls**

- Further enhanced ergonomics; stylish new materials and colours
- High-tech driver assistance systems, including Audi active lane assist and adaptive cruise control with full brake application below 30 km/h
- Driver information system with brake recommendation standard on all models

#### **Engines**

- Four petrol and three TDI engines; output from 125 kW to 200 kW, including an additional V6 with 245 kW for the S models
- New, highly efficient 1.8 TFSI with innovations in numerous areas
- Start-stop system standard; average fuel consumption reduced by 11 percent
- Six-speed manual, multitronic or S tronic - --depending on engine version
- quattro permanent all-wheel drive with torque vectoring; sport differential available for models with top engines

#### **Chassis**

- Rear trailing arms and shock absorbers retuned
- ESP with electronic limited slip differential standard with front-wheel drive
- New electromechanical power steering with minimal energy consumption
- Audi drive select available with as many as five driving modes
- Powerful brakes

#### **Infotainment systems**

- Broad spectrum of modules; top-of-the-line MMI navigation plus with a hard drive and refined operating philosophy

## **Even more sportiness and efficiency --The Audi A4 is now more attractive than ever**

**The best-selling Audi is now even more attractive: Audi is refreshing the A4 family. New solutions for the engines, chassis and infotainment are being added to the Sedan, Avant and S4 models, making them even more sporty and efficient. New design accents provide visual cues to their sharpened character.**

### **Exterior design**

Both body variants of the A4 family - --the Sedan and the Avant - --impress with their sporty, elegant exterior design with harmonious proportions, the long engine hood, the short overhangs and the long wheelbase. Sharp lines frame muscularly arched sheet metal surfaces integrating a flat greenhouse.

Many design details are now more striking, and the front end appears even flatter and broader. Sharp edges emphasize the three-dimensional tension of the engine hood. The single-frame grille is platinum grey. In models with a V6 engine or with the S line exterior package, it is a high-gloss black. It has tapered upper corners, and its delicate lateral bars and the Audi rings are sculpted.

The new headlights are also immediately recognisable. Their interior has been restructured, the housing is wedge-shaped and their lower edge forms a subtle wave. With the optional xenon plus headlights, the highly efficient LED daytime running lights form a narrow, homogenous clasp that largely follows the outer contour, remaining open in the area of the xenon lens. The turn signals are a strip at the upper edge. Audi also offers the adaptive light system with dynamic cornering light and static turning light.

The newly designed bumpers on all models contain large air inlets that taper inward and are framed by strong edges. They are covered by new grilles, which with the S line and S models feature a diamond pattern. Crossbars in high-gloss black divide the grilles. Rectangular fog lights are mounted in the top sections. The flat air inlet below the single-frame grille has also been redesigned.

A4 models equipped with xenon plus headlights also feature rear lights using light-emitting diodes. The turn signal is a horizontal line, and the tail light forms a low, homogenous clasp. The brake light is located beneath the turn signal.

Modifications have also been made to the Audi rings, the bumper and the diffuser insert. Depending on the engine, the standard exhaust system has either two tailpipes on the left side or one tailpipe on the right and the left.

## **Broad palette: 15 paint colours**

The updated A4 models are available in a choice of 15 colours, four of them new. The solid colours are called Brilliant Red, Brilliant Black and Ibis White. The metallic and pearl-effect colours are as follows: Cuvée Silver, metallic; Ice Silver, metallic; Glacier White, metallic; Lava Grey, pearl effect; Moonlight Blue, metallic; Monsoon Grey, metallic; Phantom Black, pearl effect; Scuba Blue, metallic; Teak Brown, metallic; and Volcano Red, metallic. There are two additional options available in combination with the S line sport package: Daytona Grey, pearl effect and Misano Red, pearl effect.

Fans of a dynamic look can order the S line exterior package for the Sedan and the Avant. The package adds specific details to the front and rear bumpers, the high-gloss black single-frame grille, the air inlets, the platinum grey diffuser and the side sill trims, which are painted in the body colour.

The door sill trims and the front fenders sport S line badges; chrome-look strips frame the fog lights; and four-cylinder models get attractive tailpipe trims. The S line exterior package adds a roof spoiler to the A4 Avant.

Another option available from Audi for the A4 Sedan and the A4 Avant is the high-gloss package, with which the window capping strips and the roof frame are made of Aluminium. A third alternative is the Audi exclusive black styling package, which bathes the window capping strips and other bolt-on parts in matt black.

## **Body**

The Audi A4 is a practical mid-size car that combines handsome exterior proportions with short wheel overhangs with generous interior space. The Sedan and the Avant measure within 2 millimetres of one another - both are 4.70 metres long. The Sedan and Avant are 1.83 metres wide; height is 1.42 metres and 1.44 metres for the Sedan and Avant respectively.

The body of the A4 showcases a classic Audi strength - --the intelligent hybrid construction with high-end materials. The crossmember behind the front bumper, for instance, is made of aluminium. Conventional deep-drawing steel accounts for only 38 percent of the weight of the sedan. High-strength grades account for 32 percent and ultra-high-strength steels for 18 percent. The remaining 12 percent are hot-shaped steels, which get their extreme tensile strength from a dramatic temperature increase during shaping.

Hot-shaped steels account for 34 kilograms of the weight of the body-in-white of the Audi A4. Thanks to their relatively low wall thicknesses, they save nine kilograms. Used at the frontwall crossmember, the centre tunnel, the B-pillars and the inside sills, hot-shaped steels form a strong structure in the occupant cell. In a crash, they transfer the forces in such a way that the dissipation of energy poses the least possible risk to the occupants.



Audi uses a special structural adhesive in many areas to assemble the body; 95 metres of bonded seams overall further enhance the rigidity of the joint. In the doors and at the sills, another high-end technology is used: remote laser welding. An invisible seam produced by plasma brazing joins the side of the car to the roof. This seam is extremely precise and thus virtually invisible, so that the A4 does not need roof trim strips.

The low weight of the body is the foundation of the ultra-lightweight construction concept of the A4. Equipped with the 1.8 TFSI, the Sedan has a kerb weight (without driver) of just 1,470 kg. The body also achieves excellent values for rigidity, vibrational comfort and crash safety, with a maximum five-star Euro NCAP rating.

The restraint systems of the A4 are precisely coordinated with the deformation properties of the sheet metal. When activated in the event of a crash, the retention system considers the seating position of the driver and front passenger so that persons of all sizes are well protected. The system also includes standard side airbags in the front, rear and head airbags.

The integral head restraint system diminishes the risk of whiplash in the event of a rear-end collision by supporting the upper body parts and heads of front-seat passengers. And the seatbelt tensioners ensure that passengers remain safely seated during a severe rear-end collision. ISOFIX child-seat anchors are standard for the rear seats and optionally available for the front-passenger seat.

The base version of the updated A4 Sedan has a front surface area of 2.20 m<sup>2</sup>. Its coefficient of drag is just 0.27 - --a result due in part to the underbody, which is largely covered with plastic panels. The engine compartment has been specifically optimized for low-turbulence flow.

## **Interior**

Perfect functionality and generous amounts of space - --the interior of the A4 models is now sportier, with flowing lines and an open, elegant and clean look. The uncompromising Audi quality philosophy is reflected in the choice of materials and how they are used.

The front seats, both of which are height-adjustable, provide excellent hold and support. Options (and standard equipment on some models) include power adjustment, power-adjustable lumbar support, a memory function for the driver's seat, heated seats and a sliding front centre armrest with storage compartment. Passengers in all five of the easily accessible seats have ample head, shoulder, leg and footroom.

Three individual variants complete the range. The sport seats have large side bolsters, a power-adjustable lumbar support and an extendable thigh rest. Small fans provide ventilation to the luxuriously upholstered climate-controlled comfort seats; automatic heating guards against excessive cooling.

Cup holders and storage compartments are provided in the door pockets, the centre console and the folding rear armrest. Audi offers optional storage nets for the backs of the front seats, cup holders for the rear seats and a storage package. Its most important elements are two seat nets and two storage bins beneath the front seats.

### **New compositions: colours and materials**

The range of interior colours, materials and exclusive trimmings has been tweaked once again as part of the A4 family update. The new, one-piece fascia of the instrument cluster comes standard with a high-quality Grey finish. The fascia on the centre console around the air conditioning and radio is painted high-gloss black.

A wide variety of inlays are available as standard or optional equipment, depending on the model: Steel Grey Reflex or Moor Brown is fitted as standard on the entry-level models. Audi also offers a number of special materials as options: Aluminium Trigon and the woods Walnut Dark Brown and Fine Grain Ash Natural Brown. Beaufort Oak layered wood veneer is particularly eye-catching.

The Audi interior designers have also remixed the colour palette. With the exception of black, nearly all colours for the headlining, carpeting, instrument panel, door trims and upholstery are new. The following colours are available (depending on model): Grey, Chestnut Brown, Lunar Silver, Moor Brown, Pashmina Beige, Velvet Beige, Black and Titanium Grey.

A combination of natural and man-made leather upholstery is standard for the seats on the entry-level models. Audi offers Fine Nappa leather as an option: it is part of the Audi exclusive range and replaces Valcona. With this option, the door armrests are also covered in leather. Leather packages and arrangements from the Audi exclusive range round out the upholstery lineup.

Another option is the S line sport package. Available for the Sedan and the Avant, it lends the interior a cool black look. Contrasting grey stitching accentuates the sport seats, the floor mats, the leather sport steering wheel and the shift or selector lever. The inlays are in Matt Brushed aluminium. The S line sport package includes badges on the body and on the door sill trims

The Audi exclusive range includes further customisation options for colours, materials and control elements. Particularly attractive is the stylishly composed Audi exclusive line with two-tone upholstery in Alabaster White, Cognac and Cloudy Grey. This option can now also be combined with the S line sport package.

### **Even easier: operation**

Operation of the A4 has become easier. The ignition key, the steering column stalk and the three-spoke leather sport steering wheels have been redesigned and now include chrome and high-gloss inlays. Options include a steering wheel with a flat-bottomed rim, shift paddles for the automatic transmission on the steering wheel and new

multifunction buttons that follow an intuitively comprehensible logic. The mute and navigation information functions are new here.

The air conditioning and infotainment controls have fine chrome clasps. The same is true for the power window buttons, the air vents and the switches for the power seats. Buttons allow you to switch among three settings for the optional seat heating and seat ventilation systems; the centre console's displays are illuminated in white throughout.

The automatic transmission is operated using a new selector lever. It is now easier to switch into S mode - --a single pull on the selector lever is all it takes. And just one button now suffices for controlling the optional Audi drive select. Operation of the highly efficient automatic air conditioning system has also been tweaked, and the three-zone deluxe automatic air conditioning system features a new particulate filter with a finer fleece.

### **Versatile: the cargo areas**

Both body versions of the A4 have large cargo areas. The Sedan has a luggage capacity of 480 litres, whereas the Avant offers 490 litres. There is no difference between front-wheel drive and quattro models. The low loading lip and the straight side walls make it very easy to utilise this space.

The split rear seat backs standard in all models can be folded down in just two steps. The head rests do not have to be removed. This increases the cargo volume to 962 and 1,430 litres respectively. The tie-down rings are made of solid metal and are chrome-plated.

The tailgate of the Audi A4 Avant opens high enough that even tall persons can stand beneath it. The partition safety net and the cargo area cover, which slides upward with a gentle push, are stored in separate cartridges. Roof rails and a reversible cargo floor are standard in the A4 Avant. As with the Sedan, a load-through hatch with a ski and snowboard sack is available as an option.

Audi offers a number of additional practical features as options for the A4 Avant - --a reversible mat, an electromechanical drive for the tailgate and the cargo area package. The cargo area can be flexibly divided using the latter's rails, telescoping rod and belt. The trailer hitch and racks for bikes, snowboards and skis are designed for the sporty, active customers of both models.

### **Engines**

The engines used in the A4 model series - --three TFSI petrol and two TDI units - --combine sportiness and efficiency in the way that only Audi can. All engines follow Audi's downsizing principle. They feature forced induction and direct injection for tremendous pulling power. The entry-level four-cylinder engine produces 320 Nm of torque. The start-stop system is standard for all models. CO<sub>2</sub> emissions have decreased

by 11 percent on average across the board, with the individual reductions as high as 19 percent. At the same time, performance has increased with many of the engines.

### **Thoroughly redesigned: the 1.8 TFSI**

Even the lowest-displacement engine in the lineup, the 1.8 TFSI, demonstrates Audi's engine expertise to the full. Audi development engineers have thoroughly enhanced the four-cylinder unit and created new solutions regarding numerous aspects of engineering. The results are powerful performance and astonishingly low fuel consumption. The high-end four-cylinder unit has a torque curve similar to that of a TDI. Maximum torque of 320 Nm is available at just 1,400 rpm and remains constant up to 3,700 rpm. Maximum output of 125 kW is achieved at just 3,800 rpm.

The 1.8 TFSI accelerates the Audi A4 Sedan manual from zero to 100 km/h in 8.1 seconds on its way to a top speed of 230 km/h. Yet it requires just 5.7 litres of fuel per 100 km on average --a CO<sub>2</sub> equivalent of 134 grams per km. Consumption has been reduced by a full 18 percent compared with the previous-model engine that produced 118 kW.

A major innovation in the 1.8 TFSI is the addition of indirect fuel injection. Complementing FSI direct fuel injection, it is active at part-load, where it reduces fuel consumption and particulate emissions. FSI direct fuel injection comes into play when starting and at higher loads. The Audi engineers achieved new degrees of freedom when it comes to charging efficiency in the combustion chambers. Both camshafts can be adjusted as needed, plus the Audi valvelift system adjusts the lift of the valves on the exhaust side to minimize gas exchange losses.

The innovative thermal management system features a further innovation: Two rotating cores control the flow of coolant. These valves ensure that the engine oil heats up to its operating temperature soon after the vehicle is started; they also maintain the coolant temperature, as per a given driving situation, between 85 and 107 degrees Celsius. As a result ---regardless of load or engine speed - --the valves always strike the perfect balance between minimal friction and high thermodynamic efficiency.

The exhaust manifold of the compact four-cylinder unit is integrated into the cylinder head, where it is bathed in water. This solution reduces the exhaust gas temperature. The turbocharger is also a new development. Its most important innovation is an electric wastegate actuator that adjusts the boost pressure particularly quickly and precisely, optimizing engine response.

Despite all the new technologies and the added performance, Audi has reduced the weight of the 1.8 TFSI from 135 to 131.5 kilograms. Internal friction has also been significantly reduced by the use of an innovative coating on the piston skirts and by mounting the two balance shafts that provide for smooth operation in roller bearings. The regulated oil pump requires little energy itself, and a high-precision electric system controls the piston heads with jets of oil.

### **The TFSI: from 155 kW to 200 kW**

The 2.0 TFSI, a born winner that was named Engine of the Year five times in a row from 2005 through 2009, is the mid-range petrol engine in the A4 portfolio. Its highlights include adjustable intake camshafts, the Audi valvelift system at the exhaust end, two balance shafts, minimized internal friction, the turbocharger and the regulated oil pump.

The 2.0 TFSI delivers 155 kW and 350 Nm of torque, the latter between 1,500 and 4,200 rpm. Paired with the six-speed manual transmission and quattro drive, it accelerates the A4 Sedan to 100 km/h in 6.5 seconds on the way to a top speed of 246 km/h. Its average fuel consumption is 6.8 litres per 100 km, which corresponds to 159 grams of CO<sub>2</sub>/km.

The most powerful petrol engine is the supercharged 3.0 TFSI. The supercharger located in the 90-degree V of the cylinder banks is belt-driven by the crankshaft. Two opposed pistons inside the supercharger rotate at over 20,000 rpm, with the air gap between them measuring just a few thousandths of a millimetre. The compressor first compresses the intake air to as high as 0.8 bar before it is subsequently cooled down again by two intercoolers.

The compressor is behind the throttle valve, which boosts the former's efficiency. The gas travel paths behind the compressor are short so that torque is generated early and quickly. An extensive array of measures makes the supercharger run quietly.

A balance shaft in the engine's light-alloy crankcase enhances smooth running. Adjustable intake camshafts and tumble flaps in the intake ports provide for good charging efficiency in the combustion chambers.

Its willingness to rev, its pulling power and its cultivated, sonorous sound make the 3.0 TFSI a sporty and dramatic engine. It generates 200 kW and a brawny 400 Nm of torque between 2,250 and 4,750 rpm. The A4 Sedan completes the standard sprint in just 5.4 seconds, and top speed is limited to 250 km/h. Standard fuel consumption is just 8.1 l/100 km, corresponding to CO<sub>2</sub> emissions of 190 grams per kilometre. A second version of the 3.0 TFSI, with 245 kW, powers the S models.

### **Powerful and highly efficient: The TDI engines**

TDI engines from Audi stand not only for high efficiency, but also for a smart, modern type of sportiness. Their powerful performance, immense torque, low fuel consumption and cultivated operation combine for a harmonious overall impression.

Even the 2.0 TDI is a powerful engine. The four-cylinder 130 kW engine is available with the multitronic continuously variable transmission. The technical specialties of this engine include low internal friction, a turbocharger with adjustable vanes, and a new centrifugal governor in a dual-mass flywheel. Thanks to its sophisticated design, the flywheel only requires a slight mass to compensate for most of the vibrations

caused by the engine. This makes the engine even smoother at low revs, which permits earlier upshifts and thus more efficient driving. Fuel consumption decreases by as much as 0.2 litres per 100 km.

### **Powerful and cultivated: the V6 TDI unit**

At the top of the TDI range are two cultivated V6 diesel units with a displacement of 3.0 litres. Their most important features are the weight of just over 190 kilograms, the energy-saving chain drive, low internal friction, the regulated oil pump and particularly sophisticated thermal management. The crankcase and the cylinder heads have separate coolant circuits connected to one another via valves.

The 3.0 TDI with 150 kW is the most efficient V6 diesel we have ever built. Audi specifically designed it for maximum fuel efficiency: from the camshafts' control times through the turbocharger to the common-rail system providing injection pressure up to 2,000 bar.

The 3.0 TDI produces 400 Nm of torque between 1,250 and 3,500 rpm. It propels the Sedan with multitronic from 0 to 100 km/h in 7.1 seconds en route to a top speed of 235 km/h. It averages just 4.9 litres of fuel per 100 km, with CO<sub>2</sub> emissions of 129 g/km.

The most powerful version of the 3.0 TDI - --generates 180 kW and 500 Nm of torque, with the latter available between 1,400 and 3,250 rpm. With this engine, the sedan completes the standard sprint in 5.9 seconds and reaches an electronically limited top speed of 250 km/h. Average fuel consumption is just 5.7 litres of fuel per 100 km, which corresponds to 149 grams of CO<sub>2</sub>/km.

### **Drivetrain**

Audi offers the perfect transmission for every engine version in the A4 family - --ranging from a six-speed manual transmission through a continuously variable multitronic to a sporty seven-speed S tronic. All transmissions are characterised by high efficiency, precise operation and a wide gear spread. The lower gears feature short, sporty ratios, while the upper gears are long to reduce revs and fuel consumption.

With all transmissions the differential is located in front of the clutch, shifting the front axle far forward. The positive results are a long wheelbase of 2,808 millimetres and a balanced axle load distribution.

The total weight of the six-speed manual transmission in the updated Audi A4 is low, and the selector fork bearings decouple the shift lever from vibrations. An on-board computer with efficiency program, standard across the entire model family, integrates a gear-change indicator for manual transmissions.

The manual transmissions paired with the four-cylinder engines are integrated into the innovative thermal management system. A heating loop in the heat exchanger ensures that the transmission fluid is quickly brought up to temperature following a cold start.

When the engine's cooling water is hot enough, a portion of it flows to the transmission.

The multitronic is always paired with front-wheel drive in the A4 model series. This continuously variable transmission allows the engine to almost always operate at its optimal efficiency ratio. It offers dynamic drivers a sport program with shorter gear ratios and a manual mode with eight fixed gear ratios. It can also be shifted via the optional paddles on the steering wheel.

### **Lightning-fast: the seven-speed S tronic**

The sportiest transmission in the A4 model series is the seven-speed S tronic, which is always paired with quattro permanent all-wheel drive. It is available in the 2.0 TFSI quattro, the 3.0 TFSI quattro and the 3.0 TDI quattro with 180 kW.

The seven-speed S tronic consists of two sub-transmissions, which are alternately actuated by two clutches. The direct shifts are executed by this dual-clutch transmission; they take just a few hundredths of a second and are so smooth as to be almost imperceptible. The electronic control system offers a fully automatic mode, with two types of operation: D (Drive) and S (Sport). Drivers can shift as they please, including via the shift paddles on the steering wheel.

### **Better traction: quattro permanent all-wheel drive**

The quattro technology that comes standard in engines from 155kW operates by purely mechanical means and therefore entirely instantaneously. It represents the ultimate in driving dynamics, traction, driving safety and straight-line stability.

The central component in the quattro drivetrain is the self-locking centre differential. Under typical driving conditions, the planetary gear distributes a majority of the engine's power to the rear for sportiness - --40 percent to the front axle and 60 percent to the rear axle. If one wheel slips, most of the power goes to the other axle. Up to 70 percent can flow to the front wheels and up to 85 percent to the rear wheels.

Audi combines the self-locking center differential with torque vectoring in the updated A4. This intelligent software solution will detect and respond if an inside front wheel is at risk of losing grip while the vehicle corners at a high speed. It brakes the wheel very slightly before this can happen, making handling even more fluid and traction even stronger.

In the 3.0 TDI quattro, 3.0 TFSI quattro and the S models, the quattro drive system can be supplemented with the sport differential, which actively distributes the power to the rear wheels during dynamic driving. This is accomplished by means of superposition gears operated via multi-plate clutches. They rotate roughly ten percent faster than the drive shaft. When the clutch engages, it applies the higher revs to the wheel on the outside of the curve. The additional torque required in order to rotate faster is drawn away from the inside wheel via the differential.

In faster cornering, the sport differential literally pushes the A4 into the radius. The system's electronic controller is integrated into Audi drive select and can be switched between multiple characteristics. When the sport differential is on board, the torque vectoring function acts only on the front wheels.

## **Chassis**

The chassis also demonstrates the technological expertise that Audi is investing in the A4 family. All models, from the entry-level A4 to the S4, provide the driver real enjoyment with their combination of cornering grip and poise, remaining stable with virtually neutral handling at the upper limits. The composed straight-line tracking and high rolling comfort round out the sporty, balanced impression. The A4 models have a wide track. It measures 1,564 millimetres up front in the Sedan and Avant; at the rear these figures are 1,551 millimetres and 1,574 millimetres, respectively.

To reduce the unsprung masses, numerous front suspension components are made of aluminium. Audi uses the lightweight material for the integral frame for the engine and axle, which is firmly bolted to the front section of the car for increased rigidity; for the bearing mount that links the upper suspension control arms with the body; for the pivot bearing; and for the five control arms per wheel. The five-link design can handle longitudinal and lateral forces separately. Their bearings are stiff in the lateral direction, fostering sporty precision; on the other hand, the bearings are comfortably pliable in the longitudinal direction. A tubular anti-roll bar also cuts down on weight.

One innovation in the A4 model series is the highly efficient electromechanical power steering, which adapts its boost to the driven speed. The electric motor integrated into the steering gear consumes no energy when driving straight ahead, which depending on the engine lowers fuel consumption by as much as 0.3 litres per 100 km (7 grams CO<sub>2</sub> per km). The concentric arrangement of the steering rack and the servo drive minimizes the dimensions of the steering gear.

The new electromechanical power steering works closely together with the optional Audi active lane assist system. The steering ratio of 15.9:1 is sporty and direct, and the steering gear transfers the input directly to the wheels. Feedback from the road is spontaneous and responsive: traction forces and disruptive forces are practically imperceptible. The Audi A4 has a turning circle of approximately 11.5 metres.

The rear axle is a track-controlled trapezoidal-link construction that combines low space requirements with excellent driving and comfort qualities. A flexurally and torsionally rigid steel subframe connected to the body via hydraulic bearings constitutes the ultra-strong backbone. Two hollow trapezoidal links, the wheel carriers, the overhead control arms and the tie-rods are made of aluminium; a lightweight section serves as an anti-roll bar.

The springs are supported directly by the wheel carriers and are spatially separately from the twin-tube, gas-pressurized shock absorbers to facilitate excellent body control. The shock-absorber tuning and the arrangement of the rear trailing arms are



more finely tuned than ever before - --which enhances not only ride comfort but also the sporty precision of handling.

A sport suspension is available as an option for both the Sedan and the Avant. It is also available with adaptive damping control. The CDC (continuous damping control) shock absorbers include electromagnetically actuated valves that control the flow of hydraulic fluid between the shock absorber tubes.

This makes a sporty driving style possible as well as enabling a comfort-oriented configuration, which may be preferred on long highway journeys, for example. The central control unit computes the flow for each shock absorber separately every few milliseconds, taking into consideration the road conditions, the driver's style and the mode chosen in Audi drive select.

### **High-end technology: Audi drive select**

Audi drive select is one of the high-end features in the A4 model series. In the basic package, it enables the driver to modify the characteristic of the accelerator, the shift points of the automatic transmission and the power steering boost at the push of a button. Additional components can be integrated into the system as options, including the sport differential (optional on the six-cylinder engines), the damper control, the dynamic steering and adaptive cruise control.

Audi drive select offers the driver the choice between comfort, auto, dynamic and efficiency modes. The latter mode is new. It also influences the air conditioning and the optional adaptive cruise control or the conventional cruise control system. If the vehicle is equipped with the MMI navigation system, an additional mode, individual, is also included. It allows the driver to specify, within certain limits, their very own profile of preferred settings.

The dynamic steering, which is also electromechanical, uses a superposition gear so that the steering ratio can be varied by nearly 100 percent. Under city-driving conditions, the ratio is very direct; at high speeds, an indirect steering ratio supports smooth straight-line stability. The system supports the driver when cornering at the handling limits, if necessary, reducing both oversteer and understeer by means of load changes.

### **Braking**

Powerful brakes are located behind the large wheels. Depending on the engine, the discs measure up to 320 millimetres up front and 300 millimetres at the rear. The two disc halves of the vented front brakes are connected by hundreds of tiny metal cubes for excellent heat dissipation. The brake pads achieve high friction rates.

A4 models with the most powerful engines feature composite brake calipers. The Aluminium piston housing dissipates the heat very well. The calipers are lightweight yet extremely rigid; the brake discs and cover plates are also very light. In conjunction with the electromechanical steering, the electronic stabilisation program (ESP) aids

drivers with braking and countersteering whenever both tyres on one side encounter a slippery surface.

ESP with electronic limited slip differential is standard for all front-wheel drive versions of the A4 series. The software solution is active during fast cornering. If the control unit detects that the inside front wheel is at risk of spinning, the control unit will moderately brake that wheel.

The excess torque flows through the differential to the outside wheel, while the difference between the drive forces causes the car to turn very slightly into the corner.

### **Driver assistance systems**

Audi offers an attractive portfolio of assistance systems in the A4 family. Four of them are available as options. The driver information system with break recommendation comes standard in all models. It can contribute a great deal towards road safety, since about one fourth of all traffic accidents can be attributed to driver fatigue.

The driver information system with break recommendation continuously observes the driver's steering movements and activation of the gearshift and gas pedal. It thus computes and stores a profile unique to the driver. If the system's control unit detects that the driver is deviating from their profile - --the steering wheel is hardly being used, for instance - --visual and audible alarms are triggered. In operation at speeds above 65 km/h, the system can be deactivated - --like all Audi assistance systems - --at any time.

### **With new capabilities: adaptive cruise control**

The adaptive cruise control (ACC) is the most complex of the optional driver assistance systems available in the model family. At speeds between 30 and 200 km/h, the radar-based system maintains a specified interval between the A4 and the vehicle ahead by accelerating and braking autonomously within certain limits. The driver can switch between four settings to specify the extent to which the system should be comfortable or sporty; following distance can likewise be set to one of four levels.

ACC also features the integrated Audi braking guard. The system warns the driver if the radar sensor of the A4 detects an impending collision with the vehicle ahead. The intensity of the warning varies with the danger of the situation. A gong-like chime and a red signal lamp on the driver information system's display constitutes the first level of warning. At the same time, the brake system is pre-emptively refilled and the brake pads are positioned close to the discs. If the driver now steps on the pedal, braking is practically instantaneous.

If the driver does not react, however, the second warning level causes the system to briefly brake the vehicle - --an attention-grabbing jolt for the driver. If the driver now brakes but does not sufficiently depress the brake pedal, the hydraulic brake assist will boost the braking force as merited by the given situation. If the driver fails to react at all, the system partially brakes on its own to decelerate the A4 by approximately 3 m/s<sup>2</sup>.

In an emergency at speeds below 30 km/h, the Audi A4 will apply the brakes with full power ---regardless of whether the vehicle ahead is stationary or in motion. At speeds below 20 km/h, this full braking generally prevents the accident altogether. In other cases, it greatly reduces the impact speed, thus reducing the severity of the accident. The optional Audi side assist helps the driver when changing lanes. At speeds of 30 km/h and above, radar sensors at the rear of the car monitor what goes on behind the A4.

If another vehicle enters the blind spot or rapidly approaches from the rear, a yellow LED indicator in the outside mirror's housing will light up. If the driver nevertheless activates their turn signal, the indicator will brighten and flash rapidly.

New to the A4 model series is Audi active lane assist, which is in operation from 65 km/h. A small video camera in the interior mirror detects the lane markings on the road surface. If the A4 approaches a lane marking without the turn signal having been activated, the system gently intervenes in the new electromechanical steering to coax the driver to remain in their lane. Drivers use the MMI operating system to specify how quickly this assistance system should intervene as well as whether this should be accompanied by vibration of the steering wheel.

Audi offers a choice of three different solutions for easy parking. The top version is the parking system plus with reversing camera. It employs a fisheye lens to film the area behind the car. Images are first corrected by software and then displayed on the MMI monitor with guidance lines to help the driver steer.

### **Multimedia systems**

A modular system of multimedia components is available for all three body versions in the model line.

The standard concert radio system features a CD drive and an amplifier that delivers 80 watts to eight speakers. The dual tuner works with two antennas in order to always receive the best signal. The concert radio is based on Audi's MMI operating concept and has been paired with a 6.5-inch colour display. It also includes an aux-in connection, and an SDHC card reader.

### **Powerful media center: MMI navigation plus**

MMI navigation plus is the high-end media centre in the A4 model series. In addition to the DVD drive, it includes a 60 GB hard drive for navigation, phone and music data. A graphics processor from the specialist NVIDIA generates the three-dimensional images in top quality.

Measuring seven inches in diagonal and with a high resolution of 800 x 400 pixels, the MMI navigation plus monitor delivers tack-sharp images in brilliant colours. The advanced voice control enables the driver to spell the city and the street and also to control the telephone and music playback.

The operation of the MMI navigation plus has also been improved. The number of hard buttons for the main menus has been reduced from eight to four (for Telephone, Navigation, Radio and Media), and the volume control now includes a skip function enabling the user to skip quickly between songs. Mobile phones and mobile playback devices can be connected to the system via the Bluetooth interface so that the system can also play back music stored on them.

The Audi sound system is available as an option on entry-level models, and is fitted as standard on high-end models. At its core is a 180-watt, six-channel amplifier that powers ten speakers, including a subwoofer and a centre speaker. The Bang & Olufsen Sound System offers even great sound quality. Its 505-watt, ten-channel amplifier drives 14 high-performance speakers, whose grilles are decorated with Aluminium. In conjunction with MMI navigation plus, the system can play back DVDs in 5.1 surround sound.

A convenient standard feature for telephony is the Bluetooth interface that also allows playback of music stored on the phone in the car (in combination with MMI Navigation plus) and a Bluetooth mobile phone preparation with a hands-free unit and voice control.

### Pricing

Manufacturer List Pricing (MLP) --excludes dealer delivery and statutory charges

A4 1.8 TFSI manual	125kW	\$52,700
A4 1.8 TFSI multitronic	125kW	\$55,500
A4 2.0 TDI multitronic	130kW	\$57,900
A4 2.0 TFSI quattro manual	155kW	\$61,700
A4 2.0 TFSI quattro S tronic	155kW	\$64,500
A4 3.0 TDI multitronic	150kW	\$68,900
A4 3.0 TDI quattro S tronic	180kW	\$88,000
A4 3.0 TFSI quattro S tronic	200kW	\$93,400
A4 Avant 1.8 TFSI multitronic	125kW	\$58,500
A4 Avant 2.0 TDI multitronic	130kW	\$60,900
A4 Avant 2.0 TFSI quattro S tronic	155kW	\$67,500
A4 Avant 3.0 TDI multitronic	150kW	\$71,900
S4 3.0 TFSI quattro S tronic	245kW	\$120,400
S4 Avant 3.0 TFSI quattro S tronic	245kW	\$123,900

### The Audi S4 and the S4 Avant

The S4 Sedan and the S4 Avant embody the cultivated sportiness typical of Audi. They are fast, powerful sports cars with uncompromised everyday practicality. The hexagonal single-frame grille, the wedge-shaped headlights clasped in LED daytime running lights, the LED rear lights and the new bumpers are the most obvious cues to the updated models.

Fine details differentiate the S4 from the A4. The radiator grille insert is Platinum Grey. It features finely sculpted, horizontal chrome crossbars and an S4 badge. The air inlets are covered with honeycomb grilles with double chrome strips, and the fog lights are rectangular. The central air inlet below the grille has also been slightly updated. The housings of the exterior mirrors shine with an Aluminium-look finish, the side sills are painted in the body colour and V6 T badges adorn the flanks.

The new S models are also immediately recognisable from the rear, with cues provided by the diffuser insert with the Aluminium-look blade and the dual exhaust system with four elliptical tailpipe tips. Black brake calipers, with S4 emblems on the front calipers, grab the four large, vented discs. The spoiler of the S4 Avant extends the roof edge; it is integrated into the trunk lid of the Sedan. The Estoril Blue, crystal effect paint finish is reserved exclusively for the S models. 4.72 metres in length, the S models are 15 and 20 millimetres longer than the standard Sedan and Avant models, respectively, on which they are based. They are 21 millimetres lower, at 1.41 and 1.42 metres, respectively.

### **Subtle updates: the interior**

The Audi designers also made small changes to the interior. The leather multifunction sport steering wheel with the S4 badge has been redesigned, with the flat-bottomed rim available as a sporty option. The instruments have Grey dials and white arrows with Aluminium-look hubs. The MMI monitor displays a special welcome screen, and the new key has an S4 badge

The inlays have surfaces of Matt Brushed Aluminium. Optional inlays include Carbon, Fine Grain Birch Wood Grey, Stainless Steel Mesh or Piano Finish; in the latter two cases, the fascia in the instrument panel also shines thanks to a piano-finish look. Aluminium-look shift paddles and pedals are standard, and S4 badges adorn the door sill trims.

Sportily cool black dominates the interior; the headlining is also available in Lunar Silver. The standard sport seats are covered with a combination of leather and Alcantara. They are power-adjustable, heated and include a centre armrest.

Optionally available are S sport seats with particularly pronounced side bolsters, integrated head restraints and embossed S4 badges in the seat backs. They are also power-adjustable, and the Fine Nappa leather upholstery is available in a choice of three colours. A further alternative consists of climate-controlled comfort seats covered with perforated Milano leather. The lighting package, the xenon plus

headlights with LED rear lights and the driver information system with colour display round out the specific standard equipment of the S models.

### **245 kW: the supercharged V6**

The 3.0 TFSI features in both the S4 Sedan and the S4 Avant. The supercharged V6 engine produces 245 kW and applies a constant 440 Nm of torque to the camshaft at engine speeds between 2,200 and 5,900 rpm. Audi has tuned its sound so that it is more acoustically powerful than ever under load. The start-stop system is standard.

The S4 models offer fascinatingly powerful performance. The Sedan sprints from zero to 100 km/h in 5.0 seconds and reaches an electronically limited top speed of 250 km/h. Just as groundbreaking is the consumption: the Sedan requires just 8.0 litres of fuel per 100 km on average. Both models come standard with the seven-speed S tronic. It directs the power to the quattro drivetrain with the self-locking centre differential and torque vectoring. The sport differential is available as an optional addition.

Both S4 models come equipped with the tautly tuned S sport suspension that lowers the body by 30 millimetres. Upon request, Audi adds electronic damper control that works in conjunction with Audi drive select. With its numerous adjustment possibilities, the system makes the driving experience even more versatile, and offers both a sporty driving mode and a comfort-oriented one. One new feature in the model series is the electromechanical power steering. Dynamic steering is available in combination with Audi drive select.