Audi Australia
Corporate Communications

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The new Audi A6 – a winner redefined

Annex: Technical Data

The equipment and data specified in this document refer to the model range offered in Australia. Subject to change without notice; errors and omissions excepted.

Summary

The most advanced sedan in the executive class – the new Audi A6

Once again, Audi sets the standard: The new A6 will arrive at dealerships in early 2011. The successor to the world's most successful executive sedan features groundbreaking solutions in every area of technology. The body is extremely light owing to a significant proportion of aluminium components. The range of assistance and multimedia systems is extensive, and operation is intuitive and user-friendly.

The new Audi A6 is debuting in Australia with three powerplants: two petrol engines and one TDI units, all featuring Audi's world-leading quattro all-wheel-drive technology and 7-speed S tronic transmission as standard. They have outputs ranging from 150 kW to 220 kW. Two four-cylinder variants (one petrol 2.0 TFSI and one diesel 2.0 TDI) will follow in the final quarter of 2011. The Audi A6 hybrid will follow at a later date; it combines the power of a large V6 with the fuel efficiency of a four-cylinder engine. Audi also offers a number of drivetrain options. The Audi drive select dynamic handling system for all TFSI and TDI versions has been expanded to include an additional mode – the efficiency program.

With the new A6, which is the seventh generation of the model, Audi is revolutionising the executive class. Featuring many technical innovations and lightweight aluminum design, this car will write the next chapter in the success story of the A6.

The design embodies athleticism and elegance. The sedan is 4.92 meters long and 1.87 meters wide, but just 1.46 meters high – the sportiest proportions in its segment. The long bonnet, the low, sweeping roofline, and the prominent lines on the flanks create a dynamic overall appearance. Optional LED headlights emphasise the striking expression at the front.

The body of the new Audi A6 is exceedingly light, stiff and safe, thanks to an intelligent composite design concept. Numerous aluminium components and high-tech steels reduce its weight by some 30 kilograms compared with the

previous model, making it the backbone of a systematic lightweight design concept.

Depending on the version, the new executive sedan weighs up to 80 kilograms less than its predecessor. Audi – the lightweight design pioneer of the international automotive industry – has once again reversed the weight spiral, raising the bar for lightweight design. The A6 2.0 TDI, for example, tips the scales at a mere 1,575 kilograms, not including the driver.

The body features additional strong points. State-of-the art materials and design methods ensure extremely low interior noise levels. Precision tuning of all components and systematic hydraulic damping in the axle and drivetrain bearings provide excellent vibrational comfort.

Powerful and highly efficient: the engines

Audi is launching the new A6 in Australia initially with a choice of three powerful, highly six-cylinder powerplants, all equipped with Audi's world-leading quattro all-wheel-drive technology and 7-speed S tronic transmission as standard. All of these engines make use of technologies from the brand's modular efficiency platform – the innovative thermal management concept, the start-stop system, and the energy recovery system. Fuel consumption has improved by up to 21 percent compared with the previous model – a leading figure among the competition.

The A6 hybrid will follow at a later date. Serving up 180 kW of system performance, its 2.0 TFSI plus electric motor will achieve sporty acceleration with an average fuel consumption of just 6.2 litres per 100 km (provisional figure).

The Audi A6 is also available with a wide range of drivetrains – another of the brand's great strengths. Each engine features a wide gear-ratio spread and low internal friction, thereby making a significant contribution to the sedan's efficiency.

Depending on the engine version, power is funneled to the road via the front wheels or all four wheels. The quattro permanent all-wheel drive is presented in its latest stage of evolution – its crown-gear center differential and torque vectoring function guarantee supreme traction, stability and dynamic response.

For the top-of-the-line engines, Audi offers the sport differential, which actively distributes torque to the rear wheels.

Thanks to its sophisticated design, the chassis of the new A6 combines sporty precision with supreme comfort. Its links are made of aluminium; the power steering features a new electromechanical drive, making it highly efficient. The executive sedan boasts 18 inch wheels as standard on the V6 models, with 17 inch wheels to be standard on the four-cylinder models. All are equipped with powerful brakes behind them.

The Audi drive select dynamic handling system is standard for all engine versions; the ESP with electronic limited slip differential on the front-wheel-drive A6 models makes handling even more agile. For enhanced comfort, Audi also offers adaptive air suspension with controlled damping as an option. Dynamic steering will be available soon, also as an option.

Sporty elegance: the interior

The roomy interior of the new Audi A6 echoes the sinewy look of the exterior design. The salient element is the “wrap-around” – an inlay encircling the driver and the front-seat passenger. The elegant face of the instrument panel underscores the sleek quality of the cockpit area.

Every detail of the interior is a testament to the care that Audi invests in carmaking. All materials, including an innovative layered-wood veneer, have been selected and crafted with the utmost care. As an option, the front seats can be equipped with ventilation and massage functions. Ambient lighting or the interior lighting package give the interior an added shine.

The new Audi A6 features the logical ergonomics concept that distinguishes all of the brand’s models. The efficient deluxe automatic air conditioning and the latest-generation MMI radio operating system are standard; Audi also offers an optional head-up display, which projects important information onto the windshield. The MMI navigation system plus with MMI touch is standard on all Australian-delivered V6 models. The hard-disk navigation system can be largely controlled via the touchpad.

The top of the hi-fi line is the Bang & Olufsen Advanced Sound System.

MMI navigation plus works very closely together with the optional assistance and safety systems in the new A6. It forwards the route data to the control units for the headlights, the automatic transmission and the adaptive cruise control with stop & go function. This enables these systems to recognise complex scenarios and assist the driver. In many situations, the Audi pre sense safety system is able to minimize accidents and their consequences, or even prevent them altogether. The Audi active lane assist helps the driver to keep the A6 on course, and the park assist system relieves the driver of the chore of steering when parallel parking.

At a glance

The new Audi A6

Body

- 4.92 meters long, 2.91-meter wheelbase, 530-litre boot capacity
- Lightweight body, numerous components made of aluminium and high-strength steel
- Optional xenon plus and LED headlights with LED tail lights, as well as adaptive lights including variable headlight range control
- S line exterior package standard on all V6 models

Interior

- Luxurious, roomy interior
- Rich array of standard equipment including MMI navigation plus, engine start-stop button, multifunction steering wheel, two monitors, deluxe automatic air conditioning system, front center armrest, Audi pre sense and cruise control
- Ambient lighting and comfort seats with optional ventilation and massage function

Engines

- Two petrol engines and one TDI unit at launch
- Sporty A6 hybrid with system performance of 180 kW
- 7-speed S tronic transmission as standard on V6 launch models
- V6 launch with quattro drive standard
- quattro drive with crown-gear center differential, optional sport differential for variable distribution of power to the rear wheels

Chassis

- Sophisticated chassis design; 17 inch wheels for four-cylinder variants; 18 inch for V6 models and up to 20 inches in diameter with optional wheels
- Newly developed high-efficiency electromechanical power steering
- Audi drive select dynamic handling system as standard
- Optional adaptive air suspension with controlled damping
- ESP with electronic limited slip differential on front-wheel-drive models and torque vectoring function for quattro vehicles

Full version

High-tech, precision and sporty elegance – the new Audi A6

Audi has redesigned its flagship executive-class model. The new A6 is set to make its market debut in early 2011. With its light body featuring numerous aluminium components, sporty chassis and a wide array of new assistance and multimedia systems, the full-sized sedan is packed with innovative solutions in every area of technology. The range of available engines and drivetrains is equally extensive. Combining the power of a V6 with the fuel efficiency of a four-cylinder engine, the soon-to-be-available A6 hybrid will be a special highlight of the lineup.

Exterior design

Elegant and timeless – in the Audi A6, the styling of its predecessor is carried over and further enhanced. The long engine hood, sleek styling and the low, coupe-like greenhouse with its smooth transition to the rear section are classic features of the model line. The design of the A6 portrays the aesthetics of technology in the precision with which the lines are drawn and the athletic tautness of the surfaces.

The new sedan measures 4.92 meters in length, with a 2.91-metre wheelbase. It is 1.87 meters wide and 1.46 meters high – the sportiest proportions in the executive class. Compared with the previous model, the new A6 comes in a few millimetres shorter and lower; its wheelbase, however, has grown significantly, whereas the front overhang is now 8 centimetres shorter.

Painted a high-gloss black, the large, low single-frame grille featuring beveled upper corners merges neatly with the sculptured front end. It is the defining element of the front end. The horizontal orientation of the louvers underscores the width of the latest A6, as do the wide, low air intakes.

Tapered in shape and becoming broader as they extend outward, the headlights take up the slanted lines of the single-frame grille. The way in which they angle into the engine hood gives the new A6 a determined, energetic look. The bottom edge forms a wavelike contour.

Regal lines: the side view

Seen from the side, the new Audi A6 is the picture of regal elegance, with sharp edges bordering powerful surfaces. The roof arch is a flat dome; the C-pillar stretches endlessly to the rear, and the rear window is unusually flat. The ratio of sheet metal surfaces to the greenhouse is two-thirds to one-third – typical Audi proportions.

The tornado line, the dominant design element of the A6, extends over the entire flank and defines the proportions. It forms a prominent shaded edge, lending strength to the body's shoulders. The tornado line starts at the headlights and extends along the fenders, the doors and the rear side walls to the tail lights. Above the side sills lies the dynamic line, which turns up slightly at the rear of the car.

Wheels ranging from 17 to 20 inches in diameter fill the energetic wheel arches. The LED turn signals integrated into the outside-mirror housing and the reach-through door handles symbolize reliable safety. A high-gloss package featuring window capping strips in anodized aluminium and black trim for the B-pillars brilliantly accentuate the greenhouse.

The flowing lines end in a three-dimensionally sculpted rear section. Trapezoidal lights emphasize the width; divided into two parts, their styling echoes the trapezoidal shape of the headlights. The trunk lid bears the outline of a spoiler lip. The matt black diffuser insert envelopes the two large, round tailpipes for the exhaust system. This solution also emphasises the width of the A6, as does the light-catching contour above the diffuser.

For the three V6 models offered from launch in Australia, the dynamic S line exterior package is standard fitment, giving the A6 an even sportier look, with more prominently featured bumpers, grilles on the air intakes, and diffuser insert. The diffuser and the center edge of the front spoiler are painted gray; the fenders and the door sills sport S line badges. The sill panels stay the same color as the body.

Audi offers a choice of twelve paint finishes for the new A6. The solid colors are called Ibis White and Brilliant Black. The metallic hues bear the names Aviator Blue, Dakota Gray, Ice Silver, Havana Black, Moonlight Blue, Oolong Gray and Quartz Gray; Glacier White will follow at a later date. The pearl-effect colors Garnet Red and Phantom Black round out the selection.

Technical works of art: the headlights

In typical Audi fashion, the headlights are technical works of art. A curved wing – a plastic contour vapor-coated with chrome and a classic Audi feature – gives structure to its interior. Audi offers halogen headlights as standard. Available options include xenon plus headlights and an LED version – a technology in which the brand has a clear lead over the competition. A separate high-beam assistant is available for the halogen and xenon plus headlights.

The xenon plus technology includes an LED daytime running light strip and new all-weather lights, generated by intelligent control of the light modules. The all-weather lights replace the fog lights, whose traditional location in the air intakes is occupied by the radar sensors of the optional adaptive cruise control with stop & go function. Their range is 60 metres – four times greater than conventional fog lights. In addition, they use considerably less energy.

Audi also offers the xenon plus headlights with the optional adaptive light system, which always provides the appropriate lighting, whether driving in the city, on interurban roads or on the highway.

The system includes a dynamic cornering light, a static cornering light and variable headlight range control, which uses a small video camera in the base of the interior mirror to detect the light of other vehicles and localities. The system adapts the vehicle's own light by swiveling the xenon modules with soft transitions. This allows it to switch harmoniously between the low and high beams and guarantees maximum illumination for the driver at all times.

The headlight control unit is closely networked with the optional MMI navigation plus system. The navigation system relays route data to the light computer to activate highway lighting while still on the ramp to the highway, for example. Before entering an intersection, the system automatically switches on the cornering light, and in countries like the United Kingdom, it switches the headlights from driving on the right to driving on the left. On hilly interurban roads with cambers and dips, the active topography compensation system comes into play – it improves the driver's own view and prevents other drivers from being blinded.

High-tech from Audi: the LED headlights

As an option, Audi can also outfit the A6 with headlights in light-emitting diode technology. With a color temperature of 5,500 Kelvin, their white light resembles daylight, which is easier on the eyes at night. The visually striking LED headlights are maintenance-free, long-lived and extremely efficient. The low beams consume just 40 watts per unit, which is even less than with the xenon plus technology. Fans and heat sinks moderate headlight temperatures and prevent fogging.

Low-beam light in the new Audi A6 is produced with four one-chip LEDs and five two-chip LEDs located in nine reflector/lens modules below the wing. Generated by three four-chip LEDs, the high-beam light is housed above the wing. A separate four-chip LED generates the cornering light.

The LED headlights also include all-weather lights, which make use of a number of interacting electronic and electromechanical components. Audi has replaced moving parts with intelligent control.

To create highway lighting, stepper motors are used to increase the light/dark boundary of the low-beam light at vehicle speeds of 110 km/h and above, thus extending the light cone from a range of 70 meters to 120 meters. The integrated high-beam assistant switches automatically between the low and high beams.

The daytime running lights and turn signal are located in a curved strip at the bottom edge of the headlight. A superposed plastic component provides the thick wall technology that makes them appear as homogeneous strips of light. The daytime running lights are generated by 24 white LEDs. Blue LEDs – which emit yellow light due to a technical trick – are responsible for the turn signal lights.

In combination with the xenon plus and LED headlights, Audi also offers tail lights with LED technology, giving a three-dimensional effect to their light pattern. The rear lighting system is made up of 60 LEDs and is deflected by the same number of reflectors. Light-scattering technology makes it appear as a visually continuous band in the form of a broad, U-shaped arc. The large brake light in the center of the lights employs 50 red LEDs. The turn signal lights, comprising 56 yellow LEDs, form a strip that runs across the upper edge. Incandescent lamps illuminate the reversing lights and the rear fog lights.

Body

The body of the new Audi A6 is at the top of its vehicle segment. A composite steel-aluminium construction, the body weighs approximately 15 percent less than a conventional all-steel construction. Its stiffness, vibration characteristics and crash performance are impressive, as are its aerodynamics and aeroacoustics. Audi has used new construction methods and materials for the body.

Aluminium parts

More than 20 percent of the body is made of aluminium, a material with which Audi has experience reaching back to 1994 – when the first A8 rolled off the assembly line – that no other carmaker can match. Due to the high percentage of this lightweight metal, the weight reduction with respect to the previous model is approximately 30 kilograms.

With its many aluminium components at the front end of the car the composite design concept improves the axle-load distribution and is supported by the rear-mounted battery. Most notably, however, it forms the basis of the systematic lightweight design that Audi has implemented in the new A6. Depending on the model, the executive sedan weighs in at up to 80 kilograms less than the preceding model. The A6 2.0 TDI base model has a curb weight (excluding the driver) of just 1,575 kilograms. Audi, the lightweight design pioneer of the automotive industry worldwide, has once again reversed the weight spiral.

In the new A6, the cross-strut in the engine compartment and the cross-members behind the front and rear bumpers are made of aluminium sections. The suspension strut towers at the front of the car are aluminium castings. The integral support frame behind the instrument panel, the rear shelf, the trunk bulkhead, the cross-member in the trunk, the front fenders, the doors and the trunk lid are all made of aluminum panels, as is the engine hood. A double-lock system ensures reliable locking.

The aluminium doors have a double-shell construction. In the doors and rear hatch, Audi uses diode lasers – an innovation in body construction. They are extremely fast and consume far less energy than the solid-state lasers used previously, resulting in a reduction in CO_2 emissions equaling 3,060 tons per year. Twelve of these new lasers make the approximately 50 weld seams per door; after 75 seconds, one weld group is finished.

The high-precision zero gap – the joint between the side-wall frame and the roof – is created by means of laser-soldering; in this case as well, diode lasers are at work. At the Neckarsulm plant, where the new A6 is made, Audi has invested approximately 700 million euros in the production facility.

Lightweight and high-strength: the hot-shaped steels

High-end steels of various strength classes also make up a large portion of the body of the A6. The strongest of these are the hot-shaped steels, which are heated in a furnace to almost 1,000 degrees Celsius and then immediately shaped in a water-cooled pressing die at approximately 200 degrees Celsius. This temperature differential produces a so-called martensitic structure, which

achieves extremely high tensile strength values at relatively low weight. Six Audi A6 cars could easily be suspended from a strip of this material 30 millimetres wide and only two millimeters thick.

Hot-shaped steels are used in a number of areas in the passenger cell: in the transition from the front section of the car to the passenger cell, in the A-pillar and the roof arch, as reinforcements for the center tunnel and the side sills, at the transition of the side sills to the rear section of the car and as cross-bracing in the floor panel. The B-pillars are also made of this high-end steel; in the lower section, they are designed to be somewhat more yielding, since energy must be dissipated here in the event of a side impact. This difference is created by applying a partial heat-treatment to the sheet-metal blank.

In many areas, such as the front-wall bulkhead, Audi uses tailored blanks. These are panels of various thicknesses that are thicker and stronger in areas subjected to higher loads. In some cases, the panels are rolled to various thicknesses; these tailored rolled blanks are additional high-tech components.

No compromises: safety

Safety in the new Audi A6 is second to none. While developing the concept, Audi was able to exploit an extensive knowledge base that it had built up internally. The AARU (Audi Accident Research Unit) analyzes actual accident scenarios and evaluates pertinent databases. From the concept phase until the sedan was ready for series production, a large part of the work was performed on computers. Virtual prototypes and components underwent more than 4,000 crash simulations.

In a frontal collision, the front cross-member directs the forces to the two longitudinal members, which undergo defined deformation to dissipate these forces. The frame element for the engine and front axle acts as a further force absorption level by diverting forces and moments in a controlled manner into the strong floor and tunnel structure of the occupant cell. High-strength areas and special foams in the footwell protect legs and feet. The pedals, which are made of lightweight materials, detach from the front bulkhead if necessary. The steering wheel absorbs energy and does not slide into the interior.

Thanks to its hot-shaped steel components, the occupant cell offers a high level of protection even during a side impact. In this case, the doors fulfill a load-distributing function; their integrated side impact bars are anchored to stable surfaces on the pillars. During a rear impact the load is transferred via the bumper cross-member to the large longitudinal members, which are made of high-strength steel. In almost all cases, the tank remains outside the deformation zone.

The adaptive restraint system stands guard in the interior of the A6. It is networked with the Audi pre sense safety system and also uses its own acceleration and pressure sensors. The interplay between the front airbags and belt force limiters is managed as a function of how tall the driver and front-seat passenger are. If necessary, the airbags can quickly blow down a portion of their air volume to catch the head and chest more softly. The variable belt force limiters are also adaptive.

Side airbags in the backrests of the front seats and optionally in the outside rear seats stand on guard in the event of a side impact collision. The seats are very stiff in the lateral direction. The head airbag system opens like a curtain extending from the A-pillar to the C-pillar. The integrated Audi head restraint system reduces the risk of whiplash injury in rear-end collisions. Secure Isofix fixtures for child seats are standard in the rear passenger compartment and are optionally available for the front passenger seat.

The new A6 also satisfies all legal requirements for the protection of pedestrians in the event of a crash. An energy-absorbing bumper cover, foam behind the front bumper and an engine hood that maintains the large distance to the hard parts play the major role here.

Less severe collisions, such as crashes at low speed, do not have significant financial consequences: Crash boxes made of extruded aluminum sections and placed in front of the longitudinal members prevent serious damage to the structure. The two optional radar sensors move along with the bumper cover. The new sedan from Audi also does well in the RCAR bumper test, which focuses on compatibility with the other party involved in an accident.

Superb: the body stiffness

The body of the new Audi A6 is not just light, but also extremely stiff and strong. It thus provides the basis for the sporty and precise handling, the excellent crash safety and the precision of assembly.

The two torsion rings in the structure – behind the rear seats and around the trunk aperture – make an important contribution to the stiffness. The bulkhead between the interior and the luggage compartment acts as a so-called shear panel to support the rings. The A6 achieves excellent figures in both static and dynamic torsional stiffness. Swage lines stiffen many larger sheet-metal panels.

The body's excellent vibrational comfort is another strong point. The development engineers targeted and minimised all vibration levels at the contact points between the passengers and the body – the floor panel, the seats, the steering wheel. All points at which force inputs take place when the car is in motion were reinforced to the necessary extent.

The interior of the sedan is largely decoupled from the road and engine noises. The engineers tuned these elements using advanced simulation methods and Audi's comfort test bench – a state-of-the-art development tool.

A central comfort factor in the new A6 is the extensive hydraulic damping in the axle and drivetrain bearings. In addition, both of the bearings in the engines and – in quattro vehicles – the diecast aluminum bearing for the transmission in the center tunnel also have hydraulic damping. In certain engine versions, the engine bearings make use of electromagnetic switching. When the car is idling, they employ soft characteristics to keep irritating noises and vibrations out of the interior; when the car is in motion, damping increases to suppress engine vibrations.

Tranquillity in the luxury class: quiet operation

Particularly on long journeys, new Audi A6 exudes the tranquillity of a luxury-class sedan. A number of advances have come together to achieve this, such as the reduction in the number of openings in the bulkhead and its systematic sealing. In many sheet-metal panels on the body, Audi uses spray-on insulating

compounds for noise and vibration damping. These greatly improve acoustic comfort and weigh two kilograms less overall than the bitumen mats used previously.

High-quality microfibre fleece with damping properties is used throughout the interior. The underfloor paneling, consisting of a glass-fibre-reinforced material, also has a sound-absorbing effect. Even the lining of the wheel well shells has special microfibre fleece built in.

The glazing in the new A6 also reduces interior noise; even the standard windows have effective damping properties. A windshield with a special acoustic interlayer is standard. As an option, Audi also offers side windows made of insulating/acoustic glass. They also feature an infrared-reflecting layer, which keeps the interior from heating up due to sunlight exposure. No direct competitor offers a comparable solution.

The new Audi A6 glides smoothly through the wind. In the base version, it has a drag coefficient of 0.26 and a frontal area measuring 2.30 m^2. The total aerodynamic drag, the product of these two factors, is over 5 percent lower than in the predecessor. During the course of aerodynamic development at the Ingolstadt Wind Tunnel Center, the aerodynamic drag fell by 19 percent – in the case of an A6 3.0 TDI, such an improvement at a constant speed of 130 km/h means that fuel consumption is reduced by 0.6 liters per 100 km.

Even the initial quarter-scale clay models the engineers worked with had rotating wheels, an important factor in enabling use of the rolling floor with the four moving belts in the aeroacoustic wind tunnel. The wind machine measures five metres in diameter and accelerates the wind to a speed of 300 km/h. Using cutting-edge concave-mirror and dummy-head measuring technology, development engineers were able to identify and minimise every noise source in the vehicle. The full-scale model that was created at a later time already had the same axles as the production model, a detailed underfloor and an engine compartment with realistic flow conditions.

Numerous small, almost invisible details on the body are responsible for improving the airflow around the vehicle. The tail lights, for example, have small spoiler lips. Small grooves on the outside-mirror housings deflect air; they also

reduce noise levels and dirt accumulation. Each of the four doors has three sealing contours.

Extensive paneling: the underfloor

Low lift coefficients at the front and rear axles make the A6 exceedingly stable on the road, even at high speeds. With the exception of the transmission tunnel, the underfloor, wheels, and wheel arches are all paneled; the fibreglass-reinforced plastic covering also protects the sheet metal and components from salt, moisture and damage from gravel. Small wheel spoilers on both axles and additional strips on the front capsule and the transmission tunnel brace help direct the air flow with minimal losses. The aero underfloor lowers aerodynamic drag in the A6 by ten percent.

The air flow through the engine compartment was also a top priority in the performance specifications; it can account for up to 15 percent of total aerodynamic drag. To a large extent the single-frame grille on the A6 is tightly closed, and the surrounding area is completely sealed off. The inflowing air reaches the radiator with almost no turbulence. Its plate package and the impellers of the fans are optimised for low flow resistance. The continuously variable brushless electric fan is highly efficient.

Sustainability was a major focus during the development of the A6. The objective was therefore not only to reduce the emissions produced during normal driving, but also to consider the total service life of the vehicle from an ecological perspective. In terms of greenhouse emissions, the life cycle assessment for the new Audi A6 shows a significantly improved result compared with the previous model. The CO_2 emissions during production are somewhat higher due to the use of aluminum, but the lower fuel consumption thanks in part to the car’s lighter weight more than makes up for this. Moreover, the aluminium production scrap from the Audi press shop is sorted and returned to the material cycle without downgrading. This results in a further reduction in CO_2 emissions.

When the vehicle reaches the end of its life, all of the aluminium components can be recycled using just a small amount of energy. The Neckarsulm plant, where the A6 is made, consumes comparatively little energy because it makes large-scale use of district heating from a neighboring power station.

Interior

Elegant forms, supreme comfort, a logical ergonomics concept and extensively networked intelligence: In the interior as well, the new Audi A6 documents its leadership role in the executive class. In its display concept, the new head-up display is a special highlight.

The interior of the A6 is an emotional space full of expanse and lightness. Its lines take up the sinewy sportiness of the exterior. The defining element of the cockpit area is the wrap-around inlay, beginning at the driver's door and running in one large arc beneath the root of the windshield, then all the way to the front passenger's door. Curved elegantly around the driver's seat, the instrument panel with its large application area rounds out the concept of sweeping lines.

The wide, asymmetric center console is oriented toward the driver. The sporty seats in the A6 are mounted low, yet most drivers can see the entire engine hood thanks to the low front end, which reinforces the impression of open expanse and freedom.

The new Audi A6 offers space in abundance. The comfort-optimised door arrester and the long, low doors make getting into the car easy for all occupants. Audi also offers an electric power closing option.

At every seat, there is plenty of headroom, elbow room, legroom, and footroom, even for tall people. Compared with the previous model, the head clearance at the front, interior length and shoulder width have all increased slightly. The headrests in the rear compartment can be positioned extra low to avoid obstructing the view from the interior mirror. The optional electric roller blind for the rear window, which extends and retracts along tracks in the C-pillar paneling, provides nearly complete shading of the window. The blinds for the rear side windows are operated manually.

Redesigned: the front seats

The standard front seats in the Audi A6 can be manually adjusted ten ways – height, fore and aft, and backrest angle, plus the height of and distance to the headrests. The seats have been completely redesigned and feature ergonomic seat surfaces. The innovative foam in each seat provides varying degrees of softness and firmness depending on the zone.

Audi also offers a host of attractive options. The sport seats with contoured side bolsters have seat cushions that can be adjusted in depth and inclination; they provide electric four-way lumbar support. The lumbar support is also available separately, as are seat heaters for the front seats or for all four seats. The fully electric adjustable front seats are equipped with a memory function for the driver's seat.

The highlight of the A6 amenities are the comfort seats, featuring electric adjustment plus memory function for both seats and outside mirrors. Their backrests, side bolsters and lumbar support can be adjusted pneumatically. On request, Audi will upgrade the comfort seats with a ventilation system for the seat surface and backrest that makes use of a novel and particularly effective aspiration technology. The technology employs four fans that can be operated at three levels. Also available is a massage function featuring ten air cushions, five programs and four intensities to pamper the back.

Only a few switches are needed to operate the seats. All primary adjustments are made using switches that mirror the shape of the seat. A multifunction switch controls the secondary functions, such as adjusting the side bolsters or the massage function, with the MMI monitor showing each step.

The new Audi A6 offers plenty of spacious, practical storage features. The locking glove box is very large, and the front door pockets can accommodate one-liter bottles. Two additional cupholders are located on the center tunnel, where there is also a center armrest plus storage compartment with continuously variable tilt adjustment.

In the back is an additional armrest with a small storage compartment. A 12V socket, drawers under the front seats and nets on the front-seat backrests round out the range of storage amenities. Audi also offers an optional storage package, which includes two cupholders in the rear armrest, two sockets in the rear compartment and a net for the luggage compartment.

All functions under control: vehicle operation

The new Audi A6 offers more than twice as many functions as its predecessor, yet its operation is easy and intuitive – typical of Audi. The large, clearly delineated dial instruments and the center display are situated beneath an elegantly arched cowl. Rich in detail with three-dimensional styling, the instruments can be read at a glance. In their initial position, the needles point to six o'clock. When the car is started, the needles briefly rise up then fall back into place, adding a sporty touch. Additional instruments provide information about the fuel level and the coolant temperature.

Starting with the trim level that includes the MMI radio plus, the new Audi A6 comes equipped with the driver information system, with a 7-inch screen and full colour display. The system combines all key information and settings in an intuitive menu structure that works with one main area and two additional info bars. These can be easily read without requiring the driver to look away from the road for long.

Integrated into the driver information system is what Audi calls the efficiency program. It shows the contribution each technological component is making to fuel efficiency and also gives the driver tips for fuel-efficient shifting – a practical feature, given the fact that driving style accounts for approximately 30 percent of overall fuel consumption.

The driver information system is operated via the standard leather multifunction steering wheel. This latest-generation concept featuring two additional paddles enables convenient operation of the telephone, audio devices and onboard computer.

Audi offers a number of different steering wheels – with three or four spokes, shift paddles for the transmission, a heated rim and a power adjustment system with an easy entry feature. The skeleton of each steering wheel is made of ultra-light magnesium materials.

The center console is home to a series of secondary switches, the slot for the CD or DVD player and the memory card slots. The lower section of the console contains the control unit for the deluxe automatic air conditioning system, with rotary controls surrounded by red and blue LEDs. The system provides indirect ventilation with virtually no draft. It takes into account the position of the sun and has a moisture sensor to prevent window fogging.

Powerful and efficient: deluxe automatic air conditioning

Quiet, discreet and highly efficient, the deluxe automatic air conditioning in the new Audi A6 is far superior to systems offered by the competition. Compared with the air conditioning system in the previous model, it delivers better performance while saving an average of 0.2 liters of fuel per 100 km.

The brushless fan motor requires little power and is both small and light. The internal heat exchanger is a coaxial line, with the intake end on the inside and the discharge end on the outside. The heat exchange between the two ends boosts the performance of the evaporator. The refrigerant mass flow is reduced, which in turn reduces the power consumption of the compressor. Thanks to a new oil separator, it does not have to continuously circulate lubricant and cooling oil. The deluxe automatic air conditioning continuously analyses humidity levels in the inside and outside air to determine the optimal mixing ratio for the lowest energy consumption.

Audi also offers an optional four-zone deluxe automatic air conditioning system, featuring a separate control panel and display for the rear passengers. Throughout the interior, three climate-control styles can be chosen – mild, medium and intense. For winter a fourth variant is available, which directs lots of heat to the footwells. A residual heat function uses the heat of the engine when the A6 is parked.

As an option, Audi also offers a programmable auxiliary heater with a novel operating concept. All the customer needs to do is choose a time to start the car, and the control unit does the rest. Its intelligent strategy lowers electricity and fuel consumption by 30 to 50 percent.

The center tunnel console in the new Audi A6 features additional controls. The standard start-stop button replaces the ignition switch – the key can stay in your pocket. The system can also include a convenience key for keyless vehicle entry. The pushbutton for the electromechanical parking brake, which can act as an emergency brake when the vehicle is in motion, and the terminal for the Multi Media Interface (MMI) operating system are also located on the center tunnel console. Audi offers the MMI radio version as standard.

Intelligent ergonomics: the MMI operating system

The MMI terminal is a clearly organised touch & feel landscape whose design presents a new evolutionary development. In its full version, MMI navigation plus – which is standard on Australian V6 models – five hardkeys take the user to the main zones: Navigation, Telephone, Radio, Media and Vehicle. Two additional hardkeys (the menu overview and back button) complete the system. The central rotary pushbutton and the four adjacent softkeys are used to navigate through the menus. A dedicated cluster with volume control knob controls the audio zone. Another section holds the MMI touchpad for the optional MMI navigation plus system, which can be transformed into an area containing six radio station buttons.

The large onboard monitor for the MMI system comes with a standard 8-inch screen. It is surrounded by a high-gloss black frame. In standby mode, the onboard monitor is recessed in the centre of the instrument panel, with only its chromed top edge visible as a decorative molding. When the ignition is switched on, the monitor extends forward, then upward and outward in a gentle movement at graduated speed. Just like the optional driver information system, the MMI display is divided into three zones, and the menu control system follows a clear logic. The new selection menus, called wizards, have an especially classy appeal thanks to the circular arrangement of their icons. Elegant three-dimensional

graphics and newly introduced animations give a striking presentation of the menu hierarchy.

All information at a glance: the head-up display

The head-up display – a new, optional high-end feature offered by Audi in the A6 – projects key information onto the windshield in the form of symbols and digits. The display appears as a virtual image in a window 262 x 87 millimetres in size. It seems to hover over the engine hood at a distance of approximately 2.3 metres, precisely in the driver's primary field of view. The image window is height-adjustable.

To assimilate the information, the driver does not need to look away from the road and the eyes, accustomed to distance vision while driving, do not need to adjust. It takes only about half as long to look at the head-up display as it does to read the display on the instrument cluster – an important advantage especially at higher speeds.

The MMI system can be used to program which information will be shown on the head-up display – such as speed, navigation symbols, and lists from the infotainment systems or indicators from the assistance systems. The night vision assistant system also makes use of the system.

Audi is the first manufacturer in the world to offer a full-colour head-up display with TFT screen technology. In addition to red-green-blue color filters, new polarisation filters are used; their high contrast is sufficient even for difficult lighting conditions. 15 blue-white LEDs provide especially bright backlighting for the TFT monitor on which the images are generated. A sensor in the base of the interior mirror adapts the display to the brightness of the surroundings. The driver can also adjust it at any time.

The light-emitting diodes and all other components have extremely low energy requirements. All components are designed to easily withstand the temperatures that arise in the head-up display. The system requires no active cooling mechanism – an additional efficiency-enhancing factor.

The windshield onto which the image is projected acts as a concave mirror; it enlarges the picture, creating certain distortions in the process. Two curved corrective mirrors in the light path, made of plastic with a special coating applied, even out these distortions and increase the optical imaging capacity. These new technologies from Audi keep space requirements low and give the designers free reign when designing the windshield. To avoid ghost images, the windshield and its noise-insulating safety film have a minimally tapered design.

When windshields are manufactured, tiny deviations from the ideal surface are impossible to avoid. Although only a few hundredths of a millimetre in size, such imperfections would produce a slightly uneven image on the head-up display. Audi has come up with a solution to avoid this effect: During production of the A6, the display is precisely calibrated to the windshield for each car.

Handcrafted quality: the finish

The great care that Audi devotes to the smallest detail defines the entire interior of the new A6. Materials are chosen with the utmost care; the workmanship is on a craftsman’s level. All of the switches move easily and without play. The gaps are even and narrow, measuring just a few tenths of a millimeter in some areas. Quality knows no compromise – this Audi maxim becomes tangible in the interior.

Chromed bezels frame the air vents, fine aluminium-look strips accentuate the optional fine wood bezels. The buttons have an appealing black soft-touch finish; the aluminum look turns the control knobs into miniature works of art. The shift gate and the start-stop button feature subtle red backlighting, and the door sills have aluminium inlays. The upper section of the instrument panel is covered in a soft-backed, leather-look material. The frequently used components in piano finish black in the Audi A6 are coated with a novel, UV-cured topcoat making them extremely scratch-resistant.

Audi is offering a wide range of decorative elements, colors and upholsteries at the launch of the A6. In addition to the standard and optional fabric upholsteries, the selection also includes the robust and durable Milano leather and the high-grade Valcona leather, whose varnish application only lightly covers the skin structure, allowing the material to breathe.

Another fine alternative is the Alcantara/leather combination. A leather package for the center console, the door armrests and the door pulls round out the selection.

The seat coverings are available in black, goa beige, nougat brown, titanium gray and velvet beige, the roof lining in black, silver and beige. The interior comes in black, gray, brown and beige hues. The sedan is fitted with micrometallic platinum inlays as standard; Audi also offers trims in Aluminium Trigon as an alternative. Two wood veneers – brown, open-pored fine grain ash and dark brown walnut – are available. An especially classy variant are the inlays in piano finish black.

A novel veneer of layered oak will be available soon. Using a technique developed especially by Audi, it is cut from a block in which extremely thin layers alternating between untreated and dark-stained wood lie one over the other. A special treatment at the end of the process produces a fine finish.

The optional S line sport package gives the interior a particularly elegant look. The sports seats are upholstered in Valcona leather; combinations of perforated Alcantara and leather are available as an alternative. The upholstery, as well as the carpeting, the instrument panel and the roof lining are draped in black, with stitching adding visual touches. The inlays are in matt brushed aluminium; S line badges gleam on the fenders and door sills. The steering wheel is specially designed, and the selector lever is wrapped in perforated leather. Sport suspension with 18-inch or 19-inch wheels rounds out the package.

Emotional effects: the interior lighting

Audi Australia has equipped the new A6 with an interior lighting package as standard. It includes surround lighting and a series of white LEDs in the interior – around the door handles, the door trim panels, the front footwells, the sun visors and the center tunnel console.

Option is the ambient lighting, a complete emotional orchestration that uses light guides in many areas. It provides a series of additional effects – around the door sills, the door pockets and the reading lights in the rear compartment. Dramatic lighting makes the console on the center tunnel appear to float.

When it's dark outside, the ambient lighting – whose luminous power can be configured via the MMI – gives the interior a larger, more expansive appearance. When the A6 is unlocked, the lighting in its interior illuminates in a wavelike pattern, starting with the driver's seat. When a door is opened, it focuses on the corresponding seat.

The large, roomy luggage compartment in the new A6 is the same in the front-wheel-drive and quattro-drive models. The luggage compartment is precisely lined with fine carpeting, and its low loading lip and wide loading aperture make it easy to use. It provides a loading width of 1,050 millimetres and a volume of 530 liters, enough for four large suitcases or four golf bags. Audi also offers an optional rear seat back with a 40/60 split.

The boots opens automatically when unlocked. Two bag hooks, four solid, chrome-covered lashing hooks and a practical bin in the right wall of the luggage compartment help to get things stowed. A reversible mat with a rubberized back, a locking load-through hatch with ski bag and an electric drive for the trunk lid are available as options.

With the optional trailer hitch, the new Audi A6 can tow up to 2,100 kilograms. If the trailer starts to fishtail, an additional function of the electronic stabilization program (ESP) intervenes. By applying the brakes to the sedan's wheels in opposite phases, it brings the fishtailing motion back under control.

Engines

The new Audi A6 is debuting in Australia with three engines: two petrol engines and one TDI unit. With outputs ranging from 150 kW to 220 kW, they power the sedan in a highly powerful, refined, and efficient manner. All of these units are direct injection engines, and two of them employ forced induction – the 3.0 TFSI uses a supercharger to achieve boost; the TDI unit operates with a turbocharger.

The Audi A6 hybrid will follow at a later date; it combines the power of a large V6 with the fuel efficiency of a four-cylinder engine. Serving up 180 kW of total system performance, its 2.0 TFSI plus electric motor will achieve strong acceleration with an average fuel consumption of just 6.2 litres per 100 km (provisional figure).

All engines in the new A6 make use of technologies from the Audi modular efficiency platform. They have been optimised with regard to internal friction. Each unit is equipped with the innovative thermal management system, an energy recovery system, and a start-stop system, irrespective of the type of transmission used.

Throughout the model line, fuel consumption has fallen by up to 19 percent – even as performance and torque figures have increased. The 2.0 TDI (which will arrive in Australia in the final quarter of 2011) uses on average just 4.9 litres of fuel per 100 km and emits just 129 grams CO_2 per km – a top figure in the segment.

Lean and mean: the efficiency technologies

An innovative thermal management system lowers fuel consumption by approximately 0.1 litres per 100 km. It ensures the ideal distribution of heat flow between the engine, transmission and the cabin in every situation. Following a cold start, it quickly brings the engine up to operating temperature, significantly shortening the phase of greater frictional resistance due to viscous oil. In the petrol engines and the 2.0 TDI unit, a switchable water pump, or ball valve, cuts off the engine from the coolant circuit in the warmup phase.

The innovative thermal management system has an even more sophisticated design in the two 3.0 TDI units. The crankcase and cylinder heads each have separate cooling-water circuits connected by a valve. During the warmup phase and in certain low-load, low-rev situations, the coolant is not circulated in the engine block; the oil cooler is also bypassed. In these phases, the car interior is heated via the main circuit.

The start-stop system shuts off the engine after the Audi A6 has come to a stop. The driver must keep the brake pedal depressed. A powerful starter energised by

a heavy-duty, deep-cycle battery restarts the engine quickly and easily when the driver releases the brake or steps on the clutch again.

In the TDI engines, a special function maintains the fuel pressure in the rail while the car is stopped.

In a standard driving cycle, the start-stop system lowers fuel consumption by as much as 0.4 litres per 100 km. The system – which the driver can switch off at any time – is only inactive during the engine's early warmup phase, on roads with steep gradients, and in extremely cold temperatures.

The energy recovery system utilises the kinetic energy of the car as it decelerates. During the coasting and braking phases, an intelligently regulated alternator converts the kinetic energy into electrical energy by increasing its secondary voltage. The recovered energy is stored temporarily in the battery. Then, when the A6 accelerates again, the current flows back into the onboard electrical system. This relieves the load on the alternator, which can be operated at a lower voltage, and the engine doesn't have to sacrifice as much power for it.

The alternator in the Audi A6, which achieves an extremely high level of efficiency, is the centerpiece of a new energy management system that monitors and regulates electric power throughout the car. It ensures that enough power is available to start the car even if it has not been driven for a while and that the important electrical systems can operate even when the car is stopped.

The onboard electrical system forms an H-shaped structure with the cross-beam in the back seat section. To keep wire lengths short, a number of control units were also placed here. When designing the onboard electrical system as well, Audi took measures to reduce the weight: The cross-sections of all wires were minimised, and the main battery lead is made of aluminum instead of copper.

Another advance in the new A6 concerns the exhaust systems. High-grade steels and recalculated geometries have allowed wall thicknesses to be reduced, resulting in a longer service life for components in the exhaust system and significantly lower weight.

Detailed measures in and around the two-chamber tanks attenuate the noise caused by the fuel and pumps.

Sophisticated and strong: the 2.8 FSI

Even the smaller of the two V6 petrol engines in the new A6 is a superb powerplant. From a displacement of 2,773 cc, the highly refined, naturally-aspirated 2.8 FSI develops 150 kW and 280 Nm of torque, the latter in a rev range of 3,000 to 5,000 rpm. On average, it consumes just 8.0 litres of fuel per 100 km and emits 187 g CO_2 per km. Employing quattro permanent all-wheel drive, it funnels its power to the road via all four wheels. The sporty shifting comes in this case from the 7-speed S tronic dual-clutch transmission.

The 2.8 FSI employs a special efficiency technology – the Audi valvelift system (AVS), which regulates the intake-valve lift in two stages, depending on load and engine speed. This is done using cylindrical sleeves, called cam pieces, which slide along the camshaft.

AVS regulates the amount of air drawn in when the valves open; the throttle valve can remain fully open, thus largely eliminating throttling losses. The engine produces more power and torque and achieves greater fuel economy.

Supercharged boost: the 3.0 TFSI

The 3.0 TFSI displaces 2,995 cc, produces 220 kW and delivers 440 Nm of torque between 2,900 and 4,500 rpm. The supercharged engine, mated with S tronic and quattro drive, gives the A6 the performance of a sports car. It accelerates the A6 from 0 to 100 km/h in just 5.5 seconds, and top speed is electronically limited to 250 km/h. It consumes on average 8.2 litres per 100 km and emits 190 g CO_2 per km – an improvement of 13 percent over the previous model, which delivered 7 kW less power.

The 3.0 TFSI embodies Audi’s philosophy of downsizing: It substitutes forced induction for engine displacement. Located in the 90-degree V of the cylinder banks is a supercharger driven by the crankshaft via a belt. It compresses the intake air at pressures of up to 0.8 bar. Two intercoolers cool the compressed, heated air down again, allowing even more oxygen to enter the combustion chambers.

The gas pathways downstream of the mechanical charger are very short, thus the torque develops extremely quickly and easily. The supercharger is located downstream of the throttle valve. Because the density of the intake air is low at loads below the boost level and when coasting, its rotors move easily and with little power input. An extensive package of measures effectively reduces the noise emitted by the supercharger.

Ahead of the curve in efficiency: the 2.0 TDI

The most fuel-efficient engine in the new A6 is the 2.0 TDI, which will go on sale in Australia in the final quarter of 2011. Almost entirely redeveloped, the four-cylinder unit generates 130 kW and puts out 380 Nm of torque between 1,750 and 2,500 rpm.

The diesel engine, which generates its power from a displacement of 1,968 cc, has two balancer shafts rotating in opposite directions in the crankcase. These make for a smooth-running engine by eliminating the second-order forces of inertia that arise due to the design of the crankgear. The turbocharger with adjustable vanes provides for spontaneous torque buildup at an early stage in the cycle. Excellent thermodynamics mean that the four-cylinder can run on a higher rate of recirculated, highly cooled exhaust gas, thus significantly reducing levels of untreated nitrogen oxide emissions.

Power diesel: the 3.0 TDI

The 3.0 TDI generates 180 kW and applies 500 Nm of torque, available between 1,400 and 3,250 rpm. S tronic and quattro drive are standard with this engine. The standard sprint is over in just 6.1 seconds, and top speed is limited to 250 km/h. On average, the top-of-the-line TDI consumes just 6.0 liters of fuel per 100 km and emits 158 g CO_2 per km. With these figures, it outperforms its predecessor, which developed 176 kW, by 16 percent.

The V6 diesel, with its displacement of 2,967 cc, was redeveloped from the ground up. Weighing in at just 193 kilograms, it is a full 25 kilograms lighter than the predecessor engine. Six kilograms of weight were trimmed from the crankcase alone, which is manufactured of high-strength vermicular graphite cast iron. The rotating masses were also made lighter – something the driver will notice from the eager, high-spirited response of the engine as it revs.

Additional factors making an important contribution to efficiency include the significantly lower internal friction in the crankgear, the slim, redesigned drive for the camshafts and ancillary equipment and the regulated oil pump. Additional improvements pertain to the pumps in the common rail system, which can perform up the three post-injections, the air intake and exhaust system, the exhaust gas recirculation and the turbocharger with intercooler.

Audi A6 hybrid

At a later point, Audi will begin series production of the A6 hybrid in the new A6 model line. It employs an efficient parallel hybrid concept: Its combustion engine, a 2.0 TFSI with 155 kW and 350 Nm of torque, works together with an electric motor that delivers 33 kW and 211 Nm of torque. The electric motor sits directly behind the TFSI, occupying the space of the torque converter upstream of the modified 8-speed tiptronic. The transmission sends torque to the front wheels.

A crash-protected area of the luggage compartment houses a light, compact lithium-ion battery that provides 1.3 kWh of nominal power and generates 39 kW. Depending on requirements, it is air-cooled in two ways – by means of a blower from the interior or by means of an internal refrigerant circuit coupled to the deluxe automatic air conditioning system. This technology largely maintains the rechargeable battery within the appropriate temperature window, thereby ensuring that the vehicle operates on electric power a comparatively large percentage of the time.

The Audi A6 hybrid can achieve speeds of up to 100 km/h purely on electricity; at a constant speed of 60 km/h, it has a range of 3 km. It can also operate with the combustion engine only or in hybrid mode; when decelerating, it recovers power and activates both the engine and the electric motor together when accelerating quickly. Special indicators on the instrument cluster and on the MMI monitor provide a detailed display of the different driving conditions.

The Audi A6 hybrid provides the power of a V6, combined with the fuel efficiency of a four-cylinder engine. It provides a system performance of 180 kW and a system torque of 480 Nm. The hybrid sedan accelerates from zero to 100 km/h in 7.3 seconds and achieves a top speed of 238 km/h. Its average fuel consumption

is just 6.2 litres per 100 km – a CO_2 emissions level of 142 g per km (provisional figures).

Drivetrain

The Audi A6 is available with a wide range of drivetrains – here, the latest model expands on one of the previous model's great strengths. Depending on the engine version, the selection includes front-wheel drive and the continuously variable multitronic transmission (2.0 TFSI and 2.0 TDI), and quattro drive with 7-speed S tronic transmission – the lightning-fast dual-clutch transmission is a new addition to the series. Shift paddles on the steering wheel are also available as an option.

The Audi A6 2.0 TDI is outfitted with front-wheel drive as standard. The 2.8 FSI, the 3.0 TFSI and the 3.0 TDI with 180 kW are always paired with permanent all-wheel drive in Australia.

Audi has put much effort into advancing both transmission types, which deliver an impressive performance in terms of fast operation, low internal friction and high efficiency. Their wide gear-ratio spread allows for both sporty sprints in the lower gears and low revs at high speeds. The multitronic and seven-speed
The S tronic transmission is supplied with route data from the navigation system. They thus incorporate upcoming curves in their gearshift strategy to avoid unnecessary gear changes on hilly or winding roads, for example.

Both the multitronic and the seven-speed S tronic have the differential upstream of the clutch, i.e. directly behind the engine. Development engineers were thus able to move the front axle forward by 71 millimetres compared with the previous model, thereby achieving a long wheelbase and a favorable distribution of the axle loads.

All of the automatic transmissions in the new A6 are incorporated in the thermal management system via dedicated heat exchangers. As soon as the engine has heated a sufficient quantity of cooling water, the hot water flows to the transmission's heat exchanger, where it quickly brings the oil up to temperature. Warm transmission fluid is cooled via the oil cooler as needed.

Smooth and supple: the multitronic

The smooth and supple multitronic has been extensively reworked for use in the new A6. It nearly always allows the engine to operate in its optimal efficiency range. For dynamic drivers, it offers a sport program with shorter gear ratios and a manual mode with eight fixed gears.

The central component of the multitronic is the variator. It enables a large gear-ratio spread, with a ratio of 6.7 between the shortest and the longest gears. A link chain transfers force between two variable conical pulleys.

When the faces of the two conical pulleys are pushed apart or pulled closer together, the chain runs on different radii, steplessly altering the gear ratio. The hydraulic multi-plate clutch with its electronic controller also contributes to low fuel consumption by disconnecting the transmission from the engine when the car is stopped.

Lightning-fast: S tronic

In the seven-speed S tronic transmission, two oil-cooled multi-plate clutches control two independent transmission structures. The large K1 clutch located on the outside sends the torque via a solid shaft to the gear wheels for the gears 1, 3, 5 and 7. A hollow shaft rotates around the solid shaft. It is connected to the second, smaller K2 clutch, which is located inside its larger sibling, and which acts on the gear wheels for the gears 2, 4 and 6, as well as on reverse gear.

Both transmission structures are continuously active, but only one is connected to the engine at any one time. For example, when the driver accelerates in third gear, the fourth gear is already engaged in the second transmission structure. The shifting process takes place as the clutch changes – K1 opens and K2 closes. Shifting gears takes only a few hundredths of a second and is completed with almost no interruption of traction. Shifts are so fluid, dynamic and smooth as to be barely noticeable.

The seven-speed S tronic offers a number of operating modes. Fully automatic mode has two programs: D (Drive) and S (Sport); there is also a manual level, in

which the transmission adopts a sporty driving style. The seven-speed S tronic has a gear-ratio spread of up to 8.1, depending on the engine.

Unrelenting traction: quattro drive

The A6 is equipped with the latest evolution of quattro permanent all-wheel drive – the crown-gear center differential with torque vectoring. In its interior are two rotating crown gears that owe their name to the crown-like geometry of their teeth. The front crown gear drives the output shaft to the front differential; the rear crown gear drives the propshaft to the rear differential.

The crown gears mesh with four rotatable pinion gears. They are arranged at right angles to each other and are driven by the differential's housing, i.e. by the transmission output shaft. Under normal driving conditions, the crown gears rotate at the same speed as the housing. The special geometry of their gear teeth results in intentionally disproportionate leveraging: In the basic power-distribution ratio, 60 percent of engine torque is funneled to the rear axle and 40 percent to the front – a sporty characteristic.

If a shift in torque occurs due to a loss of grip at one axle, different speeds and axial forces develop within the differential. This causes both crown gears to be pushed toward the outside, pressing the plate packages behind them together. The resulting self-locking effect now diverts the majority of the torque to the axle with the better traction.

If the grip at the front axle becomes weaker, up to 85 percent of the torque flows to the rear. If the rear wheels have less traction, up to 70 percent flows to the front axle.

With this extremely broad torque distribution range, the crown-gear differential surpasses its predecessors. Torque is redistributed in an absolutely homogeneous manner without lag, and the mechanical operating method guarantees maximum efficiency. Other strong points of the crown gear differential are its compactness and low weight – at 4.8 kilograms it is roughly two kilograms lighter than the previous unit. The propshaft is not bolted to the differential but rather latched to it, saving an additional 0.6 kilograms of weight.

The new crown-gear center differential works closely together with an intelligent software solution with a brake-management component: torque vectoring, which can act on each of the four wheels separately. When driving quickly through a curve, the software computes the optimal distribution of power. If a change in wheel loads suggests that the wheels on the inside of the curve are about to slip, it marginally brakes these wheels – just a slight application of the pads on the disks at minimal pressure is all that it takes. This allows the outside wheel to transfer greater torque.

The crown-gear center differential with its constant, always precisely defined operating method permits responsive, precise torque vectoring action. The new A6 remains neutral for an extremely long time at the handling limits; the slight understeer when turning into corners and when accelerating is essentially offset. The ESP stabilisation program intervenes later and more gently – if it is even necessary at all.

Even more dynamics: the sport differential

Upon request, Audi will include the sport differential with the top-of-the-line engines in the new A6. The high-end rear differential allows for safer and even more dynamic driving. With two superposition stages, it distributes power between the rear wheels with a continuously variable action, operating even more quickly and with greater precision than the ESP stabilisation system. During fast cornering, it positively presses the sedan into the radius.

The superposition stages comprise two sun gears and an internal gear. They rotate roughly ten percent faster than the drive shaft. A multi-plate clutch provides the connection between the shaft and the superposition stage. When the clutch closes, it steplessly imposes the higher speed of the superposition stage on the outside wheel. The additional torque required in order to rotate faster is drawn away from the inside wheel via the differential. In this way nearly all of the torque can be directed to one wheel. The maximum difference between the wheels is 1,800 Nm.

The sport differential is just as effective while coasting as it is under load. Its highly precise electronic controller reacts within a few hundredths of a second. The system’s controller is integrated into the Audi drive select dynamic handling system; the driver can change between its various characteristics at any time.

When the sport differential is on board, torque vectoring only acts on the front wheels.

Chassis

The new A6 rides comfortably as a luxury sedan and takes corners with the sporty attitude of a coupé, thanks to its sophisticated chassis. The wheel control arms and many other components are made of lightweight aluminium. The new electromechanical power steering is highly efficient. The Audi drive select dynamic handling system comes standard. Audi also offers the option of adaptive air suspension and coming soon – dynamic steering.

The front suspension comprises five links per wheel – two transverse links on the upper plane, the support link and control arm in the lower plane and the track rod.

The sophisticated design can handle longitudinal and lateral forces separately. Its bearings are stiff in the lateral direction for sporty precision and respond smoothly in the longitudinal direction. The track measures 1.63 metres, 15 millimetres more than the previous model.

The control arms are aluminium forgings, which keeps the unsprung masses low. The wheel carriers and pivot bearings are also made of this same material. Even the tube-shaped stabiliser is extremely lightweight. The integral subframe for the engine and the front axle serves as the backbone of the front suspension. It is made of high-strength steel and rigidly bolted to the front end of the car – due to its high rigidity, steering forces are applied without lag.

The electromechanical steering in the A6 has been redeveloped from the ground up. It is mounted extremely low, at wheel-center height. Track rod forces are introduced directly, resulting in an agile response, high precision and precise feedback from the road. The rack-and-pinion and the power steering are arranged concentrically – an extremely compact design.

With an overall ratio of 16.1:1, the steering is sporty and direct. Boost varies as a function of driving speed. The system is extremely efficient. Because it consumes no energy when driving straight ahead, it lowers fuel consumption by as much as 0.3 litres per 100 km depending on the engine.

Electromechanical steering enables the new assistance systems, Audi active lane assist and park assist. At approximately 11.9 metres, the turning circle of the new A6 remains essentially the same compared to the previous model, despite its longer wheelbase.

Optimal characteristics: the rear axle

With a track measuring 1.62 metres, the rear axle of new Audi A6 follows the track-controlled trapezoidal link principle – a compact design that combines excellent comfort and driving qualities. The subframe comprises two steel longitudinal and lateral tubes each, which are produced using a hydroforming technique. Four hydraulic bearings connecting the subframe to the body also contribute significantly to the superior ride comfort.

The two hollow trapezoidal links are made from warm-hardened aluminium in a complex sand-casting process. The wheel carriers are made of chill-cast aluminum. The stabilizer, a steel tube, undergoes internal shot peening. This process increases its tensile strength, enabling a reduction in wall thickness and weight. Structurally separated, the springs and dampers act directly on the wheel carriers. Development engineers were thus able to achieve a high damper ratio, with dampers that respond with extreme sensitivity.

As an alternative to the standard steel spring-suspension, Audi also offers a sport suspension, which lowers the body by 20 millimetres. To lower the body an additional 10 millimetres, quattro GmbH carries an even stiffer S line sport suspension in its lineup.

Versatile: the adaptive air suspension

An optional feature for the new A6 is the adaptive air suspension with electronically controlled damping. With it, the sedan remains smooth and composed over all types of irregular surfaces. The latest generation of the system is used in the A6. Up front are struts in which the pneumatic springs enclose the shock absorbers, while separate pneumatic springs and dampers are used in the rear. The lightweight compressor is highly efficient. The aluminium pressure vessel in the spare wheel well holds 5.8 litres of air at a pressure of 18 bar.

The control unit adapts the continuous damping control (CDC) shock absorbers to the road conditions, the driver's style, and the mode specified in the Audi drive select system. Drawing on data from a number of sources, the computer readjusts its operating method individually for each wheel at millisecond-intervals. Electromagnetically actuated valves vary the flow of the hydraulic fluid between the inner and outer tube, with the damper characteristics changing as the cross section becomes larger or smaller.

The adaptive air suspension sets the ride height of the body to various levels as a function of driving speed and the wishes of the driver. In auto mode, the body is lowered by 20 millimetres once the A6 has driven for at least 30 seconds at a speed greater than 120 km/h.

This increases stability and reduces drag. The body is not lowered in comfort mode. In dynamic mode, on the other hand, the body is lowered by 10 millimetres from the outset, and is lowered another 10 millimetres when the switchpoint is reached.

On an uneven surface the air suspension can raise the body by 20 millimetres. The adaptive air suspension also serves as a high-tech level control and keeps the body at the ideal ride height at all times, irrespective of the car's load. The passengers always experience the same supreme comfort.

The brake system in the new A6 is designed for low weight and maximum performance. The brake booster is made largely of aluminium. Depending on the engine version, the internally ventilated discs measure 320, 345 or 356 millimetres in diameter up front and either 300 or 330 millimetres at the rear. Reminiscent of turbine blades, the design of the cooling ducts contributes significantly to the excellent brake performance due to its high rate of air dissipation.

The floating calipers at the front vary based on engine performance. For engines up to the middle category, two-part calipers are used, in which the hydraulic section is made of aluminium and the "fist" itself is made of cast iron. For the top-of-the-line engine versions, Audi uses single-piece dual-piston calipers, which are made completely of aluminium and which convey their power in visual terms as well. The electromechanical parking brake integrated into the calipers is quiet and lightweight.

Attractive functions: the ESP stabilisation program

The ESP stabilisation program is managed by a state-of-the-art control unit. The driver can activate a sport mode using the MMI operating system. In sport mode engine intervention is largely deactivated, and brake intervention is weakened slightly. Up to a certain speed, the system allows safe oversteering when accelerating – an exhilarating feeling for experienced drivers. The ESP also integrates an auto release function for slopes and gradients. The brake light operates on an adaptive principle; when the brakes are fully applied, it warns the traffic behind by pulsating rapidly.

Together with the electromechanical steering, the system also helps the driver with countersteering and braking when the car has traction on only one side due to slippery roads. At the start of a braking action, a steering impulse tells the driver which direction to steer in order to hold the A6 steady. The steering maneuver is supported appropriately during the braking action.

A technology that further improves the agility comes standard on the front-wheel drive models in the new A6 line: the ESP electronic stabilisation program with electronic limited slip differential. On detecting that the front outside wheel in a turn is relieved too much, the system's control unit arranges for a small and precise brake intervention there. This causes the excess torque to flow to the outside wheel. At the same time, the difference between the drive forces generates a certain yaw moment, and the sedan turns very slightly into the corner as an aid to the driver. The self-steering response remains neutral longer, and overall handling becomes more precise, agile and stable.

Large and elegant: the alloy wheels

The large alloy wheels on the Audi A6 are the perfect complement to the sporty-elegant line. All three V6 models offered from launch will be offered as standard with 18 inch wheels. Later, the four-cylinder models will be equipped with 17 inch wheels as standard.

The range of options is extensive and includes additional 18- and 19-inch wheels. At the top of the line are the 20-inch wheels with 255/35 tyres. Audi and quattro

GmbH offer highly attractive designs – semi-polished forged wheels with spoke flanks in anthracite, perhaps, or with machine-polished titanium look styling.

All tyres for the new A6 have been optimised for rolling resistance – without compromising their characteristics in terms of dynamic handling and comfort. A tire-pressure monitor display is also standard. This is an indirect measuring system that captures and analyses the characteristic vibrations of the tires via the ABS sensor system. A space-saving spare tyre is standard on Australian delivered cars.

Even more driving pleasure: Audi drive select

Among the standard equipment in the new A6 is the Audi drive select dynamic handling system. It modifies the accelerator characteristic, the shift points of the automatic transmission, and the power steering boost. The driver can vary the function of these components between the three predefined modes “comfort,” “auto” and “dynamic.” An additional mode, “individual,” allows the driver to create a preferred profile within certain limits. All TDI and TFSI models also feature the “efficiency” mode, which allows an even more fuel-efficient driving style.

The “efficiency” mode is new to the Audi model range. In addition to the engine, transmission and steering, it also controls the deluxe automatic air conditioning system and the optional components adaptive air suspension and adaptive cruise control with stop & go function. In this mode, all these systems operate at maximum efficiency. The adaptive light, ambient lighting and the Audi pre sense safety system are also integrated in the Audi drive select system; the same goes for the sport differential and dynamic steering.

Dynamic steering, which will be available soon, is another high-end technology from Audi. It varies the steering ratio by nearly 100 percent as a function of driving speed and the setting in Audi drive select. The dynamic steering system is compact and very light, weighing only 2.4 kilograms. Its centerpiece is a superposition transmission – a so-called harmonic gearbox, originally developed for robotics and space flight. Precise, low-friction and highly efficient, it moves without play and can transmit immense amounts of torque.

With its extremely direct steering ratio and extensive power assist, dynamic steering makes the A6 extremely nimble in city traffic and when maneuvering. On

interurban roads, the system becomes less direct and provides less power assist. At fast highway speeds, an indirect steering ratio and low level of power assist facilitate smooth, composed tracking.

The dynamic steering works together with the ESP stabilisation program to provide sportiness and driving safety. It even countersteers if necessary. In most situations, its subtle interventions, which the driver often does not even notice, result in a load change that reduces understeer or oversteer as necessary. The dynamic steering needs less time for its corrections than the brake system needs to develop pressure at the wheels. In many situations, it performs most of the work. This increased driving safety and sportiness is particularly pronounced when driving at higher speeds on slick surfaces.

Driver assistance systems

Audi offers a broad portfolio of optional assistance systems for the A6. Their tight integration with one another and other systems in the vehicle imbue them with maximum versatility, intelligence and performance. Particularly over long distances, these systems make driving more relaxing, easy, and pleasant.

The electronic network in the sedan is so complex that is has been endowed with a new architecture: The FlexRay bus system interlinks numerous control units from the driver assistance and chassis areas, significantly increasing the speed at which data is transferred between them.

At the center of the action: ACC stop & go

The most important and complex driver assistance system in the new A6 is the new adaptive cruise control (ACC) with stop & go function and Audi pre sense front. This high-end radar cruise control regulates the speed and the distance of the sedan to the vehicle ahead by accelerating and braking in a range from 0 to 250 km/h, and brakes the sedan automatically within certain limits. The driver uses the MMI operating system to determine how comfortably or sportily the system should work. Three levels and four distance modes are available.

The ACC stop & go makes use of a groundbreaking networking system in the vehicle to analyse data from up to 26 other systems. Its key information, however, comes from the two long-range radar sensors beneath the front of the vehicle, which operate in the frequency range of 76 to 77 GHz. They scan a field 250 metres long with an angle of aperture of 40 degrees. A small video camera in the base of the interior mirror looks ahead approximately
60 metres, also with a 40-degree angle.

With this high level of information, the system can recognise complex scenarios and predictively support the driver. It also uses the predictive route data from the navigation system so that it can also reliably calculate the proper line on the highway even in curves.

Whether changing lanes, on curvy interurban roads, passing or turning off, the ACC stop & go function resolves the situation as judiciously and confidently as an accomplished driver, making driving even more fluid and harmonious. Its range of application also includes stop-and-go city traffic, where the system conveniently slows the sedan down to a stop. To start the car off again automatically, the system uses signals supplied by the ultrasound sensors for the park assistance system located in the front bumper.

Just to be on the safe side: Audi pre sense

The Audi pre sense safety system is available in a number of different versions in the new A6. It works closely with a host of other systems and initiates preventive protective measures in the event of an imminent collision.

In the standard version Audi pre sense basic, the system becomes active when it detects an unstable driving situation via the sensors of the ESP electronic stabilization program. In such cases, it ensures the front seatbelts are electrically tensioned and the sunroof and the side windows are closed, leaving just a small gap.

Audi pre sense front comes standard in combination with ACC stop & go. Its job is to prevent potential rear-end collisions with the vehicle ahead at speeds above 30 km/h or to mitigate the consequences of such accidents.

The integrated Audi braking guard is activated in a dangerous situation to warn the driver, first with an acoustic and a visual signal. Parallel to this, the brake system is prefilled and the dampers of the optional adaptive air suspension are set to hard.

If the driver remains passive, a warning jolt – the brief activation of the brakes – is performed in the second stage. The seatbelts are lightly tensioned at the same time. If the person at the wheel steps on the pedal at this point, the hydraulic brake assistant increases the brake power appropriately for the situation. If the driver ignores the warning jolt, the system autonomously applies partial braking to slow the sedan down at a rate of 3 m/s^2, provided the car ahead is in motion. Windows and the sunroof are closed, the adaptive brake light is activated and the seat belts are tensioned.

If the A6 is equipped with the full version of Audi pre sense – Audi pre sense plus, which is part of the assistance package – a third and a fourth stage follow in the event of an emergency. The system now increases deceleration to 5 m/s^2 and tightens the belts completely. The last braking phase – autonomous full braking – occurs roughly half a second before an inevitable collision. The collision and its consequences are greatly reduced, because by the time the impact occurs the sedan can reduce its speed by as much as 40 km/h.

Another subfunction, Audi pre sense rear, is coupled with Audi side assist. If the system detects an imminent rear-end collision, it uses the adaptive brake light to warn the traffic behind. Preventive protective measures are activated if the situation turns critical.

Lane-changing made easy: Audi side assist

Audi side assist including Audi pre sense rear kicks in at 30 km/h. Two radar sensors at the rear of the car monitor what goes on behind the A6 at a distance of approximately 70 metres. If another vehicle moves into the critical zone, a yellow LED display lights up in the housing of the exterior mirror. If the turn signal is nevertheless activated to indicate a lane change, the indicator becomes bright and begins to blink quickly – a signal that can hardly be overlooked.

Always on track: Audi active lane assist

Audi active lane assist is a cutting-edge new assistance system in the A6. Activated at speeds above 65 km/h, it detects the markings on the road using a video camera in the base of the interior mirror. Its image-processing software can distinguish up to eight lines and their colors.

If the sedan approaches a line without the turn signal being activated, the system helps the driver to steer back into the lane by intervening gently in the electromechanical steering. The driver uses the MMI to determine how soon the intervention occurs and whether it should be combined with steering wheel vibration and a warning tone.

If the car is in danger of skidding, Audi active lane assist supports countersteering by briefly boosting or reducing the degree of power support. The system can also take objects in the adjacent lane into account and incorporate them into its strategy. It also uses steering movements to determine when the driver's concentration begins to lessen and adjusts its interventions accordingly.

See farther: night vision assistant

Another high-end system in the new Audi A6 is the night vision assistant with highlighting of detected pedestrians. Its thermal imaging camera located in the single-frame grill works as a far infrared system (FIR), meaning that the camera reacts to the heat radiated by objects. A computer converts the information from the camera into black-and-white images and shows them on the 7-inch driver information system display.

The far infrared camera is integrated into one of the Audi rings on the single-frame grill. Depending on the car’s speed, it can see as much as 300 metres ahead with its 24-degree angle of aperture, far beyond the range of the high beams. A protective window protects it from flying stones. It is heated in cold weather and cleaned along with the headlights when dirty. Whereas the cooler road appears dark, animals and people are shown eye-catchingly brightly due to the heat they radiate. The image-processing software, which specifically targets objects such as heads, can detect them at up to 100 metres away and highlights them with yellow markings on the display.

If the computer assumes a hazardous situation, the person is marked red and a warning signal sounds. The red marking also appears optionally in the head-up display. Like every assistance system, the night vision assistant also works within certain, very liberal system limitations.

Automated parking: park assist

Another Audi innovation in the vehicle class is the park assist system. It uses ultrasonic sensors that detect and measure parking spaces on the side of the road when driving slowly. When it finds one that is large enough, it indicates this on the large driver information system display. As soon as the driver engages reverse gear, the system takes over and parks the car – all the driver needs to do is accelerate and brake.

The park assist system maneuvers the A6 into both parallel and perpendicular spaces relative to the road. When parallel parking, the space must be just 0.80 metres longer than the car. If necessary, the system will make multiple maneuvers, forward and backward. It assists in the same way when leaving the parking space. The maximum parking speed is 7 km/h.

In addition to the new park assist system, Audi provides two additional solutions to help the driver when parking: parking system plus with acoustic and visual cues and the reversing camera, which operates with a fish-eye lens. Aided by a software program, it displays a distortion-free image of the area behind the A6 on the MMI monitor, along with supporting projection lines and surfaces.

Multimedia systems

In navigation of infotainment technology, the Audi A6 is setting new standards in its class. Audi Australia has equipped the highest grade as standard: MMI navigation plus, with its groundbreaking touchpad, the MMI touch.

Top-of-the-line: MMI navigation plus

The top of the line is MMI navigation plus, which comprises two modules. The radio unit combines the functions of tuner and sound system. The main unit contains additional important components, including a DVD drive, two card

readers and a 60-GB hard disk with the navigation data. One-third of its capacity is reserved as storage for phone and music data. Two processors ensure that all applications run quickly, simultaneously and smoothly.

A dedicated 3D graphics processor from NVIDIA, the market leader, generates the three-dimensional images in top quality. The map is a high-resolution 3D model with points of interest in many cities recreated in great detail. The driver can choose between route guidance using the classic arrows or a new, animated display rich with detailed information.

MMI navigation plus uses an 8-inch diagonal onboard monitor. Thanks to its high resolution of 800 x 480 pixels, the large screen delivers extremely sharp images in vibrant colors. Graphics, including the cover art for the audio titles, are elegantly sculptured.

Just like a notebook: MMI touch

MMI navigation plus comes with a groundbreaking innovation from Audi: MMI touch with black panel technology. The driver enters a destination or the telephone number by drawing the letters and numbers on the touch-sensitive control panel with a finger. The system provides brief acoustic feedback after each character so that the driver’s eyes can stay on the road. MMI touch, whose memory can draw on millions of samples from around the world, also recognizes the characters of numerous Asian languages. It can also be used to move the map and scroll in lists.

The push of a button transforms the pad into a control panel containing six freely selectable radio stations. From a technical perspective, it comprises a sensor module and a computer located beneath. A processor recognises the symbols drawn by the driver and passes them on to the MMI system. The sensor module is made up of a touch-sensitive film criss-crossed by many conductors and a face plate, illuminated from below by white high-performance LEDs.

A special coating ensures that the face plate can withstand 600,000 input operations without noticeably degrading its classy appearance. Along with MMI touch, the A6 also offers the familiar Audi operation with the MMI rotary pushbutton. Finally, the system also features advanced voice control that allows

the city and the street to be entered as a spoken command. It can also access the phone and music data on the hard disk.

Audi offers a wide selection of modules to supplement this system. These include a CD or DVD changer in the glove box, a dual tuner for digital radio reception (digital audio broadcasting, DAB) and an analog/digital TV tuner. The Audi music interface conveniently integrates a modern mobile player or an iPhone into the on-board audio system. The Bluetooth mobile phone preinstallation includes a hands-free system that can be operated via the MMI, the voice control system or the multifunction steering wheel.

Terminal devices are connected via USB adapters. A rear seat entertainment system with two 10-inch monitors is also coming soon.

High-end sound: the sound systems

The Bose surround sound system is standard in the 3.0 TDI and 3.0 TFSI models, and integrates a twelve-channel amplifier with an output of over 600 watts. It powers 14 speakers, including a center speaker and subwoofer, and delivers powerful, life-like and accurate sound. A special algorithm enables the Bose system to also play stereo signals in 5.1 sound in combination with the MMI navigation plus.

The top version, the Advanced Sound System from Bang & Olufsen, ups the ante with two amplifiers and 1,300 watts of power. This system from Denmark's audio specialists delights even critical hi-fi connoisseurs with a broad, finely differentiated frequency range, powerful base notes, transparent mid-tones and crystal-clear highs.

Bang & Olufsen sound technology is so complex that more than 1,200 parameters are influenced by the individual settings of the users. The proprietary Upmix algorithm distributes stereo signals across up to seven channels and can simulate acoustic reflections just like in a concert hall. The amplifier for the subwoofer is particularly energy-efficient thanks to the manufacturer's ICE technology. It is also compact and lightweight.

The Advanced Sound System integrates 15 active speakers with polished-aluminum housings. The front doors contain boxes, which do not emit any

frequencies via the sheet metal surfaces. Recessed in the instrument panel are two elegant acoustic lenses for the high frequencies. They extend outward when the system is switched on.

Equipment and trim

The new Audi A6 offers all the comfort of the luxury class. An extensive selection of standard features and attractive options will already be available at sales launch.

All Australian V6 models offer the dynamic and powerful-looking S line exterior package as standard.

All Australian V6 models also offer MMI navigation plus as standard fitment.

Comfort and convenience features include the two-zone deluxe automatic air conditioning system, the start-stop button for the engine and the four-spoke leather multifunction steering wheel.

The MMI navigation plus system is also standard in Australian V6 models, along with a light and rain sensor, and electromechanical parking brake, an auto release function, a cruise control system and an acoustic-insulating front windshield. Armrests in the front and back and a number of storage compartments provide for added comfort.

The exterior boasts a striking high-gloss package around the side windows and elegant alloy wheels in 17-inch and 18-inch format (depending on the engine version). A control function monitors the tyre pressure. The adaptive brake light warns drivers behind when the emergency brakes are applied. The housing of the power-heated and power-adjustable exterior mirrors sport LED turn signals.

The standard safety package comprises two front, two side and two head airbags, four belt tensioners, the integral head restraint system, five head restraints and two Isofix fixtures in the back for child seats. The Audi pre sense basic system rounds out the safety equipment.

The standard Audi drive select dynamic handling system is intended especially for sporty drivers. The two top-of-the-line engines in the new model line transmit

power to the road via the fast-shifting seven-speed S tronic and the latest-generation quattro permanent all-wheel drive. The front-wheel drive models come with the ESP stabilisation program and an electronic limited slip differential.

The energy recovery system and the start-stop system help to reduce fuel consumption in all units.

Luxury class: optional extras

A variety of optional extras makes the driving experience in the new Audi A6 even more safe and comfortable. Among them are the head-up display, four-zone automatic air conditioning with a separate control unit in the back, an auxiliary heater, a wide selection of steering wheels, and anti-theft system, and sun blinds for the rear windshield and rear side windows.

Other luxurious options includes a lighting package and a power servo function for closing the doors. Audi also offers an optional glass sunroof.

The seating options are also luxurious, ranging from a power lumbar support to the sport seats and the comfort seats with optional heating and massage. A storage package brings order to the interior and the luggage compartment, and a power boot lid makes loading even easier.

Audi has prepared a large number of special features for those who appreciate the exceptional: a leather package, various sophisticated upholsteries and inlays, and an S line sport package that drapes the interior in black. It is combined with sport suspension, 18-inch or 19-inch wheels, sport seats and a special steering wheel.

Audi offers two different sport suspensions for dynamic drivers. The sport differential completes the quattro drive. Shift paddles on the steering wheel make the automatic transmissions even sportier to use. The adaptive air suspension combines luxurious ride comfort with impressive agility. The wheels are available in sizes up to 20 inches with 255/35 tyres.

Lighting technology is a particular Audi strength. The adaptive light with variable headlight range control is available for the A6 with xenon plus headlights. The top version in the range are the LED headlights, which use light-emitting diodes for all functions. In addition, Audi also offers LED technology for the rear lights.

Particularly extensive is the line of driver assistance systems. At their very heart is the adaptive cruise control with stop & go function including Audi pre sense front – a high-end radar cruise control with warning system. Audi side assist including Audi pre sense rear monitors traffic behind the new A6 and provides information to help the driver when changing lanes.

Audi active lane assist enables to driver to stay in the lane with effortless ease and the night vision assistant with highlighting of detected pedestrians looks far ahead into the darkness. For convenient parking, a number of solutions are available, including the automated park assist system. The assistance package including Audi pre sense plus combines the most important systems.

Pricing and specification of the four-cylinder A6 models will be announced closer to launch.

Audi A6 Manufacturers List Price:
(MLP excludes dealer delivery and government statutory charges)

Audi A6 2.8 FSI quattro: $93,900

Audi A6 3.0 TDI quattro: $116,500

Audi A6 3.0 TFSI quattro: $121,500

Assistance and infotainment systems

- Standard MMI touch system with 8 inch full-colour monitor and MMI navigation plus, optional Bang & Olufsen Advanced Sound System
- Advanced safety and assistance systems such as Audi pre sense, adaptive cruise control with stop & go function, Audi active lane assist, Audi side assist, night vision assistant and park assist
- Optional full-colour head-up display