

Corporate Communications Department  
Audi Australia Pty Ltd  
895 South Dowling St,  
Zetland NSW 2017

Anna Burgdorf  
+61 2 9695 6250  
[anna.burgdorf@audi.com.au](mailto:anna.burgdorf@audi.com.au)

Shaun Cleary  
+61 2 9695 6252  
[shaun.cleary@audi.com.au](mailto:shaun.cleary@audi.com.au)

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## **Elegance, power and efficiency – the new Audi A5**

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**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

### **A successful car is now even better – the new Audi A5**

**Audi is refreshing the A5 model series. The Sportback, the Coupé, the Cabriolet and the S5 models now feature a new design, with striking lines bringing a heightened level of dynamism to the A5's visual expression. Even sportier performance and class-leading efficiency are characteristic of the new engine line-up, and these are complemented by cutting-edge technologies like the new electromechanical power steering system.**

The A5 Sportback, the A5 Coupé and the A5 Cabriolet are special Audi masterpieces in visual terms alone: their flowing silhouettes, crisp lines and accentuated surfaces make bold statements. Many design flourishes are now particularly striking on these new and improved models.

The high-gloss black single-frame grille has angled upper corners; its transverse ribs and the Audi rings appear three-dimensional. The new bumper integrates striking air inlets with robust strips, new grilles and sleek fog lights. Crisply rendered edges give form to the engine hood; the front end appears even flatter and broader.

The new headlights resemble a wedge. Their lower edge forms a wave and their interior has been restructured. With respect to the xenon plus headlights, the LED daytime running lights constitute a narrow brace; upon request, Audi will supply its adaptive light system with dynamic cornering and static turning lights. The rear lights have also been modified in conjunction with xenon plus units featuring LED light strips. The bumper has likewise undergone changes.

Modifications have increased the exterior length of all three A5 models by one millimetre. The Sportback is 4.71 metres long, the Coupé and the Cabriolet 4.63 metres. The new portfolio of paint finishes comprises 15 different colors and the acoustic roof of the A5 Cabriolet is available in four colors. The S line exterior package is available for aficionados of a particularly dynamic look.

The vehicle bodies excel thanks to high rigidity, outstanding crash safety, refined vibrational comfort and low weight. The front fenders are made of aluminium for improved axial load distribution. Aerodynamic fine-tuning measures include a lined underbody.

## **Interior design**

The A5 models' interiors have become even more elegant. Audi equips the interior with new steering wheels (with a flat-bottomed rim upon request), new pitman arms, a new automatic selector lever and understated chrome braces on the controls.

Buttons now allow you to operate the optional seat-heating and seat-cooling systems. The ignition key and the button for controlling the optional Audi drive select vehicle dynamics system as well as controls for the highly efficient automatic air conditioning system and the multifunction steering wheel have also been overhauled. The centre console's displays are now illuminated in white.

The fascias in the instrument cluster and on the centre console bear a new finish. The upholstery and decorative inlays – in Aluminium Trigon as well as two types of wood: walnut dark brown and fine grain ash natural – are likewise new selections. Nearly all interior colors are new. In the Coupé and Sportback, Fine Nappa leather is available instead of Valcona leather. Upon request, armrests will also be covered with leather.

Another attractive option is the S line sport package. It covers the interior in black and refines it with elegant trim inserts. The sport suspension lowers the vehicle body by 10 millimetres and 18-inch wheels round out the package. Particularly sophisticated customers will find many more customisation opportunities in the Audi exclusive range – such as the Audi exclusive line with two-tone seat covers.

## Engines

The A5 family sets new standards for sportiness and efficiency. All the engines are turbocharged direct-injection units which provide plenty of torque; even the entry-level engine delivers 320 Nm of torque. The start-stop system and the energy recuperation system are standard in every version – no other manufacturer is so resolute. The portfolio comprises three petrol engines and two TDIs; their CO<sub>2</sub> emissions have been reduced by up to 18 percent.

The fundamentally redesigned 1.8 TFSI (new for Australia) boasts trailblazing innovations: from the control of valves and their lift through thermal management and the injection system to the turbocharger and the integration of the exhaust manifold. In the A5 Coupé, the four-cylinder engine sips a mere 5.8 l/100 km – which equates to 134 grams of CO<sub>2</sub> per km – the best of any vehicle in its class. It offers a handy 125 kW of performance. The output of the 2.0 TFSI remains unchanged at 155 kW. The new 3.0 TFSI, a supercharged V6, generates 200 kW.

The diesel engines are also impressively efficient, and the four-cylinder units feature modifications in numerous areas. In conjunction with a multitronic transmission in the A5 Coupé, the 2.0 TDI (new for Australia) delivers 130 kW, while averaging just 4.7 l/100 km and emitting 123 grams of CO<sub>2</sub> per kilometre. This has earned Audi a top spot in the coupe segment – as the most efficient coupe. A 3.0 TDI V6 unit rounds out the lineup at the top end, producing 180 kW.



## **Drivetrain**

Irrespective of the engine, Audi offers the ideal transmission. The front-wheel-drive models roll off the assembly line with a continuously variable multitronic transmission. Audi offers quattro configurations with the lightning-fast seven-speed S tronic, with a manual option for the 2.0 TFSI quattro Sportback and Coupe models. All of the transmissions shine with their convenience and precision, high efficiency and wide gear spread. The long ratios in the upper gears reduce fuel consumption.

As for the quattro permanent all-wheel drive system, the A5 family relies on a self-locking centre differential. Under normal driving conditions, this purely mechanical component distributes the engine's power primarily to the rear wheels. If necessary, it can redistribute power uniformly and at lightning speed. Torque vectoring, a sophisticated software solution, renders handling even more precise by means of minor, targeted braking intervention.

With regard to the 3.0 TDI quattro, 3.0 TFSI quattro and the S models, a sport differential is available as a perfect complement. It actively distributes torque between the rear wheels as needed and grants the A5 maximum precision and superb traction.

## **Chassis**

The A5 models set standards for sporty dynamics, luxurious ride comfort and excellent driving safety. The five-link front suspension and the trapezoidal-link rear suspension have a high level of aluminium content. The arrangement of the rear trailing arms and the shock-absorber tuning have been revised: the precision and the ease of handling are better than ever.

Another addition to the A5 model line is standard, electromechanical power steering. It is direct, reacts instantaneously and provides a responsive and precise road feel. This system conserves as much as 0.3 litres of fuel per 100 kilometres because it requires no energy whatsoever at the straight-ahead position.

All front-wheel-drive versions of the A5 feature the electronic stabilization program (ESP) with electronic limited slip differential. ESP uses minimal braking interventions at the inside front wheel for even more agility during dynamic driving. The large brakes enable rapid deceleration and can be applied very well.

Among the high-end features in the A5 family is the optional Audi drive select. It regulates the power steering, engine management, automatic transmission and automatic air conditioning system. The driver can choose the mode in which these systems operate: comfort, auto, dynamic or efficiency. If there is an onboard navigation system, then the additional individual mode is also included. More components can be added: adaptive cruise control or cruise control, the chassis with damper control, the sport differential and dynamic steering, whereby the steering ratio is adjusted to the vehicle's speed.

### **Assistance systems**

Assistance systems in the A5 model series make driving even more assured; several of these systems have been upgraded with new functions. Standard equipment in all models is the new driver information system with break recommendation. It monitors the driver's steering and other parameters to detect if and when they become tired – and will correspondingly warn the driver.

Audi side assist supports the driver when changing lanes by using radar to monitor the area behind the car. Audi active lane assist – now in the A5 – helps the driver to remain in their lane. A camera identifies lane markings on the road surface; if necessary, the system will gently correct the steering. Adaptive cruise control has been enhanced and makes use of radar to detect vehicles ahead of the A5 and continuously maintain an appropriate following distance. If the threat of a rear-end collision becomes imminent at speeds below 30 km/h, this system will perform a full brake application.

## **Infotainment system**

The infotainment systems in the A5 have been fundamentally advanced. MMI navigation plus features a large hard disk drive, a DVD player and a seven-inch color monitor with 3D navigation mapping. The system has been further refined with respect to the ease of operation.

## **The Audi S5**

This model line's top-notch models – the S5 as Sportback, Coupé and Cabriolet – have similarly been refined. A 3.0 TFSI engine with 245 kW and an S tronic transmission now powers every version of the S5 line, including the Coupé. It consumes just 8.1 litres of fuel per 100 km while delivering impressive driving performance. The two-door S5 sprints from 0 to 100 km/h in 4.9 seconds and goes on to reach an electronically governed top speed of 250 km/h.

In terms of new looks, the S models now feature new lights, modified body flourishes and new crystal-effect colors; the interior likewise exhibits refined changes. Electromechanical power steering represents yet another key technical innovation. The S sport suspension and 18-inch wheels featured on the S5 deliver ferocious road grip.

## Prices

Even though all A5 models have been extensively refined, Audi has only made small adjustments to pricing. In the case of the entry-level A5 Coupé and Sportback 1.8 TFSI, the Manufacturer's List Price is only \$66,990, which is a significant reduction compared to the previous entry-level model.

### Manufacturer's List Pricing MLP (excl on road costs)

<b>Model</b>	<b>Power</b>	<b>MLP</b>	<b>L/100km</b>
A5 Sportback 1.8 TFSI multitronic	125	\$66,900	5.9
A5 Sportback 2.0 TDI multitronic	130	\$68,700	4.8
A5 Sportback 2.0 TFSI quattro manual	155	\$80,900	6.8
A5 Sportback 2.0 TFSI quattro S tronic	155	\$83,200	7.0
A5 Sportback 3.0 TDI quattro S tronic	180	\$95,900	5.7
A5 Sportback 3.0 TFSI quattro S tronic	200	\$100,800	8.1
S5 Sportback 3.0 TFSI S tronic	245	\$135,900	8.1
A5 Coupe 1.8 TFSI multitronic	125	\$66,900	5.8
A5 Coupe 2.0 TDI multitronic	130	\$68,700	4.7
A5 Coupe 2.0 TFSI quattro manual	155	\$80,900	6.8
A5 Coupe 2.0 TFSI quattro S tronic	155	\$83,200	7.0
A5 Coupe 3.0 TDI quattro S tronic	180	\$95,900	5.7
A5 Coupe 3.0 TFSI quattro S tronic	200	\$100,800	8.1
S5 Coupe 3.0 TFSI quattro S tronic	245	\$135,900	8.1
A5 Cabriolet 1.8 TFSI multitronic	125	\$78,500	6.2
A5 Cabriolet 2.0 TDI multitronic	130	\$80,900	5.0
A5 Cabriolet 2.0 TFSI quattro S tronic	155	\$96,900	7.2
A5 Cabriolet 3.0 TDI quattro S tronic	180	\$108,800	5.9
A5 Cabriolet 3.0 TFSI quattro S tronic	200	\$112,900	8.5
S5 Cabriolet 3.0 TFSI S tronic	245	\$146,500	8.5

## At a glance

### **The new Audi A5/S5**

#### **Design and body**

- Elegant, sporty design with dynamic new flourishes
- Xenon plus headlights with LED daytime running lights and LED rear lights
- Three versions: Sportback, Coupé and Cabriolet – all available as S models, too
- Lightweight vehicle body; front fenders made of aluminium

#### **Interior and controls**

- Further optimized operating philosophy; stylish new materials and colors
- Standard and new driver information system with break recommendation
- High-tech driver assistance systems – e.g. Audi active lane assist and adaptive cruise control with automatic full brake application below 30 km/h

#### **Drivetrain**

- Three petrol engines and two TDIs; output from 125 kW to 200 kW, supercharged V6 with 245 kW now in all three S models
- New 1.8 TFSI with innovative solutions in numerous fields of engineering
- Start-stop system and recuperation system are standard in every version; average fuel consumption reduced by 11 percent
- A six-speed manual transmission, multitronic or seven-speed S tronic – depending on engine version
- quattro with torque vectoring; a sport differential for the 3.0 TDI quattro, 3.0 TFSI quattro and all S models

#### **Chassis**

- Meticulous finishing touches for even greater precision, sportiness and comfort
- ESP with electronic limited slip differential – standard with front-wheel drive
- New and highly efficient electromechanical power steering
- Audi drive select with as many as five driving modes
- Large wheels measuring 18 to 20 inches in diameter; strong brakes

#### **Infotainment system**

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

Full version

## **The sharper drive – the new Audi A5**

**Audi is refreshing the A5 model series. The Sportback, the Coupé, the Cabriolet and the S5 models now feature a new design, with striking lines bringing a heightened level of dynamism to the A5's visual expression. Even sportier performance and class-leading efficiency are characteristic of the new engine line-up, and these are complemented by cutting-edge technologies like the new electromechanical power steering system.**

### **Exterior design**

Audi holds the global leadership role in terms of automotive design – and the models in the A5 family impressively demonstrate this status. The two-door Coupé, the Cabriolet and the five-door Sportback dazzle thanks to their well-balanced proportions, long engine hoods, short overhangs and long wheelbases.

The taut yet flowing design of the A5 models broadcasts engineering aesthetics in every detail – in the crisply styled lines and in the athletically sloped surfaces, for instance. The gentle curves which carry the shoulder line above the wheels render the sides dynamic. The roof, or the convertible's soft top, drapes itself as a smoothly sloping dome spanning the vehicle body.

Many design details are more striking regarding the new and improved A5 models. The front end appears even flatter and broader. Pronounced edges underscore the engine hood's sculpture-like appearance. The high-gloss black single-frame grille has angled upper corners; its precision-molded transverse bars and the Audi rings are rendered three-dimensionally.

The reinvented bumper integrates large air inlets, which taper inward to a point and are bordered by powerful edges. They have new honeycomb grilles, angular fog lights and flared cross-ribs which are reminiscent of a racing car's blades. The level air inlet below the single-frame grille has also been newly designed; vertical bars divide it into four sections.

The headlights have also been modified. Their interior has been restructured, the housing resembles a wedge, and their lower edge forms a wave. With respect to the xenon plus headlights (standard across the range), the LED daytime running lights – which require remarkably little energy – constitute a narrow and visually homogeneous brace, which very nearly encompasses the lighting unit and the turn signal. Upon request, Audi will supply its adaptive light system with dynamic cornering and static-turning lights.

The rear lights are now a bit more angular, featuring LED technology for all three models. The rear lights comprise a visually homogeneous curve: the turn signal is a line along the upper edge and the brake light is in between. Modifications have also been made to the Audi rings, the bumper and the diffuser insert. Depending on the engine in question, the exhaust system is single-branch or dual-branch.

### **Broad array: 15 paint finishes**

Audi offers 15 different paint finishes for the new A5. The solid colors are Ibis White, Brilliant Red and Brilliant Black. The metallic and pearl-effect colors are as follows: Ice Silver, metallic; Lava Grey, pearl effect; Phantom Black, pearl effect; Teak Brown, metallic; Glacier White, metallic; Scuba Blue, metallic; Moonlight Blue, metallic; Shiraz Red, metallic; Monsoon Grey, metallic; and Cuvée Silver, metallic. There are two additional options, available exclusively in combination with the S line sport package: Daytona Grey, pearl effect and Misano Red, pearl effect.

The A5 Cabriolet's three-layer soft top is available in black. And the acoustic roof, which boasts an additional layer of polyurethane foam, is available in gray, red or brown, as well. Both soft tops are very lightweight; they open in just 15 seconds and close in 17 – fully automatically, at the push of a button. And if you are travelling below 50 km/h, you do not even need to stop! Putting the soft top down reduces cargo capacity only slightly. A wind deflector is fitted as standard.

The A5 Cabriolet rolls off the assembly line with an aluminium-look exterior. The surface of the windshield frame, the anti-glare strip and the window capping strips are made of anodized aluminium. The Coupé and the Sportback, on the other hand, feature the high-gloss package: the window capping strips and the roof frame are aluminium. A stylish option for the hard-top models is the Audi exclusive black styling package.

Audi has put together something special for aficionados of a particularly dynamic look: the S line exterior package. Its uniquely striking solutions range from the front and rear bumpers through the air inlets in a honeycomb look and a platinum-grey diffuser insert to sill moldings painted the same color as the body. The sill trims and the front fenders bear S line logos.

## **Bodies**

The A5 Sportback is 4.71 metres long; the Coupé and the Cabriolet 4.63 metres. All models are 1.85 metres wide; their height ranges from 1.37 metres for the Coupé to 1.39 metres for the Sportback. The basic version of the A5 Coupé has a frontal area of 2.17 m<sup>2</sup> and the vehicle's drag coefficient is just 0.29 Cd – thanks to extensive, sophisticated tweaking and an underbody covered completely with panels.

On all three models, the vehicle bodies integrate a number of high-strength and ultra-high-strength steel panels which – in turn – reduce the car's weight while enhancing its rigidity, vibrational comfort and overall safety. The front fenders are made of aluminium for improved axial load distribution. An empty A5 Coupé 1.8 TFSI (no driver) weighs a mere 1,455 kg.

In the core of the passenger compartment – at the centre tunnel, B-posts, inner sills and bulkhead transverse member – hot-formed steel units constitute a robust array. Their exceptional tensile strength is the result of the metal sheets undergoing a special type of heat treatment. Additional reinforcement components for the A5 Cabriolet offset its lack of a hardtop. A



new front-end capsule made of aluminium, for instance, further refines vibrational comfort.

A special structural adhesive is used extensively during assembly of the body to further bolster the strength of joints. In the doors and at the sills, another high-end technology is used: remote laser welding. A nearly invisible zero-gap joint unites the side panels with the roof. This joint, created via intricate plasma brazing, illustrates the great precision with which Audi produces its vehicles.

An array of precisely arranged metal sections with defined deformation properties will protect passengers in an accident. Both front airbags recognise the precise positions of the driver and front-seat passenger to provide excellent protection for passengers of all sizes. In addition, there are side airbags in the front and in the rear, as well. Last but not least, a head airbag system also stands at the ready. In lieu of that, the A5 Cabriolet features head-and-thorax side airbags in the front, complemented by a special system: If a roll-over accident is imminent, then sturdy aluminium plates behind the rear head restraints will instantaneously thrust upward.

An integral head-restraint system is standard for all models. It diminishes the risk of whiplash in the event of a rear-end collision by supporting the upper body parts and heads of front-seat passengers. And the seatbelt tensioners ensure that passengers remain safely seated during a severe rear-end collision.

All three body versions in the A5 family offer generous cargo capacities. The Coupé features a base capacity of 455 litres; for the Cabriolet, it is 380 litres with the top closed and 320 litres with the top open; for the Sportback, it is 480 litres. It is standard in all models that the rear seat backs can be folded down separately; doing so in the A5 Sportback increases cargo capacity to as much as 1,263 litres. The trunk lid of the A5 Coupé opens automatically.

Fastening rings are standard in all models. Audi also offers nets, retaining hooks and a load-through hatch (not available for Cabriolet). There is a wide selection of accessories such as special carriers, holders and transport boxes.

## **Interior**

Flawless functionality and plenty of room – the A5 models' interiors offer the hallmarks of excellence which Audi is renowned for. The interiors are tailored like a sleek-fitting suit: bright, elegant, clear. The styling is sublime. The selection of materials and their incorporation reflect Audi's uncompromising commitment to excellence; an A5 interior promotes sensory bliss.

The front seats are contoured. They are fully electrically adjustable; in the Cabriolet, automatic seat-belt extenders enhance the luxury. The optional climate-controlled comfort seats feature small built-in fans for ventilation and S sport seats are available in combination with the S line sport package. In the A5 Cabriolet, customers can opt for head-level heating, which blows warm air out of the upper seat back at one of three settings.

As a rule, all A5 versions have two rear seats. The Sportback and the Coupé feature a centre armrest in the rear; all models feature plenty of storage compartments and cup holders.

### **Even classier: paints and materials**

The interior has become even more elegant. Aluminium Trigon inlays are standard, and two types of wood are optionally available: walnut dark brown and fine grain ash natural brown. Nearly all colours for the headlining, carpeting, instrument panel, door trims and upholstery are new. Depending on the model in question, Audi offers black, garnet red, amulet red, lunar silver, chestnut brown, chennai brown, velvet beige and titanium grey.

High-grade Milano leather upholstery is standard for the seats. Fine Nappa leather is optional, as is – in the Audi exclusive range – Valcona leather. Upon request, armrests will also be covered with leather. Leather in the A5 Cabriolet has been specially pigmented to prevent it from becoming too hot due to sunlight.

Another sporty option is the S line sport package. It covers the interior in black and refines it with flourishes at the inlays and on the sport steering wheel as well as on the shift lever or selector lever. The sport seats and the

optional S sport seats both provide firm support; gray or black stitching accentuates the look. Sport suspension and a choice of 19- or 20-inch wheels round out the package, as well as S line badges on the body and on the door sill trims. These can be combined with many more options.

Particularly sophisticated customers will find many more customisation opportunities in the Audi exclusive range. Among them is the stylishly selected Audi exclusive line with two-tone seat covers, which can be paired with the S line sport package for the first time.

### **Meticulous finishing touches: controls**

With regard to the controls – a traditional strength of Audi – the A5 models' have been further refined. They feature new ignition keys and indicator stalks. Three- spoke sport steering wheels covered in leather are also available with a flat- bottomed rim, and modified multifunction pushbuttons and shift paddles. Many controls for the air conditioning system, infotainment, power windows and even the electric seat adjusters bear understated chrome braces.

Buttons allow you to switch among three settings for the optional seat-heating and seat-cooling systems; the centre console's displays are illuminated in white throughout.

A new selector lever is used for the automatic transmissions. In addition, the developers altered the means for shifting to the S program – one tap is now all that is needed. And just one button now suffices for controlling the optional Audi drive select. Operation of the highly efficient automatic air conditioning system has also been tweaked, and the three-zone deluxe automatic air conditioning system features a new particulate-matter filter.

All A5 models roll off the assembly line with generous standard-equipment packages. Equipment includes the concert radio with a CD player, a 6.5-inch colour screen and the driver information system. Additional attractive standard features include an electromechanical parking brake and LED daytime running lights. The deluxe automatic air

conditioning system that maintains the interior temperature in three separate zones is standard on all except entry level models.

In addition, Audi provides a broad spectrum of options. The driver need not take the key fob out of their pocket, for example; the fob remotely unlocks the doors and the driver can turn the vehicle on at the push of a button. The electro- mechanical parking brake can be supplemented by an auto-release function. The high-beam assistant switches automatically between low-beam and high- beam headlights.

Audi supplies a glass sunroof for the Sportback and – for the Coupé – a panoramic tilting sunroof and a rear-window shade.

## Engines

Engines in the A5 family – three petrol engines and two TDIs – raise the bar in terms of sportiness and efficiency. All these engines embody Audi's downsizing philosophy. These turbocharged direct-injection units provide plenty of torque; even the entry-level four-cylinder engine delivers 320 Nm of torque. The recuperation system and the start-stop system are standard in every version – no other manufacturer is so resolute. Across this model line, CO<sub>2</sub> emissions have been reduced by 11 percent on average – even though several engines have grown more powerful.

Even the 1.8 TFSI, which has the lowest displacement, demonstrates Audi's engine expertise. Audi specialists have thoroughly enhanced the four-cylinder unit and created new solutions regarding numerous aspects of engineering. This hard work pays off in the form of robust performance and great fuel efficiency.

The high-end four-cylinder engine attains its maximum torque of 320 Nm at just 1,400 rpm and steadily transmits it as high as 3,700 rpm. At just 3,800 rpm, it reaches its maximum output of 125 kW. The 1.8 TFSI propels the Audi A5 Coupé from 0 to 100 km/h in 8.2 seconds en route to a top speed of 228 km/h. It nevertheless averages just 5.8 litres of fuel per 100 km, which equates to 134 grams of CO<sub>2</sub> per km – a new best figure in its segment. Compared with the predecessor engine generating 118 kW, fuel consumption has dropped by 18 percent.

A central innovation in the 1.8 TFSI is the addition of indirect fuel injection. At partial throttle, it aids the FSI petrol direct injection to further boost fuel efficiency and reduce particulate emissions to levels stipulated by the EU's upcoming Euro 6 standard. FSI fuel injection is active when the vehicle starts up or is operating under high loads. The valve gear has been granted new degrees of freedom. The Audi valvelift system, which varies the lift of the valves as needed, acts on the exhaust valves; the camshafts are adjustable.

Innovative thermal management constitutes yet another new feature: two rotary slide valves regulate the flow of coolant. These valves ensure that the

engine oil heats up to its operating temperature soon after the vehicle is started; they also maintain the water temperature, as per a given driving situation, between 85 and 107 degrees Celsius. As a result – regardless of load or engine speed – the valves always strike the perfect balance between minimal friction and high thermodynamic efficiency.

The exhaust manifold is integrated into the cylinder head, where it is bathed in water. This solution cools the exhaust gas. The turbocharger is also a new development. Its most important innovation is an electric wastegate actuator that adjusts the boost pressure particularly quickly and precisely. It also optimizes the engine's responsiveness.

The weight of the 1.8 TFSI has been reduced from 135 to 131.5 kilograms. Internal friction has also been significantly reduced by the use of an innovative coating on the piston skirts and by mounting the two balance shafts in roller bearings. The regulated oil pump requires little energy itself, and a high-precision electric system controls the oil-jet cooling for the piston heads.

### **Proven champion: The 2.0 TFSI**

The 2.0 TFSI – declared Engine of the Year five times in a row, from 2005 through 2009 – is the mid-range petrol engine in the A5 portfolio. Its highlights include adjustable intake camshafts, the Audi valvelift system at the exhaust end, two balance shafts, minimized internal friction, the new turbocharger and the regulated oil pump.

The 2.0 TFSI delivers 155 kW and generates 350 Nm of torque between 1,500 and 4,200 rpm. It propels the A5 Coupé with S tronic and a quattro drivetrain from 0 to 100 km/h in 6.5 seconds; the vehicle's top speed is 245 km/h.

The A5's most powerful petrol engine is the supercharged 3.0 TFSI. Positioned in the cylinder banks' 90-degree V, the supercharger is driven by the crankshaft via a belt. Two opposed pistons inside the supercharger rotate at over 20,000 rpm; the air gap between them is just a few thousandths of a millimetre. The compressor first compresses the intake air as high as 0.8 bar; two intercoolers then cool down the hot air.

The gas travel paths behind the supercharger are short so that torque is generated early and quickly. The compressor is behind the throttle valve, which boosts the former's efficiency. An extensive array of measures makes the compressor less noisy; a balance shaft in the engine's light-alloy crankcase enhances smooth running. Adjustable intake camshafts and tumble flaps in the intake ports optimize charging efficiency in the combustion chambers.

The high-revving, refined and sonorous 3.0 TFSI produces 200 kW and generates an impressive 400 Nm of torque between 2,250 and 4,750 rpm. The A5 Coupé 3.0 TFSI requires just 5.8 seconds to cover zero to 100 km/h and has a governed top speed of 250 km/h. It consumes 8.1 l/100 km of fuel and emits 190 grams of CO<sub>2</sub> per kilometre. A second version of the 3.0 TFSI, with 245 kW, powers the S models.

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

TDI engines from Audi stand for modern and smart sportiness. They combine powerful performance, terrific torque, good fuel efficiency and driving refinement to create a harmonious overall impression.

Even the 2.0 TDI is a powerful engine that features a number of optimized details and delivers 130 kW as well as 380 Nm of torque between 1,750 and 2,500 rpm.

Special technical features of both four-cylinder diesel engines include low internal friction, a turbocharger with adjustable vanes, and a new centrifugal governor in a dual-mass flywheel. It requires little mass to compensate for a large share of vibrations caused by the engine. The vehicle runs even more smoothly at low engine speeds, which facilitates earlier upshifting and, consequently, better fuel efficiency.

The 2.0 TDI with 130 kW allows the multitronic A5 Coupé to accelerate from 0 to 100 km/h in 8.2 seconds and reach a top speed of 230 km/h. On average, it consumes just 4.7 l/100 km and emits 122 grams of CO<sub>2</sub> per kilometre.

## **Powerful and refined: the V6 TDI**

The refined V6 diesel unit, with a displacement of 3.0 litres, rounds out the high-end lineup. Its key characteristics include a low weight just above 190 kilograms, an energy-saving chain drive, low friction, a regulated oil pump and a truly elaborate thermal-management system. The crankcase and the cylinder heads have separate coolant circuits, which are interconnected via valves.

In its most powerful configuration, the 3.0 TDI generates 180 kW as well as 500 Nm of torque between 1,400 and 3,250 rpm. With this engine, the A5 Coupé with S tronic requires just 5.7 seconds to cover zero to 100 km/h; its electronically governed top speed of 250 km/h is a mere formality. It sips just 5.7 l/100 km – thereby emitting only 149 grams of CO<sub>2</sub> per kilometre.

## **Drivetrain**

For every version of engine in the A5 family, Audi offers the perfect transmission – ranging from a six-speed manual transmission through a continuously variable multitronic to a sporty seven-speed S tronic. Regardless of the engine in question, the differential is in front of the clutch. This unconventional solution places the front axle very close to the vehicle's front end, in turn allowing for a long wheelbase and an ideal distribution of the axle loads.

But there are more characteristics common to all A5 transmissions – such as high efficiency ratios thanks to low internal friction as well as smooth and precise operation. Moreover, the gear spread is wide: The narrow ratios of lower gears enable sporty driving, while higher ones are spread broad to reduce engine speed and boost fuel efficiency.

A manual transmission is available for the 2.0 TFSI. Its overall weight is low and intelligent placement of the shift forks protects the shift lever against vibrations. An on-board computer with efficiency program, standard in the A5 model line, integrates a gear-change indicator for manual transmissions.



The silky smooth multitronic is a good match for the 1.8 TFSI and the 2.0 TDI across the A5 Coupe, Cabriolet and Sportback range. Irrespective of configuration, the multitronic distributes the engine's power to the front wheels. This continuously variable transmission allows the engine to almost always operate at its optimum efficiency ratio. For dynamic drivers, there is a sport program and a manual mode with eight dedicated drive positions (or 'gears') – and with shift paddles on the steering wheel available as an option.

At the core of the multitronic lies a variator. A link-plate chain transmits power between two variable V-pulleys, one of which is atop the driveshaft and the other on the output shaft. Their conical faces readily engage and disengage. In this way, the chain moves as per different radii and the transmission ratio changes in a continuously variable manner. An electronically controlled, hydraulic multi-plate clutch boosts the multitronic's efficiency by uncoupling the transmission from the engine whenever the vehicle comes to a stop.

### **Lightning-fast shifting: Seven-speed S tronic**

The sportiest transmission in the A5 family is the seven-speed S tronic, which is always paired with quattro permanent all-wheel drive. Audi offers this set-up as standard across the 2.0 TFSI, 3.0 TDI and 3.0 TFSI range.

The seven-speed S tronic consists of two sub-transmissions, which are alternately actuated by two clutches. Gear-shifting is executed by this dual-clutch transmission; it lasts just a few hundredths of a second and is extremely smooth. The electronic control management has a fully automatic mode at the ready, with two types of operation: D (Drive) and S (Sport). The driver can shift whenever they wish, even via optional shift paddles on the steering wheel.

Audi's quattro technology – which operates by purely mechanical means and therefore entirely instantaneously – ensures outstanding driving dynamics, traction, driving safety and straight-line stability. The quattro technology has made Audi the premium segment's most successful all-wheel-drive manufacturer in the world. In 2010 alone, the brand sold over 437,000 vehicles with a quattro drivetrain.

The heart of the quattro drivetrain is a self-locking centre differential. Under typical driving conditions, it distributes a majority of the engine's power to the rear for sportiness – 40 percent to the front axle and 60 percent to the rear axle. In the event of wheel slippage, the differential transfers a majority of the power to the other axle.

The mechanical centre differential operates in conjunction with torque vectoring. This intelligent software solution will detect and respond if an inside front wheel is at risk of losing grip while the vehicle corners at a high speed. It brakes the wheel very slightly – almost imperceptibly – before this can happen, making handling even more fluid and traction even stronger.

With regard to the 3.0 TDI quattro, 3.0 TFSI quattro and the S models, a sport differential is available as a perfect complement. It actively distributes power between the rear wheels during high-speed cornering. This is accomplished by two superposition gears operated at lightning speed via multi-plate clutches. The system guides the A5 during high-speed cornering, as if the vehicle were on rails – with spectacular precision and traction.

## **Chassis**

The chassis is one of the very best aspects of Audi's sporty, mid-size model line. It spontaneously adapts when the vehicle enters a curve; the A5 models are superbly stable, safe and nearly neutral at their impressive cornering limits. Its unruffled straight-line stability and excellent ride comfort make it an outstanding choice for long-distance drives.

The vehicle's width lays the foundation for these remarkable attributes. Its track is 1,590 mm at the front and 1,577 mm at the rear (A5 Sportback: 1,575 mm).

The wheelbase of the Coupé or Cabriolet measures 2,751 mm and the Sportback is 2,810 mm.

Large areas of the front suspension are made of lightweight aluminium. This applies to the integrated support for the engine and axle, which is firmly bolted to the front end to boost rigidity; it is likewise true of the mounting bracket which connects the upper trailing arm with the body, and of the pivot bearing as well as the five trailing arms per wheel. A tubular anti-roll bar also cuts down on weight. The five-link suspension design can separately handle longitudinal and lateral forces. Their bearings are rigid when crosswise, fostering sporty precision; on the other hand, the bearings are remarkably pliable when lengthwise.

### **New technology: electromechanical power steering**

Very efficient, electromechanical power steering is a new addition to the A5 family. Because it requires no energy whatsoever for straight-line performance, this technology conserves (depending on the respective engine) as much as 0.3 litres of fuel per 100 kilometres. This new steering, which adjusts its involvement to suit a vehicle's speed, can work in conjunction with Audi active lane assist, a new assistance system.

With a gear ratio of 16.1: 1, the electromechanical power steering is sporty and direct. The arrangement in concentric circles of the steering rack and the servo drive render the power steering's layout very compact; a steering box beneath the steering wheel conveys the driver's input directly to the wheels. Feedback from the road is spontaneous and responsive: traction forces and disruptive forces are practically imperceptible. The A5 models' turning circle is approximately 11.4 metres.

The rear axle is based on Audi's principle of the self-tracking trapezoidal link, which unites a compact layout with excellent drivability and comfort. A steel subframe connected to the body via hydraulic bearings constitutes the ultra-strong backbone. Two hollow trapezoidal links, the wheel carriers, the overhead control arms and the tie rods are made of aluminium; a special lightweight section serves as an anti-roll bar.

The springs are supported directly by the wheel carriers and are housed separately from the twin-tube, gas-pressurized shock absorbers to facilitate particularly calibrated performance. The shock-absorber tuning and the arrangement of the rear trailing arms are more finely tuned than ever before – which enhances not only the ease but also the precision of handling.

Upon request, Audi will supply a sport suspension or an S sport suspension, which lowers the vehicle body by ten millimetres. Another alternative is the chassis with adaptive damper control. The responsiveness of the CDC (Continuous Damping Control) shock absorbers is managed by a control unit, which considers a given road's condition, a driver's style and the current mode of Audi drive select. Employing great amounts of data, the computer individually readjusts the damping forces for each wheel in millisecond cycles.

The Audi A5 is factory-fitted with cast, 18-inch aluminium wheels in two attractive 5-arm designs and fitted with 245/40 tyres. There are a range of wheel design options from 18-inch to 20-inches in diameter.

Powerful brakes are located behind the large wheels. Depending on the engine, brake discs are as large as 320 millimetres at the front and 300 millimetres at the rear; the brake pads generate a high coefficient of friction. The ventilated front discs ensure good heat dissipation; hundreds of tiny metal cubes connect the two disc halves.

On the top-of-the-line engines, the brake calipers feature a composite design; the piston body made of aluminium removes heat very well. The calipers are lightweight yet extremely rigid; the brake discs and cover plates similarly weigh very little.

The brake light operates adaptively; at maximum braking it flashes rapidly to warn the drivers of following vehicles. In conjunction with the electromechanical steering, the electronic stabilization program (ESP) aids drivers with braking and countersteering whenever both tyres on one side encounter a slippery surface.

### **With front-wheel drive: ESP with electronic limited slip differential**

Front-wheel-drive versions of the A5 feature ESP with electronic limited slip differential. If the system's control unit detects that the inside front wheel is at risk of spinning while the vehicle corners at a high speed, then the control unit will moderately brake that wheel. Surplus torque subsequently flows to the outside wheel. At the same time, surplus drive traction helps the driver turn the car just slightly into the corner. The A5 can thus traverse corners in a precise, agile, stable and nearly neutral manner.

Another high-tech option for the Audi A5 is Audi drive select. It allows the driver to influence the gas pedal's characteristics, the automatic transmission's shift points and power-steering guidance. The driver can press a button to switch these systems among four different modes: comfort, auto, dynamic and efficiency, which is new. Efficiency mode incorporates the air conditioning as well as the optional adaptive cruise control or cruise control – and helps the driver to boost efficiency even further.

If the A5 is equipped with the MMI navigation system, then an additional mode, individual, is included. It allows the driver to specify, within certain limits, their very own profile of preferred settings. The following optional components are likewise managed by Audi drive select: the sport differential (for the 3.0 TDI quattro, 3.0 TSI quattro and S5), damper control and dynamic steering.

Thanks to its superposition gear, dynamic steering can adjust the steering ratio by nearly 100 percent; it is also compact and lightweight. Under city-driving conditions, the ratio is very direct; at high speeds, an indirect steering ratio promotes straight-line stability. When necessary at the vehicle's cornering limit, the system countersteers slightly – which, in practically every situation, will reduce understeer or oversteer caused by change of load.

## **Driver assistance systems**

Audi provides a range of assistance systems which sets standards in the mid- size class. In addition to the new and standard driver information system with break recommendation, there are four optional technologies to choose from. Customers can order three of them in a single package: adaptive cruise control, Audi active lane assist and the parking system plus.

The new driver information system with break recommendation has the potential to considerably enhance road safety; after all, fatigue causes about one quarter of all motor-vehicle accidents. This system constantly monitors the driver's steering movements as well as the depressing of buttons and pedals. It thus generates and stores a profile unique to the driver. If the system's control unit detects that the driver is deviating from their profile – the steering wheel is hardly being used, for instance – then visual and audible alarms are triggered. In operation at speeds above 65 km/h, the system can be switched off – like all Audi assistance systems – at any time.

### **New functions: adaptive cruise control**

Audi also offers adaptive cruise control (ACC), which now has additional key features. This radar-assisted cruise-control system detects vehicles ahead and continuously maintains an appropriate following distance by accelerating and braking at speeds between 30 km/h and 200 km/h. Within certain limitations, it automatically decelerates the car. The driver can switch between four settings to specify the extent to which the system should be comfortable or sporty; following distance can be set to one of four settings.

ACC also features the integrated Audi braking guard. If the threat of a rear-end collision becomes imminent, this system warns the driver. The type of warning will correspond to the degree of danger. A gong-like chime and a red signal lamp on the driver information system's screen constitute the first level of warning. At the same time, the brake system is preemptively refilled and the brake pads are positioned close to the brake discs so that braking can be practically instantaneous.

If the driver does not react, then the second warning level causes the system to briefly brake the vehicle – an attention-grabbing jolt for the driver. If they do not sufficiently depress the brake pedal, then the hydraulic brake assist will boost the braking force as merited by a given situation. If the driver altogether fails to react, then the system partially brakes on its own to decelerate the A5 by approximately 3 m/s<sup>2</sup>.

In an emergency at speeds below 30 km/h, the Audi A5 will perform a full brake application – regardless of whether the vehicle ahead is stationary or in motion. This innovative function can prevent some accidents entirely; in all instances, it will considerably lower collision speeds.

The optional Audi side assist activates at speeds above 30 km/h. Rear-mounted radar sensors monitor roadway activity behind the A5. If a vehicle to the rear enters the blind spot or rapidly approaches the A5, then a yellow LED indicator in the outside mirror's housing will light up. If the driver nevertheless activates their turn signal, then the indicator will brighten and flash rapidly – it is practically impossible to overlook!

A new optional system in the A5 family is Audi active lane assist, which activates at a speed of 65 km/h. A video camera in the interior mirror identifies the lane markings on the road surface. If the A5 approaches a lane marking without the turn signal having been activated, the system gently intervenes in the electromechanical steering to coax the driver to remain in their lane.

Drivers use the MMI to specify how quickly this assistance system should intervene as well as whether the steering wheel should correspondingly vibrate. If a driver selects the “late” setting, then the system will intervene just before the vehicle can cross a detected lane marking. This configuration is especially beneficial if the driver inadvertently veers out of their current lane owing to, for instance, inattentiveness. If a driver selects the “early” setting, then Audi active lane assist will gently and continuously correct steering to ensure the vehicle remains in the middle of the lane. This latest generation of lane-departure warning technology lastingly eases the burden on drivers and thus enhances driving comfort.

There are various options to simplify parking for Audi drivers – and the pinnacle among them is the parking system plus with a reversing camera. It employs a fisheye lens to film the area behind the car. Images are first corrected by software and then displayed on the MMI monitor; guidance lines and fields help the driver to steer.

## **Multimedia systems**

The new A5 models are pulling away from their rivals – and multimedia is no different. For all three body versions in the model line, a range of components are available.

The concert radio is standard in the A5. It features a CD drive and an eight-channel amplifier, with the Audi sound system that delivers 180 watts to ten speakers, including a subwoofer. The dual tuner makes use of two antennas to ensure the best available reception at all times. Reminiscent of the MMI operating concept, the concert radio has been paired with a 6.5-inch TFT screen. The Audi music interface can integrate a mobile playback device or an iPhone and the system also has an AUX input and an SDHC card reader.

The top-of-the-line model for infotainment is MMI navigation plus. It integrates not only a DVD player but also a 60 GB hard disk drive – a third of its capacity is designated for the storage of telephone data and music. A graphics processor generates top-notch three-dimensional images.

The central on-board monitor measures seven inches diagonally. It provides truly crisp images in vivid colors thanks to its high resolution of 800x480 pixels; the monitor also portrays CD covers. In the A5 Coupé and A5 Sportback, an advanced voice control system can process a series of whole-word commands. This convenient technology can also be used regarding telephone data and music on the hard disk drive. The number of hard keys for the main menus has been halved – from eight to four – and the volume control knob can now be used to skip tracks.

A Bang & Olufsen Sound System is available as an option for the A5 and offers even greater sound sophistication. Its ten-channel amplifier delivers



505 watts of breathtaking sound via 14 high-performance speakers (12 in the A5 Cabriolet) concealed behind aluminium-inlay covers. In conjunction with MMI navigation plus, the system can play back DVDs in 5.1 Surround Sound.

Additional components round out the infotainment options. They include a CD changer in the glove compartment and a digital TV tuner. Phone conversations are made convenient by an optional Bluetooth adapter or a mobile phone preparation (Bluetooth) including hands-free operation and a voice-activated control system (not in the A5 Cabriolet).

## Prices

Even though all A5 models have been extensively refined, Audi has only made small adjustments to pricing. In the case of the entry-level A5 Coupé and Sportback 1.8 TFSI, the Manufacturer's List Price is only \$66,990, which is a significant reduction compared to the previous entry-level model.

### Manufacturer's List Pricing MLP (excl on road costs)

<b>Model</b>	<b>Power</b>	<b>MLP</b>	<b>L/100km</b>
A5 Sportback 1.8 TFSI multitronic	125	\$66,900	5.9
A5 Sportback 2.0 TDI multitronic	130	\$68,700	4.8
A5 Sportback 2.0 TFSI quattro manual	155	\$80,900	6.8
A5 Sportback 2.0 TFSI quattro S tronic	155	\$83,200	7.0
A5 Sportback 3.0 TDI quattro S tronic	180	\$95,900	5.7
A5 Sportback 3.0 TFSI quattro S tronic	200	\$100,800	8.1
S5 Sportback 3.0 TFSI S tronic	245	\$135,900	8.1
A5 Coupe 1.8 TFSI multitronic	125	\$66,900	5.8
A5 Coupe 2.0 TDI multitronic	130	\$68,700	4.7
A5 Coupe 2.0 TFSI quattro manual	155	\$80,900	6.8
A5 Coupe 2.0 TFSI quattro S tronic	155	\$83,200	7.0
A5 Coupe 3.0 TDI quattro S tronic	180	\$95,900	5.7
A5 Coupe 3.0 TFSI quattro S tronic	200	\$100,800	8.1
S5 Coupe 3.0 TFSI quattro S tronic	245	\$135,900	8.1
A5 Cabriolet 1.8 TFSI multitronic	125	\$78,500	6.2
A5 Cabriolet 2.0 TDI multitronic	130	\$80,900	5.0
A5 Cabriolet 2.0 TFSI quattro S tronic	155	\$96,900	7.2
A5 Cabriolet 3.0 TDI quattro S tronic	180	\$108,800	5.9
A5 Cabriolet 3.0 TFSI quattro S tronic	200	\$112,900	8.5
S5 Cabriolet 3.0 TFSI S tronic	245	\$146,500	8.5

## **The Audi S5**

The A5 family's sport models – the S5 as Sportback, Coupé and Cabriolet – are strong and speedy sport cars for everyday driving which sacrifice nothing in terms of practicality. They have also been overhauled. The most prominent changes are the wedge-shaped headlights, the hexagonal single-frame grille, the LED rear lights and the modified front and rear bumpers.

Eye-catching details distinguish the S5 models from their A5 counterparts. Such details include the radiator grille's platinum-gray insert with sophisticated horizontal chrome struts, the honeycomb grilles in the air inlets with dual chrome trim and angular fog lights, the lower air inlet's dimensions, the exterior mirror housings in aluminium look, and the sill moldings painted the same color as the body.

At the tail end, a diffuser insert with a blade in aluminium look and the dual-branch exhaust system with four elliptical tailpipe trims are all easy on the eyes. A spoiler is atop the S5 Sportback's trunk lid, whereas the Coupé integrates its spoiler into the lid. Two paint finishes are reserved exclusively for S models: Estoril Blue, crystal effect and Prism Silver, crystal effect. The single-frame grille bears an S5 logo and V6 T badges adorn the sides.

S models are 14 (Coupé and Cabriolet) or 6 millimetres longer, respectively, than their A5 counterparts. The S5 Coupé and the S5 Cabriolet are 4.64 metres in length and the S5 Sportback measures 4.72 metres.

### **Refined changes: interior**

The interior likewise exhibits minor modifications. The leather multifunction sport steering wheel bearing an S5 logo – with a flat-bottomed rim upon request – is new. The instruments have grey gauges and white needles with hubs in aluminium look. When the vehicle starts up, the MMI screen will display a special greeting; the key features an S5 badge.

Brushed aluminium is used for the inlays in the Cabriolet and Sportback and Carbon Atlas is used for the Coupe. Optional inlays include fine grain birch wood grey, stainless steel mesh or piano finish; in the latter two cases, the

fascia in the instrument panel also shines thanks to a piano finish. The door sill trims bear S5 logos and the standard shift paddles feature an aluminium look.

The interior is dominated by a sporty black. Headlining in the S5 Coupé and S5 Sportback is lunar silver; an option for the S5 Cabriolet is star silver headlining. The standard sport seats feature an Alcantara/leather combination and the S sports seats in the Coupe boast Fine Nappa leather. The front centre armrest as well as electrically adjustable and heated front seats are standard equipment.

Audi also optionally offers Fine Nappa leather for the electrically adjustable S sport seats with integrated head restraints and an embossed S5 logo. A further alternative consists of climate-controlled comfort seats covered with perforated Milano leather.

### **For all three S models: 3.0 TFSI**

A 3.0 TFSI engine with 245 kW now powers every version of the S5 line, including the Coupé. Compared to the 4.2-litre V8 which it has replaced, this supercharged V6 requires 20 percent less fuel on average. It consumes just 8.1 litres of fuel per 100 km while delivering solid driving performance. The S5 Coupé sprints from 0 to 100 km/h in 4.9 seconds and goes on to reach an electronically governed top speed of 250 km/h.

The engine also provides imposing torque. The 3.0 TFSI steadily transmits 440 Nm of torque to the crankshaft between 2,900 and 5,300 rpm. Audi has put some more pep into the V6's sound – it now roars even more powerfully under load.

The S5 Sportback requires just 5.1 seconds to cover zero to 100 km/h and averages 8.1 litres of fuel per 100 km. Data for the S5 Cabriolet are 5.4 seconds and 8.5 l/100km. A seven- speed S tronic is standard for all three S models. It distributes the engine's power to the quattro drivetrain with a self-locking centre differential in conjunction with torque vectoring; a sport differential is available here.

An additional innovation in the S5 family is electromechanical power steering, which can optionally be combined with Audi dynamic steering. The optional Audi drive select system makes driving an even more versatile and fascinating experience. The tightly tuned S sport suspension is also aided by electronically controlled shock absorbers.

The S models' standard 18-inch cast aluminium wheels in a five parallel-spoke design are fitted with 245/40 tyres. Audi alternatively offers 19-inch and 20-inch wheels fitted with tyres as large as 265/30. Black brake calipers, bearing S5 emblems at the front, encircle the four large internally ventilated disc brakes.