



ALFA ROMEO AUSTRALIA

## **ALFA ROMEO EXPANDS GIULIETTA WITH AUTO GEARBOX AND DIESEL ENGINE FOR 2012**

The 2012 Alfa Romeo Giulietta has arrived in Australia with the advanced TCT twin clutch automatic gearbox and a new Turbo Diesel engine that maintains the Giulietta's spirited performance but cuts fuel consumption to just 4.5 litres/100 km on the combined fuel consumption test.

"The new versions of the Giulietta will take over the majority of sales in Australia for Giulietta," explains Andre Zaitzev, General Manager of Alfa Romeo in Australia. "In a market dominated by self shifting gearboxes, the fact that we can now offer one of the most advanced units on the market that offers all the advantages of a self shifting gearbox with none of the performance or fuel consumption drawbacks is a very significant change to our market position. For the growing diesel sector we are now also able to offer one of the most advanced diesel power units in the world. What remains unchanged though are the Alfa Romeo essentials, the stylish good looks of the Giulietta, the accomplished chassis and, with a 0-100 kmh time of 7.7 seconds for the petrol TCT and 7.9 seconds for the JD TM Turbo Diesel, clearly both new Giuliettas maintain the performance edge expected of every Alfa Romeo."

Equipped with the next-generation Alfa Romeo TCT twin clutch automatic transmission with shift paddles behind the steering wheel, the latest Alfa Giulietta offers a benchmark in its class in terms of performance, fuel consumption and emissions. Available with either the International Engine of Year Award 'Best New Engine 2010', the 1.4 TB MultiAir 125 kW, or the 2.0 JTDM-2 125 kW Turbo Diesel engine, the ALFA TCT range increases the Giulietta's appeal in both the fleet and consumer sectors.

The performance credentials of the 1.4 TB MultiAir 125 kW Giulietta with the Alfa Romeo TCT transmission result in a car capable of a top speed of 218 kmh and 0 to 100 kmh time of 7.7 seconds. Even with this excellent performance, the fuel consumption and emissions are extraordinary low; 5.2 l/100 km over a combined cycle and 121 g/km of CO<sub>2</sub>.

The performance figures recorded in combination with the 2.0 JTDM-2 125 kW diesel engine are also outstanding: in fact, compared to the same version with manual gearbox, acceleration from 0 to 100 kmh drops from 8.0 seconds to 7.9 seconds, the combined cycle fuel consumption decreases from 4.7 l/100 km to 4.5 l/100 km, while CO<sub>2</sub> emissions are just



119 g/km compared to 124 g/km for the manual gearbox). It is, therefore, no surprise to learn that, given these clear performance gains by the TCT gearbox and the Australian market preference for self shifting gearboxes, the manual version of the JTDM-2 will not be some here.

### **The Alfa Romeo TCT transmission**

The operation of the ALFA TCT transmission is distinguished by its complete interaction with all the vehicle's operational systems. To achieve the best performance on the road depending on driving conditions and on the driver's requests, the semi-automatic transmission interacts with the braking, engine control, the Alfa D.N.A. vehicle dynamic control switch, Start&Stop, steering and vehicle stability control systems.

Thanks to the speed with which the parameters are processed, the transmission can modify the speed of gear shift, manage the torque delivery on low grip roads, and it can operate completely automatically or as a manual sequential gearbox, manually managing the up and down positions of the gear lever with precise and ergonomic movements, which can be combined with optional shift paddles behind the steering wheel.

Developed by FPT – Fiat Powertrain Technologies – in conceptual terms the new Alfa Romeo TCT transmission consists of two gearboxes in parallel, each with its own clutch, which allows the selection and engagement of the subsequent gear while the previous one is still engaged. The gear is therefore changed with a simple gradual switch of the corresponding clutches, guaranteeing continuous torque delivery and therefore traction.

The result is a driving comfort and sporty feeling far superior to those offered by conventional automatic transmissions (with torque converter), as proven by greater speed of gear shift, the possibility of selecting between manual or automatic mode, and a near-zero power loss during the gear change. In addition, the purchasing, servicing and running costs are low, while fuel consumption is reduced, thanks also to the implementation of the Start&Stop system, by up to 10% compared with a traditional automatic hydraulic transmission with torque converter.

Other notable features of the new Alfa Romeo TCT are its flexibility of application, thanks to the compact size of its components, and the fact that it is a dry twin clutch which is the type of clutch that guarantees the highest degree of efficiency in terms of fuel consumption amongst all automatic transmissions.

Comparing dry clutches with oil bath or wet clutches system, it may be shown that dry clutches dissipate energy only during the actual slipping phase of the gear change and on pick-up, whereas wet clutches, which always operate in an oil bath, introduce losses due to viscous friction such as those of conventional automatic transmissions, even when they are not in operation. They also require forced cooling with oil, and therefore continuous energy expenditure to drive the dedicated oil pump which is absent in the case of dry clutches.

A 'wet' automatic transmission also requires approximately 4.8 litres more gearbox oil than the dry version, again for reasons of clutch cooling (in this way, weight is added and losses due to splashing increase). When all these effects are added together, a dry transmission is approximately 6 per cent more efficient than the corresponding wet one in terms of consumption.



The heart of the success of the new Alfa Romeo Giulietta is an all-new platform that encompasses the chassis, the floorpan and the basic structure of the car as a whole. The new Compact platform employs a combination of advanced engineering and sophisticated technical solutions to ensure the Giulietta can accommodate the needs of all customers in this category. The result is a model that combines impeccable safety credentials, Italian style, comfort and functionality with the dynamic qualities taken for granted in Alfa Romeos.

In addition, every customer can adapt the new car to their specific driving requirements thanks to Alfa Romeo's D.N.A. selector. But this is just one of the electronic systems that the Compact platform was designed to integrate and exploit. Others, fitted as standard to every model in the range, include the Electronic Q2 differential and the VDC (Vehicle Dynamic Control) system.

To ensure that the Giulietta fully lives up to the Alfa Romeo performance and sporting image, the new model now offers a choice of three power units. The 1.4 litre Alfa Romeo MultiAir engine in its 125 kW form provides the Giulietta with a blend of performance and economy makes it the ideal power unit for the entry level Giulietta, in both manual and TCT forms. It provides a 0-100 kmh time of just 7.8 seconds, yet its official fuel consumption is as low as 4.6 litres per 100 km on the open road cycle and with a combined fuel figure of 5.8 litres per 100 km, it is as all but an economy car, something also illustrated by its CO2 figure of 134 gm per km. Add the TCT gearbox and the 0-100 kmh time drops to 7.7 seconds, the combined fuel figure is reduced to 5.2 l/100 km and 4.3 on the open road and the CO2 figure falls to 121 g/km.

As would be expected from the company that invented the so-called common rail diesel fuel system, the UniJet system, then developed it into the award winning Multijet system, the Giulietta uses the latest incarnation of this cutting edge technology, the JTDM-2 engine. Equipped with a new variable geometry turbocharger, this new engine provides segment-leading performance levels with a top speed of 218 kmh, acceleration from 0 - 100 kmh in 7.9 seconds; an extremely flexible driving responsiveness thanks to 350 Nm of torque at just 1750 rpm in Dynamic mode; amongst the lowest fuel consumption and emissions levels in its category for cars with this power rating – 4.5 l/100 km on the combined cycle and 119 g/km of CO2. Compliance with the Euro 5 emission values is ensured by using a close-coupled diesel particulate filter (CCDPF) and an advanced exhaust gas recirculation (EGR) system in which all subcomponents are grouped into a single, compact element, the EGR module.

The Alfa Romeo Giulietta QV gains the latest version of the 1750 TBi engine first seen late last year in the Alfa Romeo 159, with its output lifted from 147 kW to 173 kW, while the torque peak is outstanding for both its potency – 340 Nm in the DNA's dynamic mode – and for the engine speed at which it is achieved, just 1900 rpm. This means that the Giulietta QV not only offers excellent straight line performance – the 0-100 kmh time is 6.8 seconds and it maxes at 242 kmh – it also provides a quality of in-gear performance that is more redolent of performance provided by a 3.0 litre V6 engine. Yet, like its smaller sibling, this engine merely sips at the fuel tank. Its combined fuel figure is just 7.6 litres per 100 km.

But the Giulietta isn't just about being fun to drive. All Giuliettas share a long and healthily list of standard equipment. Electric windows all-round along with dual zone air conditioning and electrically heated and adjustable door mirrors are all standard as are automatic dipping interior mirror, fog lights, alloy wheels, rear parking sensors, leather steering wheel with audio



controls, automatic wipers and lights, as well as the Blue&Me™ hands-free infotainment system.

The Cloverleaf model gets sports suspension lowered by 10 mm, Sports Seats in microfibre and leather with red stitching, Bose HiFi, dark tinted windows, sporty red brake callipers and 18" spoke design alloy wheels with a dark titanium finish.

Whichever the model, owners will get one of the safest cars on the road.

The new Alfa Giulietta was recently awarded a EuroNCAP five-star crash safety rating and an overall score of 87/100: an impressive result that makes it the safest compact car built to date in its class.

The rating is even more significant considering that since 2009, EuroNCAP has adopted new judgment criteria composed of four areas of accident assessment, namely Adult Occupant, Child Occupant, Pedestrian Protection and a new area: Safety Assist. Injury avoidance and mitigation functions, such as seat belt reminder, ESP and speed limiter, are also rated. Achieving a five-star rating will become increasingly tough year by year (2009, 2010-2011, 2012). In this scenario, the rating achieved by the Alfa Giulietta (97% Adult Occupant, 85% Child Occupant, 63% Pedestrian Protection and 86% Safety Assist) means that the car will also have a five-star rating in 2012 when the assessment system will have reached maximum severity.

This major accolade yet again confirms Alfa Romeo's special commitment to all aspects relating to the protection of all road users. The Alfa Giulietta was designed and built to obtain maximum passive and active safety performance.

Thousands of hours of virtual simulations have gone into the creation of the new Compact platform, which is making its debut in the Giulietta. The quality of virtual design has been materially confirmed by running 200 tests on components and subsystems, some 150 Hyge slide shock test simulations and more than 80 crash tests (frontal impact, side impact, roll-over and shunting, taking various speeds, different types of obstacles and the need to protect occupants, physically very different from one another, into account). These numbers confirm Alfa Romeo's profound commitment to making the new Giulietta one of the safest cars in Europe by ensuring that it contains the most advanced safety systems.

Six airbags are standard (two of which are Multistage), plus three-point seatbelts with double pretensioners and load limit limiters, and SAHR (Self Aligning Head Restraints), a new second-generation device built into the backrests of the front seats that moves the head restraints closer to the occupants' heads in the event of an impact, to lessen the effects of whiplash. There is also a highly significant contribution to occupant and pedestrian protection provided by the body, the bonnet, the doors and the dashboard crossmember, in addition to the seats and steering column.

The efficacy of all these systems is maximised by a three load line front structure that guarantees structural uniformity and consequently uniformity of response in the event of frontal impact, regardless of the type of obstacles or vehicle that the car is in collision with. This is a breakthrough in partner protection, because the vehicle is less 'aggressive' when crashing into the front or side of another vehicle, and in self protection, because uniform deformation makes the retaining systems more effective, regardless of the type of accident.



Finally, in the field of preventive safety, the new Giulietta uses headlights with Daytime Running Lights that are automatically switched on when the engine is started – to meet a specific European standard that will come into force in 2012 – and LED tail lights, brighter than conventional bulbs, for extra safety.

The Giulietta has a full complement of airbags plus an array of electronic devices designed to let drivers extract the maximum from their Alfa Romeo while staying safe at all times. There's ABS anti-lock braking with Electronic Brake force Distribution (EBD); Vehicle Dynamic Control (VDC) - Alfa Romeo's interpretation of Electronic Stability Programme; Cornering Brake Control (CBC), Dynamic Steering Torque (DST), Hydraulic Brake Assistance (HBA) and the new Pre-Fill function for the brakes.

It ensures that drivers can concentrate of getting maximum pleasure out of their driving while safe in the knowledge that the car is looking after them.

The 2012 Alfa Romeo Giulietta range opens with 1.4 TB in manual form at recommended retail price of \$36,990 excluding statutory charges and dealer delivery costs and TCT is \$38,990 excluding statutory charges and dealer delivery costs. The new Giulietta JTDM-2 with the TCT gearbox as standard has a recommended retail price of \$41,990 excluding statutory charges and dealer delivery costs and the range topping Giulietta QV is priced at \$41,990 excluding statutory and dealer delivery charges.



## The Alfa Romeo Giulietta in Detail

### RIDE AND HANDLING

- All-new platform
- Weight saving technology throughout
- D.N.A. system standard for extra adjustability

The Alfa Giulietta sits on an all-new platform called Compact which will underpin all future Fiat Group mid-size vehicles and so has a high degree of modularity for multiple applications. From the outset the aim was for it to be ranked best in class for handling, steering feel, performance to weight ratio, ride comfort, noise, vibration and harshness (NVH), active and passive safety and climatic comfort.

This enables the Giulietta to offer two different types of driving experience. The Giulietta with the 125 kW MultiAir and 2.0 litre JTDM-2 engines sit on a 'comfort' chassis while the QV has a more sport-oriented set-up, featuring 10mm lowered suspension.

This has been possible because the latest Alfa Romeo Giulietta platform has been built with 90 per cent of its structure employing either high or ultra-high strength materials. This has led to the Giulietta having a minimal (1.5 per cent) weight increase compared to its smaller, less lavishly equipped predecessor, the Alfa 147.

A magnesium dashboard support shaves 6kg; giving the pedal board a plastic support along with a plastic clutch pedal saves 3kg; and a new rear seat back that employs thermoplastics in both structure and cushions pares 7kg.

Aluminium has been employed in the MacPherson front suspension pillars, making them 8kg lighter than the 147. At the rear a sophisticated multi-link suspension solution has been used because it ensures the best possible exchange of forces between the road and tyres for excellent handling, while also offering good ride comfort and minimal boot intrusion. Manufacturing the wishbones and rear cross member from aluminium has reduced weight by 10kg compared to conventional multi-link systems used by competitors.

This has an impact on performance. Keeping weight, particularly that of non-suspended (unsprung) masses, to a minimum, gives even greater ride comfort. Improved stiffness and low mass give the structure a high natural frequency to give good vibration performance and insulate the cabin from the road, reducing driving noise.

The electric power steering system is also new. This employs two pinions on the steering column. The control pinion mechanically connects the steering wheel and rack for direct and precise steering that feels natural. The second power pinion transmits the torque generated by the electric motor to the rack. The result reduces fuel consumption by 3 per cent compared to a regular hydraulic set-up, gives variable performance depending on driving conditions and speed, and allows the steering to be influenced by the car's electronic systems.





## Brains

The new platform has been specifically designed to integrate and optimise different electronic systems in order to make the Giulietta one of the safest and most enjoyable drives in its sector. The brains behind this is Alfa Romeo's D.N.A. system which is fitted as standard across the entire range and acts on the engine, brakes, steering, suspension and gearbox to allow drivers to hone the car's responses to the conditions.

For sporty reactions, it offers Dynamic mode; there's Normal for the urban environment and All-Weather for maximum safety in low grip conditions. It achieves these adaptations by modifying the operating parameters of the engine, steering, brakes and Electronic Q2 differential.

Normal mode is designed for relaxed driving, so every component controlled by the DNA system is in its regular configuration. This offers a lively engine, discreet Vehicle Dynamic Control (VDC) and Dynamic Steering Torque that controls oversteer. By simply moving the switch positioned ahead of the gear lever to Dynamic, the VDC and Anti-Slip Regulation (ASR) become less intrusive, the engine is made more responsive, the steering enjoys less power assistance for a sportier feel, and the Electronic Q2 system is enabled.

This works in conjunction with the VDC and uses the braking system to simulate the behaviour of a Limited Slip Differential. When the driver accelerates through corners it constantly distributes torque between the driving wheels, modulating the braking of the inner wheel while feeding power to the outer loaded wheel. The result is better traction and a more agile feeling from behind the wheel. The steering also helps make the Giulietta feel sportier by sensing lateral acceleration that's greater than 0.6g and providing increased resistance to the steering wheel to help the driver's feel of the road, particularly through fast bends.

D.N.A.'s Dynamic setting also activates a new function called Pre-Fill. This has been designed to give the brake pedal the feel of a racing car. It recognises that the driver is about to brake when the accelerator is released and increases the pressure inside the braking system by between five and seven bars. This reduces pedal travel by 30 per cent and ensures quicker braking response.

On its third setting, All-Weather, DNA makes the ASR more responsive and ensures the Giulietta is easier to control on low grip surfaces.



## ENGINES

- Three Euro 5 engines
- Class-leading performance *and* economy
- Return of the '1750'

The latest Alfa Giulietta has a range of three high performance engines, all of which conform to the latest Euro 5 emissions criteria.

The most powerful petrol engine in the range is the 1750 TBi, a twin overhead camshaft, direct injection, variable valve timing engine that brings the classic 1750 capacity back to the Alfa Romeo range but with a modern twist. This innovative turbocharged unit provides more horsepower and torque per litre than any other four-cylinder petrol engine found in this class of car.

The resulting performance is equivalent to a three-litre while economy remains in line with a compact four-cylinder engine.

At the core of this power unit are a number of major innovations. It makes far better use of the turbocharger than conventional turbocharged petrol engines thanks to new scavenging technology. An ECU installed with ultra-modern engine parameter management software monitors and optimises fuel dosage, ignition advance and timing. This ultra-precise valve timing generates a direct flow of air from intake to exhaust manifolds, activating the variable geometry turbocharger instantly. Maximum torque at 1500 rpm is 70 per cent greater than a conventional turbo engine, with response times more than halved. And maximum torque can be accessed at only 1900 rpm, dramatically improving driveability at low engine RPM.

This engine also employs direct injection with innovative seven-hole injectors to help reduce emissions. And it has dual variable valve timing while the next-generation turbocharger optimises the use of exhaust pressure waves to increase torque at low speeds.

While the 1750 TBi is the undoubted jewel in the Giulietta's crown, there is another gem – the 1.4 litre MultiAir engine.

Giulietta owners keen on cutting costs while still wanting plenty of power will find that the 1.4-litre TB MultiAir engine with its fixed geometry turbocharger ticks those boxes. It combines a small cubic capacity with a high power output, 125 kW, yet emits just 134 g/km of CO<sub>2</sub>. This is thanks to the MultiAir system which could be as important to the development of the petrol engine as common rail was to diesel power more than a decade ago. MultiAir takes the control of engine ignition to previously unthinkable levels of efficiency. Compared to a conventional petrol engine of the same capacity, this technology boosts power by 10 per cent and torque by 15 per cent yet slashes fuel consumption and emissions both by 10 per cent.

All engines feature a state-of-the-art manual six-speed gearbox. This is from a new family of three axle transmissions that have an improved change quality and are more compact than transmissions with two axles. The six-speed also means that at motorway speeds the engine revs lower than with a five-speed box, giving less noise and lower consumption.





To confirm the excellent technology implemented by Alfa Romeo in the field of Turbo Diesel engines since 1997, the year in which the first Common Rail diesel in history made its debut on the Alfa Romeo 156, the Giulietta range now includes the latest JTDM-2 engine, a 2.0 litre unit with 125 kW equipped with the next-generation MultiJet Common Rail injection system.

This system represents the most technologically advanced solution for controlling high injection pressures (around 1,600 bar) independently of the engine rotation speed and quantity of fuel injected. The engine management, capable of introducing small quantities of fuel with the main injection (the amount of fuel injected to provide the performance requested by the driver) guarantees particularly smooth engine operation in all situations.

As would be expected from the company that invented the so-called common rail diesel fuel system, the UniJet system, then developed it into the award winning Multijet system, the Giulietta uses the latest incarnation of this cutting edge technology, the JTDM-2 engine. Equipped with a new variable geometry turbocharger, this new engine provides segment-leading performance levels with a top speed of 218 kmh, acceleration from 0 - 100 kmh in 7.9 seconds; an extremely flexible driving responsiveness thanks to 350 Nm of torque at just 1750 rpm in Dynamic mode; amongst the lowest fuel consumption and emissions levels in its category for cars with this power rating – 4.5 l/100 km on the combined cycle and 119 g/km of CO<sub>2</sub>. Compliance with the Euro 5 emission values is ensured by using a close-coupled diesel particulate filter (CCDPF) and an advanced exhaust gas recirculation (EGR) system in which all subcomponents are grouped into a single, compact element, the EGR module.



## INSIDE

- Handsome and practical
- Class leading occupant comfort
- Well equipped throughout the range

Alfa Romeo's aim has been to guarantee that any journey undertaken in the Giulietta should be a pleasure for driver and passengers. The interior space was devised to make it practical for everyday use, while inspiration from the 8C Competizione ensures it maintains the firm's core strength of driver appeal.

The result is a car that has best-in-class headroom for tall drivers when the seat is pushed back and lowered, and is equally class topping for rear leg room. It is also ahead of its rivals for noise suppression thanks to a sound-proofing film in the windscreen, thicker side windows, and damping material to counter body vibrations.

Carefully crafted materials use subtle shades to make the interior feel light and therefore spacious. And it doesn't just look good; it feels good too thanks to enhanced ergonomics ensuring every switch is ideally located for driver access. The main switches, which share their design with the 8C Competizione, are grouped together at the centre of the dashboard for easy access.

Ahead of the driver there's a sporty three-spoke steering wheel while the seats are supple yet still supportive. To make the Giulietta easy to live with, it's been crammed with storage solutions. In front of the gear lever, on the centre console and in the doors there are open compartments. There are closed compartments on top of the dashboard, under it opposite the front passenger, and in the front and rear arm rests. The front storage bin may be cooled with dual-zone climate control.

## Optimum

The Giulietta range is split into two equipment levels, Giulietta for the 1.4 TB and 2.0 JTDM-2 and Giulietta QV. Standard equipment across the range is comprehensive but a lot of thought has gone into differentiating the various models. One example is the steering wheel. It's vital for transmitting the feel of the car to the driver, so each trim level gets a different looking and progressively sportier one.

No Giulietta driver will feel short-changed when it comes to kit. The Giulietta features remote central locking and boot release, electric windows front and rear, height adjustable driver's seat, 60/40 split folding rear seats and split climate control air-conditioning which has been completely revised so that it now keeps the passenger compartment at the optimum temperature while consuming 30 per cent less fuel than a conventional system.

The standard Giulietta also offers a steering wheel with 'infotainment' system controls, chrome effect window sills, cruise control, 17" Turbine design alloy wheels with 225/45 R17 tyres and the Blue&Me™ hands-free system with voice recognition and media player with USB port.



Finally, top-of-the-range QV versions add to Veloce specification with Cloverleaf badging, lowered suspension, red brake callipers, dark tinted windows and 18" Spoke design alloy wheels with a dark titanium finish and 225/40 R18 tyres.

Blue&Me is the Fiat Group's ground-breaking hands-free system that allows mobile phones and sound system to be accessed and controlled either from the steering wheel or using Bluetooth and advanced voice recognition and is standard equipment on all variants. There's a choice of two navigation systems.

The Giulietta is a bigger car than its predecessor and this is reflected in its luggage space. At 350 litres it's on a par with its main competitors and 16 per cent bigger than the Alfa 147. Usefully, it's a regular square shape and its width of 1022 mm is 21 per cent up on its predecessor.



## **SAFETY**

- Most comprehensive equipment in its sector
- Integrated safety engineering from the platform up
- Vast array of electronics limit potential for accidents and damage

One of the cornerstones of the Alfa Romeo Giulietta is class-leading safety. During its development the car underwent 15,000 hours of mathematical modelling, 80 crash tests, 150 tests on a HyGe slide and more than 200 tests on components and sub-systems. This has been reflected in its five-star EuroNCAP performance.

As a result every model features the most comprehensive range of safety equipment in the segment. This includes six airbags (front multi-stage, side and curtain), five three-point seat belts with double pretensioners and load limiters, a collapsible pedal unit and steering column, a second-generation anti-whiplash system, and Isofix attachments.

To absorb energy from low speed impacts and support the bumper in a collision with pedestrians, there's a third load path element. This allows the front to deform uniformly, making the car less 'aggressive' in head-on and side-on collisions. But because engineers have used aluminium for elements surrounding the front beam, 8.5kg has been pared from the weight. The rear bumper beam and third load path energy absorption elements have been made from thermoplastic Xenoy, giving a weight reduction of 4 kg compared with a more traditional solution.

Every effort has been made to prevent Giulietta drivers being involved in an accident in the first place. Thus the hydraulic power assisted braking system comprising two crossover independent circuits has been specifically designed for progressive braking with shorter stopping distances.

The size of the brakes varies according to the engine. The 125 kW 1.4-litre MultiAir is fitted with 305 mm self-ventilating discs and cast iron floating callipers and 264 mm solid rear brake discs and cast iron callipers. The most powerful version in the range, the 173 kW 1750 TBi features 330 mm self-ventilating front discs with aluminium fixed callipers. The rears are fitted with 278 mm solid discs, again with cast iron callipers.



## **Sophisticated**

The ABS anti-lock braking system that governs these brakes is one of the most advanced currently available. It has four active sensors and features Electronic Brake force Distribution (EBD) to spread braking force over all four wheels. It also adapts to the prevailing conditions, depending on grip and brake pad efficiency.

In addition to these fundamentals, every vehicle in the range features a sophisticated suite of electronics designed to reduce the chances of an accident taking place and improve occupants' safety if one does.

This is spearheaded by Vehicle Dynamic Control (VDC). As Alfa Romeo's 'take' on Electronic Stability Programme (ESP), this system remains in the background monitoring tyre grip in longitudinal and lateral directions, the car's yaw and the angle of the steering wheel. These are then compared with set parameters so that it can judge whether the situation is about to become unsafe.

An integral part of VDC is Anti-Slip Regulation (ASR). This employs the ABS anti-lock braking sensors to calculate the degree of slip. If it finds excessive power is causing both front wheels to slip, it decreases the throttle opening. If only one wheel is slipping the appropriate brakes are applied.

The Giulietta's VDC also works in conjunction with Dynamic Steering Torque (DST). This improves both safety and handling by working alongside the VDC to provide feedback torque through the steering wheel that helps the driver respond to critical situations before VDC intervention is needed. Combined with its Mu-Split control function (MSF) it's particularly effective when, for instance, two wheels are on ice and two on tarmac.

Another of the ways the Giulietta combines safety with performance is courtesy of the braking system. The Hydraulic Brake Assistance system increases brake circuit pressure under emergency braking situations to shorten stopping distances. And the system includes a Hill Holder which automatically simulates a traditional hill start by stopping the car rolling backwards on an incline.



## DESIGN

- Inspired by the past, designed for the future
- Dynamic like a coupe, practical like a saloon
- Innovative light show

The Alfa Romeo Giulietta is a unique blend of sportiness and style that draws inspiration from the firm's rich heritage and brings it into the 21<sup>st</sup> Century. Yet despite styling which inherits much of its emotion from the 8C Competizione supercar, the Giulietta is a practical machine with excellent on-board space and comfort.

The front is typical of the new generation of Alfa Romeos, forceful but attractive with an off-set number plate and a brand new interpretation of the classic shield grille suspended between the air vents and headlights.

In profile the Giulietta has the dynamism and fluidity of a coupe, despite having all the practicality of a five door. This is further enhanced by the concealed rear door handles, muscular wheel arches and deep side skirts.

The rear is similarly beefy, giving the Giulietta the appearance of a car that really grips the road. The bumper meanwhile accommodates the number plate and integral exhaust tail pipes.

This is complemented by head and tail lights that employ LED technology. Compared with conventional bulbs, these lights are brighter, more reliable and don't use as much power, thereby cutting running costs. The Giulietta also features Daytime Running Lights that will become a European standard in 2012. These guarantee maximum visibility but use less energy.





## HISTORY

The 1954 Turin Motor Show was a particularly special occasion for Alfa Romeo. Talk of the Show was a stunningly beautiful coupé styled by Bertone and powered by a new twin cam engine that was to become the heartbeat of Alfa's bright future. The timing was perfect for the car-hungry mass market. With its delightful mechanicals, hyper-responsive driving charm, and price positioning, the new model, compared to its rivals anywhere in the world, was unbeatable.

These early Giuliettas are highly significant in Alfa Romeo's glorious history, and were very influential to car designers for decades to come. In 1998, during the selection of the award for Car of the Century, the jury of 135 respected automotive journalists voted the 1954 Giulietta Sprint Coupé among the top nominations. "One of the great things about the Giulietta was the way it brought elegant Italian looks to a showroom where buying, rather than looking was possible for many people," claimed the Car of the Century panel.

Work on this automotive jewel, called Project 750, started at the end of 1951 with a team of passionate and talented engineers headed by Orazio Satta Puliga and Rudolf Hruska, a pupil of the great Ferdinand Porsche. With a light aluminium block and crankcase, the engine was designed to be adaptable for a wide variety of models from commercial van to sports car. Until 1954, only Jaguar had put a twin-cam engine into true quantity production, but by the start of the 1960s Alfa Romeo had overtaken Jaguar's figures.

The Bertone coupé was the first of the Giulietta family, but its brilliant qualities of superb engine, good handling, and great value were present in all the body styles including Saloon 1955, Spider 1955, Estate 1957, and even a long wheelbase ceremonial version by coachbuilder Colli.

When introduced in 1954, the newly-designed four-cylinder engine produced 80 bhp from just 1290 cc and gave the little car a top speed of 102 mph. At the time, this was outstanding performance and naturally made the Giulietta an excellent competition car.

In 1956 Alfa modified the engine to give an extra 10 bhp and introduced the Sprint Veloce model which gave a top speed of 112 mph. Seven years after its introduction, the Giulietta was still competitive, as proved by a Ti saloon winning the 1300cc class of the FIA Grand Touring Championship, beating much more modern cars.

The Giulietta also inspired some of Italy's most illustrious coachbuilders, with Bertone creating the memorable Sprint Speciale, and Zagato the formidable SZ. These limited production, high performance versions are among the most coveted classic Alfa Romeos.

More than any other model, the Giulietta changed Alfa Romeo's public image, moving away from exclusive, expensive cars to affordable thoroughbreds with world-wide appeal.

## ALFA ROMEO CENTENARY

Seductive style and rewarding performance have been synonymous with the peaks of Alfa Romeo's rich history. From Grand Prix winners to city taxis, Alfas are renowned for being great driving machines that have always inspired a passionate following. Throughout the illustrious manufacturer's last century, Italy's most renowned engineers and stylists have



created some of the greatest cars which are now prized in top automobile collections around the World.

From the earliest 24 HP designed in 1910 by Giuseppe Merosi for the newly formed Anonima Lombarda Fabbrica Automobili (ALFA) of Milan, to the latest Giulietta unveiled 100 years later at this year's Geneva Motor Show, the great Italian marquee has consistently stirred the soul of automotive enthusiasts world-wide.

#### ALFA ROMEO TIMELINE

- **1910** The first company A.L.F.A (Anonima Lombarda Fabbrica Automobili) is started at the Portello factory in Milan
- **1911** Alfa competes for the first time in the Targa Florio.
- **1914** Count Marco Ricotti builds the amazing streamlined 40-60hp saloon with egg-shaped bodywork by Castagna that looks like it could have landed from space.
- **1915** Industrialist Nicola Romeo takes over the company.
- **1918** The cars built after WW1 carry the name Alfa Romeo for the first time.
- **1920** The first sporting Alfa, the 20/30ES is launched, with a top speed of 87mph. Enzo Ferrari finishes second in the Targa Florio driving this remarkably fast car.
- **1923** First four wheel brakes are fitted to the handsome 3-litre RL range. Ferrari wins the Circuit of Savio, a performance that so impressed the parents of fighter pilot Francesco Baracca that they gave Ferrari their son's prancing horse badge. This was carried on all Alfa team cars which Ferrari managed.
- **1924** Alfa Romeo wins the French Grand Prix with the P2 designed by a talented ex-Fiat engineer, Vittorio Jano, who would be responsible for such greats as the 6C 1750, 8C 2300 and the Tipo B.
- **1926** Jano, one of the greatest automotive engineers, replaces chief designer Giuseppe Merosi.
- **1927** The 6C-1500 touring car designed by Jano goes into production.
- **1928** The supercharged 6C Gran Sport established Alfa Romeo as a premier sports car manufacturer, particularly when fitted with beautiful bodywork by Zagato. Campari and Ramponi win the Mille Miglia, the first of 10 dominant victories in this epic Italian road race before WW2.
- **1931** The 8C-2300, the ultimate pre-war sports car, is ready for sale. Only 188 of these exotics were made in four years and Alfa made no profit from them.
- **1931** British aces Earl Howe and 'Bentley Boy' Henry Birkin win the Le Mans 24 Hours in an 8C-2300. Alfa dominated the French endurance classic in 1932,1933 and 1934.
- **1935** The great Tazio Nuvolari beats the Mercedes-Benz and Auto Union teams to win the German Grand Prix in a Tipo B.



- **1935** The 8C-2900 with all-independent suspension and supercharged 180bhp engine has spectacular 120mph performance. With bodywork by Touring, this is one of the most beautiful cars of the 1930s. Just 30 were built in spider and coupe form.
- **1950** Production policy changes result in a move to mass production on a new assembly line with the new 1900 designed by Orazio Satta. With unitary construction, this was the first Alfa to have left-hand drive. Over 17,000 were built.
- **1950** Giuseppe Farina becomes the first World Champion driving the unbeatable Alfetta Tipo 158, taking three Grand Prix wins at Silverstone, Bremgarten and Monza.
- **1951** Juan Fangio is World Champion driving the Alfetta in its last season.
- **1951** Alfa returns to sports car racing with the Disco Volante (Flying Saucer), so named after its distinctive streamlined bodywork by Touring. The great Fangio drove a 6-cylinder version to victory in the 1953 Supercortemaggiore GP.
- **1953** Turin coachbuilder Bertone creates the sensational BAT 5 dream car which launched a brilliant young stylist called Franco Scaglione into the limelight. The design recorded a low drag coefficient of 0.23. With scrolled body form and wild tail fins, the BAT Alfas 3,5 and 7 were the sensation of motor shows in the 1950s.
- **1954** The Giulietta is born, a landmark in Alfa history. Designed by Orazio Satta Puliga, this twin-ohc 1290cc engine is the smallest twin-camshaft motor to be made in such quantity. The exquisitely formed Sprint GT was the star of the Turin Show.
- **1963** A new factory at Arese near Milan is opened to produce the Giulia in greater numbers.
- **1966** The new Pinin Farina-styled Duetto 2-seater spider is launched and stars in the cult movie *The Graduate*, in which it's driven by Dustin Hoffman. Production continued in various forms until 1994.
- **1967** The Tipo 33 Stradale, a road-going version of the sports prototype appears at the 1967 Monza Racing Car Show with stunning bodywork by Franco Scaglioni. Just 18 of these 160mph supercars were built by Autodelta, and were the most expensive cars in the world at that time.
- **1971** The Alfasud is announced at the Turin Motor Show. with plans for production at a new factory in the south of Italy. With brilliant styling by Giorgetto Giugiaro of Italdesign, this front-wheel drive, flat four cylinder 1186cc powered small car was a new direction for the marque.
- **1976** The Giulietta name was revived for new, boxy saloon using Alfetta engines and transmission.
- **1985** To celebrate Alfa Romeo's 75th anniversary the Giulietta is replaced by the 75.
- **1986** Alfa Romeo is sold by the government-backed IRI to Fiat.
- **1989** Historic links with Zagato are revived with the dramatic SZ. This chunky coupé was powered by a 210bhp version of the glorious Alfa V6.





## TECHNICAL SPECIFICATIONS

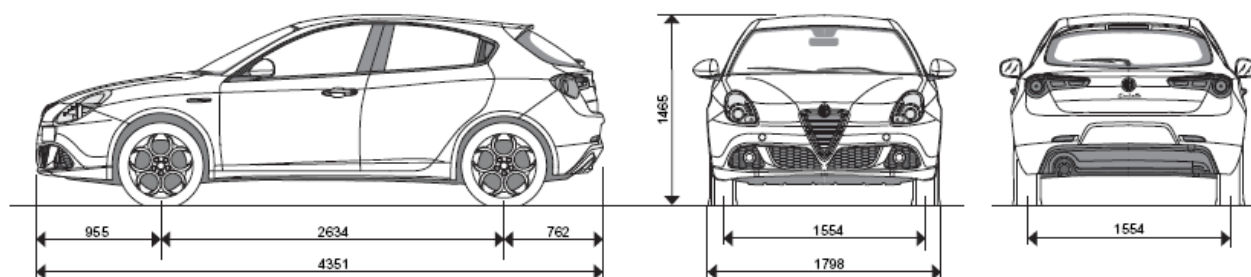
		1.4 TB MultiAir	2.0 JTDm-2	1750 TBi	
		Manual/TCT	TCT	Manual	
<b>BODY</b>		5 door, 5 seat hatchback, steel monocoque			
Cd		0.31			
<b>ENGINE</b>					
No of cylinders, arrangement		4 in line			
Bore x stroke (mm)		72 x 84	83x90.4	83 x 80.5	
Displacement (cc)		1368	1956	1742	
Compression ratio		9.8 : 1	16.5 : 1	9.5 : 1	
Max power output: kW-EC at rpm		125/5500	125/4000	173/5500	
Peak torque: Nm at rpm		NORMAL	230/2250	320/1500	300/4500
Peak torque: Nm at rpm		DYNAMIC	250/2500	350/1750	340/1900
Fuel supply		Multi point fuel injection, Turbocharger and MultiAir direct valve control system, intercooler	Multijet 2: direct injection 1,600 bar, variable geometry turbocharger and intercooler	Direct petrol injection and turbocharging with scavenging system and intercooler	
Battery: capacity (Ah) Battery (A)		63 / 150	72 / 120	60 / 120	
Stop Start System		Standard	Standard	N/A	
<b>TRANSMISSION</b>					
Drive		Front			
Number of gears		6 + 1R			
Type		Manual / TCT: twin clutch robotized manual	TCT: Twin clutch robotized manual	Manual	
Code name		C635 / C635 TCT	C635TCT	C635	
Gear Ratios		1 <sup>st</sup>	3.900/4.154	4.154	3.900
		2 <sup>nd</sup>	2.118/2.269	2.269	2.118
		3 <sup>rd</sup>	1.484/1.435	1.435	1.484
		4 <sup>th</sup>	1.116/0.978	0.978	1.116
		5 <sup>th</sup>	0.897/0.754	0.754	0.897
		6 <sup>th</sup>	0.767/0.622	0.622	0.767
		Reverse	4.000/4.000	4.000	4.000
Final Drive		3.833/4.118	3.579	3.579	
<b>WHEELS/TYRES</b>					
Tyres		225/45/R17	225/45/R17	225/45 R18	
Wheel		7Jx17	7Jx17	7.5Jx18	
Spare Wheels		Space saver	Space saver	Space saver	
<b>STEERING</b>					
Steering system		Rack and pinion with electro-mechanical power steering (Dual Pinion design)			
Turning circle (m)		10.9			



	1.4 TB MultiAir Manual/TCT	2.0 JTDM-2 TCT	1750 TBi Manual
<b>SUSPENSION</b>			
Front	MacPherson independent with hollow anti-roll bar on connecting rod		
Rear	Multilink system with auxillary subframe, aluminium wishbones and anti-roll bar		
<b>BRAKES - (DISCS)</b>			
Front (mm)	305	305	330
Rear (mm)	264	264	278
<b>DIMENSIONS AND CAPACITIES</b>			
Fuel tank capacity (litres)	60		
Kerb weight DIN (kg)	1290/1305	1335	1320
Max towable weight (kg) braked/unbraked	1300/500		
Length (mm)	4351		
Width (mm)	1798		
Height (mm)	1465		
Wheelbase	2634		
Track front/rear	1554/1554		
Luggage capacity (litres)	350		
<b>PERFORMANCE</b>			
Top speed mph (kmh)	218/218	218	242
Acceleration: 0- 100 kmh (s)	7.8/7.7	7.9	6.8
<b>FUEL CONSUMPTION – EMISSIONS*</b>			
urban cycle (l/100km)	7.9/6.7	5.3	10.8
extra urban cycle (l/100km)	4.7/4.3	4.0	5.8
combined cycle (l/100km)	5.9/5.2	4.5	7.6
Exhaust emissions – CO <sub>2</sub> (g/km)	134/121	119	177
Emissions Standard	EURO 5		

\* according to 2004/3/CE directive

## Dimensions







## Alfa Romeo Giulietta Equipment and Features

		1.4 MultiAir 2.0 JTDm-2	1750 TBi
		Distinctive / Distinctive TCT	Quadrifoglio Verde
<b>Technology</b>	VDC with Hill Holder (ABS+ASR+Brake assistant), Start&Stop	S	S
	Electronic Q2, Alfa DNA and DST	S	NA
		S	S
<b>Exterior colours</b>	Pastel Paint (non-standard)	O	O
	Metallic paint finish	O	O
	Metal-flake paint	O	O
<b>Packs</b>	SPORT PACK 18": 18" (turbine-patterned) wheels, sporty ride setting, aluminium sports pedal unit, dark brushed aluminium insert, headlights with dark finish, black interior, satin finish wing mirror covers, skirts, full grain leather sports steering wheel with red stitching. Special sport pack leather interiors	NA/Optional	S
	VISIBILITY PACK: Electrically folding door mirrors, rain sensor, humidity sensor, Blue&Me, parking sensors, electrochromic rear-view mirror, dusk sensor, radio/mobile phone controls on the steering wheel, Windscreen with anti-glare band.	S	S
<b>Wheels</b>	17" sports alloy wheels with 225/45 tyres	S	NA
	18" sports turbine-patterned alloy wheels with dark finish and 225/40 tyres	NA	S
	Space-saver wheel	S	S
<b>Interiors</b>	Leather-trimmed steering wheel	S	NA
	Full grain leather sports steering wheel with microfibre inserts and red stitching	NA	S
	Sports cloth upholstery	S	NA
	Seats in leather and microfibre fabric with red stitching	NA	S
	Full grain leather seats with 'cannelloni' rolls	O	O
	Aluminium kick plate	S	S
	Electrochromic rear-view mirror	S	S
	Third rear headrest	S	S
Rear seat armrest	S	S	
<b>Audio and Telematics</b>	Car radio with CD and MP3 player and 6 speakers	S	S
	Steering wheel radio controls	S	S
	Bose Hi-Fi with CD-MP3 radio dual aerial double tuner	NA	S
	White light Matrix Display	S	S
	Blue&Me (Bluetooth hands-free system with voice recognition and MP3 player with USB port)	S	S
	Radio and mobile phone controls on the steering wheel	S	S
<b>Sensors</b>	Dusk sensor	S	S
	Odour detection device (AQS)	S	S
	Rain sensor	S	S
	Humidity sensor	S	S
	Rear parking sensors	S	S
<b>Sport Area</b>	Aluminium sports pedal unit	NA/Optional	S
	Tinted windows	NA/Optional	S
	Burnished brushed aluminium dashboard insert	NA/Optional	S
	Sport Suspension	NA/Optional	S
	Large electric sunroof	O	O
	Side skirts	NA/Optional	S
Red oversized brake calipers	NA/Optional	S	
<b>Lights</b>	Front Fog lights	S	S
	Rear Fog Lights	S	S
	Day Lights	S	S



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<b>Comfort</b>	Front armrest with storage compartment	S	S
	Heated electric door mirrors in body colour	S	S
	Front and rear electric windows	S	S
	Dual zone automatic climate control	S	S
	Deadlocks	S	S
	Cruise Control	S	S