

Fiat Freemont

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Fiat Freemont In Brief

The Fiat Freemont is the first Fiat vehicle to be produced in partnership with the Chrysler Group. It has been designed to meet the diverse needs of families seeking a spacious, comfortable and versatile vehicle to cater to the frenetic pace of everyday life. This vehicle combines flexibility and practicality with its own distinctive and original style. Its dimensions (489 cm in length, 188 cm wide and 169 cm high) ensure optimum internal space, thanks to the generous wheelbase of 289 cm.

Fiat Chrysler Group is launching the Fiat Freemont in Australia under the banner of: "It's What I Like". Fiat Freemont is a vehicle with a truly multi-faceted soul, equipped with everything you need to go where you want, with whoever you want, no compromises required.

Its characteristic design includes a strong and muscular front end and a rear which is distinguished by innovative LED tail lights. The interiors are modern with soft touch materials. Features include a wrap-around dashboard with chrome elements, a striking centre console and an innovative infotainment system with a 4.3" colour touch-screen for the Base model and 8.4" colour touchscreen for Urban and Lounge models. Several vehicle functions can be controlled with just a light touch on the screen, including the temperature settings for the climate-controlled areas and stereo system adjustment. The 4.3" system offers Radio/CD/MP3, USB port, AUX socket and Bluetooth audio streaming, while the 8.4" system ads reverse camera, navigation and dual climate control as standard in the Urban and Lounge.

The Freemont guarantees maximum space, comfort and versatility. When fitted with the optional seven-seat interior, the third seating row is easily accessible with rear doors that open to 90°, and a simple and easily operated seat slide system. The seats of the third row can be folded down with one simple movement to disappear completely as a load floor and creating a flat and even load platform. The second row and the front passenger power seat can also be folded down completely, allowing 32 different seating configurations. The second row is mounted slightly higher than the first, and the third slightly higher again, ensuring maximum visibility and comfort for all occupants. The second row is also fitted with two child booster seats as standard fitment to ensure that children on board are seated correctly, optimising the seatbelt geometry and guaranteeing greater protection, practicality and comfort. This feature, which makes the Freemont "perfect for families", allows you to raise the seats by up to 102 mm.

On-board comfort is also ensured by the high driving position and the spacious and ergonomic seats, a host of storage compartments, a generous luggage area with two compartments and a flat load platform for an overall capacity of up to 1461 litres (equivalent to more than 10 suitcases). There are over 20 storage compartments, offering significant additional capacity, equal to the size of a city-car boot. The front armrest, for example, is very deep and guarantees maximum capacity. It also houses a USB port, an AUX-in socket (which may also be used for an iPod) and a 12 volt power socket. This means you can listen to music or recharge portable devices whilst ensuring they are concealed when you get out of the car. The passenger seat contains a convenient and easily accessible compartment under its cushion, while the floor in the second row contains two spacious compartments under the mats.

The Fiat Freemont is powered by a 2.4-litre DOHC 16-valve four-cylinder petrol engine with dual variable valve timing and offering 125kW/220Nm. Diesel propulsion comes from a state-of-the-art 2.0-litre MultiJet II diesel engine with variable geometry and 125kW/350Nm. Both drive the front



wheels via a six-speed automatic transmission (petrol engine) or a six-speed manual (diesel engine). Both power units are produced and developed by Fiat Powertrain.

Fiat Freemont's diesel engine has been designed to offer the optimum balance of performance, driving pleasure and fuel consumption. The vehicle's drivability is guaranteed by a maximum torque value (350 Nm) which is reached at 1750 rpm and constant up to 2500 rpm. For the normal usage range (from starting the engine up to 4000 rpm), the torque never falls below 300 Nm, avoiding uncomfortable "downshifts" and enhancing driving pleasure. This makes the engine very flexible, with optimum acceleration from 0-100 km/h ensuring the Fiat Freemont is a dynamic and safe drive.

Fiat engineers also optimised the vehicle's dynamic performance. The steering system utilises a more direct and precise calibration and that offers more responsive handling. The dynamic handling and comfort have been improved thanks to the vehicle's redesigned suspension. Adjustments have also been made to various parts of the suspension design, including stiffening the suspension mountings, improving the front suspension geometry to reduce the roll angle and adjusting the suspension and shock absorber calibration for the optimum combination of comfort and responsive handling.

Maximum safety is ensured by the Freemont's six airbags, anti-lock braking system (ABS) with Brake Assist, Electronic Stability Program (ESP) with Hill-Holder and Electronic Rollover Mitigation (ERM) fitted as standard on all vehicles. And not forgetting the child boosters and cruise control, also fitted as standard on all trim levels, to ensure that children are seated correctly and to allow perfect control of cruising speed.

The rollover mitigation system (ERM) uses data received from ESP sensors to detect potential roll risks and intervenes by supplying braking power to individual wheels and adjusting the position of the throttle valve.

A Distinctive Design

The Fiat Freemont combines flexibility and practicality with its own distinctive and original style. Its dimensions (491 cm in length, 188 cm wide and 171 cm high) ensure optimum internal space, thanks to the generous wheelbase of 289 cm.

With its unique and original design, the Fiat Freemont offers a positive driving experience and maximum versatility. The front end is characterised by muscular and decisive lines which exemplify the model's strong personality. The honeycomb grille with chrome trim, adorned with a badge which proudly bears the Fiat logo, gives the Freemont audacity and power, while the modern halogen headlights ensure the road ahead is well lit. The bumpers are equipped with integrated fog lights which ensure maximum visibility even in adverse weather conditions. The body-coloured bumpers create an elegant frame around the headlights and covers.

From the side, the horizontal lines of the bonnet and the opaque black weatherstrip covers on the posts create the illusion of a single window while the sculpted wheel arches enhance the car's "athletic" character.



Fiat Freemont's personality continues into the rear of the vehicle, where the liftgate includes an integrated spoiler to ensure increased aerodynamic performance. The LED light clusters spread along the lower edge of the liftgate and the body give the car even more style and personality. The bottom of the liftgate window is bordered by a line of tail lights which improves rear visibility.

At launch, the following body colours will be available: Ross and Bianco (pastel), Indomito Black, Aregento Vivo Silver, Viaggiatore Grey, Giramondo Green, Escursionista Brown and Amletico Blue (metallic) and Perla White and Avventuriero Red (tri-coast colours).

The "toned" lines of the vehicle house a refined interior, conceived by Fiat designers to welcome occupants into a homogenous and relaxing environment, offering enhanced on-board pleasure.

Fiat Freemont's interiors offer modern style and soft touch materials. Features include a wraparound dashboard with chrome elements, a brand-new instrument panel, a striking center console and an innovative infotainment system with an 4.3-inch (Base) or 8.4-inch (Urban and Lounge) colour touch-screen. Several vehicle functions can be controlled with just a light touch on the screen, including the temperature settings, stereo system adjustment and the use of your mobile telephone via Bluetooth connection.

The seats have been designed to offer comfortable seating and a comfortable backrest, thanks to lateral support built into the cushions, with softer inserts and an additional maximum thickness cushion cover. Double density foam is used in selected zones to offer maximum support while the cushions of the seats are also supported by spring suspension.

Top of The Range Space, Comfort And Versatility

The Fiat Freemont boasts top class interior capacity and comfort, as well as offering innovative seating configurations to facilitate the transporting of both passengers and loads. Standard configuration is with five seats, but to meet a wide range of passenger requirements, the Fiat Freemont is available with seven seats, positioned as in a theatre: the second row is mounted slightly higher than the first, and the third is higher again, allowing maximum comfort and visibility for all occupants.

The seats of the third row can be folded down with one simple movement to disappear completely as a load floor, leaving the car with a five-seat configuration and creating a flat and even load platform. The second row and the passenger seat can also be fully folded down.

Welcoming and practical, the Fiat Freemont is a car for relaxing moments and comfortable journeys, whose passengers will benefit from a firm sense of on-board comfort. To achieve this objective, the designers worked according to the most modern ergonomic standards, in order to fulfil the criteria which measure a vehicle's capacity to meet the requirements for on-board comfort and wellbeing. The final results are excellent in all key ergonomic areas: comfort, driving position, accessibility, visibility and space reconfigurability.



90°-opening rear doors

Fiat Freemont's rear doors open out to 90-degrees to make it easier for second row passengers to get in and out of the vehicle, and improve access to the third row of seats. A new, three-stage "90-degree" hinge was designed specifically for this purpose. When fully open, the rotation angle is 87-degrees, offering ample space to load a child seat into the second row or to provide comfortable access to the third row. The first stage of closing keeps the door open at 26-degrees, allowing passengers to exit the vehicle without the door striking other vehicles parked in adjacent spaces. The intermediate 58-degree position is wide enough to allow comfortable access for passengers entering and exiting the vehicle.

"Theatre"-style seating

The availability theatre-style seating improves visibility for the occupants of the second and third rows and creates a sense of increased space inside the vehicle. The second and third rows are mounted at different heights to create a similar effect to a seat in a theatre. This configuration ensures that all occupants benefit from maximum visibility. The "H point" (the height of the hips relative to the road surface) of the second row is 44 mm higher than that of the first row, while the third row is 17 mm higher again compared to the second row, and 61 mm higher than the first row. The seats on the second row are equipped with the "Tip 'N Slide" system, which allows easy access to the third row with one simple movement.

Front seats

Fiat Freemont's front seats are supportive, with thicker padding on the cushions and the backrest to ensure that the occupant feels secure. The four-way adjustable headrests are designed to ensure maximum protection against whiplash.

The seats on the entry-grade Fiat Freemont Base model include manual longitudinal adjustment and tilt adjustment to improve passenger comfort. In the Urban and Lounge models, the seats can be adjusted electrically in six directions with four lumbar adjustment options available on the driver's seat. For maximum comfort, the leather upholstery option includes heated front seats, easily activated using the colour touch-screen display on the dashboard.

The "Flip 'N Stow" System

Fiat Freemont's front passenger seat is equipped with the "Flip 'N Stow" system, a practical and secure storage compartment integrated into the cushion. The cushion can be moved forward to reveal an ample compartment (29 x 23.6 cm) which can be used to store personal belongings up to a maximum volume of five- litres. The back of the "Flip N' Stow" passenger seat folds forward to increase load capacity, making it possible to transport particularly long objects, and offering a child sitting in the seat behind an improved view.



The seats of the second row can be separated and folded 60/40

Similar to the front seats, but with less pronounced padding to ensure a flat load surface when the seats are folded, the rear seats on the second row offer a versatile system of cushions which can be separated and folded 60/40. The backs of these seats fold away completely to create a flat and continuous load platform. To increase convenience and safety, the section of the seating which can be folded to 60 per-cent is located on the passenger side to facilitate entering and exiting the vehicle. The central reclining section of the back of the second row folds forward, transforming into a flat surface which has two cup holders and a compartment for the temporary storage of small objects.

The seat guides can be adjusted forwards and backwards by up to 10 cm to provide more legroom for adults, or bring children closer to the front seats, or to create more load space at the rear.

The "Child Presenter" System

Fiat Freemont's "child presenter" system is a combination of different configurations of the front seats and the second row which allow easy access to a child sitting in the second row. The seats of the second row slide forward by up to 10 cm from their rear most position, bringing children closer to the front of the passenger compartment. In addition to this, the front passenger power seat can be folded (this allows the driver to reach behind to assist children), and child seats can be installed in any of the three seats on the second row, including in the centre. Seating a child in the central position and folding down the passenger seat allows the child to benefit from an improved view of the outside and front of the vehicle, ensuring maximum travelling comfort.

Seats with integrated "child boosters"

Fiat Freemont offers the "child booster" system as standard, for children over the age where child seats are obligatory. These are two boosters positioned in the cushions of the left and right seats on the second row. The centre of the seat cushion raises and moves back to lift the child by 10 centimetres. This ensures that children are seated correctly, optimising seatbelt geometry and safety and ensuring protection, practicality and comfort.

The "child booster" system is available with both the fabric and leather upholstery options.

"Tip 'N Slide" Seats

The second row of seats is equipped with the "Tip N' Slide" system, which allows easier access to the third row with one simple movement. Using a lever located on the side of the backrest, the cushions of the seats can be tilted upwards and the seats will slide forward. Minimum effort is required to tilt and slide the seats. To make entering and exiting the vehicle even easier for passengers on the third row, there are moulded handles integrated into the internal side panels.



The third row of seats

Where fitted, Fiat Freemont's third row of seats can be separated 50/50 and offers space to seat two passengers. The backrest can be reclined by six-degrees for maximum comfort or the seats can be folded to increase load capacity. Thanks to the "Tilt N' Slide" system on the second row, the seats of the third row can be accessed easily. By pulling the lever located on the side of the backrest, the seat can be folded and the seats slide forward. Behind the third row of seats you will find a series of storage compartments hidden in the floor.

Storage and baggage compartments

Fiat Freemont is extremely practical, with over 20 storage compartments to ensure that occupants have access to a significant amount of additional storage, equal to the capacity of the boot of a city-car. The front armrest, for example, is very deep and guarantees maximum capacity. It also houses a USB port (which may also be used for an iPod) and a 12 volt power socket. This means you can listen to music or recharge portable devices whilst ensuring they are concealed when you get out of the car. The front passenger seat also has a convenient storage compartment which is easily accessible underneath the cushion, while the mini console in the roof panel has a handy glasses compartment with a two position cover and a safety mirror for observing children sitting in the rear seats.

The floor of the second row houses two closable compartments offering over 12-litres of storage, with removable bins which can be easily washed. The central section of the backrest of the second row can be folded down and used as an armrest, and includes two cup holders and a compartment for storing small objects.

The spacious boot is equipped with a double storage compartment. When the second and third row are folded down, the load platform is flat and even, with a total capacity of up to 1461-litres (equivalent to more than 10 suitcases).

State-Of-The-Art Power Units

Fiat Freemont is offered with front wheel drive and Fiat's superb 2.0-litre MultiJet II 16v 125kW diesel engine or the 2.4-litre DOHC 16-valve dual VVT petrol powerplant. All power units are produced and developed by Fiat Powertrain.

2.0 MultiJet II

The 2.0 MultiJet 2 is equipped with a variable geometry turbocharger and a new variable displacement oil pump, as well as benefitting from all the power of its state-of-the-art second-generation MultiJet technology. MultiJet 2 engines ensure economy, eco-friendliness and performance levels unparalleled on the market. In contrast to the first generation of MultiJet engines, the fuel supply system is now equipped with faster injectors able to execute multiple injections in rapid succession. Specifically, the system can now perform a main modulated injection of fuel in several distinct phases and anticipate the ones that follow. The MultiJet 2 system's servo valve with balanced plunger is able to manage up to 8 injections per cycle, offering greater speed, flexibility and precision in the various phases of operation. This makes for a significantly less complex system with 40per-cent fewer components, thus increasing economy and reliability.



With the MultiJet 2, thanks to the new type of injector, now strategies focused on optimising the increasingly advanced combustion can be achieved, such as the Injection Rate Shaping (IRS) system which involves two consecutive injections so close together in time as to generate a continuous and modulated fuel supply into the cylinders. With this method, the combustion process is improved, all to the benefit of particulate and nitrogen oxide (NOx) emissions. Today the MultiJet 2 engines totally satisfy the Euro 5 standard and at the same time mark a decisive step toward stricter regulatory levels in the future.

Enhanced with new technology, the MultiJet II is equipped with a reliable and modern six-speed gearbox. The Fiat Freemont's 2.0 litre engine is at the top of its class for performance and responsiveness. Proof of this comes in the fact that the maximum torque value (350 Nm) is achieved at just 1750 rpm and is constant up to 2500 rpm. For the normal usage range (from starting the engine up to 3000 rpm), the torque never falls below 300 Nm, avoiding uncomfortable "downshifts" and enhancing driving pleasure. This makes the engine very flexible, with optimum acceleration from 0-100 km/h (11 seconds). Combined cycle fuel consumption is rated at 6.3I/100kmsand exhaust emissions are scored at 169 g/km of CO₂.

Driving pleasure

Fiat Freemont surrounds both driver and passengers with technology which ensures them the highest level of comfort on board, as demonstrated by the available triple-zone climate control system and the keyless entry/go. In the same way, driving pleasure is ensured both by the specifically designed suspension and tyres and the padded interior environment, which is comfortable and vibration-free thanks to the car's super-efficient sound insulation.

Triple-zone automatic climate control system (seven-seat models)

The climate inside the passenger compartment is one of the principal factors for comfort when travelling and is also important for preventative safety, because comfort, humidity and ventilation all influence the wellbeing of the driver and therefore his/her level of attention. Not forgetting that the heating and ventilation system is also responsible for the defrosting of the windscreen and side windows.

This is why Fiat Freemonts fitted with seven seats are equipped with a triple-zone automatic climate control system, which allows three different temperatures and levels of air distribution to be programmed simultaneously, at the right of the passenger compartment, at the left and in the rear zone. The system operates by automatically controlling temperature, air capacity, air distribution, the use of the compressor and air recirculation. The vent output positions and speed are automatically adjusted according to input conditions such as exterior temperature, interior temperature, the solar radiation and the coolant temperature. If required, the direction and speed of the air flow can be selected manually and fixed.

Keyless entry/go

Fiat Freemont offers the "keyless entry/go" system as standard, making entering your car and starting the engine simple and comfortable. You no longer need to search for your key, put it in the lock, turn it, and once in the driver's seat, put it into the ignition to start the engine. All you need is



your personalised remote control key and everything changes. When you approach the car and pull the door handle, the keyless entry/go system's electronic control unit checks whether the key is in the vicinity. When the key is located and the secret code transmitted via radio frequency is confirmed as correct, the door automatically opens. At this point, all you need to do is get behind the wheel and start the engine by pressing the button on the dashboard. Once you reach your destination, the same procedure is carried out in reverse. Switch off the engine by pressing the same button, and once out of the car, push the door handle. For the control unit, this is the signal that you intend to leave the car, so the keyless entry/go system locks the doors.

Simple, convenient and intelligent, the system is also equipped with a series of measures to ensure that it is completely safe and secure. For example, in order to avoid accidental movement of the vehicle which could prove dangerous (by a child, for example), when you press the engine start button, the brake pedal must also be pressed to communicate a genuine intention to depart.

After closing the doors, the person holding the key is able to access the boot. The system not only locks the liftgate, but all locks can also be relocked by pressing the handle of the liftgate itself. This avoids the need to walk round the car and use a door handle to control the central locking.

Front and rear suspension

Fiat Freemont ensures maximum driving pleasure, thanks to its suspension, which offers optimal handling and "independence" from the road. The dynamic handling and comfort have been improved thanks to the vehicle's redesigned suspension, to ensure an overall configuration in line with European roads. Adjustments have been made to various parts of the suspension design, including stiffening the suspension mountings, improving the front suspension geometry to reduce the roll angle and adjusting the suspension and shock absorber calibration for the optimum combination of comfort and handling which is in line with European standards.

Fiat Freemont uses MacPherson type front suspension, coil springs, gas shock absorbers and an antiroll bar. The advantages of MacPherson suspension are reduced size and the option to calibrate the suspension geometry when carrying loads. At the rear, the vehicle is equipped with a Multilink suspension system with coil springs, gas shock absorbers and an anti-roll bar which reduces chassis rolling on bends for improved driving comfort and handling.

Tyres

Fiat Freemont's tyres use tread materials and designs created to optimise traction both on wet and dry roads, for efficient handling with minimal noise. These features have been set up for each suspension tuning package and developed in conjunction with tyre suppliers.



Top Class Safety

Fiat Freemont is designed and built to achieve the highest levels of passive and active safety. The chassis is designed with high shock absorbing capacity, in order to ensure maximum efficiency in the case of collisions. The body, the bonnet, the doors, the seats and the steering column have all been designed to protect the vehicle's occupants. Their behaviour in the case of an accident has been extensively researched. With more than a third of its body made from extremely resistant steel alloy, the Fiat Freemont offers a solid and safe structure which ensures excellent absorption of the energy created by a collision, increased driving comfort and excellent handling.

High quality sound insulation materials and fittings mean that noise from the road surface, the wind and the drive line is reduced to a minimum. In terms of mass, 36 per-cent of the vehicle's structure includes highly resistant hot pressed steel sheets, designed to optimise the body's weight and structural resistance. The extensive use of dual-phase steel in the front and rear side members, in the tunnel reinforcement components and on the entrance thresholds mean that these components can manage larger loads with relatively limited dimensions. The front and central steering knuckles in hot pressed steel allow a reduction of the weight of the top of the body by 14 kg.

The Fiat Freemont has a rear tailgate made from light materials in a single piece which reduces the vehicle's weight and facilitates opening and closing. The structural rigidity of this new Fiat car limits noise, vibrations and the transmission of roughness from the road surface to the passenger compartment.

Active Safety

The constant, predictable handling of the Fiat Freemont compensates for any mistakes by the driver, allowing critical situations to be tackled effortlessly. In addition to an excellent braking system, the Fiat Freemont comes with the most sophisticated electronic dynamic control devices, from braking to traction.

See below for more information on all of the new car's devices and systems.

Braking system

The Fiat Freemont's braking system is extremely efficient, ensuring prompt and progressive braking, as well as reduced braking distances. The brakes on the front wheels are equipped with 302mm ventilated brake discs and floating callipers with 66mm diameter pistons, while the rear wheels have 305mm brake discs and callipers with 43mm pistons.

ABS with EBD

As well as a braking system which offers excellent performance, the Fiat Freemont is equipped with one of the most advanced forms of ABS available today, as well as the electric braking control system, EBD (Electronic Brake force Distribution). EBD distributes the braking action over all four wheels, in order to stop the wheels locking and ensuring complete control of the car in all conditions. The system also adapts its operation according to the wheel grip conditions and to the brake pad efficiency, whilst also reducing the overheating of the latter.



ESP (Electronic Stability Program)

This system intervenes in conditions which are close to the programmed limits, when the vehicle's stability is at risk, and help the driver to control the car. The device allows the driver total freedom to control the vehicle in normal conditions and only intervenes immediately prior to the situation becoming critical.

When there is a brisk gear change in poor grip conditions, the MSR ('Motor Schleppmoment Regelung') function intervenes, restoring engine torque and preventing the wheels from locking and slipping. To achieve this result, the ESP continuously checks the tyre grip, in both longitudinal and lateral directions, and it restores directionality and ride stability in the event of a skid. Using sensors, it detects the rotation of the car body around its vertical axis (yaw speed), the lateral acceleration of the car and the angle of the steering wheel set by the driver (which indicates the chosen direction). The device then compares this information with the parameters processed by an ECU and it sets out - by means of a highly complex mathematical model - whether the car is driving round a bend within the limits of its grip or if it is about to veer (understeer or oversteer). To return the vehicle to the correct trajectory, it generates a yaw moment to contrast the one which caused the initial instability, braking the relevant wheels individually (internal or external) and reducing the engine power (acting on the throttle).

TCS (Traction Control System)

This anti-slip system optimises traction at any speed, with the help of the brakes and engine control. Based on the number of wheel revolutions calculated by the ABS sensors, the device calculates the degree of slip and to restore grip it enables two different control systems. If excessive power is requested, causing the slipping of both drive wheels (such as in the event of aquaplaning or acceleration on an unsurfaced road or a road covered in ice or snow), the engine torque is reduced, decreasing the throttle's angle of aperture and consequently its air intake. If on the other hand only one wheel is slipping (for instance the one on the inside of the bend following acceleration or dynamic load variations), the device brakes this wheel automatically without the driver having to use the brake pedal. The resulting effect is similar to that of a self-locking differential. This enables the Fiat Freemont to handle low grip road surfaces effortlessly.

Brake Assistance and Hill Holder

Fiat Freemont is also equipped with the Brake Assistance system (the hydraulic brake assistance device that automatically increases brake circuit pressure under emergency braking situations) and the Hill Holder system which, during a hill start, maintains the braking action for a few seconds after the brake has been released, thus facilitating setting off and avoiding the car moving backwards.

Electronic Rollover Mitigation (ERM)

This is an additional function of the ESP system which intervenes when a wheel leaves the road surface: in fact, whenever an extreme dynamic movement is detected, the electronic rollover mitigation device helps to restabilize the vehicle and returns control of the car to the driver. The ERM system determines when a vehicle is in a potential rolling situation and applies appropriate braking force to reduce the probability of this event occurring. The ERM system has been designed to help the driver to maintain the vehicle's stability during an emergency manoeuvre or in manoeuvres necessary to avoid an accident.



Tyre Pressure Monitoring System (TPMS)

Fiat Freemont is also equipped with a Tyre Pressure Monitoring System (TPMS), a device which indicates potential anomalies both with an acoustic warning and an indication on the display. The TPMS is connected to an LED warning lamp located in the instrument panel. If any of the tyres is at a low pressure, the warning indicator lights up (ISO symbol) in the instrument panel and an acoustic signal immediately warns the driver of the situation.

Rear parking sensors

When parking, it may be the case that there are obstacles behind the vehicle which are outside of the driver's field of vision, or more simply, the driver may not know how close he/she is to the car parked behind. This is where "park assist" can help, activated every time the vehicle is put in reverse. This system includes four ultrasonic sensors, inserted into the rear moulding, which act as transmitters and intelligent impulse receptors. Impulses are emitted when reverse gear is selected and when they meet an obstacle, they are reflected and received as an echo by the sensors. At this point, the incoming signal is converted to a digital signal and sent to the electronic control panel which activates the visual indicator on the instrument panel display.

Passive safety

Fiat Freemont is also at the top of its class in terms of passive safety devices: six airbags are fitted as standard on all vehicles in the range, along with active headrests and three-point seatbelts for all seats (the front seats are also equipped with pretensioners and load limiters), Isofix attachments and child boosters to ensure that children are seated correctly on-board.

Dual-stage front airbags

The front airbags of the Fiat Freemont are fitted with an advanced dual-stage system which adjusts inflation according to the severity of a crash, which is detected by the restraint system ECU and the sensors located at the front of the vehicle. The inflation device for the first stage engages immediately during an impact which requires the activation of the airbag. The timing device for the second stage determines whether the supply force required is low, medium or high. If a low supply is sufficient to meet the needs of the situation, the second stage release is delayed in order to eliminate, in the case of a crash, pyrotechnic material activated by the system.

The front passenger airbag is also equipped with a new "active vent" function, which adjusts inflation to reduce the risk of injuries caused by the airbag. On each side of the airbag, there is a small vent hole, like in most current airbags, along with an active vent hole, which is used by this innovative function. The active vent holes close during a collision to allow the airbag to fully inflate, to guarantee sufficient protection for an adult-sized passenger wearing a seatbelt.

Active Headrests

The headrests are designed to reduce the risk of injury by limiting the head's movement in the case of an impact. The restraint system ECU determines whether the severity or type of rear impact requires the activation of the rear headrests. If their activation is required, the front half of both active headrests extends forward to reduce the distance to the occupant's neck.



Side bags and window bags

To protect the passenger's pelvis and chest when the side of the car is struck, the Fiat Freemont is equipped with side bags which are located inside the backrests, ensuring better protection of occupants, regardless of their stature, the position that they assume and the adjustment of the seats. Fitted as standard on all vehicles in the range, window airbags are set up to descend along the windows to protect the occupants' heads in the case of a lateral collision. Compared to other solutions, the Fiat Freemont's window bags offer more protection (because they always inflate in the correct position), and are quicker to inflate and less invasive for passengers. They open from the top downwards, with no risk of causing secondary damage to the occupants' arms through their movement. In this way, they efficiently protect both the heads of the front passengers and those seated behind, because they are as wide as the windows. The window airbags also ensure that passengers are protected if the vehicle rolls over. The two cushions (one for the right hand side and one for the left) are located under the roof side members, folded into a closed compartment.

Driver and front passenger knee protection

The lower dashboard structure collapses on impact to reduce the load on the top of the legs and to ensure that the driver is in the correct position relative to the airbags. The lid to the storage compartment located below the dashboard also acts as a knee support and reinforces the protection of the front passenger. The lid collapses on impact to reduce the load on the passenger's thighs, ensuring that he/she is directed into the correct position relative to the airbag.

Child booster and Isofix

The booster cushions make it possible for children over the age or height for child seats to correctly use the vehicle's seatbelts. By pulling a belt, the centre of the cushion is raised and draws back to lift the child by 10 cm. Quick and easy, the operation ensures maximum comfort and improved seatbelt efficiency, as well as improving the child's view of the outside and in front of the vehicle. The second row of seats also includes three sets of anchoring points which are compatible with the Isofix system, allowing the fitting of two child seats on the exterior seats, or one child seat in the centre of the row.

	2.4 Petrol	2.0 Diesel
Engine		
Number of cylinders, layout	4 in line	4 in line
Bore × stroke (mm)	88 x 97.0	83 x 90.4
Displacement (cm ³)	2360	1956
Emissions level	Euro 5	Euro 5
Compression ratio	10.5:1	16.5:1
Max power: kW at rpm	125 @ 6000 rpm	125 @ 4000 rpm
Max torque: Nm at rpm	220 @ 4000 rpm	350 @ 1750 - 2500 rpm
Fuel Injection	Port injection	Direct injection (Common Rail)

Technical specifications



Transmission		
Drive type	front	front
Gearbox: no. of speeds	6-speed manual	6-speed manual
Steering system		
Туре	Hydraulic rack and pinion	
Min steering circle diameter curb to	10.0	10.0
curb (m)		
Brakes - D (discs)		
Front: Ø mm	302 (ventilated)	302 (ventilated)
Rear: Ø mm	305	305
Suspensions		
Front	Independent, MacPherson type with anti-roll bar	
Rear	Independent, Multilink type, anti-roll bar,	
	coil springs and telescopic shock absorbers	
External dimensions		
Wheelbase (mm)	2890	2890
Length/width (mm)	4910 / 1878	4910 / 1878
Height (mm)	1705	1705
	1751 (with roof bars)	1751 (with roof bars)
Front / rear track (mm)	1571 / 1582	1571 / 1582
Front / rear projection (mm)	989 / 1009	989 / 1009
Luggage compartment volume	7 seat configuration: 167 (to roof)	
(litres)	5 seat configuration: 784 (to roof)	
	2 seat configuration: 1461 (to roof)	
Wheels		
Tyres	225/65R17 (Base, Urban)	225/65R17 102H
	225/55R19 (Lounge)	
Weights - Capacities		
Unladen weight (kg)	1874	1874
Max towable weight (braked) (kg)	454	1,250
Fuel tank (litres)	77,6	77,6
Performance		
Maximum speed (km/h)	180	195
Fuel consumption ¹⁾ (I/100 km)		
Combined cycle ADR 81/02	9.8	6.3
CO_2 emissions (g/km)	233	169
	233	103