

**MINI One** **MINI Cooper**

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**MINI One**

**MINI Cooper**

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MINI



MINI

## 1. MINI

### MINI

Mini is a name which resonates across the last four decades of the automotive industry. In 1959 it represented cutting-edge design and technology, but as well as being a technical marvel it also won a place in people's hearts. For the MINI, 42 years later, the designers have captured the heart and soul of the original, but added state-of-the-art technology, firmly placing the car in the 21st Century.

The MINI is easily the most advanced car of its size on the market, with performance and handling that real enthusiasts will love and an unmistakable appearance that makes it instantly recognisable. It offers the same great package that the original stood for - great value and great fun - and is set to rekindle the same enthusiasm the buying public felt for the original car. Like the original, MINI is designed to appeal across boundaries of age, class and nationality.

### MINI: Design

The MINI was designed and built from the ground up - there was no question of compromising the design to fit an existing floor pan. The styling immediately grabs the attention, with its clean muscular lines, a road-hugging shape which crouches low to the ground and the classic wheel-at-each-corner design.

The chassis layout gives the car real dynamic advantages on the road. When combined with the car's low centre of gravity, its road-holding and agility are outstanding, which will put a smile on the face of any enthusiastic driver. This also means active safety and comfort levels are excellent.

The shape of the technically challenging all-in-one bonnet, with its large round headlamps, gives the MINI its characteristic face. An extremely short tail, a steeply rising side section and the dominant rear lamps give it a squat, compact look. The flared wheel arches and the horizontal lines of the tail section add to the appearance of width from behind.

There will be two models available at launch, MINI One (£10,300 on the road) and MINI Cooper (£11,600 on the road). MINI Cooper S follows in early 2002.

MINI Cooper comes with a white or black roof and mirrors, irrespective of body colour. Its chrome grille, door handles, optional bumper inserts and either white or polished alloy



wheels make it stand out from the crowd. MINI One has a body-coloured roof and black door mirrors, but retains chrome door handles and grille surround.

The interior design has transformed the simple and straightforward look of the original into the 21st Century, with its characteristic centre speedometer. All the switches, levers, buttons and dials have been designed with their look, feel and weight very much in mind. The emphasis was on making them stylish, forming an important part of the MINI's personality, but easy to use and easy to understand.

### **MINI: Technology**

Use of new technology in the design of the MINI has been extensive, such as virtual crash simulation, which has helped to achieve a body shell rigidity that is two to three times higher than is normal amongst its competitors. In combination with the latest chassis technology, this is what creates the kart-like driving feel that makes the MINI so enjoyable.

The standard of engineering design in the chassis is up to the uncompromising standards of the BMW Group. The multi-link rear suspension, for example, is unique to the MINI, although based on BMW's patented Z-axle as designed for the BMW 3 Series. As well as giving outstanding road-holding, it also allows optimum use of space for the boot.

The MINI's front axle is based on the McPherson set-up, which offers advantages in terms of both weight and use of space. The designers have also ensured that axle shafts are the same length. This guarantees a symmetrical feedback effect from the front-wheel drive to the steering system during cornering, accelerating and braking, which most cars of similar size forego.

Large disc brakes (front ventilated) on all four wheels, supplemented by four-sensor ABS, with CBC (cornering brake control) and electronic braking distribution (EBD) fitted as standard, provide the MINI with excellent braking performance. ASC+T traction control or DSC dynamic stability control are also available.

MINI Cooper is powered by an extremely agile four-cylinder, 1.6 litre, 16-valve engine producing 85 kW/115 bhp, which can reach 62 mph in just 9.2 seconds and has a top speed of 125 mph. Combined fuel consumption is modest at 42.2 mpg according to EU standards.



MINI One develops 66 kW/90 bhp and dispatches the 0-62 mph sprint in 10.9 seconds. Its top speed is 115 mph and fuel consumption is 43.5 mpg. The MINI's 50 litre fuel tank, bigger than in many similar sized cars, offers potentially up to 600 miles of out-of-town cruising.

### **MINI: Safety**

The MINI sets new standards for its class in terms of both active and passive safety and has achieved a four-star Euro NCAP rating in BMW's own tests. The rigid passenger cell, advanced crumple zones and an airbag system that is unique in this vehicle category, take the MINI right to the top when it comes to passenger protection. The driver and front passenger are protected, as standard, by front and side airbags. The MINI is the only vehicle in its class to offer a head airbag system as an option (AHPS 2 = Advanced Head Protection System), providing the front and rear seat passengers with maximum protection against head injuries in the event of side impacts. A tyre pressure warning indicator and a get-you-home puncture repair system are provided as standard and the optional 16" wheels are fitted with run-flat tyres.

### **MINI: Package**

As well as the hint of the classic Mini driving experience and looks, MINI also retains the great value for money and potential to personalise that went hand-in-hand with the classic car. Warranty, breakdown and corrosion guarantees are all as you would find with a BMW, and MINI tlc, a five year/50,000 mile, one-off payment service charge of just £100 ensures fixed-cost servicing for MINI owners (MINI 'tlc'). A vast options list offers thousands of potential combinations of the MINI and mixes the traditional with the modern. Insurance ratings are best in class at just 5E for MINI One and 8E for MINI Cooper.

### **MINI: A premium car**

The MINI is a premium car in the small car market. Volume production, to BMW Group's outstanding quality standards, began in April at Plant Oxford, where the first ever Austin Mini Minor ran off the production line in 1959. The MINI goes on sale on July 7 in the UK, ahead of any other market, and for the first time will be sold worldwide.



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## 2. EXTERIOR

The MINI's styling immediately grabs the attention. The chunky, muscular lines are instantly recognisable.

It was vital to follow the wheel-at-each-corner principles of the original car. MINI crouches low, hugging the road, and with the wheels at its extremities, gives the car real dynamic advantages and recreates the classic Mini look. Excellent handling and road-holding make it both inherently safe and great fun to drive.

From the front, the shape of the bonnet and the large round headlamps give the MINI its characteristic face. The bonnet is a masterpiece of design and engineering as it sweeps seamlessly down to the wheel arches in one piece. The front lights are integrated into the bonnet, which was an unusual and challenging production and assembly process.

MINI Cooper's radiator grille, which also forms part of the bonnet, has four horizontal chrome strips (MINI One has black fins), giving it a unique appearance. A much-loved feature of the original, black or white bonnet stripes, will be available to order as an option towards the end of the year. Gas struts help the bonnet to open smoothly and remain upright without the need for a prop. Chrome inserts can be chosen for the bumpers, whilst the air intake grille, which is integrated into the bumpers, is made from chrome-plated steel (MINI One: painted black).

The MINI's powerful profile is emphasised by the roof line, which is angled down slightly to the rear. This characteristic stance is emphasised by the lateral and vertical design details, from the "shoulders" (the lateral line directly below the side windows) to the vertical sides and down to the sills.

All models are three-door hatchbacks. The front doors can be opened extremely wide - up to 80 degrees - making it easy for passengers to get in and out, and providing excellent access to the rear seats. When the MINI's doors are fully open, it is wider than it is long.

The heavy doors with their frameless electric windows ooze quality. When open, the windows automatically slide down slightly. On closing, they move back up to ensure a perfect seal. This is a system which has proved its worth for the BMW Z8 and the 3 Series Coupé and Convertible models.

From the rear, design echoes of the original Mini are evident: an extremely short tail, a steeply rising side section and the characteristic tail lamps give the MINI a squat, compact



yet agile appearance. The flared wheel arches, wide track and horizontal lines of the tail section give the low road-hugging look from behind.

The use of glass on the car is particularly creative. The upright windscreen is reminiscent of the original, but from there backwards the structure is pure 21st Century. The A-pillar is concealed behind a black, high-gloss plastic panel and the B- and C-pillars are 'hidden' behind glass, giving the impression of a continuous window extending all round the car - a design with its roots in architecture, where glass walls disguise load-bearing structures.

The windscreen may be heated as an optional extra and the rear window is heated and provided with a rear wiper as standard. Heated wing mirrors and headlamp water jets are also an option.

In an unmistakable echo of the past, MINI Cooper's roof and outside mirrors can be ordered in white or black - irrespective of the eight body colours available at launch. If the roof is the same colour as the car, the (electric) door mirrors are black. For MINI One, the roof is body-coloured. There is also an optional panoramic sunroof.

Wheels and tyres can have a dramatic impact on the appearance of a car, so special emphasis was placed here for the MINI. MINI Cooper is fitted as standard with 15" aluminium wheel rims in white or silver, whilst MINI One has 15" steel rims with silver wheel covers as standard. 8-spoke 15" and 16" alloys are also available as options for both cars.

For MINI Cooper, the door handles, radiator grille, tailgate handle, exhaust and rings around the front and tail lamps are all chrome, emphasising the high-quality appearance of the car. MINI One does not hold back on the chrome either. The only difference is that the tailgate handle and radiator grille fins are left in black.



### 3. INTERIOR

Once seated in the MINI, it instantly feels right. The bold styling offers classic features with a modern twist that provides excellent ergonomics and reinforces the feeling that the MINI is that little bit special. The low sporty driving position and relatively high window line offer an immediate hint at the exciting drive to come and the seats offer comfort and support levels new to the class.

The speedometer is placed between driver and passenger on the dash in the classic Mini position, and also houses fuel level, coolant temperature and tyre pressure warning indicator. The LED read-out for the optional on-board trip computer is also placed within the speedometer. All instruments are framed in stylish silver and, to minimise reflection, have concave, anti-reflecting glass.

The dashboard is available in various trims with anthracite as standard and silver or wood as options. The rev counter is placed on the steering column in front of the driver on MINI Cooper, maintaining the sporty emphasis associated with the Cooper name. If the satellite navigation system is ordered, the speedo is also moved to the steering column and located next to the rev counter, with the satellite navigation screen placed centrally on the dashboard. The dashboard also contains the air vents, the standard passenger airbag and a deep storage shelf.

The MINI's steering column is height adjustable, and leather, leather and wood and a multi-function steering wheel are available as options. The multi-function system allows fingertip control of the stereo and cruise control systems. If the Steptronic CVT automatic transmission is chosen, it can also be operated as an option with buttons on the steering wheel.

The original appeal of the MINI was again the influence for the dashboard's centre console, which is framed and supported by aluminium-look struts. The console houses the stereo, ventilation controls and rear demister switches, along with switches for the optional air-conditioning and heated windscreen.

Toggle switches at the base of the console echo the switchgear of the original Mini. Operating the electric windows, central locking and optional fog lamps, they are shielded to meet today's safety requirements. These switches are sprung to return to the central position after operation, and those for the fog lamps have light diodes on the ends to show that they are switched on.



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The seats give excellent comfort and support. Lateral support holds the driver and passenger in position when the driver takes advantage of the MINI's great cornering abilities, and integrated side airbags are fitted as standard.

The interior offers a range of colour and trim combinations. There is a choice of seat materials including standard fabric and an optional fabric-leather combination or two model-specific leather ranges. Seat height adjustment is provided as standard for the driver and as an option for the passenger. Sports seats, lumbar support and two-level seat heating are also options.

Rear passengers have easy access. Doors open to 80 degrees and the driver and front passenger seats fold down and (then) move forward. The seat returns to its initial position through a mechanical memory mechanism. The bucket-style rear seats, combined with indents in the rear of the front seats and relatively high roofline, allow passengers to sit comfortably in the rear.

The rear seat splits 50:50 and, with both seat-backs folded, increases the boot capacity from 150 litres to a highly practical 670 litres. The latches to release the rear seat-backs are conveniently located in the boot. The handles are not visible from the outside - a small, but subtle security feature. The seats also fold more easily than in any other small car due to a special kinematic mechanism.

The rear seats have been designed to accommodate the ISOFIX child-seat system with the standardised fixing systems available as an option.

The MINI's door design is a major feature of the car's interior. The design of the armrest matches the design of the centre console. The armrest and storage compartment in the door are stylishly framed in anthracite, with silver as an option, and the surface of the armrest is covered as standard with black leather in MINI Cooper and fabric in MINI One.



## 4. SAFETY

Uncompromising safety standards were given top priority during the MINI's development. BMW Group's quality and manufacturing standards were strictly applied and a Euro NCAP four-star rating is indicated by BMW's testing programme.

### Active safety

MINI Cooper and MINI One have disc brakes all round, ventilated at the front. The front disc brakes measure 276 x 22 mm; those at the rear are 259 x 10 mm. The braking system, with a diagonal dual-circuit arrangement, includes four-sensor ABS, electronic braking distribution (EBD) and cornering brake control (CBC) as standard.

The EBD system controls the distribution of the hydraulic braking force between the front and rear wheels, ensuring the optimum braking power distribution between axles at all times and under different load conditions. If the car's rear axle is under a heavy load, a higher braking force than normal can be safely applied to the rear wheels, greatly improving the vehicle's braking abilities. The EBD mechanism is automatically activated under average braking pressure, long before the ABS would be required and cannot be deactivated by the driver.

CBC tempers the natural tendency for a car to become unstable at the rear if the brakes are applied heavily while cornering. The system recognises that the car is cornering and feeds more braking force to the outside front wheel and counteracts potential oversteer. This also means that more braking force can be fed to the rear brakes and the car is slowed down as fast as possible with maximum stability.

As an option, MINI Cooper and MINI One can be fitted with disconnectable ASC+T (automatic stability control plus traction), which effectively prevents front wheel spin and guarantees stability. This smart electronic system uses the ABS sensors to detect any wheel slippage. When the system does so, it automatically cuts power to the spinning wheel until it grips again.

It also works under deceleration on a slippery surface if a wheel approaches lock-up due to engine braking. In this instance, power is gently fed to that wheel to get it rolling again and so control is regained. A warning light comes on when the system is activated.

Dynamic stability control (DSC) will also be available as an option. DSC is an expansion of ABS and ASC+T. DSC monitors lateral and longitudinal forces on the car as well as throttle



and steering inputs from the driver and any wheel slippage. Thus it determines the intended trajectory of the car and compares it to its actual course. If necessary, it can adjust the dynamic attitude of the car by applying braking forces to individual wheels and controlling throttle inputs.

If it detects oversteer, DSC applies the brake to the outer front wheel. If the driver is already braking, the computer increases the braking pressure on this wheel and reduces the pressure on the inside wheels. In the case of an understeer, DSC applies braking force to the rear wheel on the inside of the bend. If the driver has already started braking, the braking pressure on the wheel on the inside of the curve is increased, whilst the pressure on the outer wheels is reduced.

MINI Cooper and MINI One are the first vehicles in this segment to be fitted with a tyre pressure warning indicator as standard. This means that the driver can react to a loss of pressure before the tyre is damaged and before the loss of pressure becomes a danger. As approximately 80 per cent of all blow-outs can be detected before the tyre bursts, the system is a valuable safety feature.

The system works on the following principle: if there is a loss of air pressure, the rolling radius of the tyre is reduced. As a result, the speed at which this wheel rotates increases. The system measures the number of times the wheel turns via the sensors in the 4-sensor-ABS system, carries out a comparison with the diagonally opposite wheel and compares the average speeds. A light then comes on in the speedometer display to tell the driver that the pressure is falling in one of the tyres.

Because major damage to tyres following an unnoticed loss of pressure can be avoided, the MINI MS (MINI Mobility System) is stored in the boot instead of a spare wheel. This system consists of a sealant and a compressor that can be attached to the in-car power socket. Once tyre pressure loss is detected, the tyre can be repaired in a few easy steps and pumped back up again, allowing the driver to travel home or to the nearest garage. Alternatively, an emergency space-saver spare wheel is offered as an option.

In addition, run flat tyres are standard on the optional 16" wheels, again, setting new standards of active safety in the class. These tyres have reinforced side walls and are made from heat-resistant rubber. Functions such as ABS, ASC+T or DSC are not affected if pressure is lost from these tyres. The driver can therefore continue the journey at a maximum speed of approximately 50 mph (80 km/h).



### Passive safety

The MINI also sets new standards of passive safety. Front driver and passenger “smart” airbags that detect the strength of the impact and the presence of a passenger come as standard, as do side airbags for driver and front passenger. The two side airbags are concealed in the outer cushions of the front seats and effectively protect the driver and passenger against thoracic injury. All the airbags are linked and controlled via common crash sensors, guaranteeing optimum use of the airbags in any situation.

In addition, both MINI Cooper and MINI One can be fitted with the optional head airbag system (AHPS 2 = Advanced Head Protection System), providing both front and rear passengers with maximum protection against head injury. The system is concealed in the roof along the side wall, stretching from the A-pillar to the C-pillar and protects the head against forces from the side and against objects penetrating into the vehicle. In the event of an impact, the head airbag deploys between the occupant’s head and the side wall of the vehicle. Naturally, three-point safety belts offer protection for all four seats, with the front seats also being fitted with belt pre-tensioners and belt-force limiters as standard.

Comprehensive passive safety depends on a comprehensive body structure. The rigidity of the body shell, at 24,500 Nm/degree, is two to three times higher than that of other small cars and means that if a torsional force of 24,500 Newton metres was applied, the body itself would only twist by one degree. This also reduces vibration in the body and guarantees excellent handling in all conditions and with all driving styles. The body structure also makes the passenger cell extremely tough and special crumple zones absorb energy extremely effectively in the event of an accident.



## 5. DRIVETRAIN

When Sir Alec Issigonis presented the Mini in 1959, it represented a revolution in vehicle design. The original Mini was the first car to have a transverse front engine with the transmission underneath. This created far more space in the front of the vehicle, and Issigonis achieved his ambitious goal of building the ultimate small family saloon with room for four adults. At the same time, he also succeeded in creating the first small saloon that could be driven like a sports car.

With the MINI, this time-honoured concept has been transferred to the 21st Century. The centre of gravity has been kept very low with weight distributed 63 per cent on the front axle and 37 per cent on the rear. This has two advantages: the front of the car is heavy enough to give excellent traction, whilst the weight distribution between the front and rear axle, outstanding for a front-wheel drive vehicle, guarantees excellent dynamic balance, particularly when cornering. These qualities are further enhanced by the torsionally rigid body, the multi-link rear suspension and the direct steering, so reminiscent of Mini.

The transmission, water pump and, where specified, air-conditioning compressor are attached directly to the engine block, making optimum use of the engine compartment. This also creates maximum space for the critical impact zones.

### Engine

The MINI is powered by variations on the four cylinder, 1.6 litre “Pentagon” engine, which was developed jointly by BMW and Chrysler. The MINI Cooper delivers 85 kW/115 bhp, whilst MINI One has 66 kW/90 bhp. The Pentagon engine is able to meet the EU4 emissions requirements and is one of the few engines on the market that requires no secondary air injection or exhaust recirculation to achieve this.

The engine has an overhead camshaft with control chain and four valves per cylinder, with roller tip levers which control hydraulic valve balancing elements. The cast iron engine block ensures low levels of noise and vibration. The cylinder head is aluminium.

Active knock control means that the engine runs on lead-free fuel between 91 and 98 octane. The same engine tuning can therefore be used almost anywhere in the world, no matter what fuel grade is available locally. In addition, customers can choose freely if various fuel qualities are available in their market.



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The engine is managed by a Siemens control unit (EMS 2000) called the “Powertrain Controller”. This also controls the continuously variable transmission that is offered as an optional extra.

The MINI features throttle-by-wire electronic technology, which replaces the direct mechanical link between the accelerator and the engine. When the driver presses the accelerator, the action is transmitted to the Powertrain Controller which then determines the ideal amount of fuel to supply to the engine. With more powerful acceleration, the system can determine the best fuel feed for maximum performance and minimum emissions.

The most important task for the Powertrain Controller is monitoring the engine torque, optimising torque values and guaranteeing an even fuel take-up. If the required torque is below the maximum value available, it is possible for the Powertrain Controller to retard the ignition timing and create a torque reserve. The driver experiences this as rapid pick-up and improved driving characteristics, especially at low speeds.

The MINI determines the best time for the car to be serviced and displays this on a service level indicator. The first service will be between 10,000 and 12,500 miles and, after this, the interval is every 15,000 to 20,000 miles. With its unique five year service pack, the MINI’s running costs are thus kept to a minimum.

### **Transmission**

#### **Standard: Five speed manual**

MINI’s manual gearbox complements fully the great chassis, direct steering and lively engine. With short throws, a chunky knob and instant power, the driver looking for that classic Mini feel will appreciate the MINI’s ‘box.

#### **Option: Continuously variable transmission (CVT) with Steptronic.**

The MINI’s automatic transmission offers normal automatic mode, which makes driving in city traffic easier, and a more sporty driving mode with a six-gear semi-automatic Steptronic transmission. Although the continuously variable transmission is still heavier than manual transmission, it is lighter than a conventional automatic transmission.

Where conventional systems need a torque converter, the CVT uses an oil bath multi-disc coupling that is electronically-controlled. The transmission itself uses a fixed-length steel drive belt to connect two double cone-shaped belt pulleys which transmit the drive output from the engine, essentially offering infinitely variable transmission ratios.



The Powertrain Controller continuously monitors the position of the belt pulleys and guarantees that the most suitable transmission is provided for the current driving conditions. Because the transmission ratio can be varied endlessly and infinitely, this continuous adjustment is carried out smoothly without any “steps” in the transmission.

The CVT also has a Sports driving mode, engaged by moving the gear lever from position “D” leftwards to position “S”. Sports mode contains a sporty tuning of the continuously variable operation. Within the CVT Sports mode, the driver can also select Steptronic for greater involvement in gear selection.

The transmission automatically changes from Sports mode to the Steptronic mode when the driver changes gear manually by moving the gear lever forwards or back. The shift status in Steptronic transmission is also shown on a LED display integrated into the speedometer. In Steptronic mode, the main differences from “D” or “S” mode are the fact that six fixed ratios are selected. These “gears” are created by the fact that the CVT transmission is limited electronically to six pre-determined ratios. The Steptronic function offers a more agile driving feel, since the engine can run at up to 6,000 rpm. Fail-safe protective switching prevents errors which could damage the engine or transmission.

A steering wheel with Steptronic control is offered as an optional extra, with the switches on the steering wheel spokes to change the gears up and down.

Accelerating from standstill is particularly smooth with CVT since the electronically controlled coupling does not transmit the full power until an engine speed of 2,000 rpm is reached; instead, the power produced is restricted and transmitted evenly, resulting in rewardingly smooth acceleration.



## 6. SUSPENSION AND STEERING

The front axle of the MINI is based on the McPherson suspension strut principle, which offers weight and packaging advantages compared with other chassis systems. The MINI's system has been improved with a drive shaft bearing screwed to the engine block that allows the front axle shafts to be of equal length, providing symmetrical feedback during cornering, accelerating and braking. Normally, small cars have drive shafts of different lengths so that the feedback effect on the side with the shorter drive shaft is greater, which can create a feeling of instability when driving.

The MINI's multi-link rear suspension is unique in this segment. Its geometry is designed in such a way that the wheels always adjust to the best possible angle in relation to the road. The tyres are therefore always in full contact with the tarmac. Changes in the camber of the road have no effect on steering or the car's traction. The multi-link suspension allows good use of space and creates a luggage compartment with a low wide floor between the shock absorbers.

Both MINI One and MINI Cooper have an anti-roll bar on the front axle, reinforced on MINI Cooper. In addition, MINI Cooper has an additional anti-roll bar on the rear axle, a sporty chassis and Sports suspension. It is also lower by 8 mm. For the real enthusiast, MINI Cooper can also be specified with a Sport Plus suspension system.

Both MINI's are fitted with electro-hydraulic power-assisted steering (EHPAS), which is both accurate and direct, giving the pin-point steering sensation and excellent agility so typical of the classic Mini. The steering wheel only needs to be turned 2.5 times lock to lock. Whilst conventional steering systems use hydraulic pumps that are continuously driven by the engine, the steering pump in the MINI is operated by a small electric motor that works independently of the car's engine.

Since the power steering is not in use all the time, the engine can switch back into a more economical standby mode if no assistance is required for steering, producing a small cut in fuel consumption.



## 7. ELECTRICS AND ELECTRONICS

The MINI has a highly sophisticated and lightweight multiplex electronics infrastructure which minimises the amount of cabling work during manufacture and improves the quality of the connections.

The integration of two sub-systems and the data transmission between the systems have many advantages compared with conventional electrical systems. Far fewer connections are required, which are often a source of electrical problems, and the remaining connections are of a higher quality. Less cabling work is also required during vehicle assembly. There is a saving on weight and it is easier to integrate additional functions such as the rain sensor when specified.

The interior and exterior light systems also set new standards amongst the competition. Both MINI Cooper and MINI One have an innovative headlamp reflector system which redirects a percentage of the main beam, so that 25 percent more light is emitted than in conventional lamps. A headlamp washer system will be available as an option as will Xenon headlamps and fog lamps.

The interior lighting in the MINI is also excellent. A Xenon lamp located centrally in the roof illuminates the inside and MINI Cooper also has lighting in the footwell and in the boot.

Other electrical/electronic features provide extra safety and comfort. Radio-controlled central locking is standard, and controls the doors, tailgate and petrol tank lid from distances up to 15 metres. The interior light comes on as soon as the opening mechanism is operated, which makes finding the vehicle in the dark much easier. In addition, a switch allows the interior light to remain on for 30 seconds after leaving the car. A standard immobiliser is activated and deactivated by the key.

When the optional alarm is triggered, the warning lights flash and the horn sounds for 30 seconds. A warning light remains illuminated to show that the alarm has been activated.

The ICE (In-Car Entertainment) system provides maximum listening enjoyment in the MINI and is designed specially to suit the MINI's acoustic features and layout. The basic audio system contains six speakers - four in the front doors and two in the rear side walls.

For acoustic connoisseurs, a Harmon Kardon hi-fi system with eight speakers and a digital amplifier will also be available as an option next year. The integrated digital sound processor means that sound levels can be varied around the car guaranteeing personalised listening pleasure in every seat.



The wide range of separate components and individual systems means that a bespoke sound system can be put together for every customer. A six CD magazine located in the boot is also available in combination with various types of radio. Systems of this type are normally only available in higher category vehicles, which demonstrates the premium market position of the MINI.

Other high-tech features that are not normally available in this class include a navigation system with a 16 by 9 cm colour display and a telephone. A rain sensor is also available, which controls the windscreen wipers depending on the quantity of rain falling onto the windscreen. An automatic anti-dazzle rear view mirror is also available as an option.

# MINI



## 8. SALES, PACKAGE AND PRICING

### Sales

The MINI goes on sale on July 7 in the UK, ahead of any other market, sold via 148 specialist MINI outlets. The dealerships will be associated with existing BMW franchises and will be stand alone showrooms or architecturally separated MINI sales areas, under the same roof but clearly differentiated from their associated BMW areas. The MINI outlets will be manned by dedicated sales staff able to offer expert advice on the MINI.

MINI dealerships and staff will present the cars in a way that reflects the MINI's personality and will have a different feeling to the traditional BMW way; one that reflects MINI's 'serious fun' outlook. By the time the new MINI goes on sale, the first three months worth of cars will have already been sold, accounting for over 2,500 cars.

Sales in the UK are expected to be around 20,000 in a full year and Britain will be one of the MINI's biggest markets. Germany, France and Italy (from September 2001) and the USA and Japan (from early 2002) are expected to be MINI's other principal markets, but the MINI will be sold worldwide for the first time.

The MINI website [www.mini.co.uk](http://www.mini.co.uk) contains a wealth of information to help customers try, choose and buy the right MINI for them, as well as various other creative features aimed at indulging visitors to the site. These include a dealer locator where a customer can search for their nearest dealer, a car configurator where up to five different MINIs can be specified and priced, and a facility to book test-drives on-line.

Servicing can also be booked on-line by specifying preferred dates.



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### Package

MINI's high standard levels of specification and huge list of available options are supplemented by an after-sales package that sets new standards within the small car arena.

All UK MINIs come with a three year/60,000 mile warranty, a six year/unlimited mileage corrosion guarantee and a comprehensive three year pan-European roadside assistance package.

The MINI breaks new ground by offering as an option, a five year/50,000 mile MINI service pack - MINI tlc. This is available to all new UK customers and offers up to five years/50,000 miles of scheduled servicing cover (including parts and labour) for a one-off charge of just £100 (£85.11 plus VAT). Offered as an option to both retail and fleet customers, this service will only be available to customers when purchased at the same time as the new car, but is transferable when selling the car on - a great incentive that will keep used car prices healthy. For example, if a customer buys a three year old MINI that was bought new with the MINI tlc service pack, he/she will still have two years of that service pack to run, essentially providing up to two years free servicing, depending on annual mileage.

The MINI's insurance levels are also class-leading, reinforcing the MINI as a great value-for-money purchase. MINI One has a rating of just 5E, with MINI Cooper at 8E.

The Roadside Assistance package (including bespoke MINI service engineers, replacement car loan, full European cover and accident management) is also ground-breaking within the small car segment, and exclusive to the MINI in the UK. The warranties and packages are exactly the same as those provided to British BMW owners and, together with MINI tlc, ensure fixed-cost servicing and strong residual values for MINI owners.

### Pricing

MINI One retails at £9,900 and MINI Cooper at £11,200. Getting the MINI on the road adds a further £400 for Vehicle Excise Duty, road tax, number plates and delivery, but prices for the MINI's incredible levels of technology, standard specification and sheer fun factor have set the industry buzzing. Once again, a car with bags of personality that offers great value-for-money motoring is on the market.

The MINI's huge range of options are also very competitively priced, allowing the buyer to do what Mini owners over the past 40 years have done - personalise their cars to suit their own particular tastes and style.



## 9. OPTIONS

Over 40 options, three option packages and three different alloy wheels are available to order at launch. Other highlights include automatic stability control with traction control (ASC+T), a head airbag system for all occupants, an electric panoramic sunroof and an on-board computer. Styling options like interior silver trim, white alloys and chunky 16" alloy wheels will also be available to order.

Further options will be available to order in September, including steptronic automatic CVT (constantly variable transmission), Xenon lights, multifunction steering wheel and six CD changer or even a Mini Disc system. From 2002, white or black bonnet stripes can be added to Cooper models, along with a wooden steering wheel, park distance control, satellite navigation system and a Harmon Kardon HiFi system.

In addition to the wide range of standard and optional equipment, the MINI also offers three options' packages that continue the car's great value-for-money theme.

'Salt' package (available on MINI One) adds further practicality and styling features for £250, saving £240 on ordering the options separately. Salt consists of silver interior trim, floor mats, rear passenger cargo nets on the backs of the front seats, halogen front foglamps, interior lights package, passenger seat height adjustment and rev counter on the steering column.

'Pepper' package (available on MINI Cooper) adds a little extra heat and offers the Salt options not normally available on Cooper plus 15" 8-spoke alloy wheels and chrome bumper inserts. Pepper costs £300, a saving of £220.

'Chili' package (MINI Cooper) offers a real sporty edge for £1,000, a saving of £440. Chili comes with the Pepper pack plus KALEIDO cloth/leather upholstery with leather steering wheel and leather gear knob, driver and front passenger sport seats, Sport Suspension Plus and 16" 5-star alloy wheels. Chili also comes with a rear roof spoiler, not available as an individual option.

The MINI will be available to order at launch with eight stunning colours. Three solid colours (Black, Chili Red and Liquid Yellow) come at no extra cost, whilst the five metallics (Indi Blue, British Racing Green, Silk Green, Cosmos Black and Pure Silver) cost just £250. Black, white or body-coloured roof and side mirror housing combinations are available on the MINI Cooper models at no cost, whilst MINI One can only be specified with body-coloured roof.



MINI

**OPTIONAL EQUIPMENT (X shows option available)**

Available to order at launch	MINI One	MINI Cooper	Retail Price
ASC+T (Automatic Stability Control with traction control)	X	X	£100
Sport Suspension Plus	N/A	X	£100
Leather steering wheel	X	X	£80
Head airbags	X	X	£200
ISOFIX child seat fixing system	X	X	£20
Warning triangle and first aid kit	X	X	£25
Space saver spare wheel	X	X	£35
Remote control alarm	X	X	£200
Halogen front foglamps	X	X	£90
Chrome bumper inserts	X	X	£80
7-hole 15" alloy wheels	X	Std	£270
8-spoke 15" alloy wheels	X £270	X No cost	
5-star 16" alloy wheels	X £680	X £410	
Alloy wheels painted white	N/A	X No cost	
Sport seats	X	X	£170
Front seats rear map net	X	X	£20
Heated front seats	X	X	£185
Heated exterior mirrors/washer jets	X	X	£40
White/black roof & mirror caps	N/A	X No cost	
Electric panoramic glass sunroof	X	X	£500
Manual air conditioning	X	X	£600
On-board computer	X	X	£100
Rev counter	X£50	Std	
Single slot CD player	X	X	£70
Interior lights package	X	X	£80
MINI floor mats	X	X	£50
Cloth/leather upholstery, inc.			
leather steering wheel	X	X	£440
Leather upholstery (2 styles)	X	X	£970
'MINI Salt' package	X	N/A	£250 (saves £240)
'MINI Pepper'	N/A	X	£300 (saves £220)
'MINI Chili'	N/A	X	£1000 (saves £440)



<b>Available to order in September</b>	<b>MINI One</b>	<b>MINI Cooper</b>	<b>Retail Price</b>
Steptronic CVT transmission	X	X	£980
Multifunction steering wheel (on leather wheel only)	X	X	£240
Visibility package (heated windscreen, auto dimming mirror and rain sensor)	X	X	£170
Auto dimming interior mirror and windscreen rain sensor	X	X	£100
Passenger seat height adjust	X	X	£100
High pressure headlight wash	X	X	£100
Xenon lights (inc. headlight wash)	X	X	£350
Automatic air conditioning	X	X	£830
Mini Disc player	X	X	£100
Six CD changer	X	X	£235

<b>COLOURS AVAILABLE</b>	<b>MINI One</b>	<b>MINI Cooper</b>	<b>Retail Price</b>
Black	X	X	No cost
Chili Red	X	X	No cost
Liquid Yellow	X	X	No cost
Pure Silver (Metallic)	X	X	£250
Indi Blue (Metallic)	X	X	£250
British Racing Green (Metallic)	X	X	£250
Silk Green (Metallic)	X	X	£250
Cosmos Black (Metallic)	X	X	£250

White / black roof	N/A	Std	
Body coloured roof	Std	X No cost	



MINI

## 10. MANUFACTURING

The very first Minis came off the production lines at Cowley, Oxford and Longbridge, Birmingham in August 1959. Now, 42 years later, the MINI production line at BMW Group's Oxford plant continues the UK manufacturing tradition of the world's favourite car.

Volume production of the new MINI started on April 26th 2001 when the first new MINIs which are destined for UK showrooms rolled off the new state-of-the-art production line. Around 30,000 new MINIs will be produced this year by over 2,500 employees. Over 100,000 MINIs in 2002 will make full use of the factory's current capacity.

The MINI has taken just one year to come to full production at Oxford since the decision was taken to build the car there in April 2000. In May 2000 the MINI Project Team was relocated to Oxford when the first prototypes were built and in September 2000 installation of MINI production facilities began.

The plant has seen a £230 million investment programme in new production facilities for the MINI since July last year, ensuring that Plant Oxford is a state-of-the-art facility. This is in addition to the previous investment programme during the late 1990s including £80 million for a new paintshop.

The UK accounts for 40% of the value of all purchased materials for the new MINI and UK suppliers account for more content than any other country.



MINI

## 11. THE MINI BRAND

### The MINI brand and MINI'S target groups

The MINI is more than just a car; it has real personality. Like its predecessor it is spirited, exciting and appeals across boundaries of age, social class and nationality. Only, now, MINI has more muscle!

Potential MINI buyers cannot be labelled by traditional demographics alone, but more by attitude.

The main target group will be young, between 20 and 34, with a reasonable disposable monthly income, and the MINI will be their main car. Experimental in outlook, they get a buzz out of life and have a keen sense of style.

The second group are more likely to be between 35 and 50. They recognise the strengths of the Issigonis original in the MINI, (they may have owned an old Mini), but want a thoroughly up-to-date, yet stylish and affordable vehicle as a second or third car for the household. They too are young at heart and have a keen sense of style, but demand style with substance.

### The MINI brand in the BMW Group portfolio

MINI is an independent brand within the BMW Group and, alongside BMW, forms the second major pillar in its premium brand strategy.

The MINI brand allows the BMW Group to expand its worldwide market presence as it appeals to a new group of customers. It provides the BMW Group with a quality car in the small car sector, offering customers premium levels of design, engineering, build and service, with an unmatched appeal.

The MINI will also help the BMW Group to reduce its average CO<sub>2</sub> emissions under the European automotive industry's voluntary obligation to reduce total CO<sub>2</sub> emissions by 25 per cent between 1995 and 2008.

The MINI brand products were mainly developed in the BMW Group's British offices by an international MINI project team.



## 12. TECHNICAL DATA MINI ONE; MINI ONE CVT

<b>Body</b>		<b>MINI One</b>	<b>MINI One CVT</b>
No. of doors/seats		3/4	3/4
Length/width/height (unloaded)	mm	3626/1688/1413	3626/1688 /1413
Wheelbase	mm	2467	2467
Track, front/rear	mm	1460/1466	1460/1466
Turning circle	m	10.66	10.66
Fuel tank capacity	ca. l	50	50
Cooling system incl. heater	l	5.3	5.3
Engine oil	l	4.8	4.8
Weight (DIN/EU <sup>1</sup> )	kg	1040/1115	1065/1140
Max. load (DIN)	kg	430	430
Max. permissible weight (DIN)	kg	1470	1495
Max. permissible axle load, front/rear	kg	870/700	870/700
Max. trailer load <sup>2</sup>			
braked (12%/unbraked)	kg	650/500	650/500
Luggage comp. capacity VDA	l	150	150
Drag coefficient/front area	c <sub>x</sub> x A	0.35	0.35
<b>Engine</b>			
Layout/No of cylinders/Valves		In-line/4/4	In-line/4/4
Engine management		Siemens EMS 2000	Siemens EMS 2000
Displacement, effective	cm	1598	1598
Bore/stroke	mm	85.8/77	85.8/77
Compression ratio	:1	10.6:1	10.6:1
Fuel grade	ROZ	91-98 ROZ	91-98 ROZ
Max. output	kW/bhp	66/90	66/90
at engine speed	rpm	5500	5500
Max. torque	Nm (lb-ft)	140 (103)	140 (103)
at engine speed	rpm	3000	3000
<b>Electrics</b>			
Battery/location	Ah/-	46/front	46/front
Alternator	A/W	105/120	105/120



MINI

### Chassis/power transmission

Brake, front		Ventilated disc brake	Ventilated disc brake
Diameter	mm	276	276
Brake, rear		Disc brake	Disc brake
Diameter	mm	259	259
Driving stability system		ABS, CBC, EBD	ABS, CBC, EBD
Steering		Rack and pinion	
Overall ratio	:1	12.88	12.88
Type of transmission		5-Gear-Manual	CVT
Transmission ratio	I	:1	3.417
	II	:1	1.947
	III	:1	1.333
	IV	:1	1.054
	V	:1	0.846
	R	:1	3.580
Final drive ratio	:1	3.556	4.10
Tyres		175/65R15	175/65R15
Wheels		15'' Steel	15'' Steel

### Performance

Power to weight ratio (DIN)		kg/kW	15.8	16.1
Output per litre		kW/l	41.3	41.3
Acceleration	0-62 mph	s	10.9	not specified
	0-1000 m	s	33.0	not specified
in 4 <sup>th</sup> /5 <sup>th</sup> gear	50-75 mph	s	12.8/14.5	-
Top speed		mph	115	not specified

### Fuel consumption<sup>3</sup>

(EU cycle)				
In town		mpg (Imperial)	32.5	not specified
Out of town		mpg	54.3	not specified
Overall		mpg	43.5	not specified
CO <sub>2</sub>		g/km	158.0	not specified

### Miscellaneous

Emission classification	-	EU3	EU3
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1 Weight, unloaded, including 75 kg for driver.

2 May increase under certain conditions.

3 Information about performance and fuel consumption refer to ROZ 95.

These specifications are for the UK market. Deviations from the model variants described here are possible in various countries.



## TECHNICAL DATA MINI COOPER; MINI COOPER CVT

<b>Body</b>		<b>MINI Cooper</b>	<b>MINI Cooper CVT</b>
No. of doors/seats		3/4	3/4
Length/width/height (unloaded)	mm	3626/1688/1413	3626/1688 /1413
Wheelbase	mm	2467	2467
Track, front/rear	mm	1460/1466	1460/1466
Turning circle	m	10.66	10.66
Fuel tank capacity	ca. l	50	50
Cooling system incl. heater	l	5.3	5.3
Engine oil	l	4.8	4.8
Weight (DIN/EU <sup>1</sup> )	kg	1050/1125	1075/1150
Max. load (DIN)	kg	430	430
Max. permissible weight (DIN)	kg	1480	1505
Max. permissible axle load, front/rear	kg	870/700	870/700
Max. trailer load <sup>2</sup>			
braked (12%/unbraked)	kg	650/500	650/500
Luggage comp. capacity VDA	l	150	150
Drag coefficient/front area	c <sub>x</sub> x A	0.35	0.35
<b>Engine</b>			
Layout/No of cylinders/Valves		In-line/4/4	In-line/4/4
Engine management		Siemens EMS 2000	Siemens EMS 2000
Displacement, effective	cm	1598	1598
Bore/stroke	mm	85.8/77	85.8/77
Compression ratio	:1	10.6:1	10.6:1
Fuel grade	ROZ	91-98 ROZ	91-98 ROZ
Max. output	kW/bhp	85/115	85/115
at engine speed	rpm	6000	6000
Max. torque	Nm (lb-ft)	149 (110)	149 (110)
at engine speed	rpm	4500	4500
<b>Electrics</b>			
Battery/location	Ah/-	46/front	46/front
Alternator	A/W	105/120	105/120



MINI

### Chassis/power transmission

Brake, front			Ventilated disc brake	Ventilated disc brake
Diameter	mm		276	276
Brake, rear			Disc brake	Disc brake
Diameter	mm		259	259
Driving stability system			ABS, CBC, EBD	ABS, CBC, EBD
Steering			Rack and pinion	
Overall ratio		:1	12.88	12.88
Type of transmission			5-Gear-Manual	CVT
Transmission ratio	I	:1	3.417	-
	II	:1	1.947	-
	III	:1	1.333	-
	IV	:1	1.054	-
	V	:1	0.846	-
	R	:1	3.580	2.680
Final drive ratio		:1	3.940	4.10
Tyres			175/65R15	175/65R15
Wheels			15" Alu	15" Alu

### Performance

Power to weight ratio (DIN)		kg/kW	12.4	12.7
Output per litre		kW/l	53.2	53.2
Acceleration	0-62 mph	s	9.2	not specified
	0-1000 m	s	30.8	not specified
in 4 <sup>th</sup> /5 <sup>th</sup> Gear	50-75 mph	s	10.5/14.4	-
Top speed		mph	125	not specified

### Fuel consumption<sup>3</sup>

(EU cycle)				
In town		mpg (imperial)	31.4	not specified
Out of town		mpg	52.3	not specified
Overall		mpg	42.2	not specified
CO <sub>2</sub>		g/km	163.0	not specified

### Miscellaneous

Emission classification		-	EU3	EU3
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1 Weight, unloaded, including 75 kg for driver.

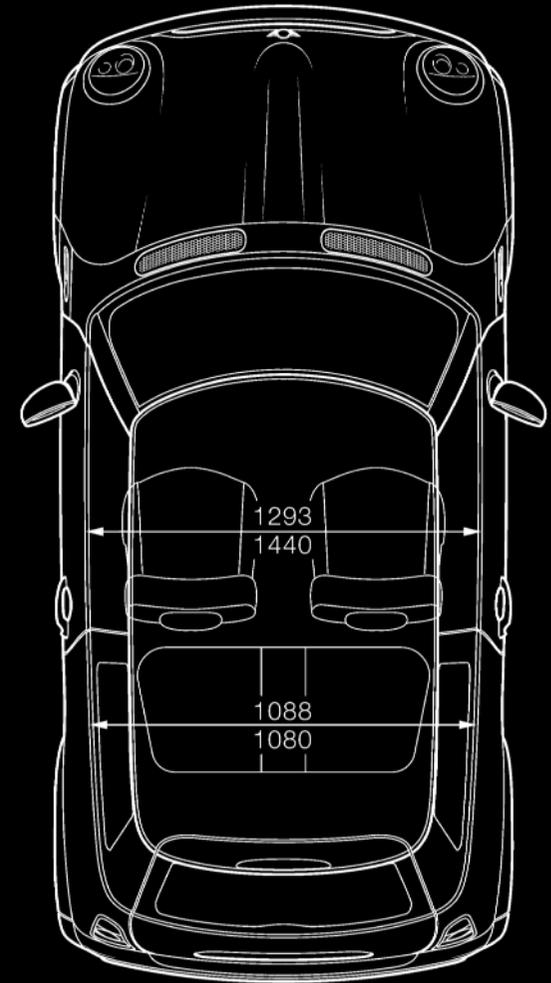
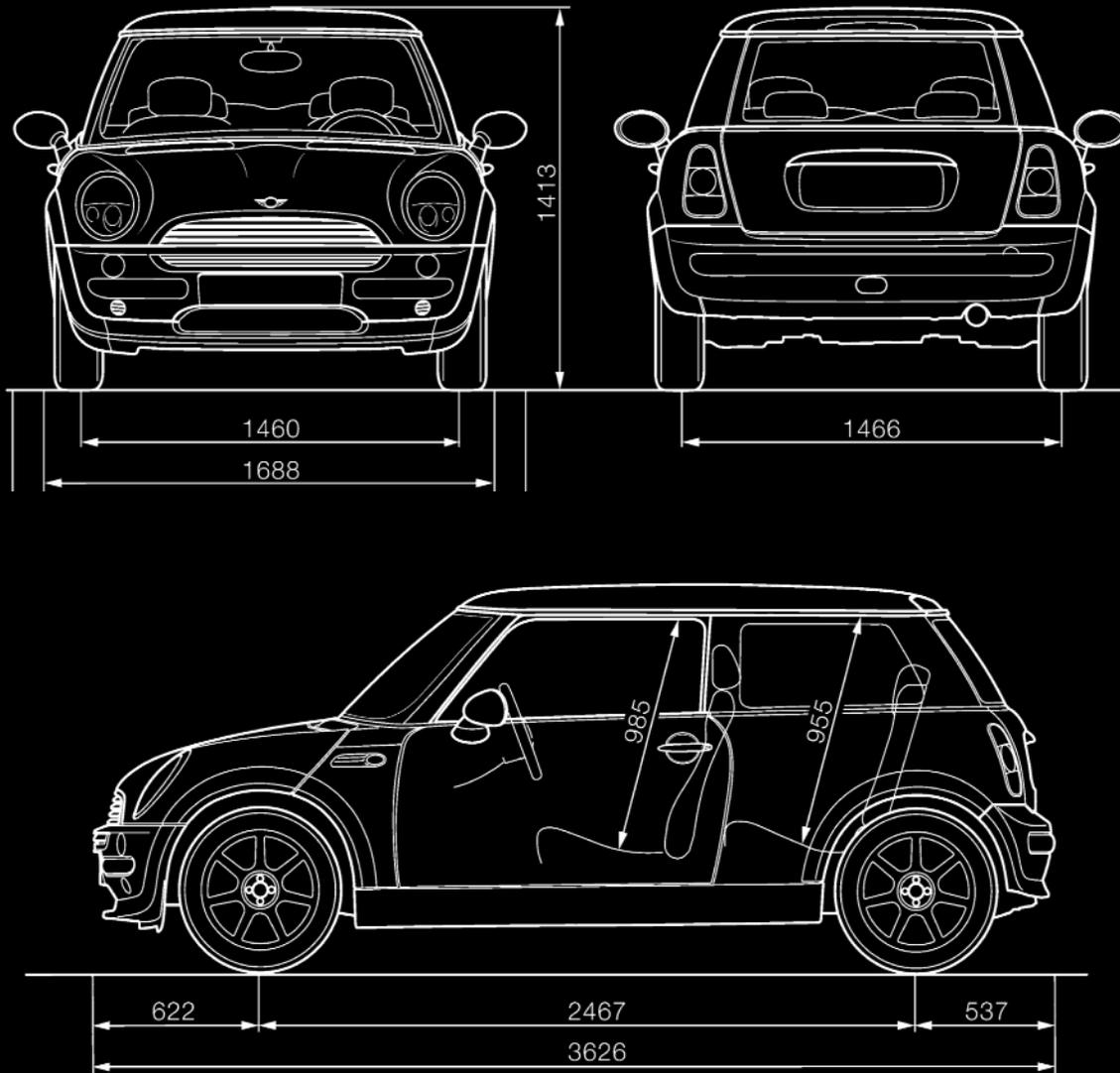
2 May increase under certain conditions.

3 Information about performance and fuel consumption refer to ROZ 95.

These specifications are for the UK market. Deviations from the model variants described here are possible in various countries.



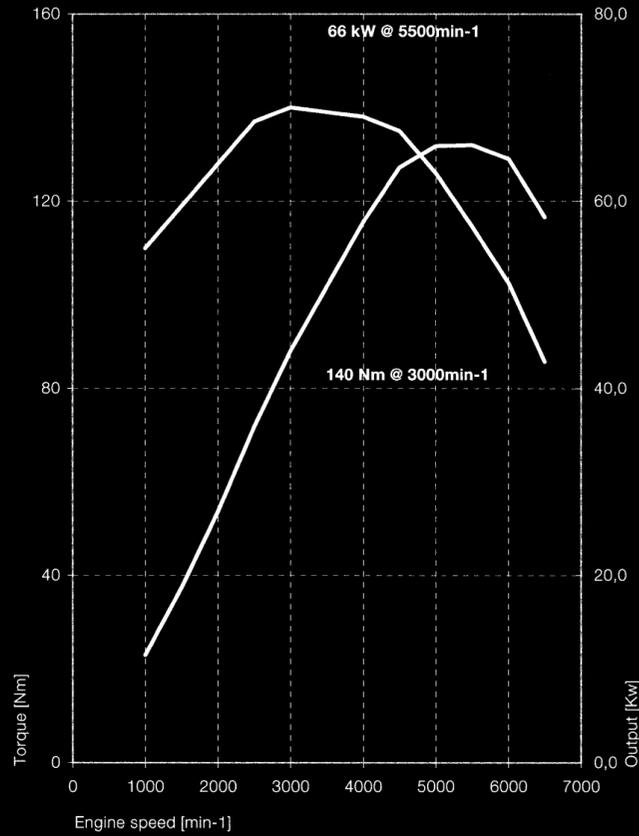
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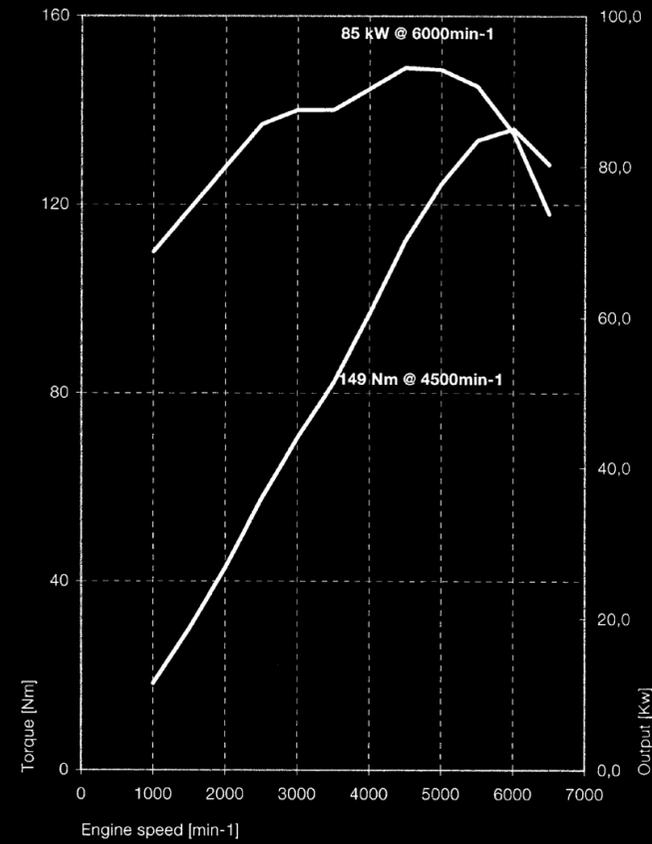


## 14. PERFORMANCE AND TORQUE DIAGRAMS

### MINI One



### MINI Cooper





## MINI Cooper





## MINI Cooper: Interior





## MINI Cooper





## MINI Cooper



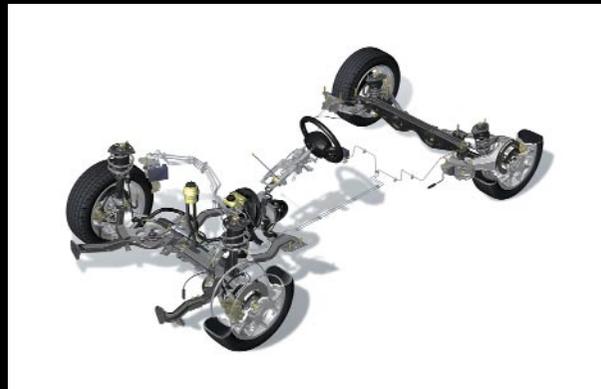


## MINI Cooper





## MINI: Technical drawings





## MINI: Hot and cold weather testing





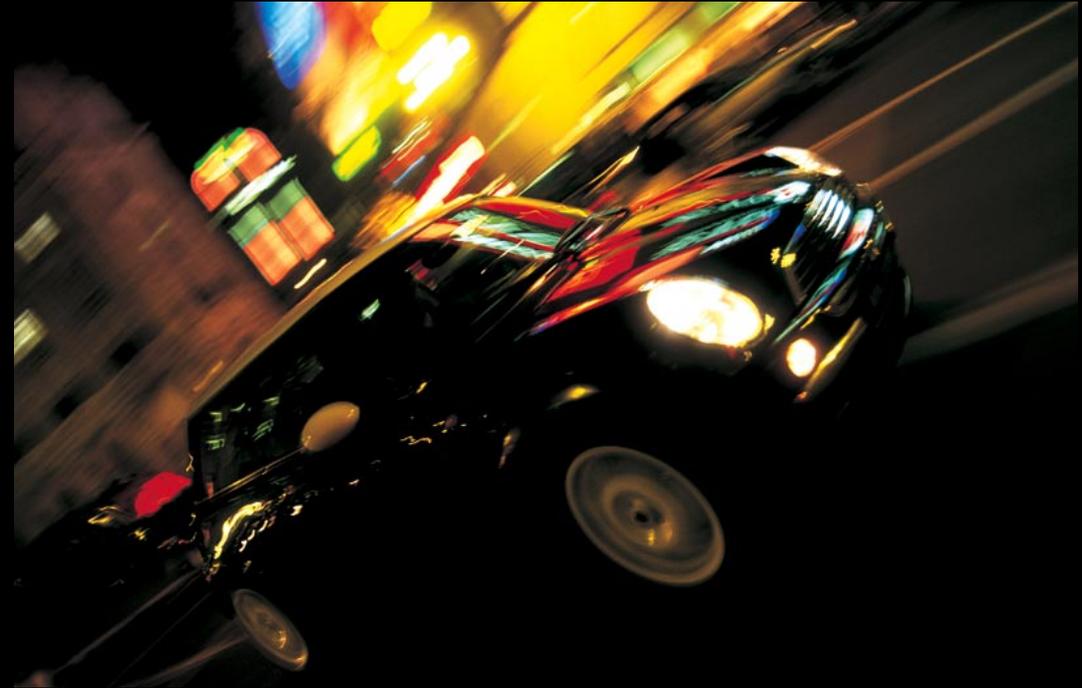
Frank Stephenson, MINI designer



MINI: Design sketches



## MINI Cooper



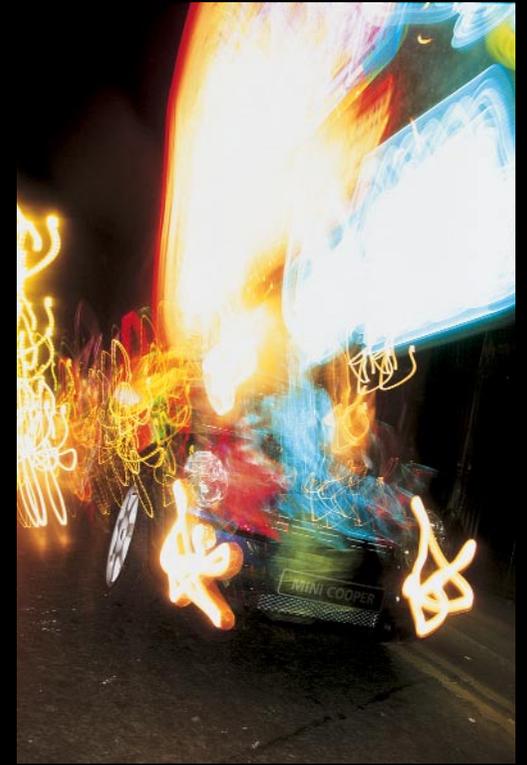
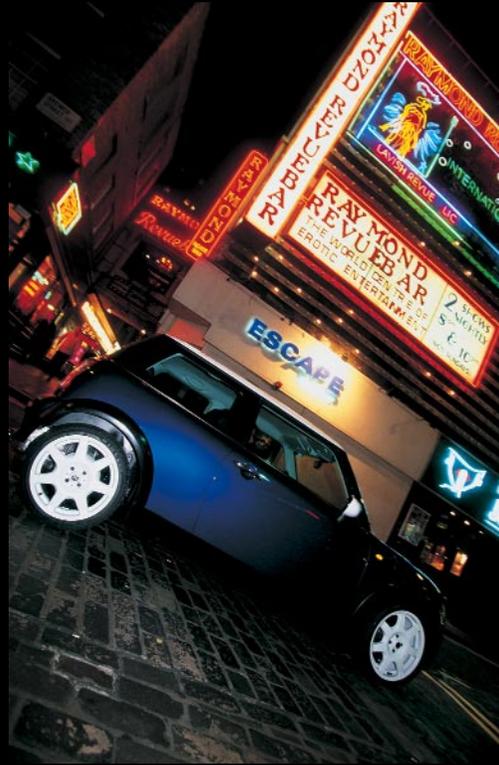


## MINI Cooper





# MINI Cooper





## MINI Stuff



Cuddly MINI



MINI Cuckoo clock



MINI mouse