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### MINI at the 2009 Detroit NAIAS.



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### 1. MINI at the 2009 Detroit NAIAS. (Short Version)



The presentation of the MINI brand at the 2009 North American International Auto Show (NAIAS) in Detroit is characterised in particular by the world debut of an unusually thrilling model and the breakthrough of the brand into a new age of mobility.

The first public appearance of the new MINI Convertible is leading up as a highly attractive highlight to the warm season, the open four-seater MINI offering lots of opportunities to start the convertible season this year at a particularly early point in time.

The public in Detroit will also have the opportunity from 17–25 January 2009 to experience the MINI E, with 500 units of the first all-electric MINI to be driven in California, New York and New Jersey by selected customers in everyday traffic. Introducing this revolutionary model, the BMW Group is setting a further milestone en route to individual mobility completely free of emissions.

Further highlights at the 2009 NAIAS are the current versions of the MINI and MINI Clubman. The focus in particular is on the latest additions to the range, the MINI John Cooper Works and the MINI John Cooper Works Clubman. Both of these top-flight athletes are powered by a 155 kW/211 hp four-cylinder with a twin-scroll turbocharger and direct gasoline injection.

#### Even more fun in everyday traffic: the new MINI Convertible.

Presenting the 2009 model range in Detroit, MINI is putting everything in place to continue the brand's unique story of success in the USA at a fast and dynamic pace. Particularly the new MINI Convertible scheduled to enter the market in March 2009 will establish new momentum, taking up the success of the former model already most popular in the USA, with loyal aficionados throughout the country: Out of a total production volume of some 164,000 MINI Convertibles in the first generation, more than 37,000 units – about 24 per cent – were sold in the United States.

The new MINI Convertible is based on the qualities of its predecessor, giving even greater emphasis to the characteristic strengths of the open-air MINI. And thanks to new engines as well as the suspension upgraded to an even higher standard, this one and only premium convertible in its segment offers all the driving pleasure so typical and characteristic of MINI.

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At the same time the new model comes with a new, retractable rollover safety system and a wide range of detailed solutions for exceptional all-round functionality. The new MINI Convertible is therefore perfectly prepared for all the challenges of everyday motoring, inviting the driver and passengers to enjoy the pleasant moments of life more often than ever before. To open the soft roof, for example, all you have to do is press a button, the roof opening fully automatically within just 15 seconds (and closing again just as fast).

The new MINI Convertible is entering the US automobile market with two model variants. The new MINI Cooper Convertible powered by an 88 kW/120 hp 1.6-litre four-cylinder offers particularly sporting character and powerful performance. The power unit comes with fully variable valve management developed on the basis of the BMW Group's unique VALVETRONIC technology and ensuring an optimised torque curve, superior power and exemplary efficiency.

The new MINI Cooper Convertible accelerates to 100 km/h or 62 mph in 9.8 seconds and has a top speed of 198 km/h or 123 mph. Fuel consumption in the EU test cycle is 5.7 litres/100 kilometres, equal to 41.1 mpg US, and the  $CO_2$  rating is 127 grams per kilometre.

The new MINI Cooper S Convertible likewise featuring a 1.6-litre four-cylinder power unit but in this case with maximum output of 128 kW/175 hp thanks to the twin-scroll turbocharger and direct gasoline injection offers even more power and performance, accelerating to 100 km/h (62 mph) in 7.4 seconds, Top speed, in turn, is an equally impressive 222 km/h or 138 mph.

Average fuel consumption of the MINI Cooper S Convertible in the EU test cycle is 6.4 litres (equal to 36.6 mpg US), and the car's emission rating is 153 grams per kilometre. Compared with their predecessors, therefore, both the new MINI Cooper Convertible and the new MINI Cooper S Convertible offer a significantly higher standard of performance on substantially less fuel and with much lower emissions.

Apart from the fast-revving and powerful engines, modern suspension technology helps to give both new models a new dimension in agile handling. Both the MINI Cooper S Convertible and the MINI Cooper Convertible come with DSC Dynamic Stability Control featured as standard. As an option, Dynamic Stability Control may be further upgraded by the DTC optimised traction mode available exclusively on the MINI as the only front-wheel-drive

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car with this technology and an electrical locking function on the drive wheel differential.

Safety is raised to an even higher standard, inter alia, by the new rollover safety system moving up electromechanically whenever required. This single-piece rollbar rests almost out of sight behind the rear seats, moving up within fractions of a second only when the electronic safety control registers the risk of a rollover.

Thanks to the design and structure of the single-piece rollbar, the through-loading between the luggage and passenger compartment is particularly large and generous in size, increasing the maximum loading capacity of the MINI Convertible by 55 to 660 litres (23.1 cu ft).

The wide range of options for customising the new MINI Convertible has also been extended once again, new body colours, three different colour and trim variants on the roof and a large number of upholstery options, interior surfaces and trim bars enabling the customer to create his – or her – very own car in his personal style.

#### Setting out for emission-free mobility: the MINI E.

Yet another MINI highlight at the 2009 NAIAS likewise offers driving pleasure typical of MINI in everyday motoring: Immediately after the launch of a pilot project in a number of US states, the trendsetting MINI E is now being presented to the public in Detroit.

This unique new model boasts an electric motor developing maximum output of no less than 150 kW/204 hp. This kind of superior energy comes from a lithium-ion battery fitted at the rear of this two-seater and giving the car a cruising range of more than 240 kilometres or, respectively, 150 miles.

The energy reservoir may be recharged from any kind of power socket, with power reserves being replenished particularly quickly from a special Wallbox delivered to the customer together with the MINI E.

Extracting a maximum of 28 kilowatt hours from the power mains, the MINI E is able to cover a distance of 5.4 miles on each kilowatt supplied to the car.

The MINI E combines emission-free motoring with agility typical of the brand. Acceleration to 100 km/h or 62 mph comes in just 8.5 seconds, with top speed limited electronically to 152 km/h or. respectively, 95 mph.

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Running 500 cars under practical, everyday driving conditions on the road in the USA, MINI will be gaining practical experience through a representative cross-section of users. At the same time the BMW Group will benefit from valuable experience in developing production cars running entirely on electrical power.

#### Motorsport know-how for the road: the MINI John Cooper Works.

The outstanding performance of the MINI John Cooper Works and the MINI John Cooper Works Clubman are likewise the result of the BMW Group's outstanding competence in the development of new engine technology. The 155 kW/211 hp four-cylinder featured in both of these models comes straight from the power unit raced in the MINI CHALLENGE Clubsport Series. The MINI John Cooper Works accelerates to 100 km/h (62 mph) in 6.5, the MINI John Cooper Works Clubman in 6.8 seconds. Both models have a top speed of 238 km/h or 148 mph.

Both of these top-flight athletes are built at the MINI Plant in Oxford together with the other models in the range. Through their particular character and qualities focusing without compromises on an active driving experience, these very special models add an important highlight to the brand's overall range. And like the new MINI Convertible, they also prove the diversity the MINI brand is able to offer.

Proudly presenting the current model range and the trendsetting MINI E, the MINI brand is making a more attractive and innovative appearance than ever before at the 2009 NAIAS. By tradition, the North American International Auto Show is the first world-class motor show of the year, with car shows having been held in Detroit since 1907. This year the organisers and almost 100 exhibitors expect some 700,000 visitors from all over the world.

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#### 2. At a Glance.



#### • World debut: The new MINI Convertible.

The characteristic qualities of a MINI and the pleasure of driving in the open air – the new MINI Convertible offers the best of both worlds. For more than ever before, this unique four-seater enables the enthusiast to use every opportunity to open the roof, enjoying the sun and the wind while driving in the open air.

The new MINI Convertible making its world debut at the 2009 NAIAS in Detroit stands out through nimble handling typical of the brand, powerful and efficient engines, as well as a wide range of features giving the car remarkable functionality in everyday traffic.

Entering the market in the USA, the MINI Convertible is available from the start in the guise of the MINI Cooper S Convertible (128 kW/175 hp) and the MINI Cooper Convertible (88 kW/120 hp) . Compared with their respective predecessors, both models offer significantly enhanced performance on substantially less fuel and with much lower emissions.

#### • Milestone: the MINI E.

Unlimited driving pleasure, zero emissions: Presenting the MINI E, the MINI Group is setting yet another milestone on the way to unrestricted mobility completely free of fossil fuels. The new chapter in this story of development is starting in the USA, where almost 500 units of the all-electric MINI will be made available to selected customers in California, New York and New Jersey.

Immediately after the inception of this pilot project, the MINI E will be presented to the public at large at the 2009 NAIAS in Detroit. The emission-free variant of this unique small premium car is powered by a 150 kW/204 hp electric motor, with energy supplied by a newly developed lithium-ion battery, a combination giving the MINI E a cruising range of more than 240 kilometres or 150 miles.

#### • Powerful appearance:

#### MINI and MINI Clubman in the 2009 model year.

The MINI range is making a more diverse and attractive entrée than ever before into the year 2009. Precisely this is why MINI proudly presents its

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top team at the 2009 NAIAS, with the MINI John Cooper Works and the MINI John Cooper Works Clubman now included in the line-up as fully-fledged members of the range.

These two top athletes are powered by a 155 kW/211 hp four-cylinder developed with all the very special motorsport know-how of the BMW Group.

At the same time the MINI Cooper S and the MINI Cooper as well as the MINI Cooper S Clubman and the MINI Cooper Clubman are all set and ready to go in continuing the outstanding success of the brand in the USA, both body variants offering fascinating driving qualities, unmistakable design, premium quality, and an almost unlimited range of options in customising the car.

The balance of driving pleasure and fuel economy is likewise unusually good in every MINI, and last but not least the MINI Clubman, with 8 centimetres or 3.15" more legroom at the rear and up to 930 litres or 32.6 cubic feet of luggage capacity is truly impressive also when it comes to the car's outstanding practical qualities.

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### 3. Consistently Open: The new MINI Convertible.



The driving pleasure and individual style so typical of the MINI are now being combined once again with all the flair and refreshment of driving in the open air, the new MINI Convertible offering this unique rendition of motoring freedom in particularly intense style.

With its design improved in an evolutionary process and an even wider range of practical functions, with the most advanced and sophisticated suspension technology, even more powerful and, at the same time, economic engines, and with optimised safety technology, the new version of the open-air four-seater MINI consistently raises its strengths and qualities to an even higher level.

At the same time new and highly attractive colour variants as well as - equipment features add an additional touch of style and class. And last but certainly not least, supreme quality of materials and finish enhances the unique position of the MINI Convertible as the only open premium car in its segment.

The occupants are safely protected from wind and weather also in the new MINI Convertible by the high-quality soft top with its integrated sliding roof function. Even while driving at a speed of up to 30 km/h or 20 mph, the soft top folds back fully automatically in a complete process within just 15 seconds, giving the new MINI Convertible its true purpose and quality: This is a car simply begging for driving in the open air at any time of the year, symbolising this challenge to the driver through the optionally available, absolutely unique Always-Open Timer next to the rev counter.

This unprecedented instrument shows the driver and passengers the time they have spent driving with the roof down – motivating the driver to really enjoy the thrill of open-air motoring as frequently as possible.

The new MINI Convertible offers outstanding everyday driving qualities through the Easy-Load Function, the rear-seat backrest folding down individually on either side, as well as the unusually large through-loading between the luggage and passenger compartment, increasing luggage capacity to an astounding 660 litres or 23.10 cu ft.

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This variability quite unique in the convertible segment is made possible by the innovative design and construction of the rollbar: The new MINI Convertible comes with a single-piece rollbar behind the rear seats extending across the entire interior width of the car, not obstructing the driver's line of visibility in any way when looking to the rear, and moving up automatically only in the event of an imminent rollover.

The new MINI Convertible is entering the market in two engine variants. The MINI Cooper Convertible offers sporting qualities right from the start with its 1.6-litre four-cylinder power unit featuring fully variable valve management for maximum output of 88 kW/120 hp at 6,000 rpm.

The MINI Cooper S Convertible is even more dynamic and performance-oriented, its 1.6-litre four-cylinder with a Twin-Scroll turbocharger and direct gasoline injection delivering 128 kW/175 hp at an engine speed of 5,500 rpm and thus providing a particularly refreshing feeling of power and dynamic performance.

Both engine variants come as standard with the latest technologies for reducing both fuel consumption and emissions, including Brake Energy Regeneration as well as Auto Start Stop and a gearshift point indicator on the manual gearbox models.

Benefiting from this extremely efficient drive technology, fuel consumption and CO<sub>2</sub> emissions on the new MINI Convertible are reduced by up to 23 per cent compared with the cars' respective predecessors.

From the start the MINI Cooper S Convertible and the MINI Cooper Convertible are available as an alternative to the six-speed manual gearbox featured as standard with optional six-speed automatic transmission. At the same time the new MINI Convertible owes its fascinating handling to suspension technology significantly enhanced and upgraded over the former model. Indeed, thanks to sophisticated wheel suspension, extremely precise electromechanical power steering, the powerful brake system and DSC Dynamic Stability Control featured as standard, the open-air MINI combines supreme agility with equally exemplary safety all round.

### Design: MINI all the way, open-air motoring without compromises, and unique proportions.

The design of the MINI Convertible is the result of an evolutionary development process. Compared with the former model, the new MINI Convertible is clearly more mature at very first sight, the beautifully

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chiselled body surfaces giving the new MINI Convertible an even more powerful and dynamic look.

The stretched side view exudes an even greater sense of sporting performance, the rollbar almost entirely concealed from sight boasting a silhouette clearly inspired by the classic roadster with the roof down.

A chrome bar extending round the entire body horizontally at shoulder level connects the body of the car as such with the roof and windows. The windscreen standing upright underlines the character of this uncompromising open-air performer not only through its looks, with the driver and front passenger quite literally sitting in the open air whenever the roof is down.

The open-air version of the brand is unmistakably a MINI at very first sight. The proportions of the car with short overhangs front and rear, larger wheel cut-outs, the height of the waistline and numerous design features again characteristic of the brand clearly reveal that this is a genuine MINI in every respect.

The entire front view is likewise MINI all the way, including the specific features distinguishing the MINI Cooper S Convertible from the MINI Cooper - Convertible. Both models come with a hexagon radiator grille and large round headlights with integrated direction indicators in typical MINI style, forming one complete, self-contained element. The MINI Cooper S Convertible is nevertheless clearly recognisable by its Powerdome rising up 20 millimetres or almost 0.8", the stylised opening on the engine compartment lid, and the hexagonal grid pattern on the radiator grille as well as the extra-large lower air intake scoop.

On the MINI Cooper Convertible the radiator grille boasts a chrome frame and three horizontal, chrome-plated bars. The edges on the lower air intake scoop flow slightly upwards, with both the MINI Cooper S Convertible and the MINI Cooper Convertible featuring positioning light units on either side of the lower air intake also housing the foglamps available as an option.

Like the front-end design, the rear view of the new MINI Convertible offers a clear enhancement of the car's visual presence. The entire rear section is characterised by horizontal lines running parallel to one another, creating the softly flowing "steps" also to be admired on the MINI Hatch in emphasising the width of the car.

The rear lid of the new MINI Convertible opening up to the bottom comes with hinges mounted on the inside, giving the entire rear section a smooth and homogeneous surface again emphasising the powerful look of the rear end.

Standing upright in position, the rear lights are somewhat larger than on the former model. Again as on the MINI Hatch, they are surrounded by chrome frames disconnected from the lights themselves and therefore emanating a particular touch of class and style.

The particularly sporting character of the MINI Cooper S Convertible is emphasised further at the rear by dual tailpipes in the middle, the large air intake in the rear dam, and the two-piece rear foglamp.

### Optimised all-round visibility ensured by even larger side windows and the retractable rollbar.

The soft roof of the new MINI Convertible stands out in particular through its unique design and very practical functionality. With the roof closed the MINI Convertible comes with the proportions typical of the car, the sporting look being additionally emphasised by the low roofline.

The high-quality, absolutely wind-tight and very hard-wearing textile material rests firmly on the roof bars made of steel and aluminium, thus avoiding virtually any change in shape or bulging effect even at high speeds.

All-round visibility with the roof closed further improved over the former model results, first, from the slightly larger side windows and, second, from the newly conceived, retractable rollbar. This single-piece rollbar moving up and down as required runs across the entire width of the car just below the rear headrests, thus offering the driver unrestricted visibility without any - obstruction to the rear.

The rear window is connected to the soft top by seals on the inside, thus closing flush with the surface of the roof. Made of glass, the rear window may be heated electrically whenever required to avoid any misting or icing effect. And as an option, finally, the new MINI Convertible is also available with a heated windscreen.

### Soft roof with sliding roof function – also for convenient use while driving.

The soft roof opens and closes completely within just 15 seconds, naturally with fully automatic, electrohydraulic control. After the roof has opened, it

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folds down snugly into the rear end of the car, the particularly precise folding pattern serving to efficiently remove any moisture and at the same time avoid any pressure spots or friction, which might otherwise cause excessive wear or discoloration of the material. And since the outer skin of the open roof faces upwards, there is no need for a tonneau cover providing particular protection.

The opening and closing mechanism is activated by a toggle switch on the front roof frame in typical MINI design. In order to ensure the spontaneous pleasure of open-air motoring or respond quickly to a sudden downpour, the opening and closing process may be initiated at road speeds of up to 30 km/h or 20 mph. A further point is that the driver is able to open the soft top before setting out by means of the remote control integrated in the ignition key.

The window bars and side windows on the MINI Convertible are retracted electrically as soon as the soft roof starts to move back, again in a fully automated process. The closing process then takes place in exactly the opposite order.

Both processes – opening and closing – are performed in a continuous flow, as long as the driver keeps the switch on the roof frame or the button on the remote control pressed down. This also allows him to interrupt the movement of the soft roof in any position. By briefly pressing a separate button, the driver is also able to lower the four side windows together while the roof remains closed.

The unique folding roof function on the new MINI Convertible is activated completely by electric power. In this case the front section of the soft top moves back by up to 40 centimetres or approximately 16 inches, again by pressing the switch on the front roof frame. A further benefit is that the driver and occupants are able to enjoy this particular pleasure of driving with a sliding roof not only in city traffic, since the sliding roof function may be activated also at higher speeds of up to 120 km/h or 75 mph.

### Guarantee for unique driving pleasure: the latest generation of four-cylinder power units.

Muscular, fast-revving and extremely efficient – these are the fortes of the two four-cylinder petrol engines available in the new MINI Convertible upon its entry into the market. Indeed, thanks to these engines the generation change on the open-air MINI comes with an enormous increase in driving pleasure and, at the same time, significant progress in all-round economy.

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More than ever before, therefore, the MINI Cooper S Convertible and the MINI Cooper Convertible stand out as absolute exceptions in their segment. Both models offer not only the highest level of driving pleasure, but also the best standard of fuel economy and emission management in relation to their power and performance.

Both power units are made of light alloy and come with a displacement of 1,598 cc, featuring exactly the same distance between cylinders, as well as the same bore and stroke. At the same time they naturally benefit from all the know-how of the BMW Group in engine development and high-tech carried over from motorsport.

The four-cylinder power units are built at the BMW Group's Hams Hall Engine Plant in Great Britain, from where they go to the MINI Plant in Oxford, which also builds the MINI Convertible. Compared with the former model, both engines are fitted in the engine bay of the MINI Convertible at an angle of 180°, with the exhaust side now facing to the front.

Further common features shared by both the turbocharged and natural-aspiration power unit are the two-piece bedplate structure of the crankcase as a trendsetting technology carried over from motorsport as well as the cylinder block and bearing housing made of a special aluminium alloy on both engines. And last but not least, integration of the chain box in the bearing housing saves weight, improves the car's acoustics, and reduces the number of components.

#### MINI Cooper S Convertible: superior power and performance thanks to the Twin-Scroll turbocharger and direct gasoline injection.

The new MINI Cooper S Convertible offers a more intense and thrilling experience of performance than ever before. As the more powerful of the two new models, the MINI Cooper S Convertible comes with a 1.6-litre four-cylinder delivering no less than 128 kW/175 hp at 5,500 rpm with the help of a Twin-Scroll turbocharger and direct gasoline injection. In the range between 1,600 and 5,000 rpm, this unique power unit develops maximum torque of no less than 240 Newton-metres or 177 lb ft, further increased briefly by the Overboost function to 260 Newton-metres or 192 lb ft.

The Twin-Scroll turbocharger is particularly effective in boosting power and performance on the MINI Cooper S Convertible. The ducts of two cylinders at a time are separated from one another in the exhaust manifold and the turbocharger, serving to reduce exhaust gas counterpressure at low engine speeds in order to capitalise on the dynamic effect of the pulsating gas

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columns in the manifold. This effect enhances turbocharger response and ensures a particularly spontaneous build-up of engine power.

As a result, the MINI Cooper S Convertible is virtually free of the "turbo gap" when accelerating so typical of a conventional turbocharged engine. Acceleration to 100 km/h comes in just 7.4 seconds, engine flexibility and response is truly impressive also at high speeds, and the top speed of the car is an equally impressive 222 km/h or 138 mph.

The turbocharged four-cylinder featured in the MINI Cooper S Convertible benefits from the extra power of direct fuel injection applying the common-rail principle. The stainless-steel common rail linking all cylinders is filled with fuel by a high-pressure pump at the rear-end of the intake camshaft. Injection valves positioned at the side of the cylinder head then deliver fuel within fractions of a second and in an exact dose from the common rail directly to the combustion chamber. Four valve pockets and a combustion chamber trough positioned precisely in the middle of each piston help to provide optimum stratification of the homogeneous fuel/air mixture.

With this combination of a Twin-Scroll turbocharger and direct fuel injection, the new MINI Cooper S Convertible offers remarkable performance data in several respects: Specific output of the engine is approximately 110 hp per litre and fuel consumption in the EU test cycle is 6.4 litres/100 kilometres (equal to 44.1 mpg imp), with a CO<sub>2</sub> rating of 153 grams per kilometre.

#### **MINI Cooper Convertible:**

#### fully variable valve management for fresh performance.

Likewise displacing 1.6 litres, the normal-aspiration power unit in the new MINI Cooper Convertible combines fresh and sporting performance with truly outstanding economy. In this case maximum output of 88 kW/120 hp comes at 6,000 rpm, torque peaking at 160 Newton-metres or 118 lb-ft at 4,250 rpm.

The innovative technical features of this four-cylinder include fully variable valve management developed on the basis of the BMW Group's unique VALVETRONIC technology. The particular forte of this valve control concept is that the intake valve lift and the valve opening period are adjusted to the driver's respective power and performance requirements within fractions of a second. To achieve this superiority in engine control, the camshaft acts on the valves not directly via a follower arm, but rather through an additional intermediate lever where the pivot point is adjusted infinitely by an electrically driven eccentric shaft.

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Changing over from minimum to maximum lift takes only about 300 milliseconds – and at the same time valve timing is varied on both the intake and exhaust side as a function of engine speed. This adjustment process is again infinite, with valve timing set to current driving conditions likewise within 300 milliseconds at the very most.

Interacting with one another, variable valve management and engine speedrelated camshaft control serve to optimise both the torque curve and power output. Hence, the engine of the MINI Cooper Convertible delivers superior torque right from the start at low speeds, while developing significantly more power than a conventional engine at high revs.

A further advantage offered by both technologies is the significant reduction of fuel consumption: While the new MINI Cooper Convertible accelerates to 100 km/h in 9.8 seconds and reaches a top-speed of 198 km/h or 123 mph, fuel consumption in the EU test cycle is a mere 5.7 litres/100 kilometres (equal to 49.6 mpg imp) and the engine's CO<sub>2</sub> rating is just 137 grams per kilometre.

### Light, innovative, efficient: most advanced drive technology for reduced fuel consumption and emissions.

Both engines featured in the new MINI Convertible are fitted crosswise at the front and convey their superior power to the front wheels. Composite – instead of cast – camshafts and the crankshaft optimised for weight are part of the lightweight concept boasted by these all-aluminium power units.

Fuel consumption is further optimised by an oil pump with volume flow control and an electronically activated water pump for the coolant circuit. And last but not least in this context, both the MINI Cooper S Convertible and the MINI Cooper Convertible come as standard with the latest innovations for reducing both fuel consumption and emissions.

These innovations serve to optimise engine efficiency and at the same time enhance the standard of driving pleasure. A wonderful example in this context is Brake Energy Regeneration where the power of the engine is converted primarily into actual drive power and electricity is generated for the car's on-board network only when the car is actually moving in overrun or when the driver applies the brakes.

To achieve this effect, the generator is automatically disconnected while the engine is pulling the car, the power otherwise diverted to other energyconsuming functions on a conventional car now kept available for even

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faster and more dynamic acceleration. An adequate supply of electric power to the on-board network is nevertheless ensured at all times, the generator being reactivated as soon as the MINI Convertible changes to overrun or when the driver applies the brakes.

The Auto Start Stop function serves to significantly reduce idle speed phases on all manual gearbox versions of the MINI Convertible. Depending on various parameters such as ambient and engine temperature as well as the battery charge level, this trendsetting system switches off the engine automatically whenever it is not required, for example when stopping at the traffic lights, once the driver moves the gear lever to neutral and takes his foot off the clutch pedal. Then, to start the engine again, all the driver has to do is press down the clutch pedal, the engine automatically re-starting without the slightest delay.

The gearshift point indicator offers additional support in reducing fuel consumption and emissions. Thanks to this function again featured as standard, the driver of a manual gearbox MINI Convertible consistently benefits from the most efficient style of motoring. The engine's electronic control unit permanently analyses engine speed, driving conditions and the position of the gas pedal, then determining the most appropriate gear in accordance with this data. So as soon as it is appropriate to shift gears, an arrow symbol appears in the Cockpit Display beneath the rev counter and the ideal gear is shown as a numerical signal.

Benefiting from these new power units and the wide range of efficiency-enhancing improvements on and around the engines, the new MINI Convertible offers a significantly higher standard of both performance and fuel economy/emission management. On the road, this means a lot more driving pleasure in the MINI Cooper S Convertible and the MINI Cooper Convertible than in their respective predecessors. And to express their benefits in absolute terms, fuel consumption and the CO<sub>2</sub> rating of the two models are reduced by 23 per cent on the MINI Cooper S Convertible and 22 per cent on the MINI Cooper Convertible.

### Six-speed manual gearbox featured as standard, six-speed automatic as an option.

Both the MINI Cooper S Convertible and the MINI Cooper Convertible come as standard with a six-speed manual gearbox. At the same time both models are available as an option with six-speed automatic transmission.

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The use of six gears in both cases naturally enhances the agile and sporting character of the new MINI Convertible, the manual gearbox with its short shift travel and precise gearshift providing ideal conditions for dynamic acceleration and driving pleasure.

The automatic transmission featuring electronic management to shift gears with minimum interruption of power likewise allows sporting and dynamic driving manoeuvres, combining spontaneous and precise reactions in the automatic mode with supreme gearshift comfort.

As an alternative the driver is able to shift gears individually in the manual mode by means of paddles on the steering wheel, as in a Formula 1 racing car. This allows him to keep both hands on the steering wheel at all times, keeping the car under full control regardless of driving conditions.

The new MINI Convertible offers even more dynamic performance with the help of the optionally available Sports Button. Positioned in front of the gearshift or, respectively, gear selector lever on the centre console, the Sports Button serves to mastermind engine management, the steering and, where appropriate, the automatic transmission. Activating the sports mode at the touch of a button, the driver adjusts the gas pedal control map for a far higher standard of agility and even more direct steering response. And on cars featuring automatic transmission, finally, electronic management again helps to make the gearshift even faster.

### Suspension technology on the new MINI Convertible: go-kart feeling of the highest standard.

The unique position of the new MINI Convertible in its segment results to a large extent from the car's exceptional driving characteristics. The open-air MINI therefore also offers the go-kart feeling so typical of the brand, now raised to an even higher standard of excellence.

The car's suspension technology converts the superior potential of the new and particularly powerful engines safely and smoothly into enhanced agility, precise handling offering even greater driving pleasure in dynamic bends, on winding country roads, and in city traffic.

On the front axle McPherson spring struts ensure excellent wheel guidance at all times. At the rear the multi-arm axle developed with all the know-how of the BMW Group consistently guarantees optimum road contact through its elaborate kinematics, the use of aluminium longitudinal arms helping to reduce weight to a minimum.

Anti-rollbars likewise reduce body sway to a very low level, again contributing to the agile and safe behaviour of the car.

Compared with the MINI Cooper Convertible, the suspension of the MINI Cooper S Convertible is even more sporting and dynamic. As an option, finally, both models are available with sports suspension for an even higher standard of driving pleasure.

EPS Electrical Power Steering makes a significant contribution to the agility of the MINI Convertible enhanced to an even higher standard. Power Assistance geared to road speed guarantees low steering forces when parking as well as a precise response at high speeds on the Autobahn. At the same time EPS also enhances the efficiency of the car with the electric motor only being activated and consuming energy when power assistance is really required or is desired by the driver.

### Exclusive to MINI: DSC and DTC with electronic locking function on the differential in conjunction with front-wheel drive.

Apart from the sports-tuned suspension and powerful brakes, the new MINI Convertible also comes with the most sophisticated driving stability systems. Technologies featured as standard are ABS anti-lock brakes, EBD Electronic Brake Force Distribution, CBC Cornering Brake Control, as well as DSC Dynamic Stability Control including Hill Start-Off Assistance.

Whenever required, DSC intervenes individually in the car's brakes and reduces engine output to provide extra stability, thus preventing the car from swerving out of control either at the front or at the rear under particularly dynamic conditions and on slippery surfaces.

The Brake Assistant also included in the DSC package recognises emergency application of the brakes and immediately builds up maximum brake power whenever necessary, keeping the car's stopping distance as short as possible.

As an optionally available sub-function, DSC offers DTC Dynamic Traction Control able to increase the response thresholds of the car's driving stability control system and allow carefully controlled slip on the drive wheels. MINI is indeed the only car maker the world over to offer this function on a front-wheel-drive vehicle.

To activate DTC, all the driver has to do is press a button, then setting off in the MINI Convertible with the wheels slightly spinning – for example

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on a snowbound road or loose sand – or approaching the car's physical driving limits even more dynamically whenever required. Then, when reaching the limit, DSC will cut in as usual also in the DTC mode.

As an option the driver may completely deactivate DSC whenever desired. Then, in the DSC-Off mode, another function again absolutely unique on front-wheel-drive vehicles ensures optimum drive power and perfect traction in particularly dynamic bends. This is the electronically controlled locking function on the rear axle differential available as part of the DTC function on the new MINI Convertible. Referred to as Electronic Differential Lock Control, this high-tech system serves to apply the brakes appropriately on a drive wheel spinning in a tight bend, thus promoting the car's drive power and traction without exerting a negative influence on the steering behaviour of the MINI Convertible, which therefore takes bends even more smoothly and faster than before.

The MINI Cooper Convertible comes as standard on 15-inch light-alloy wheels with 175/65 R 15 tyres. The MINI Cooper S Convertible runs on 16-inch light-alloy wheels and 195/55 R 16 runflat tyres enabling the driver to continue even after a complete puncture with full loss of pressure.

As an option both models are available, inter alia, with 17-inch rims in Black Star Bullet Design developed exclusively for the MINI Convertible.

### Optimised occupant safety ensured by the new rollover safety system, four airbags and central safety electronics.

Sophisticated suspension technology and the most advanced driving stability systems in the new MINI Convertible significantly reduce the risk of an accident. Suitable precautions are also taken for situations the driver is not able to influence, an increase in passenger cell stiffness by ten per cent over the former model, high load-resistant carrier structures and precisely defined deformation zones ensuring appropriate diversion and absorption of impact energy in the event of a head-on, side or rear-end collision.

To meet the specific needs of an open-air car, the newly constructed floorpan as well as A-pillars and side-sills reinforced to an even higher standard than on the closed MINI provide additional strength and stability.

The new MINI Convertible comes as standard with frontal airbags and side head/thorax airbags integrated in the outer flanks of the front seat backrest and protecting both the head, the upper body and the hips of the occupants from injury in the event of a side-on collision. All four seats feature

three-point inertia-reel seat belts with additional belt force limiters and optimised belt tensioners on the front seats.

All restraint systems are masterminded by the car's central safety electronics and are activated as a function of the type and severity of a collision.

The safety system in the MINI Convertible also comprises a rollover sensor activating the newly developed rollbar as well as the belt latch tensioners and the head/thorax airbags in the event of a rollover. Interacting with the windscreen frame appropriately reinforced for the Convertible, the new rollbar moving up electromechanically within 150 milliseconds whenever required acts as part of the passenger cell ensuring maximum occupant safety and protection.

In its all-round safety concept, the new MINI Convertible is designed to fulfil not only the legal requirements in all international car markets and, but also to achieve outstanding results in all relevant crash tests and consumer safety inspections the world over.

#### The interior: spacious, variable, sophisticated.

Through its design and construction, the new rollbar enhances not only occupant safety, but also the everyday driving qualities of the new MINI Convertible. Made of one single piece of aluminium, the rollbar extends across the entire width of the interior behind the rear seats. The two ends of the rollbars rest in holders moving up the entire safety unit electromechanically whenever required. In its basic position, on the other hand, the rollbar is no higher than the rear headrests, thus remaining outside of the driver's area of visibility in looking to the rear.

Designed as a single-piece element, the rollbar furthermore serves to integrate a large through-loading facility between the luggage and the passenger compartment, giving the new MINI Convertible additional variability.

Depending on requirements, the rear-seat backrest split down the middle folds down either in a 50:50 subdivision or completely from right to left. With the roof closed, this increases luggage compartment capacity to 660 litres or 23.10 cubic, feet, exceeding the capacity available in the former model by 55 litres or 1.93 cubic feet. Maximum load, in turn, is up by 30 kg (66 lb) to 430 kg (948 lb).

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Like its predecessor, the new MINI Convertible again comes with an Easy-Load system. With the rear lid swivelling down conveniently, the entire lid also serves as a storage tray able to carry a load of up to 80 kg or176 lb.

A further important point is that the rear roof frame swivels up by approximately 35°, creating a generous luggage compartment opening for much easier loading of bulky objects.

With the roof open, in turn, the new MINI Convertible offers luggage capacity of 125 litres or 4.38 cubic feet, exceeding the capacity provided by the former model by 5 litres. As long as the roof is closed, the parcel shelf resting on two guide rails and holding the roof when open swivels up to the top, increasing luggage capacity to 170 litres or 5.95 cubic feet, again 5 litres more than on the former model.

As an option the MINI Convertible is also available with a new rear rack installation kit, holders in the rear bumper serving to take up a bicycle carrier available as special equipment.

Again, this gives the new MINI Convertible a unique combination of driving pleasure and function. And even the influence of the wind rushing by with the roof open may be adjusted to individual requirements, the optionally available wind deflector serving to significantly reduce air swirl within the interior. Fitted in position behind the front seats, the wind deflector moves up quickly and easily in one simple operation.

#### Premium quality and diverse style within the interior.

Over and above the thrilling pleasure of driving the new MINI Convertible, quality enhanced to an even higher level than before, controls and instruments in modern design, top-quality materials and attractive colour combinations determine the first impression the new MINI Convertible will leave on the impressed beholder.

Even in standard trim, the MINI Convertible clearly expresses its exceptional position as the world's only premium convertible in its segment. The wide range of paintwork and roof colours, interior variants and special equipment simply begs the enthusiast to take a closer look at the car – especially because the new MINI Convertible comes with a complete choice of customisation options so typical of the brand, making each and every car a personally configured one-off showpiece.

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The body of the new MINI Convertible is available in no less than 12 paintwork colours, including Horizon Blue and Midnight Black metallic featured for the first time as well as Interchange Yellow exclusive to this stunning car. The soft roof comes as standard either in Black or classic Hot Chocolate Brown. As an option there is also the Denim Blue roof colour characterised by a particularly sporting and robust flair of material, a silver effect generated by gloss threads woven into the roof, and Orange-coloured seams.

In regular trim the interior of the MINI Cooper Convertible comes with seats in Cosmos cloth and Carbon Black upholstery colour. The MINI Cooper S Convertible, in turn, features sports seats in Checkered cloth and Carbon Black colour as standard. Sports seats are also available on both models with cloth/leather upholstery.

Both the MINI Cooper Convertible and the MINI Cooper S Convertible are furthermore available as an option with three versions of leather in Carbon Black, Tuscan Beige and Hot Chocolate

The interior surfaces are also finished with specific features on each model, the MINI Cooper Convertible boasting trim surfaces on the dashboard, elliptic door rings and seven trim rings in Fine White Silver, while the MINI Cooper S Convertible comes with Checkered trim at the same points, with the number of trim rings increased to sixteen.

As an option the interior trim surfaces are also available in Fluid Silver, Piano Black, Brushed Alloy, and English Oak, as well as Interchange Yellow and Horizon Blue exclusive to the MINI Convertible and corresponding with the body colour.

As yet another styling feature, the optional Colour Line accentuates the lower section of the instrument panel and the armrests on the doors in Dark Grey, Cream White, Rooster Red, Pacific Blue, or Hot Chocolate.

Likewise available as an option within the interior, the Chromeline Package provides a sophisticated glossy finish around the instrument panel and the centre console, chrome elements additionally highlighting the sophisticated character of the rollbar system.

The interior illumination of the MINI Convertible featured as standard provides a harmonious, anti-dazzle light effect and allows the driver to use the controls and instruments safely and without problems also at night. Over

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and above illumination of the glove box and luggage compartment, reading lights supplementing the interior illumination on the front roof frame also come as standard.

The optional Lights Package includes additional footwell and exit lights as well as discreet light sources around the centre console. Ambient illumination included in the optional Lights Package sets a particular highlight in the interior of the MINI Convertible, serving to provide a discreet "waterfall" light effect from above and indirectly illuminating he centre console, the door pockets and the door handle shells, as well as the side panels at the rear to give the interior a truly unique ambience. At the touch of a button, the driver or passengers are able to vary the emotional mood generated by the ambient lights from warm orange to sporting blue.

#### Optional automatic air conditioning with a Convertible mode.

As an option the new MINI Convertible comes with either air conditioning or automatic climate control. The automatic unit even comprises a special Convertible mode activated automatically as soon as the roof is opened. In the Convertible mode the temperature set by the driver and passengers is consistently maintained even under the influence of the wind rushing by.

Whenever the a/c compressor is not used it is automatically switched off in the interest of enhanced efficiency. And in low outside temperatures the heating in the footwells is automatically intensified to provide a pleasant climate inside the car as quickly as possible.

### Top-end audio and navigation systems, integration of the Apple iPod and Apple iPhone.

Like the MINI Hatch and the MINI Clubman, the new MINI Convertible may also be upgraded by fitting particularly sophisticated entertainment and navigation systems. The controls for the audio system and the 6.5-inch TFT coloured display for the optional navigation unit are housed in the central circular instrument.

The audio system featured as standard comes with a CD player and six loudspeakers. When fitted with a navigation system, the display is positioned beneath the central instrument. To choose the functions presented in the display the driver uses a special joystick on the centre console.

External music players may be integrated without problems in the audio systems of the new MINI Convertible. Using the AUX port featured as

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standard, the driver or passengers are able, for example, to play music saved on an MP3 player via the audio system.

A special interface for full integration of an Apple iPod is likewise available as an accessory, allowing the user to select music files via the audio controls.

To ensure optimum and safe communication while driving, the MINI Convertible is available as an option with a mobile phone preparation kit and, respectively, an integrated hands-free telephone unit each equipped with a Bluetooth interface and a USB port. This allows simple integration of numerous modern mobile phones as well as the connection of external audio units and USB media. And last but not least, there is also an interface for integrated control of audio and telephone functions specifically for the latest Smartphone models such as the Apple iPhone.

#### **Every minute counts: the Always-Open Timer.**

The new MINI Convertible is also available as an option with a very special new feature highlighting the thrill of driving in the open air: Positioned to the left of the rev counter, the Always-Open Timer specifies precisely, down to the last minute, how long the driver and passengers have enjoyed their car with the roof down.

This special instrument is activated once the driver starts the engine of the MINI Convertible and the soft top is fully open. An analogue indicator moving on a scale from 0 – 60 then counts the time spent driving in the open air in minutes. After one hour of such driving pleasure, the indicator moves back to its starting point and the first LED light on a six-light scale will come on within the circular instrument. In all, therefore, the Always-Open Timer is able to present an overall driving period in the open air of 6 hours and 59 minutes.

The period spent driving with the roof open is also determined by the onboard computer, an indicator in the lower section of the rev counter allowing the user to check out both an interim reading and the overall time spent driving in the open air. And like on a trip counter, the driver is able to re-set the interim result whenever he wishes.

The Always-Open Timer is a truly unique instrument clearly expressing the exceptional pleasure of driving the MINI Convertible with the roof down also in straightforward facts and figures. Indeed, it prompts the driver and passengers to enjoy the thrilling features of everyday traffic as often as they can. And at the same time it symbolises the invitation by the MINI Convertible to enjoy a particularly appealing driving experience.

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With all these qualities and features, this innovative instrument raises the style and character of this open four-seater to yet another charming highlight: The MINI Convertible is the ideal companion for the motorist aware of the thrill of open-air motoring at all times and wishing to enjoy these special moments in particular style.

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## 4. Driving Pleasure without Emissions: The MINI E.



The BMW Group is the world's first manufacturer of premium cars to launch a complete fleet of some 500 all-electric cars for private use in everyday traffic: The MINI E is powered by a 150 kW/204 hp electric motor with energy supplied from a high-performance lithium-ion battery, conveying its power in almost complete silence and free of emissions through a single-stage straight differential transmission to the front wheels.

The battery technology developed specifically for the this special model gives the MINI E a range of more than 240 kilometres or 150 miles.

As part of a pilot project, the MINI E is initially being placed at the disposal of selected private and corporate customers in the US states of California, New York, and New Jersey.

The electric motor powering the MINI E develops maximum torque of 220 Newton-metres or 162 lb-ft, accelerating the car in a smooth, uninterrupted process to 100 km/h or 62 mph in a mere 8.5 seconds. Top speed of the MINI E is limited electronically to 152 km/h or 95 mph.

The suspension set-up specifically aligned to the car's weight distribution serves furthermore to give the MINI E its typical agility and supreme handling on the road.

Introducing the MINI E, the BMW Group is re-affirming its consistent strategy and development process in reducing energy consumption and emissions in road traffic. The BMW Group is therefore using its unique technological competence in the area of drive systems to develop a vehicle concept able to avoid emissions without foregoing driving pleasure.

The fleet of approximately of approximately 500 cars used in everyday traffic gives the BMW Group the opportunity to gather practical experience on a truly representative scale. Evaluation of this experience will generate valuable know-how to be used subsequently in the development of production cars.

As part of its Number ONE corporate strategy, the BMW Group seeks in the medium term to build all-electric vehicles in regular production. The

development of innovative concepts for mobility in large urban areas, again using all-electric drive technology, comes in the same context.

### Energy storage: latest generation of lithium-ion technology developed specifically for the MINI.

Based on the current MINI, this special all-electric model is a two-seater, the rear-seat space on the regular production model being used in this case for the lithium-ion battery, combining superior performance, more than ample storage capacity and compact dimensions in the emission-free MINI in a balance of qualities never seen before in this area. Overall capacity of the lithium-ion battery is 35 kilowatt hours (kWh), with energy being conveyed as direct current with a nominal voltage of 380 V to the electric motor.

The battery is made up of 5,088 battery cells grouped in 48 modules arranged as three battery elements in compact dimensions within the interior of the MINI E.

The fundamental components of the energy storage system are based on a technological principle which has already proven its qualities in supplying power to mobile telephones and portable computers. The lithium-ion battery featured in the MINI E can be connected to any conventional power socket, the charging time required depending to a large extent on the voltage and amperage of the respective network.

In the USA a completely flat battery can be re-charged quickly and efficiently by means of a so-called Wallbox featured as standard on every MINI E. All the customer has to do is fit the Wallbox in his garage, thus benefiting from a higher supply of electric power (amperage) and correspondingly shorter charging times. Just 2 ½ hours after connecting the car to the Wallbox, the driver benefits once again from a completely charged electric battery in his MINI E.

#### Driving with electric power: reliable, inexpensive, free of emissions.

A maximum of 28 kilowatt hours is required from the power mains to completely re-charge the car's electric power supply. Converting this to the range the car is able to cover, one kilowatt hour is sufficient for a distance of 5.4 miles. So apart from the benefits of emission-free motoring, the MINI E also offers significant economic benefits versus a car with a conventional combustion engine.

The high-performance battery delivers its energy straight to an electric motor, converting this superior power into thrilling agility on the road. Fitted

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crosswise at the front beneath the engine compartment lid, the electric motor generates its full power and traction right from the start, that is from a standstill, giving the MINI E an extremely direct response with immediate reaction to the accelerator pedal.

This intense driving experience is also expressed by the same kind of dynamic brake power again related to the specific movement of the drive pedal: As soon as the driver takes his foot off the gas pedal the electric motor takes on the function of a generator, building up brake forces feeding back electricity generated from kinetic energy into the battery of the car.

Particularly at medium and constantly varying speeds, this reaction ensures a very comfortable style of motoring, enabling the driver to use this brake power in roughly 75 per cent of all stopping manoeuvres in city traffic, without even activating the brakes as such. At the same time such intense use of this energy recuperation mode increases the range the MINI E is able to cover by up to 20 per cent.

#### Agility typical of MINI in new style and with new character.

Weighing 1,465 kg (3,230 lb), the MINI E offers a very good balance of weight from front to rear. Minor modifications on the suspension, in turn, ensure safe handling at all times. And DSC Dynamic Stability Control has also been adjusted to the specific loads acting on the wheels.

The brake system in the MINI E is equipped with a newly developed electrical vacuum pump. The EPS Electric Power Steering is the same as the steering system on the "regular" production versions of the MINI. Both brake and steering support act consistently as required on the road, thus offering a particularly high standard of all-round efficiency. The electrically driven air conditioning compressor, finally, operates only when the driver and his passengers really require or need the cooling effect of air conditioning.

#### Design: unmistakably MINI, unmistakably new.

The MINI E stands out clearly at very first sight as a typical MINI in every respect. The characteristic design of the MINI providing the foundation for this emission-free two-seater is nevertheless supplemented by a number of design features and highlights accentuating the revolutionary concept of the car. As a further highlight, all models built for this very special pilot project come in the same striking paintwork and bear individual production numbers on the front side panels.

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The MINI E comes exclusively in Dark Silver metallic with its roof in Pure Silver. A further sign of distinction on the emission-free MINI is the car's specially designed logo in Interchange Yellow proudly bearing a stylised power plug which, contrasting with the silver background, represents the letter "E".

This unique symbol is to be found on the roof and, in somewhat smaller dimensions, at the front, on the rear panel, on the lid covering the battery charge cable, on the dashboard trim bar and, slightly modified and in combination with the MINI logo, in the door entry strips. The roof flanks and the exterior mirror caps as well as the trim surfaces and seat seams in the interior, finally, also come in the same yellow colour as the logo.

The central instrument and the battery charge meter behind the steering wheel replacing the usual rev counter in the MINI E come with dark-green instrument faces adorned by yellow numbers. The current battery charge is shown as a percentage figure.

An additional display in the central instrument incorporates red LED lights showing the driver while on the road how much electricity is currently being drained from the battery, while a green light shows the amount of energy currently being recuperated and fed back into the battery.

#### MINI E customers acting as genuine pioneers.

The MINI E is being built in a limited series of just 500 cars up to the end of 2008. With this kind of production run, the project already reaches a magnitude much greater than current test series with other models. Full-scale use of the MINI E in everyday traffic is therefore a pioneering achievement both by the engineers responsible for developing the first emission-free MINI and of course by the users actually driving the car.

In cooperation with the BMW Group's experts, the MINI E customers are making an important contribution to the scientific evaluation of the project. Establishing and maintaining close contacts with the drivers is of great significance to the developers responsible for the MINI E, analysing not only the car's qualities and driving characteristics, but also the typical behaviour of the user and thus obtaining a precise and realistic impression of the demands made of the all-electric vehicle in its typical, defined area of use.

#### Special charge station and complete service for every MINI E.

The MINI E is being provided to customers under a lease agreement concluded for a period of one year with an option for extension. The monthly

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lease rate includes technical service when required as well as all maintenance needed and the exchange of parts subject to wear and tear. After expiry of the lease all cars in the project will go back to the BMW Group's development fleet where they will be carefully examined in comparative tests.

The MINI E's lithium-ion battery is re-charged through a so-called Wallbox provided to the MINI E customer. Hence, lockable garages or comparable buildings are essential as the homebase and electric charging station for the MINI E.

#### Maintenance by qualified specialists.

The high-volt technology of the electric drive system requires maintenance by qualified specialists using special tools not generally used by the "typical" MINI Service Partner. A Service Centre is therefore being established for the pilot project both on the west and east coast of the USA, with employees specially trained for maintenance and, if necessary, repair of the electrical components of the MINI E.

In the event of functional deficiencies involving the drive system, these specialists are able to efficiently support the local MINI dealer or take the car to the specially equipped MINI E Service Centre. A technical check-up is planned after 3,000 miles (almost 5,000 kilometres), at the latest after a period of six months.

#### **Production in Oxford and Munich.**

The MINI E has gone through the essential highlights of the production process for series models, together with a wide range of crash tests. Particular points analysed in the process were not only occupant safety and the possible effect of impact forces on the lithium-ion battery and its safe position within the car, but also many other features. In this context it is important to note that the battery and energy supply system were not harmed in any of the crash tests required under the particularly strict accident safety standards.

The complete series of some 500 MINI Es is being built in Oxford and Munich, with production to be concluded by the end of 2008. The car as such is built at the MINI Plant in Great Britain, with the exception of the drive components and the lithium-ion battery, the production process running parallel to that of the "regular" models.

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The electric motor, battery units, power electronics and transmission are subsequently integrated in a production complex at the BMW Plant in Munich established specifically for this purpose.

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# 5. Powerful Team on a Successful Route: MINI and MINI Clubman in the 2009 Model Year.



With its sporting premium style and fascinating driving agility, every MINI offers truly unique qualities and characteristics – features which have already contributed significantly to the worldwide success of the brand.

The current MINI model portfolio highlights these unmistakable features more convincingly than ever before – particularly through the two top athletes launched only recently: The MINI John Cooper Works and the MINI John Cooper Works Clubman, truly unique characters within the model range, offer a particularly authentic link to motorsport and the particular passion of dynamic motoring. Boasting a standard of performance quite unique in the MINI's model segment, both cars come with sporting DNA borne out most clearly also in the MINI Cooper S and MINI Cooper as well as the MINI Cooper S Clubman and MINI Cooper Clubman. So it is with this new line-up that the MINI family is entering the 2009 model year in top form.

The market launch of the MINI John Cooper Works and the MINI John Cooper Works Clubman extends the range of MINI production models and at the same time integrates the John Cooper Works brand under the MINI roof. Both of these two top-flight athletes are powered by a 1.6-litre four-cylinder with a twin-scroll turbocharger and direct fuel injection delivering maximum output of 155 kW/211 hp.

The foundation for this power unit benefiting from a wide range of know-how in motorsport is provided by the four-cylinder likewise featuring a twin-scroll turbocharger and direct gasoline injection in the MINI Cooper S and MINI Cooper S Clubman, where the power unit delivers an equally expressive 128 kW/175 hp.

The MINI Cooper and the MINI Cooper Clubman, finally, offer an equally ample 88 kW/120 hp. Again displacing 1.6-litres, the four-cylinder power unit comes in this case with fully variable valve management based on the BMW Group's unique VALVETRONIC technology as the guarantee for superior power and outstanding efficiency.

#### MINI and MINI Clubman: unique style and new options.

The MINI's current story of success results from proven strengths such as that unique feeling so typical of MINI, premium quality, supreme driving

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pleasure, outstanding efficiency and unlimited options in customising the car, as well as new features introduced together with the MINI Clubman.

Through its diversity alone, the MINI Clubman offers a new interpretation of traditional shooting brake concepts and, through its sleek roofline, the innovative door concept and its almost vertical rear end, combines superior sportiness with equally outstanding functionality. Compared directly with the MINI Hatch, the MINI Clubman is 24 centimetres or 9.45" longer and comes with 8 centimetres or 3.15" more wheelbase serving exclusively to add extra legroom at the rear.

The MINI Clubman is identical to the respective model variant of the MINI Hatch up to the B-pillar, while in its sideline, at the rear, on the seats and in the luggage compartment it is a brand-new car in its design and features. The driver's and passenger's doors are supplemented by an additional opening on the right-hand side of the car and the two wings of the Splitdoor at the rear.

Featuring this additional door on the right, the Clubdoor opening opposite to the direction of travel, the MINI Clubman offers the rear-seat passengers comfortable access to the rear. The two-piece rear door or Splitdoor, in turn, is an authentic detail of the car's classical predecessors – the Morris Mini Traveller and the Austin Mini Countryman – carried over from the 1960s. The generous luggage space in the MINI Clubman (capacity 260–930 litres/9.1–32.6 cu ft) can be extended flexibly as required and is easily accessible for convenient loading through the Splitdoor.

### MINI John Cooper Works and MINI John Cooper Works Clubman: from the race track straight to the road.

Joining the MINI Hatch, the MINI Clubman has very quickly become yet another leading player within the brand's model portfolio. Hence, the new top athlete likewise comes in two body variants – as the MINI John Cooper Works and the MINI John Cooper Works Clubman. Both models are naturally genuine MINIs all the way – and at the same time they are truly unique and quite different from the other models.

Like their drivetrain, the exclusive light-alloy rims featured on the MINI John Cooper Works and the MINI John Cooper Works Clubman are particularly light and dynamic, just as the high-performance brakes, the new exhaust system and the modified six-speed manual gearbox are all based largely on their counterparts in the new racing version for the MINI

CHALLENGE Clubsport Series. Rarely before, therefore, has the know-how in motorsport come so quickly and directly to the road.

This also means a particularly high standard of quality, both new models being required in every respect to meet the challenges of the race track and the many demands of everyday traffic in terms of function, design, reliability, and a long running life. As a result, the MINI brand and John Cooper Works both stand for a commitment to quality quite unique in the MINI segment.

### The drivetrain: motorsport technology for all the challenges of everyday motoring.

The power unit within the engine compartment of the MINI John Cooper Works and the MINI John Cooper Works Clubman is built at the BMW Group's Engine Plant in Hams Hall, Great Britain, which indeed builds the engines for all variants within the MINI range.

This very special power unit is based on the four-cylinder engine of the MINI Cooper S, being significantly upgraded for the MINI CHALLENGE racing car and now coming back to the road with fresh power in the two new production models.

Engine size remains the same at 1,598 cc, as do many technical details derived from motorsport and giving the MINI Cooper S supreme power and performance.

Production of this top-of-the-range power unit requires a number of particular highlights and special features enhancing the engine's power and performance, making allowance for the higher temperatures within the combustion chamber, and thus ensuring maximum reliability at all times. To be specific, the power units boasted in the MINI John Cooper Works and the MINI John Cooper Works Clubman come with reinforced, specially polished pistons as well as a cylinder head optimised for superior strength, and a modified gasket. The intake valves and valve seat rings, finally, are also made of a particularly resistant material.

Power is increased over the "regular" engine in the MINI Cooper S mainly by optimising the supply and extraction of air and by modifying the turbocharger. The air filters, air mass meter, exhaust system and catalytic converter have likewise been modified to ensure maximum smoothness in the intake and emission process.

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All this also means a very special engine sound exclusive to these outstanding models.

The special exhaust system is clearly visible at very first sight by the polished stainless-steel twin tailpipes each measuring 85 millimetres or 3.35" in diameter. Appropriate modification of the exhaust system significantly reduces counter-pressure in the emission process, and it almost goes without saying that both the MINI John Cooper Works and the MINI John Cooper Works Clubman comply in full with the particularly strict EU5 (Europe) and ULEV II (USA) emission standards.

Flow capacity for feeding pure air to the turbocharger has also been increased, the twin-scroll turbocharger ensuring a particularly spontaneous build-up of power.

A turbine made of a very special, top-grade material has been developed specifically for the power unit of the MINI John Cooper Works and the MINI John Cooper Works Clubman, with maximum charge pressure increased from 0.9 to 1.3 bar. Peak torque of 260 Newton-metres or 192 lb-ft comes at an engine speed of 1,850 rpm, with torque increasing to an even more significant 280 Newton-metres or 206 lb-ft when accelerating by briefly increasing charge pressure in the speed range between 1,950 and 5,500 rpm. Clearly, this Overboost function gives the MINI John Cooper Works and the MINI John Cooper Works Clubman even more powerful and dynamic acceleration.

Delivering no less than 132 hp per litre, the power unit of the MINI John Cooper Works and the MINI John Cooper Works Clubman definitely enters the terrain of the thoroughbred sports car, with maximum output of 155 kW/211 hp at 6,000 rpm.

The engine's direct response also comes out clearly in terms of superior acceleration, the MINI John Cooper Works completing the sprint from 0–100 km/h in just 6.5 seconds, the MINI John Cooper Works Clubman requiring only 6.8 seconds for the same exercise. Top speed of both models is 238 km/h or 148 mph.

Considering their supreme performance, the MINI John Cooper Works and the MINI John Cooper Works Clubman are both extremely fuel-efficient and modest in their requirements. The fuel supply system plays a key role in this context, the turbocharged four-cylinder featuring common-rail direct fuel

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injection ensuring particularly precise dosage of fuel tailored to current load requirements at all times.

The MINI John Cooper Works consumes just 6.9 litres/100 kilometres, equal to 34.0 mpg US, in the EU test cycle, the MINI John Cooper Works Clubman makes do with 7.0 litres, equal to 33.5 mpg US. The CO<sub>2</sub> ratings, in turn, are 165 and, respectively, 167 grams per kilometre.

#### A new dimension of go-kart performance.

Engine power is transmitted to the front wheels in typical MINI style. Both the MINI John Cooper Works and the MINI John Cooper Works Clubman come with a six-speed manual gearbox modified in its features and components to match the particularly high torque of the new top-of-the-range engine.

The John Cooper Works gearshift lever featured as standard raises the pleasure of shifting gears quickly and dynamically to an even higher level than ever before. The go-kart feeling characteristic of all MINI models and of course particularly convincing in both MINI John Cooper Works is based in particular on the car's low centre of gravity and its demanding suspension technology. The front axle with McPherson spring struts and the centrally guided rear axle quite unique in the small car segment guarantee perfect road contact at all times, particularly in very dynamic situations.

Yet a further guarantee for the car's safe and, at the same time, thrillingly precise handling is EPS Electric Power Steering offering a unique combination of motoring comfort and driving dynamics. With steering assistance provided as a function of road speed, the driver is able to manoeuvre and park the car with minimum effort.

Steering forces then increase at higher speeds in the interest of both safety and driving precision. And last but not least, the electromechanical steering, being significantly lighter than a conventional system and operating only when required in order to save energy, offers further important benefits, the electrical servo motor being activated only when steering assistance is really required or desired by the driver.

The electromechanical steering system enables the driver to program different set-ups. In the basic setting EPS provides well-balanced power assistance as a function of road speed. Then, pressing the Sports Button featured as standard on both the MINI John Cooper Works and the MINI John Cooper Works Clubman next to the gearshift lever on the centre console, the driver is able to activate a significantly more dynamic control

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map providing higher steering forces and enhanced steering precision. And at the same time the Sports Button also switches over the gas pedal control map to an even higher level of sporting performance.

#### Suspension, brakes and wheel rims based on racing car technology.

Both the MINI John Cooper Works and the

MINI John Cooper Works Clubman come as standard with a sports-tuned suspension likewise giving the respective model variants of the MINI Cooper S their exquisite handling and nimble performance. As an alternative, the two new models are available with a sports suspension featuring even firmer dampers and stronger anti-roll bars on the front and rear axle.

The MINI John Cooper Works is furthermore available with a special John Cooper Works suspension featured as special equipment for extreme racing requirements. This suspension lowers the entire car by 10 millimetres or almost 0.4", and features even firmer dampers and anti-roll bars even larger in diameter than on the sports suspension.

The dynamic qualities of the MINI John Cooper Works and the MINI John Cooper Works Clubman are borne out particularly not only when accelerating and in quickly changing directions, but also when applying the brakes. The sports brake system featured as standard, for example, guarantees extra-short stopping distances and excels in particular through its precise response and fine dosage. The fixed-calliper disc brakes with their aluminium callipers finished in red – featuring inner ventilation on the front wheels and proudly presenting the John Cooper Works emblem on the callipers – are extra-large for superior brake power, and are based in their design and powerful response on the brake system featured in the MINI CHALLENGE racing cars.

The same applies to the 17-inch light-alloy wheels in John Cooper Works Cross Spoke CHALLENGE Design exclusive to these two models. Weighing less than 10 kg or 22 lb, these are the lightest production wheels in the entire market segment of the MINI John Cooper Works and the MINI John Cooper Works Clubman.

The high-speed tyres measuring 205/45 W 17 come with failsafe running characteristics enabling the driver to continue even under a complete loss of tyre pressure in order to conveniently reach the nearest workshop. And as a further feature in this context, both the MINI John Cooper Works and the MINI John Cooper Works Clubman come with a Tyre Defect Indicator

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permanently monitoring air pressure and informing the driver by a signal in the cockpit display of a possible emergency, that is a significant tyre defect.

### Featured as standard but quite unique on a front-wheel-drive car: DSC including DTC.

Apart from the sports suspension and powerful brakes, both the MINI John Cooper Works and the MINI John Cooper Works Clubman come with sophisticated driving stability systems. Functions featured as standard include ABS brakes, EBD Electronic Brake Force Distribution, CBC Cornering Brake Control, as well as DSC Dynamic Stability Control including hill start-off assistance and DTC Dynamic Traction Control.

Applying the brakes individually on specific wheels and reducing engine output where appropriate, DSC is able to stabilise the MINI, preventing the car from swerving out of control over its front or rear wheels in a particularly dynamic situation and on slippery ground.

The Brake Assistant also included in DSC Dynamic Stability Control recognises application of the brakes in an emergency and immediately maximises brake pressure whenever required, again helping to keep stopping distances as short as possible.

As a sub-function of DSC, DTC offers the opportunity for the first time on a front-wheel-drive car to raise the response thresholds of the driving stability control system, intentionally allowing controlled slip on the drive wheels.

Activating the DTC mode at the touch of a button, the driver of the MINI John Cooper Works and the MINI John Cooper Works Clubman is able, for example on a snowbound surface or on loose snow, to pick up speed in a controlled process with the front wheels slightly spinning or to drive the car even closer to its physical limits in a particularly dynamic situation. Then, when reaching the utmost limit, DSC will intervene as usual also in the DTC mode. If he wishes, however, the driver still has the option to deactivate the DSC function altogether.

#### Perfect traction through the electronic locking function on the differential.

In the DSC-off mode yet a further function ensures optimum drive power and perfect traction even in particularly fast and dynamic bends: Both the MINI John Cooper Works and the MINI John Cooper Works Clubman are equipped with an electronically controlled locking function for the rear axle differential. Referred to as Electronic Differential Lock Control, this

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system supports a particularly sporting and ambitious style of motoring, for example when accelerating out of a bend or hairpin. The electronically controlled locking function serves to apply the brakes appropriately on a drive wheel spinning in a tight bend, promoting the car's traction and pulling force without a negative influence on the car's steering behaviour. As a result, the process of taking a bend becomes even more harmonious and faster.

#### Interior built like a sports car.

Within the passenger compartment the wide range of regular features ensure a high standard of sporting but sober elegance. A three-spoke sports steering wheel in leather, to mention the first example, forms the interface between the driver and his – or her – sports machine, the roof lining in Anthracite as well as the interior surfaces in glossy Piano Black maintaining a calm atmosphere helping the driver to concentrate on the essential. A further feature of the two top performers is the speedometer extending all the way to 260 km/h or 160 mph.

#### For athletes with personal style: a unique range of customisation.

The wide range of equipment and accessories available for the new MINI John Cooper Works and the new MINI John Cooper Works Clubman stands out through top quality, design inspired by motorsport, and supreme safety standards. In determining the configuration of the two new outstanding performers, MINI once again offers incomparable freedom of choice through the various features available. The wide range of paintwork colours, interior trim options, seat upholstery, interior colours and trim variants, as well as the comfort features, comes with the same diversity as on the other models. And the equally wide range of special equipment offered by both MINI and John Cooper Works allows further enhancement in terms of comfort, practical qualities, and sporting flair.

#### MINI Cooper S: Fascinating performance, supreme efficiency.

The other models in the MINI range likewise offer thrilling performance and an exemplary balance of driving pleasure and economy quite outstanding not only in the small car segment.

The MINI Cooper S, for example, offers efficiency of the highest standard. Powered by a 1.6-litre four-cylinder featuring a twin-scroll turbocharger and direct fuel injection, this outstanding performer comes with all the muscle of 128 kW/175 hp maximum output and peak torque of 240 Newton-metres or 177 lb-ft between 1,600 and 5,000 rpm further increased by Overboost to an even more significant 260 Nm or 192 lb-ft.

With top speed of 225 km/h or 140 mph and acceleration to 100 km/h in just 7.1 seconds, the MINI Cooper S makes do with just 6.2 litres/100 kilometres, equal to 37.8 mpg US, in the combined EU cycle, with a CO<sub>2</sub> emission rating of only 149 grams per kilometre, facts and figures clearly confirming the car's outstanding efficiency.

#### MINI Cooper: more driving pleasure, greater fuel efficiency.

The four-cylinder normal-aspiration power unit of the MINI Cooper develops maximum output of 88 kW/120 hp from engine displacement of 1.6 litres, with peak torque of 160 Nm (118 lb-ft) at 4,250 rpm. Control and operation of the intake valves based on the BMW Group's unique VALVETRONIC technology is fully variable, valve lift and opening times being adjusted infinitely and with electronic precision to the driver's current power and performance requirements.

This innovative valve management ensures not only a particularly direct response and superior motoring refinement, but also low fuel consumption and optimised emission control.

The MINI Cooper accelerates to 100 km/h in 9.1 seconds and reaches a top speed of 203 km/h or 126 mph. With its average fuel consumption of 5.4 litres/100 kilometres, equal to 43.4 mpg imp, in the EU test cycle and a CO<sub>2</sub> emission rating of 129 grams per kilometre, the MINI Cooper again sets the standard for efficient driving pleasure.

### MINI Cooper S Clubman and MINI Cooper Clubman: superior driving pleasure and efficiency in typical MINI style.

The MINI Clubman offers new features and benefits while retaining the proven qualities of the MINI brand. Through its supreme handling, sporting performance and outstanding efficiency, the MINI Clubman is once again a typical MINI in the true sense of the word. Within the engine compartment of both the MINI Cooper S Clubman and the MINI Cooper Clubman, the same modern drive technology as in the MINI Cooper S and MINI Cooper again offers the driver outstanding pleasure on the road. As a result, performance, fuel consumption and emission data on both versions of the MINI Clubman deviate only slightly from the outstanding figures offered by the MINI Hatch.

The MINI Cooper S Clubman is powered by a 128 kW/175 hp turbocharged engine accelerating this outstanding model to 100 km/h in just 7.6 seconds. Top speed is 224 km/h or 139 mph.

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At the same time the MINI Cooper S Clubman offers not only thrilling performance, but also an unusually good balance of driving pleasure and economy, with average fuel consumption in the EU test cycle of 6.3 litres/100 kilometres, equal to 37.2 mpg US. In terms of emissions, this limits the CO<sub>2</sub> rating of the MINI Cooper S Clubman to a mere 150 grams per kilometre.

The balance of performance and fuel economy is equally impressive on the MINI Cooper Clubman, the car's 88 kW/120 hp four-cylinder normal-aspiration power unit ensuring acceleration to 100 km/h in 9.8 seconds and giving the MINI Cooper Clubman a top speed of 201 km/h or 125 mph. Offering average fuel consumption of just 5.5 litres/100 km, equal to 42.6 mpg US, in the EU cycle and a  $CO_2$  rating of 132 grams per kilometre, the MINI Cooper Clubman again sets the standard in its class in the petrol segment.

All power units represent the absolute state-of-the-art in engine technology, benefiting from the full development competence of the BMW Group. The modern four-cylinders are the same as in the corresponding versions of the "regular" MINI, all model variants of the MINI and the MINI Clubman boasting trendsetting technologies such as Brake Energy Regeneration and EPS Electric Power Steering as well as Auto Start/Stop and a gearshift point indicator on manual gearbox models.

This wide range of breakthrough technologies serves to enhance the superior efficiency of the modern four-cylinder petrol and diesel engines to an even higher standard – and at the same time these superior innovations leave a positive stamp on the agility and precise handling of the MINI.

#### Pure fun when giving gas, clean electricity when applying the brakes.

Brake Energy Regeneration standard on all MINIs is a wonderful example of the clever interaction of additional driving pleasure and enhanced fuel economy. Efficient energy management serves to convert the power of the engine primarily into drive power for the road, with electricity for the onboard network being generated only when the car is rolling in overrun or when the driver applies the brakes. To achieve this effect, the alternator is automatically disconnected as long as the engine is pulling the car. Now, therefore, the power simply wasted on a conventional car is made available for even more dynamic acceleration. The flow of electricity going to the onboard network nevertheless remains sufficient at all times, with the alternator being re-activated as soon as the MINI switches to overrun or when the driver applies the brakes.

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The charge status of the battery is permanently monitored by the car's energy management. Carefully controlled regeneration phases, defined minimum charge capacity and the use of new AGM (absorbent glass mat) battery technology guarantees maximum service life of the battery, Brake Energy Regeneration enabling the driver to reduce fuel consumption and emissions on the new MINI regardless of his style of motoring.

#### Auto Start Stop: no more idling.

The usual, sometimes long spells of the engine idling are now a thing of the past on all manual versions of the MINI and MINI Clubman. For the Auto Start Stop function serves to automatically switch off the engine for example when stopping at a road junction as soon as the driver shifts to neutral and takes his foot off the clutch pedal. Then, once the driver presses the clutch pedal down again, the engine starts automatically without the slightest delay.

The Auto Start Stop function ensures particular enhancement of fuel economy above all in city traffic, reducing fuel consumption and emissions to zero in a very straightforward process every time the car comes to a halt.

The Auto Start Stop function is activated immediately whenever the driver starts the engine, with the system becoming fully available as soon as the engine oil has reached the operating temperature required. Under certain conditions Auto Start Stop does not switch off the engine for reasons of safety and comfort.

Permanently supervising the status of the car and weather conditions, the intelligent Auto Start Stop control function is able to determine situations in which it is advisable to keep the engine running – for example where the battery is almost flat, in very hot (more than 30 °C) or low (less than 3 °C) exterior temperatures. The engine also keeps on running during short intermediate stops as long as the temperature inside the car has not yet reached the level set on the air conditioning or if heating power is required to de-ice or de-mist the windscreen.

The system is also able to distinguish between a short stop and the end of a drive, not starting the engine again automatically when the driver, with the engine switched off, opens his seat belt, the driver's door or the engine compartment lid. And last but not least, Auto Start Stop may be deactivated whenever required at the touch of a button.

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#### Gearshift point indicator: always driving in the right gear.

Using the gearshift point indicator (also standard), the driver of a manual-gearbox MINI is able to focus on maximum fuel economy at all times. In this case the electronic engine "brain" permanently analyses engine speed, driving conditions and the position of the gas pedal, calculating the best gear for economic motoring on the basis of this data.

An appropriate arrow symbol and a number specifying the ideal gear is then presented in the display beneath the rev counter.

The driver may activate or, respectively, deactivate the gearshift point indicator by means of the on-board computer. And last but certainly not least, the system considers the driver's respective style of motoring such as particularly intense use of engine power for fast and dynamic acceleration.

#### Go-kart feeling: characteristic of both the MINI and the MINI Clubman.

All variants of the MINI and the MINI Clubman come as standard with a six-speed manual gearbox – with six-speed automatic available as an option on all models.

High-tech sports-tuned suspension, EPS Electric Power Steering and powerful brakes, in turn, enable the driver to enjoy the go-kart feeling of the car smoothly and safely on the road, benefiting from the wide track, the low centre of gravity and the short body overhangs both front and rear.

#### Unmistakable look combined with personal flair.

Driving a MINI means not just moving from A to B, but also expressing your own personal style in life. The many options to customise the MINI offer the driver a wide range of choice in living out his – or her – personal style. To a greater extent and in greater detail than any other car maker, MINI offers the customer the freedom to personalise the car in almost every respect. The unusually wide range of paintwork options, interior colours, seat upholstery and trim variants sets the foundation for creating a bespoke model literally tailored to the customer.

At the same time both the MINI and the MINI Clubman are available with numerous attractive and sophisticated options straight from the factory, again serving to increase both driving pleasure and motoring comfort. Even greater freedom of choice is offered by the wide range of Original MINI Accessories comprising classic motorsport technology in John Cooper Works components, comfort-oriented features such as an iPod interface, a roof rack made of extra-strong, eloxy-plated aluminium profiles, as well as additional headlights,

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practical features for everyday motoring, and unusual elements such as an extravagant roof finish.

#### Full integration of the Apple iPhone.

Apart from sophisticated audio and navigation systems, cruise control with a digital speed display in the cockpit helps to further enhance motoring comfort in the MINI and MINI Clubman. A further option is the USB port including a Bluetooth function serving to integrate external audio sources. USB-compatible media and MP3 players such as the Apple iPod can therefore be connected conveniently to the MINI's entertainment system via the USB port. Access to the music available is again very convenient via the usual controls on the audio system offering various selection criteria such as the artist or the album required. And last but not least, the driver and his passengers can connect their mobile phones to the car via the Bluetooth interface.

Both the MINI and the MINI Clubman are available with full integration of an Apple iPhone in the car's control system. This allows convenient use of the telephone and audio functions of these new Smartphones in the car, with a common platform provided for both functions: Appropriately modified software for listening to a music programme via the loudspeakers automatically stops the music in the event of a telephone call and then continues the playback function at the same point once the call is over.

To make a telephone call the driver uses the loudspeakers and the microphone on the hands-free unit automatically switching back to the music mode once the call is over.

The activated Smartphone functions are presented in the MINI and the MINI Clubman either in the radio display or – if fitted – in the display of the navigation system. Should the car be fitted with a navigation system, the driver can use the MINI joystick on the centre console to conveniently control the telephone and audio functions of the Apple iPhone.

The prerequisite for full integration of the telephone functions is a mobile phone preparation kit complete with a Bluetooth interface available as special equipment for the MINI.

Music files and the signals to operate the audio functions are conveyed from the Apple iPhone to the audio system in the car through a cable adaptor available from MINI for the USB audio interface again provided as special equipment. Indeed, this connection also serves to charge the Apple iPhone while driving.

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Offering these technically sophisticated and easy-to-use features for integrating the latest mobile telephone and audio systems, MINI is once again proving its outstanding position as an innovative and lifestyle-oriented premium brand.

#### Safety on premium level: five stars in the Euro NCAP crash test.

The MINI is a genuine premium car also when it comes to safety, the top score of five starts in the Euro NCAP crash test achieved by the MINI Cooper clearly confirming the comprehensive concept of occupant safety that MINI has to offer.

The foundation for such a top ranking in this demanding test is the specific construction of this compact model conceived from the start for superior passive safety. The robust body structure with clearly defined load paths and deformation zones, together with the installation of six airbags, three-point seat belts on all seats and ISOFIX child seat fastenings in the rear as well as central safety electronics for on-demand operation of the car's restraint systems, confirms the great significance given to occupant safety in developing cars according to the high standards of the BMW Group.

#### MINI all the way:

#### likeable, agile, efficient, safe, reliable, and with lasting value.

The quality of the new MINI is confirmed regularly by independent, non-partisan experts, emphasising that this is one of the most reliable cars in its segment. According to an analysis by ADAC, Germany's largest motoring club, the MINI is indeed the most reliable of all models currently in production and available in Germany in this segment of the market.

Through its product quality and popularity, the MINI has achieved yet another top position, Auto Bild, Europe's largest motoring magazine, lauding the MINI Cooper as the "Value Champion 2008". This title is based on the presumable resale value of a MINI newly registered in 2008 when re-sold in 2011, as assessed by experts in the automobile market. According to this assessment, the MINI Cooper holds its value better than any other car currently on sale in Germany, with second rank going to the MINI Convertible.