# **BMW Media Information**

The new BMW 7 Series.





"Our clear intention with the new 7 Series was to ensure a perfect balance of elegance, presence and sportiness all in one."

Adrian van Hooydonk Director Design, BMW cars

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### **Description in Brief.**



- Fifth generation of the BMW 7 Series as a brand-new interpretation of style, luxury and driving experience. Market launch with three engine variants: BMW 750i, BMW 740i, and BMW 730d. Additional body variant with particular luxury in the guise of the BMW 750Li and the BMW 740Li, with wheelbase extended by 140 millimetres (5.5") and particular focus on supreme comfort at the rear.
- Design of the new BMW 7 Series standing for natural presence, superior sportiness and precise elegance. The features
  and qualities of the car are authentically visualised through its modern look, a brand-new range of engines contributing to
  BMW EfficientDynamics at the highest level of power and performance. Lightweight construction and innovative suspension
  technology ensure dynamic driving qualities quite unique in the luxury class. Driver assistance systems and comfort functions
  exclusive to BMW provide the foundation for an exceptionally fascinating driving experience.
- The unmistakable, superior look of the car bears out that sporting character so typical of BMW in its most elegant form. The unique class and style of BMW's new luxury saloon results from design features such as the car's dynamic proportions, the low-slung and stretched side view, sculptural surfaces bearing out modern values, the extra-large, upright and low-slung BMW kidney grille, as well as horizontally oriented lines at the rear emphasising the car's power and width.

- The interior design of the new BMW 7 Series offers sheer luxury in particularly modern style. The interior concept is highly innovative throughout, with clearly structured arrangement of all functions relevant to motoring and important in the interest of motoring comfort. The ambience is exclusive, sophisticated and, in particular, inviting. Softly sweeping shapes, high-class materials and enhanced spaciousness and comfort give the interior a harmonious, generous and luxurious look throughout. The driver-oriented cockpit with its display in innovative black panel technology, the electronic automatic transmission selector lever featured as standard in the immediate vicinity of Dynamic Driving Control and the BMW iDrive Controller, and the multifunction steering wheel with its enhanced range of functions all ensure the most supreme standard of motoring excellence.
- New generation of BMW's trendsetting iDrive control system: 10.2-inch display, high-resolution graphics, optimised menu structure, new iDrive control for selecting and controlling functions by turning, pressing and tilting the Controller, direct selection buttons activating the most important menu points and, for the first time, freely programmable favourite buttons for even more intuitive control. Function-optimised navigation systems and audio system with hard disc memory. World debut of BMW ConnectedDrive allowing unrestricted use of the internet on the car's display as an option.

- Brand-new range of engines: V8 petrol engine with Twin Turbo technology and High Precision Injection at the top of the line (3,000 kW/407 hp), high-performance straight-six power unit with Twin Turbo and High Precision Injection (240 kW/326 hp), newly developed straight-six diesel with aluminium crankcase and third-generation common-rail fuel injection featuring piezo-injectors and operating at an injection pressure of up to 1,800 bar (180 kW/245 hp). All engine variants with outstandingly good fuel economy and emission ratings superior to the competition.
- Six-speed automatic transmission with optimised gearshift dynamics featured as standard on all engine variants, even faster gearshift, enhanced shift comfort, significantly better fuel economy, electronic gear selector lever.
- Far-reaching lightweight concept as an additional contribution to BMW EfficientDynamics, using multi-phase and hot-moulded steel in the body support structures. Roof, doors, engine compartment lid and side panels made of aluminium, pressure-cast aluminium spring struts at the front, final drive with aluminium housing, all engines with aluminium crankcase. Overall weight down by 55 kg (121 lb), taking the range of equipment into account.

- Newly developed suspension optimising both driving dynamics and, in particular, motoring comfort: The first BMW Saloon with a
  double-joint front axle, integral-V rear axle exclusive to BMW, front and rear axles made largely of aluminium. Rear axle air suspension standard on the BMW 750Li and the BMW 740Li. Hydraulic rack-and-pinion steering with on-demand steering assistance
  pump. World debut of Integral Active Steering as a symbiosis of Active Steering on the front axle and rear axle steering controlled
  as a function of driving conditions (optional).
- Innovative Dynamic Damper Control including Dynamic Driving Control featured as standard. Newly developed bumpers adjustable
  infinitely and independently of one another on both their inbound and rebound stroke. Dampers, gearshift dynamics and gas pedal/
  steering assistance control maps varied by means of the Dynamic Driving Control button on the centre console for COMFORT,
  NORMAL and SPORT settings. Special traction mode and SPORT + setting with reduced and, respectively deactivated intervention by DSC for a particularly sporting style of motoring. Dynamic Drive anti-roll control available as an option.
- Unique combination of innovative driver assistance systems never seen before in the luxury class (optional): Cruise Control with Stop & Go, Lane Departure Warning including speed limit indicator, Lane Change Warning, Head-Up Display, High-Beam Assistant, BMW Night Vision recognising individual persons for the first time, side view, back-up camera.

- Maximum occupant safety ensured by optimised body structure in conjunction with a wide range of interacting and electronically controlled passive safety systems, three-point inertia-reel seat belts on all seats, frontal, side and head airbags, crash-activated headrests at the front, runflat tyres, tyre defect indicator. Bi-xenon dual headlights including daytime driving lights, foglamps and two-stage brake lights featured as standard, Adaptive Headlights with variable light distribution and Indicator Lights as an option. Enhanced emergency call function with automatic tracking of the vehicle through BMW ConnectedDrive, also optional.
- Wide range of comfort functions and innovative entertainment options: audio system with hard disc memory, AUX-in bush
  featured as standard. USB port, multi-channel audio system, DAB double tuner, DVD system in the rear, iDrive Controller
  operating the entertainment, telecommunication and navigation functions from the rear seats, four-zone automatic air conditioning,
  active seat ventilation, massage seats, innovative contoured sliding roof optimised for noise control and design as well as
  BMW ConnectedDrive online and telematics services (BMW Online, BMW Assist, BMW TeleServices) as an option, Integrated
  Instruction Manual featured as standard.

• Engine variants:

BMW 750i: V8 petrol engine with Twin Turbo and High Precision Injection

Capacity: 4,395 cc, output: 300 kW/407 hp (30 kW more than former model) from 5,500-6,400 rpm

Max torque: 600 Nm/442 lb-ft from 1,750–4,500 rpm

Acceleration: 0–100 km/h: 5.2 seconds

(BMW 750Li: 5.3 seconds/in each case 0.7 seconds faster than the former model)

Top speed: 250 km/h (155 mph)

Average fuel consumption

to EU standard: 11.4 litres/100 kilometres (equal to 25.0 mpg imp)

(down 3 per cent versus former model/BMW 750Li: 11.4 litres/25.0 mpg imp)

CO<sub>2</sub> emissions to

EU standard: 266 g/km (BMW 750Li: 266 g/km)

Emission standard: EU 5

BMW 740i: straight-six petrol engine with Twin Turbo and High Precision Injection

Capacity: 2,979 cc, output: 240 kW/326 hp (15 kW more than former model) at 5,800 rpm

Max torque: 450 Nm/332 lb-ft from 1,500–4,500 rpm

Acceleration: 0–100 km/h: 5.9 seconds

(BMW 740Li: 6.0 seconds/in each case 0.9 seconds faster than the former model)

Top speed: 250 km/h (155 mph)

Average fuel consumption

to EU standard: 9.9 litres/100 kilometres (equal to 28.5 mpg imp)

(down 12 per cent versus former model/BMW 740Li: 10.0 litres/28.2 mpg imp)

CO<sub>2</sub> emissions

to EU standard: 232 g/km (BMW 740Li: 235 g/km)

Emission standard: EU 5

BMW 730d: straight-six diesel engine with aluminium crankcase and third-generation common-rail fuel injection

(piezo-injectors, max injection pressure: 1,800 bar)

Capacity: 2,993 cc

Output: 180 kW/245 hp (10 kW more than former model) at 4,000 rpm

Max torque: 540 Nm/398 lb-ft from 1,750-3,000 rpm

Acceleration 0–100 km/h: 7.2 seconds (0.6 seconds faster than former model)

Top speed: 245 km/h (152 mph)

Average fuel consumption

to EU standard: 7.2 litres/100 kilometres (equal to 39.2 mpg imp)

(down 10 per cent versus former model)

CO<sub>2</sub> emissions

to EU standard: 192 g/km Emission standard: EU 5





# The Most Innovative Rendition of Luxury and Dynamic Performance: The new BMW 7 Series.

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(Short Version)

Top standards and demands newly defined: Introducing the fifth generation of the BMW 7 Series Luxury Saloon, the world's most successful manufacturer of premium cars is setting the benchmark once again, proving how sheer driving pleasure and the pleasure of exclusive generosity may be perfectly combined in the ultimate symbiosis.

The new BMW 7 Series is the result of perfection in design and supreme engineering on the drivetrain, on the chassis, in terms of safety systems, driver assistance, and comfort. And at the same time the sophisticated but very modern interior proves that both driving and riding in the new BMW 7 Series is a truly impressive experience the driver and all passengers will enjoy at all times.

The high-performance and outstandingly efficient engines as well as the suspension technology of the new BMW 7 Series are both quite unique in the luxury saloon segment. Two petrol engines with Twin Turbo technology and High Precision Injection – the 300 kW/407 hp V8 in the top-of-the-range BMW 750i and the 240 kW/326 hp straight-six in the new BMW 740i – as well as a newly developed straight-six diesel with common-rail fuel injection, piezo-injectors and an aluminium crankcase with maximum output of 180 kW/245 hp in the new BMW 730d are available right from the start upon the introduction of the car. All power units offer the highest standard of efficiency in their respective class and comply in full with the EU 5 emission standard. The new BMW 7 Series comes as standard with Dynamic Damper Control including Dynamic Driving Control operated by the touch of a button on the centre console.

Important options are the Integral Active Steering together with rear axle steering as a function of driving conditions (a technology absolutely unique the world over), as well as Dynamic Drive anti-roll stability.

The new BMW 7 Series also introduces the new generation of BMW's trendsetting iDrive control system. A newly developed Controller with direct selection buttons and a high-resolution 10.2-inch Control Display facilitate intuitive management, control and activation of numerous functions.

BMW's new iDrive also offers ideal conditions for unrestricted use of the internet in the car offered by BMW as the world's first manufacturer in the context of BMW ConnectedDrive. The clear structure of the cockpit dominated by the instrument

cluster in innovative black panel technology gives the driver absolute supremacy and unrestricted control of his car at all times. The driver assistance systems featured for the first time in the new BMW 7 Series and exclusive the world over include BMW's new Night Vision with detection of individual persons, a camera-based Speed Limit Indicator, Lane Change Warning and Cruise Control with Stop & Go, an active Brake Assistant and a proximity warning function when approaching another vehicle from behind.

Both the "regular" and the long-wheelbase versions of BMW's new Luxury Saloon – with the latter available right from the start in the guise of the BMW 750Li and the BMW 740Li – come with the longest wheelbase in their segment. In practice, this means particularly generous space and roominess within the car. A wide

range of lightweight features – including the doors, roof, engine compartment lid, side panels and the engine crankcase made of aluminium – enhance both the efficiency and the agility of the new BMW 7 Series. And through its comprehensive safety concept alone, BMW's new Luxury Saloon guarantees maximum occupant safety in all conceivable types of collision.

### Design: sporting character BMW style in its most elegant form.

A harmonious combination of elegance and sportiness is the key issue in the body design of the new BMW 7 Series. Over and above the long wheelbase, the long and stretched-out engine compartment lid and the short body overhang at the front, the passenger compartment moved relatively far to the rear and the low and sleek roofline characterise the dynamic proportions of the new BMW 7 Series.

Seen from the front, the new BMW 7 Series emanates a sense of clear and calm superiority through its large and smooth engine compartment. The BMW kidney grille stands out far to the front and is fully integrated in the front end without any

visible joints or seams, emphasising the powerful presence of the car. The bottom air intake stretches across the entire front air dam, thus highlighting, together with the foglamps and the chrome band above the air intake, the significant width of the car and its powerful stance on the road.

Dual round headlights in generous size and design ensure that concentrated focus so typical of BMW – first through their corona rings providing a daytime headlight function and second through the bright light bar bordering on the headlights at the top. A further new design feature is the direction indicators made up in each case of eight LED light units. The new BMW 7 Series interprets the classic style and design of a thoroughbred saloon in a unique manner typical of the brand. The interplay of concave and convex surfaces so characteristic of BMW generates highly

effective light and shadow lines, tense surfaces around the wheel arches and the doors as well as the narrow shoulder surface above the contour line extending from the headlights to the rear lights emphasising the elegant character of this unique Luxury Saloon.

The high-rising doorsill line, in turn, reinforces the impression of a particularly slender and dynamic stature. An additional effect is provided by the chrome-plated gill unit complete with the integrated direction indicator at the transition point between the front side panel and the driver's and, respectively, front passenger's door. As a special feature characteristic of a truly sporting car, this gill unit again highlights the long distance between the front axle and the instrument panel.

### Longest wheelbase in the luxury performance segment providing lots of space inside the car.

The sporting and elegant side view of the car is further highlighted by the long wheelbase: The new BMW 7 Series comes with the longest wheelbase in the luxury saloon segment, both in its "regular" guise (3,070 millimetres/ 120.9") and in the extended-wheelbase version (3,210 millimetres/126.4").

In both cases this means extra space within the interior and a significant enhancement of motoring comfort, particularly since the wheelbase of the BMW 750Li and the BMW 740Li extended by 14 centimetres or 5.5" completely benefits the passengers' legroom at the rear.

Yet a further important point is that both models come with their own distinctive roofline and C-pillar contour creating a side view reminiscent of the "regular" model with its normal wheelbase. And at the same time headroom on the rear seats of the long-wheelbase model is up by 10 millimetres or 0.39".

The sculptural design of the car's surfaces ensures a smooth and flowing transition of the side panels into the rear end of the car, the roofline flowing down via the car's flanks all the way to the bumper. The entire rear section is therefore surrounded by dynamic lines creating an even more sporting and muscular look.

Horizontal lines and light edges give the entire rear end a powerful and superior impression accentuated in particular by the chrome bar above the numberplate support. The rear light clusters of the new BMW 7 Series come in an L-shaped look, again typical of the brand. Inside, the rear lights are dominated by wide, horizontally arranged light bars with a special three-dimensional look rising to the outside and therefore following the contour of the light units.

Fed by LED lights, the light bars provide a warm and homogeneous light effect. The direction indicators also use LED technology likewise featured on the third brake light at the upper end of the rear window and on the numberplate illumination.

#### Modern, luxurious, inviting: the interior.

In its interior design, the new BMW 7 Series offers a particularly modern and inviting rendition of sheer luxury. With the centre console slanted slightly towards the driver, the cockpit comes with the driver orientation so typical of BMW. Encountering the new BMW 7 Series for the first time, therefore, the driver immediately has the feeling of being able to handle the most advanced and sophisticated technology in genuine style in a truly exclusive setting.

The dashboard is subdivided into various levels above one another separated by horizontal lines. The instrument cluster and Control Display come on one level, the controls and buttons for all major functions are one level further down, beneath the trim

surface likewise covering the entire width of the dashboard. And thanks to innovative presentation and surface technology, finally, the Control Display does not require the usual binnacle to keep out sunglare.

Vertical arrangement of the instruments and control units again serves to facilitate the process of controlling the car, adding extra safety in every respect. Information and control units relevant to the driver are on the side of the cockpit facing towards the driver himself. All controls, buttons and switches serving to operate comfort functions, in turn, are positioned in the middle of the car, with the same logic being applied to the control units integrated directly on the multifunction steering wheel.

#### Black panel technology: familiar flair, new options.

The design and presentation of the instrument cluster offers new options in presenting information with supreme clarity. For the first time the entire instrument cluster is made up of a high-resolution colour display in black panel technology comprising the four circular instruments arranged in traditional sports car style as well as status and function instruments important for motoring, navigation instructions, information from the Check/Control, feedback from the controls, and the Service Interval Indicator.

When not in use, the display forms a black homogeneous surface. The numbers in the circular instruments are generated electronically when required, thus not becoming visible – like all

other symbols on the display – until the system is activated. On cars fitted with a navigation system the instrument clusters supports the High Guiding function, true-to-life arrow symbols giving the driver information on, say, criteria to be observed when changing his lane or when taking a bend at an unclear road junction.

The settings on the automatic air conditioning featured as standard are presented in a second display on the centre console, again in black panel technology. In the new BMW all settings of the automatic air conditioning may indeed be masterminded from a control panel on the centre console.

#### Electronic gear selector lever and Dynamic Driving Control button on the centre console.

The new BMW 7 Series comes with an electronic gear selector lever on the centre console. Right next to the lever are the Dynamic Driving Control operating unit on the side facing the driver and – on the opposite side – the iDrive Controller.

Instead of a conventional handbrake, the new BMW 7 Series comes with an electrohydraulic parking brake operated merely by pressing a button, that is without requiring any strength or particular effort. The Auto-Hold function likewise operated by a button, automatically holds the car when at a standstill, providing extra comfort in stop-and-go traffic.

A wide range of paintwork colours, interior colours, trim surfaces and seat upholstery enables the customer to personalise his or her car, catering for each and every individual wish. And at the same time, BMW is the world's first car maker to offer high-tech ceramics as an option on specific control units and elements.



#### Enhanced consistently, used intuitively: BMW iDrive.

The new BMW 7 Series naturally comes with BMW's trendsetting iDrive control system serving to activate and mastermind all entertainment, information, navigation and telecommunication functions featured either as standard or as an option. Indeed, the new generation of iDrive gives BMW an even greater lead over other manufacturers with their comparable systems.

#### Newly designed Controller with direct selection buttons.

Fitted in the perfect ergonomic position, the newly developed Controller enables the user to conveniently and intuitively choose and activate specific functions through standardised tilt, rotating and pushing movements. A picture of the Controller shown in the Control Display ensures even greater clarity and orientation in choosing the next control function or operating step, as does the clear graphic arrangement of the menus arranged as tables on top of one another. And with all menus structured according to the same standard scheme, the user will become fully acquainted with operating requirements almost immediately, not having to make himself accustomed with the control process.

Using the new direct selection buttons on the Controller, the user is able to change spontaneously to the CD, radio, telephone and navigation functions without the slightest effort or waiting time. The range of direct selection buttons is now rounded off by the three command buttons MENU, BACK and OPTION, the eight favourite buttons on the centre console serving for the first time to save and directly retrieve not only radio stations, telephone numbers and navigation destinations, but also menu items directly available through iDrive.

### Extra-large display with variable layout, pre-view maps and full-screen presentation.

BMW iDrive in the new 7 Series comes with a 10.2 inch Control Display exceeding all graphic surfaces so far used in the world of motoring not only through its dimensions. For offering image resolution of 1,280 x 480 pixels, the Control Display is able to present detailed graphics or complete websites from the internet much better and more clearly than ever before, visual control aids ensuring additional clarity and ease of use and operation.

To spell out the names of places or streets, for example, and to enter telephone numbers, the driver simply has to use a very convenient circular "Speller" for rapid and easy entry of names and numbers. Optimised BMW iDrive with its upgraded technical features also facilitates use of the optional navigation system, full-screen presentation of maps providing an incomparably detailed overview of the region the driver is currently travelling through. Both travel maps and individual symbols may be shown as three-dimensional graphics, a pre-view screen presenting the appropriate map section when entering a specific destination.

#### The engines: superior, dynamic and extremely efficient.

Featuring the world's most efficient V8 petrol engine, the most powerful straight-six within BMW's line-up of power units, and the first representative of a new generation of straight-six diesels, the range of power units available right from the start upon the introduction of the new BMW 7 Series is full of superlatives.

The three engines stand out through dynamic power and performance, supreme motoring culture, and unique efficiency. In their respective power and performance segments they therefore offer an incomparably good balance of power and economy all in one. The engines thus comply in full with the BMW EfficientDynamics development strategy featuring a wide range of further innovations in the new BMW 7 Series.

So over and above the highly modern power units, BMW EfficientDynamics in the new 7 Series stands, among other things, for Brake Energy Regeneration, on-demand control of ancillary units, consistent lightweight technology and optimised aerodynamics, as well as electronically controlled air flap management for a further reduction of fuel consumption and emissions.

### The most efficient car in its segment: the BMW 730d with its newly developed six-cylinder diesel.

This enhancement of efficiency comes out particularly in the new BMW 730d. Offering average fuel consumption of just 7.2 litres/100 kilometres (equal to 39.2 mpg imp) in the EU test cycle, this is the most economical car in its entire segment, with a standard of all-round fuel efficiency made possible by the first generation of straight-six diesel engines.

The newly developed power unit comes with an aluminium crankcase and the latest generation of common-rail direct fuel injection, piezo-injectors injecting fuel into the combustion chambers under a pressure of up to 1,800 bar.

The significantly upgraded turbocharger system with variable intake geometry provides smooth development of superior power tailored to the respective driving conditions, with maximum power and supreme harmony at all times.

The new diesel engine displacing 3.0 litres develops maximum output of 180 kW/245 hp at an engine speed of 4,000 rpm. Maximum torque of 540 Newton-metres or 398 lb-ft, in turn, comes at just 1,750 rpm. Compared with the former model, the new BMW 730d thus offers an increase in power by 10 kW or 14 hp on 10 per cent less fuel.

Weighing just 185 kg or 408 lb, the new six-cylinder diesel is another 5 kilos lighter than its predecessor, this optimisation of weight enhancing not only the efficiency of the new BMW 730d, but also the car's performance and agility, with acceleration to 100 km/h in just 7.2 seconds and top speed of 245 km/h (152 mph).

Following BMW's usual commitment, the new BMW 730d comes as standard with a diesel particulates filter and an oxidation catalyst. The exhaust management units are fitted in one joint housing positioned directly downstream of the engine.

Thanks to the innovations in technology featured on the new six-cylinder, this model significantly outperforms the EU 5 emission standard, with the new BMW 730d generating just  $192 \text{ grams of CO}_2$  per kilometre.

### Unique: eight-cylinder petrol engine with Twin Turbo and High Precision Injection in the new BMW 750i.

The most important technical asset shared by both petrol engines is Twin Turbo technology exclusive to BMW in conjunction with High Precision Injection. Featuring these sophisticated systems, both drive units achieve a level of power and torque natural-aspiration engines would only be able to offer on much larger engine displacement and with an inevitable increase in weight.

Displacing 4.4 litres, the eight-cylinder power unit featured in the new BMW 750i is the first petrol engine of its kind worldwide to feature the turbochargers in the V-section between the two rows of cylinders. In addition to the optimisation of weight provided by the aluminium crankcase, this configuration also makes the engine extremely compact in its dimensions.

The V8 develops maximum output of 300 kW/407 hp in the speed range from 5,500 to 6,400 rpm, with maximum torque of 600 Newton-metres or 442 lb-ft all the way between 1,750 and 4,500 rpm.

On the road this means truly impressive power and performance from low engine speeds and with substantial thrust maintained throughout the entire range. Hence, the BMW 750i accelerates to 100 km/h in 5.2 seconds and is limited electronically to a top speed of 250 km/h or 155 mph. Average fuel consumption of the BMW 750i in the EU test cycle, already applying the EU 5 standard, is just 11.4 litres/100 kilometres or 24.8 mpg imp, with

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m CO_2}$  emissions of 266 grams per kilometre. Compared with the previous model homologated under the less strict and less demanding EU4 standard, this is an improvement by approximately 3 per cent with an increase in engine power by 30 kW or 41 hp.

As a result, the new model complies both with the ULEV II emission standard in the USA and the EU 5 standard in Europe.

### Even more power: straight-six with Twin Turbo and High Precision Injection in the BMW 740i.

The second petrol engine version of the new BMW 7 Series is powered by a straight-six with unmistakable performance characteristics again resulting from the combination of Twin Turbo technology and High Precision Injection.

Appropriate modifications of the turbocharger system serve to increase output of the 3.0-litre power unit to 240 kW/326 hp. On the straight-six with Twin Turbo two exhaust gas turbochargers each supply three cylinders with compressed air, the low inertia of the relatively small turbochargers ensuring a significantly better response also on this power unit and building up larger pressure without the slightest delay from low engine speeds.

Maximum engine power comes at 5,800 rpm, with maximum torque of 450 Newton-metres or 332 lb-ft from just 1,500 rpm. This helps the new BMW 740i to accelerate to 100 km/h in 5.9 seconds, with the car's top speed limited electronically to 250 km/h or 155 mph.

High Precision Injection plays a key role in ensuring the most efficient use of fuel. In this case the second generation of direct gasoline injection incorporates piezo-injectors positioned in the cylinder head directly next to the spark plugs and conveying fuel into the combustion chambers with an absolutely precise dosage under a pressure of 200 bar.

This particular configuration enhances not only fuel economy, but also emissions and engine acoustics. Accordingly, average consumption in the EU test cycle is just 9.9 litres/100 kilometres or 28.5 mpg imp, with a  $\mathrm{CO}_2$  rating of 232 grams per kilometre. Compared with its predecessor, the new BMW 740i thus offers 15 kW/20 hp more power on a reduction in fuel consumption by 12 per cent. And again, it almost goes without saying that the new BMW 740i complies in full with the EU 5 emission standard.

### Featured as standard: automatic transmission with precise and fast gearshift.

Power is transmitted as standard on the new BMW 7 Series by a further enhanced six-speed automatic transmission with particularly sporting gearshift characteristics. A newly developed control unit offering an even higher level of performance and modified converter technology allow even more precise selection of the right gear at all times. And as a further point the six-speed automatic transmission ensures superior comfort when shifting gears and an enhanced standard of efficiency.

Yet a further contribution to greater efficiency comes from the final drive likewise optimised to an even higher standard, now offering even lower friction and optimised thermal management. Through the first-ever use of an aluminium housing on the final drive, weight is reduced by approximately 15 per cent versus the former model.



### Innovative suspension technology for a unique combination of motoring comfort and dynamic performance.

Newly developed suspension technology guarantees excellent body and roll comfort, while at the same time the new BMW 7 Series comes with a standard of agility quite unique in the luxury segment. A further point is that the driver can decide himself at any time which of these features to give priority, varying the set-up of his car via Dynamic Driving Control.

The combination of a double-arm axle at the front and an integral-V axle at the rear offers not only a wide range of additional benefits in terms of motoring comfort and driving dynamics, but also outstandingly harmonious roll and transient behaviour in bends. In addition, the new BMW 7 Series

comes with electronically masterminded Dynamic Damper Control, the newly developed dampers adjusting both to the road surface and the driver's particular style of motoring. And as the first car maker in the world, BMW uses a damper system where the inbound and rebound stages are adjustable in a continuous, independent process on each wheel. This allows a truly unique combination of a firm suspension set-up, on the one hand, and a comfortable response to bumps on the road, on the other.

### Driving Dynamic Control button on the centre console.

The driver is able to vary the Dynamic Damper Control map through the Dynamic Driving Control button.

With Dynamic Driving Control, the set-up of the car my be varied for COMFORT, NORMAL, SPORT and SPORT+ at the simple touch of a button, acting not only on Dynamic Damper Control and the DSC Dynamic Stability Control threshold points, but also on the gearshift dynamics of the automatic transmission as well as the gas peal and steering assistance control maps.

Another button directly in front serves to choose the various Dynamic Stability Control set-ups, for example providing a

special traction mode for setting off more easily on snow whenever required.

### Integral Active Steering controlling the steering angle both front and rear.

As a further development of Active Steering, Integral Active Steering is now making its world debut in the new BMW 7 Series. For the first time this option varies the steering angle via an additional transmission on the front- wheel Active Steering and, for the first time, the steering angle on the rear wheels through a concentrically positioned motor with spindle drive on the rear axle, in a highly sophisticated function provided by Servotronic in accordance with current driving conditions.

The maximum steering angle of the rear wheels is 3 degrees. At low speeds the rear wheels are turned against the steering angle of the front wheels to give the BMW 7 Series significantly greater agility on the road. At higher speeds the Integral Active Steering gives the car an absolutely outstanding level of motoring comfort and supremacy on the road in changing lanes and in bends, with the rear wheels turning in the same direction as the front wheels. Even in abrupt steering manoeuvres, therefore, the BMW 7 Series follows the driver's commands precisely and with absolute superiority, any change in direction under dynamic driving conditions leading to an increase in lateral acceleration hardly having any influence on the car's yaw rate.

This clear separation between changes in direction and yaw or roll motion of the car is perceived as a significant increase in comfort above all on the rear seats.

### Supreme precision:

#### BMW Night Vision with detection of individual persons.

BMW is the world's first car maker to offer Night Vision with detection of individual persons and an appropriate warning in the new BMW 7 Series. The fundamental feature used in this system is a thermal imaging camera providing a moving video picture in which the driver is able to detect people, animals and other objects also outside of the headlight beam in a high-resolution presentation on the central Control Display.

Now BMW Night Vision comes for the first time with detection of individual persons giving the driver an additional warning whenever the person(s) detected is/are at risk.

### Precisely on course:

#### Lane Change Warning and Lane Departure Warning.

Lane Change Warning available for the first time in a BMW enables the driver to overtake other vehicles in superior style and with a significantly reduced risk. Radar sensors at the rear end of the car monitor traffic conditions on the adjacent lanes, covering an area extending from the so-called blind angle on the next lane all the way to a distance of 60 metres or almost 200 feet behind the car.

A triangular symbol illuminated permanently on the base of the exterior mirror shows the driver that there is another vehicle in the critical range. Then, once the driver sets the direction indicator in order to change his lane in the process of overtaking, this LED signal will start to flash on and off, providing a clear warning in the process. The driver is also warned by discreet but unmistakable vibration on the steering wheel following the same signal as the Lane Departure Warning. This sophisticated system also available as an option on the new BMW 7 Series detects any unintentional departure by the driver from his desired course. Lane Departure Warning is made up of a camera installed on the windscreen near the interior mirror, a control unit for the comparison of data and a signal generator making the steering wheel vibrate. The camera in the system scans the road markings on at least one side of the car as well as the edge of each lane and the distance from the car. The system is able to look ahead some 50 metres or 165 feet and may also be used at night as soon as the driver switches on the headlights.

### World debut in the new BMW 7 Series: recognition of traffic signs.

In combination with a navigation system and Lane Departure Warning, the new BMW 7 Series offers yet another exclusive function: the Speed Limit Indicator enables the driver to constantly monitor the speed limit on all routes he is currently taking.

For this purpose a camera fitted near the interior mirror permanently registers traffic signs by the road as well as variable signs on bridges above the road (eg on motorways).

The data determined in this way from traffic signs is compared with the data saved in the car's navigation system and the speed

limit at the driver's current location is shown in the instrument cluster or, as an option, in the Head-Up Display.

# Optimum visibility: bi-xenon headlights featured as standard.

The new BMW 7 Series comes as standard with dual bi-xenon headlights. Adaptive Headlights available as an option, in turn, ensure clear and precise illumination of the road ahead following bends and winding roads. The Bending Lights function, as yet another feature, is integrated in the headlights. And last but not least the Adaptive Headlights allow variable light distribution for optimum illumination of the road ahead particularly when driving in a straight line.

# Maximum agility, efficiency and solidity ensured by intelligent lightweight technology.

The bodyshell of the BMW 7 Series offers an unusually good balance of low weight and superior strength and solidity. This is made possible by intelligent lightweight technology, appropriate use of high- and ultra-high-strength steel giving the body an extremely stable structure and, together with the use of aluminium on numerous further components, providing a significant improvement of passive safety on lower overall weight. As a result, overall weight of the new BMW 7 Series is down from that of the previous model by 35 kg (77 lb) and even 55 kg (121 lb), taking the range of equipment into account. At the same time the bodyshell of the new BMW 7 Series offers about 20 per cent greater torsional stiffness than the bodyshell

of the former model, thus providing the foundation for the car's excellent driving dynamics.

A unique feature in the BMW 7 Series segment is the combination of an aluminium roof and a steel body. The advantage in weight provided by this solution versus a conventional steel roof is approximately 7 kilos, the lower centre of gravity achieved in this way helping to give the car significantly greater agility.

The engine compartment lid, the doors, the front side panels and the front spring supports on the body are also made of aluminium, with the use of aluminium on the doors for the first time in a large-scale production BMW reducing weight once again by another 22 kg or 49 lb.

#### Exemplary protection of the occupants on all seats.

High-load-resistant carrier structures, extra-large and exactly defined crumple zones as well as highly efficient restraint systems coordinated by high-performance electronic control set the foundation for the high level of passive safety in the new BMW 7 Series.

Within the interior, in turn, frontal and hip/thorax airbags as well as side curtain head airbags all come as standard. BMW's new Luxury Saloon features three-point inertia-reel seat belts on all seats.

The restraint systems furthermore come with a belt force limiter and, on the front seats, an additional belt tightener. To protect

the occupants from cervical spine injury in the event of a collision from behind, the front seats come as standard with crash-activated headrests. And last but certainly not least, ISOFIX child seat fastenings are featured as standard on the rear seats.

#### Highest standard of climate comfort in the luxury class.

Featured as standard, the automatic air conditioning ensures highly effective cooling quality quite unparalleled in the luxury performance segment. The driver and front passenger are able, with this sophisticated system, to individually control air temperature, air volume and distribution on the right and left side of the car.

Available as an option, four-zone automatic air conditioning also allows individual control and regulation on the rear seats. And the long-wheelbase BMW 7 Series even comes as a further enhancement of four-zone automatic air conditioning with roof vents at the rear complete with separate controls, supplied by an additional air conditioner fitted in the luggage compartment.

As an option the new BMW 7 Series is available with adjustable single seats at the rear, and both climate and massage seats are available as an option at the rear of the car.

# Hard disc memory for audio data and the navigation system.

To make use of the audio and navigation system particularly convenient and comfortable at all times, the new BMW 7 Series comes as standard with a hard disc memory. Offering capacity of 80 GB, this high-performance memory ensures exceptionally rapid access to the digitally prepared map material used for navigation purposes. In addition, no less than 12 GB is available for a comprehensive list of music files, also enabling the user to transmit music files from a CD, an MP3 player or a USB stick straight to the hard disc.

The audio system in the new BMW 7 Series features a DVD player, an AUX-in and a USB port all as standard. Optional

equipment includes a six DVD changer, a TV module and a receiver for DAB Digital Audio Broadcasting. To offer the driver and his passengers an even greater experience in sound quality, the optional Professional HiFi system is able to play back multi-channel audio formats. As an option, furthermore, the new BMW 7 Series may also be fitted with the BMW Individual High-End audio system.

The entertainment systems available on the rear seats of the new BMW likewise set new standards in the world of motoring, with two TV screens integrated in the front seat backrests and allowing individual use on each side, two headsets and two AUX-in ports as well as a DVD player all included in the entertainment package.

#### World debut: unrestricted use of the internet in the car.

BMW is the world's first car maker to provide unrestricted use of the internet in the car through BMW ConnectedDrive.

Use of the internet is an optional extra in the new BMW 7 Series and comes at an attractive flat rate.

As in the case of the BMW Online internet service, BMW, making this new offer, is once again paving the way in the use and availability of online services in the automobile.

Use of the internet in the car is based on BMW iDrive now enhanced to an even higher standard, the Controller taking over the function of a conventional computer mouse. Internet sites may be presented in high resolution on the Control Display, but for reasons of safety only when the car is at a standstill.

# Fully integrated use of the Apple iPhone and other Smartphones.

The mobile phone preparation kit complete with a Bluetooth interface available on the new BMW 7 Series allows safe and comfortable use of a wide range of the latest mobile phones while driving. In addition, Smartphones with an MP3 function may also be fully integrated into the car using a specially developed snap-in adapter together with a USB port again available as an option. Using this option, the driver and passengers are able to use both the communication and the entertainment functions of their mobile phone, masterminding the entire process of operation through the iDrive control system. The new interface is suited for fully integration of Apple iPhone, Sony Ericsson K850i and Nokia 6500c mobile phones.

### BMW ConnectedDrive with Enhanced Emergency Call function and new remote control functions.

The BMW Assist Telematics Service integrated in BMW ConnectedDrive is likewise available in the new BMW 7 Series, offering a whole range of different functions.

Apart from the user's personal enquiry service and provision of the latest traffic information, BMW Assist now also incorporates an Enhanced Emergency Call function with automatic tracking of the car to its current location.

In the event of a collision exceeding a certain level of severity, the system automatically communicates the car's current location, the car's data, as well as information from the sensors on the type of collision and the risk of injury to the car's occupants, all this information going to a BMW Call Center. From there the data is then transferred immediately to the nearest rescue service. BMW ConnectedDrive will also offer the customer direct assistance through the BMW Call Center in situations which previously required the help of a breakdown service. Should, for example, the driver leave the key to his car in the locked luggage compartment or if his children have locked the car from inside, all he has to do in future is contact the BMW Call Center. Then, following a clear process of identification, the BMW Call Center is able to unlock the car from a distance. And in the opposite case the BMW Call Center may also lock the car by remote control, if the driver has forgotten to do so.

#### World-first achievement: Integrated Owner's Manual.

The wide range of innovative functions offered by the new BMW 7 Series in terms of sophisticated electronics is rounded off by the Owner's Manual fully integrated in the car. In the same way as conventional computer programs, the Integrated Owner's Manual gives the driver information on all features and equipment of his car within seconds at the touch of a button via iDrive. Instructions for use are presented clearly and easily-to-understand by animations backed up by sound information and even by slide shows. Short and clear texts as well as interactive graphics enable the user to quickly take up and process information received in this way.

#### **Exquisite highlights from BMW Individual.**

Choosing from the wide range of options offered by BMW Individual, the discerning driver of a BMW 7 Series is able to express his sense of select quality and exclusive style even more convincingly.

Among other highlights, the range includes new BMW Individual leather in Merino fine grain standing out not only through the unique quality of the material and exclusive colours, but also through distinctive seam patterns on the seats, the dashboard and the door linings. Matching the various leather colours, BMW Individual offers an even wider range of colours on the Alcantara roof lining, with fine trim bars in Satin Nut Brown, Reddish Brown plane tree and Black Piano paint ensuring

particular class and style. A new highlight in the wide range of BMW Individual exterior colours is Citrin Black in Xirallic technology.

Yet a further feature offered by BMW Individual is the newly developed, fully integrated cooling box able to accommodate two 0.7-litre bottles and two 0.33-litre cans.

New 20-inch BMW Individual light-alloy wheels in V-spoke design round off the car's exclusive appearance on a truly personalised BMW 7 Series. In a nutshell, therefore, the wide range of features offered by BMW Individual combines the safety and maturity of the regular production car with the unparalleled appeal, style and class of a genuine one-off masterpiece.



### Design: Natural Presence, Superior Sportiness, Precise Elegance.



- Stretched lines as an expression of dynamic elegance.
- Unmistakable, self-confident look.
- Inviting modern style, exclusive ambience and driver-oriented cockpit design inside the car.

Stylish design and unprecedented engineering give the new BMW 7 Series its unique character, combining inspiring luxury with thrilling driving dynamics and supreme visual presence.

The new BMW 7 Series offers everything a luxury saloon can provide today through the most outstanding art of engineering, the design of both the body and the interior making a fascinating contribution to this supremacy. In its exterior design, the saloon offers a harmonious blend of elegance and sportiness, clearly reflecting outstanding comfort and superior dynamism in its

driving behaviour. The interior, in turn, comes in an extremely inviting, modern style clearly bearing out the superior function of the control elements and instruments further enhanced through the use of the most sophisticated materials and excellent quality of finish. Superior interaction of know-how in technology and skilful design gives the new BMW 7 Series genuine flair and harmony in every respect, the innovations featured by the new model offering the driver maximum supremacy at all times.

Through its design alone, BMW's new Luxury Saloon has natural presence from every angle, harmony of product substance and looks, of the driving experience and the overall design making the new BMW 7 Series a particularly convincing and credible representative of its segment – and, at the same time, a convincing ambassador of the BMW brand.

#### Elegance and sportiness in perfect harmony.

The harmonious symbiosis of elegance and sportiness is the absolute highlight and the greatest forte in the body design of the new BMW 7 Series. Over and above the long wheelbase, the sleek and stretched out engine compartment lid and the short transition at the front, the passenger compartment moved further to the rear and the low roofline give the new BMW 7 Series all of its characteristic, dynamic proportions.

The perfectly balanced interplay of these two features comes out particularly in the side-line of the car, the dynamic proportions clearly accentuating the sporting character of the saloon, with the car's stretched and precise lines adding a distinctive touch of class and elegance.

In its interior design, the new BMW 7 Series offers luxury in particularly modern and advanced style. The car's innovative interior concept is characterised by the clearly structured arrangement of functions essential in motoring and oriented towards comfort, with an ambience truly exclusive, sophisticated, and, in particular, very inviting. With the centre console angled slightly towards the driver, the cockpit offers the driver orientation so typical of BMW. The new multifunction steering wheel with its even wider range of controls and instruments, the instrument cluster with its display in innovative black panel technology, the BMW iDrive Controller as well as the control unit for Dynamic Driving Control all arranged on the centre console near the electronic gear selector lever for the automatic transmission featured as standard all serve to give the driver superior control of the car at all times.



In addition, the clear structure of the cockpit in combination with horizontal lines and softly sweeping shapes underlines the sheer generosity of BMW's Luxury Saloon also borne out by enhanced spaciousness and interior comfort. The inviting, modern style of the interior is further enhanced by tasteful combinations of colours, high-class materials, and exclusive quality of finish offering the utmost in craftsmanship and precision.

The design of the new BMW 7 Series is particularly authentic both in its details and overall configuration, clearly revealing the exceptional passion and the creative finesse of BMW's designers in their quest for the best and most outstanding solutions.

#### Design expressing the character of the new BMW 7 Series.

The starting point in designing every new BMW is to define the fundamental features and qualities of the car. This leads to the specific character of the new model providing clear orientation for the entire development process. Apart from the core values of the brand, particularly natural presence, sporting performance and elegant style were crucial from the start in designing the new BMW 7 Series, together with an aura of modern design architecture on the exterior and superior all-round function as a further sign of unique character. From the start, this philosophy set the clear standard for both the design of the new model and its highlights in technology. All technical innovations available have been implemented in exactly the right manner to offer the user perfect function and fascinating design in every respect.

# Longest wheelbase in the luxury saloon segment for lots of space and roominess.

The sporting and elegant side view is further accentuated by the long wheelbase of the new BMW 7 Series. Indeed, BMW's new top-class luxury saloon has the longest wheelbase of all models in its segment, both on the "standard" model with wheelbase measuring 3,070 millimetres or 120.9" and, even more so, on the extended wheelbase model offering 3,210 millimetres or 126.4". In both cases this naturally means even more space inside the car as well as extra motoring comfort.

Particularly the side view reveals how authentically the proportions of the car reflect its fundamental character, the new BMW 7 Series interpreting the classic shape and lines of a

saloon in the sporting and dynamic style so typical of the BMW brand. The perfect interplay of elegance and sportiness thus comes out clearly, for example, at very first sight, tense surfaces along the wheel arches and the doors as well as the slender shoulder area above the contour line extending from the headlights to the rear lights and therefore clearly accentuating the elegant character of BMW's new Luxury Saloon.

Particularly the greenhouse in its light and sporting look sets a clear sign of sportiness above all through its slender window frames and columns, the contours of the greenhouse giving the new BMW 7 Series a coupé-like look maintained consistently from the low-slung transition of the engine compartment lid into the sporting A-pillars through the low roofline all the way to the gentle, sweeping line leading into the rear.

The particular concept of natural presence, superior sportiness and precise elegance so typical of the BMW 7 Series comes out in perfection not only through numerous details and individual features, but also in the overall look and harmony of the car. The most convincing and clearest expression of presence is the extra-large, upright and particularly low-slung kidney grille dominating the front end and standing up proudly in front of the car's body.

The elegant character of BMW's new Luxury Saloon is borne out in particular by the shoulder line at the side extending from the headlights through the door openers all the way to the rear lights. Particularly the rear view of the car emanates a strong touch of power, sportiness and supremacy, with the roof lines flowing down dynamically via the flanks of the car into the

bumper and the horizontally oriented light contours accentuating the sheer width of the car.

The interior design represents the philosophy of modern and functional style in the same impressive manner, the structure of the cockpit, the choice of materials, the lines of the car and the balance of colours all coming together to give the new BMW 7 Series its unique, harmonious character. The result of this consistent design concept is an ambience clearly oriented towards generosity, superior control of the car, and modern luxury all in one.

The BMW 7 Series also owes its unmistakable character clearly recognisable at very first sight from every angle to a long process of designing the car in its full maturity. Hence, the

creative passion of BMW's designers, their quest for perfection, and their finesse in perfecting each and every surface and line comes out clearly on each and every millimetre of the car, both outside and inside.

# The front end: clear structures and generous surfaces ensuring natural presence.

Seen from the front, the new BMW 7 Series is particularly clear-cut and calm to the eye through its large and sweeping engine compartment lid. The contour lines on the engine lid come together at the front, pointing like the headlight units tapering out towards the middle at the BMW kidney grille which stands out clearly and dominantly to the front, integrated precisely and without any visible separation into the front air dam. At the same time the kidney grille, through its upright bars, accentuates the powerful, dynamic character of the front end as an essential element contributing to the outstanding presence of BMW's new Luxury Saloon.



The wide lower air intake scoop extends throughout the entire front air dam all the way to the sides of the car, the foglamps in clear glass look positioned far to the outside at the edge of the air scoops serve to additionally emphasise the wide track of the car. This particular flair is then further enhanced by the chrome band bordering on the air intakes at the top. Generously designed dual round headlights provide the concentrated look again so typical of BMW and coming out in particularly striking style on the new BMW 7 Series – first on account of the corona rings for the daytime driving lights and second through the additional light bar which, like an eyelid, forms the upper end of the round headlights, thus cutting off the lights visually at the top. Yet another new design feature is the direction indicators made up in each case of eight LED units arranged in two upright rows to the outside next to the cylindrical lights.

#### Sculptural surfaces and precise lines at the side.

The special design of the car's surfaces again helps to give the new BMW 7 Series its unmistakable character so typical of the brand. In all, therefore, skilled craftsmanship, precise technology and a perfect sense for the unique flair of a BMW create an unparalleled sculptural effect from every angle and every perspective. The interplay of concave and convex surfaces so typical of BMW generates highly effective light and shade contours accentuating both the powerful and dynamic as well as the elegant expression of the car.

The side surfaces, for example, would appear to literally "grow into" the rear wheel without the typical wheel arch being visible from any angle.

The larger surface area created through this subtle process is yet another unique sign of quality and a result of the cooperation of designers and clay modellers practised only by the BMW Group in creating a three-dimensional model of the new car by hand in a most elaborate and painstaking process. Clearly, the creation of such design elegance calls for years of experience and requires supreme competence in both design and body production.

The long shoulder line gives the side view of the car particular style and elegance. The side surfaces come in convex contours directly below this precisely chiselled line, taking on a more concave curvature in the lower section on the doors. To the bottom this surface borders on the high-rising doorsill line, the shoulder and doorsill lines thus interacting with one another

to create a particularly sleek and stretched look. And last but certainly not least in this context, the high-rising doorsill line helps to give the car a particularly slender and dynamic stature.

A chrome-plated gill unit with integrated side indicators at the transition between the front side panel and the driver's and, respectively, the front passenger's door provides an additional visual effect in particularly appealing style. The character line on the wheel arch flows out of the front edge of this gill element, proceeding from there in a gentle sweep into the doorsill line.

As a proportion feature typical of a sporting car, the gill element accentuates the long stretch between the front axle and the instrument panel. Further details created by the car's designers also show a clear commitment to precision and the ability to

highlight selected design features in subtle style. The headlight units and the rear lights of the new BMW 7 Series, for example, come in carefully chiselled surrounds literally modelled into the surface of the body, again expressing the high standard of craftsmanship and the perfection shown by BMW in mastering even complex production processes.

This effect comes out particularly on the counter-swing at the bottom of the C-pillar well-known as the "Hofmeister kick", where an exceptionally sophisticated and at the same time stretched look of this contour line gives the window graphics particular appeal also through the use of a chrome band surrounding the glass area. All of these design features also apply to the side view of the BMW 750Li and the BMW 740Li. With their wheelbase extended by 140 millimetres or 5.5", these

special models give even greater emphasis to the car's comfort at the rear, the extra body length benefiting exclusively the rear seat passenger compartment and offering particularly comfortable access through the even wider rear doors.

A further point is that both models have their own roofline and C-pillar contour creating a side view similar in its overall look to that of the "regular" saloon despite the extra headroom at the rear.

### Horizontal lines at the rear emphasising the car's superior power and visual supremacy.

The perfect sculpture of the individual surfaces also ensures a flowing transition of the side panels into the rear section of the car, the striking contour line, for example, continuing into the rear lights, where it is taken up by the graphic structure of the lights themselves. The roofline, in turn, flows down via the flanks of the car into the bumper, thus surrounding the rear end by dynamic lines exuding a particularly sporting and dynamic touch. Horizontally oriented lines and light edges likewise help to give the rear end a powerful and superior look, a particularly striking highlight being the chrome band positioned above the numberplate support and extending across the entire width of the luggage compartment lid, connecting the two rear light clusters with one

another. The light edges on the luggage compartment lid and the bumper run parallel to this chrome band, which also encompasses the reversing lights. This additional structural element on the bumper, together with the two reflectors positioned far to the outside, again emphasises the width of the rear. The two-piece rear lights on the new BMW 7 Series proudly bear out the L-shaped contours so typical of the BMW brand. Inside, the rear light clusters are dominated by wide, horizontally arranged light bars in three-dimensional design, rising up to the outside and therefore following the contours of the lights themselves. Fed by LED units, the light bars emanate a warm, homogeneous light, with the direction indicators also using LED technology to provide a particularly clear signal. And last but not least, the third brake light positioned on the upper edge of the rear window and the numberplate light also incorporate light-emitting diodes.



#### Modern, luxurious, inviting: the interior.

In its interior design, the new BMW 7 Series combines all the features that make both active motoring and the experience of riding in such a saloon a truly impressive experience the driver and his passengers will always appreciate. Softly sweeping shapes, sophisticated materials and stylish colour combinations create an ambience characterised by generosity and modern style all in one. The clear and driver-oriented structure of the cockpit, in turn, provides ideal conditions for superior motoring and control of the car at all times, intuitive arrangement of the controls making it even easier for the driver to use all functions with maximum efficiency and without the slightest effort or risk of confusion.

The new BMW 7 Series also bears out its individual character through its modern interpretation of luxury, appropriate use of high-quality materials in conjunction with excellent quality of finish enhancing both the exclusive flair of the car and the charming functionality of the interior.

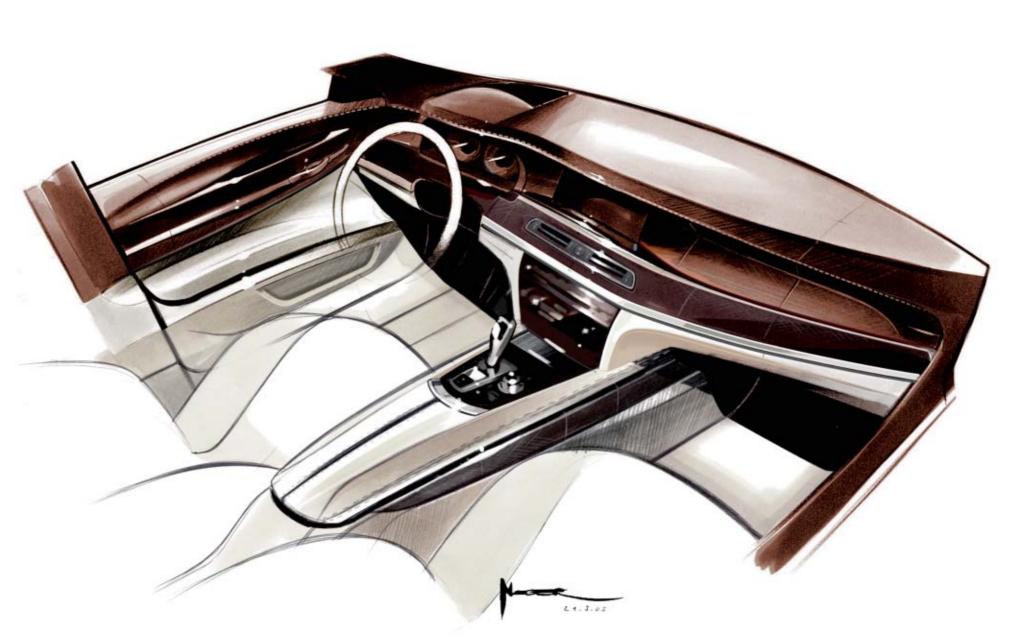
Over and above the extra space, comfort and roominess offered both on the front seats and at the rear with most generous kneeroom, headroom and elbow freedom to meet the greatest demands, the design and configuration of the interior in the new BMW 7 Series ensures supreme luxury in its most modern style. The car's ambience is exclusive, sophisticated and, in particular, inviting. The clearly structured arrangement of all instruments and controls both horizontally and vertically, as well as optimised orientation to the driver, allows efficient integration of highly

complex technology and a wide range of functions within the car for maximum clarity and optimum ease of control at all times. The controls and instruments required directly for driving are clear-cut and well-known to the driver from the start, with intuitive control also of elementary comfort functions such as the interior ventilation, air conditioning or the audio system.

The first impression which both the driver and passenger will enjoy from the beginning is also ensured by sophisticated materials and exclusive quality of finish, again creating a calm and even tranquil ambience where the driver and passengers will always feel content and properly cared for. Encountering the new BMW 7 Series, the driver will immediately enjoy the feeling of being able to master high-performance technology in an exclusive setting. The instrument panel is split up into several

levels above one another, separated in each case by parallel lines extending across the entire width of the interior. The instrument cluster and Control Display come at the same level while the switches and buttons for all major functions are one level further down beneath the trim panel also extending across the entire width of the dashboard.

At the bottom the trim panel borders on to a chrome bar setting a further highlight in style and sophistication and additionally emphasising the horizontal orientation of the cockpit. Thanks to the use of innovative presentation and surface technology, the Control Display does not require the usual binnacle keeping out sunglare. Again, this helps to give the cockpit a clear and calm structure, keeping the driver consistently in control and ensuring optimum visibility at all times.



#### Cockpit design promoting the supremacy of the driver.

The horizontal breakdown of the cockpit makes a significant contribution in helping the driver handle the car in safe and superior style, without any difficulties or confusion. This effect is then further improved by the vertical arrangement of the displays and control units, with information and controls relevant to the driver housed in the side of the cockpit facing the driver directly. All indicators, controls and switches serving to operate comfort functions, in turn, are positioned further towards the middle of the car.

The arrangement of control units and the multifunction steering wheel also follows this logical approach, again offering the driver a supreme standard of safety and clarity in control: To obtain

information or activate a function, the driver hardly has to take his eyes off the road, if at all. He does not have to look for controls and switches he requires only rarely, simply because they are positioned at a clear point where the driver would expect them to be from the start. As an example, the control units for the driver assistance systems supporting the drive in understanding traffic conditions and maintaining a high level of awareness are housed in a joint panel in the middle of the Lights Centre.

With the cockpit being clearly structured as described, the driver will very quickly become most routined also in using additional functions not required under all conditions and in every situation. The result, therefore, is even greater supremacy at the wheel of the new BMW 7 Series.

#### Ideal combination of ergonomics and aesthetic design.

Driver-oriented design and configuration of the centre console is yet another feature typical of BMW. The centre console oriented slightly towards the driver accommodates, among other units and functions, the control switches for the air conditioning, the loudspeaker volume controls on the audio system, and the favourite buttons incorporated in BMW iDrive.

In their design, the Controller and its direct selection buttons follow both aesthetic and ergonomic considerations. When using the Controller, the driver's arm rests in a position similar to when using the selector lever on the automatic transmission, such a comfortable position enhancing the joy of motoring and facilitating precise operation of all controls and functions

With the Controller reduced in diameter and with the direct selector buttons grouped directly around the Controller, the driver of the new BMW 7 Series is able to mastermind the functions involved smoothly and easily, reducing any movements of his hand or arm to a minimum.

#### Black panel technology: supreme flair, new options.

The innovative design of the instrument cluster offers new, incomparable options in presenting information and data. For the first time the entire instrument cluster is made up of a high-resolution colour display in black panel technology with four circular dials arranged in the traditional style of a sports car plus status and function displays highly relevant to the driver, navigation instructions, feedback from the Check/Control, feedback from the various switches and control buttons as well as the Service Interval Indicator all providing clear, meaningful and very helpful information.

When not in use, the display forms a black, homogeneous surface with only the chrome-coloured surrounds open at the

bottom, the indicator needles and the scale markings of the circular instruments as well as the red warning field of the rev counter being permanently in sight. The figures on the circular instruments, on the other hand, as well as the integrated displays for current fuel consumption and the range still remaining, are all presented electronically and therefore only become visible when activated, just like all the other symbols on the display.

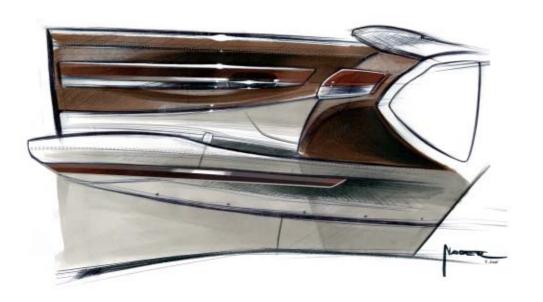
In developing this new concept quite unique and unprecedented in the world of motoring, BMW's designers were inspired by high-tech products in entertainment electronics.

This new technology and style of presentation offers an ideal combination of mechanical and electronic data feedback. The circular instruments providing information on the speed of the car and engine speed, as well as the amount of fuel still remaining and engine oil temperature, come in the classic style of a thoroughbred sports cockpit and at the same time form an analogy to the corona rings on the headlights so typical of BMW.

Through their well-known and clear-cut structure, the scales also make it easier to take up and evaluate the information provided, while at the same time the indicator needles moving round on the rev counter and speedometer offer direct feedback on the driver's actions. And last but not least, the significance of these instruments in terms of cockpit design is borne out by the fact that their surrounds and indicator needles are presented as three-dimensional elements on the otherwise flat display surface.

Also used for the air conditioning display on the centre console, black panel technology is able to present all relevant information in particularly clear style easy-to-read at all times.

The superior function of the instrument cluster is further enhanced through the option to use various zones in the display variable from case to case. Hence, the driver will in all cases focus only on information particularly relevant in each respective situation, thus concentrating even more than usual on the road and traffic conditions around him.



# Colours and trim: harmonious, purist, and finished in perfect craftsmanship.

The breakdown of the cockpit area is additionally enhanced by the design of the various elements, the match of colours and the choice of materials. The horizontal arrangement of colours and materials on the dashboard continues into the doors and throughout the entire interior, the door panels also boasting trim surfaces bordering on a chrome bar at the bottom.

The lower edge of the upper door panel, in turn, follows a sweeping line reaching its lowest point on the B-pillar and then rising up again gently at the rear. In combination with the armrests running slightly in opposite directions, this creates elegant harmony of powerful surfaces interacting with one

another in the door area. The interior of the new BMW 7 Series combines sophisticated materials and excellent quality of finish, giving particular emphasis to the highest standard of craftsmanship and manual skill.

Visible seams on the dashboard and the doorsills, as well as the central ventilation units in double surrounds, reveal significant attention to detail. The instrument panel comes as standard in a newly developed soft-skin material with soft surfaces and surface grain very similar to the most sophisticated leather.

The exclusive look of the interior is further enhanced by the black colour scheme and the use of double seams, with soft leather also available on the instrument panel as an option. The close connection of design and function comes out very

clearly through the door openers integrated in the chrome bars on the door panels. And in the same way the door closing handle forming part of the trim surface adds elegant functionality to the door panels in general.

#### Unique: control elements made of high-tech ceramics.

The large range of interior colours, trim surfaces and seat upholstery available to the customer allows even the most discerning individualist to personalise his or her car according to his individual, personal taste. An appropriate combination of colours and materials, for example, may serve to highlight either the classic, the sporting, the elegant, or the prestigious character of BMW's new Luxury Saloon, reflecting the customer's taste in each and every case. And regardless of the material the customer chooses, the chrome bar as a special accentuating feature at the bottom end of the trim panels adds a particularly stylish touch. BMW is the world's first car maker to use ceramics, an outstanding high-tech material, on selected controls and instruments. Replacing the galvanised metal

featured as standard, this ceramic finish comes as an option on the iDrive Controller, the electronic gear selector lever as well as the rotary knobs for the automatic air conditioning and the audio system. So far used only on particularly exclusive mobile phones or other high-tech equipment, this very special ceramic material exudes a cool but, at the same time, soft and gentle touch.

The exterior paintwork is available in no less than twelve different colours, four of which were developed specifically for BMW's new Luxury Saloon. New colours in the range are Mineral White and Milano Beige metallic as well as the brilliant effect colours Sophisto Grey and Imperial Blue, both generating a fascinating, consistently changing interplay of colours under direct light.



## BMW 750Li and BMW 740Li: setting a new standard in motoring luxury at the rear.

The interior of the BMW 750Li and the BMW 740Li offers ideal conditions for an even higher standard of grand touring comfort. The extra space provided by the longer wheelbase is reserved entirely to the rear seat passengers – and at the same time the unique design of the roofline provides additional headroom at the rear extended by 10 millimetres or almost 0.4" over the "normal" version. Qualities of this kind further enhance the sheer driving pleasure so typical of BMW to an even higher standard, adding the special thrill of being chauffeured in true style. This supremacy is indeed enhanced to an even higher level by the option to order the rear seats as two single seats with a console in the middle. These individual seats may than be adjusted

fore-and-aft by up to 70 millimetres or 2.6", just as seat and backrest angle as well as the position of the headsets may be adjusted individually according to the passenger's personal choice. Two vanity mirrors come as standard in the roof lining of the long-wheelbase versions of the new BMW 7 Series to add yet a further touch of class and style. Just some of the options available on these special models are automatic air conditioning at the rear with separate control, additional air vents in the roof lining with their own control elements, seat ventilation and massage seats as well as two different versions of BMW's top-end entertainment system at the rear complete with a DVD player and two monitors integrated in the front seat backrests. In this case the passengers mastermind the entertainment functions either by remote control or an additional iDrive Controller on the rear centre console.



# Driving Experience: The Comfortable Way to Greater Dynamism.



- World debut: Integral Active Steering for enhanced driving stability and motoring comfort.
- Dynamic Damper Control and Driving Dynamic Control both featured as standard.
- Rear axle air suspension on the BMW 750Li and the BMW 740Li.

Offering a truly outstanding driving experience, the new BMW 7 Series fulfils the most demanding standards and expectations of all kinds. BMW's new Luxury Saloon offers both supreme comfort as well as outstanding dynamism combined with optimum driving safety in the luxury class.

Just as the engines combine supreme refinement with muscular power and performance, the chassis and suspension also meet a wide range of different demands. Newly developed suspension technology, for example, guarantees excellent body and roll comfort, at the same time giving the new BMW 7 Series a standard of agility absolutely unique in the luxury segment. A further important point is that the driver can decide himself at any time which of these features to choose and give priority, influencing the set-up of his car via Dynamic Driving Control.

The unique driving qualities of the BMW 7 Series result from a combination of the most advanced construction technology and innovative suspension control systems. The symbiosis of a double-arm front axle interacting with the Integral-V rear axle offers not only a wide range of benefits in terms of comfort and driving dynamics, but also exceptionally harmonious sway and body transition control even in fast bends.

The new BMW 7 Series comes as standard with electronically masterminded Dynamic Damper Control featuring a control map the driver is able to influence himself through Dynamic Drive Control.

As a further enhancement of Active Steering, in turn, Integral Active Steering is now making its world debut in the new BMW 7 Series, an optional extra serving for the first time to influence the steering angle of the rear wheels as a function of road speed. Integral Active Steering gives the new BMW outstanding agility in city traffic and ensures supreme driving control even in dynamic manoeuvres at high speeds.

The suspension systems owe their perfect combination of functions to their interaction in ICM Integrated Chassis Manage-

ment, high-performance electronic control responding to every change in driving conditions by precisely intervening on the actuators incorporated in DSC Dynamic Stability Control, Dynamic Damper Control and, when fitted as an option, Integral Active Steering as well as Dynamic Drive stability control (also optional).

ICM is able to respond both quickly and exactly as required thanks to FlexRay high-speed data transmission introduced by BMW as the first car maker worldwide in a production vehicle.

#### Extra comfort, steering precision and driving dynamics thanks to the double-arm front axle.

Right from the start, the new BMW 7 Series takes a new approach in the configuration and set-up of its suspension: This is the first BMW Saloon to feature a double-arm front axle, a very light construction thanks to the use of aluminium guaranteeing the particular comfort provided only by strict separation of the wheel guidance and damping functions.

As a result, the dampers are able to respond particularly softly and smoothly to any bumps or unevenness on the road, hardly influenced in the slightest by other forces, just as the influence of adverse forces on the steering is likewise reduced to a minimum. Through its particular kinematics, the double-arm front axle also

allows optimum adjustment of wheel camber to the road, thus perfecting tyre/road contact in the interest of even higher lateral acceleration. And since the track arm bearings used on the front axle subframe are extra-soft, the steering transmission is more direct than usual, thus optimising directional stability of the car both at medium and high speeds.

Last but not least, this particular configuration also enhances driving stability when applying the brakes in a bend. The patented Integral-V rear axle specially developed for the new BMW 7 Series is likewise made of aluminium, dynamic and drive forces acting on the suspension being taken up by the wheel mounts, the rear axle subframe, the swinging arm, and no less than three track control arms. The innovative elastokinematic mounts on the swinging arm provide qualities and driving

features previously incompatible with one another and now enhancing both driving dynamics and motoring comfort at the same time.

One advantage is that longitudinal impacts may now be compensated by the straight-line swinging action of the suspension arms, separating forces acting in a radial and axial direction on the rubber mounts from the swinging arm in the interest, first, of motoring comfort and, second, of enhanced driving dynamics in optimising the set-up of the car.

And by effectively separating the road surface and the drivetrain, the rear axle also ensures first-class acoustic and vibration comfort.



### BMW 750Li and BMW 740Li featuring rear axle air suspension as standard.

Featured as standard on the BMW 750Li and the BMW 740Li, rear axle air suspension maintains consistent ride height under all driving and load conditions. Every change in load is taken into account immediately and balanced off individually on each wheel, requiring the springs to respond only within very small limits to bumps on the road and sway momentum of the car in a bend.

The new BMW 730d comes as standard on 17-inch light-alloy wheels, while the BMW 750i and the BMW 740i feature 18-inch light-alloy wheels as standard equipment. Runflat safety tyres measuring 245/55 R17 and, respectively 245/50 R18 likewise

featured as standard, allow all models to continue even after a complete loss of tyre pressure, enabling the driver to cover up to 250 kilometres or 155 miles even on a flat tyre, depending on the load the car is carrying. In addition, the Tyre Defect Indicator permanently monitors tyre pressure and warns the driver as soon as pressure drops by more than 20 per cent below the level prescribed.

#### Integral Active Steering controlling the steering angle both front and rear.

An equally unique feature just as sophisticated as the chassis components in aluminium is their integration with the most advanced and innovative suspension and steering systems.

Perhaps the most outstanding highlight in this context is that the new BMW 7 Series is available as an option with Integral Active Steering influencing steering forces as a function of road speed through Servotronic on the front wheels with the additional transmission incorporated in Active Steering and, for the first time, the steering angle of the rear wheels through a concentrically arranged motor with spindle drive on the rear axle.

Acting on both the front and rear wheels, Integral Active Steering varies the steering angle via an electric motor operating as a function of sensor data covering the speed of the wheels, the movement of the steering wheel, as well as the yaw rate and lateral acceleration to ensure optimum steering behaviour in every situation.

Steering lock on the rear wheels is limited to 3°. At low speeds the rear wheels are turned to an angle opposite to the steering angle of the front wheels in order to significantly enhance the agility and nimbleness of the BMW 7 Series, reducing the turning circle of the car, as a function of road speed, by up to 70 centimetres or 27.6". Over and above the significant enhancement of agility provided in this way, the driver also benefits from extra comfort thanks to the smoother steering



reducing any steering effort to a minimum. At higher speeds Integral Active Steering gives the car an absolutely smooth and superior response when changing lanes and in bends, the rear wheels turning in their angle in the same direction as the front wheels. In abrupt steering manoeuvres, in turn, the BMW 7 Series again follows the course set out by the driver in precise, superior style.

Intervention of Active Steering in the same process optimises the response of the steering and reduces the degree of movement required on the steering wheel. A further advantage of rear axle steering comes to bear particularly on the rear seats, any change in direction under dynamic driving conditions building up lateral acceleration without a corresponding increase in the yaw rate of the car. The separation of these two factors

comes out as a significant increase in motoring comfort and smoothness for the driver and passengers alike. This combination of Active Steering on the front axle and rear axle steering unique the world over benefits both motoring comfort and the agility of the car.

In addition to the enhancement of stability in fast directional changes, Active Steering also gives the new BMW 7 Series even greater supremacy in brake manoeuvres. Interaction of Active Steering with the DSC Dynamic Stability Control sensors prevents the car from swerving out of control when applying the brakes on surfaces varying in grip (modal split) by intervening in the steering specifically as required in each case.

## Driving dynamics of the highest standard: Dynamic Damper Control and Driving Dynamic Control.

The new BMW 7 Series comes as standard with electronically masterminded Dynamic Damper Control. Featuring this cutting-edge technology, the newly developed dampers adjust both to road conditions and the individual style of the driver to prevent any undesired movements of the car possibly caused by unsmoothness on the road or a high level of lateral acceleration.

The driver is able to vary the Dynamic Damper Control map by means of Driving Dynamic Control, choosing either a comfortable, the normal, or a sporting set-up, whatever he prefers. BMW is the world's first car maker to use a damper system adjusting the inbound and rebound stages on the dampers in a continuous process independently of one another. On the road, this means a unique combination of a firm suspension set-up and, at the same time, a comfortable response to bumps or any unsmoothness on the road surface.

To ensure this supremacy, the lift motion on each wheel is monitored by sensors and reported to the central control unit then using this data and ride height signals to determine any body movement of the car.

Taking road speed into account as an additional factor as well as the Dynamic Damper Control map chosen by the driver, the system then calculates the damper force required on each wheel to set off body motion. This data is fed back to the damper units in an ultra-fast process with intervals of only 2.5 milliseconds,

actual figures being adjusted to target readings individually for each wheel by the inbound and rebound pressure valves in the dampers.

#### Driving Dynamic Control button on the centre console.

The Dynamic Driving Control operating unit is in the immediate vicinity of the gear selector lever facing towards the driver. Using this function, the driver is able at the simple touch of a button to vary the set-up of the car in the individual stages COMFORT, NORMAL, SPORT and SPORT +, influencing not only the set-up of Dynamic Damper Control and the response thresholds of DSC Dynamic Stability Control, but also the shift dynamics on the automatic transmission as well as the map control lines of the gas pedal and steering power assistance.

Another button directly in front enables the driver to choose the appropriate DSC settings. Pressing this button, for example, the driver is able to activate a special traction mode facilitating,

say, the process of setting off on a snowbound surface. In this case DSC activates the special DTC Dynamic Traction Control mode raising the response thresholds of the car's dynamic control system. And pressing this button somewhat longer, the driver is able to deactivate DSC altogether.

Through the individual configuration of the drive and suspension set-up, Dynamic Driving Control provides superior overall harmony in each mode, every change in mode giving the driver a perceptible variation of the car's behaviour and driving characteristics.

Dynamic Driving Control provides individual configuration of the set-up in the SPORT mode with particularly sporting behaviour on both the drivetrain and suspension. Via the iDrive control

system, the driver is able as an option to influence one of these two factors and give it the standard configuration otherwise maintained in the NORMAL mode. Hence, the driver is able, for example, to enjoy a sporting set-up on the drivetrain components whenever, due to poor road conditions, a harder set-up on the dampers would not be advisable.

As an option, the suspension of the new BMW 7 Series may be supplemented by Dynamic Drive body control reducing body roll in fast bends and under a sudden change in direction.

Proceeding from current driving conditions, sensors determine the current sway and roll motion of the body then counteracted by swivel motors in the anti-roll bars front and rear operating quickly and with utmost precision. The result is a significant improvement of the car's steering behaviour and load change, with an even higher standard of precision and agility in bends.

#### Superior handling thanks to high-performance brakes and DSC.

The compound brakes on the new BMW 7 Series guarantee excellent stopping power in every situation, reliably bringing the car to a standstill quickly and efficiently with short stopping distances even from high speeds.

Inner-vented brake disks and swing-calliper brakes optimised for maximum efficiency both front and rear reduce fading to an absolute minimum and maximise the standard of brake comfort.

The brake discs themselves come in lightweight technology and are riveted on to a friction ring with an aluminium cover. This principle patented by BMW and now also used by other car

makers, together with aluminium callipers in frame construction on the front axle, serves to significantly reduce unsprung masses and prevents deformation of the brake discs on account of high temperatures even under extremely high loads.

The brake system is supported by numerous DSC Dynamic Stability Control functions. Over and above its stabilising effect, DSC offers further functions in the new BMW 7 Series in the interest of safe and dynamic motoring.

These include ABS anti-lock brakes, ASC Automatic Stability Control, Trailer Stability Control, CBC Cornering Brake Control as well as DBC Dynamic Brake Control automatically maximising brake pressure on all wheels as soon as the system recognises that the driver wishes to apply the brakes hard. Under extremely



hot brake temperatures an appropriate increase in brake pressure reduces any loss of stopping power and, as a result, the usual fading effect, offering the driver virtually unchanged brake behaviour under all conditions.

Regular dry braking, in turn, optimises brake performance in the wet, and the brake standby function builds up moderate brake pressure whenever the driver takes his foot off the gas pedal very quickly and abruptly, thus helping to ensure spontaneous action and response of the brakes under all conditions.

The Start-Off Assistant helps the driver set off on an uphill gradient by preventing the car from rolling downhill for a certain, predetermined period during which the driver is able to press down the gas pedal and accelerate. And last but certainly

not least, Cruise Control complete with its own braking function serves to build up brake power through DSC in the interest of smooth, comfortable and reliable speed control.

## Driving stability tailored to the driver's requirements ensured by DTC and the electronic rear axle differential.

Pressing the DSC Off button on the new BMW 7 Series, the driver activates DTC Dynamic Traction Control, a special mode of DSC Dynamic Stability Control. DTC raises the DSC response thresholds and facilitates the process of setting off on snow or loose sand in the TRACTION mode. A further possibility to activate DTC is through Dynamic Driving Control as part of the SPORT + mode, providing a particularly sporting and active style of motoring.

Pressing the DSC Off button somewhat longer, the driver is able to fully deactivate Dynamic Stability Control. In the DSC Off mode an electronic locking function acting on the rear axle

differential is activated to promote a particularly sporting and ambitious style of motoring, for example when accelerating out of bends and hairpins. To optimise traction a drive wheel spinning when accelerating in a tight bend is controlled appropriately by the brakes, allowing the opposite wheel on the same axle to maintain a high standard of traction and drive power.

#### Electromechanical parking brake and Auto-Hold function.

The new BMW 7 Series comes with a parking brake operated either electromechanically or hydraulically, depending on current requirements, in the interest of extra safety and comfort. As long as the engine is running, the braking effect is generated by actively building up pressure in the hydraulic system masterminded by DSC. Then, once the engine has been switched off, the force required for holding the car in position is generated electromechanically.

To activate the parking brake, all the driver has to do is pull the switch on the centre console marked specifically for this purpose. Then, to release the parking brake, he again just has

to press the same button while pressing down the brake pedal at the same time. Thanks to this configuration, there is no risk of the parking brake being released by mistake with the ignition switched off. While driving, the driver is able to activate the automatic emergency braking function by pulling the parking brake switch somewhat longer.

The brake effect is generated by actively building up pressure in the hydraulic system acting on all four wheels, the degree of stopping power being controlled by the DSC control unit, taking the ABS function into account. This also ensures that the brake lights are properly activated in each case.

The new BMW 7 Series features a parking brake operated either electromechanically or hydraulically, depending on current

requirements, in the interest of extra safety. The parking brake comes complete with an Auto-Hold function enhancing motoring comfort above all in stop-and-go traffic. And should the car come to a standstill, it is automatically held in position by consistent brake pressure also on a gradient until the driver presses the gas pedal again, meaning that he is not required to keep the brake pedal down. The Auto-Hold function is activated and deactivated by a separate switch on the centre console.

# Driving dynamics with intelligent control: Integrated Chassis Management and FlexRay technology.

The chassis and suspension systems are perfectly combined with one another by ICM Integrated Chassis Management.

This high-performance electronic control analysing the car's driving behaviour at a central point by evaluating numerous sensor signals is able to harmonise drivetrain and suspension functions so precisely within fractions of a second that the driver always enjoys maximum stability under all driving conditions.

Indeed, ICM responds perfectly to allrequirements, ensuring precise access to the DSC, Dynamic Damper Control as well as – when fitted as an option - Integral Active Steering and Dynamic Drive actuators even under a sudden change in

conditions, for example on changing surfaces, when spontaneously turning the steering, accelerating or applying the brakes abruptly and forcefully.

The consistent integration of suspension control systems and drive units in the new BMW 7 Series is likewise unique the world over. To quickly and reliably coordinate the systems, BMW uses FlexRay high-speed data transmission technology. This system, developed by a consortium of specialists to production standard under the guidance of BMW, offers a level of data transfer never seen before. Indeed, its transmission rate is 20 times faster than with a conventional transmission system.

On the new BMW 7 Series up to 16 control units are able to communicate with one another in real time via FlexRay, ensuring

unparalleled fast, precise and perfectly coordinated use of the control units for the drivetrain, suspension, damping, steering and brake systems in the new BMW 7 Series. As a result, no other car is able to control longitudinal, lateral and vertical movements with such outstanding precision.

BMW is the fist car maker in the world to offer FlexRay technology as standard in its cars.





# **Control Concept and Driver Assistance: Absolute Supremacy Wherever You Go.**



- New generation of BMW iDrive: direct selection buttons, 10.2 inch display and optimised menu structure for even greater convenience.
- Unique: BMW Night Vision with detection of individual persons.
- A world-first achievement: Speed Limit Indicator consistently informing the driver of the current speed limit.

Both the development and design of all controls, instruments and driver assistance systems in the new BMW 7 Series were oriented towards a clear target right from the beginning: to offer maximum supremacy under all driving conditions. Proven principles, trendsetting concepts and innovative technologies were therefore carefully harmonised with one another from the start in an elaborate development process, setting new

standards in terms of active safety, comfort, and sheer driving pleasure. Through its structure alone, the cockpit optimises the driver orientation so typical of BMW . Consistent separation of functions required for actually driving and other functions more important to motoring comfort gives the driver the secure feeling right from the start that he is able to master the new BMW 7 Series in superior, routined style.

Starting from this strong position, it is then easy for the driver to go beyond the primary functions of the car, immediately enjoying the new features and equipment in some cases exclusive to BMW . In particular, the driver and his passengers will be fascinated by the wide range of driver assistance systems offering functional qualities of the highest standard. Thanks to the user-friendly arrangement and design of the display, instruments and

control units, including the enhanced iDrive control concept, the thrill of using these innovative functions in the new BMW 7 Series ensures a wonderful experience also in the long term.

This, not least, is one of the reasons for the trendsetting progress offered by the new BMW 7 Series also through its control concept. Through their fascinating functionality and intuitive use, innovations with the highest level of safety, comfort and driving pleasure make a lasting and effective contribution to maximum supremacy on the road. Like the previous model introducing the trendsetting BMW iDrive control concept for the first time, the new BMW 7 Series also sets standards in terms of ergonomics, efficiency and functional logic, with optimised control of all the car's functions. The new generation of

BMW iDrive makes an important contribution to this perfection, high-resolution graphic presentation on the large Control Display, newly structured menu guidance and optimised operation of the Controller as well as its direct selection and favourite buttons making the use of entertainment, information, telephone and navigation functions even easier and more convenient.

In addition, both the Controller and the iDrive Control Display offer an ideal foundation for the unrestricted use of the internet on the built-in display offered by BMW as the first car maker in the world.

An innovation never seen before in the world of motoring is black panel technology on the instrument cluster. This special feature significantly calms down the look of the cockpit when not in use and presents various functions on its homogeneous, black surface only when activated, that is with the car in the running mode. Classic features such as the four circular dials in the traditional style of a sports car are therefore combined attractively with modern electronic display options. Through this combination alone, the new BMW 7 Series clearly proves its consistent pledge to tradition and the BMW brand while convincingly pointing into the future.

Apart from motoring comfort, active safety also reaches a new standard in the new BMW 7 Series thanks to innovative driver assistance systems. As an example, BMW 's new Luxury Saloon is the first car in its segment available with a Head-Up Display presenting important information for the driver directly on the windscreen, precisely in the driver's line of vision, where he is able to take in the necessary information and warning signals without taking his eyes off the road. Another feature BMW is presenting for the first time on the new 7 Series is the newly developed Lane Change Warning consistently monitoring traffic conditions on the lanes next to the car.

Then there is the Speed Limit Indicator interacting with Lane Departure Warning, using an intelligent combination of camerabased traffic sign recognition and navigation software to provide the driver at all times with the speed limit currently allowed on the road he is taking. And last but certainly not least, one of the world-first achievements in the new BMW 7 Series is BMW 's second-generation Night Vision now enhanced even further for the detection of individual persons.

### The control concept: clear structure for even more driving pleasure and comfort.

The arrangement and configuration of the control units and storage compartments in the new BMW 7 Series follows the principle of elegant and, at the same time, modern function. Apart from the extra-large glove compartment, storage boxes in the door linings and around the centre console, pockets on the back of the front seats and an additional compartment between the driver's door and the steering wheel provide adequate space for all kinds of odds and ends.

Two cupholders are fitted conveniently on the centre console in front of the electronic gear selector lever. The buttons for adjusting the seats, in turn, are located in perfect ergonomic

position on the outside of the seats themselves. The buttons for activating the optional seat memory function are in the door lining, within easy reach right from the start even before getting into the car.

The fundamental concept for the arrangement of all controls and instruments follows the need to give the passenger compartment a clear and functional structure. Hence, all driving functions are on the driver's side, the comfort functions are in the middle. This applies both to the positioning of controls within the cockpit and to the multifunction steering wheel, where the function buttons for cruise control, on the one hand, and the control elements for the audio system and telephone, on the other, are likewise separated from one another, following the principle of the displays and instruments in the instrument

cluster. Over and above this horizontal orientation of the control units for driving and comfort functions, the specific arrangement of all displays ensures quick and intuitive orientation in the new BMW 7 Series right from the start.

All primary displays, for example, are in the upper level of the cockpit at the same height as the driver's eyes. The lower level accommodates the control units within optimum ergonomic reach and easy to use through their different surface touch in terms of size, shape and surface qualities, without requiring the user to even look at the buttons or switches he is operating.

In their arrangement, the switches follow the respective context, a group of buttons directly next to the Lights Switch Centre, for example, comprising the switches to activate various driver assistance systems and therefore helping the driver in perceiving and understanding his surrounding area.

The engine of the new BMW 7 Series is started by pressing the start/stop button once the remote-control key with its smooth contours on each side is within the car. Hence, there is no need for a conventional key insert. And to operate both the direction indicators as well as the headlights, the driver uses classic steering column levers on either side of the steering wheel.

## Everything at a glance: classic circular instruments, display in black panel technology.

The design of the instrument cluster in the new BMW 7 Series combines classic elements and new solutions to provide one harmonious whole, using black panel technology for the first time. Throughout the entire instrument cluster, this gives the different displays made up of a high-resolution colour display, control and warning lights, as well as the four circular dials in the traditional style of a sports car a well-balanced and harmonious look.

The display encompasses status and function units relevant to the driver, navigation data, feedback from BMW Check/Control, operating feedback, and the Service Interval Indicator. The circular dials give the driver all the information he needs on the car's most important driving functions, the two large instruments presenting the current road and engine speed, two smaller instruments to the right and left providing information on the fuel remaining in the tank and engine oil temperature.

When not in use, the display boasts a homogeneous black surface where only the chrome-coloured surrounds opening up to the bottom, the indicator needles and the scale markings on the circular dials as well as the red warning field of the speedometer are to be seen permanently as "regular" fixtures. The numbers in the dials, on the other hand, just like the integrated displays for current fuel consumption and the range the car is still able to cover, are presented electronically. So like all other symbols on the display, this data only becomes visible



when activated. The result is an ideal combination of mechanical and electronic data feedback – and, at the same time, a highly attractive look. As long as the car is parked neither numbers nor any other data are to be seen. But the minute the driver opens the door the car comes to life and the display takes up its service, the chrome rings on the circular dials open until a few seconds before now being closed by bright illuminated lines. Once the driver has activated the ignition, the numbers and the on-board information on the telltales come on immediately. And when the driver starts the engine, the functions he has activated are likewise displayed. The instrument cluster thus corresponds in truly innovative style with the iDrive Control Display and, on cars featuring this option, with the Head-Up Display. Depending on the function chosen, the display also presents, say, telephone numbers or radio stations once they are called up by the driver

from the multifunction steering wheel. To quickly and precisely select telephone numbers or, as an example, a specific radio station from a list of data, the user may use not just the control buttons, but also a knurled wheel. Navigation functions and the status of Dynamic Driving Control in the new BMW 7 Series may also be presented in the display if desired. And if the car is equipped with a navigation system, the instrument cluster will also support the High Guiding function, clear and true-to-life arrow symbols giving the driver information on whether he may change his lane as well as help when turning at an unclear traffic junction. Making additional use of the Head-Up Display, the driver even receives this highly relevant information where it really counts and provides maximum help, the information required not being presented in the instrument cluster again until the Head-Up Display is deactivated.

#### Automatic air conditioning controlled entirely from buttons on the centre console.

A second display in black panel technology in the centre console presents the current settings chosen on the automatic air conditioning featured as standard, giving the driver and the car's occupants particularly precise and clear information on the interior temperature and the current ventilation mode.

All settings on the automatic air conditioning in the new BMW 7 Series may be adjusted on a control panel on the centre console, enabling the driver and front passenger to set their personal temperature, air volume and distribution on a control unit in the climate control panel individually for the right- and left-hand side of the car according to their personal wishes.

The specific characteristics of fully automatic control may be adjusted directly on the climate control panel in five levels of intensity, catering for the respective occupant's individual preferences. Finally, the preferred setting selected by the driver may then be applied to all other seats at the simple touch of a button.

Optionally available four-zone automatic air conditioning allows individual control of the interior temperature, air volume and distribution also on the left- and right-hand side at the rear through a separate control unit on the rear centre console. And at the rear of the long-wheelbase BMW 7 Series, four-zone automatic air conditioning is further upgraded by roof vents with separate controls, air being supplied by an additional climate control unit fitted in the luggage compartment.

#### Electronic gear selector lever and Dynamic Driving Control button on the centre console.

The control units positioned on the centre console invite the driver to adopt an active style of motoring and at the same time allow convenient and intuitive use of all comfort functions.

The new BMW 7 Series comes with an electronic gear selector lever on the centre console. Directly next to it are the control unit for Dynamic Driving Control on the side facing the driver and – on the opposite side – the iDrive Controller.

Dynamic Driving Control enables the driver at the touch of a button to vary the set-up of the car for the positions COMFORT, NORMAL, SPORT and SPORT +. Another button directly in

front serves to select the various positions on DSC Dynamic Stability Control. Instead of a conventional handbrake, the new BMW 7 Series comes with an electrohydraulic parking brake operated without the slightest effort simply by pressing a button.

The Auto-Hold function also operated at the touch of a button automatically holds the car in position when at a standstill to provide greater comfort and ease of control under stop-and-go conditions.



#### Enhanced consistently, used intuitively: BMW iDrive.

To activate and mastermind all entertainment, information, navigation and telecommunication functions featured either as standard or as an option, the new BMW 7 Series again features BMW 's trendsetting iDrive control system.

Presented for the first time in the former models, BMW iDrive has completely changed the general concept of ergonomics, function and control logic in the car. Hence, BMW iDrive is acknowledged as the trendsetter and pacemaker particularly in the premium segment. Introducing a new generation of iDrive, BMW is now gaining even greater leadership over comparable systems from other manufacturers in terms of the quality of presentation and intuitive control.

As before, the new BMW iDrive consistently distinguishes between control – via the Controller on the centre console – and display – in the central Control Display – functions appropriately separated from one another.

This allows the optimum ergonomic position of the control element and the appropriate presentation of information, with the driver hardly having to take his eyes off the road. With its clear and easy-to-read screen and attractive graphics, the 10.2 inch display sets the standard versus the competition.

Positioned at the same height as the instrument cluster, the display is within clear sight of both the driver and the front passenger, at exactly the right distance from their eyes. Also in an ergonomically perfect position, the newly developed



Controller allows convenient and intuitive selection and activation of functions through standardised tilting, turning and push movements.

#### Inviting functionality and lasting benefits: Controller with direct selection buttons.

The new iDrive Controller is now even easier and more convenient to use. In its design it follows the most advanced biomechanical know-how clearly borne out through appropriate touch control and clearly structured mechanical operation.

The advantages of the control units, the menu structure and graphic presentation in the Control Display come out clearly both when used the very first time and in ongoing, continuous use of the system. A picture of the Controller presented in the Control Display makes it even easier for the user to choose the next step in the process of operation. The individual steps in this process taken by tilting, turning or pushing the Controller are

very similar to the use of a computer mouse in controlling a PC. Turning the Controller, for example, the user scrolls through a list of menu items and is then able to confirm the function selected simply by pressing a button. By tilting the Controller to the left and right, on the other hand, he is able to conveniently navigate through the various menu levels.

Clear graphic presentation using multi-level tables and the presentation of the Controller movements currently possible give the customer maximum orientation at all times. As a result, the various options in using the Controller as a graphic presentation in the display supplement and support each other.

With all menus following the same standardised scheme, the user now needs hardly any time at all to get used to the system.

The menu trees are extra-wide to provide as many options as possible without having to switch to another menu level. At the same time the functions are appropriately arranged to provide rapid access to the most important options when using the system permanently.

BMW iDrive, as before, is masterminded in all its functions by the Controller. As an additional innovation the Controller now comes with four direct selection buttons for the menu options used most frequently, enabling the user to change spontaneously and very quickly to the CD, Radio, Telephone and Navigation functions.

The range of direct selection buttons is rounded off by the three command buttons MENU, BACK and OPTION serving to call up

the starter menu, to return to the menu activated last, and to present additional options in their current context. Clearly, this shortens the usual search processes or even makes them completely superfluous.

In addition, the BACK button makes it even easier for the user to make himself acquainted with the system in a quick, uncomplicated and playful process: Pressing the BACK button, the user cancels out the previous step taken, as on an internet browser.

#### Fully proven and now even more flexible than before: the favourite buttons.

Through its outstanding versatility, BMW iDrive supports the personal preferences of the driver, offering an additional improvement of comfort and individual style. Precisely the same enhancement is ensured by the Favourite Buttons in the centre console already proven in other BMW models. Apart from

radio stations, telephone numbers and navigation destinations, these eight buttons now enable the user for the first time to save other menu items retrieved through iDrive for direct selection and operation. Simply by touching a button, therefore, the driver is able not only to tune into his favourite station or activate a specific address, but may also present the navigation map in his favourite scale, obtain an overview of traffic reports, activate the balance control on the audio loudspeakers, or browse to a



selected chapter in the Integrated Owner's Manual. With the touch-sensitive Favourite Buttons incorporating proximity sensors, the function saved by the user in each case is briefly presented on the Control Display as soon as the user touches a specific button. This avoids false operation and enables individual use of the various buttons tailored to each user through the various keys to the car.

### Large-format display with variable layout, pre-view maps and full-screen presentation.

BMW iDrive in the BMW 7 Series comes with a 10.2 inch Control Display exceeding all graphic surfaces used in the automobile so far not only through its dimensions. Indeed, with image resolution of 1,280 x 480 pixels, the Control Display offers significantly improved options to present high-detail graphics



or even complete sites from the internet. This sophisticated look and quality of presentation is made possible by a combination of the most advanced hardware and software technologies. Menu lists are presented in white letters on a black background, highly effective symbols, modern graphics and clear colour codes ensure lucid and highly informative presentation at all times.

Through their specific structure, the control menus facilitate the process of finding the functions desired. Flat menu trees and the systematic concept carried over from computer technology facilitate rapid access to the options desired, the starter menu listing all functions controllable by iDrive. Choosing the desired item, the user opens up a new menu table each time, the various options available there again being listed in a clear overview.

This consistency in guiding the user facilitates user orientation as does the method of layering menu items on the display.

Visual aids provide additional clarity, with the user being able, for example, to spell out the names of places and streets and enter telephone numbers by means of a circular Speller. Such circular arrangement of the letters and numbers additionally speeds up the entry process. And if necessary, all the user has to do is press the BACK button on the Controller in order to reverse a false entry.

#### Convenient combination of voice control and the Controller.

Yet another innovation being introduced by BMW iDrive is multimodal control either by voice and/or by the Controller. The user is indeed able to switch without problems from one of these entry options to another in one and the same entry process, even leaving voice recognition active while making an entry through the Controller and using the voice function at the same time. To activate the voice control function, all you do is press the appropriate button on the multifunction steering wheel, then ending the voice entry function by pressing the button again after completing the entry process. To simplify voice entry, the commands available are presented in the display. BMW iDrive also responds to numerous synonyms of the terms entered, the

option to enter places and streets as full words speeding up the voice control process in the same way as the selection of destinations in controlling the navigation system. Comprehensive studies with a representative range of test persons from various regions the world over were carried out in developing BMW 's new iDrive. The initial response of the test persons to the system when using it the first time was just as relevant in these tests as the experience gained in the long term. Know-how gained from the use of other electronic devices by customers was also applied and evaluated in developing the new generation of BMW iDrive. As a result, the new iDrive control concept shares some features in common to the use of a PC when surfing the internet, optionally available unrestricted use of the internet via the Controller and the Control Display therefore being masterminded by the iDrive system.

#### A new standard of navigation in the automobile.

Use of the optional navigation system is also facilitated by the optimised technical qualities of BMW iDrive. Now the system offers not only a new standard of optical presentation, but also and above all highly efficient management and control. As an example, graphic presentation of the Controller on the display facilitates the selection of functions and settings, full-screen presentation of maps providing an incomparably detailed overview of the region in which the driver is currently travelling.

Both maps and individual symbols may be presented as threedimensional graphics. To supplement the perspective presentation used so far, maps may now also be presented in elevation levels. Selected sights along the route, finally, are highlighted by very realistic photograph-like graphics. All navigation data is saved in the new BMW 7 Series on an 80 GB hard disc. Installed firmly within the car, this data carrier also allows the user to enter his or her personal music archives, downloading music files from, say, a CD, an external MP3 player or a USB stick on to the hard disc for permanent, ongoing use. The memory capacity on the hard disc reserved for the entertainment server is no less than 12 GB.

The impressive technical capacities of the system come out clearly from the start when entering your destination. Should the user specify his destination through a list of places, for example, a map pre-view on each destination proposed is presented in the display right from the beginning during the selection process, enabling the user to easily distinguish between various

places of the same name simply by making a geographic entry. In this case the routes are presented in a pre-view screen on the left, while the appropriate pre-view is presented on the right for quicker orientation. Apart from places and streets, this map also offers traffic information relevant to the route chosen.

As an alternative to the full-screen mode, the Control Display offers an assistance window providing further presentations independently of the main map. Indeed, the user may determine the contents of the assistance window in advance through a selection program, choosing, for example, presentation of the route and his destination on the on-board computer or specific presentation of details in the entertainment programme. The specific map perspective offered under "Highlight Traffic Conditions" ensures appropriate convenience and motoring

comfort not only in city traffic. In this case the latest congestion reports are presented visually as road sections marked in red. And on the motorway this system gives the driver full orientation at all times also when changing his route on account of traffic jams.

BMW 's new High Guiding function with integrated driving lane recommendations also enhances the degree of efficiency offered by the new navigation system in the new BMW 7 Series. This new concept of High Guiding conveys specific, detailed views – such as rules for taking a bend at a road junction with unclear visibility – from the display directly to the instrument cluster or, when fitted as an option, to the Head-Up Display. Three-dimensional presentation of maps with a high standard of display resolution makes the process of operating the new



navigation system in the new BMW 7 Series a truly unique experience. Realistic presentation in elevation maps while driving through mountain landscapes, for example, gives the driver and passengers excellent recommendations on the best routes.

On smaller map scales down to 25 metres integrated threedimensional presentation of buildings in the vicinity provides additional orientation particularly in big cities. Major buildings or rural sights presented along country roads provide further orientation.

And last but certainly not least, 3D presentation of special points of interest by the new navigation system shows the driver and passengers much more clearly whether they will soon be reaching the right place to take a rest on their journey. The Travel

Planner with its Guided Tours function ensures optimum comfort when travelling. The Planner links various destinations to form an individual route, automatically calling up the various sights and points of interest on the way.

Using this "virtual travel guide", the system on request chooses the most beautiful roads with the most attractive scenic highlights. And if the driver would like to take another route, he can of course add additional stopovers on the route selected according to his personal preference.

Benefiting from BMW ConnectedDrive, the driver and passengers also have the option to retrieve particularly attractive routes directly in the car via BMW Online simply at the touch of a button. Then the navigation system will guide the driver to

his destination on the route selected, providing additional information on special sights and points of interest while on the way.

# Unparalleled precision: BMW Night Vision with detection of individual persons.

BMW is the world's first car maker to present a night vision system with detection of individual persons and an appropriate warning function in the new BMW 7 Series.

The new generation of BMW Night Vision sets the standard in avoiding accidents while driving at night. The central element in the system is a thermal imaging camera providing a moving video picture in which the driver clearly sees people, animals and other objects also outside of the headlight beam in high resolution in the central Control Display. The system is therefore enhanced for the first time by its ability to recognise and detect individual persons. This is done by analysing video data in a

control unit which, applying intelligent algorithms, looks specifically for pedestrians then highlighted in the picture in yellow. And should the system "see" that one or several of these persons is/are at risk, the driver will receive an additional warning.

To minimise the number of warnings and to focus on pedestrians really at risk, the control unit conducts a complex situational analysis, providing a warning only in the case of pedestrians in a specific warning corridor depending on speed, the steering angle of the car and its yaw rate. Whenever, for example, the system detects a person at the side of the road walking towards or already on the road, the driver is warned in good time by a symbol flashing on in the Control Display. And if the car is equipped with a Head-Up Display, the warning will

also be shown right in front of the driver on the windscreen. A wide range of other driver assistance systems enhances both motoring comfort and active safety to an even higher level in the new BMW 7 Series.

The systems support and help the driver in difficult or inconvenient situations such as traffic jams or unclear traffic guidance, they support him in assessing traffic conditions and promote his awareness in challenging driving manoeuvres. As a result, he is able to enjoy even greater driving pleasure in the new BMW 7 Series without giving up command of his car.



## Always precisely on course: Lane Change Warning and Lane Departure Warning.

Lane Change Warning available for the first time in a BMW helps the driver overtake in style and, above all, with extra safety. Radar sensors at the rear of the car supervise traffic conditions on the adjacent lanes, covering an area extending from the blind angle next to the car all the way back 60 metres or almost 200 feet.

A permanently illuminated triangular symbol on the bottom of the exterior mirror shows the driver that there is another vehicle in the critical zone. Then, as soon as the driver sets the direction indicator to change lanes in the process of overtaking, the LED signal will flash on and off to provide a clear warning.



Discreet but unmistakable vibration on the steering wheel following the Lane Departure Warning signal likewise alerts the driver, informing him of the situation.

This system also available as an option in the new BMW 7 Series recognises any unintentional deviation from the right course. Lane Departure Warning is made up of a camera fitted in the vicinity of the interior mirror on the windscreen, a control unit for comparing data, and a signal generator transmitting the vibration signal to the steering wheel. Whenever the driver indicates his intention to change lanes or his direction by setting the direction indicator there is no warning signal.

The camera featured in the Lane Departure Warning system monitors road markings at least on one side of the car as well as

their distance to the vehicle and the edge of the road. The camera is able to look ahead some 50 metres or 165 feet and may also be used at night once the headlights are switched on. In other words, the system provides its important benefits in all kinds of situations in everyday traffic.



## World debut in the new BMW 7 Series: detection of traffic signs.

In combination with a navigation system and Lane Departure Warning, the BMW 7 Series offers yet another exclusive function: The Speed Limit Indicator gives the driver information on the current speed limit at all times and wherever he goes, adding further driving comfort above all on long distances.

The driver is therefore aware of the current speed limit at all times without having to look for appropriate traffic signs. Instead, a camera fitted near the interior mirror permanently monitors speed signs at the side as well as variable speed signs above the road, for example on bridges along the motorway.

The data obtained in this way is subsequently compared with the data saved in the navigation system, the data provided by the camera being given priority for example in the event of a new, modified speed limit on account of road construction.

The system even considers restrictions applied to the speed signs, with the speed limit currently applicable being shown in the instrument cluster or, as an option, in the Head-Up Display. This clearly reduces the risk of inadvertently exceeding an existing speed limit.



### Cruise Control with brake function featured as standard, Active Cruise Control with Stop & Go as an option.

Featured as standard, Cruise Control complete with a brake application function acts on engine management, the choice of gears and the brakes in order to consistently maintain the speed set by the driver.

The system permanently registers the car's lateral acceleration and, whenever necessary, reduces the speed of the car by intervening in engine management and the brake system, for example to prevent any restriction of motoring comfort in bends. A further advantage is that Cruise Control with its brake function assists the driver in driving downhill in a controlled process, also when towing a trailer – if necessary by applying the brakes

on the car. Active Cruise Control with Stop & Go gives the driver even greater and more comprehensive assistance.

Available as an option on the new BMW 7 Series, this sophisticated system automatically determines the distance from the vehicle ahead, allowing the driver to cruise along smoothly on the motorway or on country roads and maintaining an appropriate distance at all times from the vehicle ahead also in stop-and-go traffic at very low speed.

Such operation of the system in slow, congested traffic and at low speeds offers the driver a significant enhancement of motoring comfort particularly in such a situation often perceived as unpleasant and annoying. The driver nevertheless remains in full command, being required, for example, after the car has

come to a halt for more than three seconds, to briefly give gas or press the Resume button on the multifunction steering wheel in order to accelerate and set off again.

And even with the system active, the driver is able at all times to control the speed of the car by giving gas or applying the brakes.

Active Cruise Control with Stop & Go uses the latest generation of radar sensors, offering the driver a choice of four distance levels.

Should he fail to maintain the distance from the vehicle ahead chosen in advance, the system will adjust the speed of the car by intervening in drive management and building up brake pressure. Indeed, Active Cruise Control with Stop & Go is even

able to reduce the speed of the car to a standstill whenever required, bringing the car to a halt and holding it in position. The maximum deceleration applied by Active Cruise Control with Stop & Co is 4 metres/sec<sup>2</sup> and is limited at higher speeds to a more comfortable 2.5 metres/sec<sup>2</sup>.

Should the driver be required to intervene because the motorist ahead is applying the brakes all-out, he is prompted to do so by optical and acoustic signals.

At the same time the system lowers the response thresholds of Brake Assistance and activates the Brake Standby function on the DSC system, thus helping to shorten the car's stopping distance and reduce the risk of a collision whenever the driver responds appropriately.

The collision warning function is also available in standby even when Cruise Control is not active.

### Everything in clear sight: PDC Park Distance Control, back-up camera and Side View.

The new BMW 7 Series comes as standard with PDC Park Distance Control at the rear and is also available as an option with PDC at the front. In both cases sensors measure the distance of the car from possible obstacles, an acoustic signal increasing in frequency as the distance becomes smaller giving the driver clear information on the space still available to manoeuvre his vehicle.

To supplement PDC, the BMW 7 Series is also available with a back-up camera facilitating the process of parking and manoeuvring in confined or hard-to-judge spaces. The high-resolution images provided by the back-up camera with its broad

angle lens are presented in colour and in the optimum perspective on the control display, interactive track lines showing the driver the optimum steering wheel angle and the tightest turning circle for parking the car. A special zoom mode highlighting the position of the trailer hook when fitted, serves last but not least to facilitate the process of backing up to a trailer or caravan.

Yet a further option is BMW 's innovative Side View. Using two cameras integrated in the front wheel arches, Side View enables the driver to monitor crosswise traffic at an earlier point than is usually possible. The images provided in this way are transmitted to the Control Display, not only offering additional comfort when manoeuvring, but also giving the driver a clear overview of traffic conditions to the left and right of the car in

good time when, say, leaving a narrow and unclear driveway or when driving out of a car park with restricted visibility.

To ensure that Side View is readily available whenever required, the system is activated by a direct selection button in the centre console.



# Drivetrain: Concentrated Power in Fascinating Diversity.



- All petrol engines with Twin Turbo and High Precision Injection.
- Top engine: V8 developing 300 kW/407 hp.
- New 3.0-litre six-cylinder diesel.

The range of power units available right from the start upon introduction of the new BMW 7 Series is full of superlatives.

The world's first eight-cylinder petrol engine with Twin Turbo in the V-space between the two rows of cylinders develops maximum output in the new BMW 750i of 300 kW/407 hp and equally spectacular maximum torque of 600 Newton-metres/ 442 lb-ft. The most powerful straight-six in BMW's range of engines, in turn, develops maximum output of 240 kW/326 hp and peak torque of 450 Newton-metres/332 lb-ft in the

BMW 740i also featuring Twin Turbo technology exclusive to BMW. The first representative of a brand-new generation of straight-six diesel engines with an all-aluminium crankcase and common-rail direct fuel injection and piezo-injectors, finally, develops maximum injection pressure of 1,800 bar in the new BMW 730d, generating an impressive 180 kW/245 hp and maximum torque of 540 Newton-metres/398 lb-ft combined with the lowest fuel consumption throughout the entire segment.

All of the three power units stand out through dynamic power and performance, supreme refinement and exemplary efficiency, offering these features with various characteristics and highlights and sharing one all-important forte in common: In their respective performance class they offer an unparalleled combination of power, performance and all-round economy. And as a further

highlight both the diesel engine and the two petrol power units all comply in full with the EU 5 emission standard. The new eight-cylinder in the BMW 750i is the most efficient engine in its class. The two six-cylinders, in turn, enter a range of power and performance so far offered only by eight-cylinder power units, combining this huge potential with outstanding efficiency and a significant reduction of weight. Reduced load on the front axle of both the BMW 740i and the BMW 730d thus provides harmonious balance and has a positive effect on the agility of both models.

Given all these qualities, the three engines offer ideal conditions for supreme driving pleasure and outstanding economy in the segment of the BMW 7 Series. They are therefore perfect renditions of the BMW EfficientDynamics development strategy

incorporating a whole range of other innovations in the new BMW 7 Series: Apart from the modern power units, features such as Brake Energy Regeneration, on-demand control and management of ancillary units, consistent lightweight construction and optimised aerodynamics including electronically controlled air flaps on the BMW 740i and the BMW 730d help to further reduce both fuel consumption and emissions.

This enhancement of the car's efficiency comes out particularly clearly on the new BMW 730d: Offering average fuel consumption of just 7.2 litres/100 kilometres in the EU test cycle (equal to 39.2 mpg imp), this is the most economical car in its class. Indeed, this 180 kW/245 hp diesel even outperforms the fuel economy and emission levels of far less powerful competitors.

Ultra-modern diesel power in the BMW 730d: new straight-six with the world's highest standard of efficiency thanks to lightweight aluminium construction and high-pressure fuel injection using piezo-injectors.

The first representative of a new generation of six-cylinder diesels is now making its world debut in the new BMW 730d. Introducing this trendsetting power unit, BMW is further extending its worldwide leadership in the development of diesel engines.

The new six-cylinder diesel features an all-aluminium crankcase, the significantly upgraded turbocharger system with variable intake geometry providing a smooth, muscular and, at the same time, harmonious flow of power adapted to current driving



conditions. Fuel is supplied by the latest generation of common-rail direct injection using piezo-injectors and operating at a maximum pressure of 1,800 bar.

In its construction principle and through a large number of matching parts and components, the new six-cylinder bears a close similarity to the latest generation of BMW four-cylinder diesels successfully launched in 2007 and lauded everywhere for its outstanding efficiency. Typical examples of this cutting-edge technology are the design of the combustion chambers, the reduced height of the cylinder head, the central position of the injectors, and the vertical arrangement of the valves ensuring a particularly clean combustion process with raw emissions reduced to a minimum.

The new power unit highly innovative in every respect excels through the consistent implementation of the BMW EfficientDynamics development strategy, increasing power and performance on a reduction of both fuel consumption and emissions. Displacing 3.0 litres, the new engine develops 180 kW/245 hp at 4,000 rpm, with maximum torque of 540 Newton-metres/398 lb-ft from just 1,750 rpm.

Compared with the former model, the new BMW 730d thus offers 10 kW or 14 hp more power on 10 per cent less fuel. In terms of all-round economy, therefore, the new BMW 730d ranks right at the top of the luxury segment, a diesel particulates filter and an oxidation catalyst both housed close to the engine as one unit ensuring highly effective management and cleaning of exhaust gases.

#### Optimised combustion reducing raw emissions.

The new six-cylinder diesel differs fundamentally from its predecessor both in terms of its structure and configuration and through a wide range of new components as well as the arrangement of the engine's ancillary units. What remains unchanged, however, is the engine's displacement of 2,993 cubic centimetres.

The newly developed crankcase is made of a high-strength aluminium/silicon alloy, the compression height of the pistons has been enlarged, and the cooling duct newly designed. The increase in both power and torque, together with a reduction of friction forces, is also ensured by the new dimensions of both the main and the connecting rod bearings. The crankshaft made

of high-strength steel, finally, offers an even higher degree of stiffness in its new configuration.

The centrally positioned injectors in the injection system and vertically arranged valves help to keep the combustion process smooth and consistent, again serving to reduce raw emissions. Air is supplied to the cylinders through two intake ducts next to one another and through a compact air collector positioned at the side.

To reduce emissions to an absolute minimum, the intake duct responsible for charging the cylinders may be switched on and activated with infinite electronic control. The two exhaust ducts, in turn, merge into one joint connection pipe. The structure and design of the lightweight camshafts comes straight from the

previous engine, the camshafts now running in a camshaft support made of pressure-cast aluminium.

Ceramic spark plugs used for the first time in a six-cylinder diesel engine optimise the starting characteristics of the engine in several respects. They also serve to reduce fuel consumption and emissions, while enhancing motoring comfort as the engine warms up by significantly improving both acoustics and engine vibrations.

#### Weight down, agility up, pedestrian safety optimised.

Weighing 185 kg or 408 lb, the new six-cylinder diesel is another 5 kilos lighter than its predecessor. This optimisation of weight not only enhances the efficiency of the new BMW 730d, but also the car's agility, with acceleration to 100 km/h coming in just 7.2 seconds and a top speed of 245 km/h or 152 mph.

With its compact dimensions, reduced weight, lower height and chain drive moved to the back of the engine, the new diesel helps to meet future requirements also in terms of pedestrian safety. And last but certainly not least in this context, the risk of injury is reduced by an intake silencer deformable and thus giving way in height beneath the cylinder head cover also new and made of a special plastic material.

The alternator, steering assistance pump and a/c compressor are all arranged on the left-hand side of the engine. All the space at the right is therefore available for the diesel particulates filter, the oxidation catalyst and the turbocharger system. And since all ancillary units are driven by one single belt, there is no need for a second belt. Again, this increases the efficiency of the drive unit to an even higher standard by avoiding friction losses.

### Common-rail direct fuel injection with new piezo-injectors and higher pressure.

The injection system developed especially for the new six-cylinder ensures an exactly metered and precisely controlled supply of fuel. On both the six-and four-cylinder diesel engines, the injection system is based on third-generation common-rail direct fuel injection already proven by BMW, using piezo-injectors enhanced to an even higher standard and now operating at a maximum pressure of 1,800 bar. Compared with the injection system used so far, the high-pressure pump, the supply and injection lines, the rail pressure sensor and the pressure control valve have all been renewed and offer an even higher standard than before.

The new engine management comes with even higher computer power and a larger memory. The control unit may be integrated both in a conventional on-board network and in the extremely fast FlexRay data transmission system, engine management receiving its data from a large number of sensors fitted, for example, in the engine block, the cylinder head, the cooling and injection system, in the oil circuit, in the exhaust gas manifold, in the air supply unit, in the exhaust gas recirculation system, and around the exhaust manifold.

### Turbocharger with adjustable turbine geometry and optimised management.

Again enhanced to an even higher standard than on the former engine, the new exhaust gas turbocharger helps to optimise the qualities of the new six-cylinder diesel. Adjustment of turbine geometry as a function of load conditions and power requirements is now controlled with even greater precision than before, modified compressor and turbine rotors giving the charge process even better thermodynamic qualities.

An electric motor adjusts the guide blades in the turbine with supreme accuracy and minimum delay in meeting current operating conditions and requirements. This ensures spontaneous action and an immediate response at low engine speeds and, in the same way, superior power under full load. The newly designed exhaust gas recirculation system incorporates an exhaust duct integrated in the cylinder head, a newly arranged feed pipe leading into the intake manifold, and a particularly effective cooling concept. On its way to the combustion chambers, the gas mixture is not diverted by 180° until it reaches the mixing route to provide an even better, perfectly balanced distribution of exhaust gas and fresh air in the cylinder.

Optimised for maximum performance, the stainless-steel exhaust gas cooler is located at the front end of the engine and comes with a bypass flap limiting harmful emissions while the engine is warming up. The degree and temperature of exhaust gas added in the process may be precisely determined for the respective operating point and engine temperature, even the

internal processes within the engine thus serving to minimise hydrocarbon, carbon monoxide and nitric oxide emissions.

A further benefit ensured in this way is the smooth and refined behaviour of the engine at all times, with temperatures further reduced by the duct running through the cylinder head. The cooling effect obtained in this way additionally enhances the reduction of combustion temperatures in the combustion chambers required in order to reduce the share of nitric oxide.

#### Diesel particulates filter and catalytic converter in one unit.

Offering average fuel consumption of just 7.2 litres/100 kilometres in the EU test cycle (equal to 39.2 mpg imp), the new BMW 730d is the most economical and fuel-efficient car in its segment. The maximum range of more than 1,100 kilometres or 680 miles achieved in this way also sets a new standard. And the CO<sub>2</sub> rating of the new BMW 730d is a mere 192 grams

per kilometre. Following BMW's usual philosophy, the new BMW 730d comes as standard with both a diesel particulates filter and an oxidation catalyst. These exhaust gas treatment units are housed in one common box positioned directly behind the engine. Benefiting from these innovations in technology, the new six-cylinder power unit significantly outperforms the EU 5 emission standard. Apart from diesel particles, the exhaust gas management system also reduces the level of hydrocarbons and carbon monoxide very effectively. The catalytic reaction is



achieved by a platinum and, respectively, palladium coating inside the exhaust gas treatment system, the diesel particulates filter operating free of maintenance and not requiring any additives. The regeneration phases required at regular intervals are initiated by subsequent injection activated by the engine management. Operating reliably regardless of engine running conditions and without any action on the part of the driver, this prevents the filter from being clogged by residues and impaired in its effect. And with its highly sophisticated control technology, the exhaust gas cleaning process reaches and maintains optimum running conditions at all times, without requiring any intervention from outside. The efficient way to maximum performance: Twin Turbo technology exclusive to BMW on both the six- and eight-cylinder petrol engines.

The most significant feature shared by both of the petrol engines available in the new BMW 7 Series is Twin Turbo technology exclusive to BMW in conjunction with High Precision Injection.

Applying this principle featured for the first time in a straight-six power unit and now also on the new V8, BMW's engine development specialists are following a particularly efficient approach in impressively increasing engine power and performance. Both engines now reach output and torque levels a naturally-aspirated power unit would only be able to achieve with a significant increase in engine size and an inevitable increase in weight.

By contrast, BMW's Twin Turbo engines offer particularly compact dimensions and minimum weight in their respective

class. The relatively low weight acting on the front axle, therefore, helps to give the car excellent balance and supreme agility at all times.

The turbocharger technology applied by BMW also owes its trendsetting character to the use of two turbochargers and the combination with High Precision Injection. Hence, the weaknesses typical of a conventional turbocharged engine – such as the usual delay in building up power and higher fuel consumption – are now a thing of the past.

The relatively small turbochargers on the Twin Turbo power units develop their extra boost very spontaneously, starting just above idle speed. With its piezo-injectors positioned in the middle between the valves in the cylinder head, High Precision

Injection, in turn, ensures precisely controlled and exactly metered fuel injection, helping to significantly reduce fuel consumption also under everyday driving conditions and throughout a wide range of engine load.

In combination with Twin Turbo technology, this ensures thrilling development of dynamic power combined with outstanding efficiency in the respective engine and performance class.

# Unique: eight-cylinder petrol engine with innovative Twin Turbo technology and High Precision Injection in the new BMW 750i.

The new BMW 7 Series offers an ideal symbiosis of elegance and sportiness. The engines combine supreme motoring refinement with dynamic power, thus providing ideal qualities for a luxury performance saloon of this calibre. Clearly, the new eight-cylinder power unit offers this kind of power and performance at the highest level.

Displacing 4.4 litres, the new Twin Turbo V8 with High Precision Injection develops maximum output of 300 kW/407 hp in the speed range between 5,500 and 6,400 rpm. Maximum torque is 600 Newton-metres or 442 lb-ft maintained consistently all the



way from 1,750 to 4,500 rpm. An important innovation in technology is the arrangement of the turbochargers and the catalytic converters in the V-section between the two rows of cylinder featured for the first time on an eight-cylinder petrol engine. The result of this unique solution is compact dimensions on the engine all round with optimised cross-sections for the components involved in the charge cycle process, significantly reducing pressure losses on the intake and exhaust side.

For the driver this means an absolutely spontaneous, direct response to even the smallest movement of the gas pedal ensured by the particular configuration of the engine with extremely short and aerodynamic manifolds leading to the turbochargers.

The all-aluminium power unit of the new BMW 750i offers all the qualities of an eight-cylinder in an incomparably sporting and comfortable combination. These are supreme muscle from low engine speeds combined with an impressive, ongoing surge of power accelerating the BMW 750i from a standstill to 100 km/h in just 5.2 seconds.

Power reserves are more than ample also at higher speeds, enabling the driver to accelerate with fascinating supremacy at all times. The top speed of the car is limited electronically to 250 km/h or 155 mph.

## Innovative Twin Turbo technology for a long, smooth and consistent surge of power.

The power and performance characteristics of the new V8 are largely determined by the car's innovative Twin Turbo technology. The unique design principle chosen in this case, with two turbochargers fitted directly in the V-section between the cylinders and not outside, each supplying compressed air to four cylinders, ensures unparalleled spontaneity and a perfect response to the gas pedal.

This completely eliminates the turbo "gap" so typical of a conventional turbocharged engine – the time elapsing until the turbocharger starts to build up its extra power. Then the engine continues to rev up with all its power and performance,



maintaining its high torque level throughout an unusually wide range of engine speed. In its power and performance characteristics the engine is therefore similar to a much larger naturally-aspirated power unit, while the entire drive unit with its all-aluminium crankcase is naturally much lighter.

Not only the weight, but also fuel consumption of the new V8 power unit remains at a level most unusual for an engine of this class. An important factor ensuring such superior fuel economy is infinite double-VANOS camshaft management so typical of a BMW, helping the V8 to generate unusually high torque right from the start at low engine speeds.

High Precision Injection is a key function in this concept ensuring the most efficient use of fuel. The second generation of direct fuel injection uses piezo-injectors positioned directly next to the spark plugs in the cylinder head and delivering fuel into the combustion chambers under a pressure of 200 bar. This concept helps to provide an extremely precise dosage of fuel, with a correspondingly positive effect on fuel consumption and, in addition, on emissions and the engine's acoustics.

Average fuel consumption of the BMW 750i in the EU cycle determined according to the EU 5 standard is just 11.4 litres/ 100 kilometres, equal to 24.8 mpg imp, with  ${\rm CO_2}$  emissions of 266 grams per kilometre. Compared with the previous model homologated under the less strict and demanding EU 4 standard, this is an improvement by approximately 3 per cent together with an increase in power by 30 kW or 41 hp. The new V8 therefore offers the same power as a twelve-

cylinder today while maintaining the highest level of efficiency worldwide in the eight-cylinder class. Naturally, the engine fulfils both the US ULEV II emission standard and the EU 5 standard in Europe.

## Even more powerful: straight-six power unit with Twin Turbo and High Precision Injection in the BMW 740i.

The second petrol engine version of the new BMW 7 Series is powered by the most dynamic and powerful straight-six in BMW's engine portfolio: Like the new V8, the power unit featured in the BMW 740i comes with the combination of Twin Turbo technology and High Precision Injection exclusive to BMW providing unmistakable performance characteristics and truly outstanding economy above all for a car of this kind with such an enormous dynamic driving potential.

On the latest version of BMW's 3.0-litre straight-six engine output is increased by appropriate modifications of the turbocharger to 240 kW/326 hp at an engine speed of 5,800 rpm.

Peak torque of 450 Newton-metres/332 lb-ft, in turn, comes at just 1,500 rpm for maximum performance from the ground up.

On the straight-six with Twin Turbo technology two exhaust turbochargers each supply compressed air to three cylinders. The low inertia of the comparatively small turbochargers significantly optimises the response of the engine also in this case, with turbocharger pressure building up without any delay from low engine speeds. Hence, the engine very quickly develops a lot of power and high torque promoted additionally by infinite double-VANOS camshaft management. For the driver this unique strength of BMW's Twin Turbo petrol engines unparalleled the world over is a particularly superior form of all-round elasticity and performance.

The unusually dynamic development of power is also promoted by the high compression ratio of the engine made possible by High Precision Injection. With the fuel/air mixture being cooled through the direct injection of fuel, the compression ratio is higher than on a conventional turbocharged engine with manifold injection.

This again improves the engine's degree of efficiency, generating more power on less fuel. And last but not least in this context, the central arrangement of the piezo-injectors between the valves and in the direct vicinity of the spark plugs ensures particularly precise dosage of the fuel injected also on this straight-six power unit with High Precision Injection. Again, the development of power and performance by the straight-six with Twin Turbo and High Precision Injection reaches

a level only much larger eight-cylinder power units were able to offer in the past. Compared with such a larger eight-cylinder, however, BMW's most powerful six-cylinder offers much better fuel economy, and the weight of the engine with its all-aluminium crankcase is significantly lower in the interest of greater agility in the car. The new BMW 740i accelerates to 100 km/h in 5.9 seconds and is limited electronically in its top speed to 250 km/h or 155 mph. In the EU test cycle average fuel consumption is 9.9 litres/100 kilometres (equal to 28.5), with a CO<sub>2</sub> rating of 232 grams per kilometre. Compared with its predecessor, the new BMW 740i therefore offers 15 kW/20 hp more power and, at the same time, a reduction in fuel consumption by 12 per cent. And it almost goes without saying that the new BMW 740i fulfils the EU 5 emission standard.



## Featured as standard: automatic transmission with electronic gear selector lever.

Power is transmitted on the new BMW 7 Series as standard by a further enhanced six-speed automatic transmission with individually adjustable gearshift characteristics ranging from particularly comfortable to sporting and dynamic. The latest development stage of this six-speed automatic transmission already featured in several model series and well-known for its particular gearshift dynamics and shift comfort has been specifically tailored to the engines offered in the new BMW 7 Series.

A newly developed control unit with an even higher standard of performance, modified converter technology and upgraded



hydraulics allows even more precise selection of gears, the automatic transmission changing from one gear to the other with incomparable spontaneity and efficiency. This benefits not only the standard of driving comfort, but also and above all the driving dynamics of BMW's new Luxury Performance Saloon.

Even shifting back more than one gear is now just as quick as a "normal" gearshift thanks to direct access to the appropriate gear level. So when rapidly pressing down the gas pedal and expressing his wish for maximum performance, the driver is able to immediately shift back by up to four gears.

As yet a further important benefit, the six-speed automatic transmission, being directly connected to the engine with minimum converter slip and precise selection of gears, allows

particularly economical motoring at all times. The driver shifts gears on the automatic transmission via the electronic gear selector lever on the centre console. Transmission management is no longer mechanical, but is rather based on electrical signals. The parking position is activated by pressing the P-button at the top of the shift lever or automatically when switching off the engine.

To activate the manual gearshift all the driver has to do is push the shift lever to the left, then shifting gears sequentially by hand. A display in the gearshift lever and a further display in the instrument cluster show the driver clearly which gear is currently in mesh.



# BMW EfficientDynamics in the new BMW 7 Series: Leading the Way.



- New BMW 730d: most efficient car in its segment.
- Petrol engines setting new records in their performance class.
- Significant benefits of Brake Energy Regeneration, active aerodynamics, on-demand control of ancillary units, and wide range of lightweight aluminium technology.
- All engine variants fulfil the EU 5 standard.

The new BMW 7 Series sets the standard for up-to-date sheer driving pleasure in many respects, offering a combination of features and qualities previously regarded as quite incompatible. Indeed, this symbiosis makes the new BMW 7 Series absolutely unique – in its design, in the driving experience, in the control concept and, not least, in its all-round efficiency. An unparalleled balance of driving dynamics and fuel economy, combined with very low emissions, gives BMW a leading position now also in

this segment. A comparison with the former models proves the further progress BMW has now achieved: The new BMW 730d develops 10 kW/14 hp more power than its predecessor on approximately 10 per cent less fuel. On the new BMW 740i the increase in engine power is even 15 kW/20 hp on a reduction in fuel consumption by 12 per cent. And the new BMW 750i offers 30 kW/41 hp more power on average fuel consumption down by approximately 3 per cent.

All engine variants of the new BMW 7 Series benefit to a great extent from the latest results of the BMW EfficientDynamics development strategy. New power units optimised for fuel economy, a wide range of lightweight construction, and numerous further improvements promoting the car's efficiency give the new models significant leadership in terms of efficiency

compared with their predecessors and all competitors, as well as an even higher standard of performance in their respective class.

The new BMW 7 Series therefore overcomes and eliminates an old bias, the assumption that luxury and efficiency do not go together. Now the new car impressively proves exactly the opposite.

Introducing the new BMW 7 Series into the market, BMW EfficientDynamics is once and for all becoming the synonym for future-oriented automotive technology throughout all vehicle segments. This development strategy by BMW, having already won many prizes and awards, has indeed given BMW a leading role in today's world of motoring. More comprehensively and thoroughly than all other car makers,

BMW has made the enhancement of efficiency an integral feature in the development of new cars. In an increasing number of cases when comparing vehicles with roughly the same output and performance in their segment, a BMW is not only the most sporting, but also the most fuel-efficient model.

Now, launching the new BMW 7 Series, BMW is convincingly claiming this leading position also in the luxury saloon segment: Average fuel consumption of 7.2 litres/100 kilometres, equal to 39.2 mpg imp in the EU test cycle, makes the new BMW 730d the most economical car in its class. And at the same time the BMW 730d offers all the dynamic performance so typical of BMW, accelerating to 100 km/h in 7.2 seconds and leaving numerous competitors (some of which consume much more fuel) far behind.

The two petrol engine versions of the new BMW 7 Series are equally convincing in their respective performance class, leaving the competition far behind in terms of both driving dynamics and economy:

The new BMW 750i takes just 5.2 seconds to accelerate to 100 km/h and makes do in the EU test cycle with an average of 11.4 litres/100 kilometres, equal to 24.8 mpg imp. The new BMW 740i, in turn, likewise sets new standards by combining acceleration to 100 km/h in 5.9 seconds with average fuel consumption of just 9.9 litres/100 kilometres (equal to 28.5 mpg imp).

On all variants of the new BMW 7 Series such outstanding fuel economy comes together with equally outstanding emission

management. Both the BMW 730d as well as the BMW 750i and the BMW 740i already meet all requirements today – in standard trim – to comply with the EU5 emission standard tomorrow.

#### More performance, less CO<sub>2</sub> – a regular improvement also on the BMW 7 Series.

The BMW EfficientDynamics development strategy is being implemented consistently in all segments, with the latest technologies now also being introduced in the new BMW 7 Series. Hence, BMW is taking on a leading position and acting as a role model also at the top of the model range. Introducing new efficiency-enhancing technologies in all model ranges step-by-step, BMW guarantees the general, nationwide introduction of the latest technologies reducing both fuel consumption and emissions. And unlike some competitors, fuel consumption and CO<sub>2</sub> emissions are being optimised not just on individual models or special editions, but rather as a standard, regular improvement on all new cars.

## Luxury saloon with the same fuel economy and emission management as in the midrange segment.

BMW EfficientDynamics on the new BMW 7 Series again means the most advanced power units with combustion processes optimised for maximum efficiency, transmissions enhanced for maximum economy, intelligent energy management through Brake Energy Regeneration and the on-demand control of the car's ancillaries, consistent lightweight engineering, active aerodynamics and the use of tyres with reduced roll resistance.

The quest for enhanced driving dynamics on less fuel comprises all areas of vehicle development. To use energy with maximum efficiency, the electrically driven ancillary units, for example, are precisely tailored to current driving conditions, the consumption

of electrical energy being reduced, among other features, by an on-demand coolant pump and an a/c compressor disengaged when not required. Air cooling flaps also acting on demand improve the car's aerodynamics, being opened only when the engine actually requires cooling air.

Optimised thermal management serving, for example, to warm up the final drive more quickly, helps additionally to reduce power loss. The use of on-demand pump technology on the suspension control systems, to mention a further example, contributes to the car's intelligent management of energy, high-performance FlexRay data transmission making these systems not only particularly effective, but also very efficient. Through such consistent, comprehensive use of innovative technologies, the new BMW 7 Series offers a significant improvement over

the former model not only in terms of motoring comfort and driving dynamics, but also in its efficiency. For the customer this means the unique opportunity to combine the driving experience of a luxury saloon with the fuel economy and emission management of a far more compact midrange car.

### Efficient use of energy through the most advanced drivetrain technology.

The petrol and diesel engines available for the new BMW 7 Series represent the state-of-the-art in BMW engine development. As the first representative of a new generation of six-cylinder diesels, the power unit in the new BMW 730d boasts an all-aluminium crankcase, an optimised turbocharger system with variable intake geometry and the latest generation of common-rail direct fuel injection with piezo-injectors operating at a pressure of up to 1,800 bar. A wide range of innovations on this engine ensures an unusually efficient and clean combustion process, while the further reduction of weight versus the former engine promotes not only the efficiency, but also the agility of the new BMW 730d.



The two petrol engines in the BMW 750i and the BMW 740i come with second-generation direct fuel injection. Well-known and widely lauded as High Precision Injection, this innovative system features piezo-injectors fitted in the middle between the valves in the immediate vicinity of the spark plug for a precisely dosed supply of fuel. In practice, this means a measurable reduction of fuel consumption also in everyday traffic.

At the same time the V8 power unit in the BMW 750i, just like the straight-six in the BMW 740i, boasts Twin Turbo technology with the two turbochargers positioned in the V-section between the two rows of cylinders.

The low inertia of the relatively small turbochargers optimises the response of both engines to a significant degree, building up turbocharger pressure at low engine speeds without the slightest delay. As a result, the engine very quickly develops a high level of power and performance together with superior torque in a process further enhanced by infinite double-VANOS camshaft management.

The driver will experience this unique quality of BMW's Twin Turbo petrol engines as a particularly superior form of elasticity and flexibility on the road.

The development of power by the straight-six with Twin Turbo and High Precision Injection reaches a level previously offered only by far larger eight-cylinder engines. But in comparison to such an eight-cylinder, BMW's most powerful six-cylinder offers much greater fuel economy. The new V8 power unit, in turn,

develops the same power as current twelve-cylinder engines and at the same time offers the highest level of efficiency worldwide in the eight-cylinder class. In both cases this means engines with unusually low weight in their respective segments attributable inter alia to the use an all-aluminium crankcase. This, in practice, means additional advantages in terms of efficiency and greater agility at the wheel of the respective car.

The superior agility of the new BMW 7 Series is also borne out by the upgraded six-speed automatic transmission with even shorter gearshift times and, thanks to optimised converter technology, an enhanced degree of efficiency.

The final drive with reduced friction and optimised thermal management makes a further contribution to the cars' greater

efficiency, the first-ever use of an aluminium housing on the final drive reducing the weight of this component by about 15 per cent versus the former model.

### Optimised efficiency through Brake Energy Regeneration.

All versions of the new BMW 7 Series come additionally with a wide range of efficiency-promoting improvements around the engine serving again as standard features to provide a particularly good balance of performance and economy.

Used individually and perfectly tailored to each model, the latest achievements in BMW EfficientDynamics serve to provide this superiority. Brake Energy Regeneration, for example, comes on all models for intelligent management of the flow of energy, concentrating the generation of electric power for the on-board network on overrun and application of the brakes. This serves to charge the car's battery without consuming any engine power

and, accordingly, any of the energy contained in the fuel. As long as the engine is pulling the car, on the other hand, the alternator is generally disconnected to avoid any further consumption of power. Apart from particularly efficient generation of electricity, this also helps to provide more drive power when accelerating and, as a result, even better performance on the road.

To maximise the service life of the battery and set off the increased flow of energy, intelligent energy management, in conjunction with new AGM battery technology, operates in so-called regeneration cycles. In this case the battery is fed a higher, pulsed voltage in specific charging and discharging periods in order to benefit from appropriate regeneration phases.

### Intelligent and efficient: on-demand management of ancillaries and active aerodynamics.

On-demand control and management of the car's ancillaries also serves to optimise the efficiency of the BMW 7 Series. The energy required by the fuel and steering assistance pump, for example, may be significantly reduced as a function of driving conditions: The Varioserv steering assistance pump on the new BMW 7 Series adjusts the pump cam ring as a function of pressure and volume flow in order to avoid the power loss otherwise resulting at higher engine speeds.

Similarly, the power loss suffered with a conventional a/c compressor can be reduced by intelligent management, the compressor on the new BMW 7 Series being separated from

the belt drive by a magnetic clutch as soon as the air conditioning is switched off, reducing the forces required for running the compressor to a minimum.

With intelligent technologies of this kind reducing the demand for electrical energy, the alternator is not required to convert as much primary energy as would normally be the case into electric power. A special light-running transmission fluid, to mention yet another example, reduces friction losses, and optimised thermal management on the final drive acting immediately after the car is started helps to reduce friction resistance more quickly.

Over and above tyres with minimum roll resistance, the optimisation of aerodynamics on the BMW 730d again enhances the car's efficiency to an even higher level. The cooling air flaps on

the BMW 740i and the BMW 730d are controlled actively as required. When closed, they reduce the car's air resistance, thus being opened only in response to a greater demand for cooling air.

### Maximum agility, efficiency and solidity ensured by intelligent lightweight technology.

The bodyshell of the BMW 7 Series comes with an extremely positive balance of low weight, on the one hand, and high strength, on the other. This is made possible by intelligent lightweight construction, appropriate use of high- and ultra-high-strength steel providing an extremely stable body structure and the use of aluminium on numerous other components helping to reduce the overall weight of the car – taking the level of equipment into account – by 55 kg or 121 lb while enhancing passive safety at the same time.

Compared with the former model, the bodyshell of the new BMW 7 Series thus offers 20 per cent greater torsional stiffness,

providing the basis for outstanding driving dynamics. And last but certainly not least, the quality of lightweight engineering defining torsional stiffness as a function of the car's footprint and weight, has also been improved significantly.

A unique asset in the BMW 7 Series segment is the combination of an aluminium roof and a steel body, a solution saving about 7 kilos compared with a conventional steel roof.

With the centre of gravity being lowered in this way, the car also becomes a lot more agile on the road. The engine compartment lid, the doors, the front side panels as well as the front spring supports on the body are also made of aluminium, the use of aluminium doors for the first time on a large-scale production BMW reducing the weight of the car by yet another 22 kg.

The development of an innovative door structure serves to maintain the proven metal shell concept also in conjunction with aluminium, the single-piece inner doorplate encompassing both the door itself and the window frame guaranteeing maximum stability. Around the door, large load-bearing metal shells ensure maximum stiffness, while the window frame conspicuously slender with the door closed allows more light into the car and provides better visibility to the outside. And at the same time its profile made up of only two metal components guarantees maximum stiffness.

### BMW EfficientDynamics: trendsetting in all vehicle segments.

Innovative power and consistent development are the prerequisites for future-oriented car concepts. It is precisely on this basis that BMW creates fascinating new models combining innovative technology with the latest qualities – offering an ideal synthesis of these assets particularly in the new BMW 7 Series.

Introducing this new model, BMW proves that driving dynamics, motoring comfort and safety may be enhanced to an even higher standard, just as efficiency may reach a new level never seen before. So in a nutshell the new BMW 7 Series offers ideal conditions for up-to-date and conscious sheer driving pleasure above all for the modern, future-oriented motorist.

With BMW EfficientDynamics being used throughout all model series, BMW is able to achieve a particularly significant, all round effect in reducing both fuel consumption and emissions. In Europe alone, BMW expects to sell some 700,000 cars with BMW EfficientDynamics in the year 2008. Compared with 2006, this means a saving of approximately 150 million litres of fuel and some 373 million tonnes of CO<sub>2</sub>.

Consistently continuing the BMW EfficientDynamics strategy, BMW will use and further enhance this potential also in future on new models and throughout all segments of the market.



# **Body and Safety: Lower Weight, Optimised Protection.**



- Body stiffness up 60 per cent, torsional stiffness improved by 20 per cent.
- Optimum occupant safety ensured by central safety electronics, six airbags and crash-activated headrests.
- First large-scale production BMW with aluminium doors and aluminium roof.

The most advanced and sophisticated driver assistance and driving stability systems, extremely precise steering and highly effective brakes support the driver of the new BMW 7 Series in avoiding accidents.

And whenever a collision cannot be prevented, the intelligently conceived body structure, in combination with numerous safety components, forms a perfectly harmonised system serving to optimise occupant safety. The new BMW 7 Series is therefore designed from the start to reduce the possible consequences of all kinds of accidents both for the driver and the passengers to an absolute minimum. Reliable protection in all conceivable situations is indeed one of the most significant and outstanding quality features of BMW's new Luxury Saloon. Hence, the new BMW 7 Series features all the technologies and components for achieving optimum results in all crash tests the world over.

The BMW 7 Series comes with a bodyshell offering an unusually positive balance of optimum weight and supreme strength and solidity. Featuring high- and ultra-high-strength steel wherever appropriate as well as a large number of aluminium components – including the doors and the roof – the new BMW 7 Series offers superior body strength on relatively low weight. Compared

with the previous model, overall weight of the car is down by 35 kg or 77 lb, and is even 55 kg or 121 lb lower when taking the car's higher level of equipment into account.

The excellent torisonal stiffness of the body as well as the optimisation of weight also make a further contribution to the outstanding driving dynamics offered by BMW's new Luxury Saloon.

### Maximum agility, efficiency and solidity through intelligent lightweight construction.

At 18 and, respectively, 16 per cent, the share of multi-phase steel in the entire range of body materials is unusually large. Through an intelligent combination of structural components varying in their strength and hardness, multi-phase steel offers particularly high and effective absorption of energy on low weight. In the process of hot-moulding steel changes its properties and features, achieving the highest level of material strength and becoming particularly resistant to environmental factors. As a result, there is no need with the new generation of heat-moulded steel used on the new 7 Series to provide an additional coating in order to protect the body from corrosion. Through the high-tech mix of materials the overall strength of

the bodyshell is up by approximately 60 per cent versus the previous model. At the same time the body of the new 7 Series offers some 20 per cent greater torsional stiffness, thus providing the foundation for absolutely excellent driving dynamics. And last but not least, the so-called lightweight quality factor defining torsional stiffness as a function of the car's footprint and its weight has once again been improved to an even higher standard.

#### Lightweight roof and aluminium doors.

A unique feature in the segment of the BMW 7 Series is the combination of an aluminium roof and a steel body. The reduction in weight achieved in this way, versus a conventional steel roof, is approximately 7 kg, the lower centre of gravity thus made possible making a valuable contribution to the car's agility.

For the first time in this segment, the aluminium roof is fastened in position completely by a newly developed glue in the interest of optimum rustproofing. The upper section of the frame is riveted on only on cars fitted with the optional sliding/vent roof. The new, patented generation of glue combines supreme strength and adhesion with a high degree of flexibility in adjusting to heat expansion.

A further significant point is that the engine compartment lid, the doors, the front side panels and the front spring supports on the body are all made of aluminium, the use of aluminium doors alone reducing the weight of the car by another 22 kg or 49 lb.

This is the first time that the doors of a BMW built in large numbers are made of aluminium, a special material which, due to its particular deformation qualities in comparison with steel, makes far greater requirements in terms of production technology.

Applying a new structural concept, however, BMW's engineers have succeeded in maintaining the proven panel shell structure. The load-transmitting shell structure of the door bodies with the profile made of only two sheet metal units also fulfils the

strictest stiffness requirements on the door frame, a further advantage of this special structure being the full maintenance of BMW's demanding design also in the us of aluminium. And last but not least, the window frames, through their stable shape and design, not only look slender and almost filigree, but also increase the flow of light into the interior.

#### Exemplary protection of the car's occupants on all seats.

High-load-bearing carrier structures, generously and exactly defined deformation zones as well as highly efficient restraint systems coordinated by high-performance electronic management units set the foundation for the high standard of passive safety in the new BMW 7 Series.

Forces generated in a head-on collision are diverted along several load paths in the floor pan, the side frame, the bulkhead and in the roof, absorbed in the deformation zones and thus kept away from the passenger cell.

The carrier structures required to convey such forces and loads are built largely of multi-phase and heat-moulded steel.

At the front the BMW 7 Series comes with a second bumper system on the same level as the axle, spreading out impact forces in a frontal collision even better across the front section of the car. In the event of a side-on collision deformation depth and the rate of intrusion are efficiently reduced by reinforced structures in the B-pillars and the side-sills, high-strength door reinforcements and stable seat crossbars.

#### Highly effective restraint systems.

Within the new BMW 7 Series, frontal and hip/thorax airbags interact perfectly with curtain head airbags at the side on both rows of seats, naturally all fitted as standard.

Depending on the type and severity of a collision, integrated safety electronics vary the restraint effect and the point at which the airbags are activated. Among other things, this means that airbags not required are not used in the first place, but nevertheless remain available for a possible secondary collision.

Featuring a gas generator operating in two stages, the frontal airbags are activated with varying intensity, depending on the severity of the accident. All seats in the saloon are equipped with three-point inertia-reel seat belts. The restraint systems come complete with belt force limiters, as well as a belt-tensioning function on the front seats.

To protect the occupants from cervical spine injury in the event of a collision from behind, the front seats come as standard with crash-activated headrests. This high-tech system masterminded by the car's safety electronics ensures that in the event of a collision the front section of the headrest will move forward within fractions of a second by up to 60 millimetres or almost 2.4" and up by up to 40 millimetres or almost 1.6".

This reduces the gap between the headrest and the occupant's head before the occupant is thrown back by the force acting on the car. The big advantage is that the headrest offers an even

better stabilising and safety function, reducing the risk of injury or extension of the occupant's cervical spine.

ISOFIX child seat fastenings come as standard on the rear seats and all restraint systems are masterminded by central safety electronics.

The safety steering column in the new BMW 7 Series, in turn, features a load-dependent deformation element and an extra-large telescopic section to effectively protect the driver from collision forces from the engine compartment.

#### Just in case:

#### **Emergency Call with automatic car locating function.**

The BMW ConnectedDrive Enhanced Emergency Call function as part of the optional BMW Assist telematics service makes sure that in the event of a collision the rescue service will be informed in detail on the type of collision and the risk of injury involved before even arriving at the scene of the accident. This allows them to prepare appropriate medical treatment and support of the individuals involved in good time.

The information provided by the Enhanced Emergency Call with automatic location of the car going straight to the BMW Call Center specifies not only the exact scene of the accident and the mobile telephone number attached to the car, but also the

chassis number, the type of car and its colour as well as data provided by the car's sensors on the type and intensity of the collision.

The data transmitted includes information as to whether all restraint systems in the car have been activated or not, the occupancy of the car and the belt status on the front seats. In addition, the data provided allows the BMW Call Center to determine whether the car has been involved in a head-on, a rear-end, a side-on or a multiple collision, even determining whether the car has rolled over. Apart from being automatically activated, the Emergency Call function may also be manually activated by the driver or front passenger then immediately connected with the BMW Call Center.

#### **Even better then before: Adaptive Brake Lights.**

To avoid collisions from the rear, the new BMW 7 Series comes complete with a warning system for motorists following the car from behind. This is indeed a further improved version of the Adaptive Brake Lights introduced by BMW as the world's first car maker.

Whenever the driver applies the brakes particularly hard with ABS intervening, motorists following from behind are urged to also brake hard due to the greater intensity of the brake signal coming on at the rear of the BMW 7 Series.

With other manufacturers introducing similar systems in the meantime and therefore following in BMW's footsteps, lawmakers have passed appropriate legislation on Adaptive Brake Lights. Applying these rules, the more intense brake signal on the new BMW 7 Series is now generated by the brake lights brightly flashing on and off. And whenever the driver has applied the brakes particularly hard, bringing the car to a standstill, the hazard warning flashers are activated automatically.



## Optimum visibility: bi-xenon headlights featured as standard.

The dual bi-xenon headlights in the BMW 7 Series not only guarantee perfect illumination of the road ahead in the dark, but also, through their corona rings, offer an attractive daytime headlight function enhancing the visibility of the car also from a greater distance.

The new BMW 7 Series comes as standard with a light sensor automatically activating the low-beam headlights as a function of ambient brightness. And yet another standard feature is the rain sensor registering the intensity of precipitation and automatically adjusting the speed and function of the windscreen wipers. The new BMW 7 Series is likewise fitted as standard with powerful

foglamps, while the optional High Beam Assistant provides additional comfort when driving at night. Depending on the distance from other vehicles approaching in the opposite direction or driving ahead of the car, as well as ambient brightness, the High Beam Assistant switches the high beam on and off automatically.

The Adaptive Headlights also available as an option serve to brightly illuminate the road ahead in bends and on winding roads. The headlights are swivelled in this case according to the position of the steering wheel, the yaw rate and the speed of the car. The Bending Light function is likewise integrated in the headlights, switching on an additional light beam when bending in order to illuminate the road ahead in the direction the driver is taking.

Featured for the first time in the new BMW 7 Series, adaptive headlight range control also considers the vertical contour of the road. When driving across a crest, through a tunnel or on a steep ramp, the light beam is therefore lowered or raised as required in order to provide optimum illumination of the road ahead without dazzling oncoming traffic.

Yet another feature of the Adaptive Headlights is variable light distribution for optimum illumination of the road also when driving straight ahead.

Operating as a function of road speed, this innovative light management system automatically increases the area covered by the lights by broadening the light beam. When driving with city lights at speeds of up to 50 km/h or 30 mph, for example,

variable light distribution spreads the headlights over a broader range for easier detection of objects at the left side of the road. In the motorway light mode, on the other hand, the driver's area of vision is extended further ahead by increasing headlight range and illuminating the left side more brightly.

Once the driver switches on the foglamps, variable light distribution spreads the lights over a broader range at speed of up to 70 km/h or 50 mph, brightening up the area directly in front of the car. And at higher speeds, finally, the system extends the headlight range in addition to the broader distribution of light.



# Features and Equipment: Individual Style in the Luxury Class.



- Most effective climate control, most innovative entertainment systems in the segment.
- Long-wheelbase BMW 7 Series setting a new standard in grand touring comfort.
- Unique the world over: Integrated Owner's Manual.

Luxury, comfort, style and elegance – all these features come out with particularly modern qualities in the new BMW 7 Series. Right from the start and even in standard trim, BMW's new Luxury Performance Saloon offers a truly impressive driving experience and exclusive long-distance grand touring comfort, particularly the BMW 750Li and the BMW 740Li setting new standards in this respect. With their wheelbase extended by 14 centimetres or 5.5", these special models offer all the extra space and comfort provided in this way to the passengers at

the rear, who also benefit from extra headroom in the interest of greater comfort. With its wide range of innovative equipment and accessories, the new BMW 7 Series may be further personalised for truly outstanding driving and grand touring pleasure. Numerous options on the air conditioning, entertainment and communication have been developed exclusively for the new BMW 7 Series. Indeed, a number of innovations such as unrestricted use of the internet in the car, the wide range of navigation functions, and the Integrated Owner's Manual are unique the world over even in the demanding segment of top-end luxury saloons.

### Automatic air conditioning: optimum well-being on all seats.

Even in standard trim, the new BMW 7 Series obviously offers excellent climate comfort and control. Automatic air conditioning, on the other hand, gives the occupants both front and rear an even higher standard of personal pleasure and enjoyment, allowing the driver and front passenger to set the temperature, air volume and distribution individually on the right- and left-hand side of the car to their personal wishes via a special control function on the climate control panel: Fully automatic control can therefore be adjusted to the occupants' individual preferences directly on the climate control panel in five levels of intensity. Simply by pressing a button, the driver furthermore has the option to transfer his own personal setting to all the other seats

in the car. The function buttons for optional seat heating are likewise integrated in the climate control panel.

Climate control in the new BMW 7 Series also excels through the unprecedented cooling effect quite unparalleled even in the luxury saloon segment from vents in the B-pillar, the auxiliary ventilation complete with its own timer function and direct operation, fresh air and air recirculation filtering, Automatic Air Recirculation, solar compensation as well as the use of residual heat for warming up the passenger compartment, features which all come as standard.

And as a feature exclusive to the new BMW 7 Series, BMW ConnectedDrive provides the option to control the auxiliary heating and ventilation from a distance through the user's mobile telephone. Four-zone automatic air conditioning available as an option allows individual control of air temperature, air volume and distribution also to the left and right on the rear seats. Further features of four-zone automatic air conditioning are the separate control unit at the rear end of the centre console and an additional electrical heater in the rear seat footwells.

At the front the centre air vent in the instrument panel offers a special comfort function with air flow varied infinitely to the driver's and passengers' personal wishes, ranging from a mild draught-free flow of air all the way to a very direct air flow for maximum cooling. The long-wheelbase BMW 7 Series equipped with four-zone automatic air conditioning comes with individually controlled roof vents supplied with air from a climate unit fitted

separately in the luggage compartment. Compared with conventional systems, this optimised air supply provides a particularly smooth and gentle flow of air, thus enhancing the four-zone automatic air conditioning to an even higher standard.

Optionally available climate comfort laminated glass serves for the first time in new BMW 7 Series to optimise the car's acoustic comfort. This is done by a noise control film between the two layers of laminated glass reducing noise entering the passenger compartment from outside.

### Seating comfort of the highest standard both front and rear.

As an option the new BMW 7 Series may be equipped with adjustable single seats at the rear adjusting flexibly to the occupants personal needs and preferences. Both the backrest angle and the position of the seats, as well as the headrests, are individually variable by means of control elements of the same kind as the control buttons for the front seats.

Like on the front seats, an optional memory function is also available at the rear, complete with a Reset button automatically moving the seat to its standard position, for example to conveniently attach a child seat. The front passenger's seat may be adjusted not only from the driver's position, but also from the

rear, again allowing the passenger sitting behind the front passenger to vary seating conditions and the space provided individually according to his personal preferences.



### Innovative seat ventilation and massage seats at the rear.

Active seats are available as an option for both the driver and front passenger, again helping to make even the longest distances more comfortable and relaxing. With the seat bottom being raised and lowered in regular intervals, the seat constantly mobilises the occupants' hip muscles and lumbar spine to prevent tension or fatigue. The progressive climate seats make long distances particularly pleasant and relaxing at the rear. Featuring special air fans, these seats feed cool air into the seat bottom and backrest through fine perforation in the surface, drawing the air required from the cool interior of the car. The system works quite independently of regional climate conditions, the climate seats even offering integrated temperature control to keep seat temperature to a consistent level and avoid any

undercooling of the occupants even on longer distances. The new BMW 7 Series is available with massage seats as a particular option for extra comfort and relaxation at the rear – for example in between business appointments or on long business trips. No less than twelve massage elements integrated in the backrest, moving up and down like in waves, smoothly relax the occupant's back muscles. Six rotation elements, in turn, relieve the occupant's muscles around the outer shoulder area, in the middle of the thorax, and around the lumbar spine. Rotation of the seat segments initially mobilises the right-hand side in the outer shoulder and lower lumbar area as well as the left-hand side in the middle of the occupant's thorax. The massage effect on the opposite side is generated periodically in an alternating process, a complete massage cycle lasting 64 seconds and being repeatable as often as the occupant wishes.

## Innovative contour sliding roof with an extra-large glass surface.

Available as an option, the contour sliding roof enhances driving pleasure in the new BMW 7 Series to an even higher level through the generous supply of sunshine and fresh air.

Measuring 60 x 92 centimetres or 2.36 x 3.62 inches, the glass surface gives the interior an even brighter and more generous look, while a contour flow along the front edge running parallel to the front edge of the roof optimises the look of the glass panel.

Within the interior the sliding roof merges homogeneously into the surrounding areas, the electrical opening and closing motor making the conventional grab handle superfluous. Both the glass sliding roof and the inner lining motor come with trap protection, and an innovative combined wind deflector optimises the acoustic efficiency of the contour roof. As a function of road speed, the deflector moves up when the sliding roof is open to a higher or lower level and is therefore able to effectively suppress the low-frequency "woom" sound at medium speeds and the high-frequency "hissing" noise at higher speeds.

The long-wheelbase version of the BMW 7 Series comes with two illuminated vanity mirrors as standard features in the roof lining. Positioned at exactly the right point for the left- and right-hand rear seats, the mirrors automatically tilt down as soon as the occupant pushes a button.

### Moody interior illumination with light conductor units.

The light rods in the door openers, door panels, map pockets and door linings featured for the first time in a production BMW as part of the interior illumination create highly effective and very attractive highlights within the interior. A new feature is the smooth and consistent flow of light from the light beams refracted by a prism structure. This ambient illumination available as an option bathes parts of the surfaces in a soft glow, such harmonious illumination not only providing clearer orientation within the interior, but also upgrading the sophisticated character of the car. At night this discreet ambient illumination helps to prevent fatigue and at the same time accentuates the sophisticated ambience of the interior.

## Hard disc memory for audio files and the navigation system.

To make use of the audio and navigation systems particularly convenient and relaxing, the new BMW 7 Series comes as standard with a hard disc memory. Offering capacity of 80 GB, this highly efficient memory allows exceptionally quick access to the digitalised navigation maps and may also be used for a comprehensive collection of music files.

The system enables the user to download music files from a CD, an MP3 player or a USB stick to the hard disc. Music titles downloaded in this way are then readily available at all times while on the road, even if the CD itself is no longer in the car, giving the range of audio options on board the new

BMW 7 Series a new standard of diversity. One example is that via iDrive the user may access his personal music collection, a CD he has brought along, another external player, or the regular radio programme. The memory capacity available for the entertainment server in the car is 12 GB, sufficient for approximately 200 music CDs.

The individual music titles including information on the artist and the title itself are saved in the car's own database and are therefore easy to find via alphabetical lists in the audio system's iDrive menu. And should data on the title and the artist of a downloaded CD not yet be readable on the car's database, the data required may be downloaded free-of-charge into the car by means of BMW ConnectedDrive via the mobile communication card installed in the car itself.

The audio system in the new BMW 7 Series comes as standard with a DVD player, and AUX-in and a USB port. A six-DVD changer, a TV module and a receiver for DAB Digital Audio Broadcasting are all available as options, use of two DAB tuners as a unique feature in the world of motoring ensuring consistent reception quality at all times, allowing the user to receive both the audio programme and digital traffic news broadcast by the same station in parallel, that is at the same time. And as soon as the car leaves the reception area of a DVD station, the system automatically switches over to the reception of analogue FM signals from the station chosen.

### Diversity of programmes, high-end quality sound.

The availability of multi-channel audio formats ensures additional audio pleasure on the optional HiFi system Professional.

The multi-channel audio system generates a fascinating multi-dimensional sound effect enhanced to an even higher standard as an option in the new BMW Series by the BMW Individual High-End audio system.

In this case no less than 16 high-performance loudspeakers with neodym magnetic drive and extremely stiff hexacone membranes, a digital nine-channel amplifier with 825 W maximum output and precisely operating frequency switches, guarantees incomparable quality of sound. A feature absolutely unique in the world of motoring is Dirac Live technology

processing the signals received, correcting the impulse response of the loudspeakers and thus ensuring linear, time-scaled playback within the car.

### Setting new standards in rear seat entertainment.

The entertainment systems available in the new BMW 7 Series on the rear seats likewise set new standards in terms of comfortable and enjoyable motoring. Two screens integrated in the front seats backrests, two headphone and two AUX-in ports as well as a DVD player all come as standard, allowing the passengers to connect external audios and video systems as well as game consoles. All audio and video facilities fitted in the car may be activated and used from the front seats, the standard Rear Seat Entertainment system enabling passengers to control entertainment programmes by remote operation, with the programmes presented on each of the two 8-inch large monitors operating separately of one another through the respective AUX-in bush.



The Rear Seat Entertainment Professional system comes with even larger 9.2-inch monitors and features an additional Controller on the rear centre console. This special feature offers the same functions as the Controller on the front centre console, also allowing passengers to operate and control the navigation systems and telephone functions. Hence, the rear-seat passengers may surf the net while driving, without the sites selected being presented on the front display.

Passengers riding in the new BMW 7 Series do not even have to forego their favourite TV programme while travelling: Both the Control Display and the screens at the rear, when equipped with the optional TV module, are able to receive television programmes in the analogue and digital mode, with only the sound (and not the picture) being available at the front while

driving for reasons of safety. The control functions for the TV module are the same for the driver and front passenger and at the rear. The integrated Electronic Programme Guide offering helpful and interesting information on current programmes and upcoming highlights adds further practical value. A further point is that the TV module is set up for the international PAL, SECAM, and NTSC standards as well as DVB-T and ISDB-T.

The infra-red stereo headsets also available as accessories offer perfect listening enjoyment. The most advanced Dual Channel Technology, in turn, guarantees high-quality data transmission. The headrests fold up into compact dimensions for convenient storage and come with their own on/off switch.

# Hands-free operation via your mobile phone including a knocking and call/wait consultation function, as well as a conference circuit.

The new mobile phone preparation kit complete with a Bluetooth interface ensures additional safety and outstanding comfort in using the telephone while driving. This function is activated safely and conveniently by switches in the multifunction steering wheel presenting not only the telephone directory saved in the mobile phone itself, but also call lists in the instrument cluster. A new feature of the system is its ability to support parallel calls through the knocking, call/wait (consultation) and conference call functions. The only requirement is to have a mobile telephone supporting the various functions the driver and passengers wish to use.

Should another call come in while the user is on the line, he may maintain the original connection, accept the second call and subsequently return to the first caller. The call/wait (consultation) function also allows a multiple changeover among both parties on the line. And last but not least, the conference menu function presented in the instrument cluster even enables the driver to connect the two external callers in a three-caller conference.

Connections to the user's mobile phone via Bluetooth are always made automatically once the user has registered his mobile phone in the on-board computer. Up to four mobile phones may indeed be integrated in the system in this way, each with their own profile. In each case the mobile phone currently used is connected to the hands-free operation function and the car's aerial, receiving the necessary power supply and being

controlled via iDrive. Snap-in adapters are at the user's disposal for numerous commercially available mobile phones.

Two separate microphones for the driver and front passenger ensure optimum voice quality as well as additional comfort and safety on the mobile phone preparation kit complete with a Bluetooth interface.

## Fully-integrated use of the Apple iPhone and other smartphones.

As yet a further feature, there is also a snap-in adapter developed especially for the fully-integrated operation of smartphones with an MP3 function including a USB port. This option enables the driver and passengers to use both the communication and the entertainment functions of the appropriate mobile phone, controlling the operations required via iDrive.

Telephone numbers and music titles saved in the smartphone are presented in the car's Control Display. The driver is able to access both the telephone and the MP3 player function of the external device at any time.

This new interface is fully suited for integrating the Apple iPhone, Sony Ericsson K850i, and Nokia 6500c mobile phones.

Using the new mobile phone preparation kit, it is easier than ever before to transmit SMS text messages to the Control Display. In this case a pairing assistant connects the menu guidance on the terminals in order to present newly arriving messages with a letter symbol also on the car's display. The messages are then much easier to read and answer with the help of the menu guidance provided by the iDrive Controller.

## A world-first achievement: the Integrated Owner's Manual.

The wide range of innovative functions offered by the new BMW 7 Series in terms of electronics is rounded off by the owner's manual integrated in the car itself. Following the example of well-known computer programs, the Integrated Owner's Manual gives the driver information within seconds via iDrive on all the features and functions of his car.

Instructions for controlling the car are provided by animations with sound information and slide shows in a clear and easy-to-understand process. Short, striking texts and interactive graphics likewise enable the driver to quickly take up the information required.

Introducing the Integrated Owner's Manual, BMW is setting a new milestone in terms of comfortable access to information on board. BMW is the first car maker to offer the customer an information system providing helpful instructions and data as part of the car's on-board electronics in written form, through sound messages, and in pictures.

The Integrated Owner's Manual is tailored to the car and also considers options and special equipment chosen specifically by the driver. Various access routes – short instructions, picture search, key word search, and context access – allow appropriate, individual retrieval of all the information required. Particularly important information may even be saved under the freely available favourite buttons, as is also the case with the reading markers of a browser on the computer.

Complete integration of the owner's manual in the car ensures permanent and rapid access to the data required at any time and also serves to update the car's documentation and records over the years during the period of ownership by the customer. Hence, this highly innovative feature supplementing the printed Owner's Manual and coming as standard once again confirms BMW's strategy of the self-explanatory car clearly pointing into the future.

## Sophisticated trim: controls made of ceramics and nappa leather on the instrument panel.

The wide range of interior colours, trim bars and seat upholstery available enables the customer to further individualise his or her car in line with his personal taste and preferences. An appropriate combination of colours and materials serves to highlight either the classic, the sporting, the elegant, or the prestigious character of BMW's new Luxury Saloon. The decorative bracket with its fine wooden grain finish on the gear selector lever looks particularly stylish and sophisticated, perfectly matching the Fineline special finish trim with its high-gloss surfaces.

In addition to the new chrome highlight stripes on the lower edge of the trim bars now featured as standard, BMW's new



Luxury Performance Saloon for the first time comes with ceramics as a high-tech material on various controls and switches.

Replacing the usual galvanised metal, a ceramic finish is available as an option on the iDrive Controller, the electronic gear selector lever, and the rotary knobs for both the automatic air conditioning and the audio system.

Nappa leather is also available as an option on the instrument panel, further accentuating the exclusive look and outstanding quality of finish of the interior. And last but certainly not least, the new BMW 7 Series comes with a range of no less than twelve paintwork colours.

## Providing an extra touch of sportiness and elegance: special wheel styling.

Six optional light-alloy rims provide individual design highlights combining dynamics with elegance.

These include highly attractive 21-inch cross-spoke wheels available in Silver and Ferric Grey, dynamic star-spoke rims in Silver and Chrome likewise measuring 21 inches, and two extrasporting double-spoke rims, again in Silver, available in either 21- or 20-inch configuration.

Mudguards for the wheel arches are available for all sizes of wheels, ensuring that the body of the BMW 7 Series is not in any way impaired by dust or mud from the road. Snow chains



from BMW's wide range of Original Accessories furthermore ensure optimum grip on snowbound roads, in all cases perfectly matching the wide range of wheels.

### Theft-proof roof luggage rack and all-electric towbar.

While the roof rack fits conveniently and comfortably on to the roof without requiring any tools, it is nevertheless protected safely from theft by an intelligent locking system.

The robust roof rack has a load capacity of up to 100 kilos and meets BMW's high safety standards in full in terms of accident safety, ease of use, and a long service life. Fitting the roof rack takes just 30 minutes.

The new BMW 7 Series is also available with an optimised towbar as special equipment. With the towbar being fully hooked up to the car's on-board system, the Towbar Stability Control included in DSC Dynamic Stability Control is automatically

activated once the towbar is connected. A further strong point is that the towbar may be fully extended and drawn back by a switch in the luggage compartment, taking the place of the old system where the towbar was extended and drawn back by hand, with the risk of getting dirty in the process.

## Paint protection film preserving the car's outer surfaces and lasting beauty.

Various paint protection films are available as exclusive features on the new BMW 7 Series, protecting the Saloon both at the front and on the rear bumper as well as around the loading edge from scratches, parking damage or negative environmental effects. This solution obviously gives the car an even longer service life, retaining all its beauty in the process.

A water-repellent car cover in glistening silver with a BMW logo above the engine compartment lid serves to protect the car all-round when parked outside of a garage. Indeed, this Car Cover Outdoor is also available as an accessory for the long-wheelbase version of the new BMW 7 Series.



Inside, a wide range of original BMW mats adds a touch of cosiness and beauty. The high-fluff Avenue footmats with their water-repellent high-tech materials and leather appliqués as well as a discreet BMW logo are available on all seats. Three sets of rubber footmats – two in Black and one in Beige – round off the range. And the range of mats available for the luggage compartment comprises not only an anti-slip mat, but also a precisely fitting moulded mat, a protection pan for the luggage compartment, and a reversible, two-sided mat.

The optional rear seat cover is ideal for protecting the car's upholstery in transporting smaller obstacles or when taking along animals on the rear seats. Extending from the front-seat headrests via the rear-seat surfaces all the way to the rear-seat headrests, the rear protection cover rises up at the side all the

way to the lower edge of the windows. Made of a pleasantly soft material, the cover is both dirt- and water-repellent, and does not emit any kind of smell or odour.

The enthusiast wishing to show his craftsmanship at any time will find everything he needs in the Original BMW Toolkit comprising spanners and screwdrivers, pincers, a cutter as well as further important tools readily available at all times for various jobs and repairs on the car.

### Exquisite highlights offered by BMW Individual.

Choosing various options from the wide range of BMW Individual, the driver of a BMW 7 Series is able to express his penchant for selected quality and exclusive style even more clearly and convincingly.

New BMW Individual Merino fine grain leather, for example, provides perfect harmony of know-how in production and the most luxurious and stylish design. Being finished with utmost care, the leather always retains its natural open-pore structure, ensures a lasting active breasting effect, and offers supreme comfort. With its soft fine-grain surface, this particular kind of leather is unusually elegant and comes with a very pleasant surface touch.

Merino fine-grain leather is being introduced for the first time on the own BMW 7 Series and is available in full leather finish all round in the colours Graphite, Silk Grey, Champagne, Amaro Brown, Cohiba Brown, and Platinum. Compared with other types of leather, the leather from BMW Individual stands out through particular quality of design expressed not just by the material and colour, but also by different seams and sewing patterns on the seats, the instrument panel, and the door linings.

Matching the leather colours, the BMW Individual alcantara roof lining now also comes in an even wider range of colours featuring Anthracite, Silk Grey, Champagne, Amaro Brown, and Platinum. The sophisticated style of the roof lining is further enhanced by leather finish on the A, B, and C-pillars. And last but not least, the interior exudes particular style and generosity

through the special finish of the roof pillars, roof lining, floor covers and footmats kept consistently in Champagne.

Fine-grain, honey-coloured trim strips in Satin Walnut Brown as well as reddish-brown plane wood add a further touch of exclusive comfort, while the Black Piano paint variant gives additional flair and style to the pure elegance of the BMW 7 Series Saloon. And in both cases the BMW Individual leather steering wheel with its matching wooden ring inlay adds the final touch of style.

Citrin Black in Xirallic technology is a new colour in the wide range of BMW Individual paintwork. In this case special effect pigments are produced in an elaborate crystallisation process for the car's sophisticated paintwork, shimmering like gold in



the sun and providing an ideal combination with the interior finished in Champagne.

Four further metallic exterior colours likewise serve to meet the greatest demands in terms of aesthetic looks, including Azurite Black, Ruby Black and Moonstone, as well as Ontario Gold available as an option.

Yet a further highlight in the wide range of BMW Individual features is the newly developed, fully integrated cooling box optimised in terms of both size and practical use. The cooling box offers ample capacity for two 0.7-litre bottles and two 0.33-litre beverage cans. The new, extendable drawer facilitates access to the bottles and cans stored in the cooling box and holds the contents in position to prevent any rattling noise

possibly caused while driving. New 20-inch BMW Individual light-alloy wheels in V-spoke design round off the magnificent look of the car personalised to the customer's individual taste.

Indeed, the wide range of offers from BMW Individual clearly confirms the highest conceivable standard of customer orientation all-round, combining the safety and maturity of the production model with the incomparable appeal of a truly unique, one-off masterpiece.



## BMW ConnectedDrive: A Complete Network for Extra Safety and Comfort.



- World debut of unrestricted internet services in the car.
- BMW Assist with Enhanced Emergency Call for rapid help in the case of an accident.
- Innovative remote control functions: locking and unlocking the car and programming the auxiliary air conditioning by your mobile phone.

The new BMW 7 Series sets another milestone also in the development of the most advanced telematics services. Offered in the context of BMW ConnectedDrive, these services are becoming even more diverse and functional than ever before in the new 7 Series.

Networking the car with its environment, BMW ConnectedDrive offers new options guite unique even in the luxury performance

segment in enhancing both comfort and driving safety on the road. Particularly unrestricted use of the internet in the car offered by BMW ConnectedDrive, the Enhanced Emergency Call function and remote control sets new standards in the telematics services featured by the BMW 7 Series in terms of functional benefits and orientation to the user.

Preparing and conditioning information and ensuring appropriate communication with the outside world, BMW ConnectedDrive supports the driver under all kinds of driving conditions. It connects the automobile as a whole with the surroundings and traffic conditions in order to offer the driver as much information as necessary and desired at all times, naturally tailored individually to his requirements and with maximum ergonomics. BMW has already been applying this principle of communication for a

number of years and has gained substantial experience as a premium car manufacturer in the process, thus ranking right at the top in providing telematics services.

In 1994 BMW became the first car maker in Europe – on one of the predecessors to the new BMW 7 Series – to introduce the navigation system, thus supplying data from outside the car directly to the driver.

This was indeed one of the first milestones in the development of BMW ConnectedDrive.

While, prior to that time, the driver was responsible for bringing together his own activities, the car and the environment, and therefore had to rely exclusively on his individual flexibility,

BMW ConnectedDrive now, through its technical options in the area of telematics, relieves the driver most significantly of all such chores.

## Unique diversity of functions: BMW Online, BMW Assist, BMW TeleServices and BMW Tracking.

To cater for all kinds of needs and requirements, BMW ConnectedDrive offers exactly the right services as a dynamic concept in every respect.

The ongoing development of services allows an increasingly higher standard of mobility and information, BMW ConnectedDrive thus now comprising BMW Online, BMW Assist, BMW TeleServices and BMW Tracking which, combined in an appropriate way for each country and all national requirements, come in both the new BMW 7 Series and in other BMW models.

### World debut of unrestricted internet use in the car.

BMW is the world's first car maker to allow unrestricted use of the internet in the car. Access to the internet is therefore available in the new BMW 7 Series as an option at attractive flat rate terms. Data transmission is based on EDGE technology (Enhanced Data Rates for GSM Evolution) which, contrary to UMTS third-generation transmission, is available nationwide and is three to four times faster than the GPRS mobile communication standard. The foundation for unrestricted use of the internet in the car is provided by iDrive now developed to an even higher standard than before. In its function, the Controller is similar to a conventional computer mouse, the Control Display presenting internet sites with a high standard of resolution. Pushing down the Controller is the same as clicking the mouse

on the PC, allowing the user to choose either links or individual items on the menu. And to directly enter a URL in the browser's address field, the user has a circular Speller similar to the selection of letters in making entries into the navigation system. Turning the Controller, the user is able to scroll up and down the internet site he has chosen as he wishes. An additional faction then allows him to enlarge specific parts of the screen in order to highlight individual details. Presentation of internet sites on the Control Display is only possible with the car at a standstill for reasons of safety – as is the use of the TV or DVD function. In conjunction with the new Rear Seat Entertainment System Professional now available in the new BMW 7 Series, passengers at the rear may also use the internet function while driving.

## BMW Online: Full availability of all the information you need wherever you go.

Introducing the internet in the car, BMW is once again pioneering the intelligent connection of the driver, the car itself and the surroundings, consistently upgrading the existing range of internet-based services in the concept of BMW Online.

This service introduced in the predecessor to the new BMW 7 Series for the first time in 2001, through its deep integration in the car's electronics, remains absolutely unique and unparalleled in the market.

BMW Online allows the driver to access an internet-based portal supporting him in the process of specifically compiling a list of

exclusive mobility information, services and office functions directly in the car, tailored in each case to his personal requirements and national conditions.

BMW Online offers the latest news – top news from all over the world, from business and the stock exchange, sports, weather reports and, in specific seasons, also in skiing areas including the snow height, freezing temperature forecasts and driving weather for motoring with the roof down as well as parking space information, Map on Mobile, travel, restaurant and hotel guide functions. Google directory services and office functions such as the reception and transmission of e-mails as well as an address directory are also available for unrestricted use.

### Fast orientation also by mobile phone.

Using the Map on Mobile service, BMW Online is able to connect the car also with the driver's mobile phone, giving him the option to "inform" his mobile phone shortly before leaving the car of the car's current location. Then, using his mobile phone, the driver is able to call up the appropriate section of a road map from the BMW portal serving to provide better orientation to where he is going. The current location of the car and the driver's destinations are both shown on the map, allowing the driver to reach his final destination even more quickly and conveniently on foot, straight from where the car is parked.

## BMW routes: experiencing all the beauty of a thrilling world.

Whether mountain passes, a tour along the coast or a trip around the lakes – the driver using BMW ConnectedDrive is now able to retrieve the most beautiful routes from BMW Online directly in the car at the touch of a button.

Then the navigation system will take the driver and his passengers along their selected route all the way to their final destination, useful and interesting information on the route and recommended intermediate times being presented on the map and in a text message, and naturally being updated in the course of the day. As an alternative the customer is of course also able, using the enhanced Internet Route Planner,

to enter his own personal route according to his individual preferences, then saving the route chosen and retrieving it later in the car.

### Information prepared specifically for the driver.

To ensure an optimum combination of information, safety and comfort, all online services are tailored specifically to the control functions within the car. BMW Online, for example, offers the news, business news, service and trade enquiries or the current weather conditions at the point of departure and arrival, all presented in key words and headlines and therefore clearly oriented towards the driver and his requirements. This allows the user to take up information quickly and precisely while driving, opting for further details whenever necessary or desired. As yet a further option, the BMW Online customer is able to enter individual reading marks in the internet through the BMW Online portal, his car then quickly retrieving such individual service and information required by the driver.

## BMW Assist: reaching your destination faster, more safely and more comfortably.

Offering comprehensive and user-oriented support in a wide range of situations before setting out, while on the road, and at the driver's destination, BMW ConnectedDrive gives the driver and his passengers everything they need through BMW Assist. The broad coverage of this service portfolio is tailored in each case to the country or region involved.

In all, BMW Assist comprises the Enhanced Emergency Call function with automatic location of the car, extended traffic information, a comprehensive Enquiry Service and the "My Info" interactive communication channel including the Send to Car function. And last but not least the new remote functions

integrated in BMW ConnectedDrive now also enable the user to lock and unlock the doors and pinpoint the precise location of the car by telephone anywhere the world over.

## Just in case: Enhanced Emergency Call with automatic locating function.

The Enhanced Emergency Call offered by BMW ConnectedDrive gives rescues services detailed information on the type of collision and the risk of injury in good time prior to arriving at the scene of an accident, enabling them to prepare the right kind of medical treatment for everybody involved.

To make this possible, the information transmitted to the BMW Call Center comprises not only the exactly location of the car as well as the mobile telephone number, chassis number, the type of car and its colour, but also the data compiled by sensors in the car providing information on the type and intensity

of a collision. As an example, this data registers the activation or non-activation of all restraint systems fitted in the car, as well as the occupancy and belt status on the front seats. The system is even able to recognise and distinguish between head-on, rear-end, side-on or multiple collisions, as well as a possible rollover.

Apart from automatic activation, the system enables the driver or front passenger to manually activate the Emergency Call function and set up a connection with the BMW Call Center right away.

The BMW Emergency Call function has already served to initiate rapid help and rescue services in more than 25,000 cases, even before being upgraded to its new standard.

## Avoiding traffic congestion: really simple with Verkehrsinfo plus.

A further service offered by BMW Assist is Verkehrsinfo plus (V-Info+). Using V-Info+, the driver receives more up-to-date, more detailed and more comprehensive information than through conventional traffic messages on the current situation along trunk and long-distance routes.

This service then forwards the latest traffic reports and information such as the length of traffic jams calculated automatically as well as delay times straight to the navigation system, which then offers the driver appropriate alternative routes.

### A helpful assistant: the Telephone Enquiry Service.

The Telephone Enquiry Service comprises more than 35 million entries from the directory and telephone service, also offering additional information such as restaurant gradings, pharmacy opening times, cinema listings and the latest flight information, as well as the possibility to book a hotel room. All this, therefore, is available from BMW Assist.

As soon as the driver selects the Enquiry Service menu item, he is connected with the BMW Call Center and at the same time his car automatically transmits its current location. As a result, the specialist at the Call Center is able to tailor the information provided to the exact location of the car. Yet a further special feature of the service is that addresses established by the Call

Center may be downloaded directly into the car. All the data transmitted is then forwarded straight into the navigation system merely by the driver pressing a button. Indeed, he is even able to call up telephone numbers downloaded into the car at the simple touch of a button for extra convenience.

## The interface to your PC: My Info and the Send to Car function.

The BMW "My Info" Assist Service offers the option to download complete address data files and short news through the driver's personal BMW Assist portal in the internet from his PC directly to the car itself.

Apart from the driver, this may also be done by another authorised person. "My Info" is supplemented by "Send to Car" functions, enabling the user to check out addresses on Google Maps in the internet and then download such addresses directly to the car. Then, after booking a hotel with the Hotel Reservation Service (HRS) in the internet, the address of the hotel booked may also be transmitted directly to the car.

### Remote functions for extra comfort and safety.

From now on, BMW ConnectedDrive offers the customer direct assistance via the BMW Call Center also in situations previously requiring a breakdown service. In Germany alone, breakdown services go out up to 7,000 times a year just to unlock cars locked by mistake. Now, instead of such time-consuming and pointless missions, the new remote control functions in BMW ConnectedDrive serve to do the same thing.

Should the keys to the car be in the locked luggage compartment or has the car been locked from inside by a young child, all the driver has to do in future is call the BMW Call Center. After the caller's identity has been clearly established, the car may then be unlocked from a distance.

Following the same, but opposite, procedure, an operator at the BMW Call Center may also lock the car, ensuring for the driver in hindsight that the car is properly locked when he fears he might have forgotten to do so, for example in a rush at the airport.

Remote control of the car's air conditioning is another function offered by this special service from BMW ConnectedDrive – and is exclusive to the new BMW 7 Series. So before setting out on the road, the driver is able to set the right temperature inside the car for a pleasant ride simply by making a short telephone call.

#### Across the border: BMW Assist services also abroad.

BMW drivers in Germany are able to use all the services provided by BMW Assist such as country-specific travel information, an Emergency Call function and breakdown assistance in the German language also in Austria, Italy, France and Switzerland. Vice versa, BMW drivers from Italy travelling, for example, to Germany have the same benefits..

This cross-border service will be expanded in the years to come to include other European countries. And even today BMW Online offers a high standard of convenience, enabling the driver to use his own language in no less than nine European countries. The use of BMW Online and BMW Assist including the option to call a BMW Call Center is free of charge,

depending on the navigation system chosen, for a period of up to three years. Following such free use of the service, the driver is then required to pay a non-recurring fee – like a flat rate – of Euro 250 a year.

### BMW TeleServices: intelligently networking the car and BMW Service.

BMW TeleServices currently distinguish between three different service options: the Automatic BMW TeleService Call, the Manual BMW TeleService Call, and BMW TeleService Diagnosis including BMW TeleService Assistance. Customers using BMW Assist are able to do so through the telephone integrated in the car itself and are therefore not subject to any other costs or expenditure.

The Automatic BMW TeleService Call allows the user to quickly and conveniently agree on, say, a date for servicing his car, without any additional effort: Working through BMW Condition Based Service (CBS), a unique on-board diagnosis system, the

car automatically determines the type of service required and the date. So as soon as the car's sensors detect the need for service, for example filling up a fluid such as engine oil or renewing components subject to wear and tear such as the brake linings, the car will automatically make an Automatic BMW TeleService Call, transferring data relevant to service to the responsible BMW Service Partner.

The Automatic BMW TeleService Call is already available in most markets where the new BMW 7 Series is on sale.

Apart from automatically preparing service dates, the Manual BMW TeleService Call also provides the technical conditions required for actively contacting the customer through his BMW Service Partner directly from the car. This provides the possibility to arrange a personal service date, for example to

change the car's tyres. And again, the Manual BMW TeleService Call is available in a large number of markets. Even in the exceptional case of a breakdown, BMW TeleServices offers everything required to keep any annoyance or technical problems to the absolute minimum.

In the case of electronic malfunctions, for example, BMW TeleService Diagnosis is able to transmit defect codes directly to the BMW Breakdown Service. So if the cause of the problem can be solved by re-setting the software in the appropriate control unit, a command may be transmitted via the BMW TeleService Assistance function straight from the BMW Breakdown Assistance Center directly to the car. Diagnosing and troubleshooting such a malfunction from a distance is conducted only at the express request of the

customer after activating both the TeleService Diagnosis function and TeleService Assistance via the iDrive control system in his car. In addition, the data transmitted to the car will not be downloaded until the driver confirms receipt of the data by pressing the "Accept Teleservice Assistance?" telltale in the Control Display.

### **BMW Tracking:**

to make sure that theft does not turn into permanent loss.

Currently available only in Italy, BMW Tracking makes it possible to find and recover a stolen car. A tracking module hidden in the car for this purpose is activated after the car has been stolen and transmits the car's current location in regular intervals.

The big advantage is that, first, a stolen BMW can be traced and found more quickly and, second, that Italian insurers grant a high discount on their premiums for cars fitted with a BMW Tracking Module. In the USA and Canada a similar function is integrated in BMW Assist under the name Stolen Vehicle Recovery as a separate service.



# **Production: Efficient Production Meets Precise Craftsmanship.**



- Lower weight thanks to innovative production technologies.
- Artificial intelligence optimising quality inspections.
- BMW Plant Dingolfing receives the Best Factory 2008 Award.

The new BMW 7 Series is built in Dingolfing, about 110 km north-east of Munich, at BMW's largest plant worldwide. Plant Dingolfing has been part of the global BMW production network now made up of 23 production plants in 12 countries since 1967. Numerous prizes and awards confirm the supreme standard offered by this high-tech production facility in Lower Bavaria.

To set the foundation for lightweight construction of the new BMW 7 Series, BMW has once again made significant investments in Dingolfing in innovative production technologies. These enlarge the range of features for low-weight construction and allow the implementation of modern design requirements using aluminium, a material far more difficult to mould and process than steel.

Introducing the new BMW 7 Series, Plant Dingolfing is now building the fifth generation of this unique car. The other models built here are the BMW 6 Series and the 5 Series. In all, more than 7 million BMWs have been built in Dingolfing so far, clearly proving a convincing story of success over no less than 40 years.



### Innovative processing technologies for the new BMW 7 Series.

Special processing technologies have been developed exclusively for the new BMW 7 Series, such as the combination of an aluminium roof and a steel bodyshell now to be seen for the first time in large-scale production.

To optimise the rustproofing qualities required in such a case, the roof structure is fastened to the body by means of an innovative high-tech glue, and is not riveted in position.

This joining technology using a newly patented generation of glue not available for large-scale production before ensures not only greater strength, but also a high standard of flexibility under thermal extension. The BMW 7 Series benefits from this solution on the roof alone by a reduction in weight of approximately 7 kg. And with the car's centre of gravity being lowered accordingly, the lighter roof also makes a significant contribution to greater agility on the road.

The doors on the new BMW 7 Series are likewise made of aluminium, for which purpose BMW has developed the optimum solution for series production in terms of both technology, design and economic considerations: Each door body is made up of just two components and the intelligent, power-transmitting shell structure ensures maximum stiffness also around the window frames. The use of aluminium doors on a BMW production vehicle for the first time serves alone to reduce the weight of the car by another 22 kg. At the same time the new



aluminium processing technology also provides the foundation for fine modelling of sophisticated design features such as the character line in the side door of the new Saloon.

Apart from the roof and the doors, the engine compartment lid, the front side panels and the front spring struts on the body are all made of this extra-light material. In producing the low-weight front section BMW uses an intelligent combination of joining technologies – depending on the specific requirements and the load acting on the component, this may be gluing, riveting, MIG or laser welding.

#### New: artificial intelligence in support of supreme quality.

Permanently optimised quality management including numerous function and reliability tests used in all areas of production guarantees fulfilment of BMW's strictest quality standards.

A new feature in production of the BMW 7 Series is the use of artificial intelligence in assuring the quality of the car's cutting-edge on-board electronics.

Electronic troubleshooting facilitates the process of finding possible defects within a large range of data. Accordingly, automated examination of individual details makes an important contribution to greater efficiency in production and to the unique premium quality of BMW cars.





## Modular strategy in support of customer-oriented production.

A sophisticated system – BMW's Customer-Oriented Sales and Production Process – ensures that each car is built exactly on time and, in particular, in accordance with the customer's personal wishes. This is made possible, among other things, by flexible production based on highly developed logistics and very efficient processes. Particularly the production processes on the assembly line benefit from the use of pre-assembled modules supplied in completely built-up form to the line. One example is the complete front-end construction delivered as one module just-in-sequence to the production line for maximum efficiency, significantly reducing the operations required on the line itself. The body-in-white of the various models is built in any random

sequence and combination according to the data provided by production control. In conjunction with the delivery of complete modules to the assembly line, this allows highly flexible and very lean production, reducing the space required for storage to a minimum. At the same time the BMW Plant is able to respond quickly to customer wishes and make any changes possibly required.

Contrary to the largely automated processes in the Press Shop, Bodyshop and Paintshop, the human being remains the focal point in the assembly process. For the human being is able to work in almost 30 directions (so-called "motion axes") with his hands, as opposed to even the most sophisticated industrial robot able to handle a maximum of just seven different motions.



### Supreme competence in lightweight aluminium construction.

The BMW Group's Aluminium Competence Centre is also located in Dingolfing, providing research findings and conducting innovative developments to the benefit of all BMW Group brands.

This is one of the reasons why Plant Dingolfing is able to supply the aluminium bodies for Rolls-Royce. And now the large share of aluminium in the body components of the new BMW 7 Series calls for even greater use of the outstanding competence of the experts in Dingolfing also on this new model.

### A plant rich in tradition, setting the standard for efficiency and quality.

With its workforce of approximately 20,000 associates, Plant Dingolfing, BMW's largest plant worldwide, builds some 1,300 cars each working day. In a comparison of performance and efficiency, this plant so rich in tradition stands out through supreme quality and efficiency of the highest level. Precisely this is why the Suspension and Drivetrain Components Division of the BMW Group in Dingolfing just recently won the industrial contest "Best Factory/Industrial Excellence Award 2008", making BMW the first car manufacturer to win this European award introduced in 2002. This special award convincingly honours the excellent production management to the admired at the most productive car plant in Europe. And to make this





judgment, not only the operative units themselves, but rather all processes along the complete production and logistics chain were assessed accordingly – all the way from the original supplier to the final customer.

Apart from winning the Bavarian Quality Award in 2003, the Suspension and Drivetrain Components Division was the first operating unit in the entire automotive industry to win the most important German award for corporate quality, the Ludwig Erhard Prize, in November 2005. In 2006 the plant also won the European Quality Award, the highest European award for all-round corporate excellence.

The Suspension and Drivetrain Components Division in Dingolfing, forming part of the BMW Group's worldwide

production network, has become the Competence Centre for Suspension and Final Drive Technology within the entire BMW network. So the components built here go to all BMW car production plants in both Germany and abroad.



### History: Moving to the Top with Elegance and Dynamism.



- BMW well-represented in the luxury performance class for 70 years.
- BMW 7 Series: the spearhead in innovation entering its fifth generation.
- Setting the standard in design, control and drivetrain technology.

The new BMW 7 Series is entering the market as BMW's fifth generation of Luxury Saloons, set to establish new benchmarks in terms of sporting elegance, supreme driving pleasure, and exclusive grand touring comfort.

Right from the start, the first BMW 7 Series launched in 1977 became a symbol of driving dynamics and innovation in this demanding segment. But the tradition of the BMW brand in the

luxury performance class goes back a lot further – no less than 70 years have passed since BMW's first entry into this particularly exclusive market. It was back then in 1938 that BMW presented a prototype of the BMW 335 at the London Motor Show, production of this trendsetting car starting just one year later.

This prestige saloon thus marks the entry of the BMW brand into the luxury range, the new BMW 7 Series thus following in the footsteps of forefathers such as the "Baroque Angel" in the 1950s and the Large Model Series in the 1960s and 1970s. Trendsetting innovations are the most important features shared in common by all of BMW's Luxury Performance Saloons offered over the years – developed with the objective to make travelling in the car a particularly convincing and dynamic



experience. Right from the start, the BMW 335 received maximum recognition for its outstanding qualities as a fast and comfortable grand tourer.

At the time BMW, still a young company, already had an outstanding reputation for the construction of six-cylinder power units, hitting the headlines with the BMW 328 sports racer and once and for all gaining the status of a large-scale manufacturer through the successful BMW 326.

### 1939: the modern BMW 335 grand tourer marks BMW's entry into the luxury class.

The BMW 326 was also the car that set the design and constructional foundation for BMW's first Luxury Saloon. Still, the BMW 335 came with a longer suspension and chassis, a brandnew 3.5-litre straight-six developing maximum output of 90 hp, a torsion bar-sprung rear axle, powerful oil pressure brakes and wider tyres. And an exclusive innovation also introduced at the time was the all-synchromesh transmission. On account of the war, production of the BMW 335 ended in 1943 after completion of only 415 units. But even this small number of cars was sufficient to set the foundation for subsequent success in the luxury performance segment which came in 1951 when BMW presented the BMW 501 for the first time at the Frankfurt Motor Show.



1951: the "Baroque Angel" featuring innovative suspension technology and, in the guise of the BMW 502, the world's first light-alloy V8 power unit.

A prestige look, lots of space, and top-class materials within the interior shaped the character of the outstanding saloon which took BMW back into the luxury class in the early 1950s.

The BMW 501 soon to become known as the "Baroque Angel" on account of its sweeping body lines, clearly showed the far-reaching ambitions of both its owners and the company. Beneath the beautiful body was a proven drive concept and revolutionary suspension technology teaming up for the first time: The engine development specialists had substantially updated the straight-six power unit from the pre-war BMW 326,

the 2.0-litre power unit first developing maximum output of 65 hp and enhanced three years later to 72 hp. The innovative, unusually soft engine mounts, in turn, gave the BMW 501 truly phenomenal motoring smoothness and refinement.

The front stub axles of the BMW 501 each came on two wishbone arms running in needle bearings. This low-friction bearing technology ensured a particularly sensitive response of the suspension featuring a longitudinally arranged torsion bar.

The dampers rested at the outside on the lower wishbone arm and at the top on the upper track arm, separating them completely from the fully sprung body and avoiding the transmission of even the slightest noise.

At the rear torsion bars mounted on spring arms at the outside likewise provided the appropriate suspension damping. The dampers themselves were fitted at an angle between the spring arm and the frame.

In the middle of the rear axle the differential housing rested on yet another wishbone arm mounted at the bottom on rubber bearings in the frame of the car.

Featuring this kind of progressive technology, both the suspension and the drive comfort of the BMW 501 reached such a high level of perfection that motoring experts at the time waxed lyrical about the rear axle, calling it the "ultimate in the development of the live axle". In 1954 the BMW 502 with its 100 hp 2.6-litre power unit launched at the Geneva Motor Show

clearly proved the innovative power of BMW's engine development specialists. For beneath its sheet metal this new flagship in the range featured the first German eight-cylinder built after the war and, at the same time, the world's first light-alloy engine to enter standard production – a power unit which quite literally made critics reach for the stars: "BMW's new lightweight V8 may well be the best synthesis seen so far of automotive engineering this side and the other side of the great ocean" was how Motor Review described BMW's new Luxury Performance Saloon.

Several 3.2-litre versions of BMW's eight-cylinder were built as of 1955, with maximum output of up to 160 hp. In all, sales of the "Baroque Angel" amounted to almost 22,000 units by 1963.

### 1968: the Large Model Series combining comfort with sporting performance.

In the second half of the 1960s BMW set out for a new start, following the great success of the New Range, also in the luxury performance segment: In 1968 the company presented the Large Model Series featuring the BMW 2500 and BMW 2800 Saloons with their model designations relating to the size of the straight-six engines.

Offering maximum output of 150 and, respectively, 170 hp, the power units ensured superior performance on the road at all times, the BMW 2800 even entering the at the time very exclusive circle of production cars able to reach a top speed of over 200 km/h or 125 mph.

Innovative combustion chamber geometry ensured optimum combustion in the interest of extra power and a crankshaft running in seven bearings with twelve counterweights raised engine smoothness and refinement to an unprecedented level never seen before.

Reflecting this superior power, the suspension of the new saloons was likewise extremely sophisticated and advanced: Both models featured independent suspension and disc brakes on all four wheels, the BMW 2800 also boasting ride height control on the rear axle and a limited-slip differential.

Offering clear and stretched lines, the body of BMW's new Luxury Performance Saloons came with a successful combination of sportiness and elegance. The characteristic front end of the car with its dual headlights and the BMW double kidney grille inclined to the front gave the Large Model Series unmistakable presence on the road.

The interior was characterised by a sophisticated but at the same time sporting ambience, the newly designed cockpit dominated by large circular instruments presenting road and engine speed. An adjustable steering column, seats adjustable for height, headrests and inertia-reel seat belts all became standard features in 1973. And as of 1974 the long-wheelbase of this outstanding saloon offered additional comfort on the rear seats.

BMW introduced fuel injection in these Luxury Performance Saloons as early as in 1971. Hence, the straight-six power unit of the new BMW 3.0 Si now displacing 3.0 litres developed maximum output of 200 hp for even more superior performance. Yet another engine variant was the 3.3-litre six-cylinder launched in 1974 in the BMW 3.3 L.

After sales of approximately 200,000 units, the Large Model Series was replaced in 1977 by the BMW 7 Series.





## 1977: the first BMW 7 Series as the most sporting saloon in the luxury performance class.

The BMW 7 Series introduced in May 1977 took up the sporting character of the former model in even more elegant and superior style. As a particular sign of distinction now typical of the brand, the front end of the car was re-interpreted with dual round headlights, the BMW kidney grille and the engine compartment lid stretched even further to the front. The low-slung A-pillars, the engine and luggage compartment lids tapering out at a low angle, short overhangs front and rear and the low waistline highlighted the dynamic look of this outstanding saloon.

In its design, therefore, the first BMW 7 Series followed the example of the BMW 6 Series Coupé introduced just a year

before. Inside, the first BMW 7 Series was particularly comfortable and exclusive, the centre console facing towards the driver underlining the active character of the car. BMW's engineers also set new standards at the time in terms of suspension technology and safety. New features were the front wheels running on a double-joint spring strut axle, the small steering roll radius and anti-dive effect, as well as the closed shell structure of the final drive subframe far stiffer than on the former model and offering even better protection from corrosion. Like the other cars in the BMW range, the 7 Series came with a rollbar in the middle of the roof. Together with additional all-round reinforcements on the roof and strong load-bearing roof columns, this provided a very large and secure safety shell for optimum survival conditions within the passenger compartment even under extreme loads and forces.

To begin with customers had the choice of the 170-hp BMW 728, the 184-hp BMW 730, and the 197-hp BMW 733i. Right from the start the BMW 728 came with a wide range of standard features including the world's first electronic speedometer, power steering related to engine speed, a diagonal twin-circuit brake system, inner-vented brake discs at the front as well as a newly developed hydraulic brake servo, a laminated glass windscreen, steering column and seat height adjustment, as well as electrically adjustable exterior mirrors.

The BMW 730 was the first model in the range to feature BMW's new Check/Control, an electronic unit supervising the level of engine oil, brake fluid, cooling water and the water level in the screenwasher reservoir, the brake lights and rear lights, as well as brake pad thickness. Other standard features in the top

model were Bosch L-Jetronic fuel injection, the contact-free transistorised ignition, central locking, heat-insulating glass, and a leather steering wheel.

The demanding clientele in search of outstanding luxury performance cars were thrilled by the BMW 7 Series right from the start. Immediately after sales started in early summer 1977 demand for the new car was so great that Plant Dingolfing was hardly able to keep up in production, building almost 20,000 BMW 7 Series by the end of the year. This figure then increased in the first full year of production to 35,745 units and remained above 35,000 units each year also in the two years to come, making the BMW 7 Series more successful than any other BMW in this segment ever before.

### 1979: world debut of Digital Motor Electronics in the BMW 732i.

An even wider range of engines soon generated additional sales momentum, with BMW introducing fuel-efficient six-cylinder injection power units in 1979: The 184-hp BMW 728i replaced the former BMW 728 and BMW 730 and the BMW 733i was replaced by the BMW 732i boasting a world-first achievement – this was the first production car to feature Digital Motor Electronics optimising both fuel injection and the fuel/air mixture.

A sensor-based system, Digital Motor Electronics (DME), ensured a standard of running smoothness never seen before and also allowed the introduction of a very effective fuel supply switch-off function in overrun interrupting the supply of fuel even at city speeds as soon as the driver took his foot off the brake pedal. Clearly, this reduced both fuel consumption and emissions far more effectively than all conventional mechanical systems.

A new model now joining the range was the BMW 735i with its 3.5-litre 218-hp power unit already well known from the BMW 635CSi. The flagship, however, was the BMW 745i launched in 1980, driven by a 252-hp six-cylinder featuring an exhaust gas turbocharger and intercooler and providing a level of performance quite unparalleled in the saloon market.

Over and above Digital Motor Electronics, the first BMW 7 Series also offered further innovations in technology enriching the world of motoring: In 1980 BMW introduced the on-board

computer in the 7 Series and just two years later the BMW 7 Series became the first German car with engine electronics and an anti-knock sensor.

The first automatic transmission management perfectly matched to the car's engine electronics followed in 1983 and by the end of production in June 1986 total sales of the first BMW 7 Series amounted to no less than 285,029 units.

# 1986: the second BMW 7 Series – incomparably superior and featuring the first twelve-cylinder from Germany after the war.

With its beautiful and harmonious lines, sports driving behaviour and innovative suspension control systems, the second-generation BMW 7 Series made a glorious debut in 1986. At the front of the car the wide BMW kidney grille demonstrated powerful presence, at the rear L-shaped tail lights became a new symbol typical of the brand.

This was also the first BMW 7 Series to be built with a longwheelbase version 11.4 centimetres or 5.5" longer than the regular model, offering an appropriate increase in comfort at the rear. The most important technical innovations included ASC Automatic Stability Control complete with an electronic gas pedal and engine drag force control.

When entering the market the second-generation BMW 7 Series came with two engine variants: The straight-six power units in the BMW 730i and the BMW 735i developed maximum output of 145 kW/197 hp and, respectively, 162 kW/220 hp.

But just one year later BMW moved up a huge step, the BMW 750i introduced in 1987 becoming the first twelve-cylinder saloon built in Germany since the late 1930s.

The 5.0-litre V12 light-alloy engine boasted by BMW's new flagship featured separate fuel injection, ignition and catalyst systems on each row of cylinders. Despite outstanding



power of 220 kW/300 hp and maximum torque of 450 Newton-metres/332 lb-ft, this sporting Luxury Performance Saloon readily made do with regular fuel. And in accordance with the agreement made by German car makers, BMW restricted the top speed of the BMW 750i electronically to 250 km/h or 155 mph.

In 1992 two further model variants closed the gap between the six-cylinder versions and the top-of-the-range V12: Two eight-cylinders displacing 3.0 and, respectively, 4.0 litres offered excellent running smoothness, superior fuel economy and outstanding performance. The V8 in the new BMW 730i developed maximum output of 160 kW/218 hp, the even larger engine in the BMW 740i churning out an even more superior 210 kW/286 hp.

BMW's ATC Adaptive Transmission Control made its debut in the same year in the twelve-cylinder model, adjusting the gear selected to the driver's individual style of motoring and considering both road conditions and the current driving situation.

In addition, the second-generation BMW 7 Series was the first car in the world to feature a speed-related intermittent windscreen wiping function, automatic adjustment of the seat belts, dual-ellipsoid and xenon headlights, an automatic antidazzle function on the interior mirror, automatic air recirculation, Park Distance Control either as standard or as an option.

The second BMW 7 Series marked the top end of the brand's range for eight great years with worldwide deliveries during this period amounting to some 310,000 units.

### 1994: the third-generation BMW 7 Series offering trendsetting innovations in both safety and comfort.

Featuring almost the same exterior dimensions, a careful but highly attractive evolution in design and a wide range of new developments for enhanced motoring comfort and driving dynamics, the third generation of the BMW 7 Series continued the success of its predecessor as of 1994.

The lines of the car were now slimmer and even more elegant, dual headlights behind a glass cover accentuating the noble appearance of the new model. Inside, the new BMW 7 Series gave even greater emphasis to the car's superior comfort. When entering the market in 1994 the new 7 Series was available with two eight-cylinder power units in the BMW 730i and the

BMW 740i as well as the twelve-cylinder in the BMW 750i, each model also coming as a long-wheelbase version. The top engine was subsequently raised by BMW's development specialists to an even higher standard of perfection, increasing engine capacity of the V12 to 5.4 litres and boosting power to 240 kW/326 hp, and at the same time average fuel consumption of the BMW 750i was down 11 per cent versus the previous model.

New driving stability systems immediately made the third generation of the BMW 7 Series a trendsetter also in terms of active safety: In addition to anti-lock brakes, the eight-cylinder models were available as an option with ASC Automatic Stability Control, the BMW 750i being fitted as standard with DSC Dynamic Stability Control. The comfort features of the BMW 7 Series also

reached a new level of perfection, with the new model being the first production car to feature a firmly installed navigation system boasting a colour monitor also able to display other functions. Another unique feature was the electric comfort seats with additional adjustment options on the backrest.

The navigation system was enhanced by the introduction of voice control in 1998 and an integrated telephone was now also available. To increase the level of safety even further, finally, BMW equipped this outstanding Luxury Performance Saloon with up to eight airbags and Tyre Pressure Control (TPC).

## Luxury meets efficiency: the first diesel engine in the BMW 7 Series.

A new six-cylinder was added to the range of engines in 1995, developing 142 kW/193 hp in the new BMW 728i. Just one year later BMW presented a new generation of eight-cylinders with larger capacity and higher torque. At the same time the BMW 735i and the BMW 740i were even more fuel-efficient, an improvement attributable, among other things, to the map cooling system – an on-demand, variable engine cooling system – developed by BMW. In conjunction with the five-speed automatic transmission, all models in the BMW 7 Series were equipped from then on with Steptronic allowing not only fully automatic transmission management, but also an individual gearshift by hand.



The BMW 725tds likewise introduced in 1996 offered even greater economy in enjoying the driving comfort of a luxury saloon. The car's 2.5-litre six-cylinder developed maximum output of 105 kW/143 hp on average fuel consumption of 7.5 litres/100 kilometres, equal to 37.7 mpg imp. And at the same time the car's running smoothness was absolutely outstanding.

Equipped with ultra-modern Digital Diesel Electronics, the BMW 725tds was also the first diesel in the world to feature Automatic Stability & Traction Control. Indeed, it was this car which started the victorious entry of the diesel engine into the BMW 7 Series and the luxury performance segment as such. The second six-cylinder diesel to follow in 1998 was the BMW 730d with its 3.0 litre common-rail six-cylinder developing maximum output of 135 kW/184 hp.

In 1999 the BMW 740d then set the benchmark in this development process as the world's first saloon powered by a V8 diesel with common-rail fuel injection. Developing 180 kW/245 hp, this outstanding power unit gave the car a top speed of 242 km/h or 150 mph on average fuel consumption of 9.8 litres/100 kilometres, equal to 28.8 mpg imp.

The third generation of the BMW 7 Series, like its predecessors, again became a best seller in its segment accounting for worldwide sales of approximately 327,600 units up to the end of production.

# 2001: the fourth generation – the trendsetter in the luxury class.

Innovations for even greater comfort and safety, more power and unparalleled driving pleasure – all this came with the new BMW 7 Series in brand-new design: more comfortable, even smoother, and more individual.

The fourth-generation BMW 7 Series launched in 2001 was a new car from the ground up and at the same time an avantgarde interpretation of the classic product qualities characterising a genuine luxury saloon. Introducing this new model, BMW set new standards in many respects, generating new momentum in the entire world of motoring. This was attributable particularly to the innovative BMW iDrive control concept and specific

highlights of BMW's modern design language which, while initially leading to extreme opinions, soon left their mark forever on the premium segment of top-of-the-range saloons.

In addition to these outstanding features, superior drivetrain and suspension technology in conjunction with innovative driver assistance systems, new airbags and central safety electronics on the fourth-generation BMW 7 Series set a new benchmark in supremacy, comfort and occupant safety.

The introduction of brand-new eight-cylinder power units featuring infinite variation of valve timing (double-VANOS), valve lift (VALVETRONIC) and, for the first time worldwide, of intake manifold length, again set new standards in the luxury performance range in terms of both power and economy.

Fuel consumption of the new power units was 14 per cent lower, maximum output approximately 14 per cent higher than on the former engines. The first models to enter the market with this technology were the 200 kW/272 hp BMW 735i developing 360 Newton-metres/265 lb-ft maximum torque and the BMW 745i combining maximum output of 245 kW/333 hp with peak torque of 450 Nm/332 lb-ft.

Power was transmitted by the first six-speed automatic transmission ever fitted as standard in a production car worldwide. Operation of this highly efficient and compact transmission using integrated shift-by-wire technology was through an innovative selector lever on the steering wheel and, respectively, by Steptronic paddles on the steering wheel rim. To ensure driving dynamics and motoring comfort of the highest standard, the

BMW 7 Series came not only with a suspension made largely of aluminium and EDC Electronic Damper Control, but also with Dynamic Drive anti-roll stability. Using step motors on the anti-roll bars, this new development now also featured on other BMW models set off body roll of the car in bends, thus guaranteeing superior agility and stability in the BMW 7 Series at all times.

The absolute climax in the new model series came in January 2003 in the guise of the BMW 760i. This new top-of-the-range model proudly featured a twelve-cylinder power unit displacing 6.0 litres for maximum output of 327 kW/445 hp and peak torque of 600 Newton-metres/442 lb-ft.



# Clear, logical and trendsetting: the BMW iDrive control concept.

Introducing the new iDrive control concept masterminding the most important entertainment, telecommunication, navigation and comfort functions as well as various settings on the car, BMW once again set out a new approach throughout the entire car industry. For the first time this system was able to consistently separate the display and control elements, enabling the driver to use the respective features and functions with maximum flexibility.

The large number of individual switches and buttons used so far was replaced as the central control unit by the iDrive Controller perfectly positioned on the centre console for optimum ergonomics. Turning, pressing and tilting the Controller in a standardised process, the driver was now able to choose and activate the various functions provided by the operating menus. To present the status of each function and the appropriate menu options, the Control Display was integrated in the instrument panel right in the middle of the centre console and on the same level as the instrument cluster for optimum visibility also from the front passenger's side.

The Control Display served, for example, to present navigation maps as well as the choice of radio stations available or a list of telephone numbers.

For the first time this combination of the central Controller and the Control Display allowed largely intuitive control of numerous functions without requiring the driver to even look at the control unit, taking his eyes off the road for only a very short moment, if at all.

Introduced for the first time in the fourth-generation BMW 7 Series, iDrive has indeed fundamentally changed the common understanding and perception of ergonomically meaningful, versatile and user-friendly control elements. In the meantime other manufacturers have adopted the basic principle of BMW iDrive in their premium cars and today BMW uses iDrive tailored specifically to each model in nearly all segments and model series.

The innovative iDrive control system also allowed the introduction of unprecedented telematics services including

the BMW Online internet service presented for the first time in the fourth-generation BMW 7 Series. Forming part of BMW ConnectedDrive, this service for the first time enables the driver to access a mobile internet portal providing him with exclusive information and services tailored to his requirements. Right from the start, this new concept was far ahead of its time, offering an e-mail account, an address directory, yellow pages, a 3D view and various information services.

As of 2005, the BMW 7 Series was available with BMW Night Vision giving the driver significantly enhanced visibility at night. And BMW also became the first premium manufacturer in Europe to introduce the High-Beam Assistant on the 7 Series.



# The BMW 7 Series: the best-selling car worldwide in its segment.

Numerous international awards and sales records in the most important car markets clearly confirm the ongoing global success of the fourth-generation BMW 7 Series throughout its entire lifecycle. In 2004 BMW's flagship took over the top position in worldwide sales of luxury performance cars, with sales figures increasing once again just one year later to 50,062 units delivered to customers, making the BMW 7 Series once again the best-selling car in its segment.

Shortly thereafter the fourth generation became the most successful BMW 7 Series ever built, exceeding its predecessor's sales volume just 4  $^{1}$ / $_{2}$  years after entering the market.

This success was also attributable to the introduction of further particularly efficient and up-to-date power units: In autumn 2005 the long-wheelbase version of BMW's Luxury Saloon made its appearance at the Frankfurt Motor Show for the first time with a six-cylinder diesel engine in the guise of the BMW 730Ld. At the same time the eight-cylinder diesel version also became even more appealing, the new BMW 745d developing maximum output of 242 kW/330 hp and peak torque of 750 Newtonmetres/ 553 lb-ft to provide a significant increase in power and muscle.

#### BMW Hydrogen 7: the milestone in sustained mobility.

In autumn 2006 BMW became the world's first car maker to introduce a hydrogen-powered luxury saloon for everyday use based on the long-wheelbase version of the BMW 7 Series.

BMW Hydrogen 7 built in a small series of 100 units after being the first car of its kind to go through the complete production development process was presented to representatives of politics, business and society for use in everyday traffic.

So far these pioneers have covered more than two million kilometres in BMW Hydrogen 7 in Europe, the USA and other parts of the world. Such consistent, practical use of the Hydrogen Saloon clearly proves that this drive concept focusing on clean mobility without harmful emissions meets the requirements of everyday traffic and is therefore a realistic option for the future.

BMW Hydrogen 7 comes with a dual-mode twelve-cylinder combustion engine able to run on both hydrogen and conventional gasoline.

The engine develops maximum output of 191 kW/260 hp, accelerating BMW's Hydrogen Saloon to 100 km/h in 9.5 seconds, Top speed, in turn, is limited electronically to 230 km/h or 143 mph.

Thanks to its dual-mode engine concept, BMW Hydrogen 7 is also fully suited for regular use where there is not yet an

adequate supply of hydrogen through appropriate filling stations. The engine's control technology is able to switch over without the slightest delay from hydrogen to gasoline, giving BMW Hydrogen 7 a cruising range of more than 200 kilometres

(125 miles) in the hydrogen mode and another 500 kilometres (310 miles) on gasoline.



## Specifications. BMW 740i, BMW 750i, BMW 730d.



		BMW 740i Saloon	BMW 750i Saloon	BMW 730d Saloon
Body				
No of doors/seats		4/5	4/5	4/5
Length/width/height (unladen) <sup>1)</sup>	mm	5,072/1,902/1,479	5,072/1,902/1,479	5,072/1,902/1,479
Wheelbase	mm	3,070	3,070	3,070
Track, front/rear	mm	1,611/1,650	1,611/1,650	1,611/1,650
Turning circle	m	12.2	12.2	12.2
Tank capacity	approx ltr	82	82	80
Cooling system incl heating	ltr	9.0	13.5	8.9
Engine oil	ltr	6.5	8.5	7.2
Weight, unladen, to DIN/EU <sup>2)</sup>	kg	1,860/1,935	1,945/2,020	1,865/1,940
Max load to DIN	kg	645	630	640
Max permissible, overall	kg	2,505	2,575	2,505
Max axle loads, front/rear	kg	1,200/1,365	1,270/1,365	1,210/1,355
Max trailer load <sup>3)</sup>				
braked (12%)/unbraked	kg	2,100/750	2,100/750	2,100/750
Max roofload/max towbar download	kg	100/100	100/100	100/100
Luggage comp. capacity	ltr	500	500	500
Air drag	c <sub>x</sub> x A	0.30 x 2.41	0.31 x 2.41	0.29 x 2.41

		BMW 740i Saloon	BMW 750i Saloon	BMW 730d Saloon
Power Unit				
Configuration/No of cyls/valves		R/6/4	V/8/4	R/6/4
Engine management		MSD87	MSD85	DDE7.3
Capacity	CC	2,979	4,395	2,993
Stroke/bore	mm	89.6/84.0	88.3/89.0	90.0/84.0
Compression ratio	:1	10.2	10.0	16.5
Fuel grade 4)	RON	min. RON 95	min. RON 91	Diesel
Max output	kW (hp)	240 (326)	300 (407)	180 (245)
at	rpm	5,800	5,500-6,400	4,000
Max torque	Nm/lb-ft	450	600	540
at	rpm	1,500–4,500	1,750–4,500	1,750–3,000
Electrical System				
Battery/location	Ah/–	90/luggage comp	90/luggage comp	90/luggage comp
Alternator	A/W	180/2,520	210/2,940	180/2,520
Chassis and Suspension				
Suspension, front		e track control arm strut axle with sepa steering roll radius; anti-dive	arate lower track level, aluminium;	
Suspension, rear	Integral V-multi-arm axle with steering function, aluminium; double acoustic insulation, with anti-squat and anti-dive			
Driving stability systems	DSC (incl ABS, CBC, DBC, ASC); VDC2 (Electronic Damper Adjustment) all featured as standard Dynamic Drive (roll stability system) as an option			atured as standard

		BMW 740i Saloon	BMW 750i Saloon	BMW 730d Saloon
Brakes, front	Single	-piston swing-calliper disc brakes (inn	er-vented)	
Diameter	mm	374 x 36, vented	374 x 36, vented	348 x 36, vented
Brakes, rear	Single	-piston swing-calliper disc brakes (inn	er-vented)	· · · · · · · · · · · · · · · · · · ·
Diameter	mm	345 x 24, vented	370 x 24, vented	345 x 24, vented
Steering		Rack-and-pinion hydraulic steering with speed-related power assistance (Servotronic) and C pump; 3.1 turns from lock to lock		
Steering trans ratio, overall	:1	19.1	19.1	19.1
Type of transmission		6HP19 TÜ	6HP26 TÜ	6HP26 TÜ
Gear ratios I	:1	4.17	4.17	4.17
	:1	2.34	2.34	2.34
	:1	1.52	1.52	1.52
IV	:1	1.14	1.14	1.14
V	:1	0.87	0.87	0.87
VI	:1	0.69	0.69	0.69
R	:1	3.40	3.40	3.40
Final drive ratio	:1	3.73	3.46	2.81
Tyres		245/50R18 100Y RSC	245/50R18 100Y RSC	245/55R17 102W RSC
Rims		8 J x 18 EH2 + IS30	8 J x 18 EH2 + IS30	8 J x 17 EH2 + IS30

		BMW 740i Saloon	BMW 750i Saloon	BMW 730d Saloon
Performance				
Power-to-weight ratio, to DIN	kg/kW	7.8	6.5	10.4
Output per litre	kW/ltr	80.6	68.3	60.1
Acceleration 0–100 km/h	S	5.9	5.2	7.2
Top speed	km/h	250	250	245
Fuel Consumption in EU Cycle				
Urban	ltr/100 km	13.8	16.4	9.5
Extra-urban	ltr/100 km	7.6	8.5	5.9
Combined	ltr/100 km	9.9	11.4	7.2
CO <sub>2</sub> emissions, EU	g/km	232	266	192
Miscellaneous				
Emission rating		EU 5	EU 5	EU 5

<sup>&</sup>lt;sup>1)</sup> Weight of car in road trim (DIN), plus 75 kg for driver and luggage. Height with roof aerial: 1,488 mm

<sup>2)</sup> For category II trailers only

<sup>3)</sup> May be increased under certain conditions

<sup>&</sup>lt;sup>4)</sup> Engine output and consumption figures are on RON 98 fuel

## BMW 740Li, BMW 750Li.

		BMW 740Li Saloon	BMW 750Li Saloon	
		Billit 740El Guidoli	Diniti 700El Galoon	
Body				
No of doors/seats		4/5	4/5	
Length/width/height (unladen) <sup>1)</sup>	mm	5,212/1,902/1,478	5,212/1,902/1,478	
Wheelbase	mm	3,210	3,210	
Track, front/rear	mm	1,611/1,650	1,611/1,650	
Turning circle	m	12.7	12.7	
Tank capacity	approx ltr	82	82	
Cooling system incl heating	ltr	9.0	13.4	
Engine oil	ltr	6.5	8.5	
Weight, unladen, to DIN/EU <sup>2)</sup>	kg	1,895/1,970	1,980/2,055	
Max load to DIN	kg	630	630	
Max permissible, overall	kg	2,525	2,610	
Max axle loads, front/rear	kg	1,200/1,375	1,280/1,390	
Max trailer load <sup>3)</sup>				
braked (12 %)/unbraked	kg	2,100/750	2,100/750	
Max roofload/max towbar download	kg	100/100	100/100	
Luggage comp. capacity	ltr	500	500	
Air drag	c <sub>x</sub> x A	0.30 x 2.41	0.31 x 2.41	

		BMW 740Li Saloon	BMW 750Li Saloon	
Power Unit				
		DICIA	\ //O/A	
Config/No of cyls/valves		R/6/4	V/8/4	
Engine management		MSD87	MSD85	
Capacity	CC	2,979	4,395	
Stroke/bore	mm	89.6/84.0	88.3/89.0	
Compression ratio	:1	10.2	10.0	
Fuel grade 4)	RON	min. RON 95	min. RON 91	
Max output	kW (hp)	240 (326)	300 (407)	
at	rpm	5,800	5,500-6,400	
Max torque	Nm/lb-ft	450	600	
at	rpm	1,500–4,500	1,750–4,500	
Electrical System				
Battery/location	Ah/–	90/luggage comp	90/luggage comp	
Alternator	A/W	180/2,520	210/2,940	
Chassis and Suspension				
Suspension, front		e-joint tiebar spring-strut axle, alumini ensation of lateral forces, anti-dive	um;	
Suspension, rear	Integral-IV-multi-arm axle, aluminium; Multi-dimensional suspension with anti-squat and anti-dive (air suspension with self-levelling standard on LWB version)			
Driving stability systems		ncl ABS, CBC, DBC, ASC); VDC2 (Ele nic Drive (roll stability system) as an op		

			BMW 740Li Saloon	BMW 750Li Saloon	
Brakes, front		Single	piston swing-calliper disc brakes	(inner-vented)	
Diameter	ľ	nm	374 x 36, vented	374 x 36, vented	
Brakes, rear		Single	piston swing-calliper disc brakes	(inner-vented)	
Diameter	ľ	nm	345 x 24, vented	370 x 24, vented	
Steering			nd-pinion hydraulic steering with 3.1 turns from lock to lock	speed-related power assistance	(Servotronic) and CO <sub>2</sub> optimised
Steering trans ratio, overall		:1	19.1	19.1	
Type of transmission			6HP19 TÜ	6HP26 TÜ	
Gear ratios I		:1	4.17	4.17	
		:1	2.34	2.34	
III		:1	1.52	1.52	
IV		:1	1.14	1.14	
V		:1	0.87	0.87	
VI		:1	0.69	0.69	
R		:1	3.40	3.40	
Final drive ratio		:1	3.73	3.46	
Tyres			245/50R18 100Y RSC	245/50R18 100Y RSC	

		BMW 740Li Saloon	BMW 750Li Saloon	
Rims		8 J x 18 EH2 + IS30	8 J x 18 EH2 + IS30	
Performance				
Power-to-weight ratio, to DIN	kg/kW	7.9	6.6	
Output per litre	kW/ltr	80.6	68.3	
Accleration 0–100 km/h	S	6.0	5.3	
Top speed	km/h	250	250	
Fuel Consumption in EU Cycle				
Urban	ltr/100 km	14.0	16.4	
Extra-urban	ltr/100 km	7.7	8.5	
Combined	ltr/100 km	10.0	11.4	
CO <sub>2</sub> Emission, EU	g/km	235	266	
	-			
Miscellaneous				
Emission rating		EU 5	EU 5	

<sup>&</sup>lt;sup>1)</sup> Weight of car in road trim (DIN), plus 75 kg for driver and luggage. Height with roof aerial: 1,487 mm

<sup>2)</sup> For category II trailers only

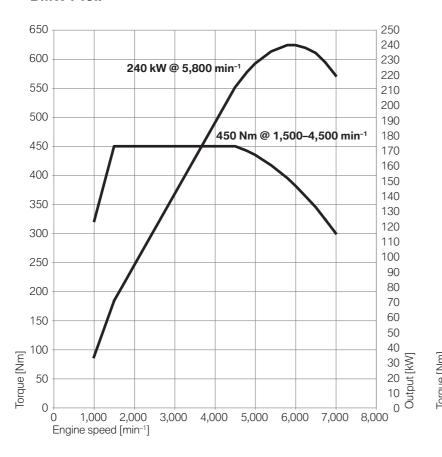
<sup>3)</sup> May be increased under certain conditions

<sup>&</sup>lt;sup>4)</sup> Engine output and consumption figures are on RON 98 fuel

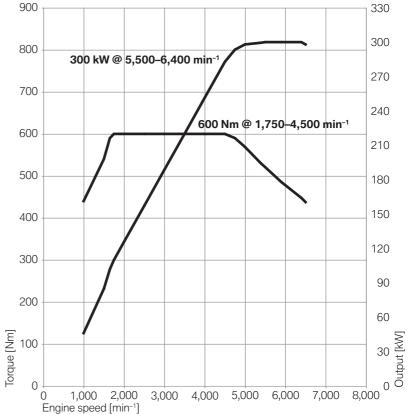
### **Power and Torque Diagrams.**



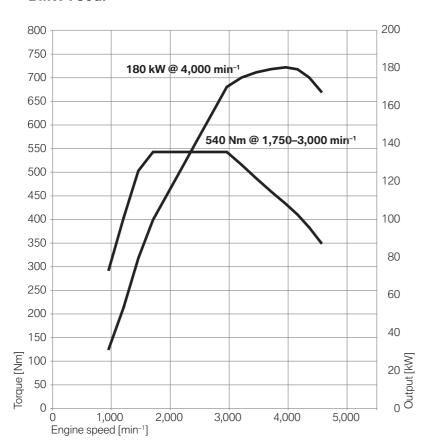




#### BMW 750i.



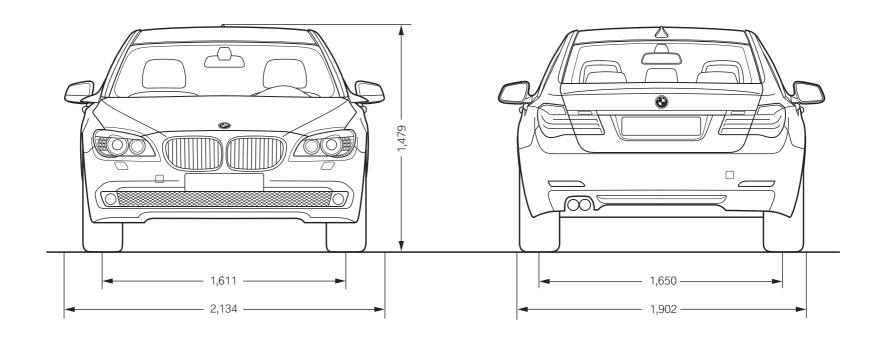
### BMW 730d.

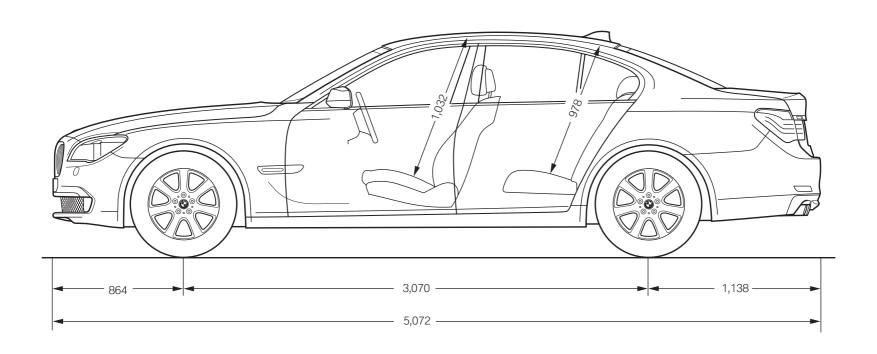


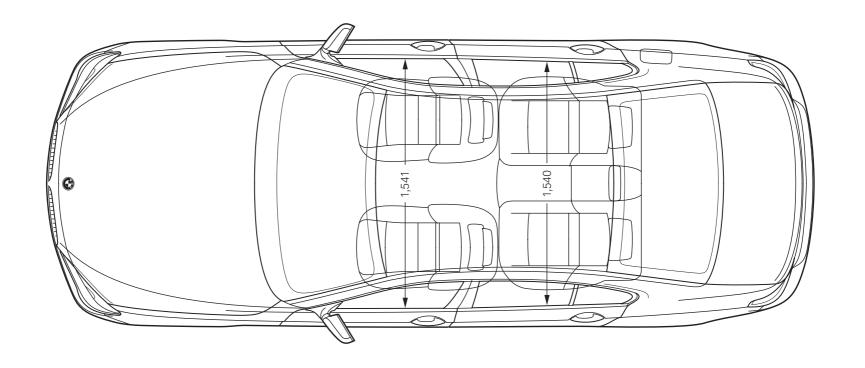
### **Exterior and Interior Dimensions.**

### BMW 740i, BMW 750i, BMW 730d.

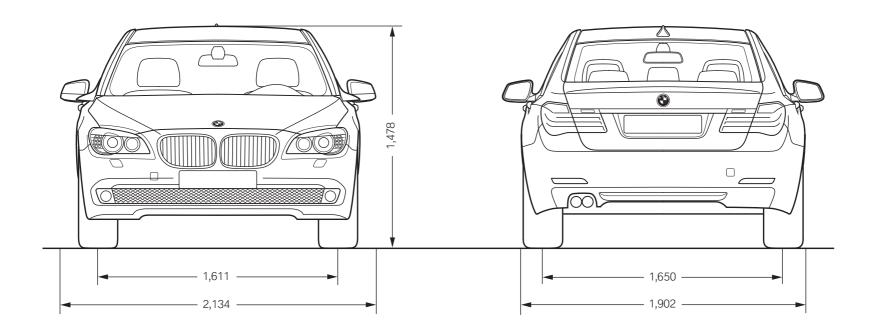


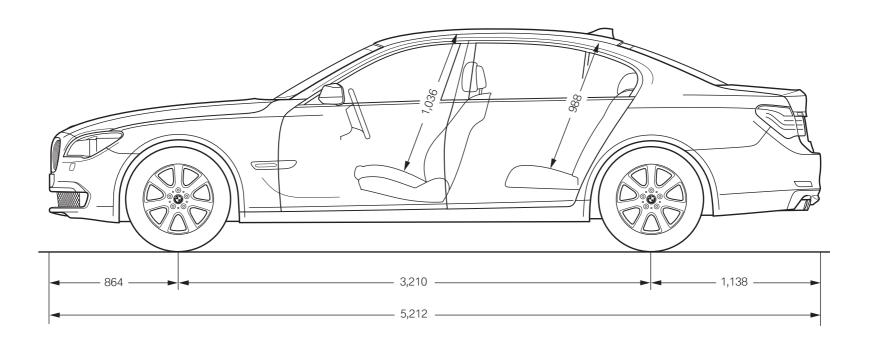


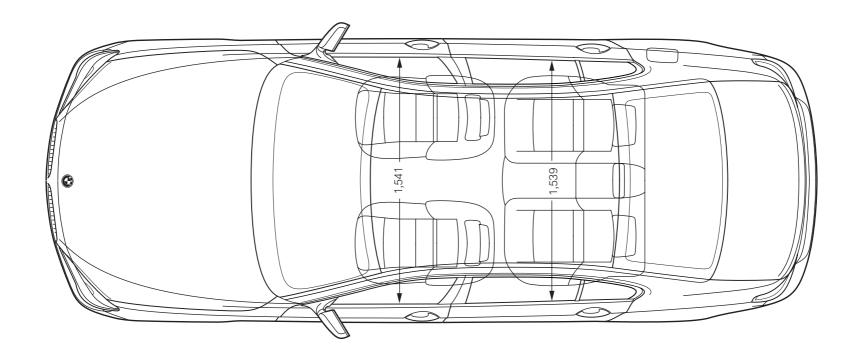




## BMW 740Li, BMW 750Li.







### Legend.

Page	Number	Caption
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4	P0044073	The new BMW 7 Series, BMW 730d, LED Headlights
13	P0044074	The new BMW 7 Series, BMW 730d, LED Taillight
14	P0046454	The new BMW 7 Series, Long Wheel Base
23	P0044049	The new BMW 7 Series, Center Console with new Controller and Driving Dynamic
33	P0044063	The new BMW 7 Series, BMW 730d
48	P0046506	Sketching, Nader Faghihzadeh (Interior Design 7 Series)
51	P0044061	The new BMW 7 Series, Design Sketch, Karim Habib (Exterior Design)

Page	Number	Caption
56	P0044088	The new BMW 7 Series, Design Sketch, Karim Habib (Exterior Design)
61	P0044062	The new BMW 7 Series, Design Sketch, Karim Habib (Exterior Design)
64	P0044092	The new BMW 7 Series, Design Sketch, Nader Faghihzadeh (Interior Design)
69	P0044090	The new BMW 7 Series, Design Sketch, Nader Faghihzadeh (Interior Design)
72	P0044093	The new BMW 7 Series, Design Sketch, Nader Faghihzadeh (Interior Design)
74	P0044034	The new BMW 7 Series, BMW 750Li
78	P0044084	The new BMW 7 Series, Double Wishbone Front Axle
81	P0044035	The new BMW 7 Series, BMW 750Li
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93	P0044039	The new BMW 7 Series, BMW 750Li
94	P0047298	The new BMW 7 Series (Interior)
101	P0044469	The new BMW 7 Series,
		steering wheel operations
105	P0047297	The new BMW 7 Series (Interior)
107	P0044471	The new BMW 7 Series, iDrive Controller
		with direct selection buttons
110	P0044526	The new BMW 7 Series,
		Black Panel Technology
111	P0044525	The new BMW 7 Series,
		menu guidance
116	P0044530	The BMW 7 Series, Head-Up Display
119	P0044051	The new BMW 7 Series,
		BMW Night Vision with
		pedestrian detection

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120	P0044527	The new BMW 7 Series, Lane Change Warning
122	P0044528	The new BMW 7 Series, Speed Limit Indicator
123	P0044529	The new BMW 7 Series, Speed Limit Indicator
128	P0044082	The new BMW 7 Series, BMW 750Li, BMW V8 gasoline engine with Twin Turbo and High Precision Injection
131	P0044022	BMW 6-cylinder diesel engine with Aluminium-Crankcase and 1,800 bar Piezo-Injection
138	P0044031	Exhaust System of BMW 6-cylinder diesel engine with BluePerformance/ EU 6 Level (close to engine DeNox catalyst and particulate filter; under floor barrier catalyst)

Page	Number	Caption
141	P0042406	BMW V8 gasoline engine with Twin Turbo and High Precision Injection
143	P0042412	BMW V8 gasoline engine with Twin Turbo and High Precision Injection
147	P0024576	BMW 6-cylinder petrol engine with Twin Turbo and High Precision Injection
148	P0044531	The new BMW 7 Series, BMW iDrive with new Interaction Concept
150	P0044070	The new BMW 7 Series, BMW 730d
156	P0044024	BMW 6-cylinder diesel engine with Aluminium-Crankcase and 1,800 bar Piezo-Injection
164	P0044065	The new BMW 7 Series, BMW 730d
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176	P0044047	The new BMW 7 Series, Fond Entertainment Professional
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197	P0044075	The new BMW 7 Series, BMW 730d
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202	P0046459	BMW ConnectedDrive: BMW information services
218	P0045356	BMW Plant Dingolfing
220	P0047288	BMW Plant Dingolfing, BMW 7 Series production, body shop
221	P0047287	BMW Plant Dingolfing, BMW 7 Series production, body shop
223	P0047289	BMW Plant Dingolfing, BMW 7 Series production, assembly

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228	P0047279	BMW Plant Dingolfing, BMW 7 Series production, final check
230	P0001016	BMW 7 Series and predecessors
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245	P0047295	BMW 750iL second generation
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256	P0017797	BMW 7 Series – Spring 2005 (BMW 760Li)
259	P0046170	BMW Hydrogen 7

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