

728i 732i
735i



**BMW opens up a new,
even greater future for
the really demanding
motorist:
BMW 728i, 732i and
735i.**

The future requires motor cars with new concepts and new technologies. This applies particularly to cars of the highest quality.

And since the environment of the future will require luxury saloons to meet new and tougher economy standards, we have refined the streamlining of the large BMWs and have added substantially improved features, new technological systems and ultra-modern electronics.

Because the future potential of outstanding automobile luxury lies in the thought that goes into such luxury.

To an ever-increasing extent, the current process of technological change is influencing virtually all of mankind's activities.

Based on micro-electronics, new technologies are becoming more and more significant. BMW – already well known as a very active manufacturer in introducing new concepts of automotive engineering – has made it a rule to give BMW drivers the full benefit of this technical progress. And this is precisely why the large BMWs offer a wide range of new technical concepts.

Concepts and improvements which mean a considerable increase in economy combined with improved performance.

BMW builds a large car with intelligent instead of ostentatious engineering, with sensible engine size, a reasonable number of cylinders, and real value for your money.

The large BMWs therefore provide a new balance of outstanding performance and genuine efficiency – a balance finely tuned to the economic and social realities of the day.

And the large BMWs achieve their impressive economy without making concessions to performance – which also means without losing their high standard of active safety.

The necessity to apply this active automobile concept in the luxury car stems from the traffic conditions on today's roads.

Because even the most luxurious and exclusive car must follow the rules of the road, where the essential objective is to achieve a highly efficient interaction between man and machine. This is why the large BMWs combine all the features that make driving or being driven a luxury with a unique system of design elements to ensure that the driver and his car will always be in perfect harmony.

This gives the driver an immediate feeling of well-being the minute he takes the wheel, and allows him to handle his car with absolute confidence.

So technical evolution and social progress speak in favour of the large BMW. And a BMW speaks in favour of its driver.

Some of the fittings and metallic paint-work colours shown in this brochure are only available as optional extras and at extra charge.



BMW 735i

The large BMWs: New technologies to make luxury motoring an economic concept for the future.

The large BMWs offer the right ideas and technical features for the tough demands of the 80's in three different versions: the BMW 728i, BMW 732i and BMW 735i.

	728i	732i	735i
Max output DIN kW (bhp)	135 (184)	145 (197)	160 (218)
Acceleration 0-100 km/h (62 mph) in sec	9.5	8.6	7.9

All 7 Series BMWs feature fuel injection with an electronic control unit.

As a function of the air flow to the cylinders, this highly progressive Injection system determines the exact amount of fuel required in each case and enhances the response and performance of the engine while at the same time minimizing fuel consumption.

Further benefits are simple and inexpensive maintenance, clean exhaust emissions throughout the engine's entire life, better starting and warm-up characteristics, and a high standard of smoothness at all speeds.

BMW's fuel injection engines therefore not only offer a progressive concept tailored to the requirements of the future, but are also superior to engines with mechanical fuel injection due to the use of an electronic, air-metered fuel injection system.

BMW was the first manufacturer to introduce a highly efficient injection system that switches off the fuel supply at engine speeds down to 1200 rpm (728i) or even 1000 rpm (from the 732i). In addition, the L-Jetronic system

provides the basis for other, even more sophisticated electronics, such as the Digital Motor Electronics, another achievement in modern automotive engineering first introduced by BMW. The BMW 7 Series features technical and, in particular, electronic innovations otherwise not available even with the most expensive luxury cars.

Examples are the Digital Motor Electronics and the active Check/Control (from the 732i), power-assisted steering geared to engine speed, the 5-speed overdrive-type gearbox (standard), the 4-speed automatic transmission with a converter bypass clutch (optional), anti-lock braking system (standard on the 735i and 735i Special Equipment), BMW's patented double-joint spring strut front axle, the semi-trailing arm rear axle swept back by 13°, hydraulic brake servo, electronic self-levelling of the rear axle (optional), SI service interval indicator,

EC energy control for the exact indication of fuel consumption, automatic cruise control (optional, standard on the 735i and 735i Special Equipment). The BMW 735i Special Equipment offers the widest conceivable range of standard features for the really discerning motorist: ABS anti-brake locking system, an alternative choice of automatic transmission or the 5-speed overdrive-type gearbox at no extra charge, automatic cruise control



(which is also standard on the 735i), electric adjustment of the front and rear seats, an electrically operated steel sliding/vent roof, air conditioning with green-tinted heat-insulating glass, limited-slip differential, light-alloy wheels with TRX steel radial tyres, metallic paintwork, rear-seat reading lights, on-board computer and a rear-window roller blind. It is therefore no exaggeration to say that the 735i Special Equipment is the ultimate car for the motorist who will accept nothing but the very best.



BMW 735i
Optional extras: TRX 220/55 VR 390 extra-low profile
tyres on cast BMW light alloy rims, executive leather
upholstery, steel sliding/vent roof



BMW 735i
Optional extra: TRX 220/55 VR 360 extra-low profile
tyres on cast; BMW light-alloy rims

The large BMW introduces a new era in automotive engineering: Innovative electronics.

The motor car must constantly comply with new safeguards in order to protect our environment. And car manufacturers must respond to these new challenges – with solutions that differ from conventional concepts to the same extent as the requirements of tomorrow will differ from the conditions of today.

Even the greatest refinements in mechanical engineering will not be sufficient to provide the necessary progress. It is sophisticated electronic systems that are required for the future. BMW's objective in this context is to increase the efficiency of our cars and their ability to thoroughly check their own functions. So that the sophisticated technology required for motoring more freely, safely and self-confidently does not create problems, but solves them.

Because this will enable the motorist to concentrate on the most important task: cool, calm and collected reactions at the wheel.

No other car manufacturer uses sophisticated electronic systems as thoroughly and consistently as BMW on its standard-production automobiles. Because we are dedicated to genuine progress for the benefit of the discerning driver. So even with increasing stress and new problems created by congested traffic conditions, the BMW driver will be able to drive his car both safely and efficiently.

The cars on our roads today are based on a century of progress in mechanical engineering. Now, the future needs electronics to make life easier for the driver. And to an increasing extent, automotive electronics means BMW.

To achieve an even higher standard of perfection in automotive engineering, car designers and engineers must think along new lines and apply new control systems. This is precisely what BMW has already done with the help of ultra-modern electronics:

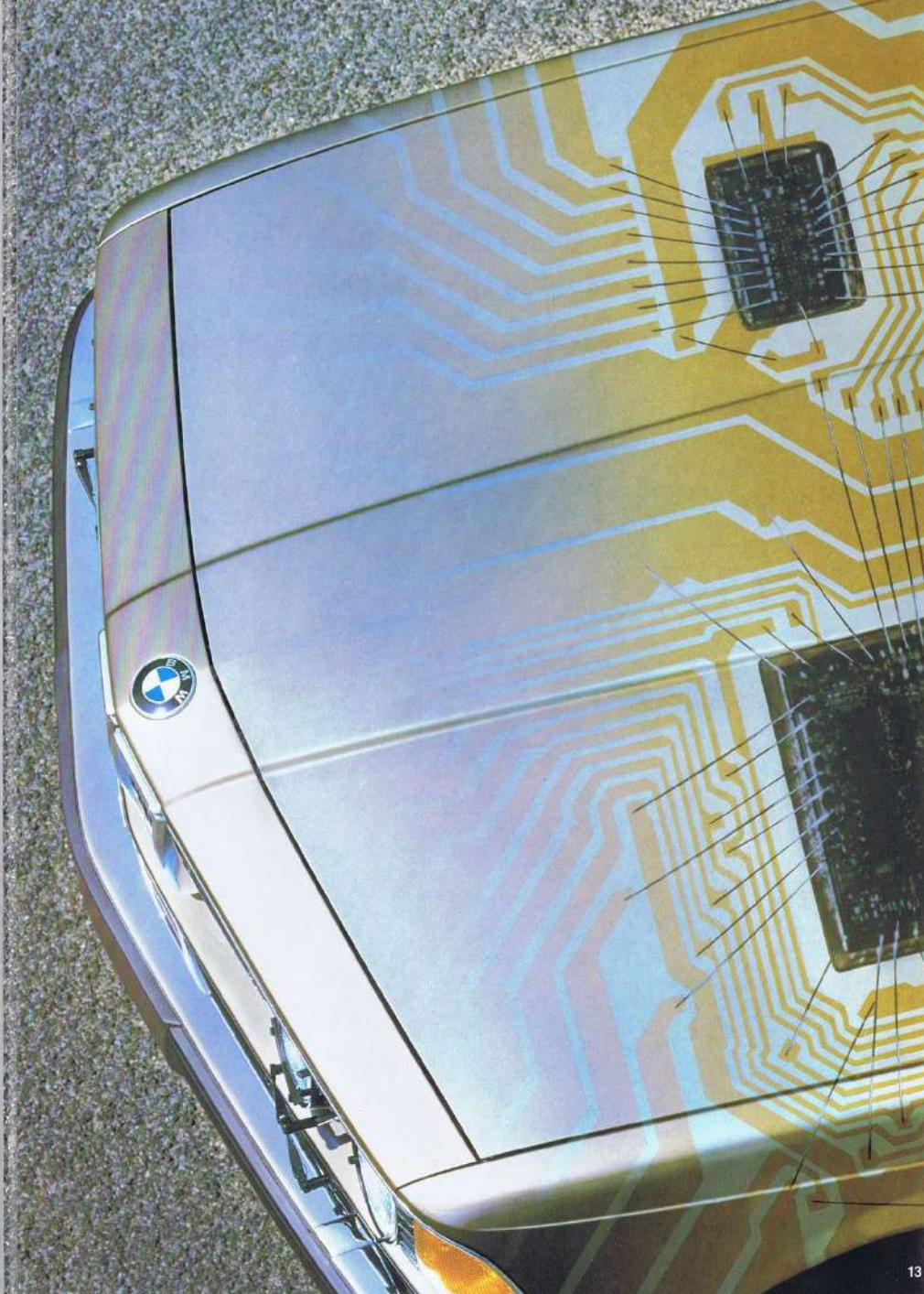
The Digital Motor Electronics applied by BMW for the first time in automotive engineering has opened up a new era for engine design and sets a new standard in all-round efficiency.

In 1979, BMW became the first manufacturer to present the first generation of a grid-controlled electronic fuel injection system, where with each rotation of the crankshaft a micro-computer calculates and sets the optimum ignition timing. As a result, fuel consumption, emissions, engine power and the engine's running characteristics are optimized in a completely new way. The photo shows a typical Ignition angle control grid for the Digital Motor Electronics (1).

Following this initial step, the Digital Motor Electronics was further improved with the introduction of the second generation. The most important single improvement of the new system was the addition of an individual fuel/air mixture control grid for both the

automatic transmission and manual gearbox versions to the Ignition advance angle grid. This ensures optimum fuel supply by influencing the injection period. The result is a considerable reduction of fuel consumption under practical motoring conditions, more efficient emission control, exceptional engine response and outstanding refinement at low engine speeds.

In a third step towards optimization, this concept has been made even more fuel-efficient by the addition of a third grid for the warming-up phase.

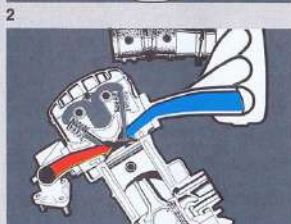
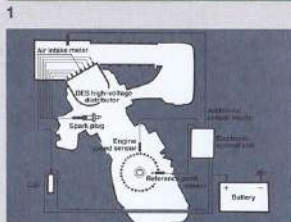
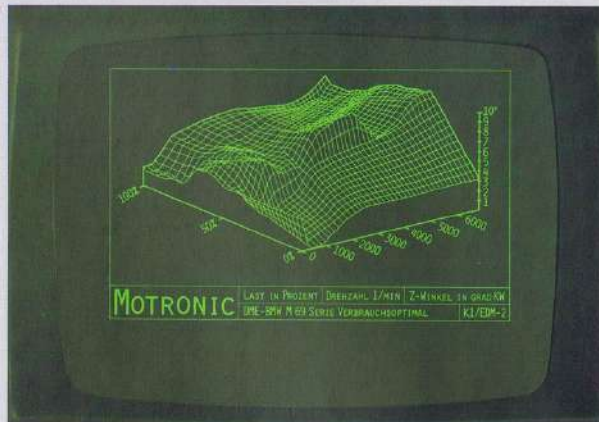


The fuel supply cut-off when coasting has also been substantially improved and now extends down to 1000 rpm. Together with a reduction in idling speed to 800 rpm, these modifications mean a considerable improvement in fuel economy.

Various sensors provide the Digital Motor Electronics (4) with the necessary basic information: engine speed, the position of the pistons relative to firing order, the position of the throttle butterfly, and the air intake volume and temperature. All this constantly updated data is processed and analysed by the computer, which then – within fractions of a second – takes the correct decisions as a function of running conditions (2). An additional sensor provides information on the coolant temperature and ensures a positive influence on the starting and warming-up phase. A special fuel/air mixture control grid has been developed for the automatic-transmission versions. This control grid uses the merits of the automatic transmission – the hydraulic torque converter keeps the engine running smoothly in slow city traffic – to provide a further increase in fuel economy.

The most outstanding merits of Digital Motor Electronics at a glance:

- Optimum compromise between clean exhaust emissions and minimum fuel consumption.
- Engine running characteristics that follow an optimum curve just below the pinking limit.
- Excellent response of the engine to the accelerator pedal even at low running speeds, in other words considerably improved engine flexibility. This allows the driver to run the car at low speeds in top gear, contributing to fuel economy.
- Further reduction of consumption by minimizing the fuel enrichment at full throttle as a function of engine speed and the pinking limit.
- Fuel consumption optimized by making the fuel/air mixture leaner or richer according to engine speed and load.
- Excellent fuel-saving starting and warming-up characteristics due to the optimum, temperature-dependent setting of the ignition advance angle for starting.
- Optimization of the ignition advance angle under extreme driving conditions (eg stop-and-go driving in very hot weather or operation of additional equipment).
- Absolute smoothness when the engine is idling, which is particularly significant in the case of automatic-transmission cars.
- No wear, since the DME operates entirely without mechanical parts and components.
- Complete freedom of maintenance, since the Digital Motor Electronics maintains a constant level of ignition timing throughout the engine's running life.



3 BMW engines incorporate all kinds of ultra-modern technologies to combine uncompromising performance with unusual economy.

Through their very concept, BMW engines have the optimum prerequisites for a unique combination of outstanding performance and genuine economy: Being fitted at a specific, carefully calculated angle, the engines have intake manifolds of optimum length to minimize power loss and maximize engine torque. The BMW cross-flow principle, introduced in 1961 and fully optimized in the meantime, allows the fuel/air mixture to flow freely into the engine, in this way providing the basis for sporty performance and a smooth and clean combustion process to protect the environment (3). The overhead camshaft is controlled via a vibration-damped roller chain and is specially designed for accurate



valve timing, high engine speeds and flexibility. The spherical combustion chamber guarantees optimum swirl action of the fuel/air mixture and a soft combustion process combined with a high degree of thermal efficiency. The result: smoothness with outstanding engine power, quiet and "soft" combustion, clean exhaust emissions and genuine fuel economy. The compression ratio of the 3.2 and 3.5-ltr engines has been increased to 10:1 to provide even greater efficiency. The versatility of the large BMW six is attributable to its unique torque curve, which guarantees 85% of the maximum torque from an engine speed of just 2500 to almost 6000 rpm. This allows the driver to cruise comfortably in a high gear and at low engine speeds, while at the same time he can always count on sporting performance and manoeuvrability no matter at what speed the engine is running (5).

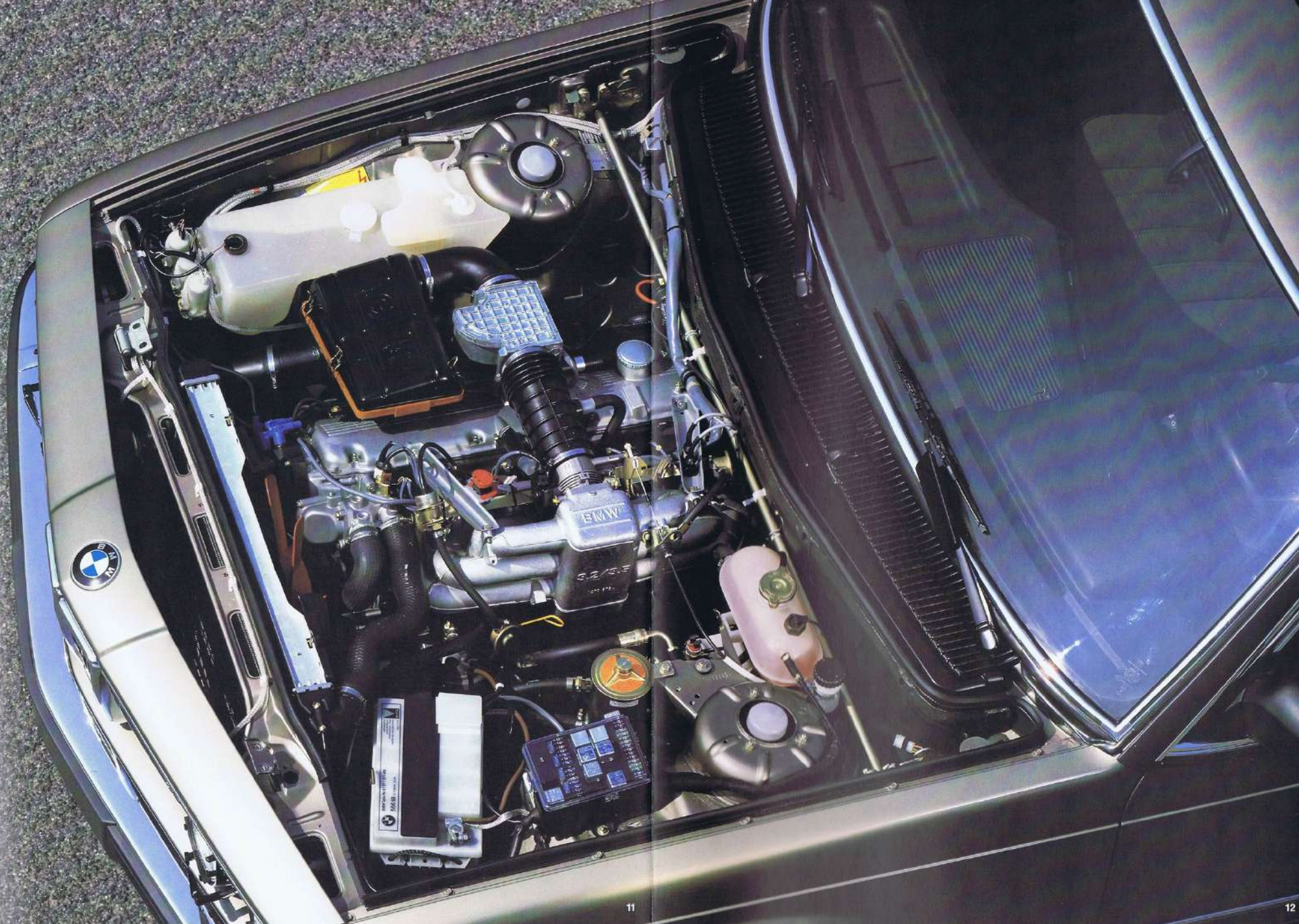
BMW automotive engineering: The modern pledge to performance with economy.

BMW engines are designed for true performance and dynamism. Because we realize that in future motorists will have to be even more flexible in adjusting to individual traffic requirements. Even more than the present, however, the future will demand optimum economy from all cars – including the largest and most expensive models. As a result we must concentrate on the essential by providing an optimum synthesis of outstanding performance and driving characteristics on the one hand, and very low fuel consumption, reasonable car weight, and sensible dimensions on the other. Considering the time it takes to design and develop a car, conscientious manufacturers aware of their responsibility have to think and plan 10 years ahead. With this in mind we have therefore studied the requirements of car engines of the future and the potential that various configurations offer in providing the solutions for tomorrow. The result of this study is quite obvious:

The BMW inline 6-cylinder power unit provides a progressive synthesis of outstanding performance, engine flexibility, running smoothness and superior economy.

In recognition of future requirements, BMW decided, for example, not to introduce large V-8 and V-12 engines already developed to the production stage (1, 2), but to replace them by more up-to-date power units. To meet even the highest demands in terms of comfort, running smoothness and road safety, the future-orientated concept of the efficient inline six with moderate engine size is quite sufficient. And through the use of ultra-modern electronics as well as other special design features, BMW has even further improved this extremely up-to-date and economic motoring concept.





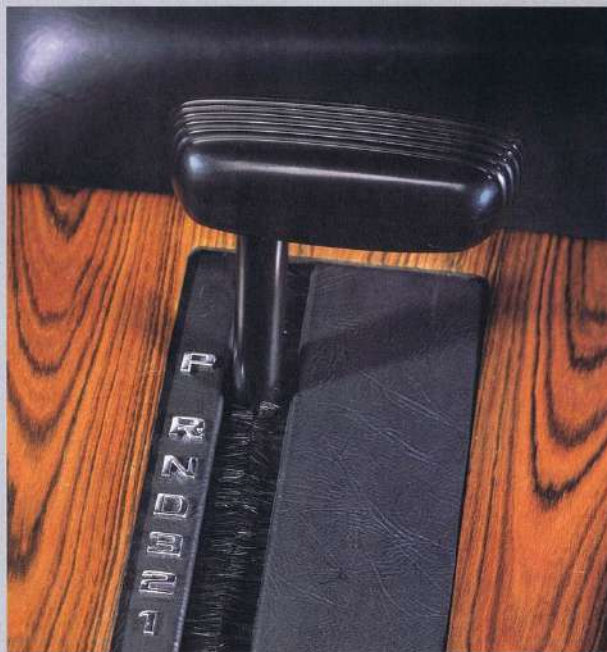
**The new BMW 4-speed
automatic transmission:
Shifting smoothly into
the future.**

As an option from the end of 1982, the BMW 728i, 732i and 735i may be fitted with a completely new 4-speed automatic transmission.

Incorporating a converter bypass clutch in 4th gear, this transmission – contrary to a 4-speed automatic transmission with a “long” final drive ratio – acts like a genuine overdrive.

Now, therefore, motorists have the choice of an automatic transmission that offers far greater economy than a comparable manual gearbox while at the same time providing the same standard of dynamism and performance. So in terms of both sportiness and fuel economy, this new BMW transmission offers the discerning driver a completely new style of automatic-transmission motoring.

Like the 5-speed manual gearbox now standard on the BMW 728i to 735i, this 4-speed overdrive-type automatic transmission provides maximum speed not in top gear, but one gear lower down. For maximum acceleration, however, the kickdown from 4th to 3rd gear can be obtained at any speed (ie also at top speed). This makes the BMW far more dynamic at high speeds.



BMW 735i
Optional extras: steel sliding/vent roof, executive leather
upholstery

Another element for the future: The chassis of the large BMW.

The BMW chassis – spring struts at the front and semi-trailing arms at the rear – is one of the world's most efficient – and that means safest – chassis designs.

Now this concept has been improved to provide a new optimum standard for the BMW 7 Series.

The chassis of the BMW 7 Series incorporates BMW's patented double-joint spring strut front axle and the new 13° rear axle with dive compensation when accelerating.

The chassis of the large BMW fulfills two seemingly contradictory objectives: It combines the excellent driving characteristics, performance, and, consequently, active safety of a sporting and truly dynamic competition car with the high standard of comfort of a genuine luxury saloon.

This outstanding achievement is provided, not least, by the specially developed and very sophisticated BMW double-joint spring-strut front suspension. The benefits offered by this system are improved lateral stability, even greater directional stability and insensitivity to bad roads.

The BMW double-joint spring-strut front suspension is formed by two swivel joints (1) placed one above the other to create an ideal pivot effect under all conditions.

The crucial advantage, however, is provided by the extremely versatile system of steering kinematics and the highly variable camber angle.

Because improvements in driving safety need not necessarily imply disadvantages elsewhere, for example in terms of the steering characteristics. Considering the rear suspension design of the large BMWs, we have therefore chosen a small positive camber angle for the front suspension, which guarantees optimum driving and braking characteristics and, as a result, perfect road contact.

At the same time, the small positive camber prevents the car from pulling to the side when the left and right wheels are running on different road surfaces.

This suspension allows the use of large and highly efficient disc brakes and automatically compensates the nosedive effect when the brakes are applied.

This stops the front section of the car from diving, makes the suspension softer, and improves driving characteristics in general, since the anti-dive function is similar in effect to a stabilizer bar. It goes without saying that the BMW double-joint spring-strut front axle also has a displaced caster, i.e. a large caster angle in conjunction with small caster travel.

This reduces steering forces and improves driving characteristics through the negative camber of the outer wheel in bends.

As an option at no extra charge, all 7 Series models are available with sports suspension (standard on the 735i Special Equipment).

An enhancement of traditional BMW qualities. The new rear axle of the large BMW.

25 years ago, BMW's engineers introduced a new era in chassis engineering with the semi-trailing arm rear axle. In the meantime, other manufacturers have adopted this revolutionary concept particularly for their top models. For the BMW 7 Series, the BMW semi-trailing arm rear axle has been improved to provide a new standard of motoring comfort (2): Swept back at a smaller angle of 13° and incorporating auxiliary trailing arms, the improved axle reduces the dive effect when accelerating and thus makes a substantial contribution to smoother and more luxurious motoring.

By carefully controlling the geometrical alignment of the axle, the auxiliary arms minimize the dive effect and changes in wheel camber. As a result, the springs/suspension can be designed for even greater motoring comfort and the car's behaviour is no longer affected by the load the car is carrying. Another advantage of the BMW semi-trailing arm rear axle is the total compensation of the brake-dive effect. The bodywork of the 7 Series BMW is designed for maximum stability and comfort. Any inherent flexing of the body, which might otherwise influence the accurate mechanics and geometry of the chassis, is thus avoided.

The suspension and shock absorbers of the large BMW are perfectly matched to provide neutral handling. Up-rated suspension for very hard and sporty driving is available as an optional extra (and at extra charge).

The hydraulic system for the brakes and power-assisted steering is controlled by one main servo pump. Compared with conventional, vacuum-controlled brake pressure boosters, BMW's hydraulic brake servo offers some essential benefits:

It guarantees smooth and constant braking power instantaneously, even when the engine is still cold after starting, and provides greater safety reserves in the event of a defect in the braking system.

In conjunction with the new suspension, the brakes of the large BMW are quite able to handle the power developed by the engine and make full use of the car's roadability in all situations. Even if one brake circuit fails to operate, the diagonal twin-circuit brake system maintains the full effect of the brakes on one front wheel and the diagonally opposed rear wheel, thus ensuring that the car pulls up straight. The large BMW features disc brakes on all wheels (inner-vented at the front). As an option, all 7 Series models (except the 735i Special Equipment) can be fitted with self-levelling rear suspension.

Apart from improving motoring comfort, this mechanism ensures above all that the camber of the rear wheels will hardly be affected by varying loads. It thus enhances the safety provided by the chassis to match the outstanding performance of the BMW 7 Series. The BMW 735i is fitted as standard with BMW's new 6 1/2 J x 14 light-alloy rims with 205/70 VR 14 extra-low profile tyres (3, optional for the 728i/732i). The BMW 735i Special Equipment features TRX 220/55 VR 390 extra-low profile tyres on cast 165 TR 390 light-alloy rims as standard (6).

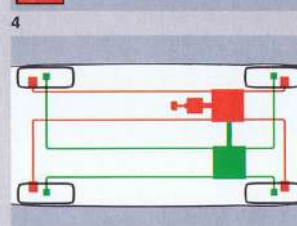
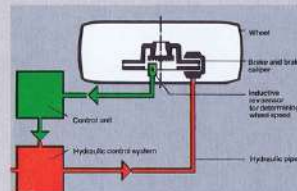
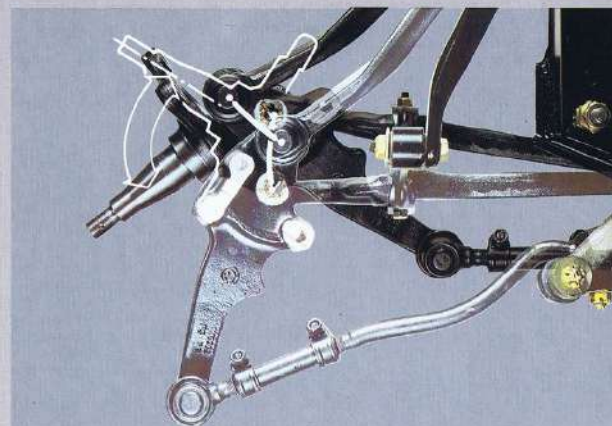
These wheels provide a further improvement of steering precision and directional stability and ensure even greater safety at high speeds combined with faster cornering.

ABS anti-lock braking system: The ultimate in braking safety.

ABS operates more accurately, efficiently and consistently than a human being ever could, and is absolutely reliable in preventing the wheels from locking. ABS – the revolutionary anti-lock braking system – is standard on the BMW 735i and 735i Special Equipment and available as an optional extra for the other 7 Series models.

The most important advantage of ABS is that it keeps the car fully stable and prevents skidding even in extreme emergencies with the left and right wheels running on different surfaces and the brakes being applied under full pressure. And with ABS the full power of the brakes is available in bends without any loss of the car's steering characteristics.

As a result of these features, the driver can avoid obstacles while braking and drive out of the way of accidents.



Since ABS makes full use of the frictional coefficient of each wheel, it also provides the shortest possible stopping distances. The anti-lock braking system consists of a road speed sensor on each wheel and an electronic brain which takes in and processes the data provided by these sensors (4). The hydraulic unit, which is controlled by the electronic brain, then serves to adjust the brake pressure on each

wheel (5). Whenever a wheel is about to lock, it reduces the pressure and allows the wheel to spin faster, thus preventing it from locking. This constant cycle of increasing and decreasing brake pressure is fully automatic and does not depend on how much force the driver puts on the brake pedal. In emergencies, therefore, the driver can and should apply the brakes in full from the very beginning.

**The perfect man/machine system:
Another distinction
between the large BMW
and other technically
outstanding cars.**

Nowadays, only a few manufacturers of really exclusive cars are still able to dedicate a great amount of research to the constant improvement of design concepts that have already reached a very high standard of sophistication. And all of these manufacturers can draw from roughly the same resources and technological standards.

The fact that the results of their work are nevertheless different, is possibly attributable to the different purchasers who choose these manufacturer's cars and, accordingly, to the different role given to the driver within the man/machine system.

BMW cars have always been preferred by active motorists – motorists who expect their car to offer them active performance and dynamism.

Because BMW regards the driver as the master of the man/machine system, and therefore concentrates its research on making the car a perfect match for the man at the wheel. At the same time the large BMW incorporates the latest findings in modern safety research.

All features are designed to keep the driver in touch with his environment and to provide consistent support, in this way relieving the driver of routine chores. BMW makes an extreme effort to ensure optimum driving safety and to keep the driver fit and comfortable at the wheel.

This does not mean, however, that the car should be over-automated and the driver reduced to a passive role.

For one of the greatest risks in motoring is monotony. If the stimuli that attract the driver's attention are subdued because the driver is sealed off from his environment or just sits at the wheel without performing an active role, the driver's senses and his "feel" for motoring will start to decline.

He will start to overlook traffic signs and signals and he will take longer to recognize hazards.

His response will become slower and his driving skill will degenerate, as it does when the driver is tired after many hours of motoring.

BMW's concept of automotive engineering therefore has two primary objectives:

First, to systematically support the driver and relieve him of routine jobs. Second, to keep the driver in touch with his environment and to make sure he is not sealed off from what goes on around him.

With BMW, comfort is more than just a pleasant environment.

The driver-orientated, ergonomically designed interior is an excellent example of the BMW motoring concept. Because the passenger compartment of the large BMW indicates that the concept behind this outstanding automobile is based on a different interpretation of top-class motoring. In particular it is the cockpit, the point of contact between man and machine, which proves that BMW cars are

designed and built for the more imaginative and active people of today.

As an example, the heating and ventilation system of the large BMW will give even the most demanding motorist complete satisfaction.

Based on thorough research into interior air flow, the large BMW features a highly refined and individually adjustable heating and ventilation system for the front and rear seats.

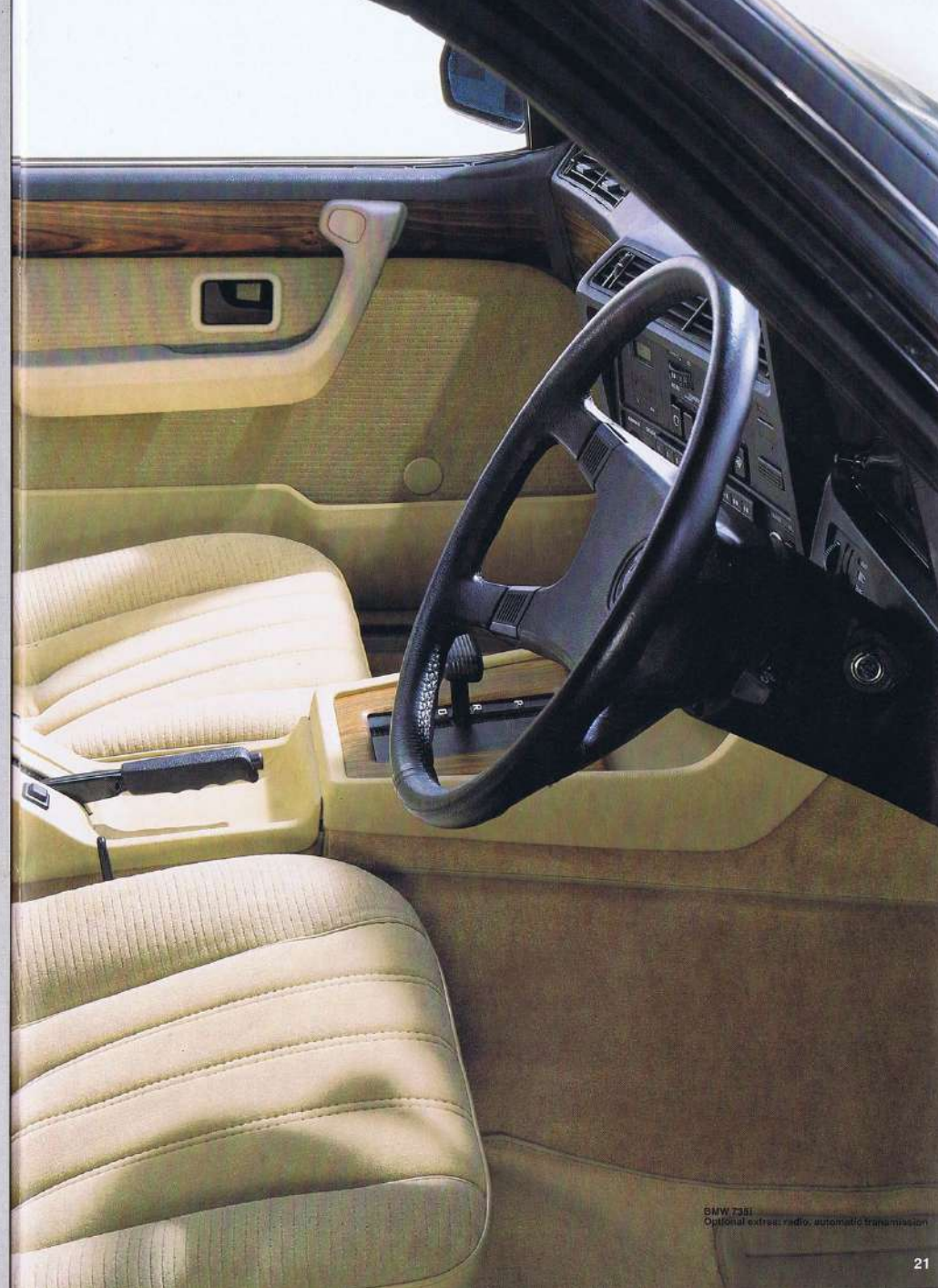
The automatic, electronically controlled air conditioner developed by BMW for maximum ease and convenience in use combines the functions of the heating, ventilation and cooling.

Irrespective of weather conditions, the automatic air conditioner maintains the predetermined interior temperature and air distribution by feeding in warm or cold air, in this way adding the final touch of perfection to the luxury offered by the large BMWs.

The power steering, with a degree of power assistance that varies in relation to engine speed, makes an important contribution to fatigue-free motoring both at low and high speeds.

As a result, the power steering gives maximum assistance when parking and enables the driver to steer the car with just two fingers, while assistance is then progressively reduced as engine revolutions, and the speed of the car, increase.

In this way the direct "feel" of the steering – and of the road – is preserved at all times, even when the car is travelling at high speed and just requires minor corrections of the steering wheel.



BMW 735i
Optional extras: radio, automatic transmission

In introducing technological innovations and refinements, BMW's first and foremost objective is to support the driver and relieve him of all routine jobs.

Quick reactions require perfect vision and visibility. This is why, proceeding from the level of the driver's eyes (1), the driver's line of vision to the front and sides, through the interior and exterior driving mirrors, and to the instruments and control system has been optimized to a new standard of perfection.

Seat and steering wheel adjustment

The positions of the steering wheel and pedals on the large BMW can be adjusted to meet the requirements of each individual driver (2).

The steering wheel adjusts for reach (3) and the driver's seat can be individually adjusted in all directions: the seat allows for simple and convenient backward and forward adjustment, and it can be adjusted for rake and height (height adjustment by 35 mm/1.4").

This provides the best seating position to avoid fatigue and keep the driver alert.

As an optional extra, the front passenger's seat may also be adjusted manually for rake and height or both the driver's and front passenger's seats may be adjusted electrically with additional electrical adjustment for the height of the head restraints. (Electrical adjustment of the front and rear seats is standard on the BMW 735i Special Equipment.)

Seat quality

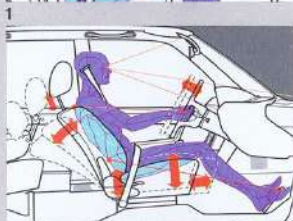
BMW offers an optimum standard of seat safety and comfort unparalleled by conventional standard-production cars. The backrest supports the entire back of each passenger and provides the best possible distribution of pressure and holding forces.

Lateral stability has been optimized by increasing the body contour of the backrests (4). The seat springs, vehicle suspension, and shock absorbers have naturally been carefully matched to act together in providing maximum comfort.

The anchorage points of the seat belts on the large BMWs are now built into the seats themselves both on the inside and the outside (5). This considerably enhances the standard of safety in the event of a collision:

The belts are always kept in an ideal position to provide good belt geometry for all body sizes and seating positions. Head restraints on the front seats with individual adjustment for height and angle are fitted as standard.

The built-in heating either for the driver's seat alone or for the driver's and front passenger's seats, which is available as an optional extra, is operated by a switch on the centre console.



Heating/ventilation system

The large BMW provides draught-free fresh air zones at face level and warm air zones around the body (6).

The heating and ventilation system is controlled by 6 push buttons

(7 push buttons with the optional air conditioner, which is standard on the 735i Special Equipment) and two horizontal selector wheels for air temperature and volume (plus the blower) (7).

Air flow can therefore be controlled individually by 6 push buttons: for defrosting, air flow up, air flow down, air flow to the rear, air flow through the central nozzle in the instrument panel.

The open/closed button allows the driver to switch off the air supply completely, for example when driving in very congested traffic.

If the car is fitted with manually controlled or automatic air conditioning (optional extra, standard on the 735i Special Equipment), this "smog control button" automatically switches the air conditioner to interior air circulation, providing a constant air flow inside the car without drawing in air from outside.

The defroster button interrupts all other functions and automatically switches the blower to maximum output.

Due to their ergonomic arrangement, these heater controls offer a number of important advantages:

Ease of operation and very clear air distribution, rear seat heating and ventilation separated from the front seat system. All the control buttons are of course illuminated and have their own on/off lamps to provide maximum clarity at night.

The front side windows are defrosted by direct air flow nozzles in the front doors. This air flow also provides a comfortable temperature in the elbow and shoulder area (8).



A perfect interior which leaves nothing to be desired.

The new interior colours of the large BMWs harmonize perfectly with the paintwork – with both matching colours or a distinct colour contrast. Even the "basic" model in the 7 Series range, the BMW 728i, provides a considerable improvement in all-round comfort in addition to its quality of design and engineering. The seat covers with tufted fabric upholstery in the middle and tufted fabric single-colour side strips, provide a pleasant and luxurious atmosphere inside the car (8).

The door linings have a padded frame on all sides and, with fabric upholstery, centrepieces again made of tufted fabric. Leatherette seats are available in five colours for all the large BMWs. Leather seats are available for the BMW 728i in four colours, with two additional colours being available as optional extras from the BMW 732i. Maximum all-round exclusivity is provided by the buffalo leather upholstery with leather door centrepieces and armrests and special walnut veneer finish (optional from the 735i). All the large BMWs from the 732i have extra-thick velour wool seat covers and striped side panels to match the velour carpets in the foot area and on the parcel shelf (7). The fabric roof lining also helps to absorb noise within the passenger compartment. The doors of the 728i and 732i are finished round the edges in the finest quality walnut (3).

With the BMW 735i, the class and calibre of the large BMW is enhanced to an even higher level of perfection.

Two ingredients that go into this perfection are the brown-tinted glass also standard on the 728i and 732i (2) and the further refinement of the interior through the lavish use of specially selected wood cappings on the door strips, along the instrument panel, round the ashtray and on the selector lever console of automatic transmission models. This wood is specially chosen for the quality of its grain and receives further treatment to provide a perfect finish. The exclusive character of the car is further underlined by the leather gear knob and gaiter (5) and the leather-rlm steering wheel (1) available as an optional extra for the BMW 728i/732i.

The added comfort and safety of central locking comes as a standard feature (also on the 728i and 732i, with the main door/ignition key incorporating a micro-torch). The four doors, the luggage compartment, and the fuel tank filler cap are all locked and unlocked electrically. Thanks to the low power consumption of this electrical locking, it can be used almost indefinitely from the driver's door, the front passenger's door, and the luggage compartment lock, even when the engine is not running. To provide additional safety, the central locking is also combined with an emergency switch designed to unlock the doors automatically in the event of a collision, thus allowing



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them to be opened from the outside. The BMW 735i is not only fitted with the windscreen washer/wiper, but also has a separate intensive cleaning system with a special cleaning agent as standard equipment.

This allows the removal of stains and other spots, which cannot be removed with normal water but greatly obstruct visibility through the windscreen and cause a dazzling effect at night.

With the help of a special pump in front of the washer jets, the cleaning agent is added to the normal water flow by a separate stage on the standard windscreen wiper control stalk.

The interior light incorporates a time relay that keeps the light on for 12 seconds after the driver and his passengers have got in. This allows the driver to insert the ignition key before the light goes out.

The foglamps (9) integrated in the front spoiler (made of a special deformable material) and the heated, electrically controlled mirror on the driver's and front passenger's doors (for perfect visibility to the rear) are fitted as standard: According to the outside temperature, the rear side of the mirror is automatically heated as soon as the ignition is on. This ensures that the mirror will not mist or ice over in extremely cold weather, after a layer of ice has just been removed. As an option, the same heated mirror with electrical adjustment from inside the car is also available for the passenger door (4). The switch for adjusting the rear-view mirror is integrated in the armrest on the driver's door.

All 7 Series models have a heated lock on the driver's door fitted as standard. Depending on the outside temperature, a coil will heat the lock for 10-60 seconds after the door handle has been raised. The main key incorporates a micro-torch which helps the driver find the door-lock (735i and 735i Special Equipment).

To switch on the torch merely press the top of the key.

BMW perfection goes right down to the last detail: The vanity mirror in the 735i and 735i Special Equipment (6) has anti-dazzle illumination from all sides, the luggage compartment carpet has leatherette strips round the edges, and the loudspeaker covers even match the interior colour.



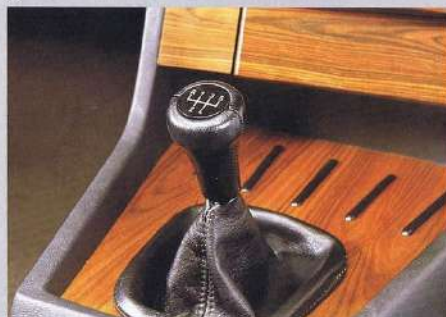
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The cockpit of the large BMW: The ideal link between the efficient driver and his car.

The cockpit controls and instruments of the large BMW have been optimized in accordance with the latest principles of modern ergonomics.

And it is this concept typical of BMW which allows the driver to master his car without an effort, in this way giving his undivided attention to the traffic conditions around him.

Thanks to the functional arrangement and logical design of all the instruments and controls, errors in grasping information and operating the controls are precluded from the very beginning.

The concave instrument panel is angled towards the driver and allows him to reach all the controls comfortably, quickly and safely.

The instruments and controls are illuminated by special anti-dazzle orange lights, the intensity of which may be varied as the driver desires.

The BMW cockpit has received prizes for outstanding design and styling and has also set a new, progressive standard with its functional but elegant appearance.

From the conventional motor car to an intelligent partner on the road.

The BMW 7 Series provides a new concept in cockpit design with technical features that do a lot of the thinking for the driver. Some of the most important innovations are the EC energy control, the active Check/Control, and the SI service interval indicator.

The automatic way to extra safety:
The active Check/Control.

The active Check/Control is fitted as standard from the BMW 732i (see photo page 31). While the car is moving, this new Check/Control constantly and independently supervises a number of functions.

Defects are indicated by the telltale light in the middle of the instrument cluster, which comes on when anything goes wrong.

The illuminated diode marked to designate the individual functions, which will then come on at the same time, indicates which component/function is deficient.

To confirm acknowledgement of the defect, all the driver has to do is push the test button. This cancels the central telltale light, while the defect is still indicated by the Check/Control.

This new, active Check/Control monitors the following functions:

low-beam headlights, rear lights, number plate illumination, stop lights, coolant level, screenwasher level, engine oil level (both when the car is moving and at a standstill).

By indicating possible deficiencies in good time, the BMW Check/Control very often helps to avoid consequential damage which might otherwise be complicated and expensive.

And this means not only more safety, but also more economy.



Electronic management to schedule your service intervals.

With the BMW 7 Series you determine by your style of driving when the car needs servicing. Because the service interval indicator provides a flexible indication of which service or inspection is required and when – an extended interval if you prefer a reserved style of motoring and a shorter interval if you like to drive fast and dynamically. In other words, the driver is now able to influence his car's service intervals by his own, individual style of motoring (3).

The electronic system stores and evaluates information on the car's running conditions provided by sensors.

In addition to engine speeds, this calculation includes coolant temperatures, the time that has elapsed since the last service, and the mileage covered. Coloured indicator lights show the driver how long he still has to go until the next inspection and indicate when the oil should be changed or the car serviced.

As soon as these deadlines have been exceeded, warning signals will remind the driver that certain jobs have not yet been done.

A moderate style of driving can increase the service intervals considerably. Through progressive and innovative engineering, BMW thus offers the superior motorist an even better possibility of controlling his car's economy.

BMW offers the driver additional information for economic motoring: With the BMW EC Energy Control.

The EC Energy Control fuel consumption indicator is integrated within the rev counter of the large BMW (4). This instrument shows the driver exactly how much fuel his car is currently consuming in each gear – and is therefore quite superior to most similar instruments, which merely provide a trend-like indication.

This exact information on the amount of fuel the car is consuming allows the driver to adjust his style of motoring. In this way saving fuel efficiently and increasing the overall economy of his car. Practical driving tests have proved that such a highly accurate consumption indicator allows a substantial reduction in fuel consumption.

The driving aid of the future: The BMW on-board computer.

The BMW on-board computer (2) – which combines operating efficiency with a wide range of functions – introduces a new generation of on-board instruments. The functions offered by this novel system range from a monitor for the outside temperature and a low-temperature warning to a special code to make the car virtually theft-proof along with functions for providing information on the driver's anticipated travelling times.

The primary objective in developing the BMW on-board computer was to relieve the driver of routine functions in addition to those otherwise performed by conventional instruments. The next, and equally important, objective was to give the driver useful information and data, thus allowing him to appraise his journey schedule. The BMW on-board computer operates quietly and reliably: Being integrated perfectly in the entire control system, it does not in any way disturb the functionality and perfect ergonomics of the BMW cockpit. At the same time it is so easy to use that the BMW driver does not have to take his attention off the road when operating the computer, which is fitted as standard in the BMW 735i Special Equipment and is available as an optional extra for all the other models.

The keyboard and display – designed to provide perfect contact with the computer.

All the push buttons have a dual function:

They can be used to input a command, retrieve information, or feed in data. If no other function is currently required, the computer displays the exact time.

Button 1 informs the driver of the outside temperature.

As soon as the outside temperature drops below 3° C (37.4° F) (with the possibility of icy roads), the driver is warned automatically by a buzzer and a red lamp flashing next to the letters TEMP.

By pressing button 8 and then specifying a distance in miles of up to 999, the driver can make the computer store the distance to his destination and indicate, whenever he presses button 8 again, the remaining distance still to be covered at any point on the trip.

To supplement this information, the computer can also indicate the presumed time of arrival, which it calculates on the basis of the remaining distance still to be covered and the average speed at which the car has been travelling so far (button 2).

BMW 735i
Optional extras: radio, on-board computer





Button 3 helps the driver save fuel. By pressing this button, he can indicate the desired speed limit he does not want to exceed. As soon as he drives faster than this limit, he is warned by a buzzer and a red lamp flashing on and off.

Button 4 indicates the average fuel consumption for the distance covered since the "Start" button was pressed the last time. Should the driver feel that he has been using too much fuel, he can then set fuel consumption at a limit he regards as acceptable. Whenever this limit is reached or exceeded, the driver is warned by a signal lamp.

By pressing button 5, the driver can find out what distance in miles he can still cover with the fuel remaining in the tank. This calculation is provided on the basis of the average fuel consumption so far.

Button 6 serves, for example, to memorize the distance up to the next exit or service station on a motorway. A buzzer and a green lamp flashing on and off will then remind the driver in good time that he will soon be reaching the predetermined point.

After pressing button 7, the driver can feed a definite time into the on-board computer, upon which the computer will either actuate a buzzer to remind the driver of anything important or switch on the auxiliary heater, which is provided as an optional extra.

Button 9 allows the driver to select a four-digit code number to prevent any unauthorized use of his car.

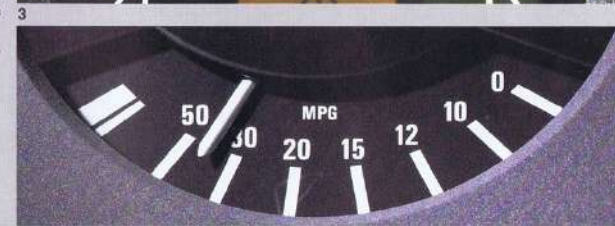
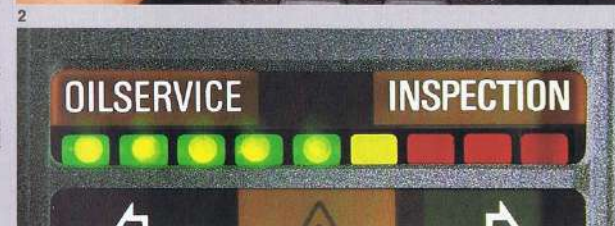
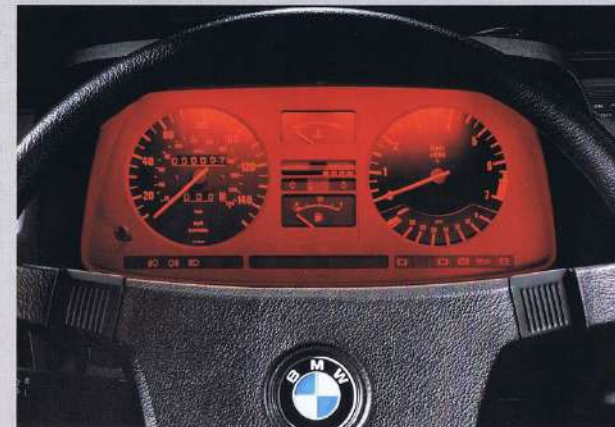
If the false code number is then entered three times in a row or if the ignition is operated three times, the on-board computer will stop the fuel supply and actuate a loud horn signal.

The START button actuates a stopwatch function that switches over automatically from seconds to minutes and hours and neutralizes stopovers and parking periods.

A photo-electric cell automatically controls the illumination of the on-board computer as a function of daylight intensity, thus ensuring that the computer is always brightly lit without dazzling the driver.

The link of intelligent engineering with the thinking motorist – great potential for the future.

The electronic information system of the 7 Series provides all the data the driver needs for carefree motoring. In developing the perfect integration of man and machine, BMW has moved a large step closer to the ideal in automotive engineering.





BMW 735i
Optional extra: electric adjustment of individual rear
seats

Luxury in the grand style: The rear seat passenger area of the BMW 7 Series.

Whether you drive yourself or whether you are driven, the large BMW will always offer you and your passengers an optimum standard of interior comfort, spaciousness, and easy access through all doors (1).

Despite its active and dynamic driving characteristics, the large BMW nevertheless offers the utmost sophistication and refinement throughout the rear seat area and makes being driven a particularly comfortable and relaxing experience.

Like the front seats, the rear seats have also been designed to the highest ergonomic standard. From the 732i, the rear seats of the large BMWs all have an individual body contour to provide complete comfort.

As an optional extra (standard on the 735i Special Equipment), the rear seats may also be fitted with an electrical adjustment mechanism combined with reading lights that allows passengers to adopt an ideal position for resting or reading (2).

The BMW 728i has a bench seat with a slight, but not pronounced, body contour. Three-point automatic-recoil belts are fitted as standard for the outer seats, with a hip belt in the middle. The centre armrest (3) also houses the first-aid kit (optional on the 728i and 732i). Head restraints adjustable for height and rake (optional on the 728i), armrests with grab-handles, and roof grab-handles at the rear, are all fitted as standard.

A sunblind for the rear window is available as an optional extra and is standard on the BMW 735i Special Equipment (6).

The opening/closing mechanism is housed beneath the carpeting on the parcel shelf. To provide clear visibility from the inside to the outside, the single-piece blind is perforated. With its trapezoid shape, it covers the entire rear window. For the BMW 728i, the sunblind comes in conjunction with the rear-seat head restraints.

The heating and ventilation system of the large BMWs can be adjusted and operated individually for the rear seat area. The warm and cold air flow has therefore been carefully studied and optimized not only for the entire passenger compartment, but also and above all to provide a comfortable atmosphere and accurate temperature control for the rear passengers.

Air outlet grilles directed straight at the rear seats and adjustable both horizontally and vertically are fitted into the upper section of the transmission tunnel (7). An additional lever allows passengers to switch off the footwell nozzles at the sides, directing the full air flow at their bodies.

At the customer's request, the large BMW may also be prepared for the installation of a car telephone. Leather upholstery is naturally available as an option.

In addition to its elegance and flair, leather offers further important merits: It has an active breathing effect and can

thus adjust perfectly to changes in temperature and climate. As a further option, the BMW 735i and 735i Special Equipment are available with exclusive buffalo leather upholstery in nutria or anthracite (also on the doors) plus high-quality wooden cappings to match (5).

The heating wires in the rear window cover almost the entire glass area. As an option, a laminated-glass rear window with almost invisible heating wires is also available. Inside the rear-seat backrest, the belt locks are recessed in plastic shells (1/5).

When the car is factory-fitted with a stereo radio/cassette player, the rear stereo loudspeakers are housed directly in the parcel shelf (6).

The luggage compartment (4) has a special lining all round, full fleece carpeting on the floor, and, from the BMW 732i, a large toolbox instead of the usual toolkit (8) housed conveniently in the luggage compartment lid.



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**The BMW 735i Special Equipment:
The ultimate achievement in motoring comfort.**

Like all other cars, luxury saloons have to follow new and tougher economic restrictions – which means that nowadays the ideal luxury saloon must combine the widest conceivable range of standard features with an engine of reasonable size.

And the 735i Special Equipment is an impressive example of how you can satisfy the highest demands in terms of performance, safety, comfort and luxury with an engine that spells out genuine economy.

It proves that a luxury car can meet the tougher requirements of the future. And this exceptional quality puts the 735i Special Equipment in a future-orientated class of its own that stands out distinctly from conventional automobiles.

The 735i Special Equipment comes with the following range of standard features to meet the demands of the most discerning motorist:

ABS anti-brake locking system, separate wash and wipe headlight cleaning, alternative choice of automatic transmission or 5-speed over-drive-type gearbox, automatic cruise control, electric adjustment of the front and rear seats, electrically operated steel sliding/vent roof, air conditioning with green-tinted heat-insulating glass, headlight range control from inside the passenger compartment, limited-slip differential, light-alloy wheels fitted with TRX steel radial tyres, metallic paintwork, rear seat reading lights and rear-window roller blind for optimum luxury on the road, and the BMW on-board computer, the outstanding system that introduces the third generation of on-board instruments. So for the motorist who will accept nothing but the best in automotive engineering combined with sheer luxury, the ideal car is now available: the BMW 735i Special Equipment.

BMW 735i
Optional extras: TRX 220/55 VP 330 extra-low profile
tyres on cast BMW light-alloy rims, steel sliding/vent
roof, radio, electric adjustment of front seats.

Progressive engineering designed to give the driver even greater freedom of action: Optional extras for the large BMW.

Air conditioning with automatic temperature control (1) is available as an optional extra from the 728i to 735i and comes as a standard feature with the 735i Special Equipment.

This automatic temperature control combines the functions of the heating, ventilation and cooling to form one single unit. As a result, the driver only has to select the desired interior temperature once, which is then maintained electronically at the right level.

Depending on the load the car is carrying, the low-beam headlight may be adjusted hydraulically from the driver's seat. This headlight range adjustment (optional on the 728i/732i, standard on the 735i/735i Special Equipment) guarantees optimum visibility under all conditions and prevents dazzling of approaching traffic (3). Various mono and stereo radios (2) are available. All radios are equipped with a special sensor for automatically tuning in to road traffic news.

An electrically retractable radio aerial is also available.

A new, leather-coated three-spoke sports steering wheel (dia: 395 mm/ 15 1/2") (5) is also available as an optional extra (in preparation).

The steel sliding/vent roof (4/8) available as an optional extra for the 728i to 735i and standard on the 735i Special Equipment may be operated either manually or electrically (electrical adjustment with the 735i Special Equipment).

Through its careful design, this sliding roof avoids draughts and wind noise, even at speed.

Recaro seats with adjustable thigh support and upholstery to match the anthracite upholstery or black leatherette interior finish, are also available as optional extras (11) (not for the 735i Special Equipment).

The electrical seat adjustment available as an optional extra for the driver alone or for the driver and front-seat passenger (standard on the 735i Special Equipment) combines all the benefits of BMW seats adjustable for height and angle with a unique standard of comfort: Simply by pressing a button, the seats may be adjusted lengthwise, for height and for angle.

The ultimate in motoring comfort and control ease (10). Electric window lifts are standard for all 7 Series BMWs (6). As an option (standard on the 735i Special Equipment), the 7 Series BMWs may be fitted with electronic cruise control that provides not only a higher standard of driving comfort, but also additional economy (9) (applies to both manual gearbox and automatic transmission models).

Just by pressing a button, the driver can keep the car going at a predetermined speed without placing his foot on the accelerator:

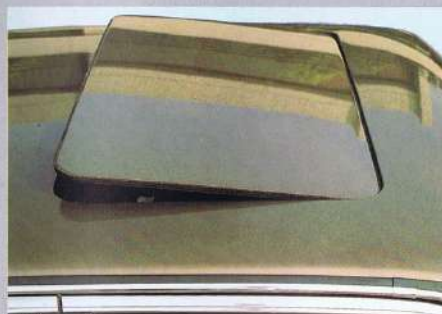
The present speed is maintained by the electronic control, even on slight uphill gradients or when running against a heavy headwind.

With the cruise control operating,



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the driver may naturally apply the brakes or accelerator at any time. A headlight wiper/washer system also comes as standard on the 732i to 735i Special Equipment and is optional on the 728i (in conjunction with the intensive cleaning system on the 728i and 732i). Whenever the windscreen wiper/washer system is operated with the lights switched on, this headlight wiper/washer system ensures that the headlight lenses will be kept clean (7).



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The BMW Life-Preservation System: Exceptional even in this outstanding class of luxury cars.

At BMW there are thousands of specialists who produce vehicles to the very highest standard of quality. And there are a few hundred specialists whose one and only job it is to destroy this quality as systematically as possible. Part by part, component by component, car by car.

This is why the BMW body testing department has one of the most modern crash test facilities (1) for studying the various elements of car safety: in highly-specialised test stations, using the most modern and advanced equipment, and on test tracks, comprehensive live and simulated tests are carried out on complete assemblies and individual components, which are thus tested for their stability and reaction in the event of rollovers, front/rear, front/side, and head-on collisions. One of the most critical situations for a car and its passengers is a complete rollover. In the BMW rollover test, therefore, the car is thrown off the side of the test bed at a speed of about 30 mph (3) and rolls over several times. But even here the BMW Life-Preservation System works reliably. The roof pillars (4) and roof crossbar, which have all been carefully and thoroughly tested, maintain the rigidity of the passenger cell. Even after such an extreme accident, therefore, all the doors can be opened without difficulty. Some further examples of the crash tests performed by BMW and the installations used are as follows: Head-on collisions against a solid obstacle at 30 mph (1). Bumper tests on an impact generator (2). Door stability and rigidity tests (5). Optimization of the seat belts and seat belt anchorages by simulated collisions on a test bed (6). Load tests on the seats and head restraints, which are regarded as one integral unit (14). Impact tests against the instrument panel (15).

The BMW Safety System:
Numerous outstanding features coordinated to provide the maximum overall effect.

The superiority of the BMW Life-Preservation System results not only from the outstanding quality of the individual features this system incorporates – such as the highly effective crumpling behaviour of the front section or the carefully designed and thoroughly tested safety cell. Rather, what counts even more, is that all these components and features have been coordinated to provide an optimum overall effect – a safety system that gives the driver and his passengers the very best that modern automotive engineering can offer.

The energy balance:
Intelligence instead of sheer mass.

The bodywork of the large BMW has been designed with a view to the latest findings in safety research.

Safety criteria have therefore left their definite mark on the styling of the large BMWs: one example is the sturdy, almost vertical central roof pillar which forms one unit together with the stable roof crossbar – a special design feature that protects the passenger compartment even in extreme conditions. Another example is the extremely strong but nevertheless elegant rear roof pillar which is connected directly to the longitudinal support elements.

The passenger cell is adequately protected at three levels (7): At the bottom of the car by reinforcement members in the bulkhead, special longitudinal supports along the sides, and reinforcement bars behind the

The padding and upholstery inside the large BMW is based on the latest findings in collision research and thus constitutes a typical example of the high standard of safety provided by BMW: both below the window line and in the head and shoulder area, the driver and his passengers are fully protected by all-round impact-absorbing padding and upholstery.

Ample padding is also provided in the head area around the sun visors and on the front roof pillars. And from the BMW 722i, the same padding is also provided on the other roof columns and on the side and rear roof-frame sections.

Again starting from the BMW 722i, the roof lining is made of resistant, one-piece upholstery which fully covers all the profiles and structural elements. (The roof lining is subdivided into separate sections if the car is fitted with a sliding roof).

The metal reinforcement profiles in the instrument panel are all carefully cushioned by special padding, and the edges point away from the car's interior.

The glove compartment and centre console are amply padded and upholstered and have been integrated with knee protection elements below the instrument panel.

Thick strips of upholstery with integrated storage pockets are provided on the doors. This thorough padding throughout the entire door area is a particular safety feature in the event of a collision from the side.

All the materials used inside the passenger compartment comply with fire prevention regulations and are non-combustible.

BMW 735i
Optional extras: radio, electric adjustment of front seats



rear seats and in the luggage compartment.

In the central area by the special, maximum-safety design of the instrument panel and its support, the carefully constructed doors, hinges, and lock reinforcements, and the support in the parcel shelf. And at the upper level by stability profiles in the roof and the crossbar connected directly to the roof pillars.

The front bodywork section of the large BMW comprises numerous safety features coordinated to prevent the passenger cell from damage in the event of a head-on collision.

Apart from crumpling to absorb impact energy, the front body section is also designed systematically to pass on the forces generated in a collision from one part of the car to another.

Here, the rigid wheel arch area and the spring-strut/axle combination play an important role in this BMW safety system: The wheel support in the wheel arch can absorb a considerable amount of energy, which can then be passed smoothly on to the front roof pillars and longitudinal supports without impairing the safety cell as the core of the BMW Life-Preservation System.

The engine support elements are connected directly to the longitudinal supports that run along the sides of the car. This improves the smooth transfer of impact forces past the rigid passenger cell (10).

The deformable front section (8), for example, has predetermined crumple zones designed to interrupt the impact in a head-on collision, thus ensuring that the seat belts have their full effect. As a result, the passengers will not be thrown forward too abruptly in the event of an accident and the strain they are subjected to will remain within bearable limits.

The bonnet also has predetermined crumple zones which guarantee that it will buckle also at the right points without coming through the laminated windscreen (8).

A special safety lock is also fitted on the bonnet (9).

The highly stable transmission tunnel and the rigid front bulkhead ensure that the engine and gearbox are not pushed back into the vehicle interior in a head-on collision (11).

The steering system is located away from the crumple zone, and the telescopic steering column stops impact forces from being passed on to the interior of the car (12).

To provide added protection in the event of a rear-end collision – incidentally, a type of accident that is increasingly becoming more common – the large BMW has special reinforcement members beneath the luggage compartment floor that act in conjunction with the bumper supports.

Through special profiles in the wheel arches, these reinforcements pass on impact forces to the longitudinal supports.

An additional crumpling effect is then provided by the predetermined crumple points in the reinforcements themselves, the luggage compartment floor, and the luggage compartment lid. The fuel tank is located in a protected area: it is fitted entirely beneath the floor assembly and cannot, therefore, be damaged by the luggage compartment floor in the event of a rear-end collision.

At the same time the tank is also protected by special support members at the side. This position of the fuel tank provides a better axle-load distribution and a lower centre of gravity. The fuel tank itself is surrounded by a free space and all adjacent parts have been designed to avoid the risk of damage. The fuel tank filler pipe is not connected rigidly with the body panel and cannot, therefore, be ripped off when the body crumples.

Part of the safety cell is constituted by special-profile reinforcements, such as the reinforced front and rear roof pillars, the rigidity of which has been systematically designed and carefully tested (4).

In designing this special safety cell, BMW has given particular attention to the head area (13):

The roof can never be crushed too far should the car roll over.

This is why the extra-strong central roof pillars are combined with a roof crossbar and special-profile front and rear roof pillars, all of which act together in guaranteeing particular rigidity of the roof.

The interior has ample padding and cushioning, and the instrument panel, handles and mirror are flexible and thus give way in the event of an impact. The wide upholstery strips on the door merge directly into the instrument panel. The roof pillars have large and well-cushioned plastic covers and there is additional padding around the sun visors.

To reduce the risk of head injury even further in this all-round safety system, the instrument panel is rounded-off and deformable (15), while the centre console also has special padding all round.

It goes without saying that even the head restraints have also been designed and tested to provide maximum safety inside the passenger compartment (14).

Due to their special safety locks, the doors remain closed in the event of a collision – and can then be opened without difficulty from the outside and inside, as the rigid safety cell avoids any deformation of the doors (16).

The safety steering wheel is fully cushioned all round and has a large tulip-shape centre pad to protect the driver in the event of a collision (17). The starter/ignition lock has been carefully integrated in the steering column to keep the key away from the driver's knee. This eliminates the risk of injury while the lock remains within easy reach (18).

Safety: also a matter of common sense.

Since the highly efficient BMW safety system depends on the proper use of the seat belts, wearing the belts is absolutely essential for the sake of obtaining maximum safety: professionals buckle up. The automatic recoil belts can be locked and released easily with one hand.

They also have a dual retention function by responding not only to the deceleration of the car but also to independent tension on the belt. As the belt anchorage points on the large BMWs are integrated directly with the seats, the belts always provide an optimum fit and perfect belt geometry irrespective of body size and seat position.



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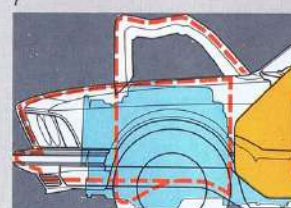
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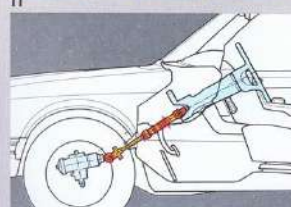
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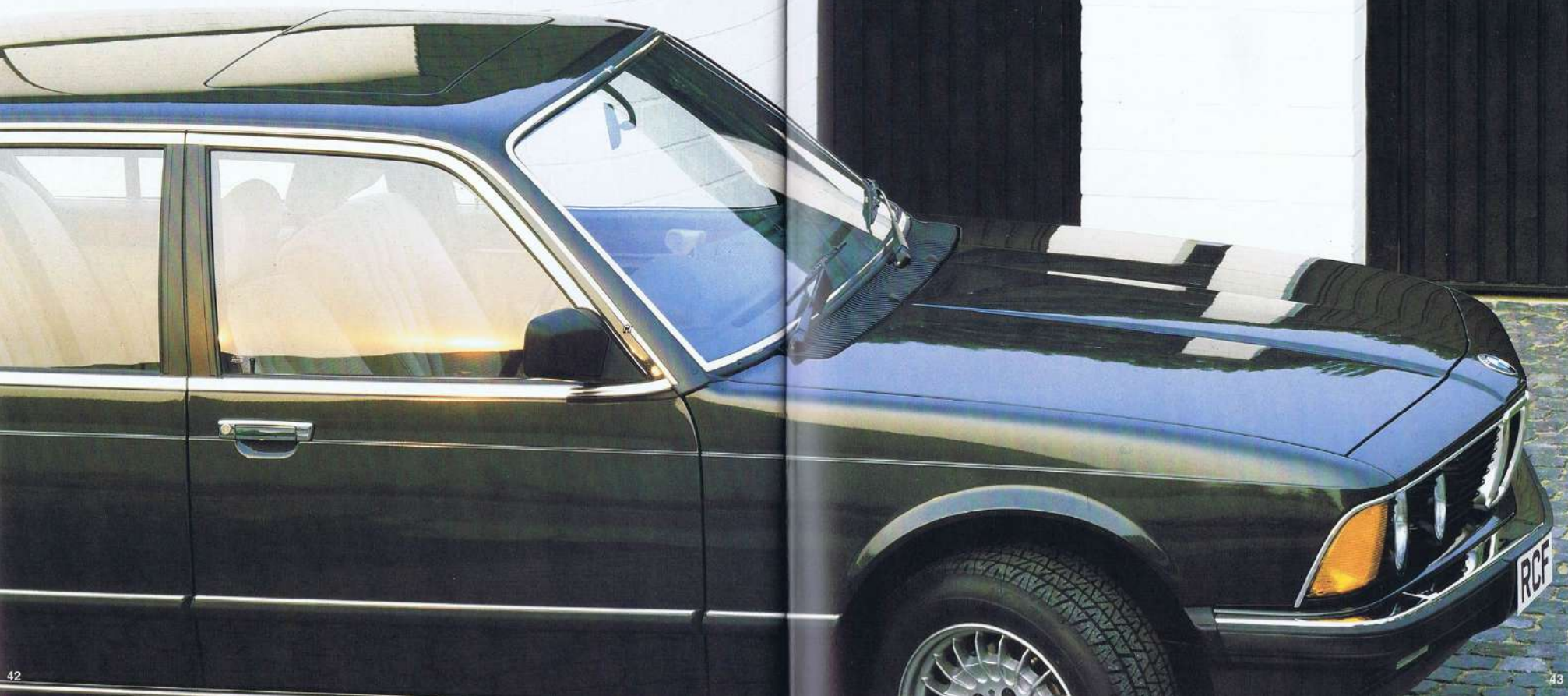
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The large BMWs: More quality of life.

The 7 Series BMWs have an established reputation. They are up-to-date cars based on many years of experience: The large BMW has the benefit of the substantial production experience BMW has gained with this car in the course of time. It also benefits from BMW's constant effort to achieve an even higher standard of production quality and an even better finish. What does genuine quality mean with BMW? Is it only a good finish, good paintwork, a long running life and a high standard of reliability?

No – BMW quality means much more: It comprises the quality of the underlying concept, the production line and the people who build BMWs. And BMW quality always means active quality – quality orientated to a specific function, quality that serves only practical objectives. The following pages provide a brief insight into BMW's unique standard of quality.

BMW
Optic
tyres
roof



BMW quality is not only the result of careful production but is built into our cars from the outset.

In addition to the painstaking production process, the careful finish and the very thorough inspections, the comprehensive BMW quality system is also based on a design and development concept that excludes possible deficiencies from the start.

However, even the best concept and design will not be of any use without a correspondingly high standard of production quality. And it is to ensure such quality that BMW is making very large investments. A lot of this money will be invested in ultra-modern production equipment, such as additional robot welding lines (10-12).

Our new Aerothermal Test Centre is another example of BMW's continuous quest for an even higher standard of quality which is then put to the test at conditions far tougher than will ever occur in practice. This facility, one of the most modern of its kind in Europe, allows us not only to solve every conceivable aerodynamic problem, but also to create all kinds of testing conditions: In the air-conditioned wind tunnel and the low-temperature chamber, for example, we can simulate a 75-mph snow storm in the middle of summer in order to test the function, efficiency and reliability of various units and components.

The quality of dimensions = the dimension of quality.

The quality of any production process depends largely on the efficiency of the manufacturer in ensuring accurate dimensions with minimum tolerances. And this makes it essential to use sophisticated gauges and measuring systems that guarantee the accuracy required.

To meet this demand, BMW has made substantial investments in recent years in an extremely refined and sophisticated system of measuring machines and instruments.

An example is the fully-electronic coordinate measuring system shown here, which allows us to measure each end of the body to an accuracy of ± 0.03 mm (6/9).

Driving safety can be a matter of microns.

The roadability and driving characteristics of every BMW are uniquely satisfying. This is attributable not only to the perfectly designed, high-quality chassis, but also to our high standard of production accuracy constantly verified by the most stringent tests and examinations. On every BMW, for example, the chassis geometry must be correctly aligned down to the last 10th of a millimetre.

To guarantee this accuracy, all chassis elements are therefore checked not only once, but many times, to exclude even the smallest deviations from the required dimensions.

To ensure exceptional quality, our sophisticated testing machinery

checks not only the exterior dimensions of our cars, but also the interior structure and quality of all important parts. Here again BMW uses the most modern testing procedures and equipment.

To maintain this high standard of accuracy, BMW has not only highly skilled, quality-conscious engineers, but also the most modern production machinery. And naturally, we also have the test units required to constantly monitor this machinery.

This supervision is based on a comprehensive, computerized system designed specifically for BMW.

Data processing makes quality a standard feature of all BMW cars.

BMW cars represent the latest state of the art in automotive engineering. They are complex technical systems created by the ideas and intuition of experienced engineers and maintained at the highest standard of perfection by analyses performed with the help of modern data processing equipment.

The concept of Computer Aided Design (CAD) has provided the basis for the development of the new 5 Series models: With this method, individual components and, eventually, the entire body can be displayed, varied and optimized on the screen using the data provided by three-dimensional models. In the subsequent design and calculation phase, BMW's engineers once again have the support of electronic data processing. Applying the Finite Element Method (FEM), BMW's engineers theoretically subdivide the entire body into lines, areas and spatial elements and are able to calculate force and tension curves with a very high standard of accuracy.

Another example of how design quality can be further improved with the help of ultra-modern electronic procedures is modal analysis, a method which serves to describe the dynamic properties of vibration systems:

With this method, the vibrating structures of individual elements are displayed on the screen of a computer. Our engineers are then able to develop solutions that eliminate vibration and noise problems.

Yet another example of the great lengths BMW goes to in order to constantly improve our standard of quality, is the use of holography for preventing body vibration and noise.

BMW is one of the very few car manufacturers worldwide that apply this very expensive laser technology with a double-impulse camera in order to solve the extremely complicated problems of reducing weight and, at the same time, minimizing the noise level in the car.

The BMW cathaphoretic dip bath: Preserving a high standard of quality for a long life.

Maintaining a high standard of quality throughout a long running life is not



just a matter of preserving your car's good looks. Rather, it also serves to ensure a lasting standard of safety – because in the event of a collision only metal sheet structures that still have their original stability will provide the desired effect. A corroded support element, for example, is not worthy of its name.

BMW therefore applies a unique paint application procedure in order to efficiently protect the body – VERDIP, the method of dipping the body vertically into a phosphate bath.

The primer is then applied on top of this initial corrosion-proof layer. This procedure guarantees even better and long-lasting protection above all in hollow cavities otherwise difficult to reach.

BMW safety – guaranteed to be a lasting asset.

The safety built into BMW cars is further enhanced by the BMW system of hollow cavity preservation applied to all our cars. Not only where rust is easy to see, but most consistently on all bodywork elements subject to corrosion and forming part of the safety system, BMW hollow cavity preservation protects the car from rust. BMW cars receive special underfloor protection as another standard feature. As a result of these efficient precautions, BMW cars have a 6-year warranty against rust breaking through the body without subsequent treatment of the hollow cavities being required. In the annual bodywork inspections required to maintain this warranty, BMW's specialists check the under-floor protection and the paintwork for damage caused by stones, scratches and accidents.

The BMW dealer can therefore make the owner aware of possible damage, allowing him to maintain the rust-proofing precautions and keep the warranty in force.

Check-out – the final all-round quality test.

When BMW cars leave the assembly line after numerous individual inspections, they still have to pass the final test: The BMW check-out – a computerized quality control system integrated in the car finish line that serves to check the car's entire electrical system from top to bottom. This guarantees the detection not only of visible deficiencies, such as a malfunctioning direction indicator light, but also of hidden defects, such as an inadequately insulated power-consuming item.

Sheer driving pleasure wherever you go.

Naturally, we want you to enjoy the refined engineering and outstanding performance of your BMW not only when the car is new, but throughout its

entire life. And to make sure that this is the case, highly qualified BMW specialists are at your disposal at BMW service stations all over the world. Here BMW cars are serviced and maintained with the same care and diligence that goes into their development, design and construction.

So while an investment in the better car may cost a little more, it is certainly worthwhile.

The programmable coordinate measuring machine measures the crankshafts individually with an accuracy of 1/10000th mm. This machine is used in spot checks to supervise the automatic measuring machine and to optimize quality in the introduction of new manufacturing technologies (1).

Ultra-modern testing equipment, such as a scanner electron microscope, is used for comprehensive tests and examinations (2).

To ensure a maximum standard of quality, the various parts and components are checked regularly with high-precision instruments (3).

A three-coordinate measuring machine is used for spot-checking each batch of steering stub axles, which are measured thoroughly with an accuracy of 0.2 microns. Subsequently, the stub axles are tested for hardness. The strength ratings measured in these tests are up to 10 times the minimum strength required (4/13 large photo).

BMW carefully selects the very best material, which is then processed with utmost precision – in many cases in the "classical" way by skilled craftsmen (5).

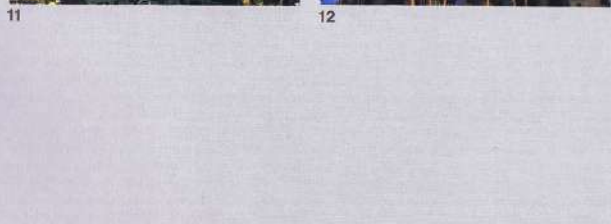
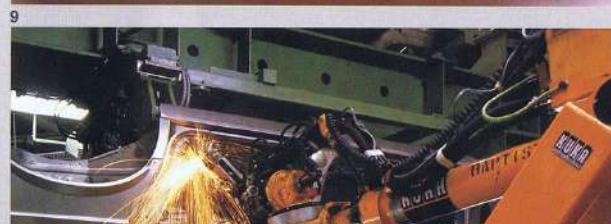
To supervise possible wear of pressing tools and automatic welding machines – and to ensure a consistent standard of quality – individual car bodies are checked at certain intervals by a large-scale computerized measuring system. This guarantees a degree of accuracy of ± 0.03 mm (6/9).

To ensure utmost precision in the production process, robot welding lines weld all the seams on the rear axle support fully automatically and with a consistent standard of accuracy of ± 0.15 mm (7/12).

The paintwork of each BMW is applied in a special dip bath: The cathodic electrical dip bath applies a smooth 20-micron layer of primer on the cleaned body, reaching all corners and hollow cavities. The absolute reliability provided by this system is the basis for BMW's warranty against rust breaking through from inside the body (8).

BMW uses ultra-modern production technologies. A robot called "Baptist", for example, applies a complicated pattern of welding spots on the door cutouts with a standard of accuracy that a human being could never achieve (10).

The body is manufactured by automatic welding machines that connect and weld the floor assembly, side panels, roof, front and rear sections. In all, several hundred welding points hold together the individual parts of the body with absolute precision and optimum rigidity. The quality of each individual point is checked automatically (11).



The BMW principle: The individual alternative yesterday, today and tomorrow.

The large BMW is an excellent example of the principle to which BMW has remained faithful throughout a long and successful history: The principle of combining outstanding engineering and modest, unpretentious styling, which has both a great future and a long tradition with BMW. Today as in the past, this typical BMW style is based on a concept of sporty dynamism and exclusive automotive quality.

A concept that is ideally suited for the highly individual motorist, the motorist who demands far more of his car than the average driver and who wishes to stand out from others by choosing the alternative in top-of-the-range motoring.

The symbol of Bayerische Motoren Werke AG represents the stylized rotor blades of an aircraft engine – visible proof of the fact that BMW's successful history started with the world altitude record for aircraft engines (1).

Over the years, the production of engines for aircraft, cars and motor-cycles has evolved into BMW's characteristic functional styling and engineering. A philosophy which, in practice, means compact dimensions and elegant, unpretentious styling. As a result of this philosophy, BMW cars have always been more compact than comparable cars in the same class.

And even decades ago when car engines were still large and wasteful, we offered engines of sensible size with a reasonable number of cylinders. The BMW 328 and the BMW 728i are separated by more than 40 years of new know-how, different road conditions and changed requirements (2). But while our cars have changed considerably, their basic concept is still very much the same.

Because the typical character of BMW – both in years gone by and in modern times – is the same with all the products we manufacture.

BMW is one of the few car manufacturers with a long and successful tradition of motor racing achievements (3). And this constant challenge of sport has left a very definite stamp on the character and features of all BMW products.

For a company is like a human being: Sport keeps it fit, enthusiastic and performance-orientated. And this has always been a great benefit to all products that bear the name BMW. In tuning cars for motor racing – sometimes under difficult conditions –, every member of a design team will develop a particularly positive attitude and outlook.

And this provides the basis for the enthusiasm that gives the dedicated engineer an entirely different perspective on the motor car.

A perspective that has nothing to do with the bureaucracy you will find in some design departments whose freedom is curtailed from the outset by financial restrictions.

To an increasing extent, BMW has now



become the symbol of successful individualists who expect more than just first-rate quality in the car of their choice: Because through their style and character, BMW cars are the ideal match for the demanding individualist who is not willing to accept any compromises.

BMW's success in a large number of competitive markets all over the world also proves that an increasing number of demanding purchasers regard a BMW as the answer to the motoring world of today and tomorrow.

Because in addition to their engineering merits and ultra-modern technologies, BMWs also provide a far-reaching concept of progressive economy and social awareness.

So benefit from all the progress BMW has to offer – in a BMW 7 Series.



BMW 732i
Modifications and/or additional features vs BMW 728i

Weight, unladen 1500 kg (3308 lb),
max permissible weight 2010 kg (4430 lb)

Second-Generation Digital Electronic System (Bosch Motronic) with electronic, grid-controlled ignition and grid-controlled fuel injection through airflow metering, warm-up control grid
Capacity, effective 3210 cc (195.8 cu in), output 145 DIN kW (197 bhp) at 5500 rpm
Torque 285 Nm (210 ft/lb) at 4300 rpm; compression ratio 10.0:1

I 3.82; II 2.20; III 1.40; IV 1.0; V 0.81; R 3.71; final drive ratio 3.46:1

205/70 VR 14 low-profile tyres

Top speed 208 km/h (129 mph) (automatic transmission model 202 km/h/125 mph) Acceleration from 0 to 100 km/h (62 mph) in 8.6 sec (automatic transmission model 10.5 sec) Standing-start kilometre in 25.5 sec (automatic transmission model 31.5 sec)		
Fuel consumption in ltr/100 km (mpg) to DIN 70030 Part 1, premium-grade fuel	5-speed gearbox	Automatic transmission
at a constant 90 km/h (56 mph)	8.4 (33.6)	7.8 (36.2)
at a constant 120 km/h (75 mph)	10.2 (27.7)	9.8 (28.8)
in city traffic	16.8 (16.8)	16.1 (17.5)

Lockable glove compartment (with universal key for all locks), wooden trimming on floor of centre console

Fully padded side and rear roof frame and fully trimmed centre and rear roof pillars, door window frame cover trims, one-piece padded, pre-shaped roof lining (not with steel sliding vent roof)
More luxurious seat upholstery, individual seats at the rear with body contour and head restraints with angle adjustment

Large tool box housed in fully-trimmed lining of luggage compartment lid

Active Check/Control on the right-hand side of the instrument panel, automatic verification of the following functions when the ignition key is turned:
low-beam headlights, tail lights, number plate light, stop lights, coolant level, engine oil level (both when the car is at a standstill and when it is moving), central indicator light in the instrument cluster

65 Ah battery

The unladen weight, as quoted, applies to cars with standard equipment. Optional extras increase the unladen weight and reduce the maximum permissible load accordingly.

The models shown are fitted according to the specifications applicable in West Germany. According to the requirements of particular export markets, alterations to models, standard and optional equipment, as described in the text and illustrations, may occur. For precise information, please contact your BMW importer or dealer.
Subject to change in design and technical features

BMW 735i
Modifications and/or additional features vs BMW 732i

Engine oil-air heat exchanger

Capacity, effective 3430 cc (209.2 cu in), output 160 DIN kW (218 bhp) at 5200 rpm
Torque 310 Nm (228 ft/lb) at 4000 rpm

final drive ratio 3.25:1

BMW 6½ J x 14 light-alloy rims
Anti-lock braking system

Top speed 217 km/h (135 mph) (automatic transmission model 211 km/h/131 mph) Acceleration from 0 to 100 km/h (62 mph) in 7.9 sec (automatic transmission model 9.4 sec) Standing-start kilometre in 28.7 sec (automatic transmission model 30.3 sec)		
Fuel consumption in ltr/100 km (mpg) to DIN 70030 Part 1, premium-grade fuel	5-speed gearbox	Automatic transmission
at a constant 90 km/h (56 mph)	8.1 (34.9)	7.9 (35.8)
at a constant 120 km/h (75 mph)	10.0 (28.2)	9.8 (28.8)
in city traffic	16.8 (16.8)	16.0 (17.7)

Chrome-plated doorsills

Leather-covered steering wheel rim, leather gear lever knob and gaiter, all wooden trimming in kingwood quality, also on the instrument panel, in front of the front-seat passenger and around the front ashtray, main key with built-in battery-powered micro-torch

First-aid kit

Foglamps integrated into front air dam, second rear fog warning light

ABS warning light

Delay relay for the interior light, intensive windscreen cleaner with separate reservoir, illuminated vanity mirror in sun visor on front passenger's side
Rechargeable torch

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