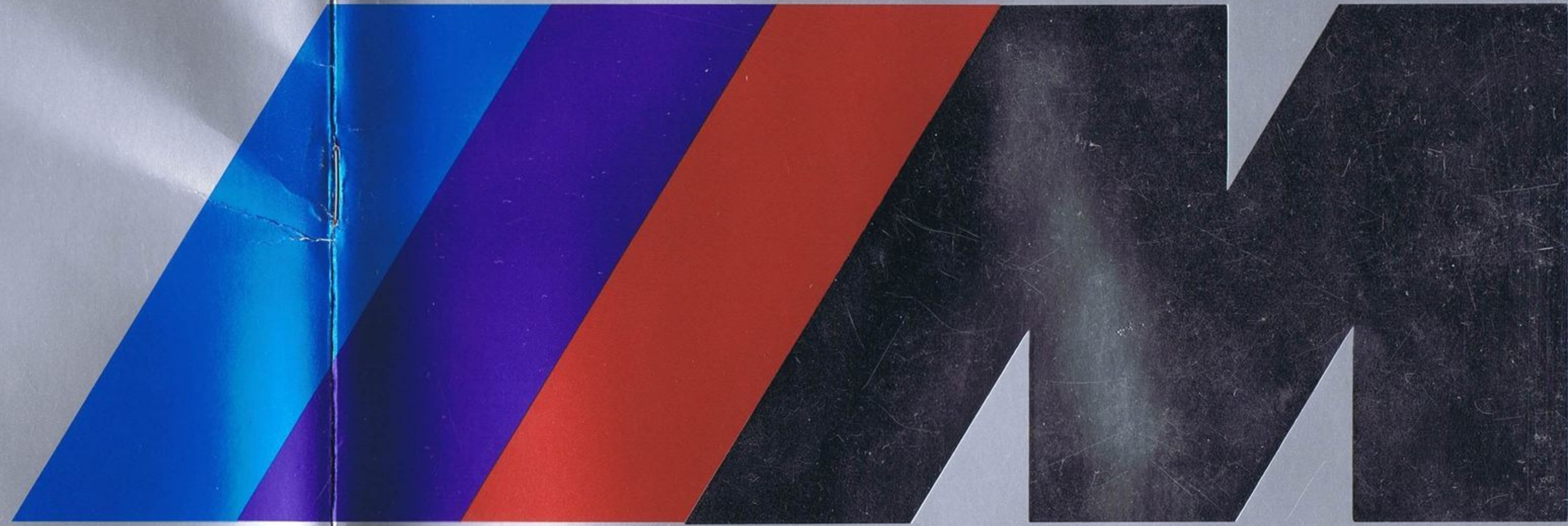


M635CSi
M5



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BMW M 635 CSi, M5: Opening up a new di- mension of supreme performance.

The M in BMW stands for motors.
Motors that have given us a great
reputation over the decades.

The history of BMW started with
the world altitude record for aircraft en-
gines.

And the fact that for decades we have
built technologically outstanding
cars, motorcycles and aircraft engines
at the same time has definitely left
a unique stamp on our company and
each of our products.

BMW stands out from others through
an exceptional combination of sport-
ing style and innovative technology.

After years of austerity, car manufac-
turers have now rediscovered the
significance of outstanding perform-
ance.

Thus endeavouring to give even medi-
ocre, rather boring cars a sporty touch.
But genuine sportiness means more
than a few extra horsepower or a
slightly higher top speed.

Because to achieve genuine perform-
ance a company requires not only lots
of experience in motorsport but also
the right kind of know-how in tech-
nology.

Which is why BMW has always offered
an unparalleled synthesis of sportiness
and high-performance technology
as the ingredients for genuine super-
iority.

BMW has developed high-perform-
ance cars with 4-valve per cylinder
technology for the most discerning
connoisseurs and enthusiasts in the
market.

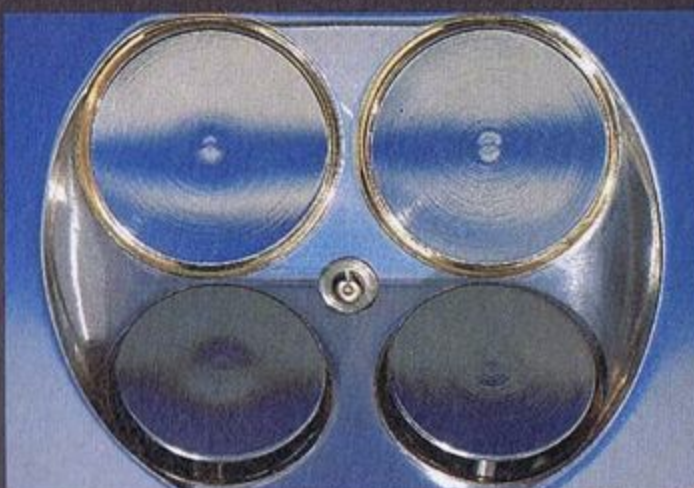
Cars which open up a new dimension
in ambitious motoring.

The BMW M 635 CSi, M5 feature race-
bred 4-valve per cylinder high-per-
formance engines which, in modified
form, have already proven their over-
whelming performance and reliability
in motor racing.

Now adapted for everyday motoring,
these power units are a direct result of
the interaction between Motorsport
and standard production.

BMW's concept of high performance
represented by these cars never-
theless means more than "just" out-
standing power reserves for genuine
superiority on the road.

It also means a suitable chassis and
suspension system for safe motoring
even at high speeds, ample power for
quick and safe overtaking, optimum
roadholding in bends, when applying
the brakes and in emergencies, and a
comprehensive system of safety fea-
tures that supplement each other to
the benefit of the driver and his pas-
sengers.

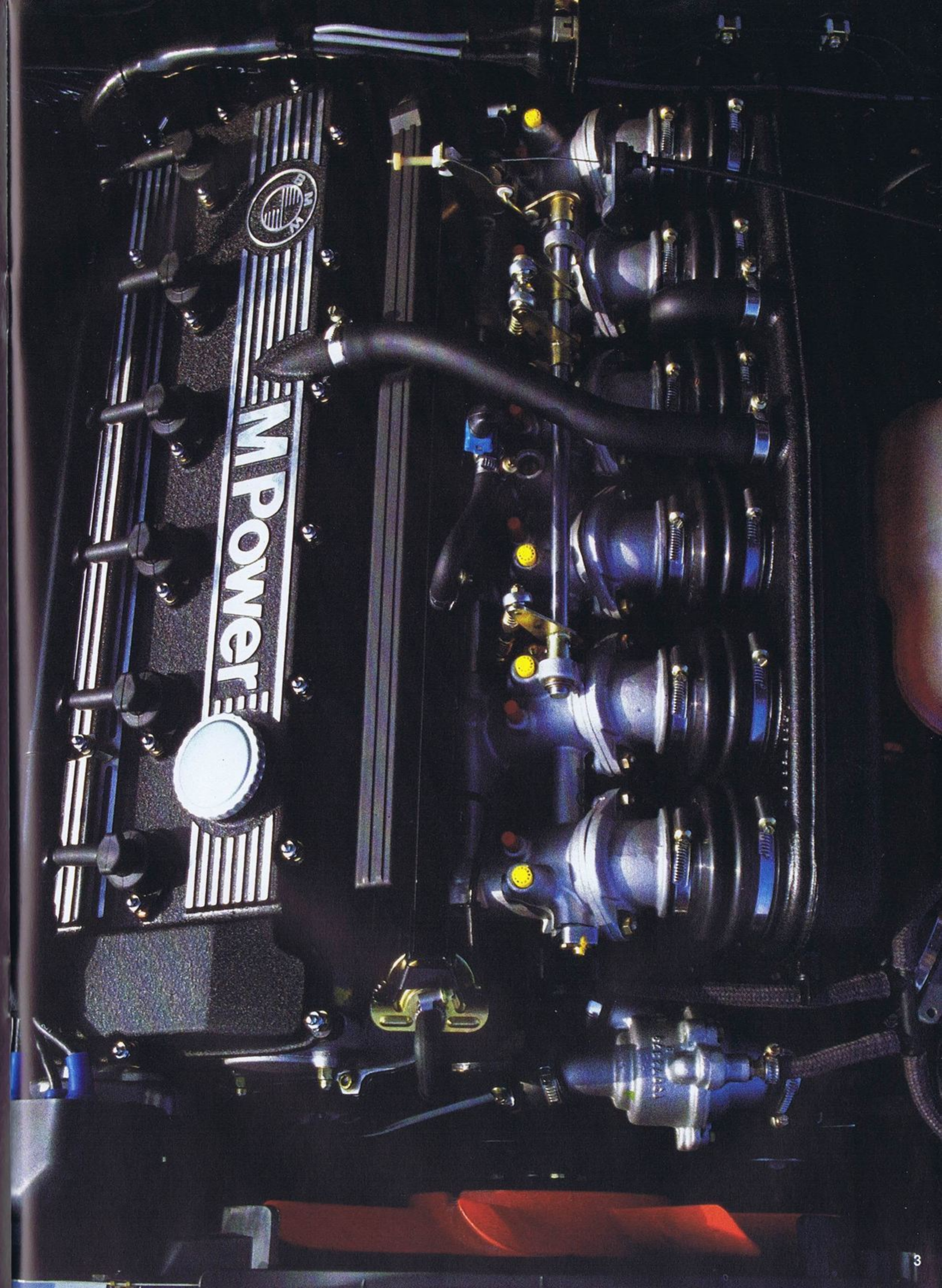


BMW M 635 CSi, M5:
Offering the ultimate standard of high-
performance technology provided by
a unique combination of racing suc-
cess and high-quality production.

A high-performance car need not
mean compromises in everyday
motoring, driving comfort and reliable
service. The BMW M 635 CSi, M5 pro-
vide the optimum symbiosis of out-
standing dynamism and functional,
aesthetic styling. So that in their dis-
creet and superior modesty they
stand out clearly from those flashy
and exotic high-performance cars
which are simply too pretentious for
many discerning motorists. The
M 635 CSi or M5 is therefore the right
car for motorists looking for a lot more
dynamism combined with elegant
straightforward styling, genuine
motoring refinement and ample space
also at the rear.

The BMW M 635 CSi, M5:
ideal cars for the sports-minded indi-
vidualist with the class and superiori-
ty that make flashy exaggeration
quite superfluous.

Some of the special equipment shown
in this brochure is only available as
optional extras and at extra charge.



**The BMW concept:
High performance pro-
vides the basis.
Race-bred sportiness is
the result.
And superiority on the
road is the final out-
come.**

BMW technologies compete in classes far beyond the reach of many other manufacturers.

BMW is dedicated to motorsport with the scientific and professional resources of an industrial enterprise. To prove our competence and performance at the highest level of technology.

Motorsport therefore serves as a standard to measure the ability of a company in solving complex technological and organisational problems. So it is not surprising that BMW pursues the highest goals in the highest realms of motorsport. And that we seek to achieve success through innovative solutions. Because with BMW motorsport, success and innovation have always gone together.

BMW takes up technological challenges more quickly than most other manufacturers.

Which is why we are often the first to reach the finish line.

A good example of BMW's innovative capacity is the consistent use of electronics in BMW cars.

With the help of such electronic systems, our cars and engines play a leading role in quality, reliability and performance – even in the highest classes of motor racing.

The BMW Formula 1 engine, for example, is the first high-performance power unit in this category to use Digital Motor Electronics.

So technologies that help to make standard-production engines both powerful and fuel-efficient also help to win Formula 1 races under the toughest conditions.

Bmw also has a wide range of experience with the most sophisticated 4-valve/cylinder engines.

BMW's high-performance 4-valve/cylinder engines date back to the year 1965.

And our racing success with such engines also has a long tradition: BMW's very first engines built according to this progressive technology set up several international acceleration records in a Formula 2 racing car – which is not surprising, considering that those 2-ltr engines developed no less than 228 DIN kW (310 bhp).

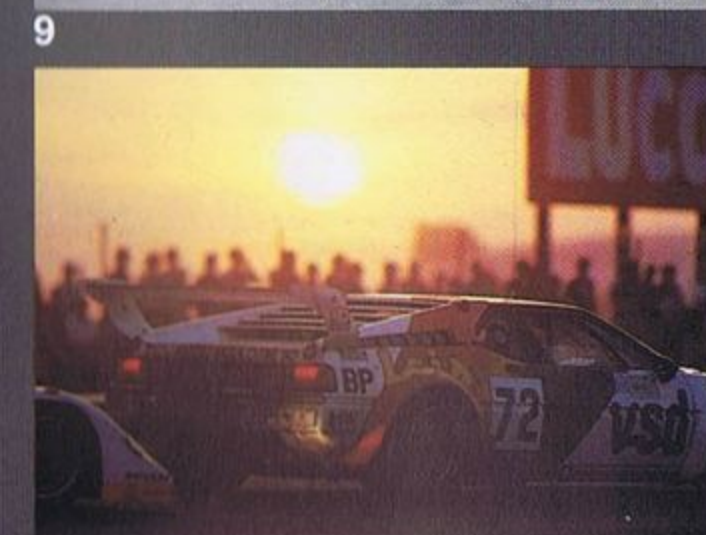
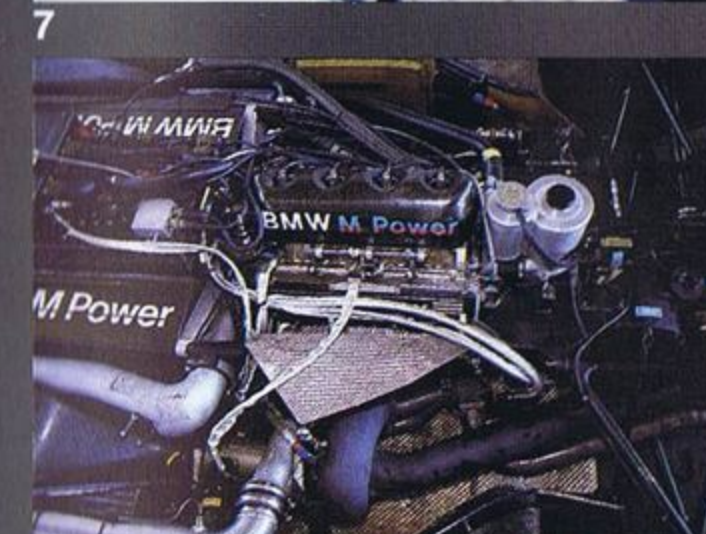
Building on this promising start, BMW then introduced one improvement after the other.

New engines, new experience, new solutions and, in particular, new success. One of the highlights was the engine of the BMW M 1.

A car developed for motorsport but fully suitable for road traffic in line with homologation requirements. Its heart: a BMW 6-cylinder 24-valve engine. While the road version developed 204 DIN kW (277 bhp) the Group 4 sports version provided no less than 353 DIN kW (480 bhp).

The high-performance power unit of the M 1 is now featured with improved and even more sophisticated technologies in the M 635 CSi and M 5. Providing an impressive example of how BMW combines thoroughbred racing technology with everyday reliability for sporty motoring.





BMW high-performance technology: Our success in motorsport also helps to make the better car in standard production.

It goes without saying that motorsport is not absolutely necessary nowadays to build excellent cars.

Test tracks with computerised simulators for conducting trials under realistic conditions provide a lot of information.

But there is one feature of motorsport that cannot be replaced: The unique opportunity for racing engineers and designers to revise existing concepts and introduce genuine innovations. This is where the dedicated engineer can enter new terrain and gain invaluable experience.

Which makes motorsport an essential activity for fundamental research and development.

An area where theory and practice come together in a unique way.

Providing results and new ideas that could never be achieved in standard development.

BMW's success in motorsport also means success in standard production.

BMW's motorsport specialists and standard-production engineers constantly exchange experience and the latest information.

Which provides an efficient flow of new know-how and makes sure that nothing is neglected.

The result of this communication is a standard of technology born to be a winner – both in motorsport and in standard production.

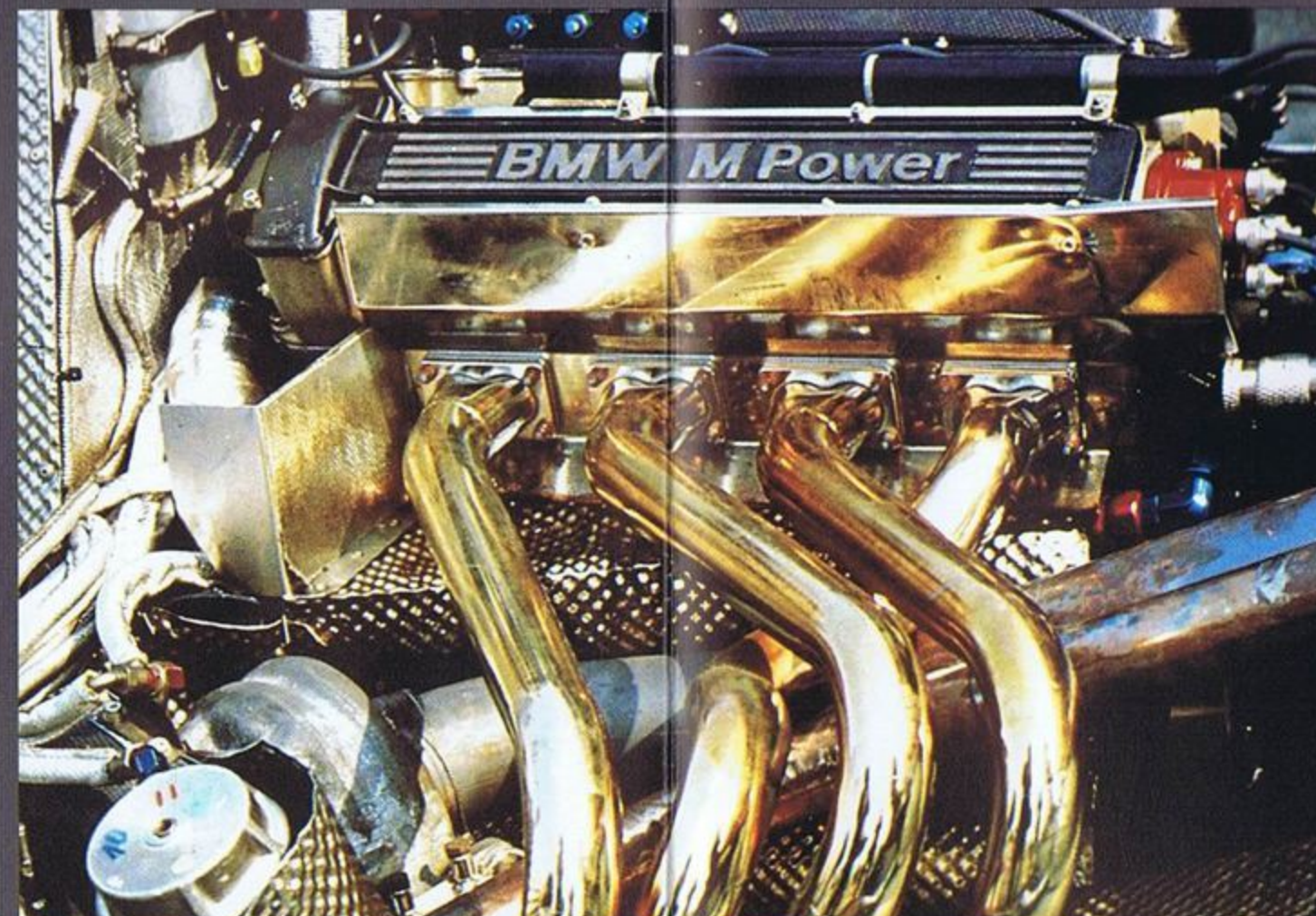
And the fact that BMW production cars are so similar to BMW racing cars is perhaps attributable to the common denominator they have always shared both in racing and on the road: success.



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BMW cars have always been serious competitors on the race-track. Photos 4 and 10 show the legendary BMW M 1.



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Touring car racing with cars closely related to their production counterparts is another highlight of BMW's dedication to motorsport (2, 3). This is where successful cars have to combine optimum performance and outstanding reliability. Giving BMW technology a good chance to prove its merits.

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The BMW Formula 1 engine (5) is the only power unit in the highest realms of motor racing based on a standard block. Offering superior power and performance, this engine helped to make Nelson Piquet the Formula 1 World Champion in 1983 at the wheel of a Brabham BMW. Beating even the toughest competitors in keen competition. And powered by a superior BMW concept: quality through progress. This marked the highlight of BMW's successful entry into Formula 1 (6, 7, 8, 9).

BMW M 635 CSi:
The ultimate synthesis
of sophisticated
technology and superior
modesty.



The BMW M 635 CSi not only continues but even enhances the coupé tradition of the BMW M 1: Providing just about the same performance as this legendary sports car, the M 635 CSi is far superior in motoring refinement, spaciousness and comfort.

The BMW 24-valve power unit already hailed as an outstanding example of advanced high-performance engineering in the M 1 has been improved to an even higher standard in the M 635 CSi.

With even more power and the benefits of electronic engine control also to preserve the environment.

The M 635 CSi therefore offers ambitious connoisseurs a standard of sporty motoring achieved by only a handful of the fastest and most dynamic cars in the market.

The specifications and performance data of the M 635 CSi in brief: Capacity 3453 cc, 210 DIN kW (286 bhp) at 6500 rpm, torque 340 Nm at 4500 rpm, compression ratio 10.5:1, top speed 255 km/h (158 mph), acceleration from 0-100 km/h (62 mph) in 6.4 sec.

If you drive a coupé with the class of the M 635 CSi, never forget that your car reflects your own personal style.

The BMW M 635 CSi is an exceptional car not only through its sportiness, thoroughbred racing technologies and innovative engine control for maximum efficiency and clean exhaust emissions. Because its general concept makes the M 635 CSi even more unique:

To provide outstanding performance without flashy, pretentious styling. This creates a new standard of exclusivity by no means common in the top range of high-performance cars.



**The cockpit of the M 635 CSi:
Just as professional and businesslike as you would expect of a car of this calibre.**

Designed without compromises for efficient and refined motoring, the interior of the M 635 CSi sets new standards and goes far beyond what you would usually expect even in the most sophisticated cars of this kind. The cockpit, controls and instruments have been optimised for perfect ergonomics based on the latest research and development.

The instrument panel in semi-circular arrangement around the driver provides easy, quick and safe access to all controls and switches. Everything is arranged for optimum clarity and ease of control, the most important switches being marked by illuminated symbols. The main instruments are grouped in an instrument cluster directly in the driver's line of vision.

The steering wheel adjustable for reach not only meets the requirements of all drivers, but also helps to provide perfect visibility of the instruments under all conditions.

The secondary section of the instrument panel housing the heating and radio, etc faces towards the driver. The BMW cockpit has won prizes for outstanding design.

And it has set the standard for sophisticated interior design in the most demanding cars.

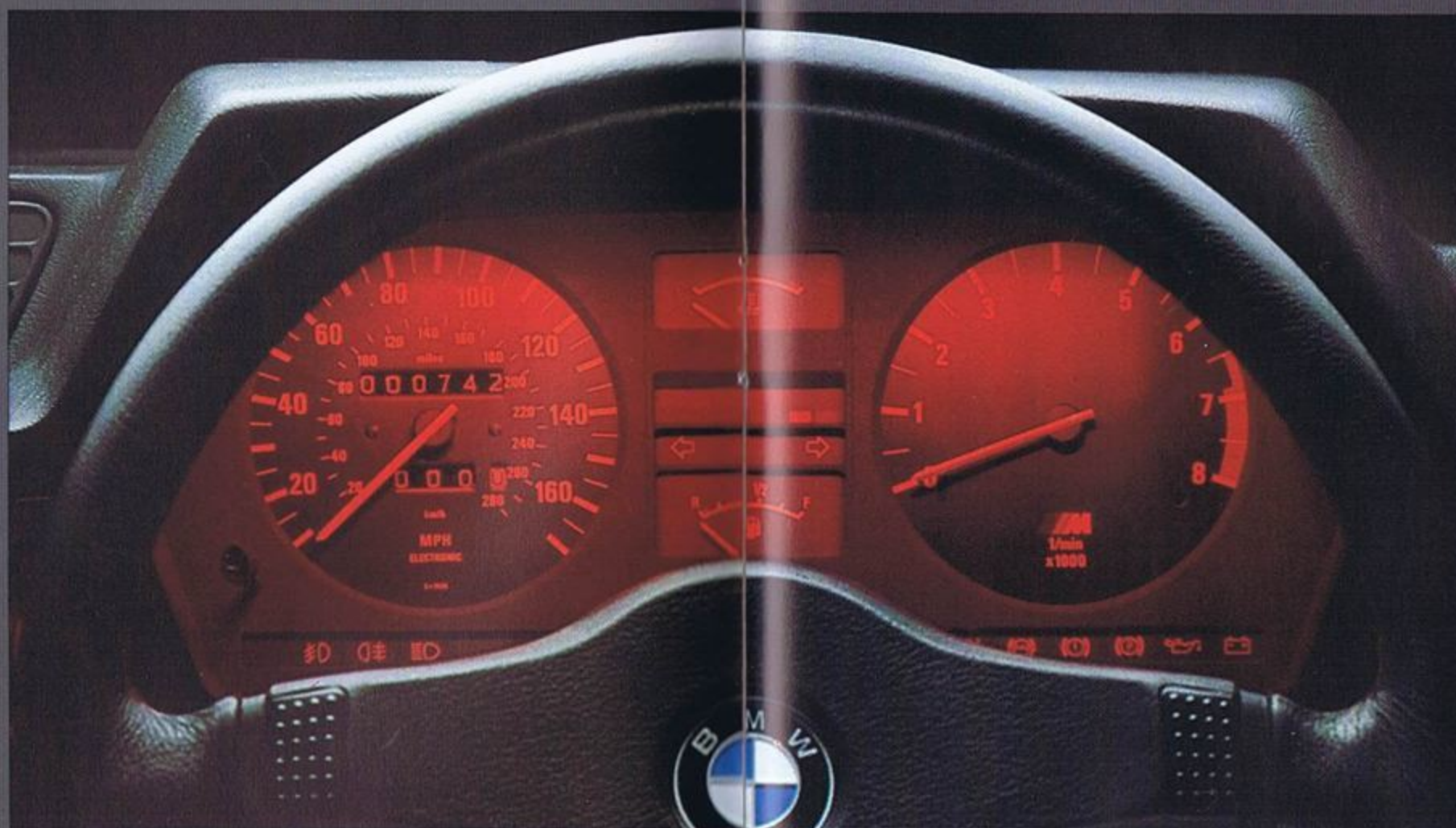
This unique class is the result of genuine functional quality that serves in particular to provide an optimum symbiosis of man, machine and surroundings.

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

The active Check/Control is a particularly sophisticated and advanced electronic safety system: While the car is moving it constantly and independently supervises a whole range of functions – low-beam headlights, rear lights, number plate illumination, stop lights, coolant level, screen-washer reservoir level and engine oil level (both when the car is at a standstill and when moving).

Electronic management to schedule your service intervals.

With the BMW M635CSi 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.



Virtually all high-performance cars force the owner to make compromises in spaciousness and motoring comfort. Not so the M 635 CSi.

The BMW coupé represents a unique concept of motoring in the top range of the market.

Giving top priority not only to performance and dynamism, but also to motoring comfort for refined long-distance travelling.

The cockpit with its constantly improved technologies and the outstanding ergonomic design of the interior, for example, enable the driver to master the superior performance of the engine and travel in genuine style and comfort without the slightest effort.

The BMW sports seats featured as standard in the M 635 CSi for both the driver and front-seat passenger have successfully proven their merits in motorsport and long-distance touring. They provide an ideal body contour and may be set to numerous different positions to suit the driver and front passenger.

The result is an ideal combination of sportiness and motoring comfort for safe and fatigue-free driving.

The colour of the interior provides an ideal match with the colour of the paintwork and also harmonises with the seats and side panels in top-quality Highland upholstery.

The M 635 CSi is fitted with leather upholstery (standard).

Apart from looking really elegant and attractive, this leather upholstery also offers further advantages through the quality of the material:

With leather being able to breathe, it can adjust perfectly to varying temperatures.

This motoring comfort and exclusivity is enhanced even further by the hand-sewn top-quality buffalo leather upholstery (as an option at extra charge) available in nutria and anthracite.

The BMW on-board computer.

Optimum information for reaching your destination quickly and reliably.

With its improved, sophisticated technologies, the BMW on-board computer (7) offers the driver optimum information in various situations.

The wide range of functions varies from the outside temperature indicator warning the driver of low temperatures via an anti-theft security code to the determination and supervision of driving data and travelling times.





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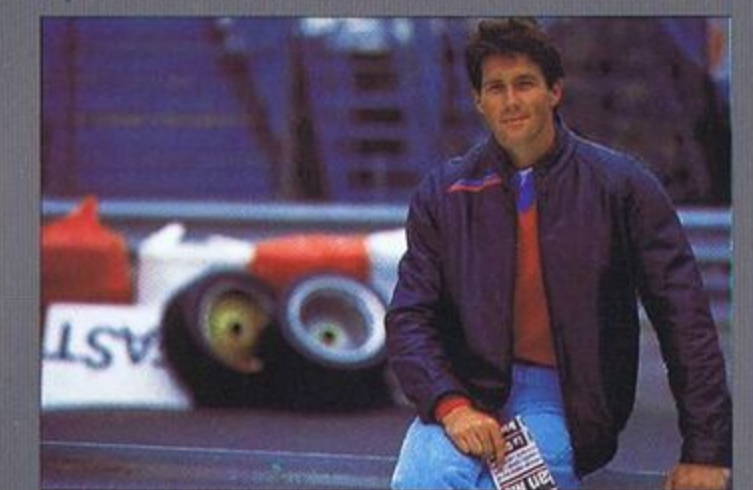
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The M635CSi features a special M-Technic leather sports steering wheel (2). With its hand-sewn leather finish and exclusive, sporty design, this steering wheel blends perfectly with the attractive interior.

It goes without saying that an individual make such as BMW should give motorists an opportunity to express their sporty and individual life-style not only through the choice of their car. So that we have developed a wide range of sportswear and exclusive life-style products under the BMW M symbol (8). Contact your BMW dealer for further information.

The BMW M 635 CSi offers first-rate motoring refinement throughout the entire interior.

Passengers travelling on the rear seats of the BMW coupé will also experience the great difference between this high-performance car and many of its competitors: Individual seats at the rear with a perfect body contour provide exceptional comfort and excellent side support. A centre armrest at the rear naturally comes as standard.

Two covered stowage boxes on the parcel shelf are prepared for the installation of loudspeakers for stereo radios (optional). The first-aid kit is kept handy and ready for use in the stowage compartment on the driver's side.

The ease and safety offered by central locking with a security lock comes as standard with the BMW M 635 CSi, and also ensures that the door buttons cannot be pulled up by unauthorised persons.

The doors, luggage compartment and fuel tank filler cap are locked and unlocked electrically. This allows almost unlimited use of the central locking system (from the driver's door, the front passenger's door and the luggage compartment lock) also when the engine has been switched off. The safety emergency switch combined with the central lock will automatically unlock the doors in the event of an impact or collision, allowing the doors to be opened from the outside.



The M 635 CSi is naturally also available with a wide range of special equipment. For exact details and information, please see the BMW Special Equipment brochure.

BMW M 5:
A new milestone in the
development of
high-performance cars.



Really sophisticated cars in our day and age are based on two entirely different philosophies: First there is the conventional car conceived from the outset to clearly show its exceptional standard of quality and sophistication.

Then there is the new concept of genuine style and luxury with outstanding but nevertheless discreet and unpretentious styling: The philosophy which attaches greater importance to interior quality than exterior flashiness.

Supreme performance, advanced technology, optimum quality, refinement to the last detail.
All wrapped up in a body designed for elegant modesty.

The M 5 developed and designed by BMW Motorsport GmbH is powered by the optimised 24-valve engine of the legendary BMW M 1. Featuring the most advanced electronics for smooth engine control, this proven power unit gives the M 5 the kind of performance otherwise only achieved by a handful of exotic sports cars:

210 DIN kW (286 bhp), acceleration from 0 – 100 km/h (62 mph) in 6.5 sec, top speed 245 km/h (152 mph).

While many less powerful cars seek to make up for their lacking performance and dynamism by pretentious styling or pseudo-sporty gimmicks, the BMW M 5 combines its superior performance with unique style and genuine class.

With the rational High-Tech body design of the compact 5 Series saloon, the BMW M 5 sets a new standard of genuine superiority.

Where inner values count far more than flashy looks.

The unique driving pleasure provided by the M 5 thus results almost entirely from the sheer thrill of dynamic motoring. And not from extroverted styling for merely showing off.

The BMW M 5 is therefore "... the ideal car for the true connoisseur with a modest but very demanding lifestyle." (Auto Zeitung 6/85).

And it is "... an impressive example that cars with highly superior performance do not need any kind of flashy glamour to prove their superiority on the road." (Automobil-Revue 26/85).

The M 5 is available as a limited edition from BMW Motorsport GmbH.



**The BMW M 5:
Providing an ideal combination of outstanding performance for sporty motoring and refined luxury for travelling in the grand style.**

Through its exclusive flair and well-conceived functions, the interior of the M 5 offers optimum quality to satisfy even the most demanding motorist. The materials and the entire finish clearly meet the highest standards of perfection. In the cockpit the driver's line of vision, seat, steering wheel, gear lever, controls and instruments have been combined to provide an impressive all-round concept with optimum ergonomomy and genuine class.

Comfortable seats for relaxed motor-ing without the slightest fatigue.

The M 5 comes as standard with BMW sports seats combining a sporty body contour with a high standard of comfort even on long distances. These features are ensured by the anatomic seat design and the perfect upholstery of the seat shell. The springs of the seats have been specially designed to provide an ideal match with the car's suspension and shock absorbers. In conjunction with the steering wheel adjustable for reach, the individual adjustment of seat height, angle and thigh supports provides an optimum synthesis of man and machine, enabling the driver to master the car reliably without the slightest effort. Which increases the sheer pleasure of sporty motoring and long-distance tours.





6 The rear seats have been thoroughly modified and redesigned also in ergonomic terms to provide optimum body support at all sides. The seat belt locks are recessed in the rear seats to maintain an ideal seating position (2). The rear seats have individual body contour. The rear seat passengers also enjoy the comfort of a centre armrest.

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The BMW M 5 combines the outstanding performance of a classical sports car with the spaciousness of a luxury saloon.

With BMW both the driver and the passengers can enjoy the benefits not only of an outstanding technical concept but also of refined motoring luxury.

Which is why, in designing and building the M 5, BMW has given utmost attention not only to the driver's cockpit but also to the passengers' safety and motoring comfort.

Enjoying genuine spaciousness at the rear, two to three adults can travel comfortably and in real style.

Kneeroom for the rear-seat passengers is further increased by the concave design of the front-seat backrests.

Thus combining an up-to-date concept of sheer driving pleasure with an equally high standard of motoring comfort for passengers.

Tailor-made for the most discerning individualist:

The interior features of the BMW M 5.

The seats and door lining of the M 5 come as standard in exclusive Highland upholstery.

Motorists who demand the utmost in material and finish nevertheless have the choice of an even higher standard: As an option, the BMW M 5 is also available with normal leather and top-quality natural buffalo leather.

And it goes without saying that the M 5 can be finished in all paintwork colours and fitted with all options (wherever technically possible) available for the other models in the BMW 5 Series. BMW Motorsport GmbH is furthermore able to fulfil special requests and provide highly individual features, thus giving the driver a car perfectly matched to his own personal characteristics.



The 24-valve power unit of the BMW M 635 CSi and M 5: Offering the ambitious motorist the unique thrill of race-bred technology.

The engine of the M 635 CSi and M 5 excels by its thoroughbred racing technologies: two-piece cylinder head, reinforced valve drive with 24 valves, two overhead camshafts with special tappets. Valve openings are about 25 % larger and ensure an optimum flow of the fuel/air mixture and a rapid charge throughout the entire combustion chamber.

Central spark plug system. Special connecting rods and pistons. The combustion chambers are designed according to the same standard as in Formula 1. This special design of the combustion chambers allows an unusually high compression ratio of 10.5:1. And means an excellent degree of thermal efficiency. The intake system ensures an optimum flow of the fuel/air mixture with 6 intake funnels and 6 throttle butterflies to provide an ideal cylinder charge and supreme torque. The exhaust system features a multi-unit racing manifold to maximise performance and avoid oscillations caused by the varying cylinder charge.

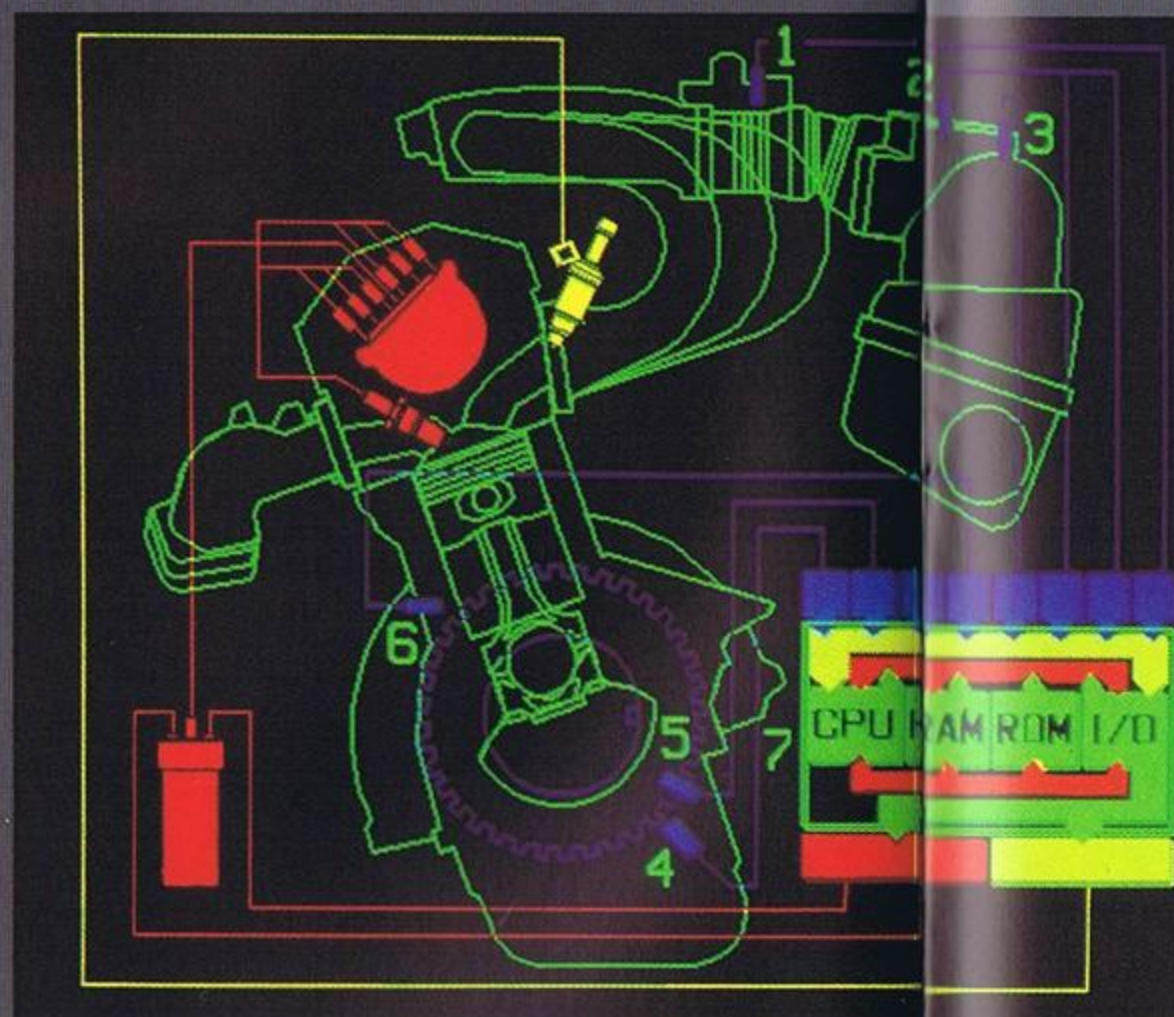
This high-performance power unit is controlled by second-generation Digital Motor Electronics.

Following the ignition and fuel/air mixture control grid coupled with a special warm-up grid, a computer determines the optimum ignition timing as well as the amount and composition of the fuel/air mixture: As a function of engine speed and load, the amount of fuel supplied always remains exactly in line with the power and performance required by the driver. Sensors send the necessary operating data to the control unit. Incorporating a new type of air volume meter, the power unit is controlled by a logarithmic instead of a linear engine control curve. So that despite the larger engine speed range, the signals generated by the sensor are even more accurate and the amount of fuel supplied is checked even more efficiently. The result is a high-performance engine perfectly suited for everyday motoring.

An engine that responds spontaneously and smoothly to the accelerator, combining supreme motoring refinement even at low engine speeds with genuine fuel economy and clean exhaust emissions.

A high-performance car need not mean compromises in everyday motoring, driving comfort and reliable service.

Even in the M 1 the BMW 24-valve power unit combined supreme performance with excellent reliability in everyday motoring. Now this standard is further enhanced by the consistently improved engine of the BMW M 5 and M 635 CSi. One of the basic ingredients that provides this perfection is the combination of outstanding racing technologies and advanced electronics. The result is an unprecedented synthesis of dynamic performance



FUNCTIONAL DIAGRAM OF THE DIGITAL MOTOR ELECTRONICS:

- 1 THROTTLE BUTTERFLY SWITCH
- 2 AIR VOLUME METER
- 3 AIR TEMPERATURE METER
- 4 ENGINE SPEED SENSOR
- 5 CRANKSHAFT POSITION
- 6 ENGINE TEMPERATURE
- 7 MICRO-COMPUTER WITH 4 CONTROL GRIDS



and ideal characteristics for everyday motoring.

To quote the German motoring journal Sport Auto (7/85): "Even when the engine is still warming up you immediately realise that it behaves perfectly on normal roads despite its racing heritage."

Ample power is available from the 6 cylinders at less than 1500 rpm and even cruising in high gears at low engine speeds is a genuine pleasure." Drivers of the M 635 CSi and M 5 also benefit from BMW's dense network of authorised service stations. So that even in an emergency they will never be left alone.

High performance of the standard offered by the M 5 and M 635 CSi requires a chassis, power train and brake system with racing qualities. Which is exactly what BMW is able to provide.

Needless to say, the BMW M 5 and M 635 CSi are not just upvalued versions of the 5 and 6 Series with a more powerful engine.

Rather, they are completely new high-performance cars designed in every respect for a much higher standard of performance on the road.

The 210 DIN kW (286 bhp) developed by the engine is transmitted to the rear axle by a substantially reinforced 5-speed sports gearbox.

The entire chassis and suspension has been modified for the higher standard of performance and braking efficiency.

Gas-pressure shock absorbers provide taut, sports-tuned roadholding and handling.

And the entire body has been lowered to provide an optimum centre of gravity.

The rear axle features progressive-action springs for optimum stability and roadholding.

In view of the wider tyres on the M 635 CSi, the double-joint spring strut front axle (2) has an extra-large wheel castor to preserve the excellent response of the steering and the directional stability of the car also with very wide tyres.

To reduce lift forces, both cars have a special front spoiler designed to match the overall streamlining.

The M 5 is fitted as standard with BMW light-alloy wheels in cross-spoke styling with 225/50 VR 16 low section tyres (spare wheel standard TRX), the M 635 CSi with BMW 210 TR 415 light-alloy wheels in cross-spoke styling and 240/45 VR 415 low-section tyres.

To accommodate these extremely wide wheels the M 635 CSi has flared wheel arches painted in body colour.

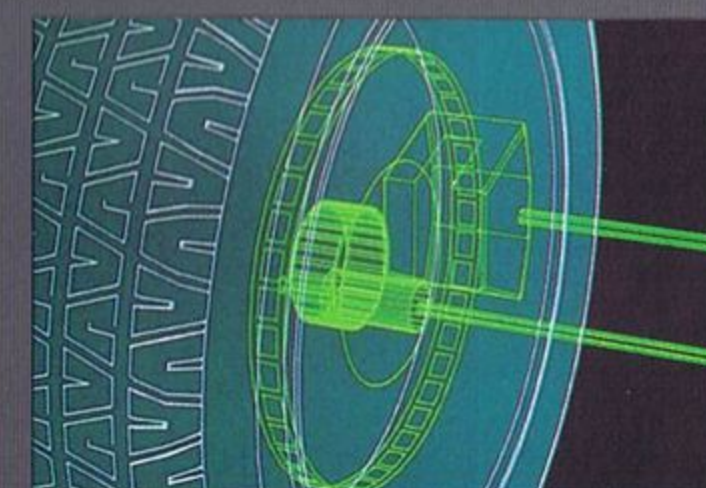
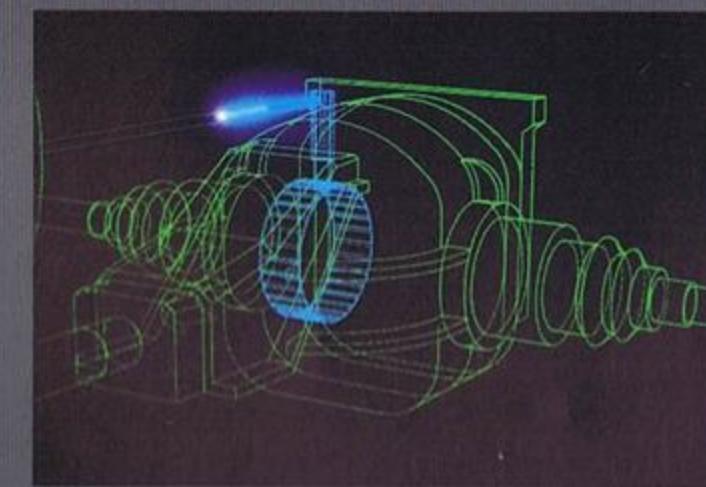
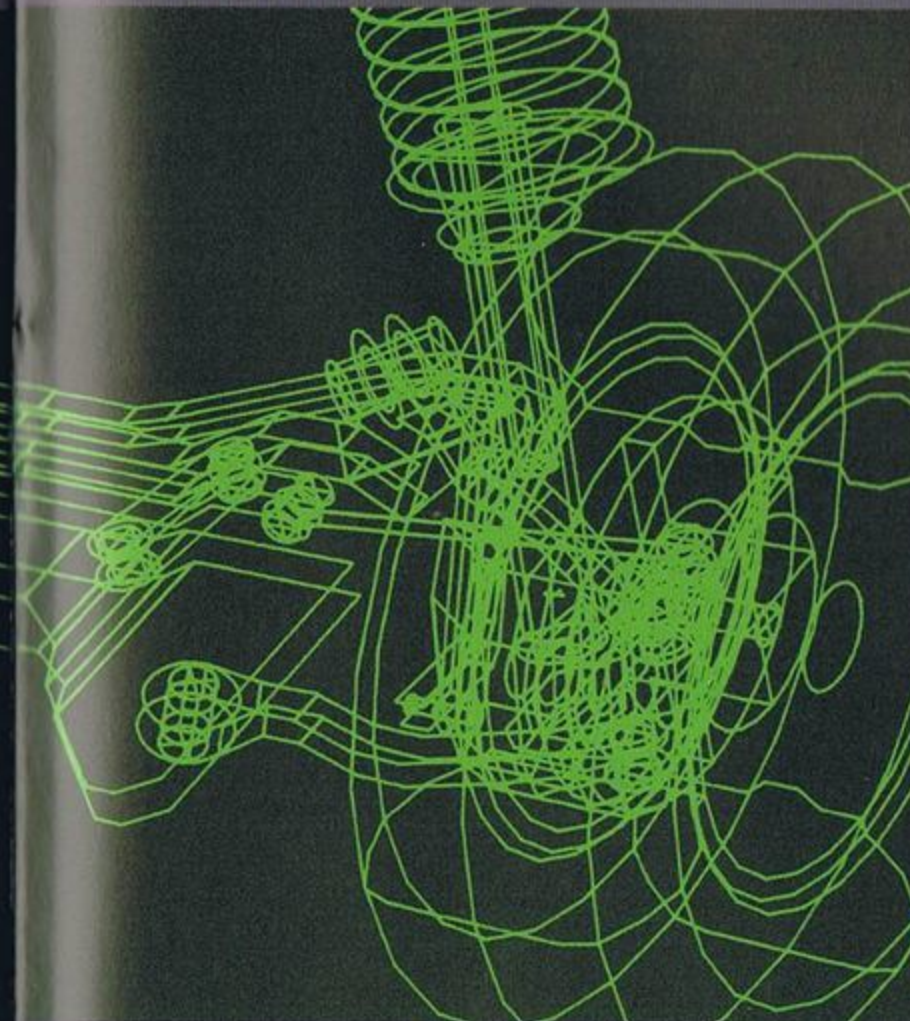
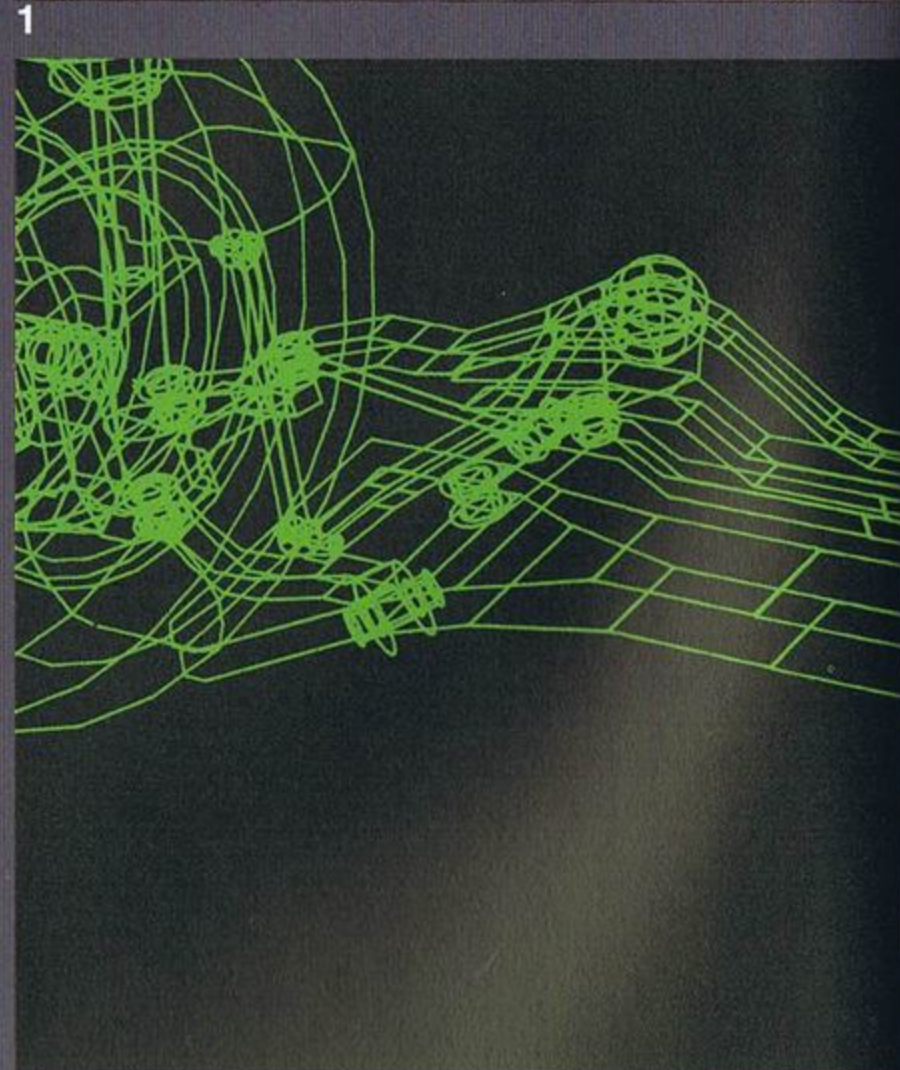
The entire brake system has been modified to match the enhanced performance of the M 5 and M 635 CSi.

Extra-large and extra-thick vented disc brakes are used at the front.

The rear disc brakes have fist callipers and an extra-large piston diameter.

The ABS anti-lock braking system fitted as standard on both cars has been modified to provide a perfect match with the suspension.

Axle load distribution has been optimised by moving the 90 Ah battery to the boot, in this way providing even better traction on the rear axle.



The BMW M 635 CSi and M 5 are fitted as standard with the electronic ABS anti-lock braking system (4). ABS consists of a speed sensor for each wheel and an electronic control unit for processing the speed data. This is supplemented by a hydraulic unit which, via the electronic system controls brake pressure individually for each wheel. As soon as a wheel threatens to lock, the control unit reduces the hydraulic pressure and the wheel can once again rotate more quickly to avoid locking.

**BMW M 635 CSi, M 5:
The right choice for
drivers with a more
professional concept
of high performance.
Drivers who will accept
nothing but the best.**



The BMW M 635 CSi, M 5, provide a standard of high-performance technology far superior to what you will normally get. High-performance technology that gives the driver outstanding superiority in all situations. So when looking for a sporty car, make sure it comes from the right manufacturer with the necessary experience. And remember that as a BMW driver you will always be in the best company. Because the pursuit of excellence is also a kind of sport: the sport to be satisfied only with the very best. Which is precisely what links BMW engineers and BMW purchasers.

Creating the perfect match of motor-
ing dynamism and driving skill.
Because the most important asset of a
high-performance car is the driver.

A significant aspect of the freedom we enjoy in life is the option to choose exactly the right car – a car tailored to the individual motorist, allowing him to achieve even more freedom, mobility and independence. One of the ways of attaining this freedom is therefore to choose the outstanding performance and dynamism of a BMW with 4 valves per cylinder technology. Motorists who opt for this kind of car obviously have a sporty attitude. And they therefore drive actively, giving their full attention to their car and the traffic around them. Which is an advantage for everyone on our roads. Because motorists who drive with this kind of critical and careful attention drive better and with genuine superiority – and also more safely. Even the driver of an exceptional car such as the M 635 CSi or M 5 will admit that such thoroughbred performance cars are a personal pleasure. Adding, however, that their existence means a bit more freedom in life. And one thing is for sure: People who know what freedom is worth will respect this freedom with greater discipline.



Specifications BMW M 5

Bodywork

Four-door saloon, monocoque all-steel bodywork welded to the floor assembly, torsionally rigid safety cell on all planes, front and rear crumple zones with predetermined deformation, integrated roof crossbar, all-round body reinforcement

Dimensions, Weights

Length 4620 mm (181.9 in), width 1700 mm (66.9 in), height (unladen) 1397mm (55.0 in); wheelbase 2625 mm (103.3 in), track, front 1430 mm (56.3 in), rear 1465 mm (57.7 in), turning circle 11.3 m (37.1 ft); elbow width, front 1392 mm (54.8 in), rear 1378 mm (54.3 in)

Luggage compartment capacity, absolute, approx 630 ltr (22.1 cu ft), to VDA standard approx 450 ltr (15.8 cu ft); fuel tank 70 ltr (15.5 gals)

Weight, unladen 1430 kg (3152 lb) (plus 75 kg (165 lb) driver's weight in accordance with EEC directive 70/156), max permissible weight 1900 kg (4188 lb); permitted load 470 kg (103 lb), permitted roof load 75 kg (165 lb), trailer not allowed

Engine

Water-cooled 6-cylinder 4-stroke inline engine with two-piece 24-valve light-alloy cylinder head, crossflow principle, roof-shaped combustion chamber with central spark plug system; two overhead camshafts with 7 bearings, crankshaft running in 7 bearings with 12 counterweights, two-stage electrical fan with high-performance radiator; engine oil cooler, double-tube twin-chamber exhaust with dual tailpipes

Second-generation Digital Motor Electronics (Bosch Motronic) with electronic, grid-controlled ignition and grid-controlled air-volume-metered fuel

Injection, warm-up control grid, fuel supply cut-off when coasting

Capacity, effective 3453 cc (210.7 cu in), output 210 DIN kW (286 bhp) at 6500 rpm

Torque 340 Nm (251 ft/lb) at 4500 rpm; compression ratio 10.5:1

Transmission, Suspension

Hydraulically actuated single-plate dry clutch with offset clutch spring, automatic adjustment for wear and torsional damper

5-speed close-ratio sports gearbox with synchromesh also on reverse gear: I 3.51; II 2.08; III 1.35; IV 1.00; V 0.81; R 3.71; final drive ratio 3.73:1

Limited-slip differential with 25 % locking action; standard drive: Engine at the front, power transmission to rear wheels

Front suspension: Double-joint spring strut front axle with independent wheel suspension, offset camber with coil springs (compensation of transverse forces by eccentric arrangement) and rubber auxiliary springs; stabilizer bar, sports-tuned suspension with gas-pressure shock absorbers

Rear suspension: Independent suspension on semi-trailing arms swept back by 13°, anti-squat, spring struts with coil springs and rubber auxiliary springs; stabilizer bar, sports-tuned suspension with gas-pressure shock absorbers

Safety steering column; power-assisted steering with varying power assistance according to engine speed, forged BMW 7 1/2 J × 16 light-alloy wheels in cross-spoke styling with 225/50 VR 16 low-section tyres, lockable wheel bolts

Diagonal twin-circuit brake system with hydraulic brake servo modified for superior performance; fixed-calliper disc brakes at the front (vented) and fist-calliper disc brakes at the rear, sensor for brake lining wear indicator on front left and rear right wheels, handbrake acting mechanically on additional drum brakes at the rear; ABS anti-lock braking system

Performance, Fuel Consumption

Top speed 245 km/h (152 mph)

Acceleration from 0 to 100 km/h (62 mph) in 6.5 sec

Standing-start kilometre in 26.8 sec

| Fuel consumption in ltr/100 km to DIN 70 030 Part 1, premium-grade fuel | 5-speed sports gearbox |
|--|---|
| at a constant 90 km/h (56 mph) <p>at a constant 120 km/h (75 mph) <p>in city traffic</p></p> | 7.8 (36.2 mpg) <p>9.7 (29.1 mpg) <p>16.5 (17.1 mpg)</p></p> |
| Department of Transport approved | |

Exterior Fittings

All-round parking protection through wrap-around bumpers with wide rubber trimming and rubber side rubbing strips; small front spoiler; M Technic rear spoiler, engine compartment lid supported by two gas-pressure lifts; electrically sliding roof

Laminated windscreen, heated rear window, fuel tank filler cover with holder for tank cap; electrical central locking including the fuel tank filler flap and luggage compartment lock (may be operated also from the front passenger's door and luggage compartment lock) with safety switch and emergency switch to unlock doors in the event of an accident, green-tinted heat-insulating glass all round; rear-view mirrors on driver's and front passenger's doors finished in body colour, adjustable electrically from inside and with electric heating, heated lock on driver's door, heated screenwasher nozzles; headlight wash/wipe

“M 5” model designation with BMW Motorsport stripes in front left ornamental grille and rear right panel

Hollow-cavity preservation, undersealing; 6-year warranty against rust breaking through from the inside provided rustproofing is checked annually

Interior Fittings

Full velour carpeting of the interior and rear shelf, all-round upholstery on the doors with Highland fabric centrepiece, velour carpeting at the bottom, safety padding above the windscreen with recessed sun visors; storage facilities: In the large illuminated glove compartment, on the instrument panel, in the centre console and in storage boxes in the front doors; armrests on the doors with integral grab handles at the front, roof grab handle on the front passenger's side, roof grab handles with clothes hooks at the rear; glove compartment lock, centre console extended to the rear with handbrake pivot cover; illuminated safety ashtray and cigar lighter, two ashtrays at the rear, M-Technic leather-covered 3-spoke sports steering wheel with adjustment for reach, dia 380 mm, leather gear lever knob and gaiter, gear lever knob with BMW Motorsport stripes

Anti-dazzle rear-view safety mirror, door locks with safety anti-burst strikers, childproof locks on rear doors; rear window blind

Main key with built-in battery-powered micro-torch

Seats: Electrically operated BMW sports seats at the front with top-quality Highland upholstery, driver's seat adjustable individually for height and angle, front and rear-seat head restraints adjustable for angle

Individually contoured seats at the rear with centre armrest, anthracite roof lining, 3-point inertia-reel seat belts on the outside rear seats and hip belt in the middle

Key-case and on-board manual in high-quality leather

Luggage compartment: High-quality velour carpeting and all-round lining of the illuminated luggage compartment; large toolbox housed in the fully-trimmed lining of the luggage compartment lid, spare wheel beneath luggage compartment floor, battery fitted at the right between wheel arch and rear panel with cover providing extra storage space for a warning triangle

Electrical System

Dual halogen headlights, larger headlights for the low beam (which switch off automatically with the ignition); front direction indicators and foglamps integrated in the front air dam, two rear fog warning lights, two reversing lights, side direction indicators

Instrument panel: Instruments and controls slightly curved around the driver; active Check/Control above the windscreen with automatic verification of the following functions when the ignition key is turned: low-beam headlights, tail lights, number plate light, stop lights, coolant level, screenwasher reservoir level, engine oil level; central indicator light in the instrument cluster; instrument cluster with electronic speedometer up to 280 km/h (170 mph), trip counter, rev counter with integrated BMW Motorsport emblem, digital quartz clock; SI Service Interval Indicator, fuel gauge and coolant temperature gauge; additional warning lights for fuel level, handbrake pulled, brake fluid level, brake lining wear and rear fog warning lights; warning light for pressure in central hydraulic system, infinitely adjustable, orange anti-dazzle illumination for instruments and controls, illuminated symbols and markings for switches, illuminated switch for hazard warning flashers, parking light switch; electrical screenwasher system with automatic wash/wipe and fingertip control, two wiper speeds, intermittent wipe operated from the steering column; dual screenwasher jets left and right; socket for rechargeable hand lamp (optional extra) in glove compartment; interior light with contact switches on the four doors, delay relay and switch on instrument panel.

Heating/ventilation: Electronically controlled heating, control button with temperature scale, quiet 3-stage blower, fixed-position defroster nozzles for the windscreen and side windows, fresh-air supply through 5 outlet grilles at the side and in the middle, each horizontally and vertically adjustable and with individual control and shut-off (with the exception of the head-area nozzles); illuminated heater diagram, rear passenger compartment heating, forced extraction of stale air; air conditioning

90 Ah battery in the luggage compartment; 90 A/1260 W alternator

Specifications BMW M 635 CSI

Bodywork

Two-door, four-seat coupé, monocoque all-steel bodywork welded to the floor assembly, torsionally rigid safety cell on all planes, front and rear crumple zones with predetermined deformation, integrated roof crossbar, all-round body reinforcement

Dimensions, Weights

Length 4755 mm (187.2 in), width 1725 mm (67.9 in), height (unladen) 1353 mm (53.3 in); wheelbase 2625 mm (103.3 in), track, front 1430 mm (56.3 in), rear 1464 mm (57.6 in), turning circle 11.6 m (38.0 ft); elbow width, front 1443 mm (56.8 in), rear 1410 mm (55.5 in)

Luggage compartment capacity, absolute 430 ltr (15.1 cu ft), to VDA standard 335 ltr (11.7 cu ft); fuel tank 70 ltr (15.5 gals)

Weight, unladen 1500 kg (3308 lb)`, max permissible weight 1850 kg (4079 lb); permitted load 350 kg (772 lb), permitted roof load 75 kg (165 lb)

Trailers not allowed. The unladen weight, as quoted, applies to cars with standard equipment. Optional extras increase the unladen weight and reduce the maximum permissible load accordingly. *Plus 75 kg (165 lb) driver's weight in accordance with EEC directive 70/156.

Engine

Water-cooled, 6-cylinder, 4-stroke inline engine with two-piece 24-valve light-alloy cylinder head, crossflow principle, roof-shaped combustion chamber with central spark plug system; two overhead camshafts with 7 bearings, crankshaft running in 7 bearings with 12 counterweights, two-stage electrical fan with high-performance radiator; engine oil cooler, double-tube twin-chamber exhaust with dual exhaust pipes

Second-generation Digital Motor Electronics (Bosch Motronic) with electronic, grid-controlled ignition and grid-controlled fuel injection through airflow metering; additional grid control for the warming-up phase, fuel supply cut-off when coasting

Capacity, effective 3453 cc (210.6 cu in), output 210 DIN kW (286 bhp) at 6500 rpm

Torque 340 Nm (250 ft/lb) at 4500 rpm; compression ratio 10.5:1

Transmission, Suspension

Hydraulically actuated single-plate dry clutch with plate spring, torsional damper and automatic adjustment for wear; 5-speed close-ratio gearbox with synchromesh also on reverse gear: I 3.51; II 2.08; III 1.35; IV 1.00; V 0.81; R 3.71; final drive ratio 3.73:1, limited-slip differential with 25% locking action
Standard drive: engine at the front, power transmission to rear wheels

Front suspension: independent wheel suspension on double-joint spring strut axle, displaced arrangement (displaced camber) with coil springs (compensation of transverse forces by eccentric arrangement) and rubber auxiliary springs; stabilizer bar, tilt angle stops on the spring struts

Rear suspension: independent wheel suspension on semi-trailing arms (swept back by 13°), reduction of squat effect when accelerating, spring struts with coil springs and rubber auxiliary springs; stabilizer bar

Sports-tuned suspension with gas-pressure shock absorbers front and rear

Safety steering column, power-assisted steering with varying power assistance according to engine speed

BMW 210 TR 415 light-alloy wheels in cross-spoke styling and 240/45 VR 415 low-section tyres incl. flared wheel arches (with paintwork in body colour)

Diagonal twin-circuit braking system with hydraulic brake servo modified for the outstanding performance of the car; fist calliper disc brakes front (vented) and rear, sensor for brake lining wear indicator on front left and rear right wheels, handbrake acting mechanically on additional rear drum brakes

Anti-lock braking system

Performance, Fuel Consumption

Top speed 255 km/h (158 mph)

Acceleration from 0 to 100 km/h (62 mph) in 6.4 sec

Standing-start kilometre in 26.4 sec

| Fuel consumption in ltr/100 km (mpg) to DIN 70030 Part 1, premium-grade fuel | 5-speed sports gearbox |
|--|---|
| at a constant 90 km/h (56 mph) <p>at a constant 120 km/h (75 mph) <p>in city traffic</p></p> | 7.8 (36.2 mpg) <p>9.7 (29.1 mpg) <p>16.5 (17.1 mpg)</p></p> |
| Department of Transport approved | |

Exterior Fittings

All-round parking protection through wrap-around, rubber-trimmed bumpers front and rear, rubber side rubbing strips; extra-large and low regenerating spoiler at the front, rear spoiler on luggage compartment lid made of black synthetic material, both spoilers optimised for reducing lift forces, slender ornamental stripes at the side; engine compartment lid supported by two gas-pressure lifts, engine compartment light; chrome-plated doorsills; fuel tank filler cover with holder for tank cap; electrical central locking including the fuel tank filler flap and luggage compartment lock (may be operated also from the front passenger's door and luggage compartment lock) with a safety switch and emergency switch to unlock doors in the event of an accident

Laminated windscreen, green-tinted heat-insulating glass all round, heated rear window; rear-view mirrors on driver's and front passenger's doors finished in the same colour as the car, adjustable electrically from inside and with electrical heating, electric steel sliding/vent roof, heated lock on driver's door, heated screenwasher nozzles

Model designation “M” in front-left ornamental grille and on the rear panel at the right, with BMW Motorsport stripes

Hollow-cavity preservation, undersealing; 6-year warranty against rust breaking through from the inside provided rustproofing is checked annually

Interior Fittings

Full velour carpeting of the interior, rear shelf in velour fleece lining, storage facilities: in the large illuminated and lockable glove compartment, on the instrument panel, in the centre console and in the front-door pockets; two covered stowage boxes in the rear shelf with an integrated first-aid kit and prepared for loudspeaker installation; armrests front and rear with integral grab handles at the front, two roof grab handles with clothes hooks (or, respectively, grab belts); illuminated safety ashtray at the front and between the rear seats, illuminated cigar lighter at the front, leather-covered 3-spoke M-Technic steering wheel with reach adjustment, dia 380 mm (15.0 in), leather gear lever knob secured in position with gear shift diagram, leather gaiter on shift lever

Safety padding above windscreen with recessed sun visors (with illuminated vanity mirror on front passenger's side); rear window blind; all-round door upholstery with central cloth section to match the upholstery (only with cloth upholstery), door and side panels in leatherette; full carpeting to match beneath doors; anti-dazzle rear-view safety mirror, door locks with safety anti-burst strikers and counterweights, interior door handles moved to the rear and positioned above armrests, main key with built-in battery-powered micro-torch

Seats: Electrically operated BMW sports seats or Recaro seats at the front with new leather upholstery, front seats move forward when tipped to the front, seat height adjustable as a function of fore-and-aft adjustment; additional adjustment for angle and adjustable thigh support; front-seat head restraints with angle adjustment, height adjustment and detachable with push-button catch; individually contoured seats at the rear with centre armrest,

leatherette roof lining with suede effect

3-point inertia-reel seat belts front and rear with covered reel and pivoting system on front seats, anchorage points directly on front seats; knee protection below the instrument panel, padded centre console, complete front-to-rear upholstery on propeller shaft tunnel

Luggage compartment: full fleece carpeting and all-round lining of the illuminated luggage compartment; large tool box housed in fully-trimmed lining of luggage compartment lid, spare wheel beneath luggage compartment floor, battery fitted at the right between wheel arch and rear panel with cover providing extra storage space

Electrical System

Dual halogen headlights which switch off automatically with the ignition, low-beam headlights with two-stage reflector, foglamps integrated in the front spoiler, two rear fog warning lights, two reversing lights, side direction indicators

Instrument panel: Instruments and controls grouped in a semi-circular layout around the driver; instrument cluster with electronic speedometer, trip counter, rev counter, SI service interval indicator, fuel gauge and coolant temperature gauge; additional warning lights for: fuel level, coolant temperature, brake lining wear, brake fluid level and pressure in the central hydraulic system, handbrake pulled, ABS and rear fog warning light; active Check/Control (on right-hand side of instrument panel), constant automatic verification when the engine is running of the following functions: low-beam headlights, tail lights, number plate illumination, stop lights, coolant reservoir level, screenwasher reservoir level, engine oil level (both when the engine is running and at a standstill); central warning lamp in the instrument cluster; second-generation on-board computer with 8 important functions and remote control from the steering wheel; infinitely adjustable, orange illumination for instruments and controls, most important switches with illuminated symbols or markings, illuminated switch for hazard warning flashers, parking light switch; electric window lifts front and rear (rear windows partly retractable), electrical screenwasher system with automatic wash/wipe and fingertip control, two wiper speeds, intermittent wipe, control from the steering column, dual screenwasher jets left and right (heated), headlight wash/wipe, socket with rechargeable hand lamp in glove compartment, interior light with contact switches on the door pillars and delay relay

Heating/ventilation: electronically controlled fresh-air heater with easily adjustable temperature control by slide buttons and rotary knob; quiet, infinitely adjustable, electronically controlled blower, defroster nozzles for windscreen and side windows, fresh-air supply through outlet grilles at the side and in the middle, each horizontally and vertically adjustable and with individual control and shut-off for the driver and front-seat passenger (with the exception of the head-area nozzles); illuminated heater controls, forced extraction of stale air, air conditioning

90 Ah battery in the luggage compartment, 80 A/1120 W alternator