

**528e**  
**533i**

Bavarian Motor Works, Munich, Germany

**BMWAG**



## **BMW:** **The car company that overcame a worldwide inspiration shortage.**

For 55 consecutive years, one car company has continuously innovated and refined the technologies necessary to engineer true high-performance cars.

That company is the Bavarian Motor Works of Munich, Germany. The BMW 5 Series offers two cars that exemplify this commitment to the fullest: The BMW 528e, and the new BMW 533i.

### **The BMW 528e: The difference between advanced gimmickry and advanced technology.**

One of the ironies involved in buying a new car is that there really is no guarantee that the car will be genuinely new. Unused, yes. Unowned, yes.

But ultimately, a car's newness has more to do with the inventiveness of its technology than with the year in which it was built.

And perhaps no car exemplifies that distinction more conclusively than the BMW 528e.

At the heart of the 528e is an inspired paradox known as the 'Eta' engine – a new generation of BMW engines designed to reconcile high efficiency with high performance.

The Eta is assisted in its task by the most advanced computer-driven engine-control system available. Various other electronic systems provide the driver with valuable information – such as outside temperature readings, fuel-mileage figures, and the car's operational readiness. One system even informs

the driver when service is warranted. The 528e's innovations also find their way into such generally unexamined environments as beneath fenders and within wheel wells.

There you will find innovations in front and rear suspension design that give the 528e the kind of precise road holding that's virtually unheard of in passenger cars – yet almost paradoxically provide a degree of riding comfort that befits a true luxury sedan.

All of which make the BMW 528e a rarity among expensive luxury sedans – a car that's chronologically new, without being technologically old.

### **The BMW 533i: A magnificent consolation for those not licensed to drive Grand Prix race cars.**

Every so often, a new car arrives upon our shores clearly destined to become a legend – a car whose performance represents a quantum leap beyond established benchmarks, suggesting new meaning for the word 'performance'.

The 533i is BMW's most recent candidate for such a distinction – a luxury sedan that provides an incongruous combination of unbridled power and total control.

The power emanates from the 533i's engine – the same basic engine that powers the famed BMW race cars that have dominated their class for a decade.

A 3.2-liter, fuel-injected masterpiece of engineering that the editors of Road & Track called "...the most refined in-line six in the world."

And the 533i's control results from a suspension that delivers the kind of road holding rarely experienced by anyone except racecar drivers.

It's a specially tuned version of the 5-Series suspension, recalibrated for a sportier ride.

The engine and suspension are complemented by an aerodynamically lean body that allows the 533i to slice through the air with slippery finesse.

In short, the BMW 533i is a luxury sedan that blurs the distinction between passenger cars and all-out racing machines.

It does, however, have one highly regrettable drawback: Throughout 1984, only a relative handful of them will be brought to this continent.

# BMW WAG





# The only form of interior decoration that ever made a luxury car perform better.

Open the hood of a 5-Series BMW, and you will see—spelled out in printed circuits and tri-hemispherical combustion chambers—the philosophy of BMW engineers.

It is a philosophy predicated on the belief that there is nothing that justifies the price of a luxury car so conclusively as the way it performs; and that a car's performance is nothing more or less than the net result of its underlying technology. Consequently, the higher the technology, the higher the performance.

## Tapping an alternative source of energy: information.

Lately, digital electronics have become a predominant trend in automotive design, usually offered in such forms as digital speedometers and advanced radio tuners.

At BMW, the benefits of computer and digital electronics are used to far greater advantage—namely, in the service of extraordinary performance. The 528e and 533i each incorporate a computer-driven system called Digital Motor Electronics (DME). Somewhat simplified, the function of DME is to gather up pertinent information from the engine—such as throttle opening, air/fuel mixture and piston position.

It then analyzes this data, predicts what the engine's operating conditions will be in the next thousandth of a second, and adjusts fuel flow and ignition timing accordingly.

At the same time, another component of the DME system—the Lambda sensor, located in the exhaust stream—takes continuous readings of the exhaust gases' oxygen content.

It feeds this data back to the DME computer, resulting in even more precise control of both fuel injection and engine timing. In addition, the Lambda sensor works in concert with a 3-way catalyst to control harmful exhaust emissions.

The result is a most unlikely combination of efficiency and performance, one that meets the demands of the environment without ever violating the BMW concept of high performance.

## The BMW On-Board Computer: Allowing the driver to concentrate on more important matters. Such as driving.

The On-Board Computer (optional on the 528e) is designed to relieve the driver of some of the more routine tasks of driving. And to provide processed, highly useful information

that drivers would otherwise have to calculate themselves. It can, for example, be programmed to calculate the distance that can be covered on the fuel remaining in the tank. Or how many miles remain to a given destination. It performs numerous other functions as well—such as warning of potential icing conditions—and even provides anti-theft protection.

## The first known example of a car evaluating its driver.

Until now, timetables for routine automobile maintenance have all shared a common shortcoming:

They are based only on the number of miles a car is driven—and not how those miles are driven. Injecting into the servicing of automobiles a disconcerting element of guesswork. That's why BMW developed the new Service Indicator—a computer-governed system based on the previously unconsidered fact that different people drive differently. Electronic sensors located around the car monitor individual variations in driving habits and environments—as measured by engine speeds, the number of cold starts, and miles driven.

The Service Indicator's computer then evaluates this data, and calculates when service is actually warranted.

The benefits are obvious: Because service is performed only when warranted, needless servicing is avoided. And, conversely, service that is called for won't be delayed until a serious problem develops.

## A well-informed driver is a better driver.

The BMW 5 Series also includes an Energy Control, which indicates your fuel consumption at any given moment—allowing you to better monitor your driving habits and increase fuel efficiency.

And the Active Check/Control continuously monitors critical functions in the automobile—and instantly warns the driver of any problems.

Among the things it monitors are key lighting systems, coolant level, windshield washer level, and engine oil level—even when the engine is running.

## The car conventional wisdom decreed could not be built.

In the 528e, BMW offers a highly significant departure from conventional engine technology: the 6-cylinder, 2.7-liter Eta engine. With the Eta, compromises between efficiency and performance are no longer necessary.

Where the conventional engine accepts a loss of response as a fair price to pay for fuel efficiency, the Eta engine does not. It actually develops

higher torque (or power) at the speeds where the car is most often driven. Also, where convention dictates that an engine must run faster to be so responsive, the Eta actually runs slower than conventional 6-cylinder engines of the same size.

And where convention limits combustion efficiency by limiting compression ratios, the Eta's refined combustion-chamber design allows the use of more efficient, higher compression ratios.

The result is the sort of paradox that confounds experts and delights BMW owners—a genuine high-performance luxury car that somehow manages to deliver fuel mileage that would be respectable in an economy car.

## That strange yet pleasing sensation you feel in a BMW is called the road.

Since road holding—driver control—is largely a function of a car's suspension system, it stands to reason that a superior suspension system will give you better control.

The BMW 5 Series suspension has been perfected on racecourses like the Nürburgring, where precision is crucial and agility and durability are more than just matters of theoretical speculation.

It is fully independent on all four wheels: patented doublejoint, McPherson strut axle geometry in front and semi-trailing arms and coil

springs in the rear. Also located in the rear is the most important innovation in rear suspension design in a generation—a suspension that delivers an almost paradoxical combination of precise road holding and riding comfort.

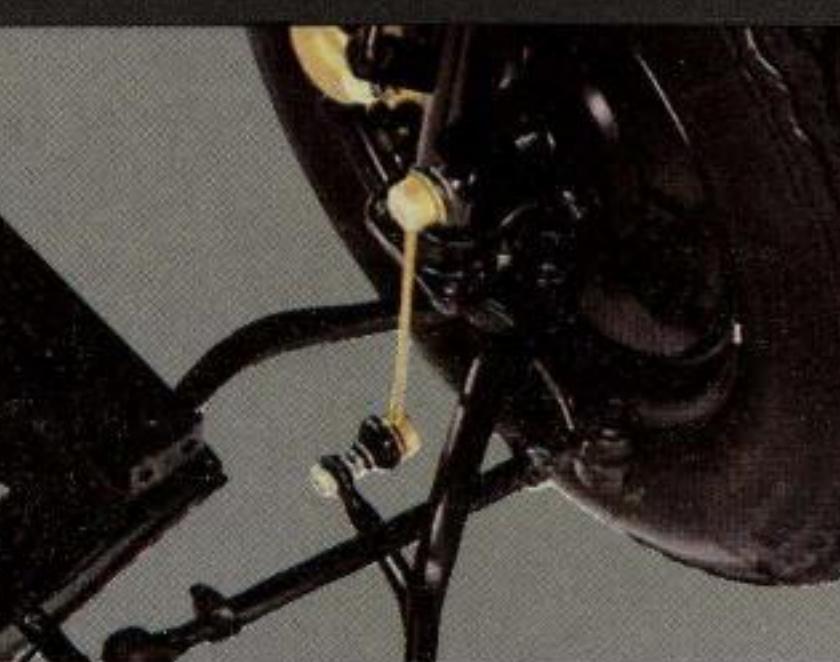
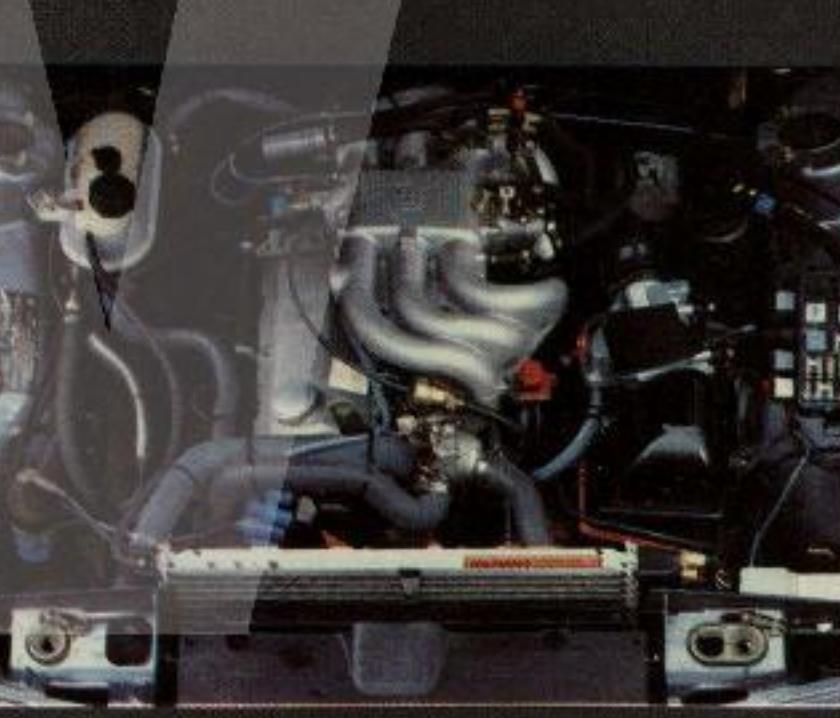
All this puts a minimum amount of "unsprung" weight on the wheels, and allows each wheel to adapt itself independently to every driving and road condition. With a smoothness and precision that will spoil you for any other car.

## An interior designed for driving, not just sitting.

Traditionally the domain of the stylist, the interior of the BMW 5 Series is ergonomically engineered to the nth degree.

There is virtually nothing that does not in some way contribute to comfort, convenience, security or efficiency. Every aspect of the interior, while luxuriously and tastefully appointed, is purposefully directed toward making the driver an integral part of the car.

So successfully is the integration of man and machine accomplished that when you drive a 5-Series BMW for the first time, you will experience an almost total oneness with the car. A feeling which, if you're accustomed to conventional luxury sedans, will be completely and pleasantly new to you.



## A warranty engineered to perform like a BMW.

Cars engineered for this kind of performance deserve to be accompanied by an equally well-engineered warranty.

So every new BMW 528e and 533i is protected by a 3-year/36,000-mile limited warranty, along with a 6-year limited warranty against rust perforation. (See your BMW dealer for complete details).

## Technical data (Summary) BMW 528e/533i

### Dimensions and Weights

Four-door sedan with rigid steel safety cell passenger compartment and crush zones front and rear  
Length: 188.4". Width: 66.9".  
Height (unloaded): 55.7". Wheelbase: 103.3". Turning circle dia. (curb to curb): 32.8 ft. Width at shoulder height: front 54.3", rear 53.7".  
Trunk capacity: approx. 21.9 cu.ft.  
Fuel tank capacity: approx. 16.6 U.S. gal. including 1.6 U.S. gal. reserve

	528e	533i
GVWR	3,980 lbs.	4,110 lbs.
Service load	970 lbs.	970 lbs.

### Engine, Power, Transmission, Performance

Six-cylinder four-stroke in-line, water-cooled engine, light alloy cylinder head, crossflow principle, hemispherical swirl-action combustion chambers, overhead camshaft Bosch L-Jetronic fuel injection, 3-way catalyst with Lambda sensor controlled by Digital Motor Electronics (Motronic)

	528e	533i
Capacity	2693 cc./164.3 cu.in	3210 cc./196 cu.in
Power	121 hp (SAE net) at 4250 rpm	181 hp (SAE net) at 6000 rpm
Torque	170 ft.lb. (SAE) at 3250 rpm	195 ft.lb. (SAE) at 4000 rpm
Compression ratio	9.0:1	8.8:1

Hydraulically actuated single-plate dry clutch, torsional dampers and automatic adjustment. Optional automatic transmission: fluid clutch with torque converter. Cruise control is standard  
Gearbox: Manual transmission 5-speed overdrive

	528e	533i
Acceleration 0-50 mph in sec.	6.6	5.8
Unleaded gasoline:	91 RON (87 AKI)	

### Chassis and Brakes

Front-wheel suspension: independent with double-pivot strut, virtual steer axis with small positive kingpin offset, eccentrically mounted coil-springs, urethane bump rubbers  
Rear-wheel suspension: independent wheel suspension on semi-trailing arms (swept back by 13°), reduction of dive effect when accelerating, spring struts with coil springs and rubber auxiliary springs, stabilizer bar

528e: Light alloy rims 6 x 14 with steel-belted radial tires 195/70 x 14,  
533i 165 TR 390 light alloy rims with 200/60 x 390 steel belted radial tires. Dual-circuit diagonal power braking system with servo unit and rear axle brake pressure regulating device

### Exterior Equipment

Energy-absorbing bumpers with rubber moldings, mounted on hydraulic shock absorbers. Quad headlights with halogen high beams and ignition override, two back-up lights, rear window defroster, electrically controlled outside rear-view mirror for both sides. 533i: electrically controlled and heated outside rearview mirror for both sides. Electric windows front and rear. Tinted glass all around with dark green border on top of windshield, chromeplated exhaust pipe tip. Central electric locking system for all four doors, gas filler flap and trunk lid. Cavity seal, undercoating, dual position sunroof (electrically operated)

### Interior Equipment

Instrument panel features speedometer, odometer, tachometer, fuel and temperature gauges, fuel economy indicator. Service Interval Indicator, Energy Control, Active Check/Control with warning lights for brake lights, rear lights, low beam lights, washer fluid level, engine oil level, coolant level and license plate lights. Infinitely adjustable orange lighted instrument panel. Automatic windshield wiper/washer system with intermittent operation and two-speed wiper. Reclining molded front seats, driver's seat with adjustable height and inclination. Four-spoke padded steering wheel with safety impact pad and four horn contacts. Full carpeting, cloth upholstery, carpeted luggage compartment.

528e: Tool kit in trunk lid  
533i: Extra-large tool kit in trunk lid  
Heating and Ventilation:

Air conditioning, fresh-air heater featuring low noise three-speed blower, electronic temperature setting for passenger compartment, defroster for windshield and side windows. Fresh air intake through individual adjustable grills at the side and in the center, with separate adjustment for driver and front seat passenger side, warm air outlets for rear seat passengers illuminated heating controls, flow-through ventilation

Warranty applies exclusively to U.S. specification automobiles purchased from authorized BMW dealers only. All equipment and specifications subject to change without notice.

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