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## THE MINI COOPER S

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**Woodcliff Lake, New Jersey...**The MINI Cooper S made its U.S. debut at the Los Angeles Auto Show in January 2002 and went on sale in the U.S. from March 22, 2002. The car is powered by a four-cylinder, 163 horsepower engine which features supercharger technology together with an intercooler. The MINI Cooper S is the most powerful model in the MINI range and the agile four-seater offers truly outstanding performance having a top speed, where allowable, of 136 mph.

While the lower-rated MINI Cooper runs from 0 to 60 mph in a brisk 8.5 seconds, the MINI Cooper S reaches the magic 60 mph in just 6.9 seconds. The engine's broad torque delivery, peaking at 155 lb-ft @ 4000 rpm provides a powerful "kick" throughout the entire speed range.

Agility and direct handling is one of the great strengths shared by all models within the MINI line-up yet the MINI Cooper S takes agility, power, and performance to an even higher level. With standard Sports Plus suspension in the U.S. and a smooth-shifting, very precise six-speed Getrag gearbox, the MINI Cooper S is directly tailored to the needs of the true enthusiast driver. The car offers superior performance and driving characteristics on both twisting roads as well as long, fast highways.

The MINI Cooper S features the very latest BMW Group technology. With its exclusive design, top-quality engineering, and wide range of equipment, the car has all the attributes of other, much larger, high-quality products.

From the outside, the new model is clearly differentiated from the MINI Cooper through

- A functional bonnet air scoop
- Aggressive body-color front and rear bumpers with lowered valance
- Unique rear spoiler
- Twin center-mounted chrome-plated tailpipes
- Side grilles with integrated "S" logo
- Chrome-plated 'quick release' fuel tank filler flap
- 16-inch light-alloy wheels finished either in white or silver. (17" available as an option)

The exclusive MINI Cooper S interior features top-quality materials such as leather trim and Alloy Patina door and fascia trim. The sports seats, leather steering wheel and gearshift, and a stainless steel footrest round off the exclusive look of the car.

Standard features on the MINI Cooper S include;

- Getrag six-speed manual gearbox
- all-round disc brakes with ABS
- traction control
- six airbags
- runflat tires together with a flat-tire monitor
- electrohydraulic power assisted steering
- central locking with remote control
- electrically powered windows and exterior mirrors
- DSC (Dynamic Stability Control) is available as an option

Why 'S'?

The name 'Cooper S' has a true sporting pedigree: The Classic Mini Cooper S (developed by John Cooper Racing) dominated European rallying in the mid-sixties. The car won the '64, '65 and '67 Monte Carlo rally, (also being controversially disqualified in '66 after finishing first, second and third). The 'S' also scored multiple wins in European Touring Car and Saloon Car competitions throughout the 1960s and 1970s. Mini motorsport remains popular in Europe.

The true meaning of the "S" designation, as used on the famous Mini Cooper "S" of the '60s, is lost in time. It is believed that designer Sir Alec Issigonis and John Cooper disagreed over 'Sport' or 'Special' – so "S" simply came to mean "S".

## 2. PERFORMANCE

A compact, powerful machine with sophisticated technology

The driving force beneath the beautifully curved bonnet of the MINI Cooper S is a four-cylinder power unit, which in naturally aspirated form offers outstanding responsiveness in the MINI Cooper. In the MINI Cooper S, this 16-valve unit's performance is further enhanced by a mechanically driven supercharger and intercooler. The supercharger compresses the fresh air drawn in by the engine to an overpressure of 0.8 bar. Since the air warms up in this compression process, it is then cooled by an intercooler before entering the combustion chambers, thus ensuring a significant increase in engine charge, output, and performance. At 6,000 rpm, the compact 1.6-liter transverse-mounted engine develops a maximum output of 163 horsepower.

Delivering the performance required in a MINI Cooper S results in increased thermal and mechanical loads on the power unit. Therefore a number of components such as the crankshaft, pistons, valves, radiator, and engine management parameters have been specially modified for this model.

Compression, in turn, has been reduced from 10.6:1 on the MINI Cooper to 8.3:1 on the MINI Cooper S. Bore and stroke are exactly the same as on the MINI Cooper. The exhaust system has also been tailored specifically to this top model, producing a distinctive, sporty note.

Driven by a toothed belt, the compressor, unlike an exhaust gas turbocharger, does not have the usual time-lag in its response, but rather builds up torque until peaking at 155 lb-ft at a very useable 4,000 rpm. Benefiting from drive-by-wire technology, the unit uses an electric impulse instead of a conventional throttle cable to operate the throttle butterfly, thus making the engine extremely responsive.

This arrangement gives the nimble four-seater a level of performance otherwise offered only by the most dynamic cars in higher segments of the market. The top speed of the MINI Cooper S is 136 mph.

The combination of brisk acceleration, a high top speed, and superior torque under all conditions is crucial to the driving exhilaration offered by the flagship model in the MINI range. The genuinely "beefy" torque curve has 80 percent of its maximum torque between 2,500 and 6,500 rpm. This enables the MINI Cooper S to accelerate from 50–85 mph in fourth gear in just 6.9 seconds, with the car requiring only 8.7 seconds for the same exercise in fifth gear.

Fuel consumption for the most powerful production MINI ever is 28/37 mpg– a highly respectable figure considering the power of the engine. And like the MINI Cooper, the MINI Cooper S naturally exceeds all government emissions standards. Indeed the engine is so clean it does not require complex exhaust gas recirculation.

### 3. HANDLING

#### A Go-Kart Performer On Twisting Roads

Agility and direct handling are two of the characteristics shared by all models in the MINI range. Benefiting from Sports Plus suspension, the MINI Cooper S is tailored even more directly to the requirements of the dedicated motorist, offering supreme handling and performance on both twisting roads and long, fast highways. The Sports Plus suspension comes with reinforced anti-roll bars and firmer springs than the Sports suspension standard on the MINI Cooper.

MINI's suspension set-up has been designed to deliver the brand's legendary road-holding capabilities and razor-sharp turn-in. McPherson spring struts up front and a sophisticated multi-link rear suspension with a reinforced stabilizer bar are unique in a car this size, even in Europe. This set-up ensures optimum road holding at all times. The very direct electrohydraulic steering (only 2.5 turns lock to lock) provides the go-kart like handling that MINI fans have always enjoyed.

For superb directional stability, both drive shafts on the car are of equal length, thus significantly reducing torque steer under hard acceleration, cornering, and braking.

To optimize the MINI Cooper S' handling and performance in all conditions the car comes standard not only with ABS, Electronic Brake Force Distribution (EBD) and Cornering Brake Control (CBC), but also with Traction Control which may be deactivated by the driver. DSC (Dynamic Stability Control) is also available as an option.

Traction Control ensures that the extra power to the front wheels is conveyed safely to the road at all times. The system uses the ABS sensors to detect any wheel slippage, automatically cutting power to any spinning wheel until it grips again. It also works under deceleration on a slippery surface if a wheel approaches lock-up due to engine braking. In this instance power is gently fed to that wheel to get it rolling again and so control is regained.

Dynamic Stability Control (DSC) is an even more advanced system. It works to maintain cornering stability at all times, not just under braking. It adjusts the attitude of the car through automatic brake applications to individual wheels.

Cornering Braking Control (CBC) tempers the natural tendency for a car to become unstable at the rear if the brakes are applied heavily while cornering. The system recognizes that the car is cornering and feeds more braking force to the outside front wheel and counteracts potential oversteer. Additionally, more effective braking force can be fed to the rear brakes slowing the car as fast as possible with maximum stability.

The agile suspension is rounded off by 16-inch light-alloy wheels running on 195/55 R 16 run-flat all-season tires fitted as standard. As an option the leading model in the MINI range may also be fitted with 205/45 R17 or optional all season runflat tires running on striking 17-inch S-Lite wheels.

## 4. PREMIUM SAFETY

### Active And Passive To The Fore

MINI Cooper S' control systems such as ABS, EBD CBC and optional DSC not only improve handling and stability for motoring enjoyment but also provide the car with stability and predictability, thus providing a very high level of active safety.

Like the MINI Cooper, the 'S' offers a very high standard of passive safety, ensured by the high level of body stiffness and "intelligent" frontal airbags. To optimize their function, the two airbags inflate according to the severity of an accident, interacting with the pyrotechnic belt tensioners and belt force limiters thus keeping the risk of injury to a minimum. Side airbags in the front seat backrests and the AHPS 2 (Advanced Head Protection System) ensure a high standard of occupant safety in a side collision. With the AHPS 2 tubular head airbags extending from the front to the rear roof pillars in the event of a collision, both front and rear occupants are well protected in such a situation.

A further standard safety feature is the Battery Safety Terminal (BST) on the starter battery at the rear, interrupting the flow of electric power in a severe impact.

Tire pressure is an important ingredient in vehicle stability and safety. Therefore the MINI Cooper S features a standard tire monitoring system that utilizes the ABS system to constantly monitor the rotation of the tires and will activate a warning light in the speedometer the second a tire begins to rotate differently as a result of lost pressure.

The MINI Cooper S is the only car of its size in the world to be fitted as standard with run-flat tires for optimum safety in the event of a puncture. These tires enhance the car's active safety by keeping it stable after a blow out. The tires have reinforced sidewalls that allow the driver to proceed at speeds up to 50 mph for more than 90 miles even with the tires completely deflated.

## 5. EXTERIOR

### Distinctive And Personal – Like Nothing Else



First sight of the MINI Cooper S reveals that this is a very special MINI. The car's lines and features demonstrate clearly that this is a powerful and agile car full of character. The "S" logo has been designed to resemble a series of bends in the road and is proudly boasted on the car's side grille and incorporated in the rear MINI logo. The true meaning of the "S" designation, as used on the famous Mini Cooper "S" of the '60s, is lost in time. It is believed that designer Sir Alec Issigonis and John Cooper disagreed over 'Sport' or 'Special' – so "S" simply came to mean "S".

The enhanced performance of the MINI Cooper S is shown through its exterior design and styling. Functional modifications to the body allow the car's extra power reserves to be put to even more effective use. The air intake scoop on the bonnet not only accentuates the car's athletic appearance, but also serves to cool the flow of air between the supercharger and the engine.

Unique body-color front and rear bumpers, an integrated honeycomb grille in the deeper valance, side-sills finished in black, wider wheel arches and a roof spoiler all give the MINI Cooper S a very special and athletic touch. Particularly, the roof spoiler was developed especially for this top model, increasing the downforce on the rear, thus improving directional stability and driving behavior.

Two chrome-plated tailpipes in the middle of the powerful-looking rear end as well as the "Cooper S" logo show that this MINI is truly an individual car.

Like the crossbars in the radiator grille, the grab handle on the rear lid comes in body color. The exterior mirrors and MINI's signature contrast roof are available in either white or black. The roof is also available in body color at no extra cost.

The MINI Cooper S is available in eight exterior colors, two of which are exclusive to this top model: Electric Blue metallic and Dark Silver metallic.

Further features of this high-performance MINI are a chrome-plated tank filler flap and side-grilles with an integrated "S" logo, as well as the 16-inch light-alloy wheels finished either in white or optional silver.

Despite these distinctions setting it apart from the MINI Cooper, the MINI Cooper S is clearly a genuine MINI with the authentic MINI design cues giving the car its powerful, authentic character. The recognizable MINI face with its large rounded headlights, the short body overhangs, steep side sections, and long wheelbase also characterize the flagship model of the MINI range.

With its unique bumpers, the MINI Cooper S has a front body overhang 1" longer than the MINI Cooper at the front, and 3/16" longer at the rear. The overall length of the car increases by 1.14" to 143.9" with the wheelbase remaining unchanged. With its larger 16-inch wheels, the MINI Cooper S is 0.31" higher than the MINI Cooper, measuring 55.75".

## 6. INTERIOR

### Genuine Individuality Inside

Opening the doors, the driver and passengers are greeted by alloy doorsill strips proudly bearing the logo “MINI Cooper S” as a clear indication of the exceptional features inside the car.

The interior of the leading model in the MINI range sets a new benchmark for small cars with the unique MINI design language being born out by high-quality textiles, surfaces, and leather. The instrument panel and doorframes are finished in Alloy Patina to complement the White Silver door trim, with black carpets and matching upholstery.

The MINI Cooper S sport seats come standard in leatherette or cloth. Leather is available as an option. Larger than standard MINI Cooper seats, they offer excellent lateral support with enlarged side bolsters for increased support. The seats offer lumbar adjustment and a height adjustable headrest, adding to the sporty feel of the car. All MINI seats feature an ‘easy-entry’ system to allow generous access to the rear and a memory function which returns the seat to its previous set position. Heated seats are optional.

To accommodate people of all sizes, the driver’s seat and steering column are height adjustable. The front seats are adjustable over a wide range and drivers of all sizes will be able to find their perfect seating position and thus fully enjoy the agility of the MINI Cooper S.

The leather steering wheel (optional multi-function wheel operates audio and cruise control) and gearshift lever knob and stainless steel footrest again accentuate the supreme quality of this top-of-the-range model.

All models come with a very practical 50:50 folding rear seatback. This allows the MINI Cooper S to carry a maximum load of 948 lb. Luggage compartment capacity extends from 5.6 cu feet to a highly practical 25 cu feet with the rear seat bench folded down – which means ample space for even a small washing machine to be transported!

A wide choice of options and special equipment is of course available to the connoisseur seeking to customize his or her car. The list extends from the Harman/Kardon HiFi audio system and a GPS navigation unit via the extra-large power dual-pane panorama sunroof all the way to Park Distance Control (PDC) and xenon headlights.

## 7. MINI COOPER S TECHNICAL SPECIFICATION

		MINI COOPER S
Transmission type		6-Speed Manual
No. of doors / seats		3 / 4
Vehicle length / width / heights unl.	in.	143.9 / 66.5 / 55.8/ 56.2
Wheelbase / turning circle	in. / ft.	97.1 / 35
Overhang front / rear	in.	25.5 / 21.3
Track front / rear	in.	57.2 / 57.5
Engine / No. Of cylinders / valves per cylinders.		Inline / 4 cyl / 4 vpc SOC
Displacement	cm <sup>3</sup>	1598
Stroke / Bore	in.	3.38/3.03
Nominal power / engine speed	hp	163/ 6000
Max. Torque / engine speed	lb/ft	155/4000
Compression ratio / fuel type		8.3:1/ 91-98 ROZ
EPA Fuel Economy	mpg	24 city/33 highway
Fuel tank capacity	gal	13.2
Fuel management		Siemens EMS 2000
Top speed	mph	136
Acceleration 0-60 mph	s	6.9 seconds
Transmission type		Getrag 285
1st, 2nd, 3rd gear ratio		11.4:1/7.1:1/5.3:1
4th, 5th, 6th gear ratio		4.4:1/3.6:1/2.9:1
Reverse gear ratio		11.13:1
Final Drive ratio 1 <sup>st</sup> , 2 <sup>nd</sup> , 5 <sup>th</sup> and 6 <sup>th</sup> gear		2.74
Final Drive ratio 3 <sup>rd</sup> , 4 <sup>th</sup> and reverse gear		4.05
Steering type / Steering ratio		EHPAS / 13.18
Width at shoulder height front / rear W3/W4	in.	50.9 / 44.7
Elbow room front / rear W10/W11	in.	53.9 / 44.5
Head room front / rear H61/H63	in.	38.8 / 37.6
Leg Room front/rear	inches.	41.3/31.3
Cargo volume -seats up/seats folded	cubic ft.	5.3/23.7
Total interior volume (EPA)	cubic ft.	77.0
Unladen weight	lbs	2678
Axle load ratio rear	%	37.1
Gross vehicle weight / payload	lbs	3461 / 948
Axle load limit front / rear	lbs	1962 / 1676
Brake front / diameter	- / in.	Vent Disc 10.9x.9
Brake rear / diameter	- / in.	Disc/ 10.2 x .4
Drag cx / A / cx x A	- / m <sup>2</sup> / m <sup>2</sup>	0.36/1.98/0.713

## 8. MINI IN THE UNITED STATES

MINI is sold in the U.S. via a select network of approximately 70 MINI dealers. Each MINI dealer has a sales environment and staffing exclusively dedicated to the franchise. MINI U.S.A. is a Division of BMW of North America

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Journalist note: Information about the BMW Group and its products is available to journalists on-line at the BMW Group PressClub at the following address - [www.press.bmwgroup.com](http://www.press.bmwgroup.com).

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