

# BMW M Power

Zusatzbetriebsanleitung

**M3** Sport Evolution

Dear BMW driver,

The pleasure of driving one of the most technically advanced automobiles currently available is now yours. We are confident that you will exercise the necessary caution.

This Supplementary Owner's Handbook contains all the information relating specifically to the BMW M3 Sport Evolution; you are asked to devote your most careful attention to its contents.

You will then very quickly discover the true fascination of driving a car such as this: its exceptional suitability for day-to-day use combined with its unmatched standards of quality and efficiency.

We wish you many a safe, enjoyable journey.

BMW Motorsport GmbH

### Fuel grade to be used

Unleaded super (premium) petrol (gasoline) for four-stroke motor vehicles, to German Industrial Standard DIN 51607 or equivalent; minimum octane number 95 (Research Method).



### Seats

#### Front-to-back adjustment

Pull up lever (1) and slide the seat to the required position.

After releasing the lever, make sure that the seat lock engages.

#### Seat back angle adjustment

Turn handwheel (2) forwards or backwards until the required angle is obtained.



### Seat height adjustment

Press the lever to the rear. To lower the seat, press it down and at the same time to the rear. To raise it, relieve it of part of your weight so that it is able to rise.

### Seat base angle

Press the lever forwards. Press down on the seat at the front or rear as appropriate until the seat cushion is at the desired angle.



### **Releasing and folding the seat back**

The front seat backs are locked into position to prevent them from folding forwards accidentally.

Pull up the side lever to release the seat back lock, then swing the seat back forwards.

### **Warning:**

Do not adjust the driver's seat while the car is in motion. Unexpected seat movement could cause the driver to lose control of the car and result in an accident.

While the car is in motion, the front passenger's seat should not be reclined backwards beyond a normal seated position.



### **Engine oil temperature gauge**

The usual engine operating temperature is between 80 and 120°C (176 and 240°F). Even if the car is driven hard, engine oil temperature should not exceed 130°C (266°F).

Do not exceed an engine speed of 4000/min until the engine oil temperature has reached 50°C (122°C).

### **Check-Control**

**Important:** engine oil level is not monitored by the Check Control either when the car is standing still or in motion.

It is therefore essential to check the oil level regularly, for example each time the car is refuelled.

### **Revolution counter**

Never allow the needle to enter the red warning zone on the dial.

Very erratic running in this zone is a sign that the combustion process is being deliberately interrupted in order to protect the engine against overspeeding.

The maximum permissible continuous engine speed is 7000/min.





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### Gearbox

Sports gearbox with Borg-Warner synchromesh on all gears.

The gear lever rest position (dot) is in the 2nd/3rd gear plane. When shifting from a gear into neutral, the gear lever is automatically spring-loaded back to this plane. When selecting 5th from 4th gear, the gear lever must be pressed over to the right.

### Gear ratios

1st	3.72:1
2nd	2.40:1
3rd	1.77:1
4th	1.26:1
5th	1.0:1
Reverse	4.23:1



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### EDC-Electronic Damping Control\*

Select the desired suspension setting at the rotary knob:

K = Comfort

N = Normal


S = Sport

When set to "Comfort" (K), the system automatically switches to "Normal" (N) at road speeds above 110 km/h (68 mile/h), and returns to "Comfort" (K) when the speed falls below 100 km/h (62 mile/h) again.



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The selected suspension setting is indicated by the corresponding telltale lamp.

The warning light  goes out 1.5 seconds after the ignition is switched on. In the event of a fault, it lights up again and the system automatically selects the "Sport" (S) suspension setting.

The fault should be rectified by a BMW service station.

**Headlight beam throw adjuster\***

0 = both front seats occupied

1 = 4 people in car or  
driver only + luggage

2 = 4 people + luggage

Note the permissible rear-axle load limit.

**Running-in**

The following **running-in instructions** must be complied with:

Up to 2000 km (approx. 1300 miles):

Max. engine speed 5500/min

Max. road speed 160 km/h (100 mile/h)

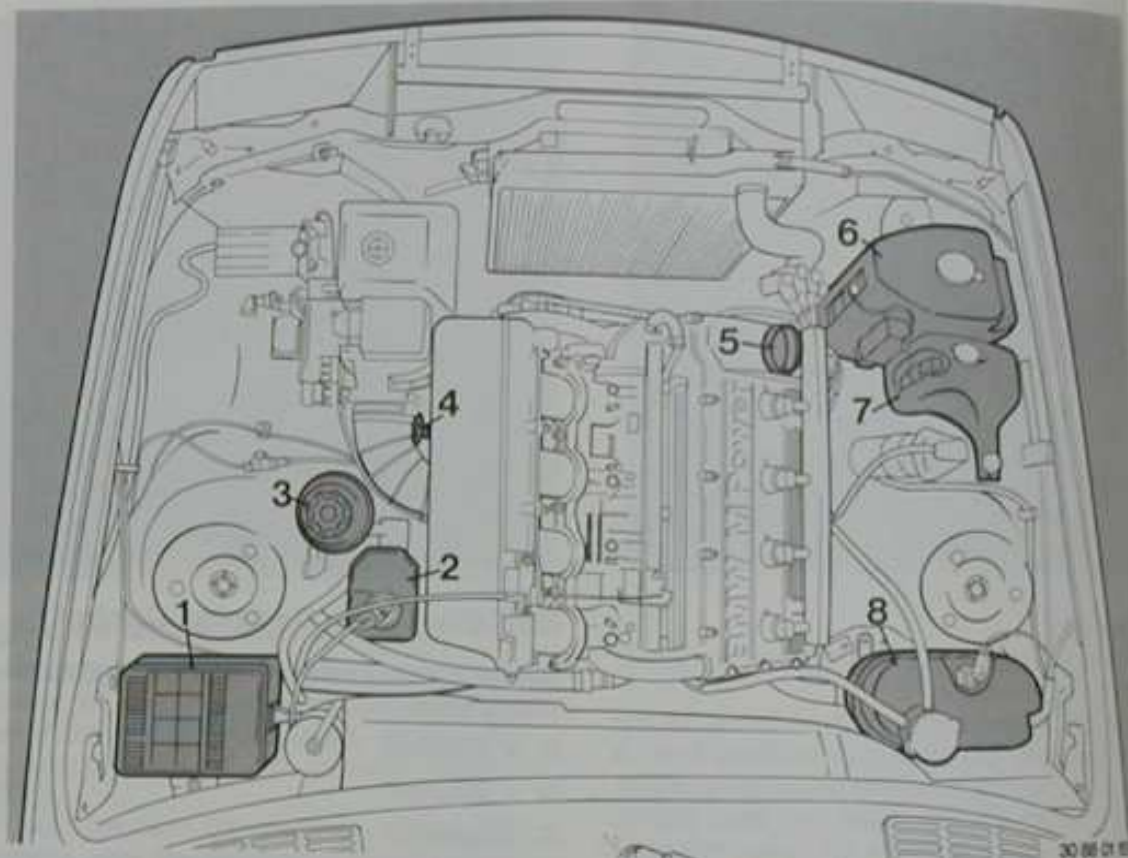
Avoid using the full-throttle position of the accelerator pedal.

Up to 5000 km (approx. 3000 miles)

Max. continuous road speed

200 km/h (125 mile/h)

Use the car's top speed for brief periods only.

**Principal items in the engine compartment**

- 1 — Fuse box
- 2 — Reservoir for brake and clutch hydraulic fluid
- 3 — Power steering oil reservoir
- 4 — Engine oil dipstick
- 5 — Engine oil filler
- 6 — Reservoir for headlight cleaning system and windscreen washer

7 — Reservoir for intensive windscreen cleaning system

8 — Coolant level-equalizing tank

### Engine oil grades

The following special engine oils must be used:

BMW Super Power	SAE 5W-50
Mobil 1 Rally Formula	SAE 5W-50
Mobil 1 Rally SHC	SAE 5W-50
Wintershall Viva 1	SAE 10W-40

The upper or lower temperature limits for these SAE viscosities may be exceeded for short periods only.

### Engine oil content

With/without oil filter element renewal:

4.4/4.1 litres (7.7/7.2 Imp. pints,  
4.6/4.3 US quarts)

Additional quantity to be added after a repair in which the engine oil cooler was drained: 0.55 l

(app. 1 Imp. pint, app. 0.6 US quart)

### Technical data

Alternator 90 Amp, 1260 Watt

Starter motor 1.4 kW

Battery 12 Volt, 65 Amp/h  
(in luggage compartment, on right)

### Spark plugs

Bosch X5 DTC

Electrode gap: 0.7 ± 0.1 mm

(0.028 ± 0.004 in)

### Warning: high-performance ignition system

Touching any electrically live components when the engine is running could result in a fatal accident.

### V-belts

Alternator and coolant pump 9.5 x 865

Power steering hydraulic pump 9.5 x 810

Air conditioning compressor 12.5 x 810

### Important:

Use only V-belts approved by BMW.

Gearbox oil content: 1.25 l  
(2.2 Imp. pints, 1.32 US quarts)

Fuel tank capacity: 62 litres  
(13.6 Imp. gal, 16.4 US gal)

Cooling system content including heater:  
9.0 l (15.8 Imp. pints, 9.5 US quarts) or with  
air conditioning 9.5 l (16.7 Imp. pints, 10.0  
US quarts)

Only the cooling-system products specified for BMW M Power engines should be used. Ensure that the concentration is always correct.

Final drive ratio: 3.15 : 1

Final drive oil content: 2.7 l  
(4.8 Imp. pints, 2.9 US quarts)

ZF multi-plate limited-slip differential,  
locking action approx. 25 %.

### Tyre pressures — check them regularly in the interests of safety

Gauge pressures in bar with tyres cold (at ambient temperature); values in brackets = lb/in<sup>2</sup> (psi)

Note: as the tyres become hot (for example fast main-road driving), pressures rise by approx. 0.3 bar (4 lb/in<sup>2</sup>). The rate of pressure change is approx. 0.1 bar (1.4 lb/in<sup>2</sup>) for every 10°C of temperature change.

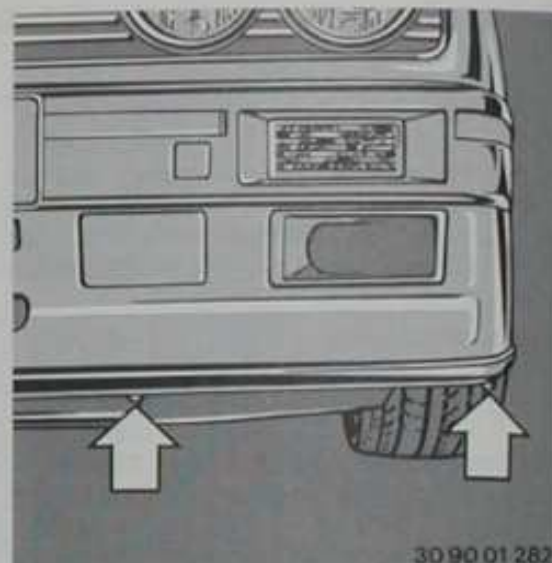
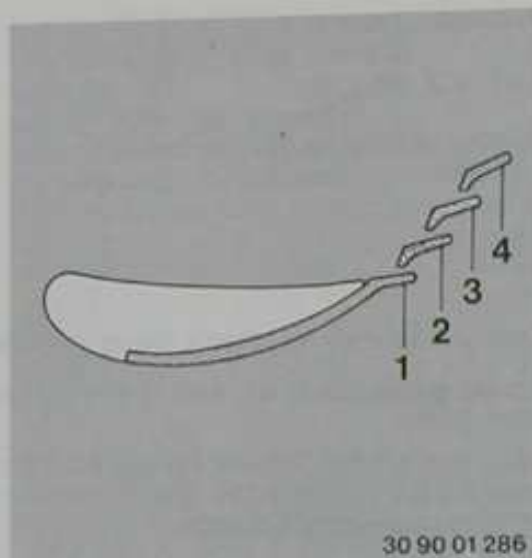
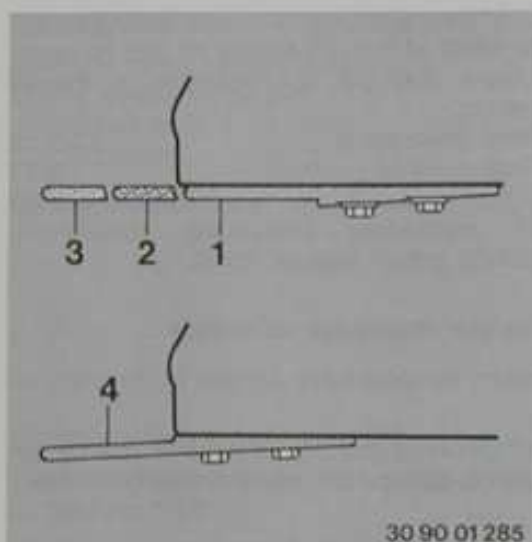
Radial-ply tyres (tubeless)	Load on car	Tyre pressures	
		Front	Rear
225/45 ZR 16	Max. 2 persons Heavier load	2.2 (31)	2.4 (34)
		2.5 (35)	3.0 (42.5)
205/55 R 15 M + S	Max. 2 persons Heavier load	2.2 (31)	2.4 (34)
		2.5 (35)	3.0 (42.5)

### The following BMW road wheels and tyre sizes are approved:

Radial-ply tyres (tubeless)	Light-alloy wheels	Rim dish- depth (mm)
205/55 R 15 M + S	7J x 15 H2	30 mm (1.18 in)
225/45 ZR 16	7½J x 16 H2	27 mm (1.06 in)

Winter tyres: Fit only 205/55 R 15 M + S on 7J x 15 H2 light-alloy wheels. Fine Link BMW snow chains can be fitted to the rear wheels, but only if this tyre and wheel combination is used.





### Adjustable front and rear spoilers

The adjustable sections of the front and rear spoilers can be secured in 4 different positions.

Your BMW dealer will gladly adjust the spoilers to the required positions.

Depending on the purpose to which the car is to be put, the following spoiler position combinations are recommended:

- Front spoiler in position 1, rear spoiler in position 1 or 2: optimum aerodynamic drag for cars driven principally on high-speed roads.

**Note:** the car's top speed can only be reached in position 1 – 1.

- Front spoiler in position 2, rear spoiler in position 2 or 3: generally recommended as suitable for all types of driving.
- Front and rear spoilers in position 3: optimum aerodynamic lift for fast driving on ordinary main roads or twisting roads.
- Front and rear spoilers in position 4: this combination of settings is of interest only if the car is used in competition.

### Important:

Apart from the spoiler position combinations stated above, no others are permitted by law on public roads.

To reposition the front spoiler, raise the front of the car and take out all the screws (arrows).

When the adjustable section of the front spoiler is repositioned, the fastening elements must also be moved.

Tighten the screws to a torque of  $2^{+0.5}_{-0.4}$  Nm ( $1.5^{+0.4}_{-0.3}$  lb/ft).

### Warning:

The special front spoiler severely restricts ground clearance. Take particular care on underground car park ramps, when crossing kerbs etc.

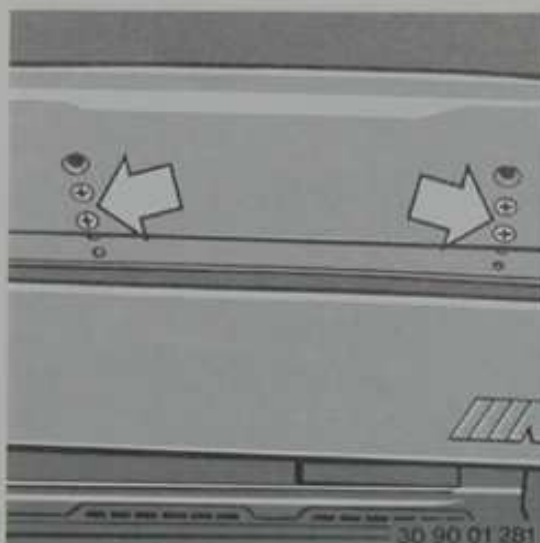




To reposition the adjustable section of the rear spoiler, first take off the complete rear spoiler by removing 2 screws (arrows) at the left and right (accessible when the luggage compartment lid is open). To avoid damage, prevent the rear spoiler from moving as the screws are being removed.

**Important:**

Leave the luggage compartment lid open when the rear spoiler has been taken off, as the effort needed to close it is unusually high when the weight of the spoiler is missing.



Take out all the screws (arrows) and move the adjustable section of the spoiler to one of the recommended positions. Always secure it again with 2 screws on each side (except in position 4).

**Use of automatic car washing facilities:**

Note that in certain types of automatic car wash, the guide wheels of the drier fan may not clear the rear spoiler in good time. In this case, lift them by hand to raise the fan outlet clear of the body.



**Towing eye**

One towing eye at front, on right. Lever off cover when required, if necessary with the aid of a screwdriver.



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### **Wheel changing**

Unscrew the hub cap (shaped like a large hexagon nut) by turning it counter-clockwise (to the left) to release the bayonet catch.

When fitting the front wheels, always use the centering pin and make sure that the correct position of the brake caliper clip is not disturbed.



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### **Jack and wheel stud wrench**

These items are housed in the luggage compartment, on the left.

When replacing the jack after use, avoid noise by lowering it fully and securing it in the original position with the nut.

The crank handle for the jack is under the jack cover.



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To lift the car, attach the jack at one of the four mounting points provided on the body. The full area of the jack base must make contact with the road surface.



### Rear lights

- |                             |          |
|-----------------------------|----------|
| 1 — Flashing turn indicator | (yellow) |
| 2 — Rear fog light          | (red)    |
| 3 — Rear light, reflector   | (red)    |
| 4 — Brake light             | (red)    |
| 5 — Reversing light         | (white)  |

### Engine data, fuel consumption, performance

<b>Displacement</b>		
Effective	cm <sup>3</sup>	2467
Number of cylinders		4
<b>Max. power output</b>		
acc. to DIN 70 020	kW	175
at engine speed	bhp	238
	1/min	7000
<b>Max. torque</b>		
	Nm	240
at engine speed	lb/ft	176.9
	1/min	4750
<b>Compression ratio</b>		10.2 : 1
<b>Stroke/bore</b>		mm 87/95
<b>Mixture preparation system</b>		Digital Motor Electronics
<b>Fuel consumption acc. to DIN 70 030/1 ECE</b>		
standard test		
at a steady 90 km/h (56 mile/h)	litres/100 km	6.2 (45.6/37.9)
at a steady 120 km/h (75 mile/h)	(Imp./US	7.8 (36.2/30.2)
urban driving cycle	mile/gal)	12.5 (22.6/18.8)
<b>Top speed</b>		km/h (mile/h) 248 (154)
<b>Acceleration</b>		
0 – 100 km/h (62 mile/h)	s	6.5
80 – 120 km/h (50 – 75 mile/h) in 4th gear	s	7.6
0 – 1000 m (3281 ft)	s	26.7



*Dimensions and weights*

Length	4345 mm (171.1 in)
Width	1680 mm (66.1 in)
Height	1370 mm (53.9 in)
Wheelbase	2565 mm (101.0 in)
Front overhang	790 mm (31.1 in)
Rear overhang	991 mm (39.0 in)
Front track	1416 mm (55.8 in)
Rear track	1430 mm (56.3 in)
Min. turning circle (wheels)	10.3 m (33 ft 9 in)
Min. turning circle (overall)	11.1 m (36 ft 5 in)
Weight, unladen (ready for road, tank full, without optional equipment)	1200 kg (2646 lb)
Gross weight limit	1600 kg (3527 lb)
Front axle load limit	790 kg (1742 lb)
Rear axle load limit	865 kg (1907 lb)
Trailer load	Towing a trailer is not permitted
Roof load limit	75 kg (165 lb)
Luggage compartment capacity according to VDA test method	420 litres (14.8 ft <sup>3</sup> )

Do not exceed either the permitted axle loads or the gross weight limit.