

**OWNER'S HANDBOOK  
SUPPLEMENT 333i**





# OWNER'S HANDBOOK SUPPLEMENT



BMW (South Africa) (Pty) Ltd.

Dear BMW owner,

Congratulations on taking delivery of your new BMW 333i.

In choosing a BMW 333i you, as a customer, seem to be an experienced and technically interested automobile fan.

Nevertheless, we would like you to study the comprehensive Owner's Manual BMW 318i, 320i, 323i carefully and also understand this supplement, which lists all deviations from the standard 323i as well as hints applicable to the BMW 333i.

Wishing you many kilometres of Sheer Driving Pleasure.

BMW (South Africa) (Pty) Ltd.



# BMW 333i specification/data and technical descriptions



Engine  
Cooling system  
Gearbox  
Clutch  
Final drive  
Front suspension  
Rear suspension  
Brakes  
Rims, tyres and pressures  
Electrical  
Instrumentation  
Digital motor electronics  
Road performance  
Dimensions and weight  
Filling capacities



	<b>333i</b>
<b>Displacement, effective</b>	3 210 cm <sup>3</sup>
Number of cylinders	6
<b>Maximum output (DIN 70 020)</b>	145 kW (197 BHP)
At engine speed	5 000/min
<b>Maximum torque</b>	285 Nm
At engine speed	4 300/min
Output per litre	45,1 kW (61,4 BHP)
<b>Maximum permissible engine speed</b>	6 300/min
<b>Maximum continuous engine speed</b>	6 000/min
<b>Compression ratio</b>	10:1
<b>Stroke/bore</b>	89/86 mm
<b>Fuel supply system</b>	Bosch L-Jetronic fuel injection

### Cooling system

Vertical flow radiator, engine fan is deleted.  
Electrical fan located in front of radiator.  
Expansion tank located behind wheelhouse  
on the right side.

### Gearbox

**Type:** Getrag Sport Box 265/5.

**Gear Ratio:** 1st – 3,717  
2nd – 2,403  
3rd – 1,766  
4th – 1,263  
5th – 1,000



**Clutch**

Single plate diaphragm spring clutch.

**Type:** MF240

**Final Drive**

**Type:** ZF disc – limited slip, 25% locking action.

Klingelnberg or Gleason type hypoid level gearing with taper roller bearings.

With temperature sensor.

**Ratio:** 2,93:1

**Front suspension**

Single pivot spring strut axle with Bilstein cartridge hydraulic dampers.

**Rear suspension**

Semi-trailing arm axle with 15° angle and anti-squat control. Bilstein hydraulic dampers.



**Brakes**

Dual circuit brake system (ABS optional).

Brake master cylinder adapted to modified brake system.

Brake pressure reducer deleted.

**Front**

Brake disc  $\varnothing$  296 mm dual ventilated and grooved. Brake calipers adapted.

**Rear**

Brake lining material changed.

## Rims and tyres

### Rims

Light alloy wheel 7J x 16 – 28 mm offset.

### Tyres

Steelbelt 195/50VR16 (Pirelli P7).

### Pressure (in bars)

2 Persons and luggage

### Front

2,2

2,5

4 Persons and luggage

2,3

2,6

### Rear

2,4 (up to 200 km/h)

2,7 (over 200 km/h)

2,8 (up to 200 km/h)

3,1 (over 200 km/h)



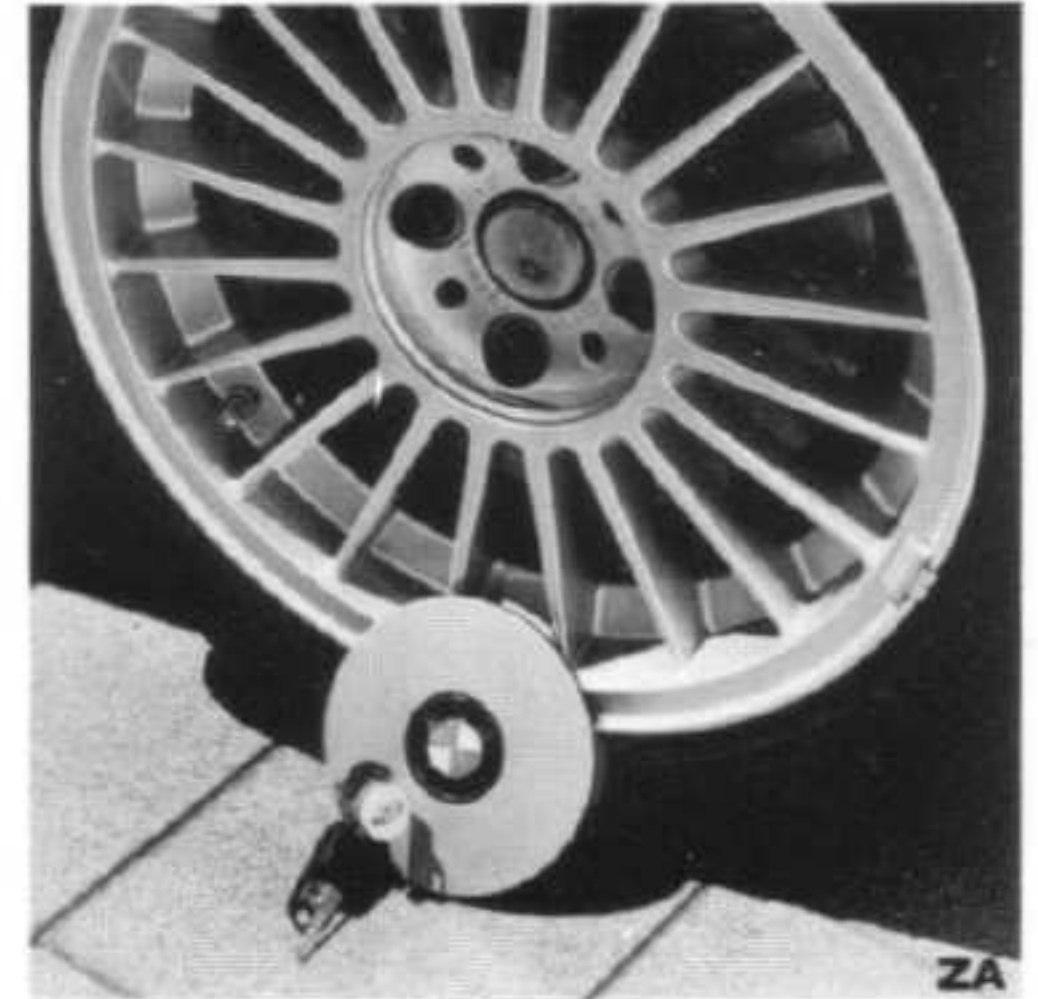
## Lockable wheel cover

Remove plastic cap.

Insert the key fully into the lock. Turn the key a quarter turn.

Remove wheel cover.

To attach, proceed in opposite order. When fitting wheel cover, insert first the 2 lugs and then turn key to lock. Remove key and refit plastic cap.



## Electrical

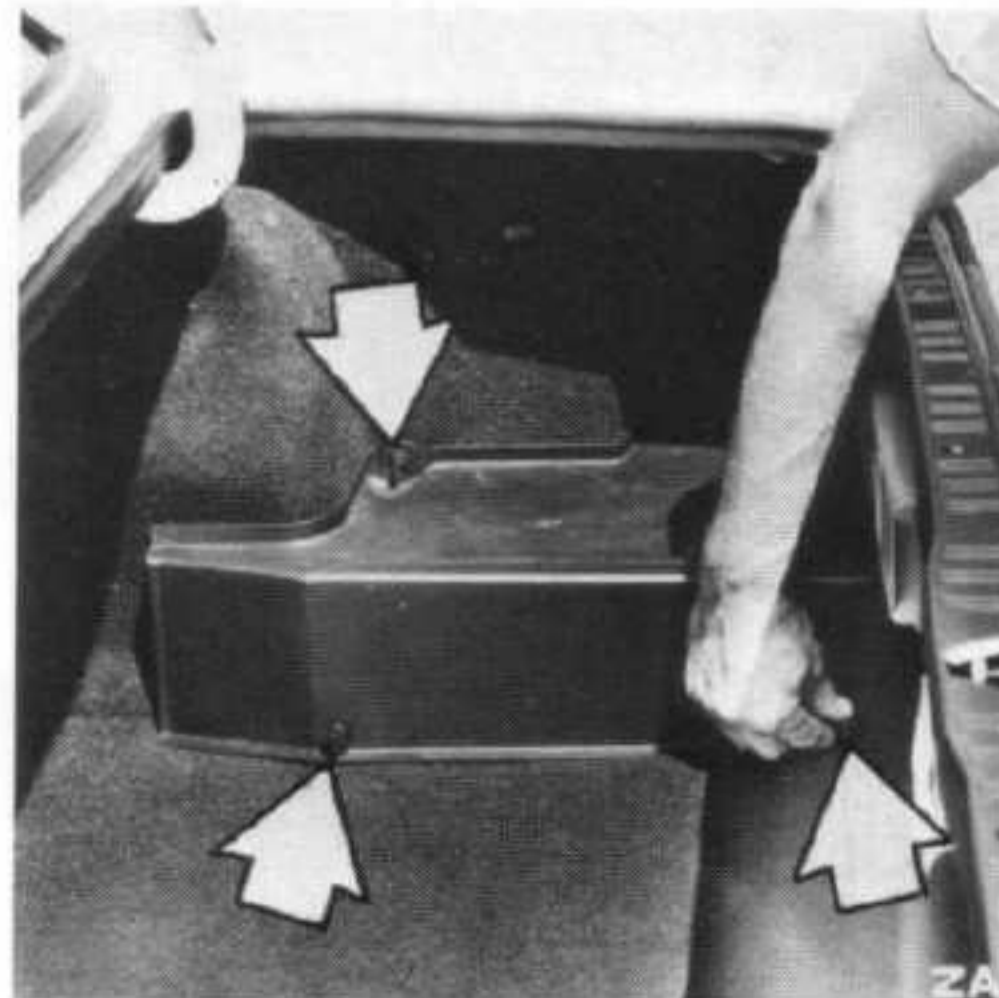
Alternator: Bosch 12V 70 amp.  
Starter: Bosch GF12 volt 1,5 kW.

## Battery

12 volt 55 AH.

Fitted in luggage compartment.

To remove cover turn retaining clips quarter turn.

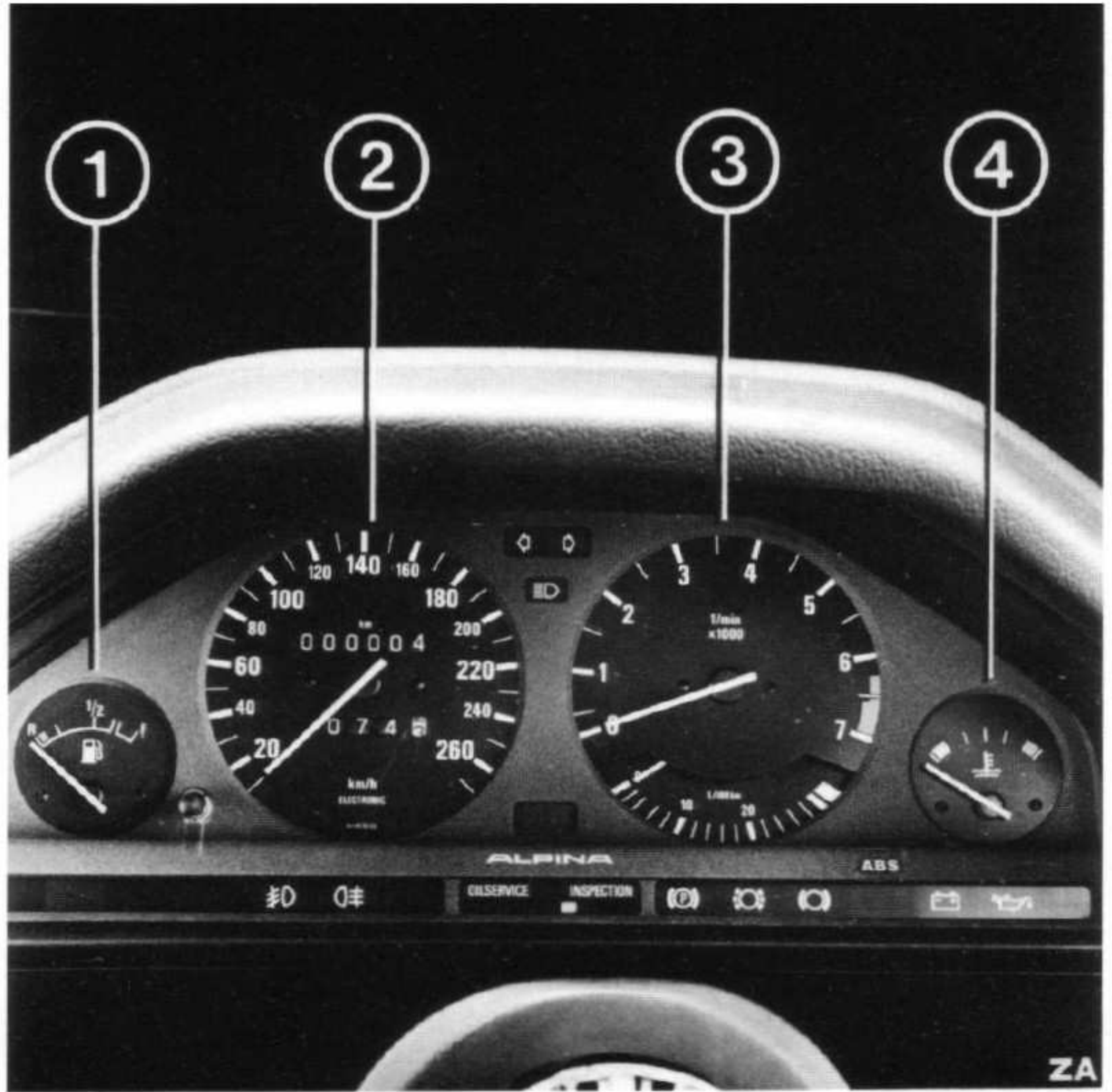




## Instrumentation

1. Fuel gauge.
2. Speedometer (uprated to 260 km/h).
3. Revolution counter with fuel consumption indicator.
4. Temperature gauge.

(All fitted with red needles.)



**Centre Air Outlet Grill** (contains the following display unit);

**ACHSE** (Final Drive)      **MOTOR** (Engine)  
Oil temperature in °C

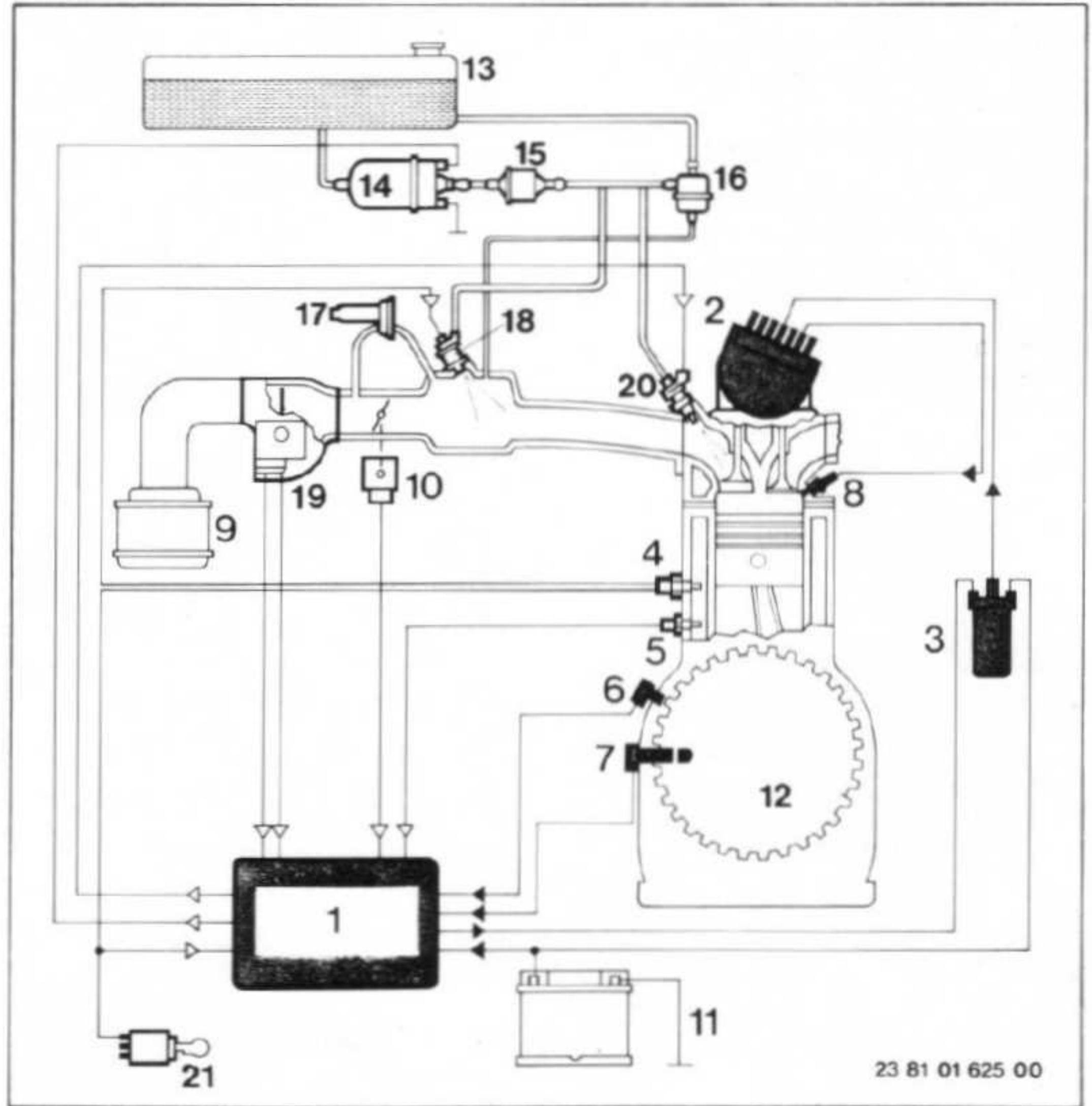
**SAUGR** (Manifold vacuum)      **MOTOR** (Engine)  
Vacuum/Oil pressure in bar





**Diagram of digital motor electronics system – BMW 333i.**

- 1 – Control unit
- 2 – Ignition distributor
- 3 – Coil
- 4 – Heat-sensing time switch
- 5 – Coolant temperature switch
- 6 – Speed detector
- 7 – Reference mark sensor
- 8 – Spark plugs
- 9 – Air cleaner
- 10 – Throttle butterfly switch
- 11 – Battery
- 12 – Flywheel gear ring
- 13 – Fuel tank
- 14 – Electric fuel pump
- 15 – Fuel filter
- 16 – Fuel pressure regulator
- 17 – Additional air slide
- 18 – Cold-start valve
- 19 – Airflow meter
- 20 – Injectors
- 21 – Ignition/starter switch



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### **Digital Motor Electronics – BMW 333i**

This system uses microprocessor technology to control the volume of fuel injected into the engine, and also the ignition timing.

It is a development and combination of two well-established systems: L-Jetronic fuel injection and transistorised ignition.

Values obtained from sensors on the engine indicate its operating condition, that is to say starting information, operating voltages, speeds, piston and throttle butterfly positions, air and coolant temperatures; all these are supplied as input signals to the **control unit**.

Here they are compared on each revolution of the crankshaft with three-dimensional memorised characteristics, and the best possible ignition timing angle and duration of fuel injection computed for actual operating situation. The ignition current reaches the appropriate spark plug by way of a distributor with its rotor rigidly attached to the camshaft.

By taking into account all these principal operating factors, the digital motor electronics system ensures optimum engine performance and refinement at all times, and also keeps exhaust emissions down to an absolute minimum.

**Road performance (at sea level)**

Top speed: 228 km/h

Acceleration: <b>km/h</b>	<b>Sec</b>
0- 50 km/h	2,6
0- 80 km/h	5,1
0- 100 km/h	7,4
0- 120 km/h	9,8
0- 140 km/h	13,5
0- 160 km/h	17,5
80-120 km/h in 5th gear	9,5
Standing/start kilometre in	27,7



### **Dimensions and weights**

Height (unladen)	1 350 mm
Front track	1 421 mm
Rear track	1 429 mm
Unladen weight (DIN 70020)	1 256 kg
Maximum permitted gross weight	1 565 kg
Permitted front axle load	760 kg
Permitted rear axle load	875 kg

**Filling capacities**

Engine (with filter)	: 5,75 l
Gearbox	: 1,5 l
Rear axle	: 0,9 l
Cooling system	: ±11,5 l

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equipment and accessories in the interest  
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