Mercedes-Benz

Owner's Manual

What you need to know at the petrol station

See page 128

Drive sensibly – conserve fuel

Your individual driving style and the operating conditions will exercise a major influence on the level of fuel consumption.

To conserve fuel, you should

- ensure that the tyres are inflated to the correct pressure,
- avoid carrying unnecessary ballast,
- remove ski and luggage carriers as soon as they are no longer needed,
- avoid warming up the vehicle by allowing the engine to run with vehicle stationary,
- avoid frequent and rapid acceleration,
- shift early, at $^{2}/_{3}$ of permitted maxima in gears,
- have the specified maintenance work carried out at regular intervals by a Mercedes-Benz service station.

Mercedes-Benz

Owner's Manual

230 GE
300 GE
250 GD
300 GD

In your own interest, we request that you read the following:

We strongly recommend the use of Original Mercedes-Benz Parts, and of add-on parts and accessories which have been specifically approved for your vehicle type.

We have subjected all such components to special test procedures to confirm their reliability, safety and suitability for use with Mercedes-Benz vehicles.

Although we monitor developments on a continuing basis, we are unable to evaluate all the products on the market. We are thus unable to assume any responsibility for the use of components that we have not specifically approved – even in cases where these have been granted legal approval.

Original Mercedes-Benz Parts and approved add-on components and accessories are available at your Mercedes-Benz service station. Here you can obtain both extensive technical advice – including information on approved technical modifications – and professional installation.

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Our staff and co-workers hope that your new Mercedes will provide you with a maximum in driving satisfaction.

You have acquired a vehicle from which you expect long life combined with maximum reliability and ease of operation.

We have one last request – in your own interest:

Please take the time to read the owner's manual.

You will find that it contains important information which will contribute to the ease of operation of your Mercedes-Benz while further enhancing your driving pleasure.

We wish you pleasant motoring, your Mercedes-Benz Aktiengesellschaft

This manual also contains descriptions of optional equipment for those cases where explanations are necessary for their operation. As the number of options varies from vehicle to vehicle, it is possible that some descriptions and illustrations may not correspond exactly with the equipment in your own vehicle.

We are continually engaged in the further development of our vehicles. We hope that you will understand that we must therefore reserve the right to introduce modifications in form, equipment and technical content. For this reason, the data, illustrations and descriptions in this owner's manual cannot be regarded as binding.

Should your vehicle be equipped with special accessories which are not described in this owner's manual, your Mercedes-Benz service station will be happy to provide you with information on their correct operation and care.

The owner's manual and maintenance booklet are important documents and should be kept in the vehicle at all times.

The first 1 500 km

The more carefully you run in the engine, the more satisfactory will be its performance later on.

During running in you should avoid excess loads on the engine while, however, maintaining a brisk driving style.

During the first 1 500 km you should vary the engine and vehicle speeds, and drive without a trailer.

During this period you should also avoid high loads (full-throttle operation) and high engine speeds (max. 2/3 of the maxima in the individual gears).

Change gear early!

On vehicles equipped with automatic transmission, avoid using kickdown or shifting down by hand for engine braking. Select lever positions 3, 2 or B for slow driving only (mountain driving).

After the first 1 500 km, the vehicle and engine speed can gradually be increased to their respective maxima.

Items to be checked periodically and before longer journeys

See page 127.

Maintenance

Ensure that the specified maintenance operations described in this owner's manual are performed by a Mercedes-Benz service station on a regular basis.

Instruments and controls
Starting the engine
Driving instructions

Instruments and controls
Left-hand drive vehicle

The page numbers indicate where more detailed information is to be found

1 Instrument cluster (pages 12 and 14)
2 Light switch (page 50)
3 Combination switch (page 52)
4 Bonnet release lever (page 82)
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6 Horn
7 Vehicles with petrol engine: steering lock with ignition switch (page 49)
Vehicles with diesel engine: steering lock with preglow switch (page 49)
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16 Glove box
17 Fresh air and defroster vents for side windows (page 25)
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19 Headlamp wash/wipe system (page 57)
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22 Heating and ventilation controls (page 24)
23 Blower switch (page 24)
24 Parking brake (page 60)
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26 Cigarette lighter
27 Manual transmission gear shift lever (page 61)
Automatic transmission selector lever (page 62)
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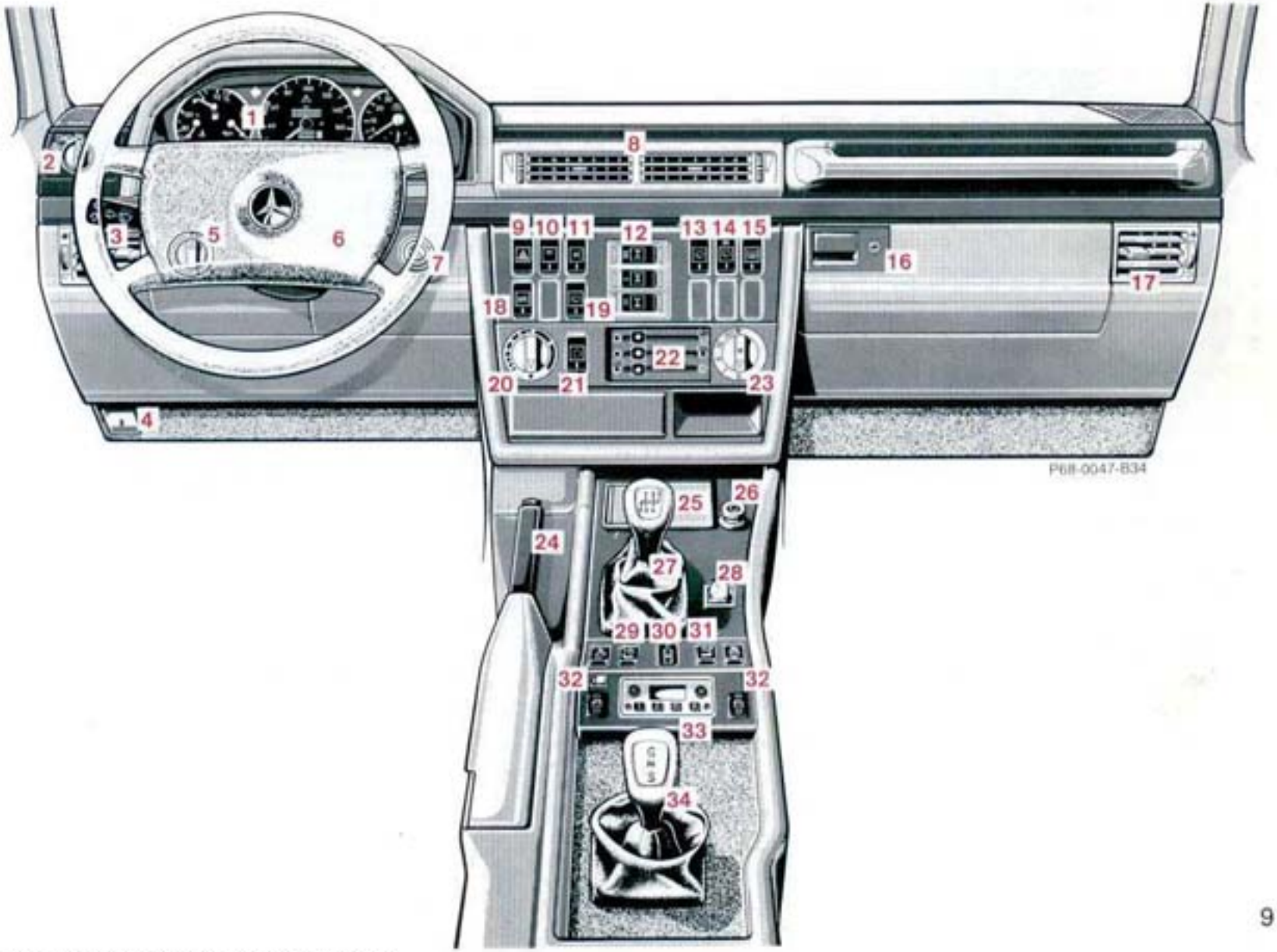
29 Left heated seat switch (page 43)
30 Loudspeaker fader control
31 Right heated seat switch (page 43)
32 Electric windows (page 56)
33 Auxiliary heater timer (page 29)
34 Transfer case shift lever (page 64)



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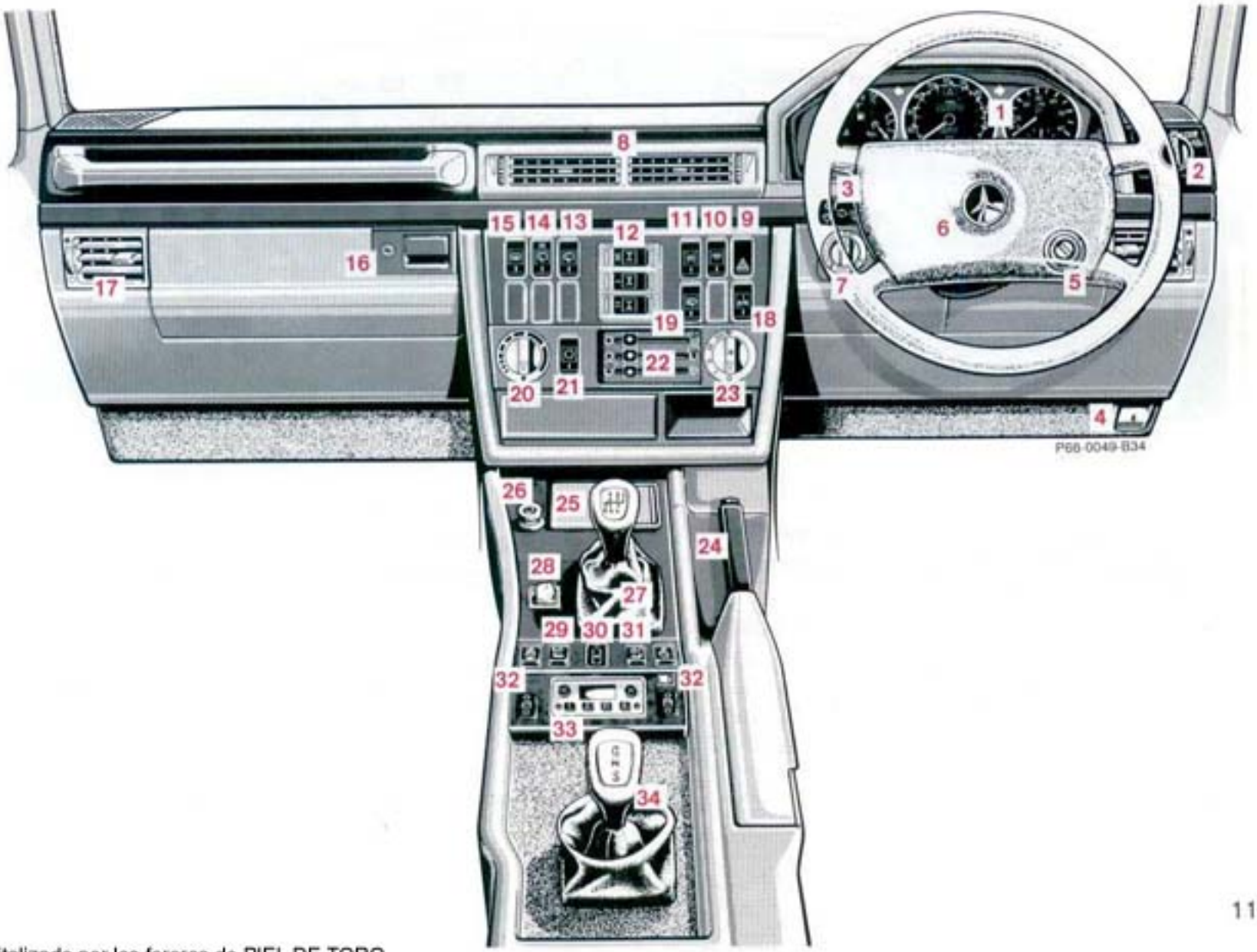

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Instrument cluster

Vehicles with petrol engine:

1 Coolant temperature gauge. See page 69.

2 Fuel gauge with fuel reserve indicator lamp, yellow. See page 68.

3 Engine oil pressure gauge (pressure in bar). See page 67.

4 Left turn signal indicator, green.

5 Button for instrument lighting and trip odometer. Turn knob: Finely-variable instrument lighting. Push knob: Trip odometer is reset.

6 Speedometer.

7 Differential lock warning lamp. See page 65.

8 Odometer.

9 Trip odometer.

10 Outside temperature display.

11 Right turn signal indicator, green.

12 Knob for resetting clock (push to reset).

13 Tachometer.

14 Electric clock.

15 Engine overspeed range. See page 67.

Indicator lamp, symbols

Vehicles with petrol engine:

Indicator lamps

High beam on.

Rear window defroster on.
See page 57.

Trailer turn signal. See page 52.

Warning lamps

(must go out when engine runs)

Battery not charging.
See page 67.

Low brake fluid.
Parking brake on.
See pages 60 and 70.

Worn brake pads.
See page 70.

Low coolant level.
See page 69.

Low fluid level in windscreen and headlamp washer reservoir.
See page 69.

ABS off with differential locks on or in off-road position.
ABS fault.
See page 71.

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Instrument cluster

Vehicles with diesel engine:

1 Coolant temperature gauge. See page 69.

2 Fuel gauge with fuel reserve indicator lamp, yellow. See page 68.

3 Engine oil pressure gauge (pressure in bar). See page 67.

4 Left turn signal indicator, green.

5 Button for instrument lighting and trip odometer.
Turn knob: Finely-variable instrument lighting.
Push knob: Trip odometer is reset.

6 Speedometer.

7 Differential lock warning lamp. See page 65.

8 Odometer.

9 Trip odometer.

10 Outside temperature display.

11 Right turn signal indicator, green.

12 Knob for resetting clock (push to reset).

13 Tachometer.

14 Electric clock.

Indicator lamp symbols

Vehicles with diesel engine:

Indicator lamps

High beam on.

Preglow indicator lamp.
See page 17.

Rear window defroster on.
See page 57.

Trailer turn signal. See page 52.

Warning lamps

(must go out when engine runs)

Battery not charging.
See page 67.

Low brake fluid.
Parking brake on.
See pages 60 and 70.

Worn brake pads.
See page 70.

Low coolant level.
See page 69.

Low fluid level in windscreen and headlamp washer reservoir.
See page 69.

ABS off with differential locks on or in off-road position.
ABS fault.
See page 71.

Starting and switching off petrol engine

Before starting

- Activate parking brake.
- Place manual transmission in neutral, shift automatic transmission to position P.
- Turn key in steering lock to position 2. The charge current indicator lamp should light up.

Starting with cold engine

Turn key in steering lock all the way to the right and hold until the engine begins to run. Do not depress accelerator pedal while starting.

If the engine fails to start after approx. 5 seconds, slowly depress accelerator pedal.

Starting with warm engine

Turn key in steering lock all the way to the right and slowly depress accelerator pedal.

As soon as the engine starts, release the key and depress the accelerator pedal until the engine runs smoothly.

If the coolant temperature is very high, slowly depress accelerator pedal during starting procedure.

Repeat starting

Return the key in steering lock to position 0 before repeating starting procedure.

Switching off

With the vehicle stationary, turn key in steering lock to position 0.

If the engine coolant temperature is very high (for instance, after mountain driving), do not switch off engine immediately, but allow it to idle for approx. 1 minute.

Notes:

Check engine oil pressure gauge immediately after engine has started. If the engine is extremely cold, several seconds may elapse after starting before a rise in oil pressure is observed. Do not run engine at high speeds until oil pressure is indicated by the gauge.

The charge current indicator lamp must go out as soon as the engine starts to run.

If engine fails to run correctly (e.g. missing), consult notes on page 18.

Starting and switching off diesel engine

Before starting

- Activate parking brake.
- Place manual transmission in neutral, shift automatic transmission to position P.

Starting with cold engine

Turn key in steering lock to position 2. Charge current indicator lamp and preglow indicator lamp must light up. The preglow process begins.

When the preglow indicator lamp goes out, this signals that the engine can be started.

Turn key in steering lock all the way to the right. Do not depress accelerator pedal. Release key only when the engine has begun to run evenly.

At low ambient temperatures:

Fully depress accelerator and clutch pedals. Turn key in steering lock all the way to the right.

Release key only when the engine has begun to run evenly and fast. Then slowly release accelerator pedal.

Do not interrupt starting procedure. If the engine is extremely cold, it is possible that it will no longer start when the starting process is repeated.

Starting with warm engine

Turn key in steering lock all the way to the right and start engine immediately without depressing accelerator pedal.

Repeat starting

Return the key in steering lock to position 0 before repeating starting procedure.

Switching off

With the vehicle stationary, turn key in steering lock to position 0.

If the engine continues running with key in position 0, stop engine manually, see page 83.

If the engine coolant temperature is very high (for instance, after mountain driving), do not switch off engine immediately, but allow it to idle for approx. 1 minute.

Notes:

Check oil pressure gauge immediately after engine has started. If the engine is extremely cold, several seconds may elapse after starting before a rise in oil pressure is observed. Do not run engine at high speeds until oil pressure is indicated by the gauge.

The charge current indicator lamp must go out as soon as the engine starts to run.

If the preglow indicator lamp fails to light up, then there is a fault in the preglow system. This should be rectified immediately at a Mercedes-Benz service station.

Impact-protection bar

The impact-protection bar must always be folded up and locked in position when the vehicle is operated on public roads.

Steering

The power steering is without servo assistance when the engine is not running. This results in a substantial rise in the force required to steer the vehicle.

Rough engine running

Vehicles with catalytic converter:

When the engine runs roughly (for instance, missing), unburnt fuel can enter the catalytic converter where it can cause thermal damage.

Should ignition miss occur, the engine should only be operated for a brief period and at low load (light foot on accelerator).

Have the fault rectified immediately at a Mercedes-Benz service station.

Caution!

Hot exhaust systems can cause fires. They should not be allowed to come into contact with highly-inflammable materials (such as hay), either during driving or parking.

Aquaplaning

Even with adequate tyre tread depth and at low speeds, acquaplaning can still occur if the depth of the water on the road is sufficient. In the rain, avoid lane grooves and drive cautiously.

Tyre traction

If, at a certain speed, the vehicle can still be controlled safely on a dry road surface, then this speed must be reduced accordingly on wet or icy surfaces if the same level of safety is to be maintained.

As soon as the temperature starts to approach freezing, pay particular attention to the condition of the road.

When ice has formed on the road surface (for instance, from fog), a thin layer of water will form on the ice during braking, substantially reducing the tyres' traction. Be especially careful when driving under such conditions.

M + S radial winter tyres are recommended for use in winter. On slippery snow and ice they provide shorter braking distances than summer tyres. However, braking distances remain long relative to those obtained on wet or dry roads.

Tyres

Do not drive on tyres which are worn beyond the legally-specified tread depth.

Check the tyres periodically for even tread wear and for damage. Remove any foreign objects lodged in the tread.

It is important that the specified tyre pressure be maintained. Check the tyre pressure with the tyres cold. The differrence between tyres on one axle should not exceed 0.1 bar.

To obtain the most even possible tread wear, the front tyres can be moved to the rear and vice versa. However, the direction of rotation for each tyre must remain the same!

Caution!

In the interests of adequate clearance, wide tyres of the size 255/R15 C on 7" ×15 H2 wheels are only to be mounted on vehicles with wide-track axles and flared fenders.

Brakes

The brakes are without power assistance when the engine is not running. Note that this condition is accompanied by a substantial increase in the force required to brake the vehicle.

On long, steep downhill gradients, reduce the load on the brakes by shifting to a lower gear (automatic transmission in position 3, 2 or B). This avoids overheating the brakes while also reducing brake pad wear.

When the brakes have been subjected to considerable loads, it is a good idea to avoid parking the vehicle immediately. It is better to continue driving for a brief period to allow the air stream to cool the brakes more quickly.

The brakes are adjusted automatically. To ensure that the adjustment mechanism works properly, the service brakes must be applied periodically with the vehicle moving in reverse.

A low fluid level in the brake fluid reservoir can be caused by brake pad wear or a leak in the system.

Have the brake system inspected immediately at a Mercedes-Benz service station.

When water penetrates to the brake shoes, the onset of deceleration may be somewhat delayed when the brakes are first applied, and more force may be required at the pedal. So maintain a greater distance between yourself and the vehicle in front of you.

To prevent brake disc corrosion: after driving on wet roads – especially where salt has been applied – apply the brakes with moderate force before parking to heat the discs and promote drying.

Service brakes

If only moderate braking forces are used, you should periodically check the operation of the brakes by braking strongly from a higher speed. This promotes improved brake-pad grip.

Use caution to ensure that other traffic is not endangered during braking!

If the brake warning lamp (!) lights up when the parking brake is released, or if the brake wear indicator lamp lights up, see page 70.

Install approved brake pads only! The installation of non-approved brake pads can exert an extremely negative influence on the vehicle's braking characteristics, resulting in a substantial reduction in safety.

Parking brake

Apply the parking brake while driving once or twice during the intervals between maintenance visits. This procedure helps to increase their effectiveness.

On a straight, dry road, at a maximum speed of 40 km/h, hold the button down and briefly pull up the parking brake lever until braking force is felt. Hold it in this position for approx. 10 seconds. Then release the parking brake lever once again.

Use caution to ensure that other traffic is not endangered when braking! The rear brake lamps do not light up when the parking brake is engaged.

Driving under winter conditions

Most important rule for winter driving:
Maintain a feel for the vehicle while driving. Avoid sudden acceleration, braking and steering.

If the vehicle threatens to break into a slide, depress clutch pedal/ shift automatic transmission to N.

Attempt to maintain control of the vehicle by applying the appropriate steering correction.

Road salt can have a deleterious effect on the efficiency of the brakes. It may thus be necessary to increase the pressure exerted on the pedals to achieve normal braking forces.

Thus we recommend that the brakes be applied repeatedly when the vehicle is driven for long periods on salted roads. This procedure counteracts the negative effects of salt and returns the brakes to their normal effectiveness.

When applying brakes, use caution to ensure that other traffic is not endangered!

When operation is resumed after the vehicle has been parked following operation on salt-treated roads, the effectiveness of the brakes should be checked cautiously at the earliest possible opportunity. If the brakes are found to be considerably less effective than normal, pumping the pedal several times will improve their operation.

Drive on tyres with a tread pattern providing good traction.

Allowing the drive wheels to spin for extended periods of time can damage the differentials and should thus be avoided whenever possible.

Where necessary, engage differential locks as needed for adequate traction before the wheels start to spin. See page 65.

Whenever possible, fit chains to all four wheels when driving on snow. Observe the fitting instructions of manufacturer.

If only two chains are available, fit them to the front wheels. Then engage the transfer case differential lock.

Caution!

The ABS is deactivated when the transfer case differential lock is switched on.

Interior

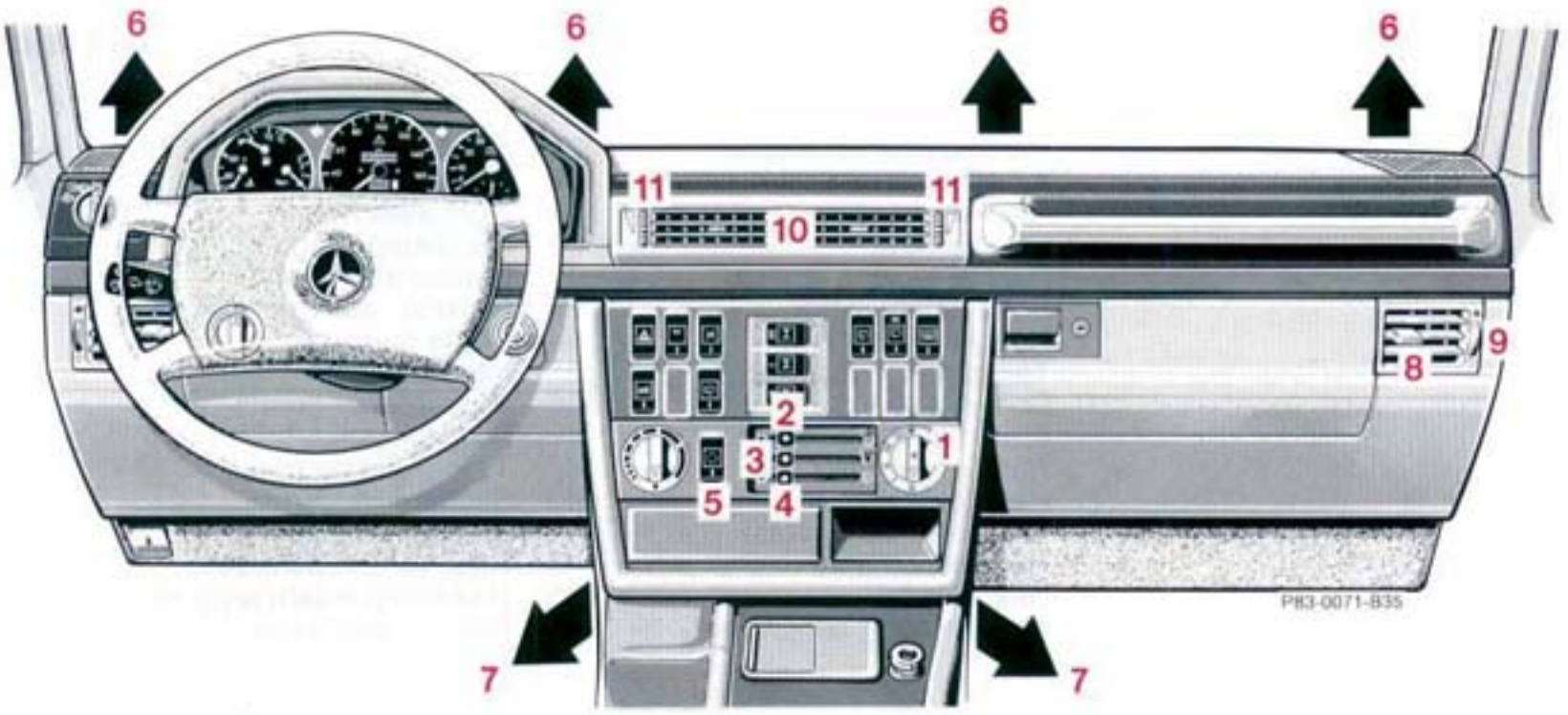
Do not transport heavy or hard objects in the interior without securing them.

Failure to comply can result in passengers being injured by the objects moving about during sharp braking, a rapid change of course or in an accident.

Securing cargo

Four rings are provided for securing cargo, for instance with straps.

The rings are located in the cargo area.



Heating and ventilation

1 Blower switch

Rotate clockwise to switch on. Increase air flow by turning blower switch further toward travel stop. The four-stage blower is activated from dial position "I" onward.

The supply of outside air can be switched off to prevent dust and unpleasant odours from entering the vehicle interior (turn blower switch all the way to the left). Avoid driving for extended periods with the switch in this position.

2 Air vents for front screen (heated or unheated)

Slide to right to switch on. Fresh or heated air is directed towards the windscreen. Sliding lever further to the right provides a proportionate increase in air flow.

3 Heater

Slide to the right to switch on. Sliding lever further to the right provides a proportionate increase in heat.

4 Air vents for footwell (heated or unheated)

Slide to the right to switch on. Fresh or heated air flows into the footwell. Sliding lever further to the right provides a proportionate increase in air flow.

5 Recirculating air switch

Switch on by pressing down lower part of switch. The air flap is then closed and the interior is heated with inside air only.

The recirculated air mode can be selected to avoid drawing in dust or unpleasant odours from the outside. Avoid driving for extended periods with the switch in this position.

6 Fresh air and defroster nozzles for windscreen

7 Fresh air and heating nozzles for footwell

8 Adjustable fresh air and defroster nozzles

9 Thumb wheel for fresh air and defroster nozzles

Turn thumb wheel down to open.
Turn thumb wheel up to close.

10 Adjustable fresh air grilles

11 Thumb wheel for fresh air grille

Turn thumb wheel up to open.
Turn thumb wheel down to close.

Setting examples

For defrosting windows:

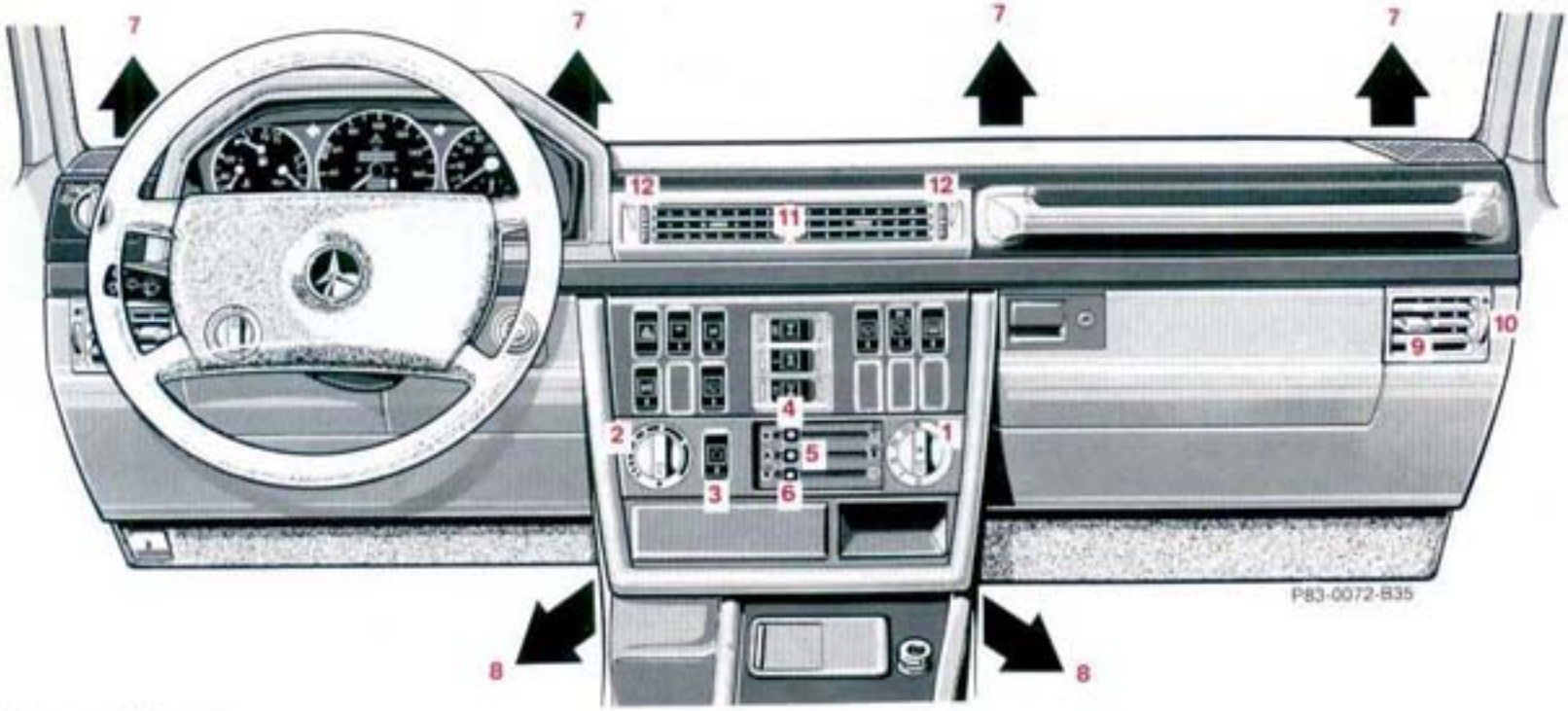
Maximum heating and maximum air flow to windscreen. To defrost side windows, turn thumb wheel of side nozzle to fully open position and direct the air flow from the fresh air and defroster nozzles toward the side windows.

Maximum heating:

Heated air and maximum air flow are directed toward the windscreen and the footwell.

Maximum supply of fresh air:

Unheated air and maximum air flow are directed toward the windscreen and the footwell.



Air conditioner

1 Blower switch
2 Temperature switch
Fully clockwise for maximum cooling
3 Recirculating air switch
4 Air control lever for windscreen (heated or unheated)
5 Heater control
Lever to right: maximum heating
6 Air control lever for footwell (heated or unheated)
7 Windscreen ventilation and defroster nozzles
8 Footwell ventilation and defroster nozzles
9 Adjustable ventilation and defroster nozzles
10 Thumb wheel for ventilation and defroster nozzles
11 Adjustable grilles for unheated fresh air
12 Thumb wheel for unheated fresh air

The air conditioner serves to ventilate, cool, and dehumidify the interior.

The system only operates when the engine is running. The rotating speed and thus the cooling effectiveness of the A/C compressor increase in proportion to the engine speed.

Run air conditioner at least once a month for approx. 10 minutes.

The blower switch (1) must be turned at least as far as the position "I" for the air conditioner and the recirculating air mode to operate.

If more cooling is desired, a higher blower speed must be selected.

Air distribution is set as in heating and fresh air modes.

Before switching on

- Close tilting/sliding roof, windows and doors.
- Slide heater control lever all the way to the left.

Switching on:
Set blower switch (1) to desired position. Use temperature switch (2) to select desired temperature. The air conditioner provides maximum cooling when the temperature switch is turned all the way to the right.

Switching off:
Turn temperature switch (2) all the way to the left.

Fogged windows:
With air conditioner operating, push heater control lever all the way to the right. Set temperature switch for maximum cooling and use blower switch to select desired air flow.

Notes:

Switch over to recirculating air mode if dust or unpleasant odours are drawn in or at extremely high outside temperatures.

Humidity is extracted from the air to quickly dry the inside surfaces of the windows.

Switch back to fresh air mode as soon as possible.

Auxiliary heater

1 Indicator lamp (yellow)
Preset on

2 Indicator lamp (green)
Auxiliary heater operating

3 Program and time display

1 Programmed heat – first preset time

2 Programmed heat – second preset time

Time recall

Instant heat

Reset actual and program time (back)

Reset actual and program time (forward)

The auxiliary heater can be operated through the normal vehicle heating system when the vehicle engine is running or switched off.

It serves

- to heat the interior prior to vehicle operation, or during operation in cases where the standard system does not provide sufficient heat,
- to defrost the vehicle windows,
- to preheat the engine coolant. This eases starting at extremely low ambient temperatures.

The auxiliary heater can be switched on immediately (instant heat) or it can be programmed to switch on at a preset time (programmed heat).

Caution!

Do not operate auxiliary heater at petrol stations or in closed areas without exhaust ventilation (such as garages).

Before switching on

Slide heater control lever all the way to the right.

- The blower switch must be set to position "I" or higher. A higher blower setting will provide better interior heating, at the expense, however, of increased battery load.
- Adjust air distribution as desired.

Recalling and setting actual time

Press button and hold. The actual time appears in display (3).

To correct the actual time setting, simultaneously press button and button ◀ or ▶. Brief actuation changes the time by one minute.

Preselecting time for programmed heat

It is possible to program two preset times (one each on buttons 1 and 2).

Press button 1 or 2. The yellow indicator lamp (1) lights up. First, the number of the button appears in the display (3). Then, the last preset time for this button appears for approx. 20 seconds. The preset time can be changed for as long as it continues to appear. Reset by pressing buttons ◀ or ▶.

Switching on programmed heat

Press button 1 or 2. The yellow indicator lamp (1) lights up. The activation time for the auxiliary heater appears in the display (3). When the auxiliary heater is operating, the yellow indicator lamp (1) is out and the green indicator lamp (2) is on.

The maximum operating time for the auxiliary heater is 60 minutes.

Switching on instant heat

Press button. The green indicator lamp (2) lights up. The auxiliary heater begins operating after approx. 30 seconds.

The maximum operating time for the auxiliary heater is 60 minutes.

Switching off

Green indicator lamp (2) is on: Press button. The green indicator lamp goes out.

Yellow indicator lamp (1) on: Press button 1 or 2 (number in display).
The yellow indicator lamp goes out.

The auxiliary heater is switched off automatically after a maximum of 60 minutes. The green indicator lamp goes out.

The heater unit is switched off automatically approx. 3 minutes later.

Notes:

With auxiliary heater on and key removed or at key position 0 or 1 in steering lock, the blower only begins operating after the coolant has reached a specific temperature.

The time in the display (3) blinks when the operating voltage has been interrupted. Should this happen, first set the actual time, and then the preset times for programmed heat.

If the green indicator lamp (2) goes out again after the unit is switched on, this indicates a fault in the system. Repeat switch-on procedure. If the fault is still indicated, consult a Mercedes-Benz service station for assistance.

To ensure trouble-free operation, it is important that the auxiliary heater be operated for approx. 5 minutes at least once a month throughout the year.

To preserve the battery, only run the auxiliary heater for as long as necessary when the engine is not running. Do not activate the heater several times in succession with the engine off.

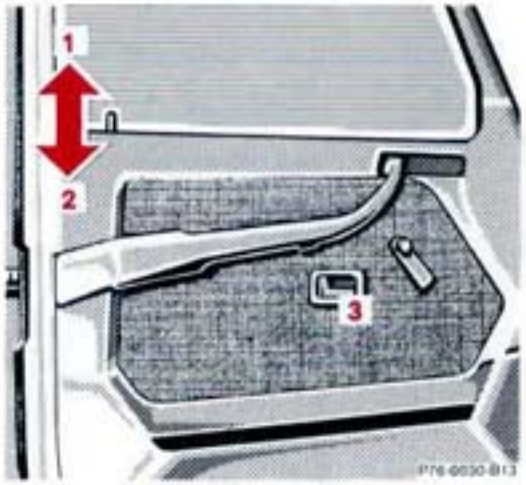
Vehicle keys

Two vehicle keys are provided with your vehicle

Each key fits all locks.

Obtaining replacement keys

Your vehicle is equipped with a special locking system. For this reason it is only possible to obtain substitute keys from a Mercedes-Benz service station. Emergency measures in case of key loss can be extremely time consuming.



Central locking system

Doors

1 To unlock

2 To lock

Press on the lock button to open the door.

Locking a front door or the rear door/tailgate will lock all doors as well as the fuel filler flap. The vehicle can be unlocked centrally in the same way.

1 Unlocked

2 Locked

3 Opening handle

Pull on handle to unlock and to open door.

The central locking system only operates when the doors are closed securely.

The door locking pins on all doors must retract fully to the lower position when the system is locked. Should this fail to occur, it indicates that the door in question is not completely closed. Open the door again and close it firmly.

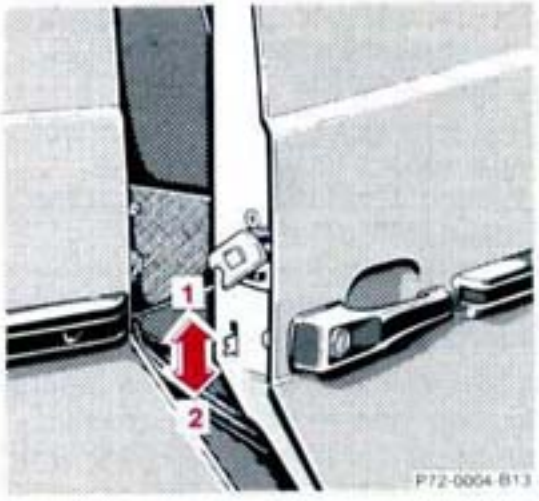
It is possible to activate the central locking system from the inside by pressing the locking pin on one of the front doors or the rear door/tailgate. The doors must first be closed.

When a rear door is unlocked from the inside, the filler flap and all other doors remain locked. Press the locking pin down again to lock the door.

The child safety locks are not influenced by the central locking system.

Notes:

If the fuel filler flap does not open after unlocking, see "Unlocking fuel filler flap manually" (see page 110).



Child safety locks
(Rear doors and tailgate)

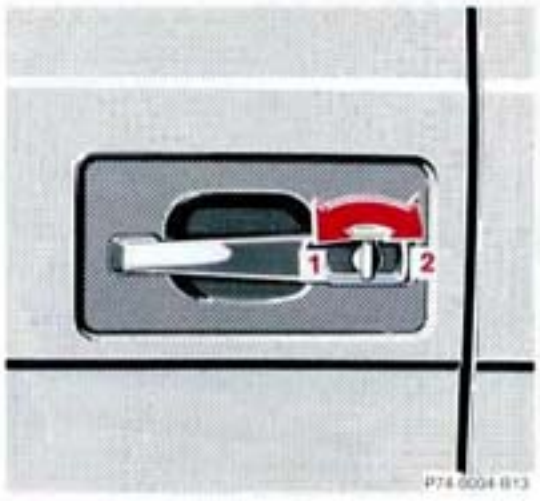
1 To unlock:
Push safety catch upward.

2 To lock:
Press safety catch downward.

When secured in this manner, the door can no longer be opened from the inside.

Note:

The door can still be opened from the outside when it is unlocked (locking pin up).

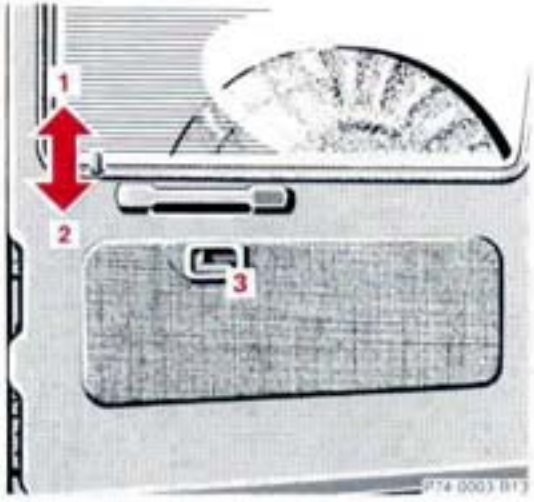


Tailgate

1 To unlock

2 To lock

Press on the lock button to open the door.

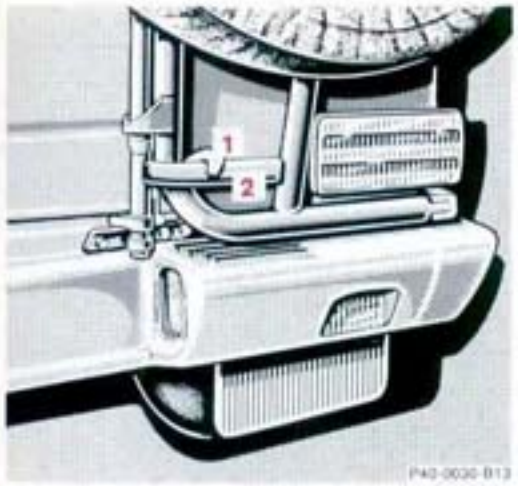


1 Unlocked

2 Locked

3 Opening handle

Pull on handle to unlock and to open.



Caution!

Never operate the vehicle with the spare tyre swung to the outside position.

Tailgate (convertible)

The spare tyre in its bracket must be swung to the outside before the tailgate can be opened.

To swivel rear spare tyre outward:

Lift safety catch (1) and open locking lever (2).
It is now possible to swivel spare tyre and bracket outward.

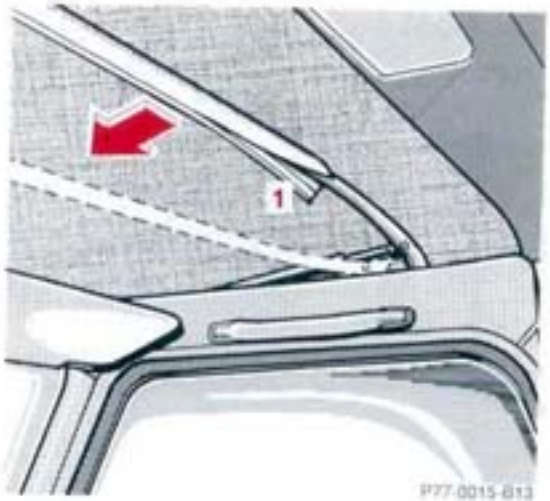
To open tailgate:

Open snap locks (1) and detach canvas at velcro strip. Open side zips and roll up canvas to the inside.

Pull up on tailgate release handle (2) and swing down tailgate.

Convertible top

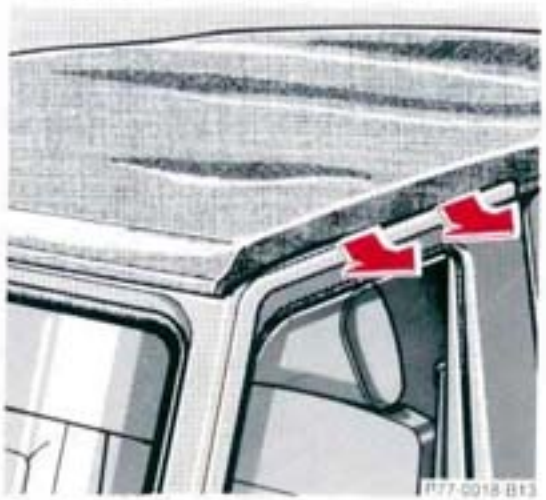
Opening convertible top:



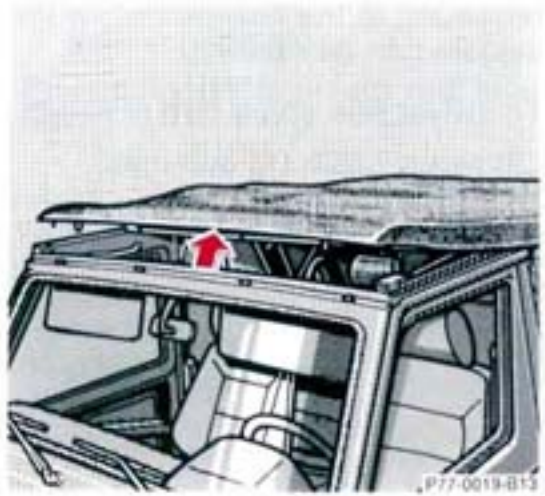
1. Detach velcro fastener (1) on transverse bow and fold down transverse bow.

2. Use lock handle (in on-board tool kit) to open quick-securing mechanisms.

3. Detach velcro fasteners.

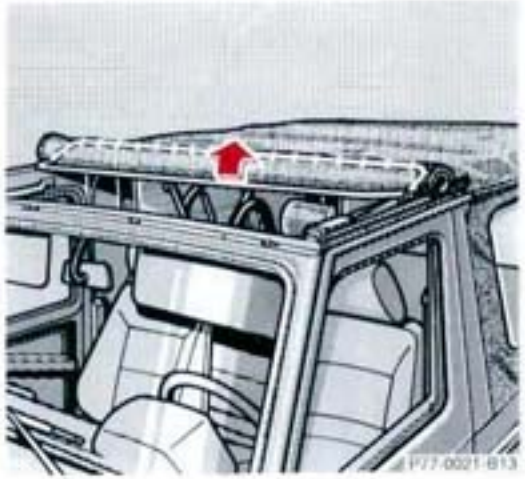


4. Unhook canvas.



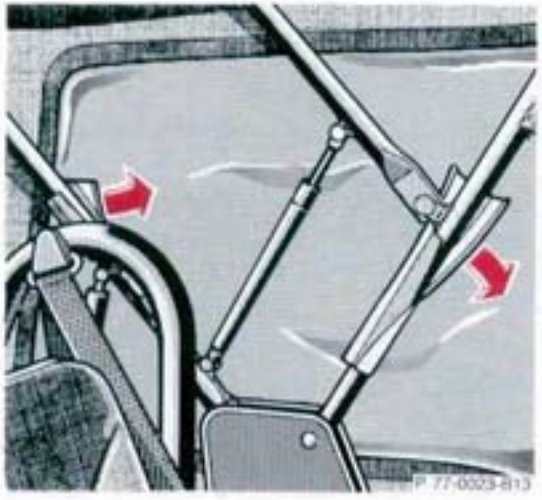
5. Pull up canvas.

6. Roll back canvas.

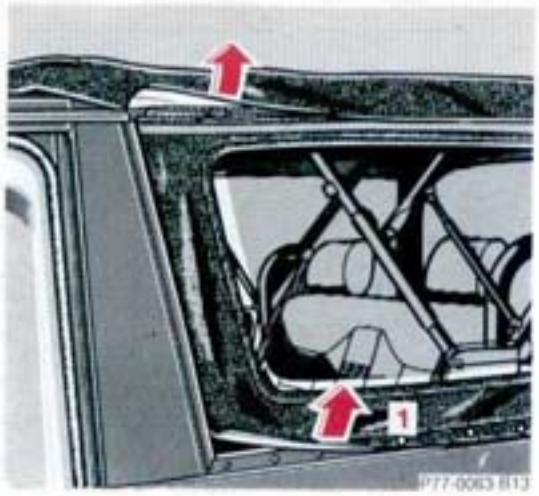


7. Fold transverse bow to the rear.

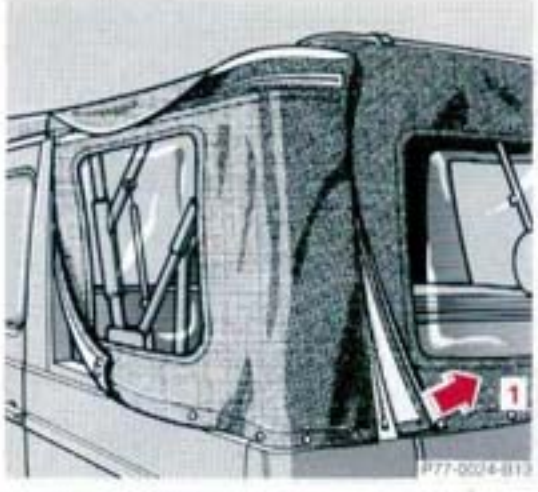
Removing side sections:



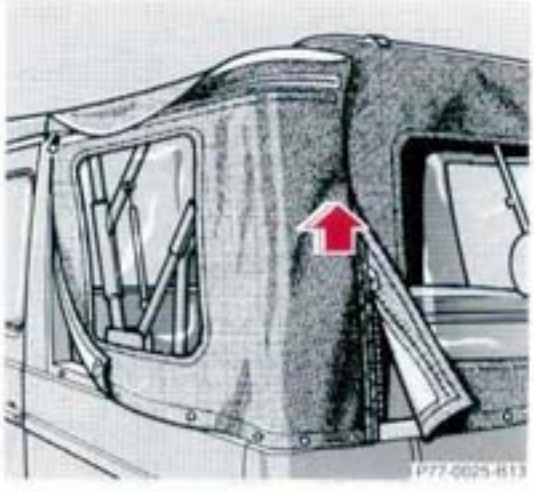
1. Detach velcro fasteners.



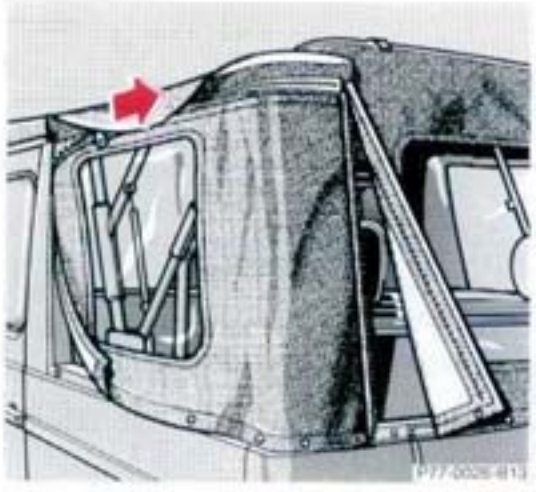
2. Detach snap buttons (1) and velcro fasteners.



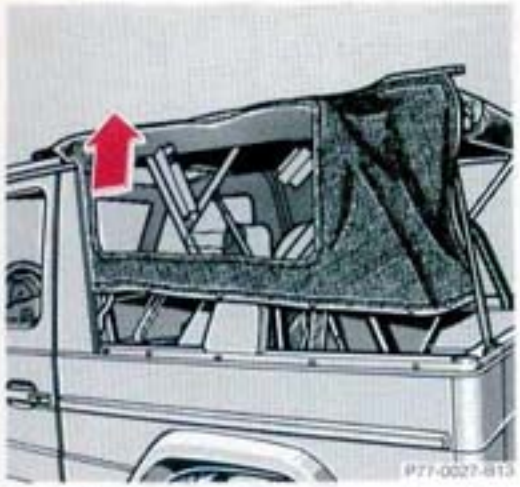
3. Detach snap buttons (1) and velcro fasteners.



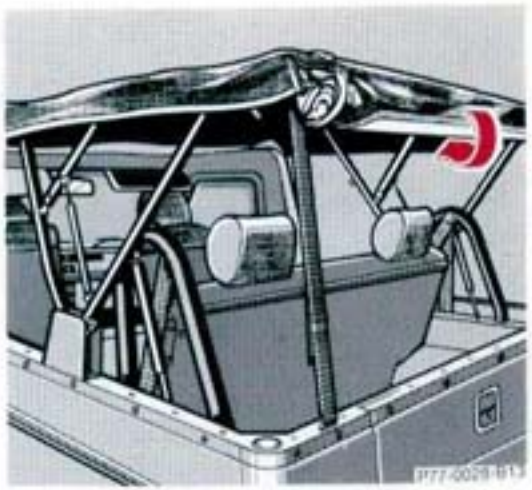
4. Open zips.



5. Open zip at top.



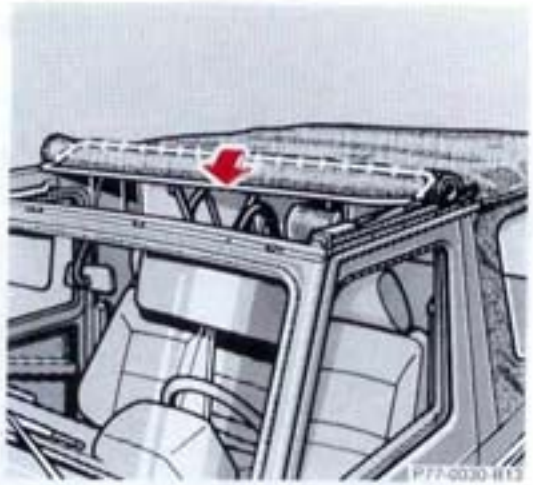
6. Pull side sections upward and out.



7. Roll up and secure canvas.

Removing convertible top:

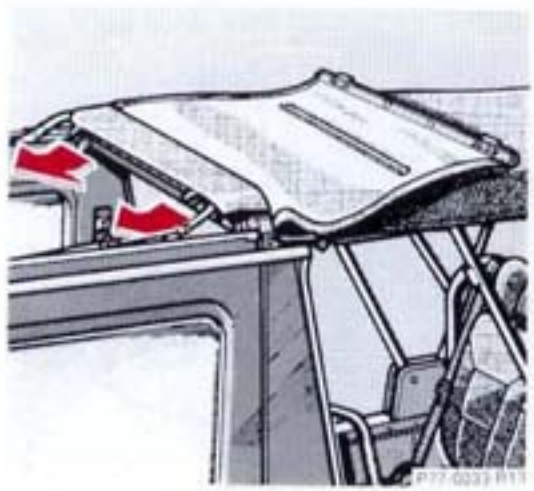
- Open roof section.
- Remove side sections.



1. Fold transverse bow toward the front.

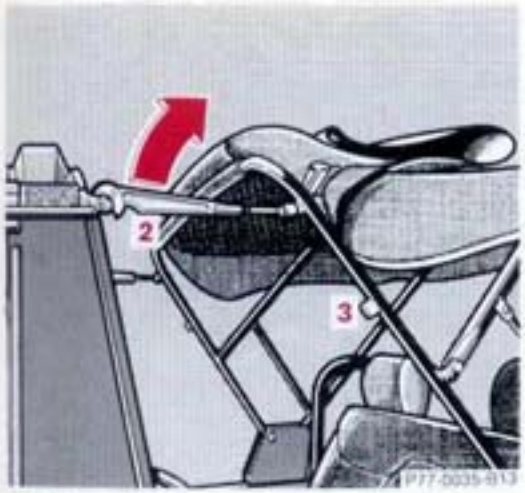
2. Roll canvas towards the front.

3. Fold canvas to the rear.

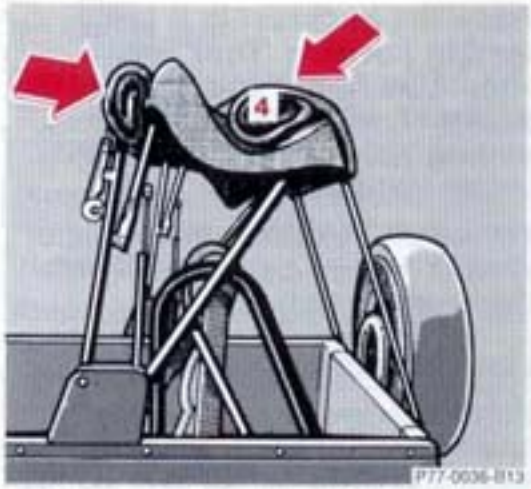


4. Unhook canvas and detach velcro strips at tension locks.

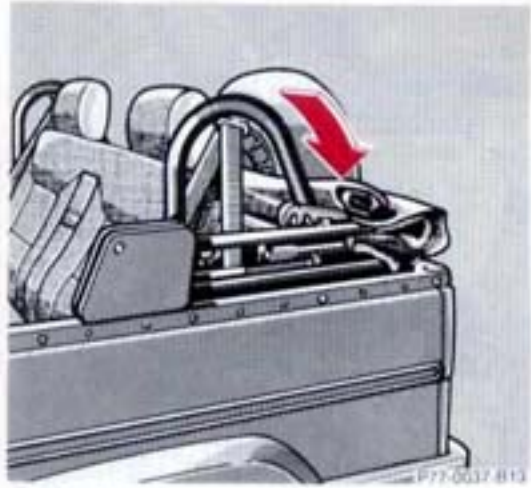
5. Fold canvas and transverse bow (1) to the rear.



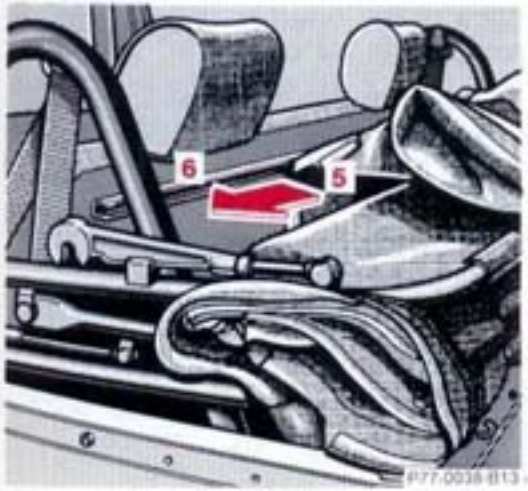
6. Open tension locks (2) and secure in clips (3).



7. Roll up side parts (4) tightly and put them on the soft top. Fold up soft top.



8. Fold down soft top in the back and fasten it with flexible straps on the right and on the left-hand side.



9. Guide canvas (5) into rail (6).

10. Use snap buttons to secure canvas.

Front seat adjustment

1 Longitudinal adjustment
2 Seat cushion tilt angle
3 Seat position lock
4 Backrest angle

Caution!

It is essential that seat positions which interfere with correct placement of the seatbelts be avoided, as they represent a safety risk.

Place the backrest in a fairly upright position. Your back should be firmly against the backrest, with the seatbelts resting securely against the upper shoulder area.

For safety reasons, the vehicle should always be at rest when the seat is readjusted.

Longitudinal adjustment

Pull up on lever (1); slide seat toward front or back. Release lever and allow detent to snap into place.

Seat cushion tilt angle

Pull up on lever (2).
Push seat toward front or back.
Allow lever to snap back into place.

Tilting seat

Pull up on seat position lock (3) and tilt seat towards the front.

Backrest angle

Rotate hand wheel (4) in the desired direction.

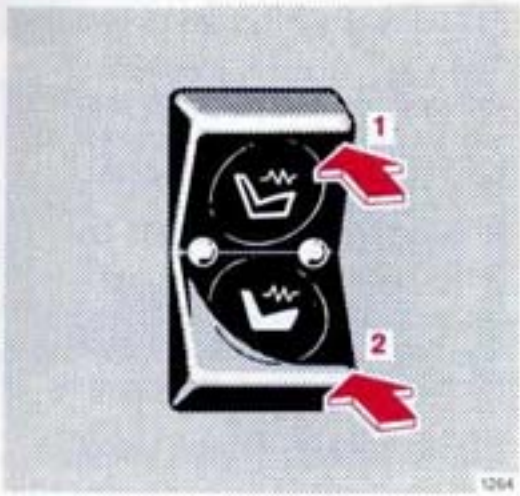
Head restraints

Adjust head restraint so that the back of the head is supported roughly at ear height.

To remove head restraint, see "Practical tips", page 108.

Caution!

For safety reasons, ensure that occupied seats are always equipped with head restraints.



Heated seats

1 Normal heat

2 Rapid heat

Key in steering lock in position 1 or 2.

To switch on:

Press down top of switch (1) = normal heat. Indicator lamp in switch lights up.

Press down bottom of switch (2) = rapid heat. Both indicator lamps in switch light up.

After approx. 5 minutes the system switches over automatically to normal heat, from this time onward only one indicator lamp remains lit.

To switch off:

If one indicator lamp is on, press top of switch (1).

If both indicator lamps are on, press on bottom of switch (2).

The heated seat is switched off automatically after an operating period of approx. 30 minutes.

Notes:

The heated seats consume a substantial amount of electrical current. For this reason, they should not be left operating for longer than necessary.

If a number of electrical consumers are switched on, or if the battery is insufficiently charged, the heated seat may switch off automatically. This will be signalled by the flashing indicator lamps in the switch (both lamps flash for rapid heat). The heated seats will resume operation automatically as soon as sufficient current is again available.

If the flashing of the indicator lamps is a source of disturbance, the heated seats can be switched off.

Armrest (front seats)

1 Adjusting armrest downwards: Press locking button.
2 Position for normally inclined backrest. Press armrest downwards to stop.
3 Position for strongly inclined backrest.
4 Armrest folded up.

Caution!

The armrest is not a substitute for a child restrain system. In case of accident, an unrestrained person could be thrown forward over the raised armrest.

Rear bench seat

The rear bench seat can be folded over to increase the size of the cargo area. Either the left section, the right section, or both sections can be folded according to requirements.

To fold backrest to the front:

Push in head restraint all the way and fold forward.

Activate release lever (1) and fold the backrests to the front until the lock engages.

To fold rear bench seat forward:

Fold seat backs to the front. Activate release lever (2) and fold rear bench seat with backrest to the front until lock engages.

To fold rear bench seat to the rear:

Activate release lever (2) and fold rear bench seat with backrest to the rear until the lock engages.

To fold backrest to the rear:

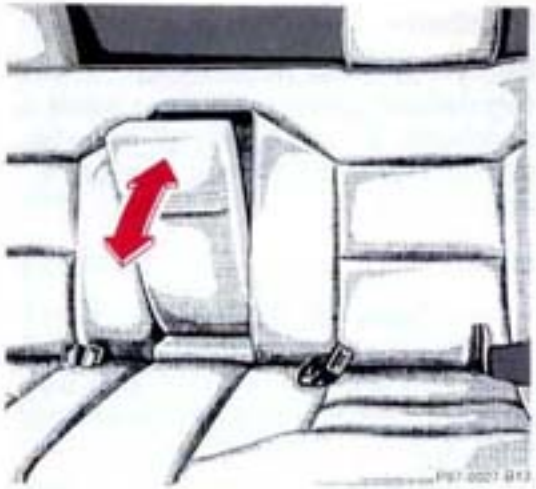
Activate release lever (1) and fold backrest to the rear until the lock engages.

Caution!

For safety reasons, the seats should always be equipped with head restraints.

Caution!

The rear occasional seats are only to be occupied when the rear bench seat and backrest are folded to the rear and the locks engaged. The head restraints must be installed in the backrest of the rear bench seat.



Rear folding seat

To fold down:

Unhook retaining strap hooks (1) from shackles behind backrest.

Swing steel leg out of bench seat and fold bench seat down, support steel leg on edge (2) of wheelhouse.

To fold up:

Swing bench seat up, fold steel leg down and fasten with retaining strap hooks (1).

Armrest (rear bench seat)

Use strap to extract armrest.

Seatbelts

Many countries have legal regulations governing the use of seatbelts. In any case, all vehicle occupants should wear seatbelts at all times.

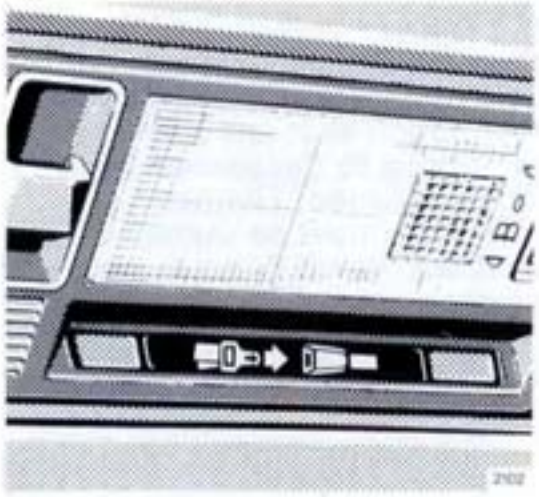
Notes:

All seatbelts are intended to be worn by a single person only. They are not intended for use by persons (particularly children) less than approx. 140 cm tall. Such persons should always ride in the rear seats and with an appropriate restraint system.

The child restraint equipment which we recommend can be secured with the vehicle's seatbelt system. Any Mercedes-Benz service station can provide you with more information.

Care and cleaning of belt straps, see page 104.

Seatbelt safety regulations, see page 48.



Seatbelt warning lamp

The seatbelt warning lamp is intended to remind you that seatbelts should always be put on before the vehicle is operated. The lamp goes out automatically after flashing briefly.

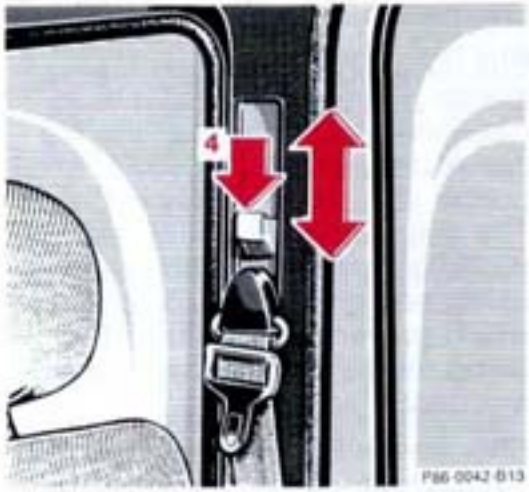
1 Tongue
2 Belt buckle
3 Release button
4 Belt height adjustment button

Fastening seatbelts

Pull belt with lock tongue (1) over shoulder and pelvis so that the lap sash is just in front of the hip bones. The belt must not be twisted.

For safety reasons, seat positions which prevent the seatbelt from being routed correctly are to be avoided.
Press lock tongue (1) into buckle (2) so that it is heard to engage.

The belt must be tight. Check this immediately after fastening the belt and at regular intervals when driving. It may be necessary to tension the lap sash by pulling the top part of the belt upward.



Adjust the front seatbelt so that the strap runs over the middle of the shoulder.

Adjust by raising or lowering the strap adjuster (4 positions).

Pull button (4) to lower. Release button, the strap adjuster should be heard snapping into place.

Releasing seatbelts

Press release button (3) in buckle (2).

Return lock tongue (1) to resting position.

Operating principle

The inertia reel of the seatbelt stops the belt from unwinding further in case of vehicle deceleration in any direction, or if the belt is pulled out quickly.

The locking action of the inertia reel can be checked by pulling the belt out quickly.

1 Tongue
2 Belt buckle
3 Release button

Lap belt (rear seat centre)

Pull belt with lock tongue (1) across the pelvis so that it is positioned just in front of the hip bones. Press lock tongue (1) into buckle (2) until it audibly engages. The belts must not be twisted and must be firm against the body. For safety reasons, seat positions which prevent the seatbelt from being routed correctly are to be avoided.

Shorten the belt with the lock tongue snapped into the buckle by pulling on the end of the belt. Lengthen the belt by positioning the lock tongue at a wide angle to the strap and pulling before inserting lock tongue in buckle.

To release belt, press release button (3) in buckle (2).

When the centre seat position is not occupied, the buckle and the folded lap belt can be stored in the recess below the rear seat armrest.

Seatbelt safety regulations

Seatbelts which are damaged or which have been subjected to severe loads in an accident must be replaced. The seatbelt mountings should also be inspected. Use only seatbelts which we have approved.

Seatbelt straps must not be routed over sharp edges.

Do not make any modifications which could adversely affect the effectiveness of the seatbelts.

Steering lock

0 The key can only be removed from the lock in this position. The steering is locked when the key is removed and the detent snaps into place.

1 Steering released. It may be necessary to move the steering wheel slightly when turning the key clockwise to position 1.

2 Vehicles with petrol engine: driving position.
Vehicles with diesel engine: preglow and driving position.

3 Starting position.

Notes:

Starting and switching off engine, see pages 16 and 17.

Do not remove the key when the vehicle is moving. It is no longer possible to steer the vehicle once the key has been removed.

After removing the key, it may be necessary to move the wheel slightly to activate the steering lock.

The alternator supplies only a minimal current when the engine is at idle.

For this reason, we recommend that excessive use of electrical consumers be avoided in stop and go traffic. This helps to avoid excessive current drain on the battery.

Turning off, for example, the heated seat and the rear screen defroster is very helpful.
The blower switch should also be set to position "I".

Caution!

For safety reasons, the key should always be removed from the switch when the vehicle is left standing, even for brief periods. Never leave children in the vehicle unsupervised.

Light switch[1]

Off

Parking lamps, licence plate and instrument lighting

Low beam
High beam (press combination switch forward)

Right parking lamps (turn anti-clockwise to 1st detent)

Left parking lamps (turn counter-clockwise to 2nd detent)

Pull out switch to 1st detent:

Fog lamps
With parking lamps or low or high beam

Pull out switch to 2nd detent:

Rear fog lamp
With front fog lamps
The indicator lamp in the switch lights up

Note:

When the key is removed from the steering lock and a front door is opened, a buzzer will sound if the vehicle's external lighting is not switched off (exception: parking lamp).

[1] Deviations possible due to varying legal requirements in certain countries.

Headlamp range control

Examples of settings:

Short wheelbase vehicles (convertible)

0 Driver's or driver's and front passenger's seats occupied

1 Driver's, front passenger's and rear bench seat occupied

2 Driver's, front passenger's and rear bench seat occupied, and maximum load in rear

4 Driver's seat occupied and maximum load in rear

Short wheelbase vehicles (station wagon)

0 Driver's or driver's and front passenger's seats occupied

1 Driver's, passenger's and rear bench seat occupied

2 Driver's, passenger's and rear bench seat occupied and maximum load in rear

3 Driver's seat occupied and maximum load in rear

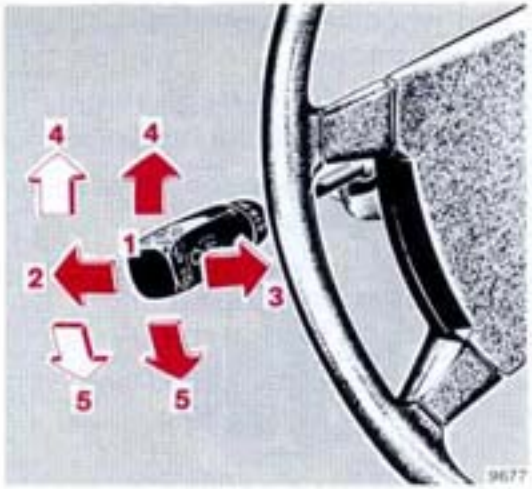
Long wheelbase vehicles (station wagon)

0 Driver's or driver's and front passenger's seats occupied

0 Driver's, passenger's and rear bench seat occupied

1 Driver's, passenger's and rear bench seat occupied and maximum load in rear

2 Driver's seat occupied and maximum load in rear



Combination switch[1]

1 Low beam
(Light switch position ≡D)

2 High beam
(Light switch position ≡D)

3 Headlamp flasher (high beam, regardless of light switch position)

4 Right turn signal

5 Left turn signal

To use turn signals, click combination switch pass detent and into position; switch returns to initial position automatically when large-radius steering wheel movements are completed.

To use turn signal indicator to indicate lane changes, move combination switch just up to but not past detent, and then hold in position.

6 Activation of windscreen washer system

The wiper also operates when the system is activated.

The windscreen washer jets are heated automatically.

7 Operation of windscreen wipers

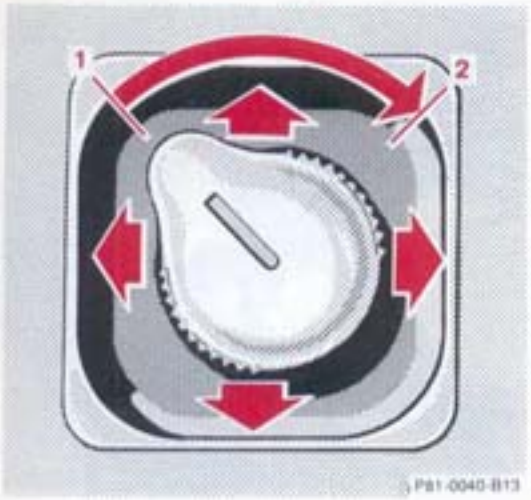
0 Windscreen wiper off
I Intermittent wipe
II Slow wipe
III Fast wipe

Notes:

If a turn signal on the vehicle or on a trailer should fail, the flashing and the click of the turn signal indicator will be more rapid than normal. The trailer turn signal lamp will also cease to light up.

Smearing may occur on the windscreen during wiper operation. In such a case, the washer should be used, even if it is raining. The fluid reservoir should also contain the correct ratio of MB concentrated windscreen wiper fluid, "S" for summer or "W" for winter.

[1] Deviations possible due to varying legal requirements in certain countries.



Center console switch

Outside rear-view mirrors

1 Left-side mirror
2 Right-side mirror

Key in steering lock in position 2.

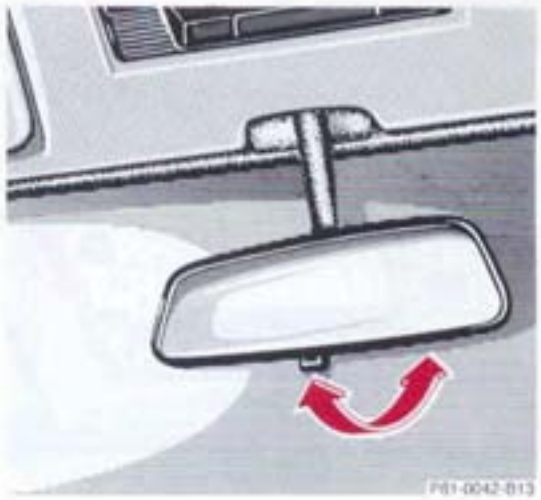
To adjust:
Turn switch to position for mirror being adjusted and then move forward, backward or to the side.

Note:

The outside rear-view mirrors are heated automatically.

Caution!

The passenger's side mirror shows objects in reduced size. Objects appear further away than they really are.



Inside mirror

Adjust mirror by hand.

Anti-dazzle position:
Flip lever at bottom of mirror.

Interior lamps

The switch for the front lamp (combined interior and reading lamp) has 4 positions:

1 Interior and reading lamp remain on.

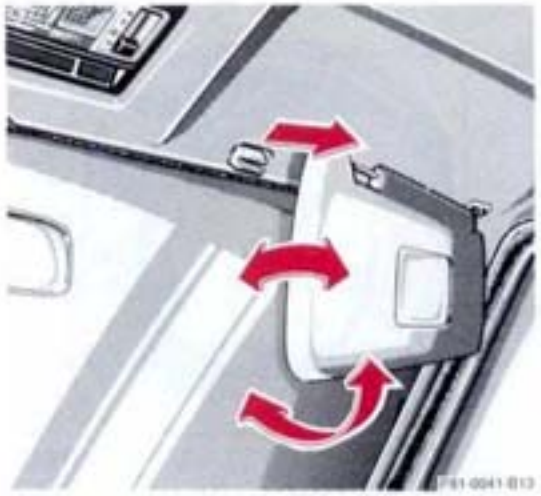
2 Interior and reading lamp remain off.

3 Reading lamp remains on.

4 Interior lamp is switched on and off with time delay by door contact switch.

Rear interior lamps

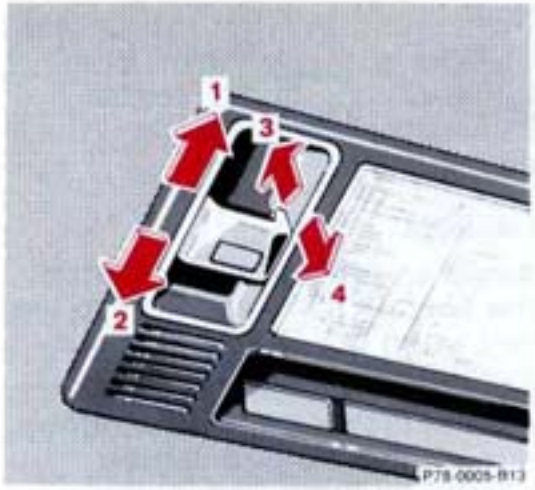
The rear lamps are switched on and off by the contact switches in the rear doors or by the rocker switch in the instrument panel.



Sun visors

Fold sun visor to lower position for protection against dazzling by the sun.

If you are being dazzled by sunlight from the side window, unclip sun visor from its inside mounting and swing it to the side.

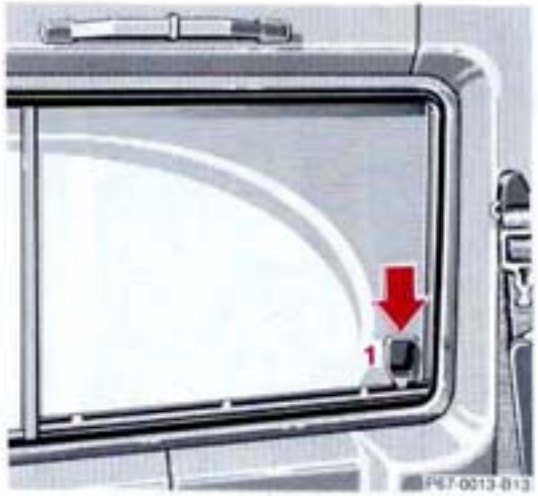


The switch is illuminated when the vehicle's exterior lights (other than parking lights) are switched on.

Should a fault occur in the electric drive, the tilting/sliding roof can be closed manually,
see page 109.

Caution!

When closing, ensure that no one will be caught and injured by the tilting/sliding roof.



Tilting/sliding roof

1 To open
2 To close
3 To raise
4 To lower

Key in steering lock in position 2.

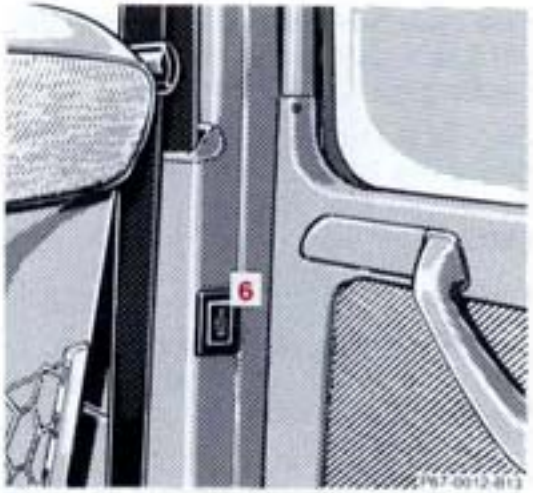
Sliding window

Press down lock (1) to open the sliding window.

Note:

Ensure that the lock engages when the window is closed.

Switches on the center console



Switches on rear doors

Electric windows

Switches for:

1 Left front
2 Right front
3 Left rear
4 Right rear
5 Safety switch
6 Individual switches (rear doors)

Key in steering lock in position 1 or 2 (also with key removed or in position 0 with open front door).

To open side windows:
Press switch on ▽.

To close side windows:
Press switch on △.

Release the switch when the desired position has been reached.

To deactivate the rear switches (6) – for instance, to prevent them from being used by children – activate safety switch (5) to make the symbol appear.

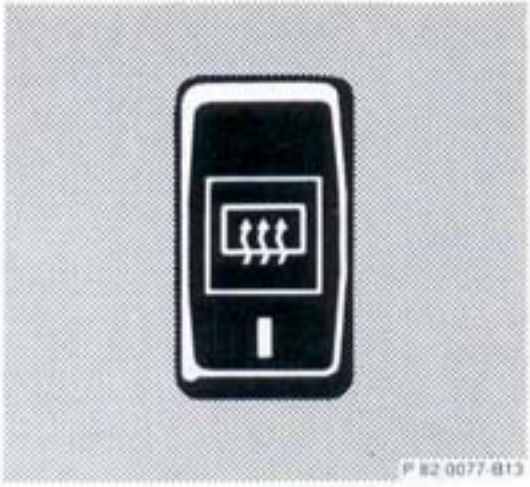
Note:

If a front door is left open for a longer period with the vehicle parked, the battery can be discharged.

Caution!

Avoid endangering children in the vehicle – always remove the key when leaving the vehicle, even briefly.

When closing the side windows, ensure that no one can be caught by them and injured.



Rear screen defroster

The rear screen defroster can only be switched on when the engine is running.

The indicator lamp in the instrument cluster lights up to signal that the rear screen defroster is on.

Notes:

The rear screen defroster consumes a substantial amount of current. For this reason, always switch off the rear screen defroster as soon as the rear screen is clear.

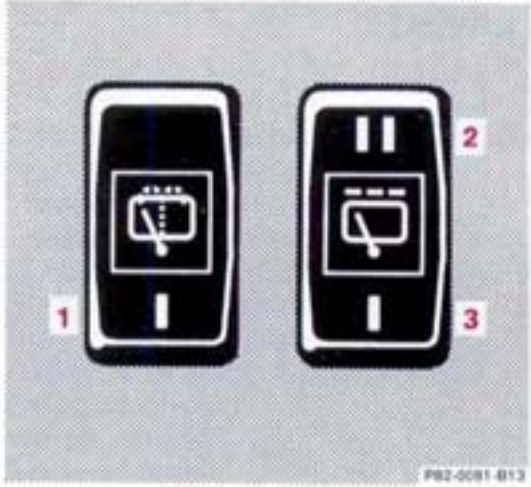
Notes (continued):

Clear snow and ice from outside window surfaces before switching on.

Headlamp wash/wipe system

Key in steering lock in position 2.

Switch on vehicle lights and press down headlamp wash/wipe switch.



Rear window wiper

Press switch:

1 Wiper/washer.
The wiper is also activated.

2 Window wiper, continuous operation.

3 Window wiper, intermittent operation.

Operation on public roads

- The folding licence plate at the front must be in the vertical position and the licence plate holder must be snapped into place in the bumper (exception: when trailer coupling is used for towing).
- The spare tyre must be firmly attached to the spare tyre holder and covered with the spare tyre cover provided as standard equipment.
- The impact-protection bar must always be folded up and locked in position, see page 79.

Parking brake

1 Parking brake off

2 Parking brake engaged

3 Release button

Pull up parking brake lever. The brake warning lamp in the instrument cluster lights up with key in position 2 (check operation of brake warning lamp).

To release the parking brake, pull lever up slightly, press release button and guide lever back down to lowest position. The brake warning light in the instrument cluster must go out.

Moving off and shifting

Nothing should be allowed to obstruct free movement of the pedals. The driver's footwell must always be free of foreign objects. Ensure that any floor mats or carpets used allow for sufficient clearance.

Do not drive off immediately as soon as the engine begins to run.

When moving off, test the operation of the service and parking brakes.

Drive briskly in the warm-up phase. Do not use full throttle until the engine has reached operating temperature.

Never allow the wheels to spin for a long period when driving off on a slippery surface. Spinning of wheels on one side can damage the differentials. Activate differential lock.

Manual transmission

See illustration for shift lever positions for individual gears.

Always ensure that vehicle is stationary and engine at idle before lifting shift lever and engaging reverse gear.

Parking

- Pull up parking brake lever.
- Engage 1st gear or reverse.
- Turn the front wheels toward the curb when parking on steep slopes.

Automatic transmission

The individual gears are selected automatically in accordance with

- Selector lever position
- Vehicle speed
- Accelerator pedal position

Note:

When the vehicle is parked or the vehicle is serviced with the engine running – pull up parking brake lever and move selector lever to position P.

Moving off

- Depress brake pedal.
- Move selector lever to a driving position. Engine at idle.
- Release brake pedal only when you are ready to drive away, as the vehicle could otherwise creep forward.

Accelerator pedal position

Partial throttle = early upshift = moderate acceleration

Full throttle = late shift = maximum acceleration.

Kickdown (depress accelerator pedal beyond the full throttle pressure point) = downshift to a lower gear = maximum acceleration.

A downshift is only possible if the vehicle speed is below the maximum speed for the next lower gear.

When desired speed has been achieved, release accelerator pedal somewhat to allow transmission to shift to a higher gear.

Stopping

For short stops, such as at traffic lights, leave selector lever in the driving position and hold the vehicle with the brake.

For extended stops with the engine running, shift to position N or P and activate the parking brake.

Use the brakes to hold the vehicle when stopping on slopes.

Manoeuvring

When manoeuvring in confined spaces, such as when parking, vary the pressure on the brake pedal to control vehicle speed. Apply only mild pressure on the accelerator.

Parking

- Pull up parking brake lever.
- Shift selector lever to P.
- Turn the front wheels toward the kerb when parking on steep slopes.

Driving with trailer

Do not allow engine speed to sink too low when driving uphill. Move selector lever back to 3, 2 or B in good time, according to the steepness of the slope.

On extremely steep up or downhill stretches, shift transfer case to off-road position G, see page 64.

Selector lever positions

The selector lever can be used to adapt the automatic gear shifts to specific operating situations.

P Parking lock.
The parking lock is an additional safeguard for when the vehicle is parked. Engage only when vehicle is stationary.

R Reverse.
Engage only when vehicle is stationary.

N Neutral.
No power is transmitted from the engine to the drive axles. When the brakes are released the vehicle can be moved freely (pushing, towing). Never engage N while moving, except when there is danger of the vehicle sliding (for instance, on slippery winter roads, see page 21), or when engaging/disengaging off-road position G in the transfer case.

D All forward drive gears are available. D offers optimum driving characteristics in almost all operating situations.

Selector lever positions for special operating conditions:

3 Upshift only as far as 3rd gear. Suitable for driving on moderate up and downhill slopes. As the transmission does not shift beyond 3rd gear, this position can be used to exploit the braking effect of the engine.

2 Upshift only as far as 2nd gear. For mountain driving. For engine braking on steep slopes and downhill mountain passes, especially with trailer.

B Position for engine braking on extremely steep hills and for long mountain descents, especially with trailer.

Notes:

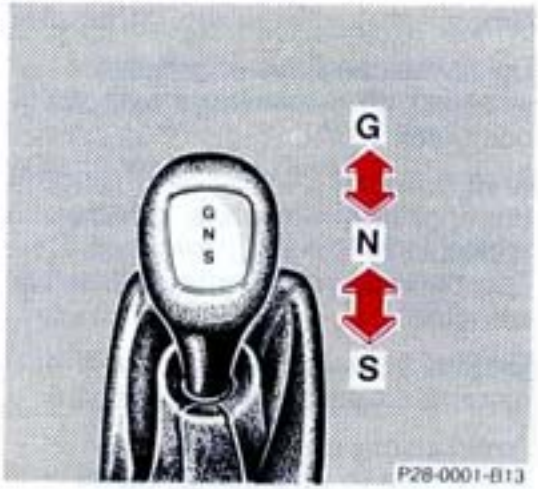
Do not exceed the maximum speeds in the individual selector positions.

Shift down to a lower gear (engine braking) only when the vehicle speed is below the maximum approved speed for the gear to be selected.

Engine damage due to over-revving could otherwise result.

Avoid using engine braking, especially in position B, on slippery roads.

The engine can only be started with the selector lever in position P or N.



Transfer case

Lever positions:

N Neutral position. No power transmitted to the drive axles.

S On-road position. Power is transmitted to the front and rear wheels.

G Off-road position.

The off-road position is intended for driving on rough terrain and for steep uphill/downhill stretches (especially with trailer).

Vehicles with manual transmission:

Depress clutch pedal all the way and then shift transfer case.

When shifting to G remember:

Vehicles with petrol engine:

Do not exceed engine speed of 3000 rpm before executing shift.

Vehicles with diesel engine:

Do not exceed engine speed of 2200 rpm before executing shift.

Note:

Shifting into G from a higher engine speed could result in the engine overrevving.

Vehicles with automatic transmission:

With the vehicle stationary or at walking speed, move the selector lever to position N. Only then should the transfer case be shifted.

Differential locks

1 Transfer case differential lock
2 Rear axle differential lock
3 Front axle differential lock
4 Engaged indicator lamps (yellow)
5 Function indicator lamps (red)
6 Differential lock warning lamp

The differential locks can be engaged as required only in the following sequence

- Transfer case
- Rear axle
- Front axle

Note:

Differential locks should only be engaged for driving on difficult terrain, through water, or on roads which are covered with snow, ice or dirt.

To engage

Press down on left of switch for desired differential lock. The engaged indicator lamp (4) and the warning lamp (6) in the speedometer light up. The function indicator lamp (5) only lights up once the shifting procedure in the differential is completed.

To disengage

Press right side of switch. The engaged indicator lamp (4) and the warning lamp (6) in the speedometer go out. The function control lamp (5) only goes out once the shifting procedure in the differential has been completed.

The differential locks are disengaged in the reverse order. When the rear axle differential lock is disengaged, the front axle differential lock is also disengaged automatically.

When the transfer case differential lock is disengaged, all differential locks are also disengaged automatically.

Notes:

Engage the differential locks only when the vehicle is stationary or travelling at a moderate speed (walking pace).

Do not engage differential locks when the drive wheels are spinning.

Depress accelerator pedal slowly when moving off.

If the function indicator lamps do not go out once the differential locks are disengaged, turn the steering wheel slightly from side to side while driving.

Caution!

If the vehicle is to be operated on a chassis dynamometer (even briefly), then it is essential that the non-driven axle be jacked up, or the corresponding drive shaft disconnected at the flange. The transfer case differential lock must also be engaged, as transfer case damage can otherwise result.
Apply the handbrake when parking the vehicle.

Never drive on paved roads with the differential locks engaged.

The vehicle is substantially more difficult to steer when the front axle differential lock is engaged.

The ABS system is switched off automatically when the transfer case differential lock is engaged.
The ABS indicator lamp in the instrument cluster light up.

Charge current indicator lamp

The indicator lamp lights up when the key in the steering lock is turned to position 2 and goes out when the engine starts.

If the indicator lamp lights up while the engine is running, this signals a defect.

The poly-V-belt may have torn, in which case it must be replaced before the vehicle is driven further. As the coolant pump then no longer operates, failure to replace the belt could result in overheating with consequent engine damage.

Have the fault rectified at a Mercedes-Benz service station immediately.

Engine oil pressure gauge

At full operating temperature, the oil pressure at idle is lower. This does not affect the operating reliability of the engine.

However, the oil pressure must rise immediately when the engine speed is increased.

Note:

If the pointer goes down to "0" with the engine running, engine damage can occur. Turn off the engine immediately and call at a Mercedes-Benz service station.

Engine oil consumption

The vehicle must cover a considerable distance before an accurate judgement of oil consumption can be made. It may lie above the specified level during the initial period of operation. Frequent driving at high engine speeds also causes consumption to increase.

Depending on driving style, oil consumption of up to 1% of fuel consumption is possible.

Tachometer

Vehicles with petrol engine

Red area on tachometer: Overspeed range of engine. Never allow engine to run in this range.

To protect the engine, the fuel supply is interrupted when this engine-speed range is reached.

Overrun cutoff

Vehicles with petrol engine

The fuel supply is interrupted on overrun when the foot is removed from the accelerator pedal.

Fuel consumption

Fuel consumption is dependent upon driving style and operating conditions.

Driving at extremely low temperatures, city driving and driving short distances, trailer operation, mountainous country and off-road operation all result in increased fuel consumption.

The use of special equipment, such as air conditioner or auxiliary heater, also causes a minimal increase in fuel consumption.

For these reasons it is impossible to provide precise fuel consumption figures for individual vehicles.

Periodic vehicle maintenance at a Mercedes-Benz service station is one of the preconditions for good fuel consumption.

Fuel reserve warning lamp

The warning lamp lights up when the key in the steering lock is turned to position 2 and must go out when the engine starts.

Should the warning lamp fail to go out after the engine has started or should it light up during driving, the fuel reserve level has been reached.

Fuel reserve and tank capacity, see page 116.

Coolant temperature gauge

The operating temperature of the coolant varies between 80 °C and 110 °C in continuous operation depending on operating conditions and outside temperature.

If the pointer moves into the red segment, the vehicle must not be driven any further. Stop vehicle, switch off air conditioner and allow engine to run approx. 5 minutes at idle. Then switch off engine.

If the coolant level warning lamp lights up, switch off engine immediately and check coolant level.

Coolant level warning lamp

The warning lamp lights up when the key in the steering lock is turned to position 2 and goes out when the engine starts.

Should the warning lamp light up while the engine is running, this signals that the coolant has fallen below the specified level.
To replenish coolant, see page 84.

If a substantial amount of coolant is lost, or if the level is frequently found to be low, have the cause diagnosed and repaired.

Note:

Do not drive without coolant in the cooling system, as this could cause overheating with consequent engine damage.

Fluid level indicator lamp Windscreen and headlamp wash/wipe systems

When the key in the steering lock is turned to position 2 the indicator lamp lights up. It must go out when the engine starts.

If it lights up with the engine running, this indicates that the water level has sunk to approx. 1/4 of the reservoir volume.

Replenish at the next opportunity using water with MB concentrated windscreen washer fluid, "S" in summer or "W" in winter.

The reservoir for the windscreen washer and the headlamp wash/wipe system is located in the engine compartment, see page 83.

Outside temperature display

A temperature sensor is installed near the front bumper to measure the outside air temperature.

Note:

When the temperature indicated is above freezing this does not guarantee that the road is free of ice. This is especially true on forest paths and on bridges.

Brake pad wear indicator lamp

When the key in the steering lock is turned to position 2, the indicator lamp lights up. It goes out when the engine starts.

When the indicator lamp comes on when the brakes are applied, this signals that the brake pads on the front wheel brakes are almost completely worn.

Have the brake system examined as soon as possible at a Mercedes-Benz service station.

Brake warning lamp

When the key in the steering lock is turned to position 2, the indicator lamp lights up. It must go out when the engine starts (parking brake off).

Should it remain lit despite the parking brake being released, this indicates a low fluid level in the brake fluid reservoir.

This can be caused by either leaks in the system or brake pad wear.

This condition can lead to failure of the brake system!

Should the level drop to the minimum mark on the reservoir, have the brake system checked by a Mercedes-Benz service station.

Note:

Do not refill with brake fluid until the system has been checked.

Anti-lock braking system (ABS)

ABS prevents the wheels from locking when the vehicle is braked at speeds above approx. 5 km/h regardless of road-surface conditions. The system is only activated when the speed of the vehicle has exceeded 7 km/h at least once since driving started.

If, during braking, one wheel is on the verge of locking, the vehicle may vibrate and a mild pulsation be felt at the pedal as the ABS actively regulates brake-system pressure. This indicates to the vehicle operator that the ABS is controlling braking force. When danger threatens, the brake pedal should be depressed fully, ensuring an optimum deceleration rate with braking force being controlled at all four wheels.

Vehicles with manual transmission:
On slippery roads, depress clutch as well to prevent engine braking from interfering with the operation of the ABS.

The ABS indicator lamp in the instrument cluster lights up when the key in the steering lock is turned to position 2 and must go out when the engine starts.

Should the ABS indicator lamp fail to go out, this signals that a defect has caused the ABS to be switched off, or that it has been deactivated manually (differential lock and ABS off-road deactivation).

In this case, the brake system functions normally, but without protection against wheels locking.

Have the ABS inspected as soon as possible at a Mercedes-Benz service station.

Caution!

Driving at excessive speeds, especially in curves, acqua-planing and tailgating all increase the risk of accident. The ABS cannot reduce the risk in such cases.

Braking distances on soft or loose surfaces can be reduced by switching off the ABS. Press down bottom of switch to switch off ABS.

The indicator lamp in the instrument cluster lights up.

When the top of the switch is depressed, the ABS is switched back on and the indicator lamp in the instrument cluster goes out.

Off-road driving

Before attempting to traverse difficult terrain, you should familiarize yourself with the handling characteristics of your vehicle, with shifting gears and engaging and disengaging the differential locks. We recommend that you conduct practice runs on easy terrain.

Notes:

Always keep engine running and a gear engaged when driving off-road.

Watch for obstacles such as fallen rocks, holes, tree stumps, ruts.

Always cross ground elevations with the wheels of one side of the vehicle in order to prevent damage to components or to the vehicle chassis.

Adapt your speed to ground conditions. The steeper, the less even and rougher the terrain, the lower must be the speed which you select.

Do not jump the vehicle as this interrupts the transmission of force at the wheels.

For operation on sand, you should drive briskly to overcome rolling resistance and prevent the vehicle from becoming stuck.

Avoid damage to the environment.

Downshift well ahead of obstacles and uphill or downhill gradients. Do not interrupt the flow of power.

Engaging the differential locks, see page 65.

Secure cargo.

Caution!

The ABS system is switched off automatically when the transfer case differential lock is engaged.

Switch the ABS back on as soon as you return to a firm surface (public roads).

Drive slowly in unfamiliar territory. Unexpected obstacles are recognized more easily and damage to the vehicle is avoided.

Driving on steep terrain

Travel straight up and down on slopes and embankments.

Maximum slope-negotiating ability up to 80 %.

Before driving on steep uphill or downhill slopes, engage off-road position G in transfer case and also, if necessary, a lower gear (1st or 2nd gear).

Do not attempt to turn around when driving on mountainous terrain. If a slope is too steep to be climbed, then you should back down in reverse.

Do not drive across a slope sideways (danger of vehicle turning over). If you are driving across the slope and the vehicle appears to be on the verge of tipping over, steer straight up or down immediately.

Exploit the braking effect of the engine when driving downhill. Watch engine speed. (Do not overrev engine.) If necessary, apply service brakes intermittently.

Do not use clutch.

After completing a long downhill section, test the effectiveness of the brakes.

Fording

Check depth of water before attempting to cross. It must not be deeper than 60 cm.

Engage differential lock and shift to a low gear. Only enter water in a flat, shallow area, do not attempt to charge into water, cross slowly.

Avoid creating a bow wave.

Do not remain stationary in the water with the vehicle for extended periods.

After driving in water, apply brakes to dry out brake pads.

The rear brake drums should be cleaned after the vehicle is driven in mud.

From off-road to on-road

Shift transfer case to on-road position S, see page 64.

Disengage differential locks, as they have a strong adverse affect on the steering and tyre wear on paved roads, especially if the front axle differential lock is engaged, see page 65.

Clean off the roughest dirt from the tyres, wheels, wheel arches and the underside of the vehicle.

Remove foreign objects from the tyre tread and check all tyres for damage.

Clean dirty headlamps, tail lamps, licence plates and windows.

If the vehicle is extremely dirty, for example after driving in mud, use a jet of water to clean radiator, suspension, engine and brakes.

Remove headlamp and radiator covers to clean the radiator. The water jet should hit the radiator cooling fins from a vertical angle to avoid damaging them.

Check suspension components as well as oil pan, brake hoses, etc., on underside of vehicle for damage.

Perform a brake test.

Caution!

The impact-protection bar must always be folded up and locked when the vehicle is operated on public roads.

Winter driving

Before winter begins, we recommend that you visit a Mercedes-Benz service station to have your vehicle made "winterproof".

- Engine oil change where the oil in the engine is not approved for winter operation. See maintenance booklet for correct viscosity (SAE).
- Have concentration of antifreeze and corrosion inhibitor checked.
- Additive in the windscreen and headlamp wash/wipe system: Add MB concentrated windscreen washing fluid "W" for winter operation to the water.
- Check battery: the capacity of the battery is reduced by low ambient temperatures. Only a well-charged battery can guarantee that the engine will start at low outside temperatures.
- Diesel fuels, see page 119.

Snow chains

Use only snow chains that we have tested and approved. Any Mercedes-Benz service station will be glad to provide you with further information.

Snow chains should be used on all 4 wheels. Observe the manufacturer's installation instructions. If only 2 chains are available, they should be installed on the front wheels. The transfer case differential lock should then also be engaged.

Caution!

The ABS is switched off when the transfer case differential lock is engaged.

Retighten the snow chains after driving a short distance.

The approved top speed (50 km/h) only applies to driving on snow. Remove the chains as quickly as possible when the vehicle is to be driven on snow-free roads.

Driving on slippery winter roads, see page 21.

Driving abroad

You will find an extensive Mercedes-Benz service network in foreign countries. For trips into areas which are not covered in your listing of service stations, you can order a dealer listing for service stations at your Mercedes-Benz service station.

Your vehicle is equipped with asymmetrical beam headlamps. For this reason, the prismatic sections on the lens must be covered with non-transparent tape before you operate your vehicle in countries where vehicles are driven on the side of the road opposite to that of your home country.

Vehicles with petrol engine

In some countries, only low-octane fuels are available.

Fill up with premium fuel in these countries.

Set resistance trimming plug to position N, see pages 117 and 118.

Vehicles with catalytic converter

Notes:

Never use leaded fuel.

The use of unleaded fuel with an excessively low octane level results in reduced power and increased fuel consumption.

Trailer towing

When towing a trailer, you should bear in mind that the road behaviour of the vehicle-trailer combination deviates greatly from that of a vehicle without a trailer.

The combination is heavier, with reduced acceleration and climbing capability, and will exhibit longer braking distances. It is more sensitive to side winds and must be steered more carefully.

Before negotiating steep downhill or uphill gradients, select transfer case position G, see page 64.

Fuel consumption increases when a trailer is towed.

When loading the trailer, remember that neither the total approved vehicle weight of the trailer nor the approved drawbar load of the vehicle is to be exceeded. Tie down cargo.

The maximum approved weights can be found on the data plates of both the trailer coupling and the trailer. The lowest weight is the one which is valid.

The approved drawbar load exerted by the trailer drawbar on the ball hitch coupling should also never be exceeded.

This is a maximum of 120 kg (see sticker next to trailer coupling). However, it must never exceed the weight indicated on the data plates of the trailer and of the trailer coupling.

We recommend that the maximum approved drawbar weight be exploited, or at least be maintained at more than 80 kg.

The vehicle load must be reduced in accordance with the drawbar load to avoid exceeding the approved rear axle weight.

We recommend that you do not exceed a maximum speed of 80 km/h, even in countries in which higher speeds are allowed.

Avoid abrupt braking manoeuvres. Instead, begin by applying the brakes lightly, allowing the trailer to close up. Then quickly increase the braking force.

Should the trailer start to sway, do not steer against the sway but rather reduce vehicle speed, apply the brakes if necessary. Never attempt to straigten out the vehicle-trailer combination by accelerating.

Notes:

Do not unhook a trailer with overrun brake when the brake is engaged. The release of spring tension in the overrun brake could otherwise cause damage to the bumper.

Route the trailer wires so that they are not crimped or pulled apart, and do not chafe against vehicle components in turns.

Trailer with 7-pin plug

The enclosed adapter cable can be used to connect a vehicle with a 13-pin socket to a trailer with a 7-pin plug.

Continuous current for caravans

Vehicles with a 13-pin socket are equipped with a continuous-current cable.

1 Socket

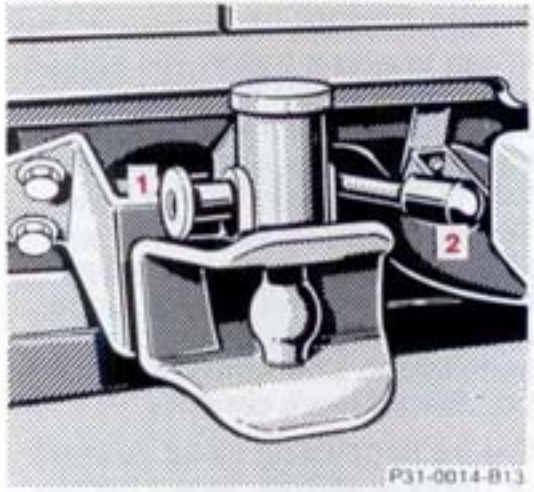
Coupling the trailer

Caution!

Guide the trailer drawbar carefully – it can whip sideways! No one should be between the trailer and the vehicle when the vehicle is backed up.

Vehicles with ball hitch coupling

Apply trailer brakes and secure trailer with chocks. Back up vehicle. Engage drawbar and secure.

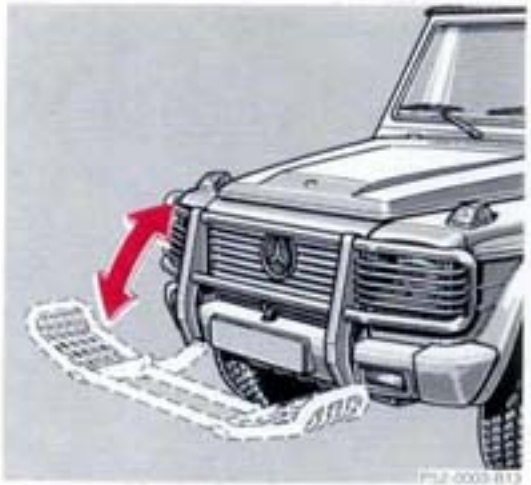


1 Securing knob

2 Hand lever

Vehicles with coupling jaw

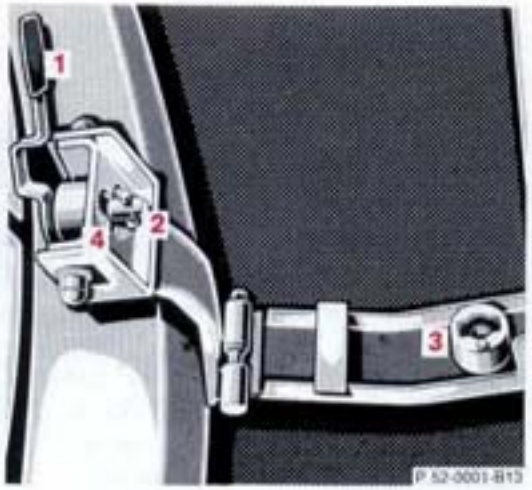
Secure the trailer against moving and use wedges to chock the rear wheels. Set the drawbar to the coupling height. Back up vehicle. After connecting, ensure that coupling pin is locked into place correctly. Securing knob (1) must be firmly against the locking sleeve.



Impact-protection bar

Caution!

The impact-protection bar must be folded up and locked in position for driving on public roads.



1 Spanner (on-board tool kit)

2 Quick-securing bolt

3 Quick-securing mechanism

4 Stop joint

Folding down impact-protection bar:
Use spanner (1) to turn quick-securing bolt (2) on left and right sides until it is free in quick-securing mechanism (3).
Fold down impact-protection bar.

To lock impact-protection bar in place:

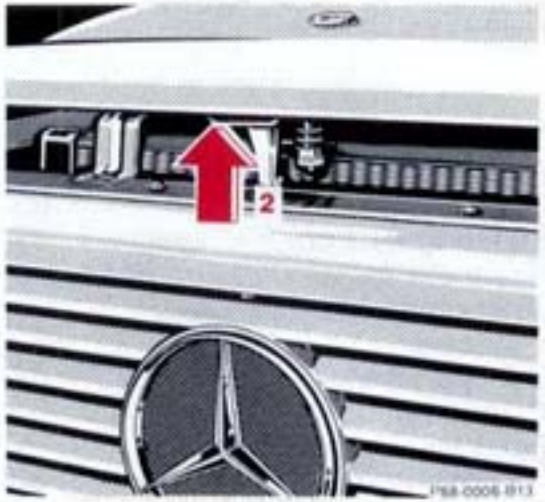
Fold up impact-protection bar and push it against the stop joint (4). The locking pin on the quick-securing mechanism (3) must engage in the cross slot in the stop joint (4) (secures against turning). Where necessary, turn quick-securing mechanism (3) in or out to adjust it so that quick-securing mechanism (3) is against stop joint (4).

Use a spanner (1) to turn the quick-securing bolt (2) on the left and right sides, until it is seated firmly in the quick-securing mechanism (3).

Bonnet

Opening:

Pull the lever (1) below the dashboard on the left-hand side to unlock.



The bonnet opens as far as the bonnet limit imposed by the latch (2). Lift bonnet slightly where necessary, pull latch and open bonnet.

Closing:

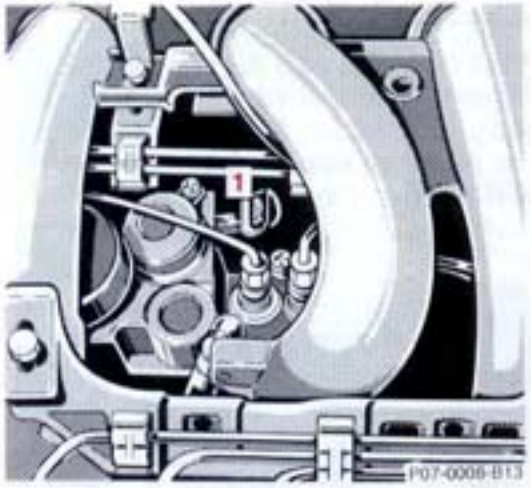
Press down on bonnet to close.

Caution!

There is a risk of injury when the engine runs with the bonnet open.

Vehicles with petrol engine:
The engine is equipped with an electronic ignition system. Due to the high ignition voltage, it is extremely dangerous to touch ignition system components (ignition coil, ignition distributor, spark plug cables, ignition cables, diagnosis plug) when

- **the engine is running**
- **the engine is started**
- **the key in the steering lock is in position 2 and the engine is turned over by hand.**



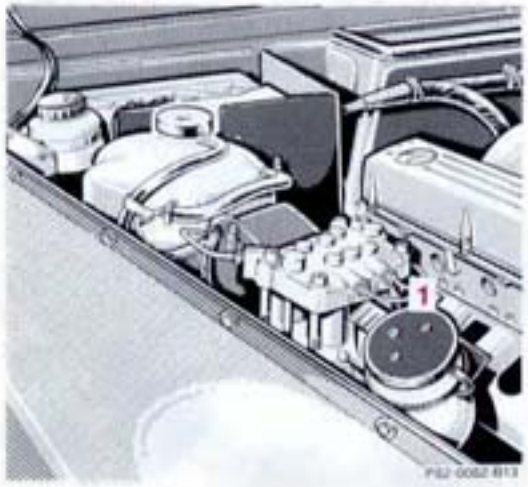
Switching off diesel engine manually

Should the engine continue running with key in steering lock position 0, open the bonnet and press stop lever (1) to halt the engine.

Bleeding air from fuel system
Vehicles with diesel engine

Air in the fuel system is purged automatically when the engine is started. The fuel system is bled of air as soon as the engine starts.

Press down accelerator pedal. Release the key only when the engine has begun to run evenly.



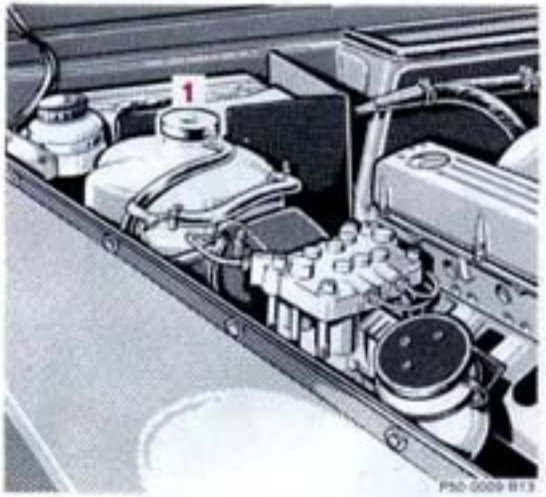
Reservoir for windscreen and headlamp wash/wipe systems

1 Filler cap

Refilling reservoir:

Top up with a mixture of water and Mercedes-Benz concentrated windscreen washer fluid "S" in summer or "W" in winter. Observe the mixing ratios indicated on the container. Check the operation of the washer system.

Capacity, see "Service Products", page 116.



1 Filler cap

Coolant level

The coolant expansion tank with filler cap is located separately from the radiator.

Check the coolant level with the vehicle resting on a level surface and with the engine off.

The coolant level must reach:

- Up to the mark on the reservoir when the coolant is cold.

To replenish coolant:

Only open coolant expansion tank when coolant temperature is below 80 °C.

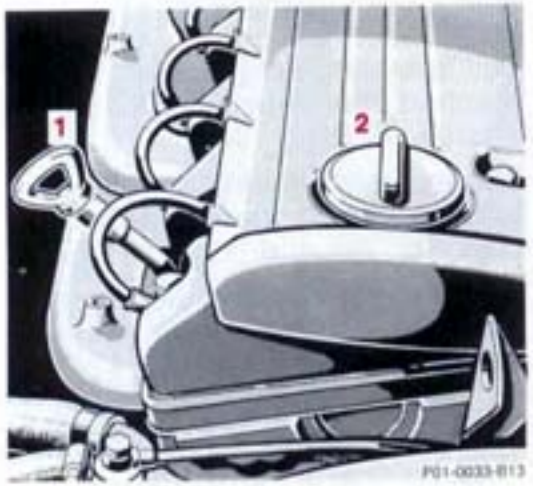
Caution!

Hot coolant can be dangerous. Therefore: start by turning the cap just as far as the first detent to allow pressure to escape. Then turn cap further and remove.

Note:

The drain plugs are on the side of the engine and at the bottom of the radiator (red threaded plug).

Antifreeze with corrosion inhibitor, see "Service Products" page 116.



230 GE

Engine oil level

1 Oil dipstick

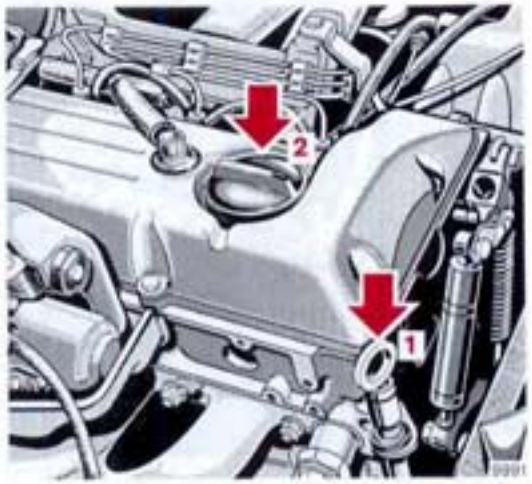
2 Oil filler cap

300 GE

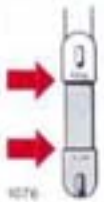
Ensure that the vehicle is parked level when checking the oil.

Wait approx. 5 minutes after shutting off warm engine before checking oil level.

Wipe off oil dipstick each time before checking.



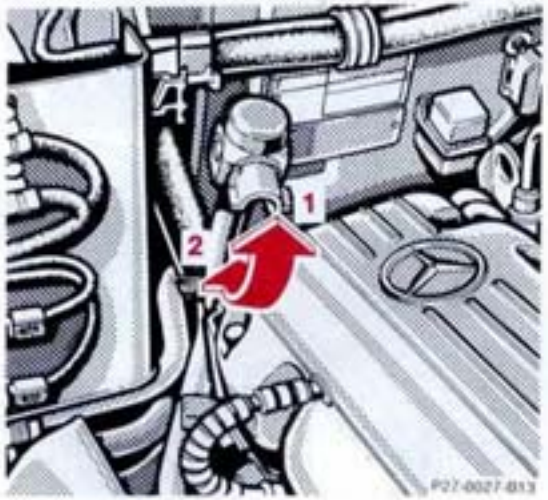
250 GD/300 GD



The oil level should be between the bottom mark (min) and the top mark (max) on the oil dipstick.

If the oil level is too high, drain or evacuate oil to correct level.

Capacities, see "Service Products", page 115.



Fluid level in automatic transmission

Dipstick locking lever

1 To release

2 To lock

Check the fluid level when a fluid loss is noted or shifting difficulties occur. The fluid level should then be corrected at a Mercedes-Benz service station.

Check fluid level with transmission warmed to full operating temperature and the vehicle standing on an even surface. Allow the engine to run with the transmission in position P and the parking brake on.

Release locking lever (2) and extract fluid dipstick (1). Wipe off dipstick with a lint-free cloth and then reinsert fully to measure fluid level. Extract dipstick and note fluid level – it should be between the "min" and "max" marks.

Push dipstick all the way back in and secure with locking lever (2).

Notes:

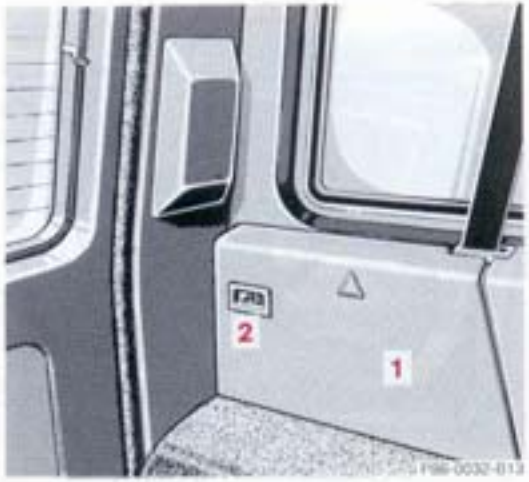
Full operating temperature is reached after vehicle is driven approx. 10 km.

The indicated fluid level will be lower when the transmission is cold – do not add fluid.

A higher fluid level is indicated when the transmission is warm – do not drain off fluid.

The "max" mark is not to be exceeded. If excess fluid is added, it must be drained or extracted.

Ensure meticulous cleanliness. Even minute levels of contamination are sufficient to cause operating problems.



First-aid kit

1 Side trim

2 Release lever

The first-aid kit is located behind the side trim panel (1) at the rear or in the driver's door compartment.

Check the first-aid kit on a regular basis to ensure that its contents are complete and in good condition.

Warning triangle and on-board tool kit

The warning triangle and the on-board tool kit are located behind the trim panel at the rear or in the storage compartment (1) below the rear bench seat.

Convertible:

The on-board tool kit, the first-aid kit and the warning triangle are located in the tailgate storage compartment.

To open, flip up lever (1) and turn.

Spare tyre

Unscrew the retaining nuts and remove the spare tyre from the spare tyre holder.

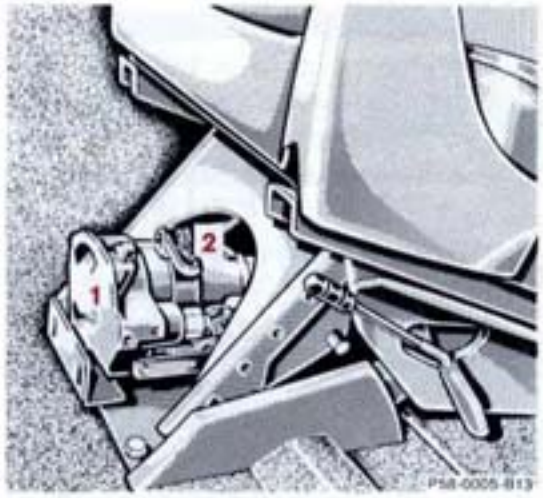
To ensure safety, you should periodically check to ensure that the spare tyre is secured properly.

The spare tyre must be mounted on the spare tyre carrier and covered with the spare tyre cover provided as standard equipment.

Fire extinguisher

The fire extinguisher is located beneath or behind the driver's seat. The fire extinguisher must be refilled after each use.

It must be inspected every 1 to 2 years.

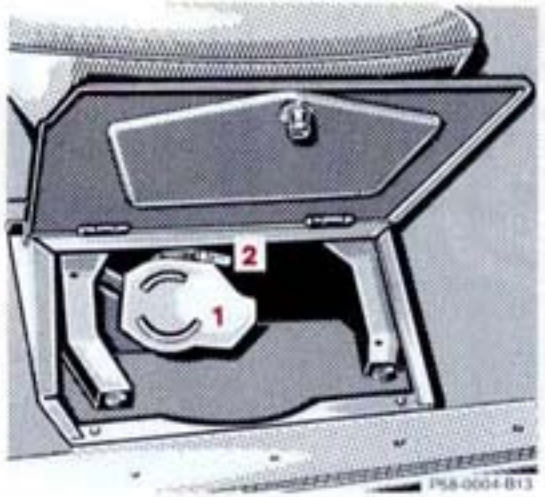


Vehicle jack

1 Vehicle jack

2 Clamping strap

The vehicle jack is located beneath the passenger's seat or in the passenger's seat storage compartment.



Caution!

The vehicle jack is only intended to be used to support the vehicle briefly during tyre changes.

Jack stands are to be used for working beneath the vehicle.

Tyres, disc wheels

Any Mercedes-Benz service station can provide you with information on approved tyres and disc wheels. Please contact them concerning any questions you may have concerning wheels.

Use only tyres on wheels of a single type and version from one manufacturer.

Ensure that the tyres are of the correct dimensions for your disc wheels before mounting.

Mount single new tyres on the front wheels. When replacing the tyres, include the spare as a normal running tyre if it is new and of the same specification as the others.

We recommend that new tyres be run carefully for approx. the first 100 km.

Tyre condition

Inspect tyres for even tread wear, for tread depth and external damage. Remember legal requirements when checking the tread depth. Remove any foreign objects lodged in the tread.

Tyre rotation:

Depending upon the extent of the wear, the tyres should be rotated every 5000 to 10000 km. Ensure that the direction of rotation is maintained.

The tyres must be rotated before a clear characteristic wear pattern emerges. On the front tyres, this characteristic pattern consists of wear on the shoulders. On the rear tyres it takes the form of even wear over the entire contact-surface area.

Tyre inflation pressure:

Check the inflation pressures of the tyres on a regular basis, at maximum intervals of 14 days. Remember the spare tyre!

The pressure of a cold tyre increases as it warms up.

The difference in pressures of the tyres on a single axle is not to exceed 0.1 bar.

For tyre inflation pressures, see table in fuel filler flap and last page.

If a tyre shows a continuing loss of air, it must be inspected for foreign objects, and wheel and valve inspected for leaks.

Notes:

The wheel bolts on new disc wheels might be retightened after 1000 to 1500 km.

Use only original Mercedes-Benz wheel bolts – identified by the Mercedes star. Other wheel bolts could loosen.

Alloy wheels require longer bolts than do steel wheels.

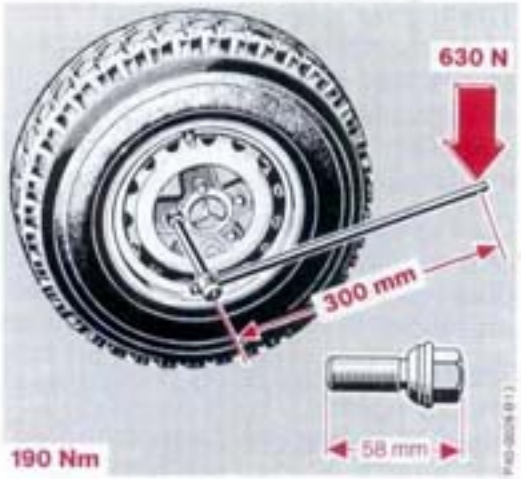
We recommend that retreaded tyres not be used. Retreads are neither tested nor approved by us. Varying tyre constructions and the generally unknown history of these tyres could result in poorer driving characteristics and reduced driving safety.

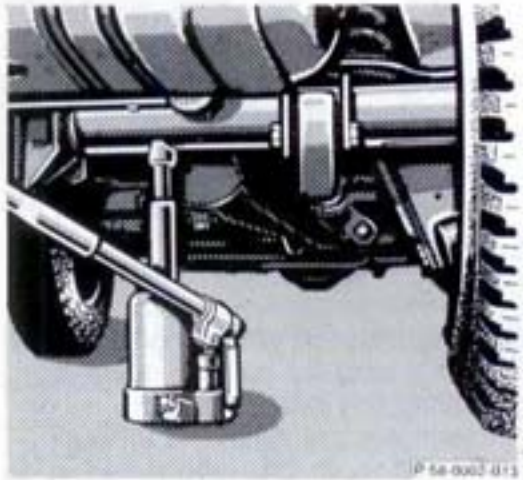
Thoroughly clean the inside of the wheels each time the tyres are rotated and every time the underside of the vehicle is washed.

Damage to the rims of the steel wheels could cause air loss and tyre bead damage.
For this reason the wheels should be inspected for damage on a regular basis.

The rims of alloy wheels must be inspected for wear each time new tyres are mounted. Remove any burrs that may have formed.

When rust is found on steel wheels, remove rust and repaint.





Changing tyres

Caution!

The vehicle jack is only intended for raising the vehicle for brief periods for changing the wheel.

The vehicle jack must be supported by a firm and even surface. Use a base for the jack on loose surfaces.

Jack stands must be used for working under the vehicle.

1. Pull up parking brake.
2. Shift manual transmission to 1st or reverse, automatic transmission to position P.
3. Secure vehicle against rolling, for instance with wedges. This step is particularly important on slopes.
4. Use wheel brace (on-board tool kit) to loosen wheel bolts, but do not yet screw them all the way out.
5. Position jack below axle tube.
6. Jack up vehicle until wheel is clear of the ground.
7. Screw wheel bolts out completely. Do not place wheel bolts in sand or dirt.
8. Remove wheel.
9. Clean off any rust or dirt on contact surfaces of wheel hub (brake drum), wheel and wheel bolts.

10. Fit new wheel and press into position. Screw in wheel bolts. Use only the wheel bolts for the type of wheel.

    Alloy wheels require longer wheel bolts than do steel wheels.

11. Lower vehicle and remove jack.
12. Tighten the wheel bolts evenly in a circular pattern, always skipping one bolt. If the wheels are new, the wheel bolts must be retightened after 1000 to 1500 km.
    Tightening torques:
    190 Nm for steel disc wheels,
    140 Nm for alloy disc wheels.
13. Check and correct air pressure, see table in fuel filler flap and last page.

Tyre inflation pressures

The tyre pressures required for summer and winter tyres as well as for varying operating conditions are listed on a table in the fuel filler flap and on the last page.

Note:

The tyre inflation pressure changes by approx. 0.1 bar per 10 °C. Remember this when checking tyre pressure inside – especially in winter.

Example:

Room temperature = approx. + 20 °C

Outside temperature = approx. 0 °C

Required air pressure = specified air pressure + 0.2 bar

The tyre inflation pressures indicated for low loads are minimum pressures intended to provide maximum operating comfort.

The higher tyre pressures indicated for heavier loads are technically suited and perfectly acceptable for lightly loaded vehicles. They will, however, result in a small sacrifice in ride comfort.

During operation, tyre temperature and thus pressure increase proportionally to vehicle speed and load.

Thus the tyre inflation pressures should normally only be corrected when the tyres are cold.

The pressure can only be corrected with warm tyres when the inflation pressures are below those indicated in the table, whereby the vehicle operating conditions must also be considered.

Battery

The state of charge is one of the influences which affects battery life. Optimal service life can only be achieved by a battery which is always in a good state of charge.

For this reason we recommend that the battery's charge be checked on a frequent basis when the vehicle is generally used for brief trips or has been out of service for longer periods.

The battery should be disconnected from the vehicle electrical system before being connected to a charger.

Check the fluid level on a weekly basis in the summer and in hot climates. It should be between the "min" and "max" marks.

Add distilled water only.

Caution!

Battery acid is caustic and should not be allowed to come into contact with skin, eyes, clothing or the vehicle paintwork.

Wash off splashes of acid completely with clear water. Consult a doctor where indicated.

Do not use open flames and do not smoke in the vicinity of the battery, avoid sparks – explosion risk.

Do not place metal objects on the battery, danger of short circuits.

Notes:

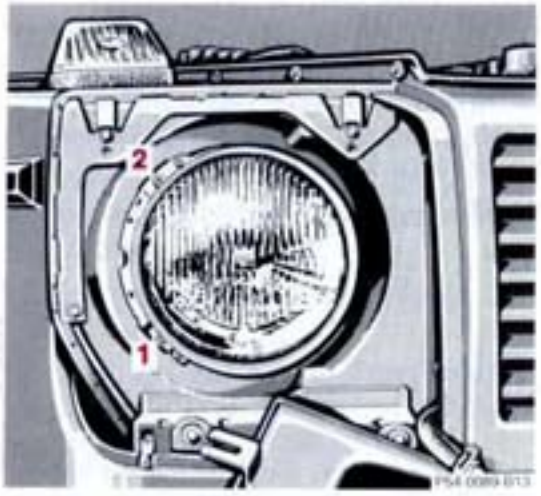
The battery terminal clamps should not be loosened or removed from the battery while the engine is running, as this could damage the alternator and other electronic components.

Jump-starting, see page 100.

Spark plugs

Spark plugs should only be removed and inserted using the spark plug spanner in the on-board tool kit.

Tightening torque: 10–20 Nm.



Headlamp adjustment

Adjustment screws:

1 Headlamp vertical adjustment

2 Headlamp horizontal adjustment

Have adjustment checked periodically.

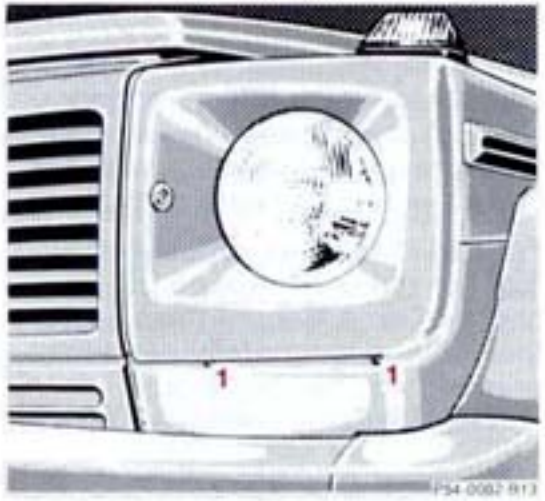
Let the engine run before adjusting.

Headlight range control in position 0.

Replacing headlamp bulbs

Use tissue paper or similar when picking up a new bulb. Do not allow grease or moisture on fingers to come into contact with bulb!

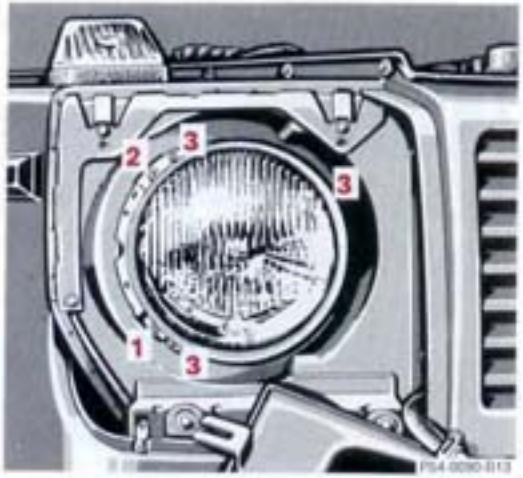
Use only 12-volt bulbs of the specified wattage.



Headlamps (H 4/60/55 W)

Slacken fastening screws (1) of headlamp surround.

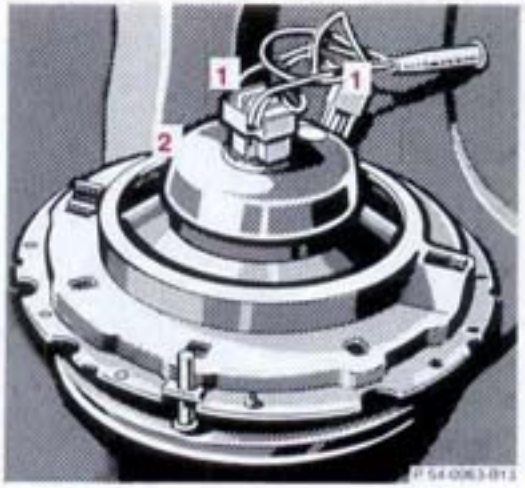
Detach headlamp surround and gaskets.



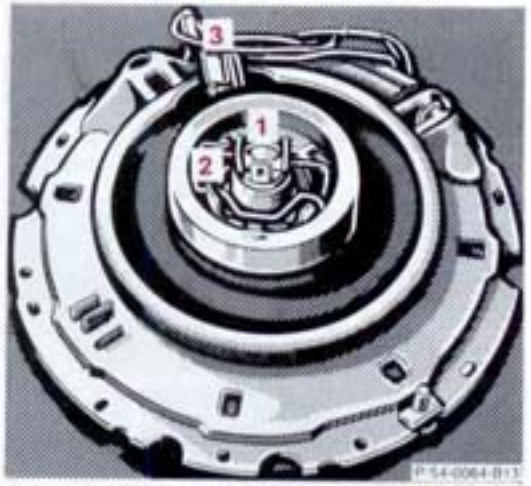
Do not turn adjustment screws (1) and (2) as the headlamp adjustment will otherwise be disturbed.

Unscrew headlamp attachment screws (3).

Remove headlamp.



Remove plug connectors (1) from the bulbs and remove protective cap (2).



1 Headlamp bulb for high and low beam (H 4/60/55 W)

2 Clamp for lamp holder

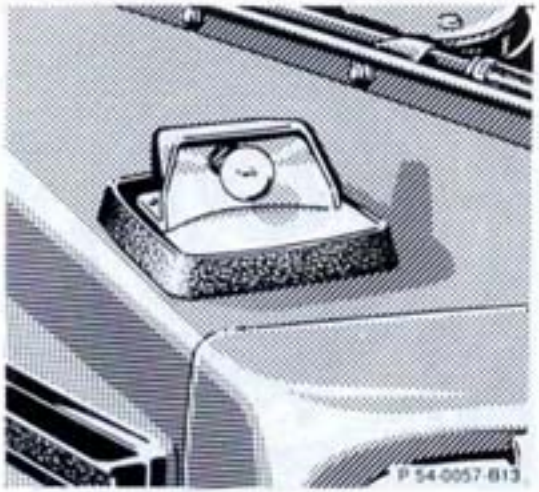
3 Parking light bulb (4 W)

Unsnap lamp for lamp holder (2) and remove bulb together with holder (1).

Insert new bulb so that lug on support space engages in recess.

Caution!

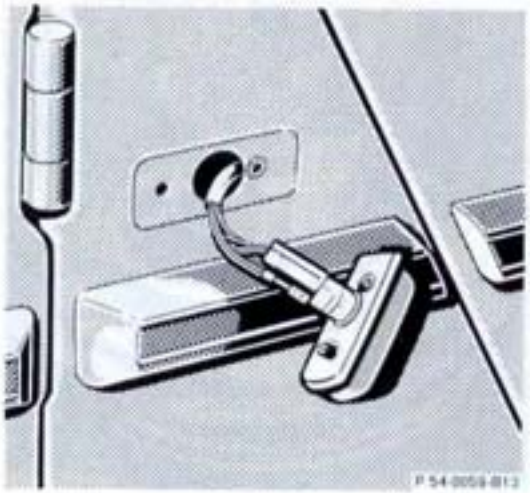
Bulbs and bulb holders can be hot.



Front turn indicators (21 W)

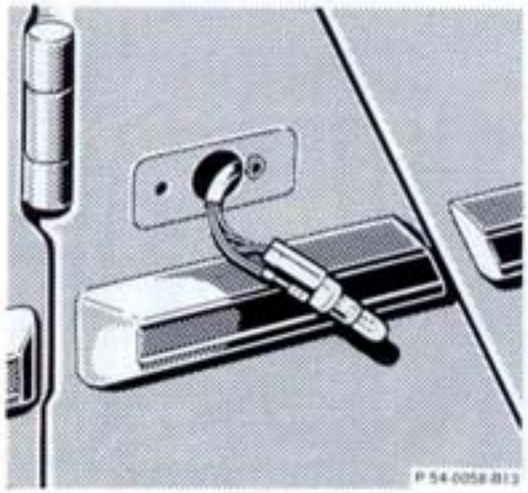
Loosen attachment screws and remove turn signal lamp unit. Press down bulb, turn to the left and remove.

During reassembly, avoid overtightening the screws as this could cause the lens to break.



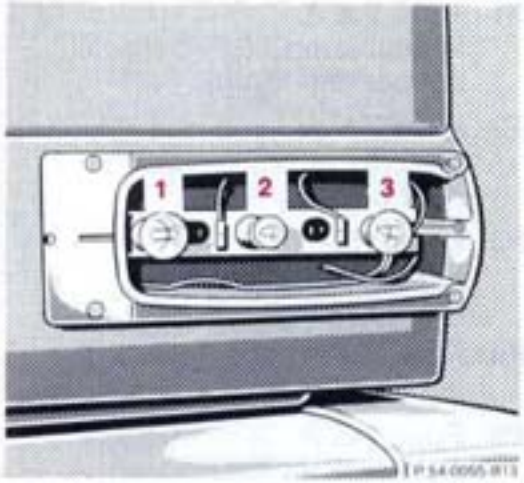
Side turn indicators (4 W)

Unscrew turn signal housing and extract from the attachment.



Extract bulb holder from the turn signal housing.

Remove bulb from the bulb holder.



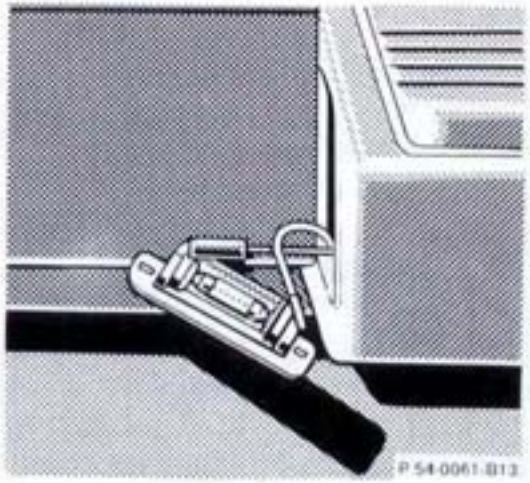
Tail lamps

1 Brake lamp (21 W)

2 Reversing lamp (21 W)

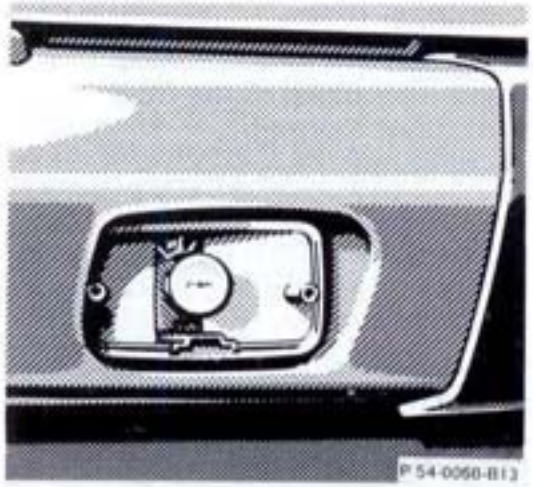
3 Turn signal (21 W)

Unscrew tail lamp lens. To replace, press down the bulb, turn to the left and remove.



Licence plate lamp
(Soffitte 5 W)

Remove attachment screws and take out lamp assembly.



Reversing lamp and rear fog lamp (21 W)

Remove attachment screws and take off lens.

To replace, press down the bulb, turn to the left and remove.

Electrical fuses

The fuses are located below the instrument panel in the front passenger footwell.

Open the fuse box cover.

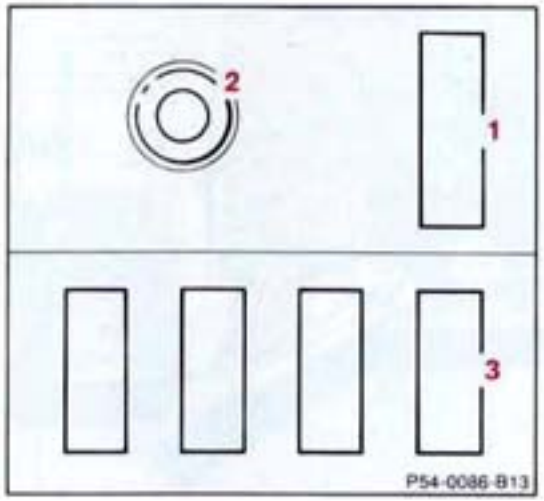
Always disconnect the strap from the negative terminal of the battery before performing any work on the electrical system.

Before replacing a blown fuse, first determine the cause of the short circuit. All connections must have good contact.

Spare fuses are in the fuse box. Pay attention to colour and ampere rating!

Do not mend or bridge fuses.

Retighten the cover of the fuse box after replacing a fuse.



Testing fuses

Fuses can be tested in the test socket.

- Open cover of fuse box.
- Remove fuse and insert in the test socket (1).

If the indicator lamp (2) lights up, the fuse is in proper working order.

If the indicator lamp does not light up, replace fuse with spare (3).

F1 Fuse 7.5 A
left tail lamp,
left parking lamp

F2 Fuse 7.5 A
right tail lamp,
right parking lamp

F3 Fuse 15 A
fog lamp,
rear fog lamp

F4 Fuse 7.5 A
left high beam

F5 Fuse 7.5 A
right high beam,
high beam indicator lamp

F6 Fuse 7.5 A
left low beam

F7 Fuse 7.5 A
right low beam

F8 Fuse 15 A
front windscreen wipers,
front windscreen washers,
front wiper pulse generator,
reversing lamps

F9 Fuse 20 A
blower for heater and ventilation, interior lamp,
recirculating air switch,
glove box lamp

F10 Fuse 7.5 A
brake lamps,
instrument cluster,
heated washer nozzle,
differential locks,
tachometer, Hall sender

F11 Fuse 15 A
turn signals, horn,
outside mirror adjustment,
outside mirror heaters,
rear wiper pulse generator

F12 Fuse 15 A
rear window wiper,
rear screen washer system

F13 Fuse 10 A
hazard warning system,
clock, front interior lamp,
electrical socket, radio

F14 Fuse 20 A
rear interior lamp,
rear window defroster

F15 Fuse 20 A
radio, cigarette lighter,
optional extra block

F16 Fuse 15 A
central locking system

F17 Fuse 7.5 A
automatic transmission:
kickdown

F18 Fuse 15 A
headlamp wash/wipe system

F19 Fuse 7.5 A
air conditioner:
blower, compressor

F20 Fuse 25 A
auxiliary heater:
glow plug

F21 Fuse 15 A
auxiliary heater:
control unit, blower, timer

F22 Fuse 25 A
left and right heated seats

F23 Fuse 30 A
air conditioner:
auxiliary blower

F24 Fuse 25 A
front right and rear left
electric windows

F25 Fuse 25 A
front left and rear right
electric windows

F26 Fuse 15 A
optional extra block
terminal 30

F27 Fuse 15 A
optional extra block
terminal 15

F28 Free for optional extras

Jump starting

If the battery is discharged, the engine can be started with jump leads (minimum cable cross section 25 mm^2) and with the battery (12 V) of another vehicle. Proceed as follows:

- Turn key in steering lock to position 0.
- Run engine of assisting vehicle at high idle speed.
- First connect the positive terminals and then the negative terminals of the batteries with the jump leads.
- Start engine in the usual manner, see pages 16 and 17.
- As soon as the engine is running, first disconnect the jump lead from the negative terminals and then from the positive terminals.

Notes:

A discharged battery may freeze at approx. –10 °C. It is essential that it be thawed out before jump starting.

Use only jump leads with insulated terminal clamps!

Vehicles with catalytic converter:

Only jump-start vehicle with engine cold and catalytic converter cooled down. If the engine does not start after a few seconds, interrupt the procedure. Avoid repeated attempts to start engine and contact a Mercedes-Benz service station.

Caution!

Do not lean over the battery during jump starts, acid burn danger!

Do not use open flame and do not smoke in the vicinity of the battery, avoid sparks – risk of explosion.

1 Front towing eye

Towing

The front and rear towing eyes are located on the left below the bumper.
The coupling jaw is located behind the licence plate frame.

1 Rear towing eye

Note:

There is no power assistance for the service brakes and power steering when the engine is not running.

Bear in mind that this means that the force required for braking and steering will be considerably higher in such cases.

Observe national towing regulations.

Towing away

The best solution for all vehicles is represented by having the vehicle transported on a special car carrier or trailer. If you have any doubts, you should always use this method instead of towing.

With engine damage

Shift transmission to neutral (selector lever position N with automatic transmission). Move shift lever of transfer case into position N.

With transmission damage

For a towing distance of up to 25 km move the transfer case shift lever to position N and do not exceed a towing speed of 30 km/h. If the towing distance exceeds 25 km the drive shafts to the drive axles must be removed.

With transfer case damage

Remove drive shafts to drive axles.

With front axle damage

Raise front axle and remove drive shaft between rear axle and transfer case.

With rear axle damage

Do not exceed towing speed of 25 km/h while towing for a maximum of 5 km.

Raise the rear axle and remove the drive shaft between front axle and transfer case.

Notes:

Secure bolts with nuts when removing the drive shaft.

Use extreme caution when pulling a stuck vehicle whose drive wheels are buried in loose ground or mud, especially if the vehicle is loaded.

The vehicle should not be pulled out jerkily or at an angle, as this could cause vehicle damage. Never pull out a vehicle together with the trailer. When possible, use the rear coupling jaw to pull the vehicle out backward along its original track.

Tow starting

Vehicles with manual transmission:

Ensure that battery is connected and key is in steering lock position 2 before towing. Depress clutch pedal fully and select 2nd or 3rd gear. Tow the vehicle and then slowly release the clutch pedal. Press accelerator pedal until engine starts.

Vehicles with automatic transmission:

Tow-starting of the engine is not possible.

For starting aid, refer to page 100.

Vehicles with petrol engine

The vehicle can be towed with cold engine and cooled catalytic converter. If the engine does not start immediately, break off attempts to tow-start. Do not repeat the attempt and seek assistance from a Mercedes-Benz service station.

Vehicles with diesel engine

As the preglow process starts in key position 2, and is not immediately interrupted when the engine starts, it is important that the engine be allowed to idle for at least one minute before the vehicle is driven off. The preglow will stop automatically in this period.

Care and cleaning of the vehicle

During operation your vehicle is exposed to numerous harmful external influences. These include inclement weather, road conditions, and proximity to industrial and coastal areas.

These factors make it necessary that the vehicle bodywork and underbody be provided with regular periodic care.

Stone chipping and contamination, such as is caused by bird droppings, tree resin, oil, grease and fuel, should always be removed as soon as possible.

Rub talcum into the window guides and the weather stripping of both doors and windows.

We have considered the specific requirements of our vehicles in our selection and recommendation of car-care products. These are revised on a continuous basis to stay abreast of the latest technical developments.

MB Care Products are available at any Mercedes-Benz service station.

Deep scratches, corrosive deposits, etched spots and damage caused by insufficient or incorrect care cannot always be removed with the car care products recommended here. In such cases it is best to consult your Mercedes-Benz service station.

The following summary lists the most important car-care procedures and the recommended MB products.

Engine wash

- MB Protection Wax

Apply protection wax to the engine compartment after every wash. All control rod joints must be lubricated before the protection wax is applied. Protect the belts against wax.

Insect residue

- MB Insect Remover

Apply prior to washing the vehicle.

Tar stains

- MB Tar Remover

Remove tar stains as quickly as possible. Old tar stains are more difficult to remove.

Washing the vehicle

- MB Autoshampoo in wash water

Do not wash vehicle in direct sunlight.

Rinse the vehicle thoroughly with a broad stream of water. Avoid spraying large amounts of water into the ventilation system. Use plenty of water. Rinse sponge and chamois frequently. Rinse off with clean water and dry vehicle thoroughly.

Fold in the mirrors before driving through the automatic car wash, as they might otherwise rub and be damaged.

After driving through the automatic car wash, clean the recesses in the taillamps. Never use powerful solvents (fuel, thinner, etc.).

In winter, remove salt residue as soon and as thoroughly as possible.

When washing the underbody, do not forget to clean the insides of the wheels.

Caution!
Vehicle with soft top

Do not wash the car in an automatic car wash.
Do not clean the soft top with a high pressure cleaner.

Cleaning windows

- MB Window Cleaner (outside only)

For use with extremely dirty or oily windows

Clean the inside of the windows on a regular periodic basis with commercially available household glass cleaner.

Wiper blades

Clean the wiper blades with a clean cloth and detergent solution, have them replaced once or twice a year.

Seatbelts

Never clean seatbelts with chemical cleaning agents. Use only clean lukewarm water and soap.

Do not dry the seatbelts at temperatures above 80 °C or in direct sunlight.

Never bleach or redye the seatbelts.

Steering wheel, shift lever and instrument cluster

- MB Autoshampoo, neutral dishwashing liquid or mild detergent in solution.

Wet lint-free cloth in lukewarm solution and wipe off. Do not use abrasives.

Leather steering wheel, leather shift lever

- MB Autoshampoo as washing solution

Wipe off with a damp cloth and then dry.

Plastic, inside roof liner, rubber, MB-Tex

- MB Autoshampoo as washing solution,
  MB Plastics Cleaner

Do not use any other solvents and do not oil or wax these parts.

Upholstery

The upholstery may become discoloured due to contact with non-colourfast seat covers or clothing (for instance velours). These spots cannot be removed. An appropriate protective layer can protect the upholstery against discoloration.

Fabric upholstery

- MB Autoshampoo

Brush and vacuum frequently. If large areas become dirty, use a dry form of detergent to clean them.

Leather upholstery

- MB Autoshampoo as washing solution

Wipe off leather upholstery with a damp cloth and then dry.

The inside of perforated leather must not become wet, so use particular care when cleaning.

- MB Leather Care

For care and to prevent static electricity.

MB-Tex upholstery

- MB Autoshampoo as washing solution, MB Plastics Cleaner

Do not use any other detergents, do not oil or wax these parts.

Paintwork, painted add-on parts

- MB Gloss Preserver, MB Polish, MB Paint Cleaner, MB Polishing Cotton

Do not use in direct sunlight or with warm engine hood.

MB Gloss Preserver protects the paintwork and maintains its glossy finish.

Use MB Polish for more severe contamination, it simultaneously preserves the paintwork.

MB Polish can also be used to maintain gloss and remove small scratches in wood.

Use MB Paint Cleaner to clean older or weather-worn paintwork.

- MB Touch-up Stick or MB Spray Can

For temporary repairs of minor paintwork damage.

- MB Polishing Compound

For polishing heavily soiled or weathered paintwork as well as for the removal of minor scratches.

Note:

Keep the compound away from vehicle components such as door handles and rubber seals to avoid spots.

Light-alloy wheels

- MB Autoshampoo, MB Light-Alloy Wheel Care, MB Light-Alloy Wheel Cleaner

Clean light-alloy wheels at least once a week when possible. Use a soft sponge, plenty of lukewarm water and MB Autoshampoo.

If this is not sufficient, use MB Wheel Care for normal dirt and MB Wheel Cleaner for heavier contamination.

Observe instructions for use.

Convertible top

Cleaning with the top locked in place.

Dry cleaning:

Clean using a soft brush, always stroking in a single direction – from front to back.

Wet cleaning:

First brush off dry. Wash off roof fabric with a neutral detergent and plenty of lukewarm water while moving a soft sponge or brush in a single direction – from front to back. Rinse thoroughly with clean water.

If only certain areas are being washed, finish by wetting down the entyre roof and then allow it to air dry.

The rear and side windows should only be cleaned by using a cloth soaked in detergent solution to wipe them off damp and then wipe dry.

Do not use sharp objects to remove snow and ice.

Notes:

Do not wash the car in an automatic car wash.

Do not clean the soft top with a high pressure cleaner.

Remove bird droppings immediately.

Regular periodic spraying or rinsing with clear water will generally be sufficient.

The convertible top should only be washed when it is very dirty.

Do not use petrol, solvents, tar remover, spot remover or other organic solvents to clean top and windows.

Incorrect care and cleaning procedures can result in the seams of the top leaking. The seams can be resealed at any Mercedes-Benz service station.

Head restraints

Detaching front seat headrests:

Press head restraint forward slightly and withdraw as far as the stop.

Press locking button (1) below the seat back trim panel and pull left (looking toward front of vehicle) head restraint bar up sharply.

Withdraw head restraint using both hands. (Tilt seat back if necessary.)

Detaching the safety headrests of the rear seat bench:

The rear-seat head restraints are not equipped with a locking button. Withdraw the head restraints using both hands.

To install front and rear head restraints:

Press head restraints down as far as travel stop and then adjust.

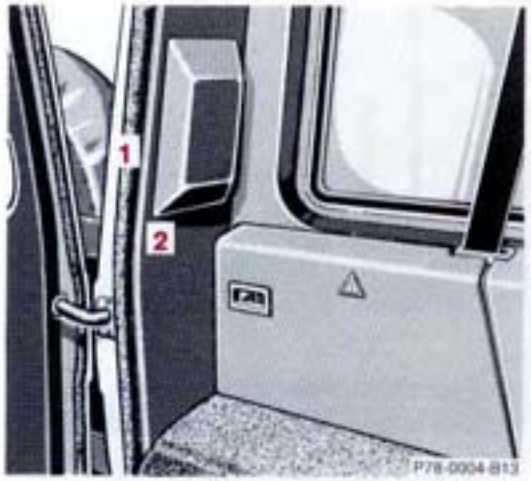
Note:

Do not interchange head restraints for front and rear seats.

The locking button for both front seats is located below the left head restraint bar.

Caution!

To ensure safety, never drive without the head restraints installed.



Manual closing of tilting/sliding roof

In the event of a defect in the electric drive unit the tilting/sliding roof can be closed manually.

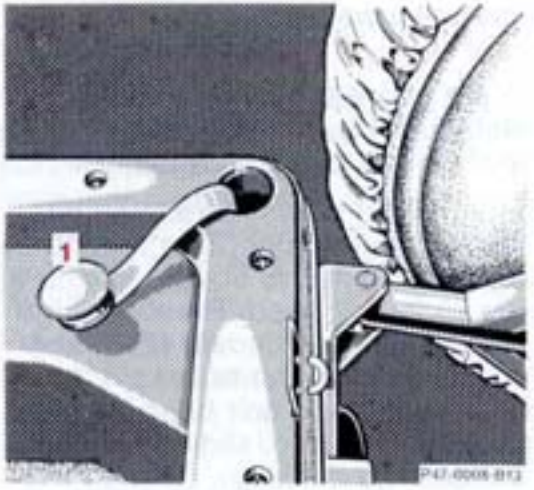
The drive motor, located behind the rear trim panel (2) in the left rear door pillar, is equipped with a hexagon bolt head. Remove edge protector (1) and cover (2), place socket wrench (on-board tool kit) on the hexagon bolt head and turn to slide the tilting/sliding roof in the desired direction.

Roof in rear position:
Turn clockwise.

Roof raised:
Turn counter-clockwise.

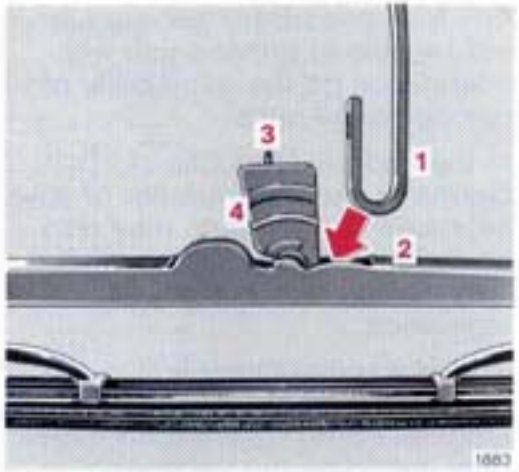
Manual release of fuel filler flap

Remove edge protector and rear rim on right rear door pillar. Pull the strap (1) upward to release the flap.



Convertible:

Pull out the plug (1) in the canvas top anchoring strip (rear right) together with the strap to unlock the flap.



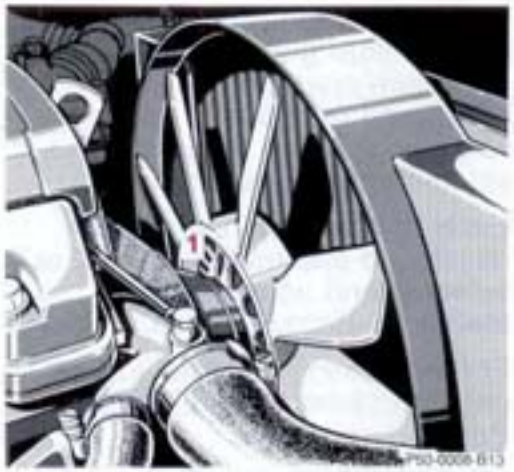
Replacing wiper blades

To remove:

Fold back the wiper arm (1) and turn the wiper blade (2) sideways. Press the detent spring (3) on the joint (4) and push the wiper blade out of the end of the wiper arm. Then remove wiper blade to the rear.

To install:

Push the wiper blade onto the wiper arm (arrow). Allow the joints to snap into place in the wiper-arm end.



Locking viscous-drive fan

If there is a fault in the viscous coupling, the fan can be locked into position on the pulley.

Turn the fan until the metal tabs (1) are opposite the recesses in the fan coupling. Bend as many of the metal tabs as possible, both in front of and behind the wide shoulder (shoulder for fan attachment) deep into the recesses, for instance with a screwdriver.

Have the viscous-coupling replaced at a Mercedes-Benz service station (max. 1000 km).

Caution!

Do not use fan to turn engine.

Mercedes-Benz Original Parts

The Mercedes-Benz Original Parts required for repair and maintenance will be on hand at every Mercedes-Benz service station.

In addition, there is a worldwide network of parts depots available to ensure rapid supply of Mercedes-Benz Original Parts.

More than 300 000 different parts, even for very old models, are kept in stock at the central factory warehouses.

Use of Mercedes-Benz Original Parts is your guarantee of maximum operating efficiency, safety and retention of vehicle value as they are subject to the strictest quality inspections.

Each part has been specially developed and manufactured, or selected and adapted for Mercedes-Benz vehicles.

For this reason you should use only Mercedes-Benz Original Parts!

Mercedes-Benz Original Reconditioned Units, such as engines, are available for carrying out economical repairs on vehicles.

Any Mercedes-Benz service station will be able to provide you with information on the availability of reconditioned units.

In the Federal Republic of Germany and in a number of other countries certain parts may only be installed or attached provided they comply with current legislation.

This is a requirement which is always met by Mercedes-Benz Original Parts. Use of other parts may invalidate the vehicle's operating approval.

Technical data
Service products

Identification plates

Please indicate vehicle identification and engine numbers when ordering parts.

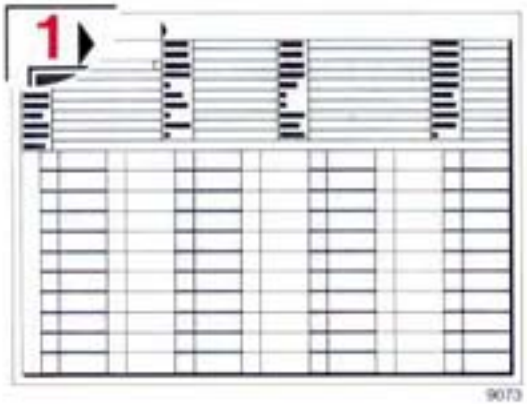
1 Vehicle identification number on right-hand side member

2 Identification plate (vehicle identification number, gross vehicle weight, basic headlamp setting), paint code number on fresh-air intake chamber below hood.

3 Engine no.
230 GE, 250 GD, 300 GD: on left-hand side of engine
300 GE: on right-hand side of engine

Vehicle data cards

The vehicle data cards contain all important information on your vehicle.



Data card no. 1 will be sent to you. Never store this card in the vehicle as it contains the key number. Always provide the key number when ordering a replacement for a lost key at a Mercedes-Benz service station. Data card no. 2, without key number, is kept in the maintenance booklet. Presenting this book when service is performed will facilitate servicing procedures. Data card no. 5 (without key numbers) is in the glove box.

Service products – Capacities

Use only those brands which we have tested and approved. These are listed in the Mercedes-Benz Service Product Specifications.

The corresponding sheet numbers are indicated together with the service products. Any Mercedes-Benz service station can provide further information.

	230 GE	300 GE	250 GD	300 GD
Engine with oil filter				
Engine oil	max. 5.8 l min. 4.3 l	max. 6.5 l min. 5.0 l	max. 7.0 l min. 5.0 l	max. 8.0 l min. 6.0 l

Gasoline engines:
Sheet nos. 226.5, 227.5

Diesel engines:
Sheet nos. 226.0, 226.1, 226.5
227.0, 227.1, 227.5,
228.0, 228.1, 228.2, 228.3

Engine oil viscosities, see maintenance booklet.

	230 GE	300 GE	250 GD	300 GD
Cooling system with heater				
Coolant Sheet nos. 310, 325.0 Refer to page 122.	5.0 l	7.7 l	7.3 l	7.5 l
Brake system				
Brake fluid Sheet no. 331.0 Refer to page 121.	0.5 l	0.5 l	0.5 l	0.5 l
Windscreen washer system and headlamp wash/wipe system				
MB Windscreen Washer Fluid "S" for summer or "W" for winter Sheet no. 371	9.6 l	9.6 l	9.6 l	9.6 l
Fuel tank	96 l	96 l	96 l	96 l
of which reserve	20 l	20 l	20 l	20 l
Petrol engines: Sheet nos. 122.1, 122.2 Refer to page 117.				
Diesel engines: Sheet nos. 132.1 – 132.3, 137 Refer to page 119.				

Fuels for petrol engines

The engines have been designed for use with premium unleaded fuel in order to ensure optimum performance and fuel consumption.

Unleaded premium fuels, at least 95 RON/85 MON

For temporary use:
Unleaded regular fuels, at least 91 RON/82.5 MON

Notes:

Adjust ignition timing for the fuel being used.

Use resistance trimming plug to adjust timing.

Caution!

Never use anything but unleaded fuel in vehicles with catalytic converter.

The resistance trimming plug (1) is located in the engine compartment.

Vehicles with catalytic converter:
Resistance trimming plug inscription:
„EZL-KAT".

To adjust:

- Withdraw plug as far as stop.
- Turn plug to the desired position (note marks on housing):
  - **S** Operation with premium fuel
  - **N** Operation with regular fuel
- Push plug in again.

It is essential that the resistance trimming plug be set to N when the vehicle is operated with regular fuel (risk of engine damage).

Vehicles without catalytic converter
(ECE equipment)

The engines are designed for use in conjunction with unleaded premium fuel to ensure optimum performance and fuel consumption figures.

Both leaded and unleaded fuels can be used.

Unleaded premium fuels,
at least 95 RON/85 MON

Leaded premium fuels,
at least 98 RON/88 MON

For temporary use:

Unleaded regular fuels,
at least 91 RON/82.5 MON

Notes:

Adjust ignition timing for the fuel being used.

Use resistance trimming plug to adjust timing.

The resistance trimming plug is located in the engine compartment.

Resistance trimming plug inscription:
„EZL-ECE".

P15-0003-B13

To adjust:

- Withdraw plug as far as stop.
- Turn plug to the desired position (note marks on housing):
  S Operation with premium fuel
  N Operation with regular fuel
- Push plug in again.

It is essential that the resistance trimming plug be set to N when the vehicle is operated with regular fuel (risk of engine damage).

Fuels for diesel engines

Use only proprietary motor vehicle diesel fuels.

The use of Marine Diesel Fuel, heating oils, etc., and other fuels with a similar rating is not approved.

If the diesel fuel used has a sulphur content in excess of 0.5 % by weight, change the engine oil as for severe operating conditions (refer to maintenance booklet).

When refuelling the vehicle from drums, place a filter, a chamois cloth or clean flannel cloth over the filler neck to filter the fuel as it enters.

If diesel fuel has been spilt, the contaminated areas can be cleaned with a mixture of 25 to 50 % vinegar and 75 to 50 % water, depending on size of spill. This helps to get rid of the offensive smell.

Paraffin separation can adversely affect the flow properties of diesel fuel at low outside temperatures.

Diesel fuels with enhanced cold-flow characteristics are sold during the winter months to help prevent operating difficulties. There can, however, be substantial variations from country to country.

Winter-grade diesel fuel can generally be used for trouble-free operation at temperatures down to approx. –15 °C.

The fuel preheater which is switched on together with the vehicle heater ensures trouble-free driving with winter-grade diesel fuel down to outside temperatures of approx. –23 °C in most cases.

When using a summer-grade diesel fuel, or a winter diesel fuel of limited cold resistance, or at outside temperatures below –15 °C, add a certain amount of flow-improver or kerosene according to the outside temperature.

Flow-improvers, however, are not effective with every type of diesel fuel.

Flow-improvers may also be used together with regular petrol or kerosene.
Any Mercedes-Benz service station can provide you with more information.

In exceptional cases where no kerosene or flow-improvers are available, unleaded regular petrol can also be used.

See table for mixing ratios.

Never add premium fuel.

Depending on the quantity added, engine performance may be affected slightly. For this reason, you should always add as little as possible for any given outside temperature.

Percentage added:

- Unleaded regular fuel max. 20 %
- Kerosene max. 50 %

Pour the additive into the diesel fuel before paraffin separation can cause excess thickening. Faults resulting from paraffin separation can only be eliminated by heating the entire fuel system.

To ensure safety, kerosene or unleaded regular fuel should only be blended with diesel fuel in the fuel tank. First add kerosene or unleaded regular fuel and then fill with diesel fuel.

Let the engine run for a while to allow the mixture to flow through the entire fuel system.

Caution!

Adding unleaded regular petrol or kerosene lowers the flash point of the diesel fuel. This increases the danger associated with handling the fuel mixture. Comply with the applicable safety regulations!

Ambient temperature °C	Summer diesel fuel	Additive [1]
0 to –15	80	20
–15 to –23	50	50
–23 to –30	–	–
–30 to –35	–	–

Ambient temperature °C	Winter diesel fuel	Additive [1]
0 to –15	100	–
–15 to –23	100	–
–23 to –30	80	20
–30 to –35	50	50

[1] Kerosene or max. 20 % unleaded regular fuel.

Engine oils

Engine oils are tested to ensure that they are suitable for use in our engines. For this reason, you should only use approved brands of engine oil. Any Mercedes-Benz service station can provide you with further information.

Brake fluid

Over time the continuing absorption of humidity from the atmosphere causes the boiling point of the brake fluid to be lowered. When this happens vapour bubbles can form in the brake system under extreme operating conditions (for instance, in mountain driving). This results in diminished brake system performance.

For this reason the brake fluid must be replaced at least once a year, in spring where possible.

Use only approved brake fluids. Any Mercedes-Benz service station can provide you with further information.

Coolant

The coolant is a mixture of water and antifreeze with corrosion inhibitor. In the cooling system the antifreeze with corrosion inhibitor provides

- corrosion protection
- protection against freezing
- raised boiling point

The antifreeze and corrosion-inhibitor added at the factory ensures adequate protection against both frost and corrosion.

To maintain corrosion protection and a high boiling point, the coolant should remain in the cooling system throughout the year – even in countries with hot climates. It should be changed every 3 years.

The coolant must contain at least 50 % antifreeze with corrosion-inhibitor to ensure continued resistance to corrosion. This corresponds to frost protection down to –37 °C.

Do not exceed 55 % (frost protection down to approx. –45 °C) as this will result in diminution of the thermal transfer properties.

When topping up coolant, do not simply add water. Add a mixture of water and an approved antifreeze with corrosion inhibitor in the specified ratio.

The water used in the coolant must meet certain requirements. These are often fulfilled by drinking water.

If the water quality is not sufficient, the water must be prepared before being added. Any Mercedes-Benz service station can provide further information.

Have the concentration of antifreeze with corrosion inhibitor checked before the beginning of the cold season – once a year in countries with hot climates. This inspection is also carried out in the course of every Mercedes-Benz maintenance service.

Use only approved antifreeze with corrosion inhibitor to avoid damage to the cooling system. Any Mercedes-Benz service station can provide further information.

Capacities –
Antifreeze with corrosion inhibitor

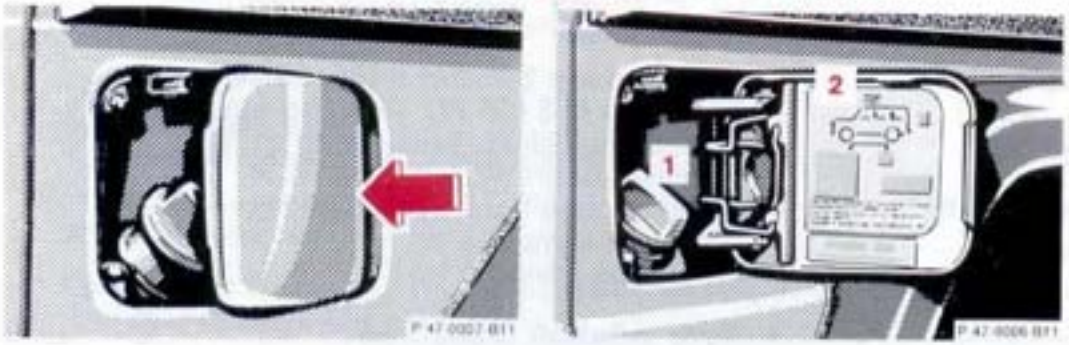
	Antifreeze protection to –37 °C	–45 °C
230 GE	2.50 l	2.75 l
300 GE	3.85 l	4.24 l
250 GD	3.65 l	4.00 l
300 GD	3.75 l	4.10 l

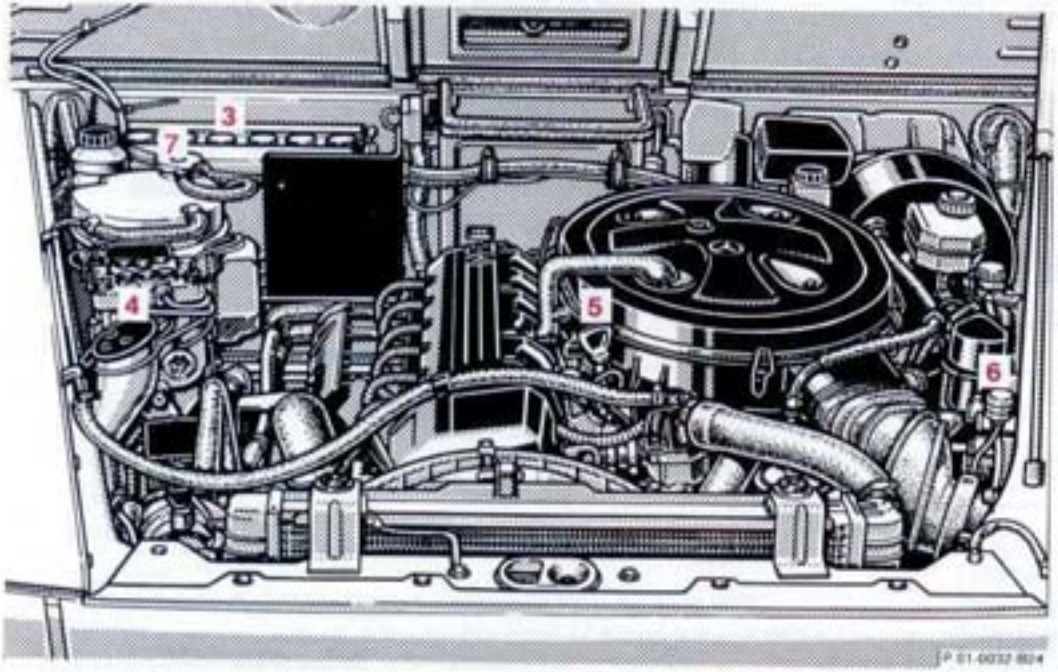
Literature

Your Mercedes-Benz service station can provide you with the following:

- Mercedes-Benz Service Station Index
  EUROPE
  AFRICA, AMERICA, ASIA, AUSTRALIA
- Maintenance booklet – replacement

Items to check periodically and prior to every long trip





This illustration shows the engine compartment of the 300 GE.

1 **Fuel supply:** When refuelling, hold the cap while turning it to the left to allow any built-up pressure to escape. Then remove filler cap.

2 **Inflation pressure and condition of tyres:** Check at least every 14 days. Refer to page 92 for further information.

3 **Battery:** Add distilled water only, refer to page 93.

4 **Windscreen washer system, headlamp wash/wipe system:** Refer to page 83.

5 **Engine oil level:** Refer to page 85.

6 **Resistance trimming plug:** Refer to pages 117 und 118.

7 **Coolant level:** Refer to page 84.

Vehicle lighting: Check for cleanliness and correct operation. To replace bulbs, refer to page 94.

What you need to know at the petrol station

- **Fuel**

  Petrol engine: unleaded premium fuels, at least 95 RON/85 MON.

  For further information see page 117.

  Diesel engine: diesel fuels for motor vehicles. Refer to page 119.

  Fuel tank 96 litres, of which 20 litres reserve.

  Only fill tank until filler nozzle clicks off – do not overfill.

- **Engine oil**

  To check oil level refer to page 85.

  Difference between lower and upper markings on oil dipstick: approx. 2 litres.

  For approved engine oils refer to maintenance booklet.

- **Light bulbs**

  High and low beam H 4 (60/55 W),
  Fog lamp H 3 (55 W), Rear fog lamp 21 W,
  Turn signal 21 W, Brake lamp 21 W,
  Parking lamp 4 W, Tail lamp 5 W,
  Licence plate lamp 5 W (Soffitte),
  Side turn signals 4 W,
  Reversing lamp 21 W.

- **Tyre inflation pressures**

  For specified tyre inflation pressures see table on inside of fuel filler flap and last page.

- **Windscreen washer system**

  MB Windscreen Washer Fluid, "S" for summer, "W" for winter. Observe the mixing ratios indicated on the container.

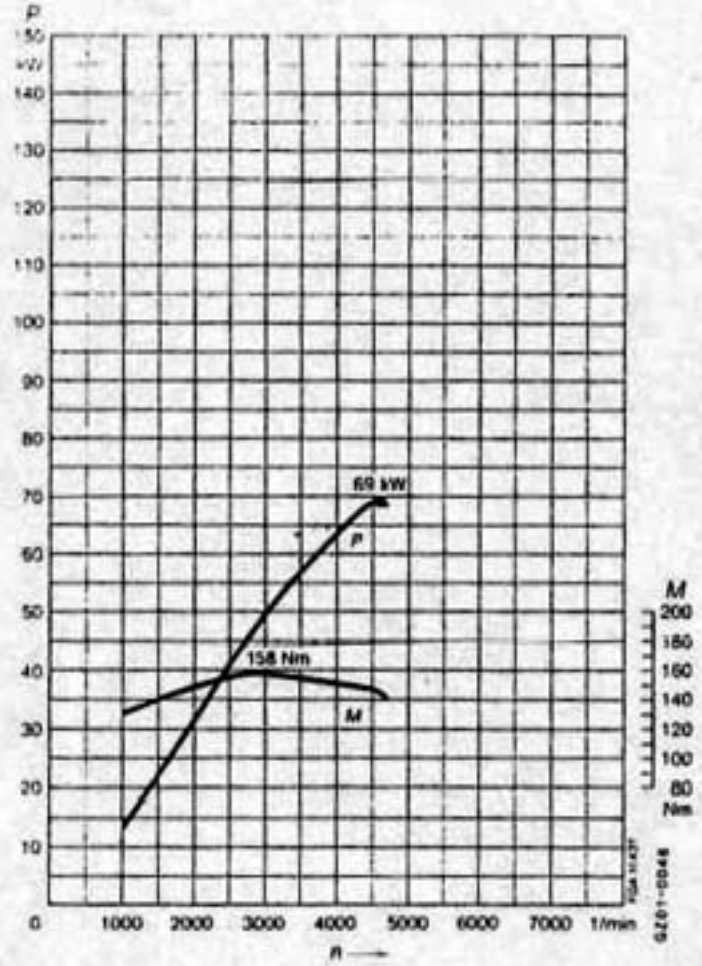
Mercedes-Benz AG
Stuttgart-Untertuerkheim

463 584 14 96 Order No. 6550 5966 02 EN Ausgabe A

Output diagram

OM 602 D 25

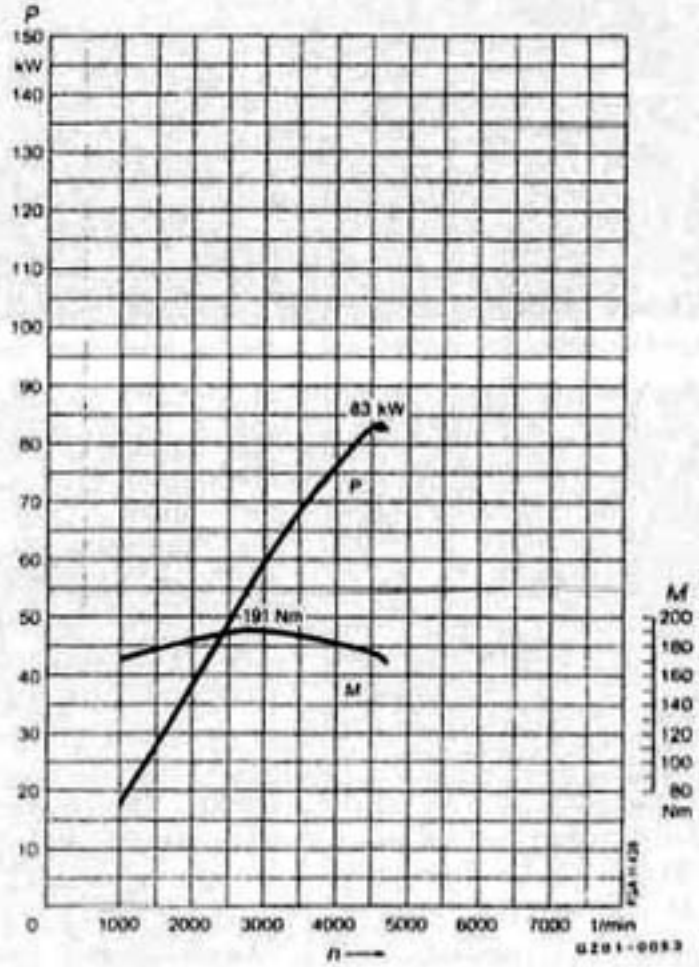
Number of cylinders		5
Displacement	cm^3	2497
Bore/stroke	mm	87,0 / 84,0
Output¹)	kW	69
at speed	min^{-1}	4600
max. torque¹)	Nm	158
at speed	min^{-1}	2600 to 3100
Compression ratio	ε	22



OM 603 D 30

Number of cylinders		6
Displacement	cm^3	2996
Bore/stroke	mm	87,0 / 84,0
Output[1])	kW	83
at speed	min^{-1}	4600
max. torque[1])	Nm	191
at speed	min^{-1}	2700 to 2900
Compression ratio	ε	22

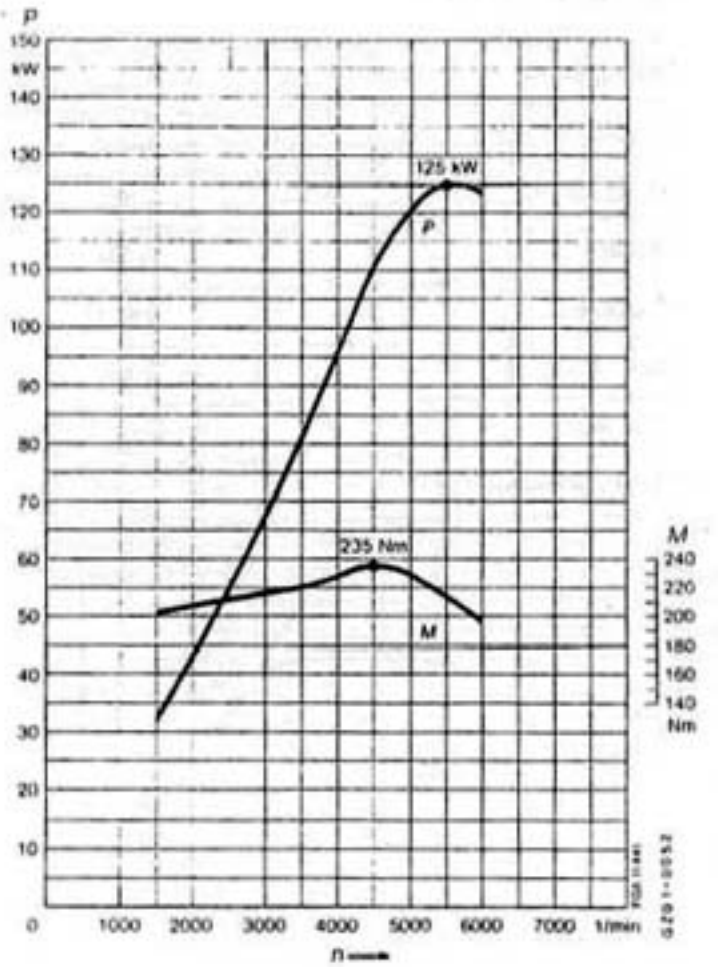
1) The specified output according to guideline 88/195/EEC is available after deduction of all auxiliary outputs as actual output for the drive at the clutch.



Output diagram

M 103 E 30 KAT

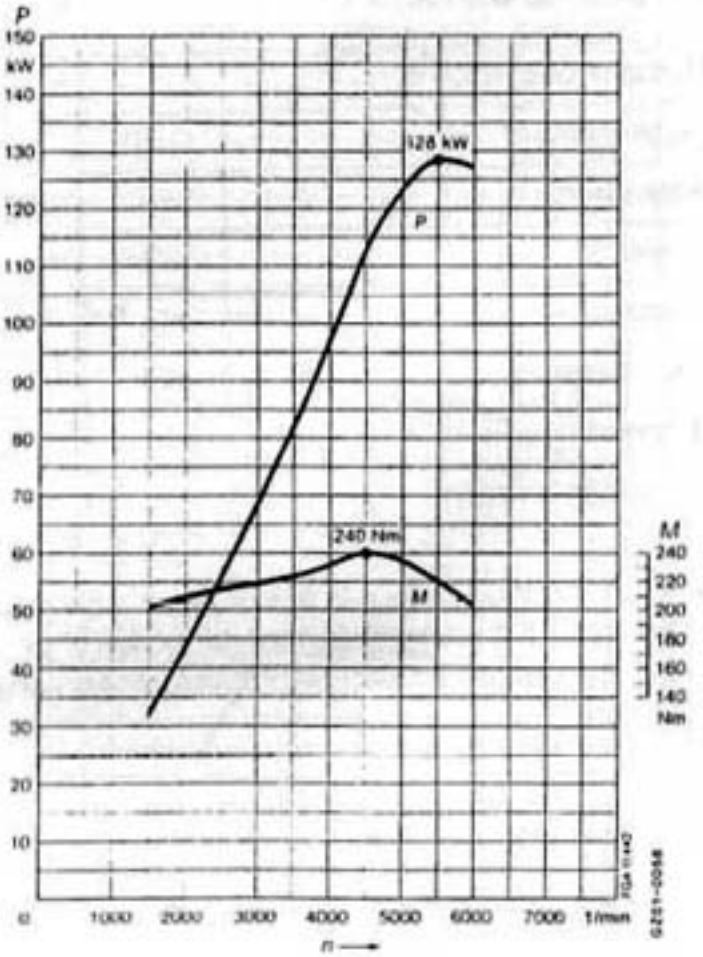
Number of cylinders		6
Displacement	cm^3	2960
Bore/stroke	mm	88,5 / 80,2
Output[1])	kW	125
at speed	min^{-1}	5500
max. torque[1])	Nm	235
at speed	min^{-1}	4500
Compression ratio	ε	9,2



M 103 E 30 without KAT

Number of cylinders		6
Displacement	cm^3	2960
Bore/stroke	mm	88,5 / 80,2
Output[1])	kW	128
at speed	min^{-1}	5500
max. torque[1])	Nm	240
at speed	min^{-1}	4500
Compression ratio	ε	9,2

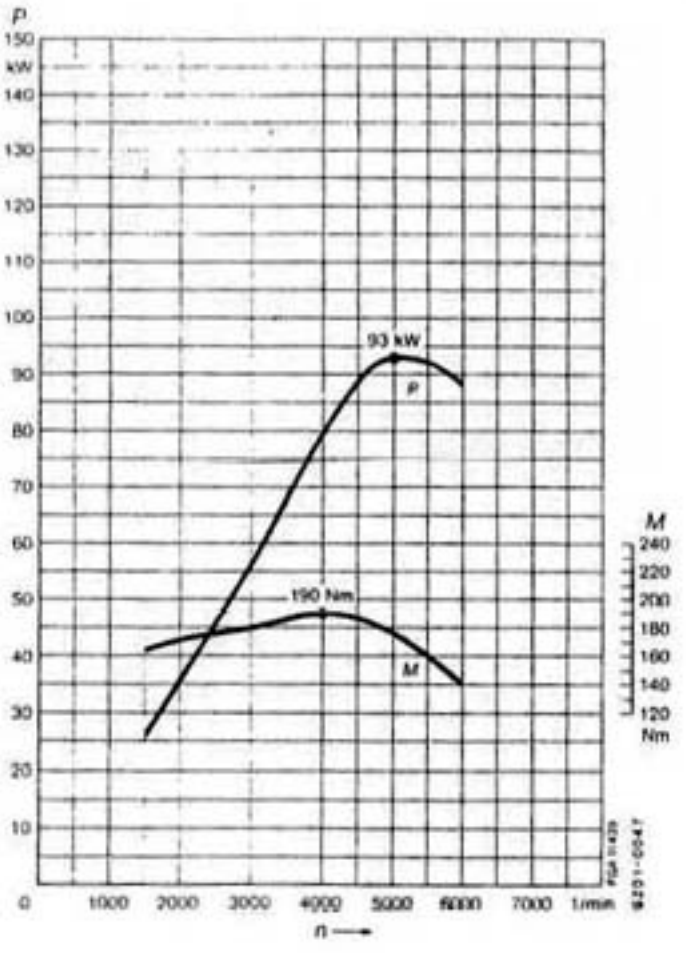
1) The specified output according to guideline 88/195/ EEC is available after deduction of all auxiliary outputs as actual output for the drive at the clutch.



Output diagram

M 102 E 23 KAT

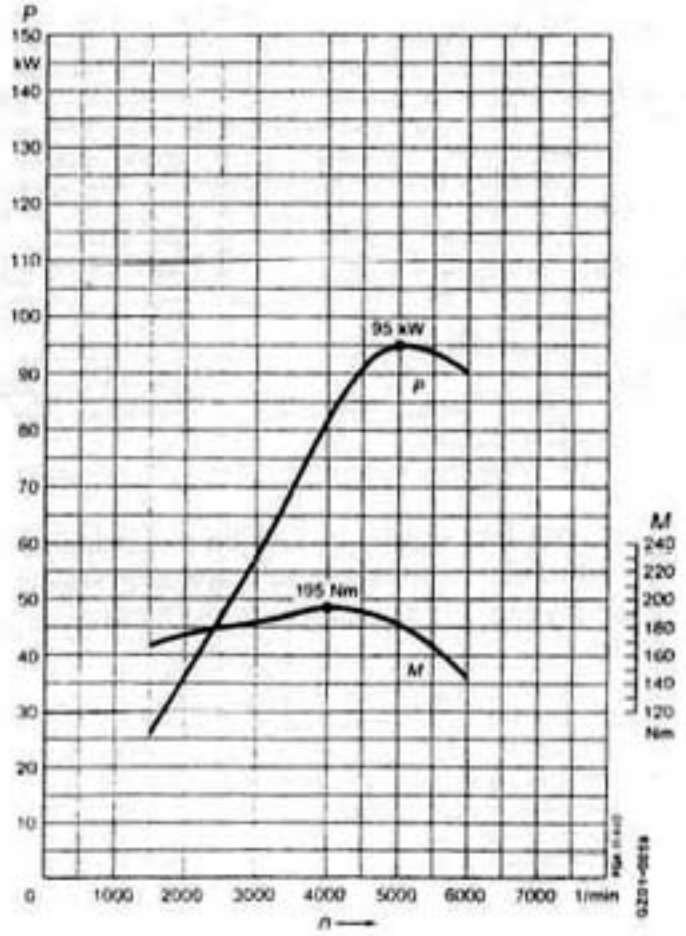
Number of cylinders		4
Displacement	cm^3	2298
Bore/stroke	mm	95,5 / 80,2
Output[1])	kW	93
at speed	min^{-1}	5000
max. torque[1])	Nm	190
at speed	min^{-1}	4000
Compression ratio	ε	9



M 102 E 23 without KAT

Number of cylinders		4
Displacement	cm^3	2298
Bore/stroke	mm	95,5 / 80,2
Output[1])	kW	95
at speed	min^{-1}	5000
max. torque[1])	Nm	195
at speed	min^{-1}	4000
Compression ratio	ε	9

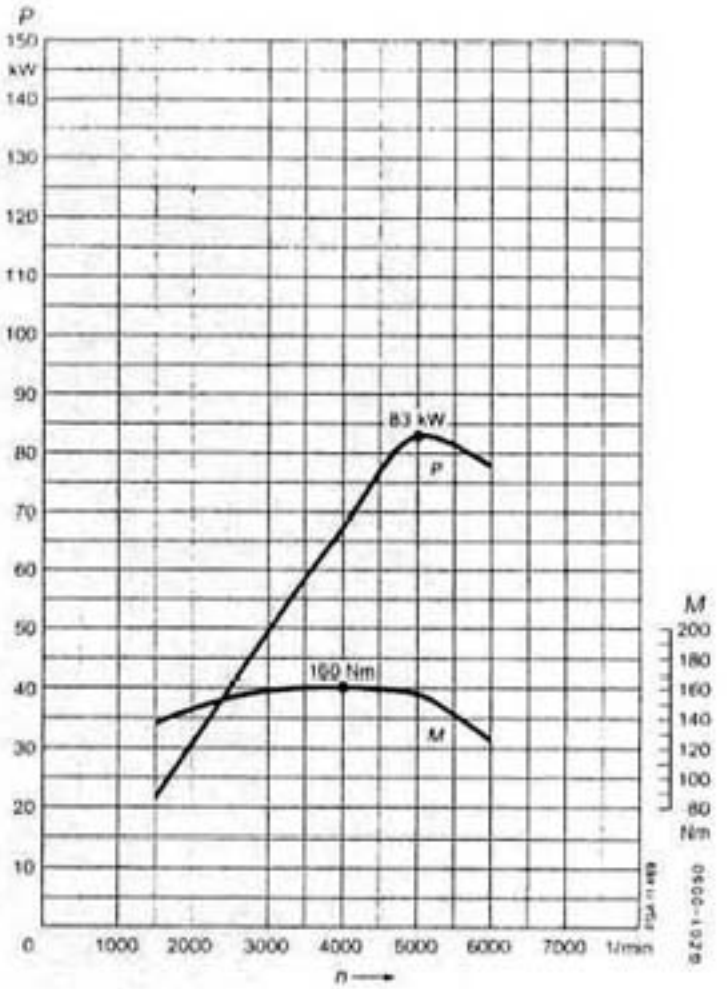
1) The specified output in accordance with guideline 88/195/EEC is available after deduction of all auxiliary outputs as actual output for the drive at the clutch.



Output diagram

M 102 E 20 KAT

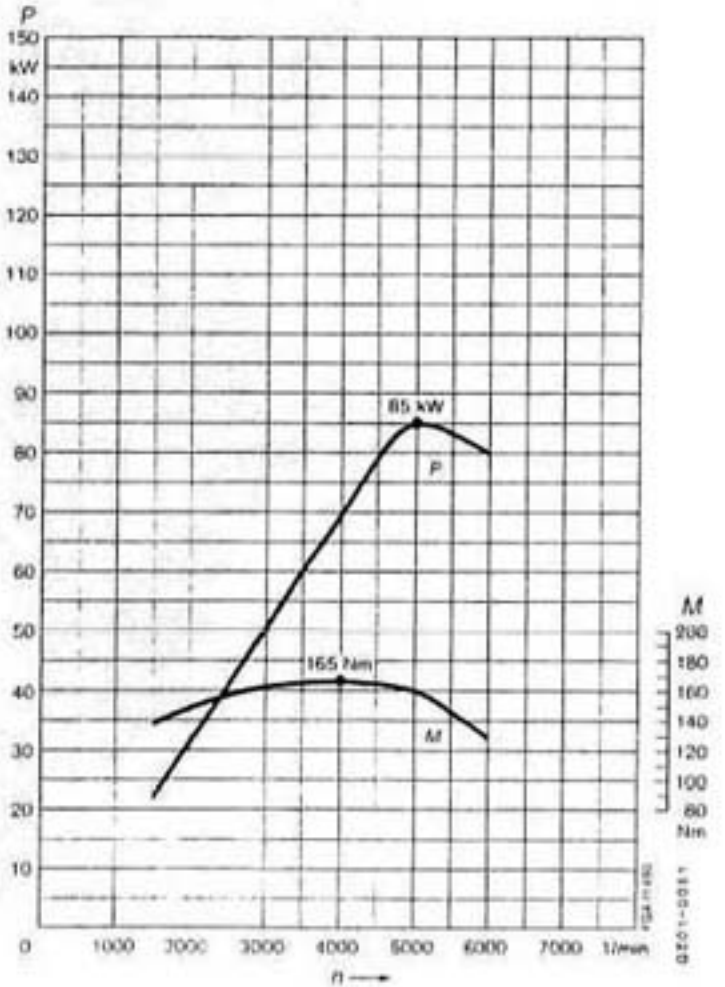
Number of cylinders		4
Displacement	cm^3	1996
Bore/stroke	mm	89,0 / 80,2
Output')	kW	83
at speed	min^{-1}	5000
max. torque')	Nm	160
at speed	min^{-1}	4000
Compression ratio	ε	9,1



M 102 E 20 without KAT

Number of cylinders		4
Displacement	cm^3	1996
Bore/stroke	mm	89,0 / 80,2
Output[1])	kW	85
at speed	min^{-1}	5000
max. torque[1])	Nm	165
at speed	min^{-1}	4000
Compression ratio	ε	9,1

1) The specified output in accordance with guideline 88/195/EEC is available after deduction of all auxiliary outputs as actual output for the drive at the clutch.



Service products and capacities

		Model	Capacity approx.	Service product	Sheet no.
Engine with oil filter	200 GE 230 GE	102.965 102.989	max. 6 l min. 4,5 l	Motor oil	226.5 227.5
	300 GE	103.987	max. 6,5 l min. 5 l		
	250 GD	602.931	max. 7,5 l min. 5,5 l	Motor oil	226.0/1/5 227.0/1/5 228.0/1/2/3
	300 GD	603.931	max. 8,5 l min. 6,5 l		
Mechanical transmission		717.439	1,5 l	Automatic transmission fluid (ATF)	236.2
Automatic transmission		722.39.	7 l	Automatic transmission fluid (ATF-Dexron II)	236.6 236.7
Transfer case		750.650	2,8 l	Gear oil SAE 80	235.1
Front axle		730.3..	1,1 l	Hypoid-gear oil SAE 90	235
Rear axle		741.5..	1,8 l	Hypoid-gear oil SAE 90	235
Power steering		765.503	1 l	Steering box oil	236.3
Hydraulic clutch control			0,3 l	Brake fluid (DOT 4 plus)	331.0
Hydraulic brake actuation			0,5 l	Brake fluid (DOT 4 plus)	331.0
Hydraulic differential lock actuation			0,3 l	Brake fluid (DOT 4 plus)	331.0
Grease nipple lubricating points on chassis and body, joint heads of all-wheel front axle				Multipurpose grease	267
Battery terminals				Bosch Ft 40 v 1	350

Air conditioner			1,0 kg	Refrigerant	361
Refrigerant compressor			0,2 l	Compressor oil	362
Fuel tank		95 l portion for reserve 10 l	**200 GE/230 GE/300 GE** Vehicles with catalytic converter, premium gasoline, unleaded[1]) min. 95 research octane number/85 octane number, motor method or standard gasoline, unleaded[1]) min. 91 research octane number /82.5 octane number, motor method		122.2
			200 GE/230 GE/300 GE Vehicles without catalytic converter, premium gasoline, leaded[2]) min. 98 research octane number/88 octane number, motor method or premium gasoline, unleaded[2]) min. 95 research octane number/85 octane number, motor method or standard gasoline leaded or unleaded, min. 91 research octane number/82.5 octane number, motor method		122.1 122.2
			250 GD/300 GD Diesel fuel		132.1 – 132.3 137
Cooling system (with heating system)	Engine 102 Engine 103	5,0 l 7,8 l		Coolant	310, 325.1 325.2
	Engine 602 Engine 603	7,3 l 7,5 l		Coolant	310, 325.1
Windscreen washer and headlight washer system		7,5 l		Water with MB-windscreen washer solution – concentration S for summer or W for winter. Observe mixture ratio.	371

1) In the Federal Republic of Germany e.g. in accordance with DIN 51 607.
2) In the Federal Republic of Germany e.g. in accordance with DIN 51 600.
3) In the Federal Republic of Germany e.g. in accordance with DIN 51 607. Have ignition timing adjusted in a MERCEDES-BENZ service station.

Exhaust gas emissions test

The exhaust gas emissions test at idle speed, partial load and full load are for the evaluation of the mixture composition in the combustion chamber. They are to be carried out in event of complaints concerning the running of the engine, fuel consumption and engine output.

Exhaust gas emissions test for Standard, EGR, CAT and Diesel

Vehicle-		Engine model	Full load 3rd gear Driving position 3		upper partial load 4th gear Driving position D 120 km/h 24 kW	lower partial load 4th gear Driving position D 50 km/h 7 kW	Idle speed Automatic transmission Driving position P or N	
Model	Type		Speed 1/min	Vol. % CO	Vol. % CO	Vol. % CO	Speed 1/min	Vol. % CO
463.200 .220 .221	200 GE	102.965	5000	0,5 to 4,0	0,1 to 1,0	0,1 to 1,0	700 to 800	1,0 ± 0,5
.204 .224 .225	230 GE	102.989	5000	0,5 to 4,0	0,1 to 1,0	0,1 to 1,0	700 to 800	1,0 ± 0,5
.207 .227 .228	300 GE	103.987	5500	1,5 to 5,0	0,1 to 1,0	0,1 to 1,0	600 to 700	1,0 ± 0,5
.304 .324 .325	250 GD	602.931	4500	max. 0,20	–	–	–	–
.307 .327 .328	300 GD	603.931	4500	max. 0,20	–	–	610 to 650	–

Testing on the roller test bench

Note: For the test install the standard tyres "205 R 16".

On the **brake test stand** the testing speed of 6 km/h must not be exceeded. The test duration per axle must not exceed 60 scnd.

Before operation on the vehicle performance tester, the propeller shaft to the front axle must be removed and in the transfer case the interaxle differential lock engaged.
The interaxle differential lock is engaged when the red indicator lamp lights up.

Functional test

The functional test is for the rough judgement of the vehicle performance. Here the engine and components are checked under full load. The driving speed is selected in such a way that 100 km/h or 120 km/h are not exceeded.

Vehicle-		Engine model	Manual transmission 3rd gear				Automatic transmission Driving position 3			
Model	Type		km/h	Stand. kW	EGR kW	CAT kW	km/h	Stand. kW	EGR kW	CAT kW
463.200 .220 .221	200 GE	102.965	90	56	–	55	–	–	–	–
.204 .224 .225	230 GE	102.989	90	64	–	63	90	61	–	60
.207 .227 .228	300 GE	103.987	90	93	–	90	90	87	–	84
.304 .324 .325	250 GD	602.931	70	43	–	–	–	–	–	–
.307 .327 .328	300 GD	603.931	70	52	–	–	70	43	–	–

Output test

This test is only to be carried out in event of a complaint concerning the vehicle performance. The valid standard output values are minimum outputs. Observe baraometer value and intake air temperature.

Note: The specified standard output values are only attained with the respectively specified fuel and the specified ignition timing adjustment. When adapting the ignition timing adjustment to other fuels, the output values might differ.

Vehicle-		Engine model	Manual transmission 3rd gear				Automatic transmission Driving position 3		
Model	Type		Speed 1/min	Stand. kW	EGR kW	CAT kW	Stand.	EGR	CAT
463.200 .220 .221	200 GE	102.965	5000	56	–	55	–	–	–
.204 .224 .225	230 GE	102.989	5000	64	–	63	61	–	60
.207 .227 .228	300 GE	103.987	5500	90	–	87	87	–	84
.304 .324 .325	250 GD	602.931	4500	46	–	–	–	–	–
.307 .327 .328	300 GD	603.931	4500	56	–	–	53	–	–

Weights

Vehicle-Type	Version			Weight ready for driving curb weight and full tank	with maximum equipment	Permissible gross vehicle weight	Front axle			Rear axle		
							ready for driving curb weight and full tank	with maximum equipment	Permissible gross vehicle weight	ready for driving curb weight and full tank	with maximum equipment	Permissible gross vehicle weight
	Convertible	Station wagon, short	Station wagon, long	kg	kg	kg	kg	kg	kg	kg	kg	kg
200 GE	x			2005	2105	2620	1018	1095	1300	987	1010	1600
		x		2060	2205	2620	1030	1120	1300	1030	1085	1600
			x	2195	2365	2950	1105	1200	1380	1090	1165	1800
230 GE	x			2005	2142	2620	1018	1125	1300	987	1017	1600
		x		2060	2240	2620	1030	1150	1300	1030	1090	1600
			x	2195	2400	2950	1105	1230	1380	1090	1170	1800
300 GE	x			2030	2167	2620	1043	1150	1300	987	1017	1600
		x		2085	2265	2620	1055	1175	1300	1030	1090	1600
			x	2220	2425	2950	1130	1255	1380	1090	1170	1800
250 GD	x			2015	2115	2620	1043	1120	1300	972	995	1600
		x		2070	2210	2620	1055	1145	1300	1015	1065	1600
			x	2205	2375	2950	1130	1225	1380	1075	1150	1800
300 GD	x			2035	2175	2620	1063	1170	1300	972	1002	1600
		x		2090	2270	2620	1075	1195	1300	1015	1075	1600
			x	2225	2430	2950	1150	1275	1380	1075	1155	1800

Vehicle data

200 GE / 230 GE / 300 GE 250 GD / 300 GD	Convertible	Station wagon, short	Station wagon, long
Wheelbase mm	2400	2400	2850
Fording depth mm	600	600	600
Dimensions in mm			
Length	4215	4185	4635
Width	1690	1690	1690
Height	1924	1892	1925
Angle of approach	800	800	800
Angle of departure[1]	1015	985	1015
Track width front	1425	1425	1425
rear	1425	1425	1425
Turning circle Ø	11290	11290	13240

1) with spare wheel

Fuel consumption
(in accordance with 80/1268 EEC)

Vehicle type		200 GE	230 GE	300 GE	250 GD	300 GD
– 5-gear transmission, manual						
Town	l/100 km	15,6	16,4	18,7	13,5	14,7
90 km/h	l/100 km	11,1	12,7	13,4	10,5	10,9
120 km/h	l/100 km	15,7	17,3	17,7	15,2	16,0
– Automatic transmission						
Town	l/100 km	–	15,1	18,2	–	12,5
90 km/h	l/100 km	–	13,1	14,2	–	10,8
120 km/h	l/100 km	–	18,0	19,2	–	15,9

Trailed load

unbraked						
Convertible	kg	750	750	750	750	750
Station wagon, short	kg	750	750	750	750	750
Station wagon, long	kg	750	750	750	750	750
braked						
Convertible	kg	2620	2620	2620	2620	2620
Station wagon, short	kg	2620	2620	2620	2620	2620
Station wagon, long	kg	2950	2950	2950	2950	2950

Axle – transmission combination

Vehicle-	Transmission version		Axle ratio i				
Sales designation	5-gear GL76/27K-5	4-gear Automatic W4A 028	5,286	4,111	4,375	4,857	6,167
200 GE	o		o	x	x	x	x
230 GE	o	x	o	x	x	x	x
300 GE	o	x			x	o	
250 GD	o		o	x	x	x	x
300 GD	o	x	o	x	x	x	x

o Standard version
x Special requirement

Driving performance

with tyres 205 / 82 R 16

with two persons (continued)

Vehicle type			250 GD		300 GD			
Transmission – Designation			5 gear GL76/27K-5		5 gear GL76/27K-5		Automatic W4A028	
1st gear	Ratio i =		3,856		3,856		3,871	
2nd gear			2,182		2,182		2,247	
3rd gear			1,365		1,365		1,436	
4th gear			1,000		1,000		1,000	
5th gear			0,799		0,799		–	
Transfer case designation			VG 150		VG 150		VG 150	
			Road	Off-road	Road	Off-road	Road	Off-road
	Ratio i =		1,050	2,158	1,050	2,158	1,050	2,158
Rear axle transmission ratio		i =	5,286		5,286		4,111	
Maximum speed Vmax./ speed 1/min			130/4240	–	141/4610	–	141/4570	–
Maximum speeds in the individual gears	1st gear	km/h	30	15	30	15	38	18
	2nd gear	km/h	54	26	54	26	66	32
	3rd gear	km/h	86	42	86	42	103	50
	4th gear	km/h	117	57	117	57	141	72
	5th gear approx.	km/h	130	71	141	71	–	–
Climbing ability	1st gear	%	32	80	40	80	37	80
	2nd gear	%	17	38	21	48	19	45
	3rd gear	%	9	22	12	27	11	25
	4th gear	%	6	15	7,5	19	4,5	14
	5th gear	%	4	11	5	14	–	–
Acceleration with gear change 0 to 100 km/h		s	28,1	–	22,2	–	22	–
60 to 100 km/h 4th gear[1])		s	20,6	–	15,5	–	14,4	–
60 to 100 km/h 5th gear[2])		s	31,6	–	22,5	–	23,2	–

1) In automatic transmission (3rd gear)
2) In automatic transmission (4th gear)

Driving performance

with tyres 205 / 82 R 16

with two persons

Vehicle type			200 GE		230 GE				300 GE			
Transmission – Designation			5 rear GL76/27K-5		5 gear GL76/27K-5		Automatic W4A028		5 Gear GL76/27K-5		Automatic W4A028	
1st gear	Transmission ratio i =		3,856		3,856		3,871		3,856		3,871	
2nd gear			2,182		2,182		2,247		2,182		2,247	
3rd gear			1,365		1,365		1,436		1,365		1,436	
4th gear			1,000		1,000		1,000		1,000		1,000	
5th gear			0,799		0,799		–		0,799		–	
Transfer case designation			VG 150		VG 150		VG 150		VG 150		VG 150	
			Road	Off-road	Road	Off-road	Road	Off-road	Road	Off-road	Road	Off-road
	Ratio i =		1,050	2,158	1,050	2,158	1,050	2,158	1,050	2,158	1,050	2,158
Rear axle transmission ratio		i =	5,286		5,286		4,857		4,857		4,375	
Maximum speed Vmax./speed 1/min			140/ 5705	–	145/ 4735	–	144/ 5480	–	164/ 6130	–	162/ 5595	–
Maximum speeds in the individual gears	1st gear	km/h	38	18	38	18	41	20	43	21	46	23
	2nd gear	km/h	67	33	67	33	70	34	75	37	80	39
	3rd gear	km/h	107	52	107	52	110	53	121	59	126	61
	4th gear	km/h	140	71	144	71	144	77	164	80	162	87
	5th gear approx.	km/h	134	89	145	89	–	–	160	100	–	–
Climbing ability	1st gear	%	31	80	38	80	40	80	45	80	51	80
	2nd gear	%	16	37	20	46	22	52	22	55	29	72
	3rd gear	%	8,5	21	11	26	10	23	18	30	11	26
	4th gear	%	5,5	15	6,5	18	5	15	8	21	5,5	17
	5th gear	%	3,5	11	4,5	13	–	–	5,5	15	–	–
Acceleration with gear change 0 to 100 km/h		s	20,8	–	17,7	–	18,4	–	13,5	–	14	–
60 to 100 km/h (4th gear)[1])		s	20,8	–	16,2	–	11,9	–	14,3	–	9,9	–
60 to 100 km/h (5th gear)[2])		s	34,8	–	26,2	–	19,5	–	21,5	–	17,3	–

1) In automatic transmission (3rd gear)
2) In automatic transmission (4th gear)

Installation survey

Type	200 GE	230 GE	300 GE	250 GD	300 GD
Engine	M 102	M 102	M 103	OM 602	OM 603
Principle of operation	Four-stroke spark ignition, mechanically/ electronically controlled fuel injection (CIS-E) with overrun fuel cutoff			Four-stroke diesel MB prechamber inclined injection	
Number of cylinders	4	4	6	5	6
Cylinder arrangement	vertical in line				
Bore/stroke mm	89,0 / 80,2	95,5 / 80,2	88,5 / 80,2	87,0 / 84,0	87,0 / 84,0
Total displacement Effective cm^3	1996	2298	2960	2497	2996
Compression ε	9,1	9,0	9,2	22,0	22,0
Ignition sequance	1-3-4-2	1-3-4-2	1-5-3-6-2-4	1-2-4-5-3	1-5-3-6-2-4
Maximum speed 1/min	6000	6000	6200	5150	5150
Power rating in kW in 1/min accordance with 88/195/EEC (KAT)	83/5000	93/5000	125/5500	69/4600	83/4600
Rated torque max. in Nm in 1/min accordance with to 88/195/EEC (KAT)	160/4000	190/4000	235/4500	158/2600 to 3100	191/2700 to 2900
Number of crankshaft bearings (compound bearing)	5	5	7	6	7
Valve arrangement	overhead				
Camshaft arrangement	1 overhead camshaft (OHC)				
Oil cooling	-		Air oil cooler		
Cooling	Excess pressure liquid cooling, coolant circulation through pump, thermostat with short-circuit plate				
Fan	Plastic fan with viscosity fan coupling				
Lubrication	Force-feed lubrication through gear-sickle pump		Force-feed lubrication through geared pump		
Oil filter	Main flow filter			Combined main and auxiliary flow filter	
Air cleaner	Dry air filter with paper element				