



OPERATING INSTRUCTIONS

Manufacturers plate

Keys and locks

Controls, instruments and
switches

Front seat, headrests

Sliding roof with
elevated vent position

Heating and ventilation

Automatic transmission

Break-in rules

Before you start – what you need to know

The identify of your car can be established by comparing the registration documents with the manufacturers plate and **vehicle identifications numbers**.

The model reference, chassis number and other data are entered in the car's own logbook or registration document, and on the licensing or ownership certificate. It is a good idea to compare these entries with the references stamped on the vehicle, in case a mistake has been made. The reference data is utilized for all inquiries, examination of records or replacement claims. You should therefore be familiar with the locations of the items concerned.

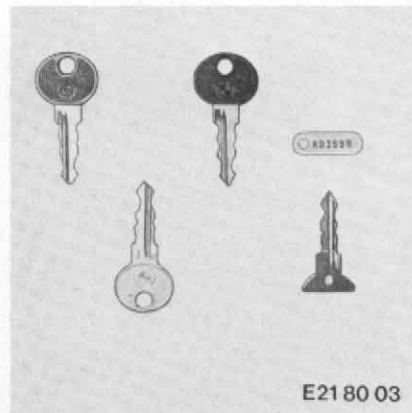
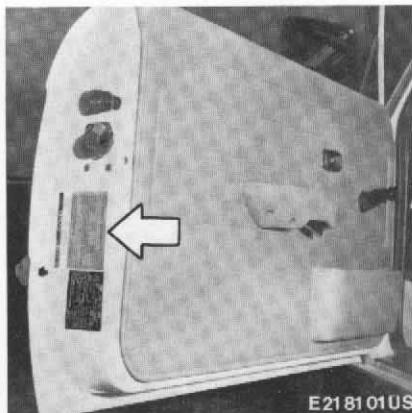
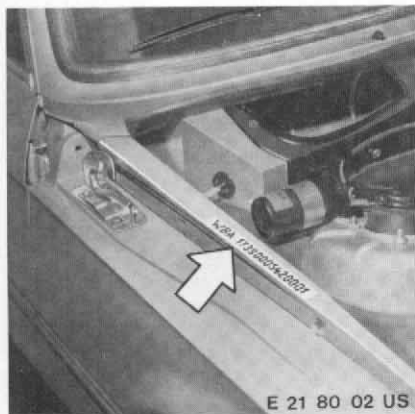
Vehicle identification number: In the engine compartment, on the support plate of the right hand wheel arch looking forward and on a label affixed to the steering column.

Manufacturers plate: at the driver's door.

You have received four keys for your new BMW. The two black coated and the smallheaded chromed are masterkeys and fit all locks. You should deposit the small master key in a safe place so it can be obtained if the master keys are lost. The big-headed chromed key operates the two front doors and the ignition switch of your BMW. The doors are unlocked by inserting the key and turning it forwards, and locked by turning the key rearwards.

With this key/lock combination it is possible to leave luggage locked in the luggage compartment while the vehicle is in a workshop or garage.

You also received a selfadhesive label, bearing the key number. This key number must be quoted, if your BMW-dealer eventually has to provide a replacement key.



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To open the doors from the outside, lift the flap-type door handle.

To lock a door from the inside, press the locking button down; to unlock and open from the inside, pull up the handle beneath the armrest.

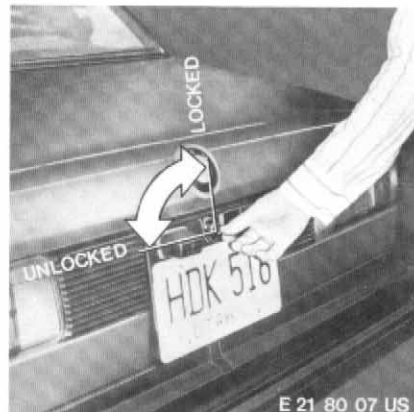
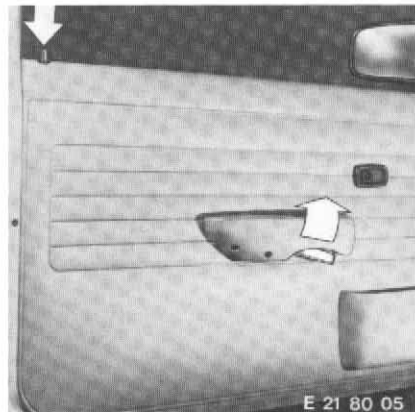
If the **driver's door** is already open, the locking button cannot be pressed down; in this way you cannot accidentally lock yourself out of the car.

The **passenger door** is locked from the inside by pushing down the locking button. This locking button remains in the locked position when the car door is shut from the outside.

The black key is required to lock and unlock the **luggage compartment** and glove box.

Do not forget to lock the luggage compartment after closing.

The luggage compartment lighting operates when the lid is raised.



Controls and instruments

1. Side window defrosting and demisting jet [left]
2. Adjustable side fresh air outlet [left]
3. Handbrake and brake fluid level telltale [red]
- 4.
5. Fuel gauge with fuel level telltale lamp [yellow]
6. Brake pad wear warning light [red]
7. Turn indicator telltale [green]
8. Speedometer with milage- and trip odometer
9. Tachometer
10. Digital clock
11. Oil pressure telltale
12. Battery charge telltale
13. Headlight high beam telltale
14. Coolant temperature gauge
15. Center fresh air outlet
16. Switch for hazard warning flasher
17. Warning lights (FASTEN SEAT BELT / OXYGEN SENSOR)
18. Side window demisting and defrosting jet (right)
19. Adjustable side fresh air outlet (right)
20. Operating switch for electrical adjustable outside mirror
21. Lever for turn indicator, low/high beam, head light flasher
22. Head light switch (2-stages) with instrument light control
23. Engine compartment release
24. Horn buttons
25. Switches for heated rear window
26. Fog light switch [optional]
27. Clock operating panel
28. Wiper-washer lever
29. Rotary switch for temperature control
30. Adjustable center fresh air outlet
31. Ashtray
32. Rotary control for heater blower
33. Cigarette lighter
34. Car radio [Optional]
35. Rotary control for air distribution
36. Slide control for ventilation
37. Glove box
38. Loudspeaker [with optional radio]



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The **ignition/starter switch** on the right of the steering column housing is combined with the steering lock. The key can only be inserted in the "0" (off) position.

Turn the key clockwise to the "1" (accessories) position: the steering lock will disengage, but if necessary the steering wheel should be turned slightly to free the lock. The radio can then be operated. Turning the key further to the "2" (ignition) position switches on the ignition. The red charge and oil pressure warning lights will come on, and the fuel and coolant temperature gauges will operate. In key position "C" the red BRAKE warning light will light up also, even when the handbrake is released. This serves for checking the function of this light. Normally, the BRAKE light should extinguish as soon as the engine is running. If the

light then remains on although the handbrake is released, see instructions in "DRIVING HINTS, MINOR DEFECTS".

Key position "3" (start) operates the starter. Release the key as soon as the engine has fired; the key will return automatically to position "2".

To lock the steering, turn key to the "0" (off) position and remove. If necessary turn the steering wheel until the lock engages. The ignition key can **only** be removed in this position ("0" off).

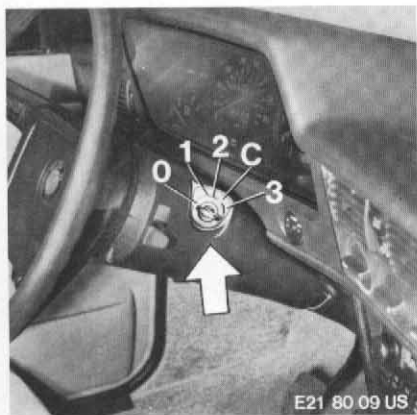
A warning buzzer is actuated when the ignition key is left in the lock and the driver's door is opened.

Headlight and parking light switch (2-positions)

First position: parking lights
Second position: headlights

The intensity of the **instrument panel, ashtray and control lighting** can be adjusted by turning the light switch knob in its pulled-out position.

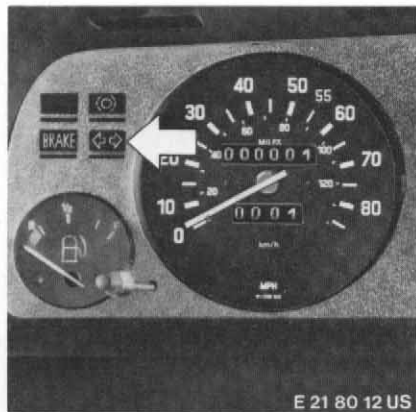
The **highbeam lever and turn indicator lever** on the left of the steering column can be finger-tip operated with the left hand without releasing the steering wheel. When the lever is set to **High beam** (forward position) a blue telltale lamp on the instrument panel is illuminated. To **flash the headlights**, pull the lever toward the steering wheel. If the ignition key is turned to "1" or "0" while the headlight switch is on, the headlights will be switched off and only the parking lights will remain illuminated.



To operate the right hand **turn signals** move the turn signal upwards, to operate the left hand turn signals move the lever down. A regular ticking sound and illumination of the green telltale lamp in the combination instrument indicates that the flashing turn signals are operating correctly.

The turn signals are automatically cancelled and the lever returned to its initial position once the car has completed its turn. If the turn was only slight it may be necessary to cancel the lever manually.

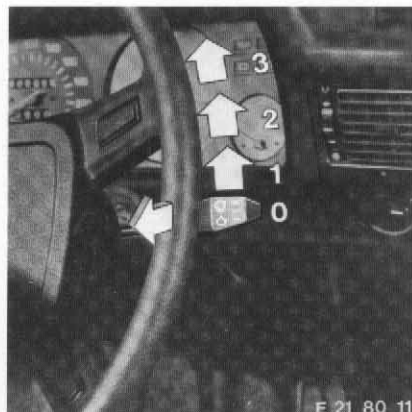
If the turn signals are to be operated for a short period only (e. g. changing lanes, overtaking, moving off) press the turn signal lever only slightly in the desired direction without allowing it to engage. As soon as it is released it will return to its original position.



The **wiper and windshield washer lever** on the right has four positions.

- Lever position 3
= fast wiper speed
- Lever position 2
= normal wiper speed
- Lever position 1
= intermittent action
- Lever position 0, fully down
= wipers switched off

The automatic windshield washer is operated by pulling the wiper and windshield washer lever toward the steering wheel rim.



The intermittent action position provides single wiper movements at regular intervals. This avoids having to switch the wipers on and off frequently in light rain, snow, etc. Select position 3 (fast) only in heavy rain or snow. The **washer reservoir**, of approx. 1,2 liters (1,3 US quarts, 2,1 Imp. pints) capacity, is located at the front right of the engine compartment.

Warning: Do not operate the automatic wipe-wash mechanism when the reservoir is empty. This could scratch the windshield.

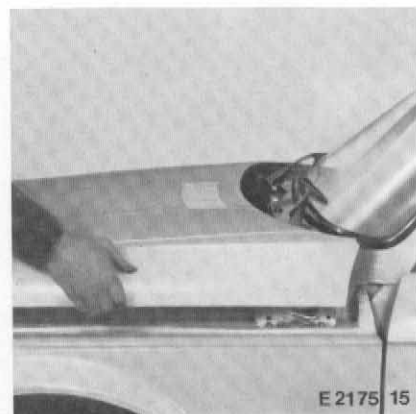


The two windshield washer jets are located beneath the windshield.

If a water jet fails to strike the glass correctly (i.e. in the middle of the wiper area) the nozzle can easily be adjusted with a needle point.

The engine compartment lid opens forwards, and is released by pulling a lever below the dashboard on the left side of the car.

A built-in spring mechanism makes it easy to open and raise the lid from the outside after release.



To close the engine compartment lid, move it down and press slightly to the rear at the middle of the lid front section.

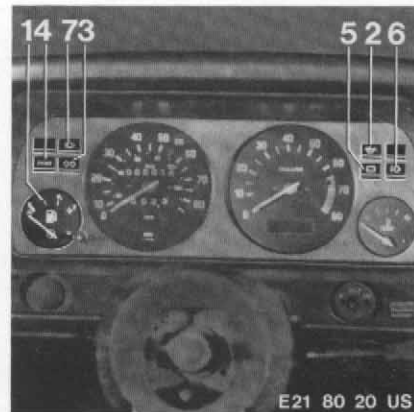
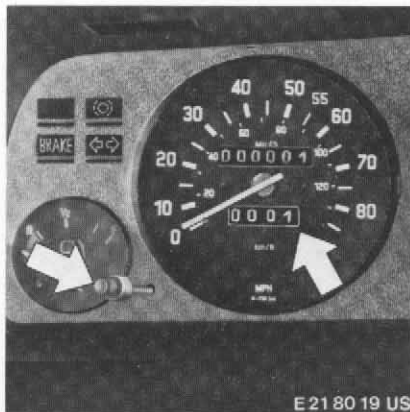
The **trip odometer** in the speedometer can be set to zero by pressing the reset button.

In addition to the speedometer and revolution counter, the **instrument cluster** includes the fuel gauge, the coolant thermometer, digital clock and the telltale lamps for:

- 1 Fuel level (yellow)
- 2 Oil pressure (red)
- 3 Turn signals (green)
- 4 Brake fluid level and handbrake (red)
- 5 Battery charge (red)
- 6 Headlight main beam (blue)
- 7 Brake pad wear (red) warning light.

The tachometer indicates engine speed in revolutions per minute.

To check the function of the brake pad wear warning light: the light comes on when the starter is operated.



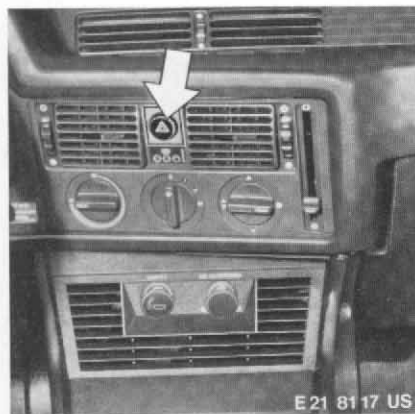
The **hazard warning flashers** are set in action by the push button switch on the right facia panel. They function whether or not the ignition is switched on. The red switch knob and the green telltale lamp for the turn signals are illuminated at regular intervals to show that the hazard warning flashers are functioning correctly. (see SAFETY)

When the headlights are on an indicator light in the push-button illuminates the switch.

To switch on the **fog lamps** (optional equipment) pull the switch at the left side in the instrument panel close to the steering column.

For the **heated rear window** (14 elements) operate the lower push button on the left facia panel (violet telltale light).

The 14 heating elements will defrost the rear window and will also speed up the evaporation of accumulated moisture from dew, etc.



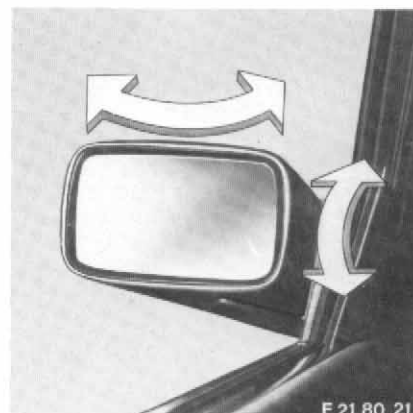
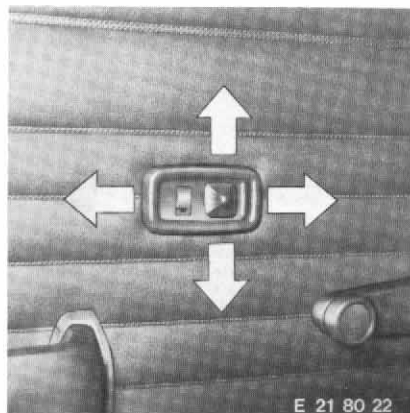
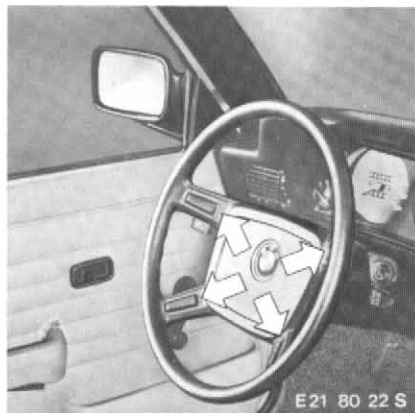
The **electric twin-tone horns** are sounded by pressing any of the four buttons set into the steering wheel spokes, or the center button of the sports steering wheel if installed. (Optional Equipment)

The **door mirror** can be adjusted in a vertical or horizontal plane by means of a switch on the driver's door to suit his seated position.

- Switch moved forward
= mirror turns inwards
- Switch moved back
= mirror turns outwards
- Switch moved up
= mirror tilts upwards
- Switch moved down
= mirror tilts downwards

When the switch is released it returns automatically to its initial position, but the mirror remains in the new setting (see also "SAFETY").

The same switch is used to adjust the mirror on the other door (dealer installed accessory), by first moving the change-over switch.



When the ignition is switched on, the **fuel gauge** in the combined instrument indicates the level of fuel in the tank. If the needle enters the red warning zone, and the yellow telltale lamp lights up, you should add fuel immediately although enough for about 30 miles or 50 km still remains in the tank, depending on the way the vehicle is driven.

As soon as the yellow telltale lamp begins to burn continuously, add fuel at once.

The **coolant temperature gauge** has two colored zones:

Blue: engine too cold. Keep engine and road speeds moderate.

Red: engine overheated – stop engine immediately and allow system to cool down until temperature gauge indicator is approx. in the middle of the scale.

CAUTION: DO NOT REMOVE THE FILLER CAP ON HOT ENGINE – DANGER OF SCALDING!

Warning: Allow the engine to cool (needle of coolant temperature gauge in center of white zone) before unscrewing the radiator cap. To open, turn the cap a quarter-turn counterclockwise to the first stop. Allow time for excess pressure to escape, then unscrew further and remove. To seal the radiator screw on the cap as far as the second stop.

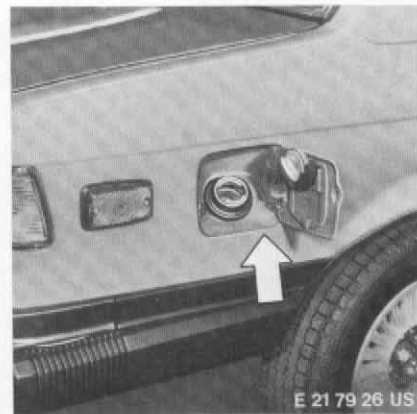
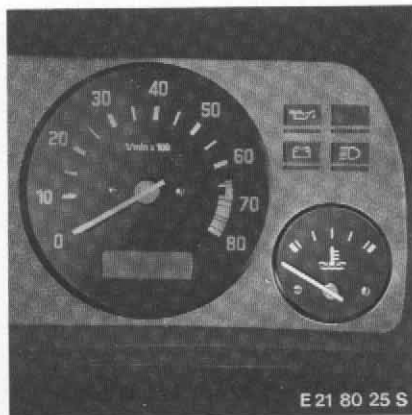
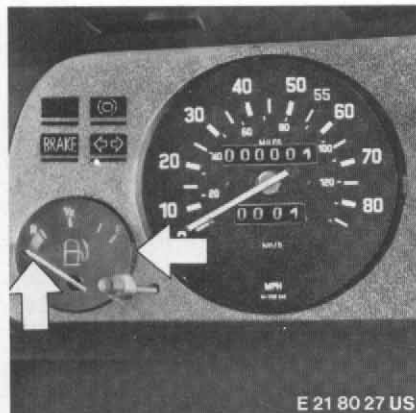
Search for cause of overheating – see also "MINOR DEFECTS"

Normal operating temperature is an indication between the two colored zones. The needle may tend to approach the red zone when the ambient temperature – and/or the engine load is very high.

The **fuel filler** cap is behind a flap on the right-hand rear side panel of the body.

When refilling, the filler cap can be protected from getting dirty or lost by putting it in a fixture on the filler flap. The filler flap can then only be closed when the filler neck is closed with the cap.

The fuel filler neck is equipped with a check valve and a leaded fuel restrictor. The check valve prevents the escaping of fuel when refilling. The leaded fuel restrictor prevents the insertion of a fuel filler nozzle designed for leaded fuel.



The picture shows the arrangement of the **rear light cluster**:

1. Rear sid marker (red)
2. Turn indicators (yellow)
3. Rear light and reflector (red)
4. Stop light (red)
5. Reversing (backup) (with) light

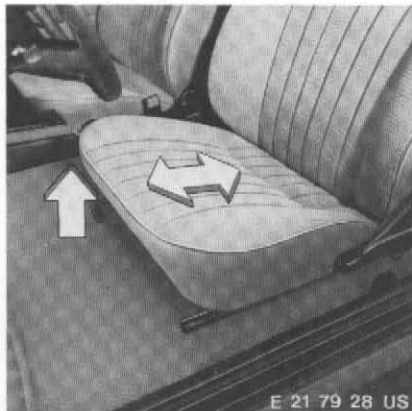
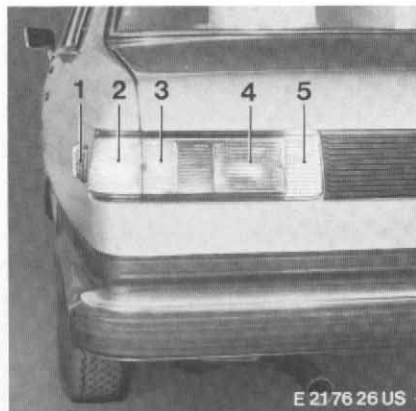
When the main light switch is pulled out, the luggage compartment will be indirectly illuminated.

To **adjust the front seats** backwards or forwards, pull up the lever under the front of the seat near the tunnel and move the seat to the desired position. Then release the lever and ensure that the seat has locked into position. See "SAFETY".

The **front seat backs** can be adjusted to any angle by pulling up the lever on the outside of each seat back support. They can be moved down by pressing lightly against the spring pressure and will move up automatically. When the lever is released, the seat back will remain in the desired position.

In addition, the seat backs are provided with safety catches to prevent them from folding forwards accidentally. The catches are released by pulling up the knobs on the outer faces of the front seat backs.

The passenger's seat back is additionally equipped with a second releasing knob on the inner face.



Your BMW is equipped as standard with **automatic** (inertia-lock) **front seat belts**, with lap and diagonal straps.

Details of how to use the front seat belts and also the automatic lap-and-diagonal rear seat belts are given under the section "SAFETY".

The height of the front **headrests** can be adjusted after pressing in the release button. See "SAFETY".

Manual transmission

The correct positions of the gear lever for the various ratios of the manual gearbox are shown in the **gate pattern diagram**. All gears have synchromesh.

The fifth gear is an economy gear, reducing engine speed and noise level as compared with fourth gear while maintaining road speed, and may contribute to fuel consumption reduction.

To engage reverse gear (only when the car is standing still), press the gear lever, over to the left and forward until slight resistance is overcome.

The back-up light will come on when the reverse gear is selected and the ignition is switched on.

Note:

If you are not familiar with the 5-speed gearbox be aware of the following: When disengaging any gear, the gear lever automatically slips back into neutral position, between 3rd and 4th gears.

Automatic transmission

The following **selector lever positions** are available to suit various traffic conditions:

P-R-N-D-2-1

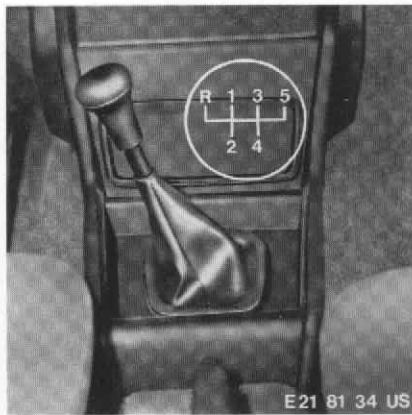
P = Park

Select only when the car is standing still.

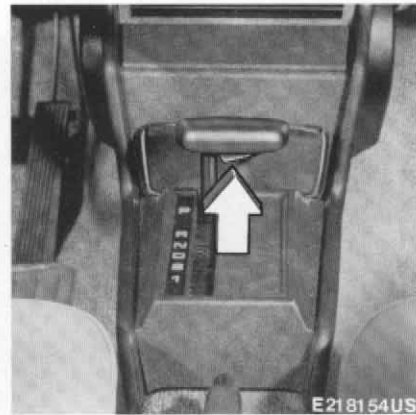
The drive train is locked as an additional precaution against rolling on a slope. To select position P, press the locking catch in below the lever handle. The engine can still be started with the transmission in park.



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R = Reverse

Select only when the car is at a standstill, with the locking catch pressed in. If reverse is selected while the car is moving forward, the rear wheels will lock – this could cause damage to the drive train.

N = Neutral

The engine is disconnected from the drive train and can be started. Engage neutral when stopped for lengthy periods (for instance in traffic jams), particularly in hot weather.

D = Drive (normal driving position)

This position should be selected for all normal road conditions. The car moves off in 1st gear and automatically changes up into 2nd and 3rd gears as soon as the most favorable and economical point is reached.

2 = Hill-climbing and engine braking

This position can be selected on mountain roads or other lengthy up or down grades, so that better use is made of available engine power and engine braking effect.

Position 2 can be selected at any road speed. If the speed is initially too high for 2nd gear to engage, it will come into operation only after road speed has fallen to about 70 mph or 112 kph. If the road speed then rises again, the transmission will not reengage 3rd gear, and excessive engine speeds can result.

1 = Hill-climbing and engine braking

This position is normally reserved for road and traffic conditions in which it is desirable to hold 1st gear; for instance on very steep up or down grades.

Position 1 can also be selected at any road speed. If the road speed is initially too high for 1st gear to engage, 2nd gear will engage when the road speed has fallen to approx. 10 mph or 112 kph. Then 1st gear will engage after the road speed has fallen to approx. 42 mph or 61 kph. However, even if road speed then rises the transmission will not change up again into 2nd or 3rd gear, and so excessive engine speeds can result.

Kick-down

To engage the kick-down, the accelerator pedal can be pressed down beyond the normal full-throttle position (increased resistance will be felt).

In special circumstances, for example when passing, the transmission will select the next lower gear (depending on engine speed) providing for faster acceleration.

When the kick-down has been used, the subsequent upward changes will occur at a considerably higher road speed than normal, close to the maximum permissible engine speeds in each gear. This ensures that the full available engine power can be used when needed.

The **handbrake** operates on the rear wheels. To brake or secure the vehicle, gradually pull the lever up. Until the desired level of braking is achieved. To release the handbrake lever, pull it up slightly, press in the button on the end and push the lever down. When the handbrake is applied, the **red "Brake" warning lamp** in the instrument cluster will come on. This also enables a check on correct operation of the telltale lamp.

If the brake telltale lamp comes on during vehicle operation, see instructions under the "SAFETY" heading.

A useful hint: to apply the handbrake without undue noise, press the button on the lever in as the lever is pulled up.



Remember to alter the settings of the **outside and interior mirrors** to suit driving position. (See "SAFETY"). The interior mirror has an anti-glare position, obtained by moving the small lever as shown. Use this position when following vehicles headlights are too bright, such as encountered during night driving.

Either **sun visor** can be released from its clip and swung to one side to cover part of the door window if strong sunlight is encountered from that direction. See „SAFETY“.

The passenger side sun visor has a built-in **make-up mirror**.

The switch on the **interior light** has three positions:

Position 1: Light operates only when a door is opened

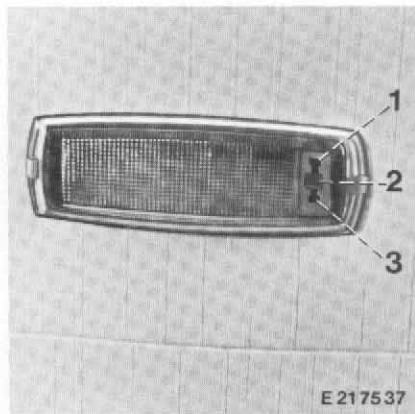
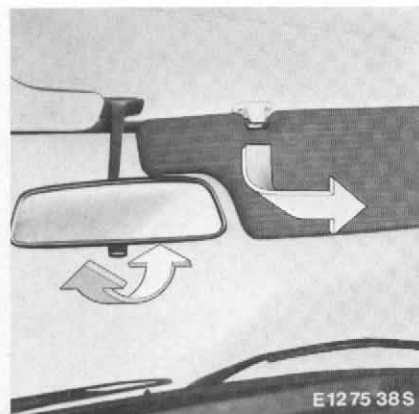
Position 2: Permanently off

Position 3: Permanently on

The lockable **glove box** is opened downwards by pulling the flap handle. To shut, move the lid up.

When the lid is lowered, the glove box is automatically illuminated.

The power socket and rechargeable flashlight (optional) are located inside the glove box on the left.



The digital quartz clock can be adjusted by pressing in the adjusting buttons in the operating panel by means of a pin, pencil or another suitable tool.

Press in the:

h-button – the hours can be adjusted
min-button – the minutes can be adjusted

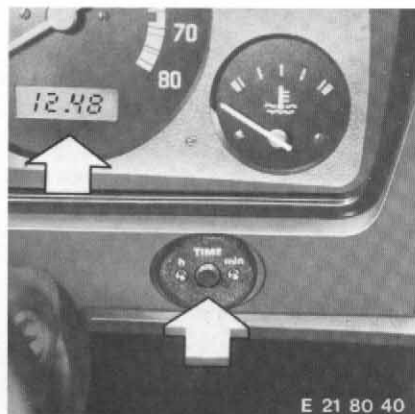
If the current supply to the clock becomes interrupted, i.e. if the battery is disconnected, the clock display switches to an imaginary indication. This indicates that a re-adjustment is necessary.

When the ignition is switched off the clock display extinguishes. The time display can then be read after pressing the "TIME" button in the clock operating panel.

The brightness of the display will dim when the headlights are switched on.

To use the **cigarette lighter**, push in the knob. When the element has heated, the knob will spring back to its original position and can then be pulled out.

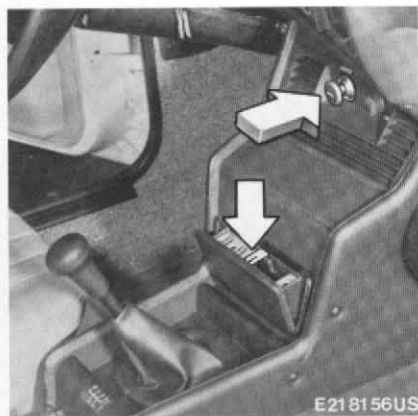
The cigarette lighter **socket** can also be used to plug in an inspection lamp, electric razor or similar appliance provided that the rating does not exceed 12 Volts, 200 W. Do not insert plugs from appliances that are of a higher rating or that have plugs that are not designed for use in the cigarette lighter socket.



To empty the **ashtray on the instrument panel**: Pull out as far as the stop, press down the retaining spring and remove the ashtray from its holder.

Make sure that the protecting flap is folded back when inserting.

To empty the **rear ashtray**: tilt fully open, press firmly down and remove.



A radio can be installed in your BMW as an option. Instructions for the various radio models are supplied together with the car's own documents.

If you specified a factory-fitted radio option, you will receive a Service Pass with the car's documents; this contains full details of **how to operate your car radio**.



To ensure that your listening pleasure is unaffected by local reception problems, please study the following general remarks on broadcasting techniques and the possible disturbances caused by natural geographical features, man-made structures etc.

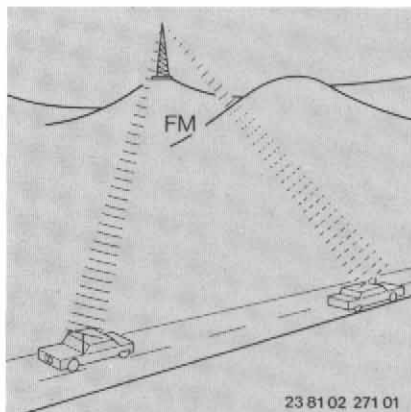
The strength of the signal received by your car radio antenna, and thus the quality of the sound emerging from the loudspeakers depend on the position of the receiver and the height and direction of the antenna. These factors are relatively easy to take into account on a home radio receiver, but for a mobile radio set such as that in a car certain concessions have to be made. The position of the receiver is constantly changing and it is impossible to keep the antenna aligned with the direction of signal transmission. Other disturbance factors are high-tension overhead wires, poor or missing interference suppression on other vehicles, buildings or natural obstacles. Even if your car radio is perfectly tuned and your car equipped with proper interference suppression, these unavoidable noises or a deterioration in sound quality are often quite severe.

For the best reception quality, pull the antenna out fully. For radio reception the bottom telescopic section at least must always be fully extended. Regular care and attention of the antenna is also important.

Climatic effects: fog, rain or snow can interfere with good radio reception.

Strong sunlight: although very weak, the emissions from the sun's surface do interfere with medium wave reception. This wavebands can be best heard after dark, when the ionosphere reflects more of the transmitted signal back to earth.

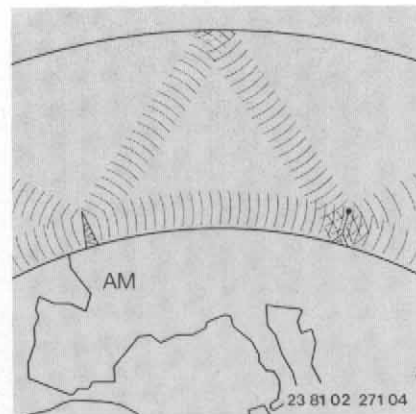
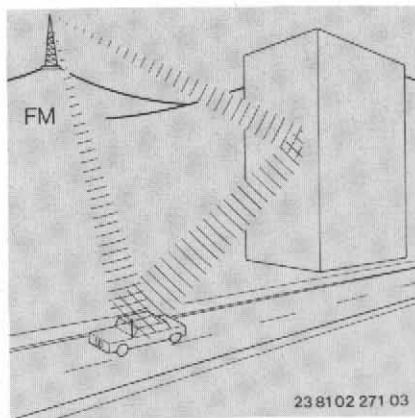
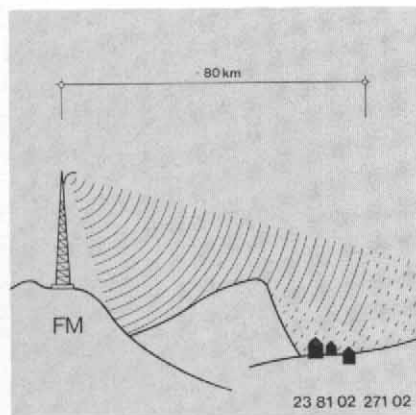
Fluttering noise is caused by signal fade, when the line-of-sight link between transmitter and receiver is blocked by large buildings or geographical features. A similar effect is sometimes heard when driving along a tree-lined road.



Continuous high level of background noise: this normally indicates that the edge of the transmitter's zone has been reached, or the car has been driven into a 'shadow' where no direct signals are received. The only remedy is to retune to a more powerful Station.

Hissing, sizzling and splashing noises: disturbance in this category occurs when reflected signals are picked up by the car radio a fraction of a second after the main signal, for instance from large buildings nearby. The sound level also fluctuates repeatedly.

Severe fade: this is a phenomenon more often encountered on AM, and accompanied by distortion. It is caused by the superimposing of ground waves and air-borne signals at the reception point.

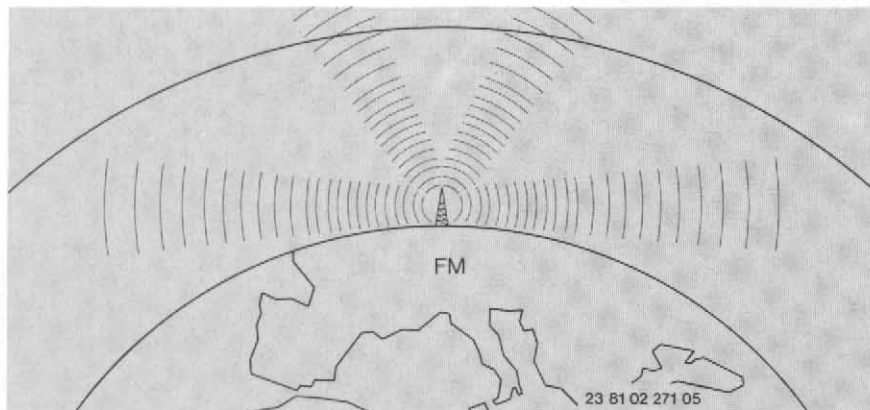


The hints below are intended to help you select the most suitable waveband for in-car listening.

The **FM** transmission system offers far better sound quality than the other wavebands. However, reception is limited to only a few stations at a time, since the radio waves are emitted **in a straight line** from the transmitter tower and thus cover an area not more than about 80 km (50 miles) in radius. As the distance from the transmitter to the receiver increases, background noise becomes more of a problem, and finally the station can no longer be heard or is displaced by a more powerful one which the car is approaching. These too are natural factors which can only be avoided by retuning to a stronger signal.

Stereo radio, if transmitted in your area, can only be received on **FM**. As you move away from the transmitter, interference becomes noticeable more rapidly than on mono transmissions. In this case, switch to mono reception or tune to another station giving reliable stereo reception.

On stereo receivers you can turn the **front-rear balance control** to vary the relative volumes of the front and rear loudspeakers.



AM provides a larger or, in some cases, exceptionally wide reception range, since the signals are not only dispersed as **ground waves**, which cling to the curvature of the earth, but also as **space waves**, which are reflected off a layer in the ionosphere and bounce back to earth.

There are physical reasons why the quality of **medium-wave (AM)** reception is not as good as on FM. However, longdistance reception is good, particularly at night, so that a large number of stations can be received, though the station density is such that mutual interference often occurs.

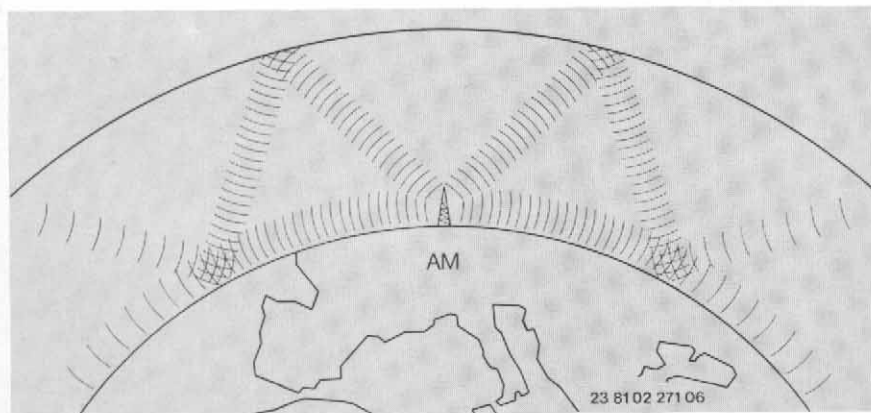
On the **long waveband (AM)**, transmitters still further away than on the medium wave can be picked up. However, the total number of stations you are likely to receive is not so great, since not many broadcasting companies operate powerful long-wave transmitters.

Short wave (AM) offers the longest theoretical reception distance, but here too the individual transmitters power outputs are limited. The maximum station density and – subject to basic physical limitations – the best sound quality is obtained in the 49-meter band.

For **cassette operation** we recommend cassettes of Type C 60 (2 x 30 minutes playing time), or Type C 90 (2 x 45 minutes). These cassettes are suitable for the jolts and vibration of in-car operation.

To prevent the tapes becoming slack or twisted, each cassette should be **kept in its box**.

At extreme outside temperatures (below -10°C [$+14^{\circ}\text{F}$] or above $+40^{\circ}\text{C}$ [$+104^{\circ}\text{F}$]) cassettes should not be left in the car, or they may become distorted and fail to operate correctly.



The optional steel panel sunroof can be operated both as a conventional sunroof or as a vent (or air extractor depending upon vehicle speed) by raising the rear or the sunroof panel only.

To open: Unfold the hand crank. Turn clockwise until the roof panel reaches the desired position. The sliding roof panel can be opened to any intermediate position.

To close: Turn the crank counter-clockwise to move the sliding panel forwards. It is fully closed when definite resistance to further movement of the hand crank is felt.

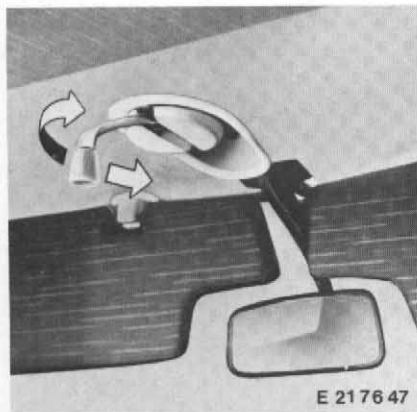
To raise at the rear: With the sliding roof closed, unfold the crank and turn counter clockwise. The roof panel can be raised fully or left in any intermediate position.

To lower: Turn the crank clockwise to lower the rear of the roof panel.

Note: After each useage the hand crank should be folded back into its recess.

In the next column is a list of new identification **symbols**.

These symbols replace the inscriptions on the telltales within the instrument cluster and will be found on some control levers.



E 2176 47

	High beam
	Turn signal
	Hazard warning
	Brake pads wear
	Fuel
	Engine coolant temperature
	Battery charging condition
	Engine oil
	Rear windows demisting and defrosting
	Cigar lighter
	Front fog lights
	—
	Windshield wiper
	Windshield wiper and washer
	Fan

The **heating and ventilation system** is notable for exceptional heat output, accurate temperature control and an entirely separate fresh air supply for ventilation in hot weather.

the layout of the controls is as follows:

- 1 = Guide to control settings for maximum window defrosting
- 2 = Fresh air supply side
- 3 = Rotary temperature control
- 4 = Rotary air flow control
- 5 = Rotary air distribution control

Fresh air supply lever (2)

As this slide is moved upwards, it permits an increasing volume of cool air to enter the car's interior. The air enters through the horizontally and vertically movable side and center grills as well as through a fixed center grill.

These outlets can be closed by turning the side knurled discs downwards.

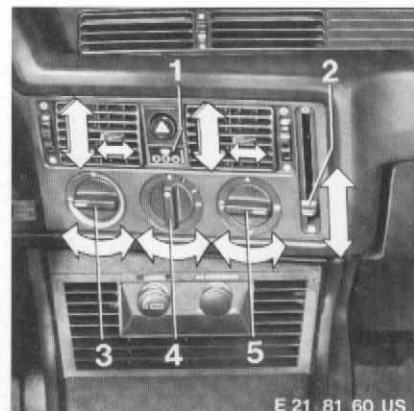
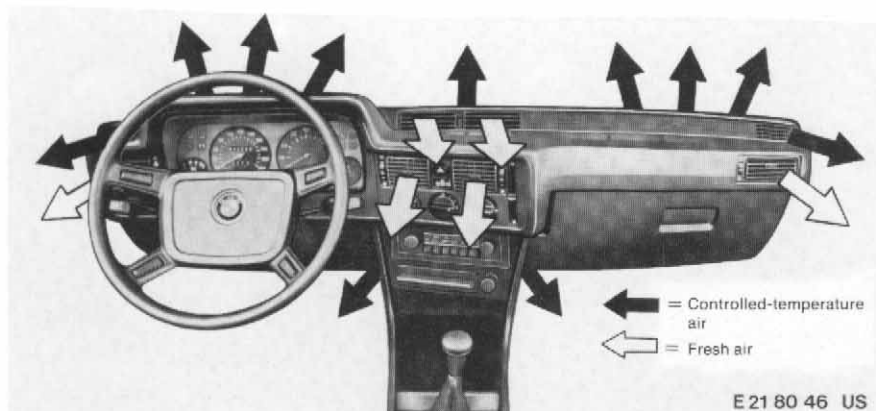
The left and center pictures below show the side outlets for controlled-temperature air (black arrows) and fresh air (white arrows).

A simultaneous warm air supply to the footwells is possible, depending on the settings of the distribution (5) and temperature control (3) knobs. This enables stratified airflow through the car's interior to be achieved and helps to reduce fatigue and increase driver comfort.

Rotary temperature control (3)

To heat the air coming from the defroster vents and the footwell outlets, move the rotary control first to the red spot (warm), then to the desired temperature.

The preselected temperature will be reached shortly afterwards.



Rotary air flow control (4)

This switch is used to adjust the amount of air flowing into the passenger compartment. To increase air volume, turn the knob clockwise.

You are recommended to run the blower whenever heating or fresh air is required, particularly at slow or frequently varying road speeds.

Do not use blower speed III with the rotary temperature selector at "WARM" until the engine has reached its normal operating temperature.

Rotary air distribution control (5)

By moving this control, the airflow can be distributed to the desired outlets.

Set to white spot: the airflow is shut off altogether. As the knob is turned clockwise, the foot well outlets are opened

(downward arrow). Turning the knob further open the footwell and defroster outlets (downward and upward arrows). For defrosting, or if the windows are misted or iced over, turn further to open the defrosting outlets (upward arrow), so that the full airflow is directed to the windows.

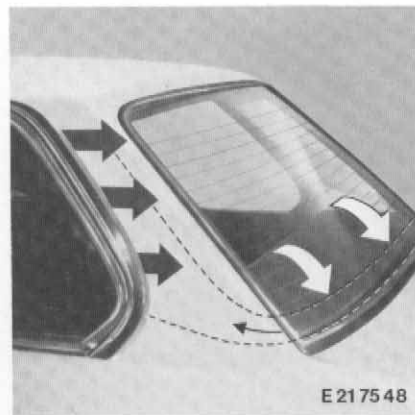
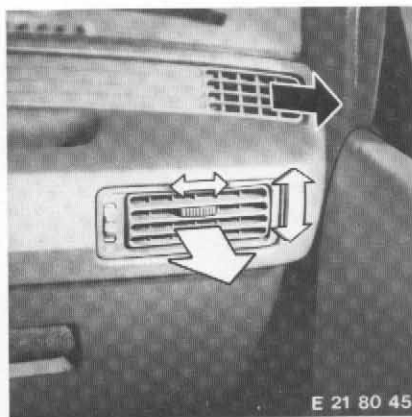
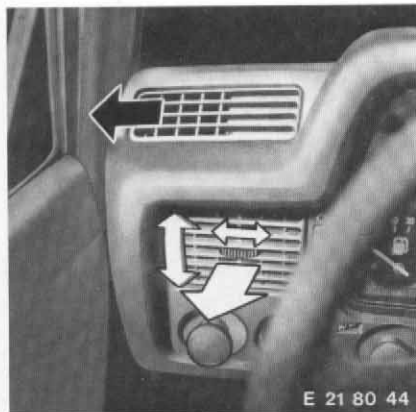
Flow of controlled-temperature air into car:

- To footwells via openings at side of heater.
- For defrosting via two defroster nozzles, one center nozzle and two nozzles for the side windows.

Air extraction:

Stale air is extracted from the passenger compartment through slots below the rear window, leading to openings in the rear roof pillars.

As a means of providing additional ventilation or stale air extraction, the forthcoming rear side windows (optional extra) can be opened.



Window demisting and defrosting

The following should be done in order to achieve most efficient window demisting and defrosting:

- Rotary temperature control (3) to red point
- air distribution control to upward arrow
- blower speed to high speed (don't use max. blower speed if engine is still cold).
- close fresh air slide
- switch on heated rear window

The picture below shows the positions of the heater controls.



With the aid of the optional **air conditioning** in your BMW 320 i, the air in the interior of the car can be cooled to a pleasant temperature.

It is integrated into the standard fresh-air ventilation system, with air distribution through the movable side and center fresh-air grills and also through the fixed center grill. The controls are the same as those used for the heating.

The air conditioning switch is used to switch the air conditioning on and off and to select the desired degree of cooling.

Air conditioning switch

Continuously variable preselection of the degree of cooling.

"MIN" position

The air conditioning and blower are switched off.

Turning the control slightly clockwise switches on the air conditioning and starts the blower.

Only slight cooling of air entering the car's interior.

Further turning in a clockwise direction gradually increases the rate of cooling.

"MAX" position

Full cooling of incoming air.

Rotary air flow control (4)

Air conditioning switched off: same function as the heating.

Air conditioning switched on.

- 0 - Blower speed 1
- 1 - Blower speed 2
- 2 - Blower speed 3
- 3 - Blower speed 4

In order to permit unrestricted cooling of the air entering the interior of the car, it is best to set the rotary temperature control (3) to the blue dot (cold). If the weather is hot, the air distribution and fresh air supply controls should also be closed. The moisture condensate from the evaporator is discharged under the car and, depending on the air humidity, can be as much as 2 liters (2.1 US quarts, 3.5 Imp. pints)/h.

Important notes:

1. The air conditioning operates only when the engine is running.
2. The air conditioning system should be run briefly at least once a month (remember to do this in cold weather too) or the compressor shaft seal may dry out and permit refrigerant to escape.
3. If any fault develops in the air conditioning system – for instance failure to deliver cold air when switched on – the system must be switched off at once and we recommend contacting your BMW dealer.

Starting off

Before you operate the starter, always make sure that the gear shift lever is in Neutral.

On cars fitted with an automatic transmission the engine can only be started when the selector lever is in the "P" or "N" position.

To **start the engine**, turn the ignition key clockwise to the "4" position (without pressing down the accelerator) until the engine fires. Do not allow the engine to turn over without firing for longer than about 20 seconds. When the ignition key is released, it will spring back automatically to the "2" position. When a cold engine is started in this way, it will run initially at a slightly higher speed during the warm-up phase.

To make starting easier, especially in freezing conditions, switch off all current-consuming items and press down the clutch pedal to eliminate drag from the transmission.

If the starter has to be operated a second time, the ignition key must first be returned from the "2" position to the "1" position. This deliberate delay is included to prevent possible re-engagement of the starter pinion while the engine is running. Try to prevent damage to the flywheel ring or starter pinion teeth by waiting until the engine has ceased to rotate before operating the starter again.

The fuel injection engine of this BMW model is equipped with an automatic starting and warming-up device.

Starting

When starting, a magnetic valve controlled by the ignition system is opened so that fuel is injected into the inlet manifold for a certain period depending on the temperature of the coolant. The fuel/air mixture is enriched further while the engine is warming up.

When starting, do not depress the accelerator pedal at all. It is possible to start driving immediately after the engine has fired, running at a medium engine speed only.

If the engine will not start or fires only irregularly after several attempts, try again with the **accelerator pressed down fully**.

If the engine is warm, start with the accelerator pressed down halfway.

When the engine has fired, the oil pressure telltale, (red) battery charge telltale light (red) and brake pad wear warning light (red) in the combined instrument must extinguish when engine speed is increased.

If the oil pressure telltale lamp comes on while driving, disengage the clutch **immediately** and switch off the ignition after pulling over to the side of the road. If the engine oil level is not sufficient have the problem checked. If the light comes on briefly during idling, there is no danger provided that the lamp extinguishes again when the accelerator is depressed slightly. (See MINOR DEFECTS)

It is not advisable to let the engine warm up by extended idling and this is in fact forbidden in some countries. It is better to move off immediately after starting the engine, using **moderate** engine speeds. If the outside temperature is exceptionally low, it is better to run a cold engine for about 1/2 minute at a fast idling speed, to ensure that all parts of the engine receive an adequate supply of lubricant. In all cases avoid running a cold engine at high speeds, as this will shorten its working life.

When **disengaging the clutch**, always **depress the pedal fully**. While driving never rest the left foot on the clutch pedal or the clutch and throw out bearing will prematurely wear out.

Before selecting reverse gear, wait with the clutch pedal fully depressed approx: three seconds, so that the spinning gears have time to come to a standstill.

When driving an automatic transmission car, it is recommended to operate both, brake pedal and accelerator with the **right foot only**.

Moving away from a standstill with automatic transmission:

With the engine idling, selector lever positions D, 2, 1 or R can be engaged from P or N with the **brakes applied**. Let the transmission engage (slight motion) before pressing down the accelerator.

Stopping a car equipped with automatic transmission:

At normal idling speeds with drive position selected, the car will tend to creep forward on a level surface. The foot brake should be applied to prevent this.

To stop the engine, turn the ignition key back to position 1.

If the red battery tell tale lamp comes on during normal driving, there is a problem in the charging system. The vehicle is then operating off the battery rather than the alternator and depending upon the amount of electrical components used, may be driven for a period of time.

WARNING:

Continued use will drain the battery to the point that the vehicle will stall.

Manual transmission

The shift-speeds as recommended by the Manufacturer are as follows:

from first to second gear at 15 m.p.h.
from second to third gear at 25 m.p.h.
from third to fourth gear at 40 m.p.h.
from fourth to fifth gear at 45 m.p.h.

Breaking in – but how?

The engine of your BMW has not been artificially governed in any way. Since full power output is always available, it is up to you to observe the following **running-in rules**, and thus achieve maximum operating life, economy and reliability.

During the first 2000 km (1200 miles) drive at changing engine and road speeds, however, not faster than two thirds of the top speed admissible in each gear. At any rate avoid full throttle or use of kick-down setting of the accelerator.

Driving at very low engine speeds in a high gear is at least as harmful as exceeding the permissible engine speeds. When accelerating or on uphill gradients try to keep engine speed above 1500/min. and change down in good time, particularly on uphill gradients.

The green econometer zone on the rev counter shows you when the engine is operating in its most fuel efficient speed range. See 'DRIVING HINTS'.

The cut-out range of the speed limiting rotor arm starts at the narrow red warning zone and must not be reached even on long downhill stretches or in the lower gears.

Engine speeds in the wide red warning zone are detrimental to the service life of the power unit and should be avoided at all costs.

Remember that the running-in rules apply to other mechanical assemblies such as the gearbox or rear axle, and not just to the engine.

Should any such assembly be replaced at a later stage in the car's life, the running in procedure must be repeated.

Break-in instructions for brakes:

Until 300 miles or 500 km have been covered, avoid repeated violent brake applications, particularly from high speeds, and do not apply the brakes to prolonged endurance tests, or the pads will fail to develop their full wear-resistance and friction characteristics.

Breaking-in new tires:

Due to the manufacturing techniques for automobile tires we recommend restrained driving during the first 200 miles or 300 km so the tires can develop their best initial wear pattern.

During the **brake-in period**, the drive may feel that the gear shift, steering and other controls are slightly **shiff to move**. However, the normal running-in process will result in the stiffness disappearing completely after a short time.

After 1300 miles or 2000 km have been covered, you can **gradually** increase your road speeds – subject to suitable road and traffic conditions – to the permissible **continuous and maximum speeds**.

For satisfactory operation, the engine requires the following commercially-available fuel for spark-ignition engines, without additives such as upper-cylinder lubricants etc.:

Unleaded fuel with an anti-knock index of 87 AKI or 91 RON (Research method)

Please note that in certain countries it may be difficult to obtain fuel of the correct octane rating or quality at all garages and filling stations.

Traveling in Foreign Countries

Prior to using your BMW in a foreign country, check to ascertain if fuel of the required octane level is available to avoid engine damage.

Should unleaded fuel not be available in the foreign country in which you are traveling or intend to travel, be aware that the use of leaded gasoline will render the oxygen sensor and catalytic converter of your BMW inoperative. As a result, the vehicle will not meet the emission requirements of the US and Canada and maximum fuel economy will not be obtained. It will, therefore, be necessary upon your return to the US or Canada for the fuel system to be purged of the leaded fuel and both the oxygen sensor and catalytic converter to be replaced in order for the vehicle to be legally operated in the US and Canada.