

PORSCHE
928 GTS

Owner's Manual



© Dr. Ing. h.c. F. Porsche Aktiengesellschaft
All rights reserved.

Printed in Germany

Dear Owner,

judging by the car you have chosen, you are a motorist of a special breed, and you are probably no novice when it comes to automobiles.

Remember however that, as with any vehicle, you should take time to familiarize yourself with your Porsche and its performance characteristics. Always drive within your own unique capabilities as a driver and your level of experience with your Porsche. Ensure that anyone else driving your Porsche does the same. To prevent or minimize injury, always use your safety belts. Never consume alcohol or drugs before or while driving.

This Owner's Manual contains a host of useful information. **Please read** this manual before you drive your new Porsche. Acquaint yourself with your car's features and know how to operate your Porsche more safely. The better you know your Porsche, the more pleasure you will experience driving your new car.

A separate Maintenance Booklet explains how you can keep your Porsche in top driving condition by having it serviced regularly. A separate Warranty Booklet contains detailed information about the warranties covering your Porsche.

For U.S. only:

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Porsche Cars North America.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Porsche Cars North America.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

Your car has thousands of parts and components which have been designed and manufactured in accordance with Porsche's high standards of engineering quality and safety.

Any alteration of the car may negate or interfere with those safety features built into the car.

Your Porsche is intended to be used in a safe manner in light of the local laws and driving conditions faces by you, and in accordance with the instructions provided in this Manual.

Do not misuse your Porsche by ignoring those laws and driving conditions, or by ignoring the instructions in this manual. Any alteration or misuse of the car can lead to accidents and severe or fatal personal injuries.

We wish you many miles of safe and pleasurable driving in your Porsche.

Your car may have all or some of the components described in this manual. Should you have difficulty understanding any of the explanations of features or equipment installed in your car, your authorized Porsche dealer will be glad to assist you. Also check with your dealer on other available options or equipment.

Text, illustrations and specifications in this manual are based on the information available at the time of printing.

It has always been Porsche's policy to continuously improve its products. Porsche, therefore, reserves the right to make changes in design and specifications, and to make additions or improvements in its product, without incurring any obligation to install them on products previously manufactured.

IMPORTANT

For your own protection and longer service life of your car, please heed all operating instructions and special warnings. Ignoring them could result in serious mechanical failure or even physical injury.

Do not alter your Porsche. Any alteration could create dangerous conditions or defeat safety engineering features built into your car.

Do not misuse your Porsche. Use it safely, and consistently with the law, the driving conditions, and the instructions in this manual.

Alteration or misuse of your Porsche could cause accidents and severe or fatal personal injuries.

Note to owners

In Canada, this manual is also available in French. To obtain a copy contact your dealer or write to:

Note aux propriétaires

Au Canada on peut se procurer un exemplaire de ce Manuel en français auprès du concessionnaire ou du:

Volkswagen Canada Inc.
Porsche Customer Assistance
Assistance à la Clientèle Porsche
1940 Eglinton Ave. East
Scarborough
Ontario M1L 2M2

Fuel octane rating:

Your engine is designed to provide optimum performance and fuel economy using unleaded premium fuel with an octane rating of 98 **RON** (93 **CLC or AKI**). Porsche therefore recommends the use of these fuels in your vehicle.

Porsche also recognizes that these fuels may not always be available. Be assured that your vehicle will operate properly on unleaded premium fuels with octane numbers of **at least 95 RON (90 CLC or AKI)**, since the engine's "Electronic Octane knock control" will adapt the ignition timing, if necessary.

Cold tire pressures:

Summer tires: front and rear 36 psi (2,5 bar)

Snow tires: front 36 psi (2,5 bar)

 rear 44 psi (3,0 bar)

Collapsible spare tire front and rear 36 psi (2,5 bar)

These tire pressures are valid only for Porsche approved tires. For replacement tires it is imperative that you consult the Technical Data section of this manual and follow the recommendations contained therein.

Before Driving Off, Running In, Controls



Maintenance, Car Care



Practical Tips, Emergency Service



Vehicle Identification, Technical Data



Index



Pocket for Additional Information



Before Driving Off, Running In, Controls

Before going on a trip.....	8
In the driver's seat.....	9
Break-in hints.....	10
Engine exhaust.....	10
Keys.....	12, 13
Doors.....	14
Central door locking.....	15
Theft protection.....	16
Anti-theft alarm.....	16
Power windows.....	17
Interior lights.....	18
Seats	19 - 23
Luggage compartment.....	23
Mirrors.....	24
Safety belts.....	25 - 27
Child restraint systems.....	26, 27
Air bag system.....	28, 29
Brakes.....	30 - 33
Limited slip differential.....	34
Clutch	35
Starting.....	36, 37
Controls, Instruments, Warning lights	38 - 54
Automatic climate control.....	55 - 58
Power sunroof.....	60, 61
Engine hood, hatchback.....	63 - 64
Transmission.....	65 - 68

Dear Porsche-Owner

A lot has gone into the manufacture of your Porsche, including advanced engineering, techniques, rigid quality control and demanding inspections. These engineering and safety features will be enhanced by you...

the safe driver...

who knows his car and all controls,

who maintains his vehicle properly,

who uses his driving skills wisely, and always drives within his own capabilities and his level of familiarity with his vehicle.

You will find helpful hints in this manual on how to perform most of the checks listed on the following pages. If in doubt, have these checks performed by your authorized Porsche dealer.

Throughout this booklet and other Porsche publications applicable to USA vehicles, left is designated as the driver's side of the vehicle, and right as the passenger's side of the vehicle.

Before going on a trip...

First things first

- Turn the engine off before you attempt any checks or repairs of the vehicle.
- Be sure tires are inflated correctly. Check tires for damage and tire wear.
- See that wheel bolts are properly tightened and not loose or missing.
- Check engine oil level, add if necessary. Make it a habit to have engine oil checked with every fuel filling.
- Check coolant level to assure sufficient engine cooling.
- Be sure you have a well charged battery.
- Check brake fluid level. If too low, have brake system checked.
- Replenish windshield washer fluid.
- Check if front hood is latched safely.
- Replace worn or cracked wiper blades.
- See that all windows are clear and unobstructed.
- Keep air intake slots and area between engine hood and windshield free of snow and ice, so that the heater and the windshield wipers work properly.

- Check whether all light lenses are clean.
- Be sure all lights are working and headlights are aimed correctly.
- Check under vehicle for leaks.
- Be sure all luggage is stowed securely.

Emergency equipment

It is good practice to carry emergency equipment in your vehicle. Some of the things you should have are: window scraper, snow brush, container or bag of sand or salt, emergency light, small shovel, first-aid kit, etc.

In the driver's seat...

- Check operation of horn.
- Position seat for easy reach of controls.
- Adjust inside and outside rear view mirrors.
- Attach your safety belts.
- Check operation of foot and parking brakes.
- Check all warning and indicator lights and the information system display with ignition on and engine stationary.
- **Never** leave car idling unattended.
- Lock doors from inside, especially with children in the car.
- To prevent inadvertent opening of doors from inside or outside, drive with locked doors.

On the road...

- Never drive after you have consumed alcohol.
- Always have your safety belt attached.
- Always drive defensively. Expect the unexpected.
- Use signals to indicate turns and lane changes.
- Turn on headlights at dusk.
- Always keep a safe distance from the vehicle in front of you, depending on traffic, road and weather conditions.
- Reduce speed at night and during inclement weather.
- Observe speed limits and obey road signs.
- When tired, get well off the road, stop and take a rest. Turn the engine off. Do not sit in the vehicle with engine idling. See WARNINGS on "Engine Exhaust".
- When parked, always set the parking brake. Move the selector lever to "P" (Automatic transmission) or move the gearshift lever to reverse or first gear (Manual transmission). On hills also turn the wheels toward the curb.

- When emergency repairs become necessary, move the vehicle well off the road. Turn on emergency flasher and use other warning devices to alert other motorists. Do not park or operate the vehicle in areas where the hot exhaust system may come in contact with dry grass, brush, fuel spill or other flammable material.
- Make it a habit to have the engine oil checked with every fuel filling.

Break-in hints for the first 1.000 miles/1.600 kilometers

There are no specific break-in rules for your Porsche. However, by taking a few precautions you can help extend the service life and performance of your engine.

During the first 1.000 miles/1.600 km, all working components of the engine adjust to each other to a certain degree. Therefore: Avoid full throttle starts and abrupt stops. Change speeds frequently. Vary the throttle load.

Do not exceed maximum engine speed of 5.000 rpm (revolutions per minute).

Do not run a cold engine at high rpm either in Neutral or in gear.

Do not let the engine labor, especially when driving uphill. Shift to the next proper gear in time (use the most favorable rpm range).

There may be a slight stiffness in the steering, gearshifting or other controls during the break-in period which will gradually disappear.

Never lug the engine in high gear at low speeds. This rule applies all the time, not just during the break-in period.

Breaking-in brake pads

Brake pads do not have maximum braking efficiency when the car is new. Therefore, more pedal force is necessary during the first 100 to 150 miles/150 to 250 km. This also applies to replacement brake pads.

Breaking-in new tires

New tires do not have maximum traction. They tend to be slippery. Break in new tires by driving at moderate speeds during the first 60 to 120 miles/100 to 200 km, and longer braking distances must be anticipated.

Engine oil consumption

During the break-in period oil consumption may be slightly higher than normal.

As always rate of oil consumption depends on the quality and viscosity of oil, the speed at which the engine is operated, the climate, road conditions as well as the amount of dilution and oxidation of the lubricant.

Engine exhaust

WARNING

Engine exhaust is dangerous if inhaled.

Never start or let the engine run in a closed garage. Never sit in your car for prolonged periods with the engine on and the car not moving.

Although exhaust fumes from the engine have many components which you can smell, they also contain carbon monoxide, which is a colorless and odorless gas. Carbon monoxide can be fatal if inhaled.

If you smell gas fumes in the vehicle, drive with the windows open but keep the hatchback closed. Have the cause immediately located and corrected.

Because of inherent hazards, we do not recommend transporting objects larger than those fitting safely into the luggage compartment. Keep the hatchback closed while driving to prevent poisonous exhaust gas from being drawn into the vehicle.

Never carry additional fuel containers in your vehicle. Such containers, full or partially empty, may leak, cause an explosion, or result in fire in case of a collision.



- 1 Light switch
- 2 Turn signal/headlight dimmer flasher/
parking light switch lever
- 3 Horn
- 4 Windshield wiper and windshield/
headlight washer switch lever
- 5 Emergency flasher switch
- 6 Switches for power windows
- 7 Controls for power seat
- 8 Parking brake lever
- 9 Side view mirror adjuster

NEVER invite car theft!

An unlocked car with the key in the ignition switch invites car theft.

A steering wheel lock and a gong alarm are standard equipment in your Porsche. The gong will sound if you open the driver's door while the key is still in the ignition lock. It is your reminder to pull the key out of the ignition lock and to lock the doors.

WARNING

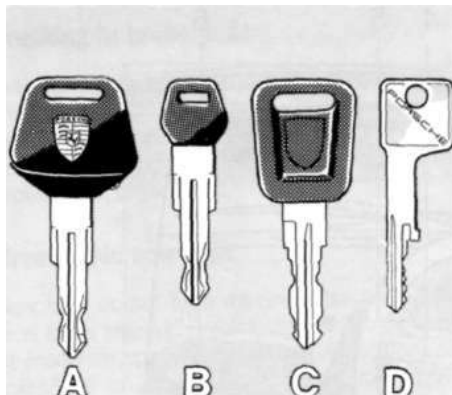
Always remove the ignition key, especially if children are left unattended in the vehicle. Unsupervised use of any vehicle key may cause serious personal injury.

Never leave your vehicle unattended with the key in the ignition lock. Take the key and lock the doors.

Keys

Three keys are supplied with the vehicle. Each fits the ignition lock, door locks, hatchback lock, fuel filler cap lock and glove compartment lock.

There is one flat key which you can keep in your purse or wallet, for instance, as an "emergency key".



A Key with built-in flashlight
B Flat key
C Rear glove compartment key
D Key for lockable wheel nuts

If you remove the plastic head of the flat key, you can clip on an illuminated plastic handle (available from your Porsche dealer). Vehicles with a rear seat glove compartment receive two additional keys for the compartment lock.

Key "A" or "B" operate:

1. Door locks with central locking system
alarm system
power windows
power sunroof
interior lights
2. Ignition/starter switch with steering lock
3. Hatchback lock with alarm system
4. Fuel filler cap lock
5. Glove compartment lock

WARNING

Never remove the key from the steering lock while you are driving or as the car is rolling to a stop. The steering column will lock when you remove the key, and you will not be able to steer the car. This may result in a serious accident.

Because of the symmetrical shape of the key shaft, there is no "wrong" way of inserting the key in the locks.

The new format of the keys makes unauthorized duplication of the keys virtually impossible. This means, however, that you yourself will not be able to get replacement keys cut, unless ordered from your authorized Porsche dealer.

For the lockable wheel nuts, three identical keys, are included. When taking the vehicle to your Porsche dealer or to a workshop for wheel or tire service, remember to leave one key with the service attendant.

In case of loss, duplicate wheel lock keys cannot be furnished by your Porsche dealer. Do not leave these keys in the vehicle. Keep them in a safe place.

See "Lockable wheel nuts" for details.

NOTE: It is a good idea to also keep a record of your key numbers in your wallet together with your license.

Key number

The key number of the ignition key is supplied together with the keys themselves, and should be kept in a safe place outside the vehicle.

For your protection against theft:

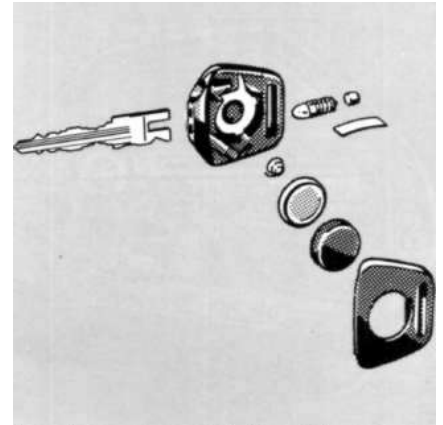
- Record the key numbers and keep them in a safe place, such as your wallet. Do not keep them in the vehicle.
- If you should lose a key, provide your Porsche dealer with the key number and the vehicle identification number to obtain a duplicate key.

Key light

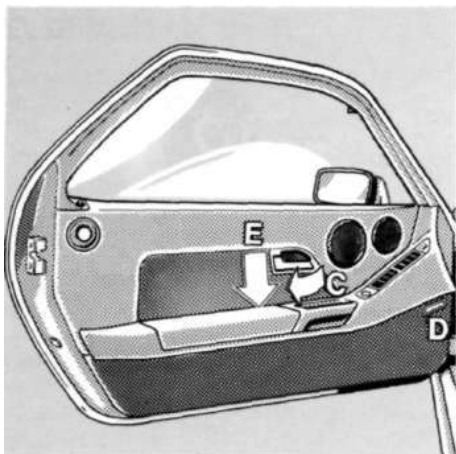
Two of the keys have a built-in flashlight in the key head. The beam from a small bulb in the key head illuminates the lower part of the key stem.

The flashlight is on as long as the contact button is depressed.

The flashlight is powered by a 1.5 Volt button battery. When the beam begins to fade, replace the battery, because an old battery may leak and damage your clothes.



1. Use your finger nail or a small screw driver to carefully lift the key handle cover.
2. Insert a new, commercial available battery (1.5 V) in the contact button.
3. Assemble key top as shown in the figure.



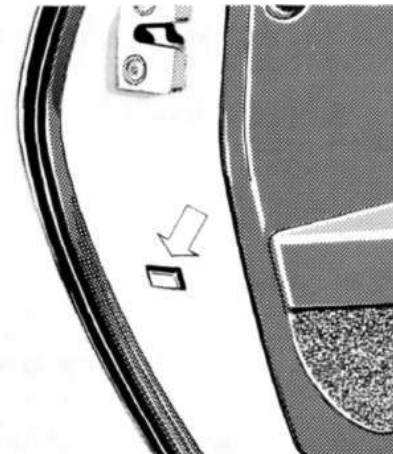
C Inner door handle
D Courtesy light
E Locking knob for stowage compartment

Doors

To **open** doors from **outside**, pull the recessed door handle.

To **open** doors from **inside**, pull recessed handle "C" above armrest.

The armrests have a built-in storage compartment. To open, press knob in hand cutout and tilt armrest outward. To close, tilt compartment toward door panel.

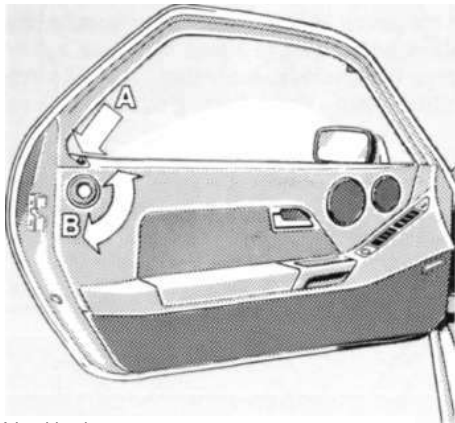


Courtesy light

The courtesy light in the lower door panel "D" will come on when a door or the hatchback is opened. The light can also be turned on or off with the switch on the light housing.

Door warning lights

The red spot lights in the rear doorjamb will come on when a door or the hatchback is opened.



A Locking button
B Rotary button

Central door locking

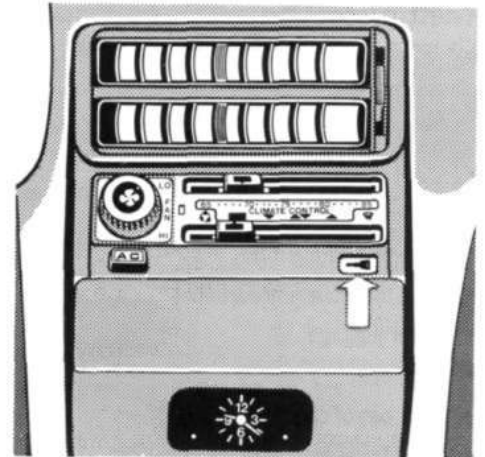
With the central door locking system, both doors can be locked and unlocked electrically. The doors are locked when a key is turned in either door lock.

When the doors are locked, the locking buttons (A) must be fully retracted.

The two doors can be locked **individually** from inside by turning button (B) or by pressing locking buttons (A). If one door is unlocked by turning button (B), the second door is automatically unlocked as well.

To prevent being accidentally locked out of the vehicle, the central locking system can only be actuated when the driver's door is closed (even if the passenger door is still open).

If the central locking system fails to work, open and close the two doors individually. The alarm system can be armed by closing a door three times in rapid succession.



Central locking button

Both doors can be electrically locked by pressing the central locking button in the center console. The lamp in the central locking button remains lit while the system is activated.

To deactivate the system with the locking button, switch on the ignition.

• Theft Protection

To protect your vehicle from theft, you should always proceed as follows when leaving your vehicle:

- Close windows and sunroof
- Remove ignition key
- Engage steering lock
- Lock the glove compartment
- Cover luggage
- Lock doors
- Lock petrol cap
- Don't leave any valuables in the car

Alarm system

The alarm system is armed when one of the doors is locked with the key. Light-emitting diodes (LEDs) in the locking buttons start flashing immediately to indicate that the alarm is armed.

If the LEDs do not flash when the car is locked or change to a double-flashing signal after 10 seconds, not all of the alarm contacts have been closed.

The following components are monitored by the alarm:

- Doors (central door locking system)
- Engine- and luggage-compartment lids
- Glove compartment
- Radio
- Ignition

If an alarm contact is broken, the alarm horn will sound for approx. 4 minutes.

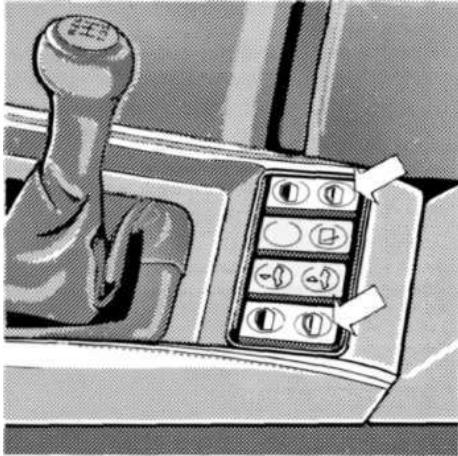
At the same time, the interior lights and the hazard warning lights flash for approx. 4 minutes. When the alarm is triggered, the LEDs are switched to a double-flashing signal.

If the luggage-compartment lid is opened with the key when the alarm has been armed, the alarm status is automatically suspended until the lid is closed.

When a door lock is unlocked, the alarm system is disarmed and the LEDs go out.

Emergency arming

If the central locking system is not working, the alarm system can be armed by locking a door three times in rapid succession. The LEDs indicate this with a double-flashing signal.



Power windows

To open or close, depress the rocker switches in the center console in front of the shift lever. The switches can only be actuated one at a time.

The power windows are operational when the ignition is turned on.

When the ignition is turned off or the ignition key removed, the power windows can be operated until one door is opened.

Opening windows

Tapping the switches moves the windows in stages to the desired position.

Pressing the switches for longer than 0.5 seconds automatically opens the windows fully. The movement of the windows can be stopped in any position by tapping the switch again.

Closing windows

To close the windows, the switch must be held down until the windows have reached the desired position.

Door lock contact

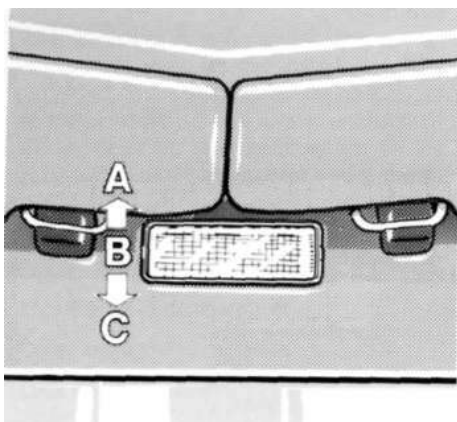
If the key is held in the locking position when locking a door, the sunroof and the door windows will close in succession automatically.

WARNING

Do not put anything on or near the windows that may interfere with the driver's vision.

Remove the ignition key to shut off power to the window switches when the vehicle is not attended by a responsible person.

Remember, power is still supplied to the window switches until one door is opened.

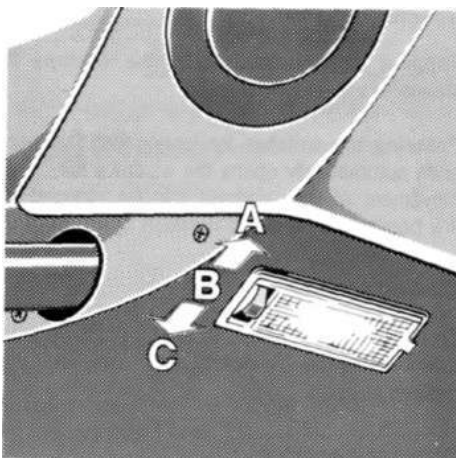


Interior light in headlining

Interior lights

The interior lights, which are independent from one another, come on, with the switch in the appropriate position, as soon as a door is unlocked or opened or the hatchback is opened.

The interior lights go out after approx. 20 seconds after the doors are closed. The lights go out immediately if the ignition is switched on or the vehicle locked with the key.



Footwell light in lower part of door trim

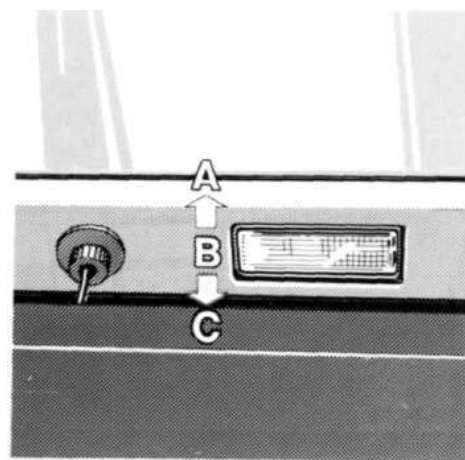
The interior lights have the following switch positions:

A - light comes on only when a door or the hatchback is opened

B - light switched off permanently

C - light switched on permanently

Make sure the interior lights are turned off when the vehicle is parked (battery run-down).



Luggage compartment light in hatchback

The interior light in the headlining and the luggage compartment light are switched on and off by tilting the lamp glass. The footwell lights are operated by the switch integrated in the light.

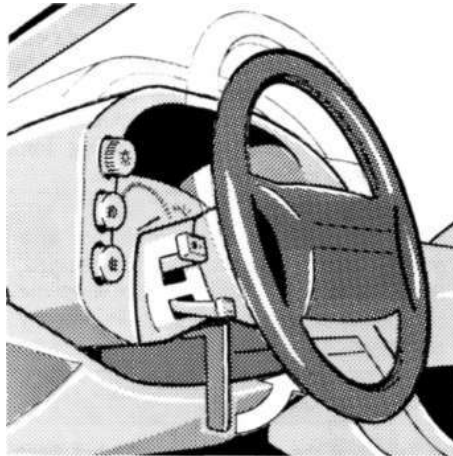
The light for the central fuse/relay board is switched on via the door contact switch.

Front seat adjustments

The correct seating position is all-important for safe and fatigue-free driving. In order to satisfy individual requirements, the seat has infinitely variable adjustment.

We recommend the following procedure for finding the correct position for the driver's seat:

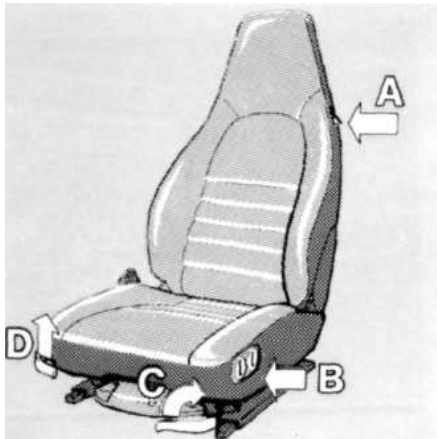
1. Operate longitudinal adjustment until your leg is fully stretched with the clutch pedal depressed while your foot is bent.
2. Adjust desired fore/aft height.
3. Clasp upper portion of steering wheel. Then adjust backrest inclination so that both shoulders remain in contact with the backrest even with your arms fully stretched.
4. If necessary, correct the longitudinal adjustment.



Steering wheel adjustment

For maximum legroom and unobstructed view of the instruments, the height of the steering wheel, together with the instrument cluster unit, can be adjusted.

Release locking lever under instrument cluster for desired positioning (arrow), then lock securely.



A Backrest release
B Height adjustment

C Longitudinal adjustment
D Backrest adjustment

Front seats

Seats with manual longitudinal and backrest adjustment

To move the seat **backwards and forwards**, pull the outside locking lever at the front of the seat upwards, move seat into desired position, release lever and ensure that the seat engages securely.

WARNING

Never unlock the driver's seat while the vehicle is in motion: the seat may move suddenly, causing you to lose control over the vehicle.

In order **to adjust the backrest**, pull the inside locking lever at the front of the seat upwards, set seat to desired position and release the lever.

When there is no load on the backrest, it will always be pushed forwards by spring force when the lever is pulled.

WARNING

Front seat passengers should not ride in a moving vehicle with the backrest reclined. Safety belts only offer protection when the backrest is upright and the belts are properly positioned on the body. Improperly positioned safety belts can cause serious personal injury in an accident.

The height of the seat can be adjusted electrically by pressing the rocker switches.

3 - 4 Height adjustment, front

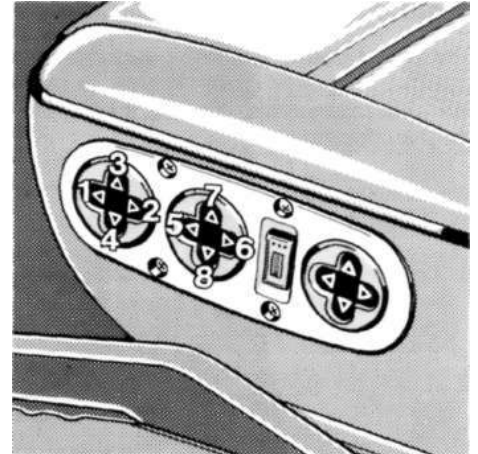
7 - 8 Height adjustment, rear

Backrest release

The backrest can be folded forward for easy access to the rear seats. To release, pull the lever on the side of the backrest up (arrow) and, at the same time, tilt the backrest forward. When the backrest is tilted back, the lock will engage automatically.

WARNING

For driver and passenger protection, backrest locks must be engaged at all times while the vehicle is in motion.



Seats with electric longitudinal and backrest adjustment

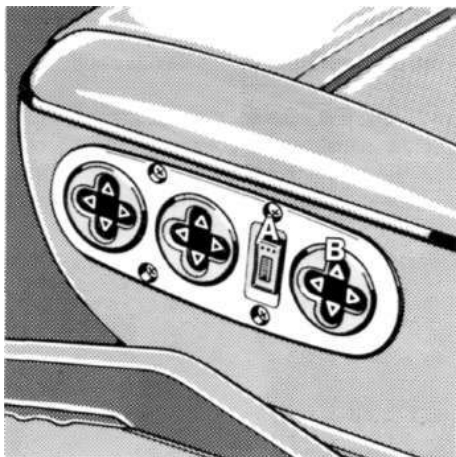
Two multi-function switches control the electric motors for longitudinal adjustment, seat height and angle of backrest tilt.

1 - 2 Longitudinal adjustment

3 - 4 Height adjustment, front

5 - 6 Backrest adjustment

7 - 8 Height adjustment, rear



A Seat heating system
B Lumbar support

Seat heating system (A)

The heating system in the seat cushion and backrest is switched on and off by pressing the rocker switch.

Press upper half of switch - heating on
Press lower half of switch - heating off

Heating temperature is controlled with the aid of the knurled knob set in the switch; the temperature is held constant until the seat heating or the ignition is switched off.

.Turn knurled knob up to increase temperature.
Turn knurled knob down to reduce temperature.

Lumbar support (B)

The backrest support can be regulated vertically and horizontally to any position to guarantee a relaxed seated posture and provide individual lumbar support.

- ◆ Lumbar support horizontal
- ◆ Lumbar support vertical

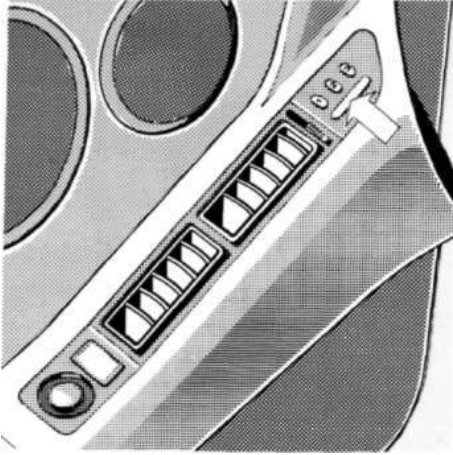


Manual operation

Should the electrical seat adjustment fail, you can use the hexagon socket-screw in the tool-kit for longitudinal seat adjustment by turning the servo-motor below the front of the seat.

Move seat forward - turn counter-clockwise

Move seat back - turn clockwise



Seat position memory

The seat position memory can store up to three different sitting positions. Each position stored in the memory comprises longitudinal adjustment, seat height, backrest angle, position and size of lumbar support and the position of the outside mirrors. The positions can be adjusted, stored or called up regardless of whether the engine is on or off.

Selecting a position

Adjust the seat and the two outside mirrors to the desired position by operating the switches for seat and mirror adjustment.

Storing a position

To store a position in the memory, press the memory button (arrowed) and the appropriate position button (button 1, 2 or 3). The memory button must be pressed before the position button.

Calling up a position

To set the seat to the position stored in the memory, the appropriate position button must be depressed until the seat reaches its final position. **The procedure is curtailed as soon as the button is released.** The buttons are illuminated for ease location.

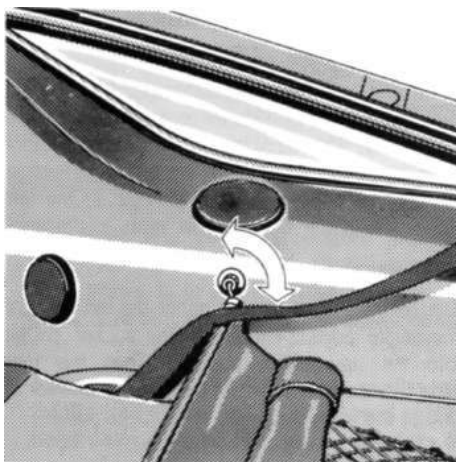
Once the seat reaches its end position the mirrors are set automatically to the positions stored in the memory.

The seat switches always take priority over automatic adjustment. If a seat switch is operated, automatic adjustment is immediately interrupted.

Pilot lamp

A red pilot lamp is set in the memory button.

If adjustment is initiated, the pilot lamp lights up until the adjustment is completed. If the procedure is interrupted, the lamp goes out approx. 60 seconds after the ignition is switched off.



The backrests of the rear seats can be tilted forward to provide additional luggage space. To release backrest, pull the lever on side of the backrest up and, at the same time, tilt the backrest forward.

WARNING

Because of inherent hazards, we do not recommend transporting objects larger than those fitting safely into the luggage compartment. Keep the hatchback closed while driving to prevent poisonous exhaust gas from being drawn into the vehicle.

Rear seats

The backrests of the rear seats can be tilted forward to provide additional luggage space.

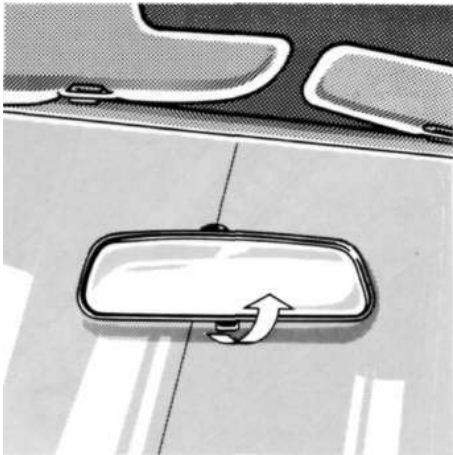
To release backrest, pull the lever on side of the backrest up and, at the same time, tilt the backrest forward.

Luggage compartment

Luggage and other belongings are protected from the sun and "inquisitive eyes" by the luggage cover.

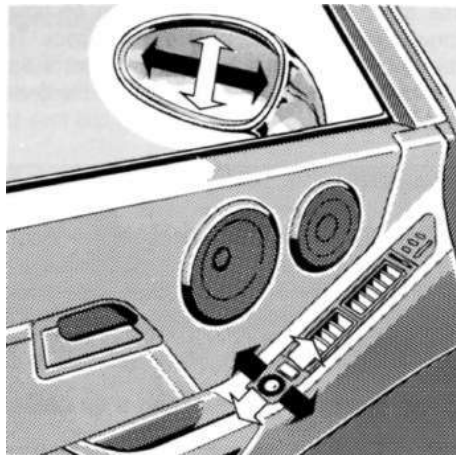
To release the luggage cover, turn the end sleeves of the hangers about 90°.

To prevent luggage and other objects from sliding around while the car is in motion, you can secure them with the **luggage net**. The eyelets for this purpose can be found behind the rear backrest and on the luggage compartment floor.



Rear view mirrors

Adjust the outside and inside mirrors before driving. It is important for safe driving that you have good vision to the rear.



Inside day-night mirror

You can adjust the day-night mirror from clear daylight visibility to non-glare visibility at night, by moving the lever at the bottom of the mirror forward or rearward.

Do not put decals or other signs on the windows that may interfere with the driver's vision.

Heated outside mirrors with remote control

When the rear window defogger/defroster is switched on, the outside mirrors are also heated electrically. The outside mirrors are adjustable from inside of the vehicle by a four direction switch and a rocker switch located on the left door next to the side window vents in the arm-rest.

The rocker switch selects either the left or right mirror for adjustment. Press the rocker switch into the appropriate position. Then the four direction switch will adjust the selected mirror in any of the four directions.

The mirror housing is hinged and can be folded flat against the car in either direction to prevent damage in tight parking spots.

If necessary, the outside mirrors can also be adjusted manually.

Safety belts

WARNING

Failure to follow safety belt instructions may result in serious personal injury.

Instructions

- For your and your passengers' protection, use safety belts at all times while the vehicle is in motion. Use appropriate child restraint systems for all small children.
- Safety belts must be properly positioned on the body. Improperly positioned safety belts can cause serious personal injury in case of an accident.
- For maximum effectiveness, the lap belt should be worn low across the hips.
- Belts should not be worn twisted.
- Do not wear belts over rigid or breakable objects in or on your clothing, such as eye glasses, pens, keys, etc. as these may cause injury.
- Several layers of heavy clothing may interfere with proper positioning of belts.

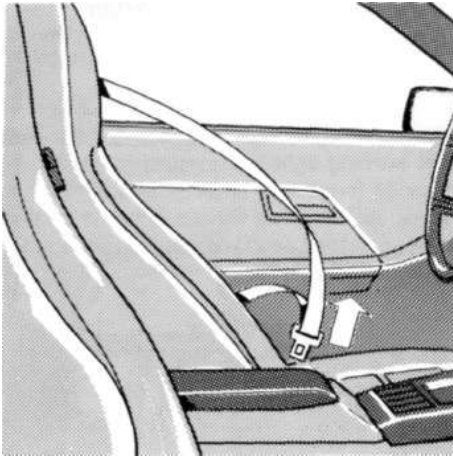
- Belts must not rub against sharp objects.
- Keep belt buckles free of any obstruction that may prevent secure locking.
- Make sure that belt of the unoccupied passenger seat is fully wound up on its retractor so that the belt tongue is in its stowed position.
- Belts that have been subjected to excessive stretch forces in an accident must be replaced.
- If belts show damage to webbing, bindings, buckles or retractors, they should be replaced.
- If belts do not work properly, see your authorized Porsche dealer.
- Do not modify or disassemble the safety belts in your vehicle.
- The belts must be kept clean as otherwise the retractors may not work properly (see also "Car care instructions").
- Never bleach or dye safety belts.
- Do not allow safety belts to retract until they are completely dry.



Safety belt warning system

An audio-visual warning system is interconnected with the driver's safety belt.

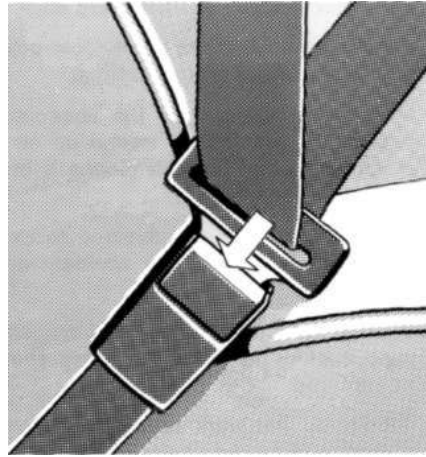
Every time the ignition is turned on, the seat belt warning light in the instrument cluster will come on for about 6 seconds as a reminder to buckle up. The gong will sound for the duration of this 6 second period or go off as soon as the driver has buckled up.



Inertia reel retractor

The combination lap/shoulder belt with inertia reel locking mechanism adjusts automatically to your size and movements as long as the pull on the belt is slow.

Rapid deceleration during hard braking or a collision locks the belt. The belt will also lock when you drive up or down a steep hill or in a sharp curve otherwise the shoulder belt will not inhibit your upper body movement.



- To fasten, grasp belt and pull belt in continuous slow motion across your chest and lap.
- Insert belt tongue into buckle on inboard side of seat. Push down until it securely locks with an audible click. Pull belt to check.
- Pull shoulder section to make sure belt fits snugly across the hips.
- Belts should fit snugly across the pelvis and chest. Make sure any slack is wound on the retractor.
- To unfasten belt, push in release button on buckle. Belt tongue will spring out of buckle.

- To release a locked belt, lean back to take the body pressure off the belt.
- To store lap/shoulder belt, allow belt to wind up on retractor as you guide latch to its stowed position.

Child Restraint Systems

WARNING

Failure to follow these child restraint instructions may result in serious personal injury.

Instructions

- Porsche recommends that all infants and children be restrained in child restraint systems at all times while the vehicle is in motion in accordance with applicable laws.
- The use of infant or child restraints is required by law in all 50 states and the Canadian provinces. The child restraint system should be one that complies with U. S. Federal Motor Vehicle Safety Standard 213 and should be secured by a lap belt or the lap belt portion of a lap-shoulder belt. A statement by the seat manufacturer of compliance with this standard can be found on the instruction label on the restraint and in the instruction manual provided with the restraint.

- When using an infant or child restraint system be sure to follow all manufacturer's instructions on installation and use.
- Infants and small children should never be held on the lap, nor should they share a seat belt with another occupant while the vehicle is in motion.
- Children too big for child restraint systems should use regular seat belts. A shoulder belt can be used providing it does not cross the face or the neck of the child.
- For maximum safety and protection, we recommend that small children travel in the rear seats.
- To reduce risk of injury from an inflating airbag in an accident, Porsche strongly recommends the following positioning:

Forward facing child restraint system:
Use in the rear seat or in the passenger seat only in the rearmost adjusting position.

Rearward facing child restraint system:
Do not install in the passenger seat.

Child restraint anchorages (Canada Models)

If your child restraint seat or seats require the use of a tether strap you will want to use the anchor points provided on the panel behind the rear seats.

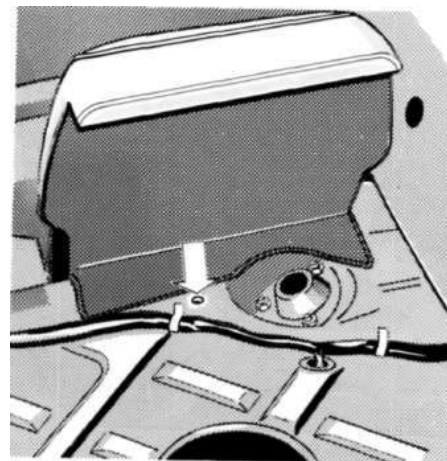
The right child restraint anchorage is shown in the illustration (see arrow).

The hardware needed to attach the tether strap comes with your Porsche. The hardware can be moved to the other anchor point if required.

If a child restraint system is to be used, the necessary upper anchorage fitting must first be mounted on the respective anchor point.

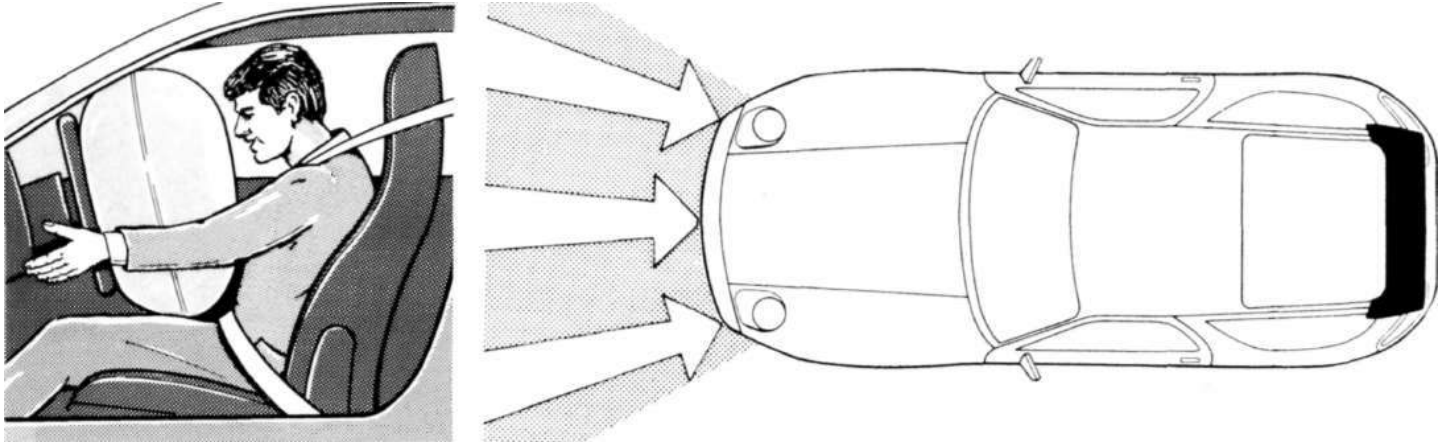
Additional hexagon head bolts, spacers and fittings are available from your Porsche dealer.

To ensure proper installation the anchor fittings or fitting assemblies should be installed or repositioned by your Porsche dealer.



WARNING

Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.



Air Bag System

The "Air Bag" in combination with the safety belt makes up a passive safety system which offers the driver and front seat passenger the greatest known protection from injuries in case of accident.

The air bag system is composed of the following 3 major groups:

- Air bag modules with gas generators and ignition unit
- Control electronics
- Collision sensors

In case of frontal collision greater than a certain severity, the collision sensors send a signal via **the** control electronics to the ignition mechanism. In the ignition process, a solid propellant in the gas generator is combusted in a fraction of a second. This combustion generates the gas quantity and pressure necessary to fill the air

The air bag is located behind the steering wheel center pad on the driver's side, and on the passenger side behind the padding above the glove compartment. Due to the rapid deflation of the air bag after use, there is little danger of obstructed vision.

Likewise, the noise of the inflation of the air bag generally goes unnoticed because of the collision noise. The air bag protects the face and upper body, and at the same time dampens the forward motion of the driver and passenger.

Range of Effectiveness

Even if your vehicle is equipped with an air bag, the safety belt must be worn **at all times** because the air bag system is only actuated by frontal collisions with an impact of sufficient severity. See figure for range of effectiveness.

Below the actuation threshold of the air bag system, and during types of collisions which do not cause the actuation of the system, the seat belts provide the primary protection to the occupants when correctly worn. **Therefore, all persons within the vehicle must always wear safety belts** (in many states, state law requires the use of safety belts). See also chapter "Safety Belts".

Maintenance / Monitor Lights

The air bag system monitors the operational readiness of the igniter, sensors, warning lamp, and control electronics itself.

Any malfunctions which may arise are announced by the air bag warning light in the instrument cluster. Upon activation of the vehicle ignition circuit, the air bag warning light in the instrument cluster lights up for approximately 3 seconds and then goes out again, indicating system readiness.

In the following cases you should immediately consult an authorized Porsche dealer

in order to assure the air bag system is functioning properly:

- Illumination of the air bag warning light during travel or repeated illumination longer than 5 seconds after ignition circuit is turned on.
- Illumination fails to light up during ignition circuit activation.

A malfunction in the air bag system will be indicated by the illumination of the air bag warning light accompanied by the fault message in the information system display.

In order to ensure long-term functioning, the air bag system must be inspected by an authorized Porsche dealer after 4, 8 and 10 years from the date of manufacture shown on the safety compliance sticker, and then every 2 years.

WARNING

No changes must be made to the wiring or components of the air bag system. Do not add any additional coverings or stickers to the steering wheel or in the area of the passenger side air bag. Doing so may adversely affect the functioning of the air bag system or cause harm to the occupants if the air bag system should deploy.

Do not undertake any wiring for electrical accessory equipment in the vicinity of the air bag wiring harness.

Doing so may disable the air bag system.

The actuation of the air bag requires the immediate inspection of the system and replacement of some parts of the system. See your authorized Porsche dealer.

Defects should be repaired immediately. See your authorized Porsche dealer.

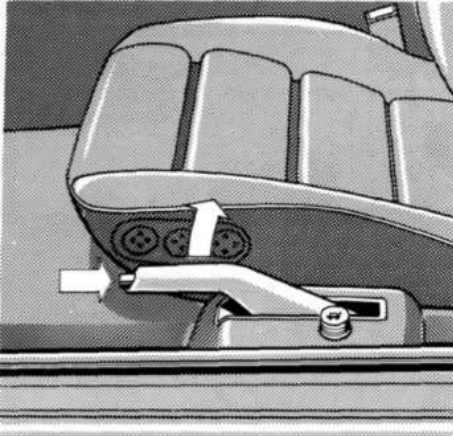
When disposing of a used air bag unit, our safety instructions must be followed. These instructions can be obtained at any authorized Porsche dealer.

Further information on the air bag system can be found on stickers in the glove compartment, at the sun visors, as well as on all air bag components.

Important:

If you sell your Porsche, notify the purchaser that the vehicle is equipped with an air bag, and refer to him or her to the chapter, "Air Bag System", in the owner's manual (safety and disposal rules).

For special recommendations on the use of child restraints, please refer to the chapter on "Child Restraint Systems."



Parking brake lever

Parking brake force is mechanically transferred to the rear wheels by means of cables.

Use the parking brake only after the vehicle has come to a full stop.

To set the parking brake

Pull the lever **all the way up** (see arrow). With the ignition on, the brake warning light will come on if the lever is even slightly raised. A firm pull upward is required to properly engage the parking brake.

To release the parking brake

Pull the lever slightly up as you depress the release button. Keep the button depressed as you lower the lever all the way down.

The parking brake light and the fault message in the information system display will go out after the engine is started and the parking brake is fully released.

WARNING

Release the parking brake fully. A partially engaged brake will overheat the rear brakes, reduce their effectiveness and cause excessive wear.

Always set the parking brake when parking your car by pulling all the way up on the lever. Move the selector lever to "P" (Automatic transmission) or move the gearshift lever to reverse or first gear (Manual transmission). On hills also turn the wheels toward the curb.

The parking brake light is not an indicator that the parking brake is fully set; it is only intended to be a warning to release the parking brake before driving the car. If brake is not fully set, the vehicle may roll without control.

Brakes

Functioning of brake system

Your Porsche is equipped with a power assisted hydraulic dual circuit brake system with disc brakes at the front and at the rear. Both circuits function independently.

In the unlikely event of hydraulic failure of one circuit, push the brake pedal down firmly and hold it in that position. A mechanical linkage activates the second circuit, and you will be able to bring the vehicle to a stop.

WARNING

Failure of one brake circuit will impair the braking capability resulting in an increased stopping distance.

If one brake circuit has failed, the other will still operate. However, you will notice an increased pedal travel when you step on the brake. Should you encounter such experience, bring your vehicle safely to a full stop.

Avoid driving the vehicle and instead have it towed to the nearest authorized Porsche dealer.

Brake pedal

WARNING

The movement of the brake pedal must never be obstructed by a floor mat or any other object. In case one of the two brake circuits fails, increased pedal travel is required to bring your vehicle to a full stop.

Make sure that the size of your floor mat does not hamper the movements of either brake, clutch or accelerator pedals in any way.

Secure the floor mat against sliding into positions that could interfere with the safe operation of your vehicle.

Do not "ride the brakes" by resting your foot on the pedal when not intending to brake. Overheating and premature wear of the brakes will result.

Before descending a steep grade, reduce speed and shift transmission into a lower gear or driving position to control speed. Do not ride the brakes or hold pedal down too long or too often. This could cause the brakes to get hot and not function properly.

Brake operation and brake warning light

Make it a habit to check the operation of your brakes before driving.

The brake fluid warning light in the instrument cluster comes on accompanied by the fault message in the information system display to indicate that the level in the brake fluid reservoir is too low.

With correctly adjusted brakes, and a correctly working brake system, the pedal travel to the point of brake actuation should be 1-3/16" to 1-9/16" or 30 to 40 mm. Whenever the brake pedal travel exceeds this distance, have the brake system checked.

Keep in mind that the braking distance increases very rapidly as the speed increases. At 60 mph or 100 km/h, for example, it is not twice but four times longer than at 30 mph or 50 km/h. Tire traction is also less effective when the roads are wet or slippery. Therefore, always maintain a safe distance from the car in front of you.

Brake booster

The brake booster assists braking only when the engine is running.

When the car is moving while the engine is not running, or if the brake booster is defective, more pressure on the brake pedal is required to bring the car to a halt.

Moisture or road salt on brakes affects braking.

WARNING

Driving through water may reduce the traction. Moisture on brakes from road water, car wash, or coating of road salt may affect braking efficiency. Cautiously apply brakes to test them after being exposed to such conditions. When the vehicle is driven on salted roads for extended periods, the brakes should be hosed down thoroughly about every 2 weeks. An automatic carwash facility cannot do this job properly. Brakes will dry after a few cautious brake applications.

Brake wear

Our automobiles have excellent brakes, but they are still subject to wear, depending on how the brakes are used. Have the brake system inspected at the intervals recommended in your Maintenance booklet.

New brake pads or linings

Brake pads or linings may not have the highest possible braking efficiency when new. Therefore, allow for longer braking distance during the initial 100 to 150 miles or 150 to 250 kilometers of normal city driving if fewer stops are realized.

ABS brake system (Antilock brake system)

The ABS system represents a major contribution to the enhancement of active safety in your vehicle. This system prevents the wheels from locking in a panic stop on almost all road surfaces.

With ABS system in your vehicle, the following areas are enhanced:

Full steerability, vehicle remains steerable under all braking forces.

Good directional control, no swerving caused by locking of wheels under braking conditions.

Excellent stopping distance, stopping distances are usually reduced because controlled braking is maximized.

Prevention of wheel lock up, no brake-induced sliding and thus no localized tire wear from emergency braking.

The crucial advantage of ABS system over a conventional brake system is in the area of maintaining directional control and maneuverability of the car in emergency situations, including panic braking in turns.

WARNING

In spite of the improved handling afforded by the ABS system, it still remains the responsibility of the driver to adapt the driving style to the prevailing road and weather conditions, as well as, obeying traffic laws. In no case, should the higher degree of safety offered by ABS be regarded as a justification for taking greater risks. Other vehicles not equipped with the ABS system may not be able to maintain control, especially on wet or poor road surfaces and thus may be more likely to impact you in the rear. To minimize that risk, use your ABS system to increase your ability to maneuver to avoid dangerous situations and not merely to try to stop in the shortest distance possible.

Driving with the ABS system

A wheel speed sensor is fitted to each of the four wheels. If wheel slippage of either of the front wheels or the rear wheels is sensed during braking, the brake pressure is adjusted automatically until the wheel no longer slips. The brake pressure is regulated for each front wheel individually and for both rear wheels together.

On a road surface which is slippery on only one side, the rear wheel which is braking on the slippery surface determines the brake pressure which will be applied equally to both rear wheels. This ensures that directional stability is maintained. However, if braking force approaches the wheel locking-up point for all wheels (panic braking) the ABS system will intervene in a way comparable with rapid rhythmic braking. The proper operation of ABS is perceived by the driver as a pulsating brake pedal in conjunction with audible noise and perhaps some vibration. The driver is thereby warned to reduce vehicle speed appropriate for the prevailing road conditions.

The functional readiness of all the main electrical components of the ABS is checked by an electronic monitoring system both before and while you drive. When the ignition is switched on the ABS warning lamp lights up and goes out again when the engine is started, at the latest. If the ABS warning lamp fails to go out, and if the ABS fault indicator appears in the information system display, this indicates that ABS has been deactivated due to a fault. If the warning lamp lights up while you are driving, this indicates that a fault has occurred. In both cases, normal braking, as in vehicles without ABS, is still retained. The ABS system should, however, be examined at an authorized Porsche dealer immediately to prevent the occurrence of further faults.

If the ABS system becomes inoperative, take your vehicle to your authorized dealer immediately.

Note

The control unit of the ABS brake system is set for standard tire size. If non-standard tires are fitted, the control unit may misinterpret the speed of the vehicle, because of the variant data it receives from the sensors on the axles.

If the difference in rolling radius exceeds approx. 6 %, the control unit deactivates the ABS system and the ABS warning lamp lights up.

Porsche limited-slip differential (PSD)

The PSD is an electronically controlled differential lock which switches on automatically without intervention from the driver.

It is an aid to driving off on road surfaces with varying degrees of traction and serves to improve driving stability when cornering with high lateral acceleration.

In spite of this it still remains the responsibility of the driver to adapt his style of driving to the prevailing road and weather conditions, as well as to the current traffic conditions. **The higher degree of safety afforded by this system must not be regarded as justification for taking greater risks.**

Aid for driving off

The PSD cuts in whenever a speed difference (slip) of more than 2 km/h occurs in the drive wheels and the speed of the vehicle is no higher than 30 km/h (19 mph). The extent of the differential locking effect is determined by the slip of the drive wheels. However, some skidding of both drive wheels cannot be avoided if acceleration is too severe.

Acceleration out of corners

The PSD cuts in over the entire speed range whenever the control unit receives a high lateral acceleration signal when accelerating out of corners and the inside wheel shows signs of slipping.

The lock transmits the non-transferable driving force of the inside wheel to the outside wheel.

The lock is opened for safety reasons if both wheels slip.

Deceleration in corners

If the control unit receives a high lateral acceleration signal at speeds of over 60 km/h (37 mph), a limited-slip torque is also built up when decelerating in corners to counteract any slewing of the vehicle.

Note

A solenoid valve regulates the gentle built-up and reduction of the limited-slip torque. The acoustic timing noise indicates that PSD regulation is occurring.

Should the control unit detect a fault in the limited-slip differential, the PSD is switched off for safety reasons and a fault message appears in the information system display.

You should then have your PSD tested at an Official Porsche Centre as soon as possible! The switching-off of your PSD changes the driving characteristics of the vehicle.

The switching-off of the ABS System always results in the PSD being switched off.

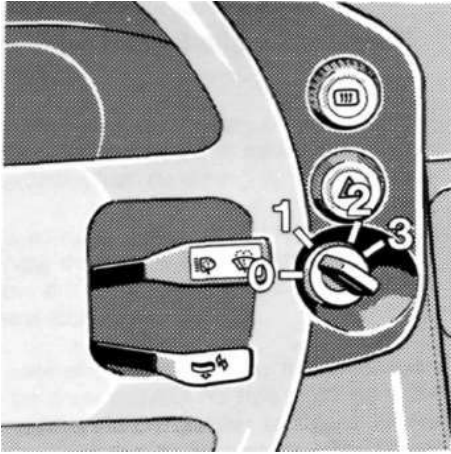
The **PSD indicator light** in the instrument cluster lights up when the limited-slip differential is activated or if both drive wheels slip.

Clutch

Due to the hydraulic operation of the clutch, a free travel of the clutch pedal of 0.1" or 2.5 mm is necessary.

Should this free travel suddenly become bigger, it could mean a malfunction of the clutch. See your Porsche dealer for rectification.

Always depress the clutch pedal fully when changing gears. Do not hold the car on a steep hill with the clutch pedal partially depressed. This will cause premature wear or damage.



Ignition/starter switch with steering lock

The steering is equipped with an anti-theft ignition lock.

There are 4 switch positions:

- 0 - **Steering locked.** All electric circuits wired through the ignition switch are turned off. The ignition key can only be withdrawn in the "0" position. The parking lights can be operated in this position by pushing the turn signal indicator lever up and down (also see "Parking lights").

1 - **Steering unlocked.** In this position all electric circuits are operational except for the following: turn signals, back-up lights, outside mirror remote control and rear window defogger/defroster.

- 2 - **Ignition on, steering unlocked.** All electric circuits are operational. With the engine stationary, all warning lights will light up for a **bulb check**.

To conserve battery power at low rpm (traffic jams, town driving etc.), switch off all electrical consumers which are not needed at that moment.

- 3 - **The starter is operated** by turning the ignition key to the right. As soon as the engine starts, release the key. It will spring back to position "2". With the engine running, the warning lights should go out except the warning light for the stop lamp, which will go out after depressing the brake pedal and the park brake light after fully releasing the parking brake.

To conserve battery power, the electric circuits for headlights, rear window defogger/defroster and wiper/washer system are temporarily interrupted during the starting process.

The starter should not be operated for more than 10 to 15 seconds at a time. If the engine does not start the first time or stalls at any

time, the ignition key must be returned to the "0" position. The non-repeat lock in the switch prevents the starter from being operated when the engine is running and thus from being damaged.

To remove the key and to lock the steering, turn the key back to position "0" and pull it out. Turn the steering wheel until it locks.

Note

On vehicles with Automatic transmission it is only possible to remove the ignition key if the selector lever is in position "P".

WARNING

Never remove key from ignition lock or turn key off while vehicle is moving. The steering wheel will lock, causing loss of control.

Gong

If you leave the key in the ignition/steering lock, the gong will sound when the driver's door is opened. This is a reminder to remove the key.

For further details see "Starting Procedures" on the following page.

Starting procedures

WARNING

Fasten safety belts before driving.

Never start or let the engine run in an enclosed, unventilated area. Exhaust fumes from the engine contain carbon monoxide, which is a colorless and odorless gas. Carbon monoxide can be fatal if inhaled.

Never leave engine idling unattended. An unattended vehicle with a running engine is potentially hazardous.

FIRE DANGER. Do not park or operate the vehicle in areas where the hot exhaust system may come in contact with dry grass, brush, fuel spill or other flammable material.

If your car catches on fire for any reason, call the fire department. Do not endanger your life by attempting to put out the fire yourself.

Never leave engine idling. When starting engine, be ready to drive immediately. Maintain moderate speed until engine is warm.

Manual transmission:

Move gearshift lever to **Neutral**.

Automatic transmission:

Move selector lever to **Park**.

Temperature sensors on the engine automatically provide the correct fuel/air mixture required for starting.

Therefore, it is not necessary to depress the accelerator pedal while starting a **cold** or a **warm** engine.

When starting at **very low outside temperatures**, fully depress the clutch pedal, so that the starter only has to crank the engine.

As soon as the engine starts, release the ignition key.

If the engine fails to start after 10 to 15 seconds of cranking, wait about 10 seconds before engaging starter again.

Do not let the engine idle to warm it up. After starting, drive vehicle at moderate speeds and with gradual accelerations. Avoid high rpm and full throttle operation until the engine has reached normal operating temperature.

Stopping engine

Turn key back to position 0.

Do not stop engine immediately after hard or extended driving. Keep engine running at increased idle for about two minutes to prevent excessive heat build-up before turning off engine.

WARNING

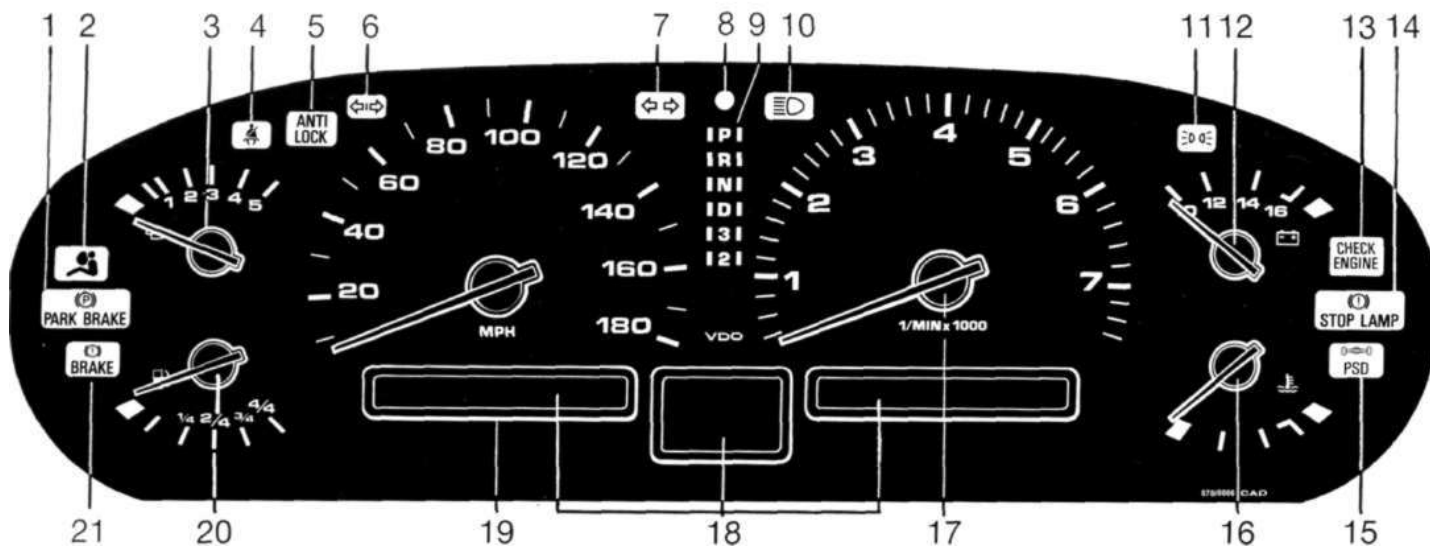
Before you check anything in the engine compartment, let the engine cool down. Hot components can burn skin on contact.

The radiator fan switches on automatically when the coolant reaches a certain temperature and continues to run (even with ignition off) until the coolant temperature drops. Therefore, never touch the fan blades as they will rotate spontaneously when the thermo-switch turns the fan on.

If you have an automatic garage door...

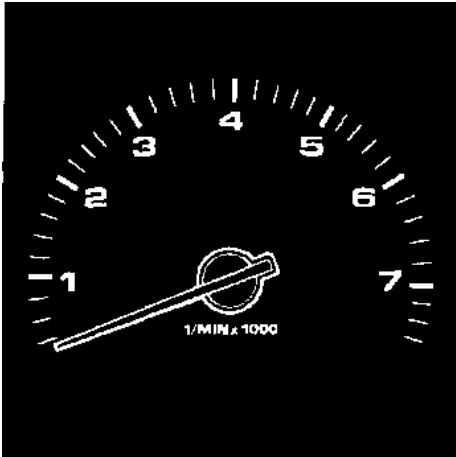
The transistorized ignition system in your Porsche may interfere with your electronically operated garage door. To check this: drive your Porsche close to the garage door and run the engine at different speeds.

If the garage door opens or closes without your operating the garage door unit in your car, contact the dealer who installed the automatic garage door to have the frequency and/or coding of the garage door signal modified.



Instrument cluster

- | | | |
|--|--|-------------------------------|
| 1 Park brake warning light | 9 Selector lever position indicator | 15 PSD warning light |
| 2 Air bag warning light | 10 High beam indicator light | 16 Coolant temperature gauge |
| 3 Oil pressure gauge | 11 Parking light indicator | 17 Tachometer |
| 4 Seat belt warning light | 12 Voltmeter | 18 Information system display |
| 5 ABS warning light (ANTI LOCK) | 13 Emission control system malfunction indicator light | 19 Speedometer |
| 6 Trailer turn signal indicator light | 14 Stop lamp warning light | 20 Fuel level gauge |
| 7 Indicator warning light | | 21 Brake fluid warning light |
| 8 Phototransistor for brightness control | | |



Tachometer

The tachometer shows engine speed in revolutions per minute (rpm).

The red mark at the end of the scale indicates the maximum permissible engine rpm. Before reaching this area, the next **higher** gear should be selected. Earlier shifting saves fuel.

Shift to the next **lower** gear when the engine rpm drops below 1500 rpm.

The speed limiting governor prevents the engine from being overrevved under load.

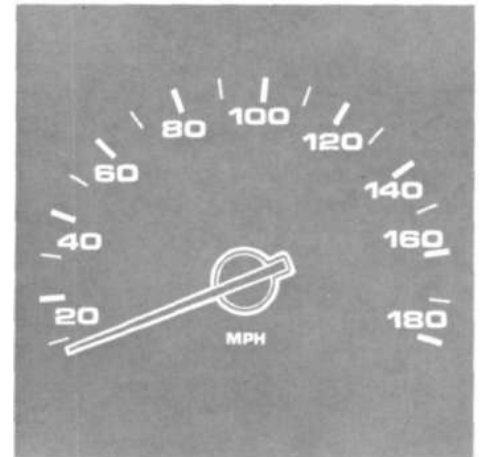


Indicator system for position of gearshift

Automatic transmission

Whenever the ignition is switched on, or the vehicle lights are switched on, the position of the gearshift lever lights up in the display field of the instrument cluster.

The display goes off when the key is removed or when the vehicle lights are switched off.



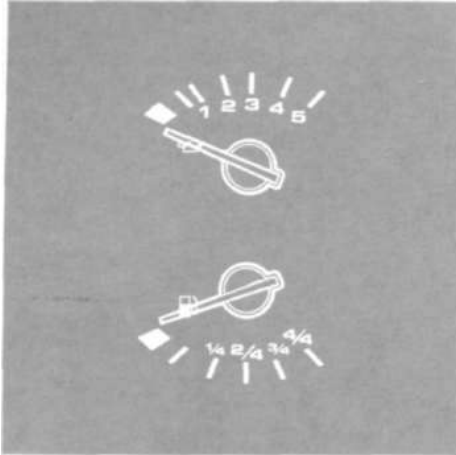
Speedometer

The speedometer indicates driving speed per hour.

In USA: miles per hour

In Canada: kilometers per hour

The **odometer** reading and the readings for tripmeters I and II appear in the information system display.



Check the engine oil level. If oil level is correct, do not drive the vehicle as severe engine damage may result. Contact your nearest Porsche dealer for assistance.

Oil pressure warning light

The oil pressure warning light comes on when the ignition is turned on and goes out as soon as the correct operating pressure is reached.

Fuel level gauge and warning light

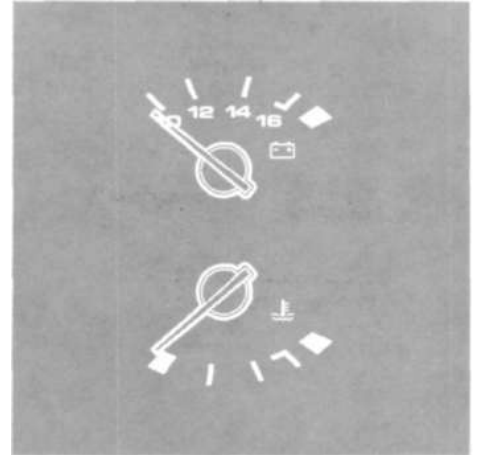
With the ignition on, the amount of fuel in the tank is indicated by the fuel gauge needle.

If the level is too low the fuel level warning light comes on and fault message appears in the information system display.

Fuel level warning light

This light comes on when the fuel reserve level in the tank is down to about 3.2 U.S. gals, or 12 liters. Time to refuel.

Never run the tank completely out of gas!



Oil pressure gauge Oil pressure warning light

Engine oil pressure is shown in bar. At 5000 rpm with the engine at normal operating temperature the oil pressure should be about 5 bar. A slight drop in oil pressure at higher temperatures is normal.

Should the oil pressure suddenly drop while driving or if the fault message appears in the information system display, **pull off the road and stop the engine immediately.**

Voltmeter Alternator warning light

The voltmeter shows the overall condition of the charging system. The needle should normally stay in the 12 - 14 volt range when the engine is running. A temporary drop below 12 volts when starting the engine is normal. A fault message appears in the information-system display if voltage is too low.

The alternator warning light comes on when the ignition is turned on and goes out as the engine rpm increases. If the light does not light up when turning the ignition on, or if it does not go

out after starting the engine, there is a malfunction in the electrical system. If this is the case, contact your Porsche dealer. If the light flickers or stays on while you are driving, the V-belt may be loose or broken. The belt should be retensioned or replaced. The fault may also be in the regulator or the alternator itself. In this case, keep electrical consumption at a minimum and drive to the nearest workshop.



Coolant temperature gauge and warning light

Needle in left field - engine is cold

As long as needle is in left field, avoid high speeds and high engine rpm, until engine has reached normal operating temperature. Do not lug the engine.

Needle in center field - normal

Under normal driving conditions, needle should remain in center field. The needle may reach the right field, especially at high engine loads, but should return to "normal" when engine load is reduced.

Needle in right field - engine is warm

If needle enters the red mark, the engine is overheating. The warning light comes on and fault message appears in the information system display. Reduce speed and engine rpm. If it does not cause the temperature to decrease, pull off the road, turn off the engine and let it cool down.

Coolant temperature warning light

If the warning light comes on, check that the fans are working. See section "Cooling fan control. If the fans are not rotating, the power supply to the fan control is defective.

If the problem cannot be readily located, be sure the engine has cooled down sufficiently. Then drive to the nearest Porsche dealer, but carefully watch the coolant temperature gauge and the warning light. Try to avoid engine idling, very low speeds and engine speeds in excess of 4000 rpm.

For other details refer to "**Cooling System**".

Warning lights/Indicator lights



Emission Control System Malfunction Indicator Light

Vehicles having this indicator light are equipped with a special on-board diagnostic system. This system monitors the various components of the Emission Control System.

The light comes on when the ignition is switched on. It will go out after the engine is started, if you have started without depressing the accelerator pedal. This is to assure you that the malfunction indicator light is functioning properly.

If the light does not go out after starting the engine, or if it should come on always while driving, this indicates that there is a malfunction in the Emission Control System. Have the cause corrected promptly by an authorized Porsche dealer or a qualified workshop.

Each monitored component in the Emission Control System has been coded. In case of a malfunction the respective component will be identified and the fault stored in the control unit's memory.

The stored data can be displayed by a flashing code of the malfunction indicator light to assure an accurate diagnosis. For further information of the codes and repair procedures, see your authorized Porsche dealer.



The **parking brake light** will be on when the ignition is on and the parking brake has been pulled up even slightly. The light is a warning to release the parking brake before driving the car. The light does **not** indicate that the brake has been pulled up far enough to prevent the car from rolling. The light goes out only when the parking brake is fully released.



Every time the ignition is turned on, the **seat belts warning light** in the instrument cluster will come on for about 6 seconds as a reminder to buckle up.



The **air bag warning light** goes on in the event of a malfunction in the air bag system. **If the light comes on, take your vehicle to an authorized Porsche dealer immediately.**



When the ignition is switched on, the **antilock warning light** will light up and should go out again when the engine is started, at the latest. If

the warning light fails to go out and a fault message appears in the information system display, this indicates that the ABS-system has been deactivated due to a fault. If the warning light comes on while you are driving, this indicates that a fault has occurred. In both cases, normal braking, as in vehicles without ABS, is still retained. The ABS system should, however, be examined at an authorized Porsche dealer immediately, to prevent the occurrence of further faults.



The **turn signal indicator light for trailer** operation is not connected.



The **turn signal indicator light** in the instrument cluster will flash with the switch lever in either up or down position. If a turn signal bulb becomes defective, the indicator light flashes at about twice the normally frequency.



With headlights on, the **high beam indicator light** in the instrument cluster will light up when the switch lever is pushed forward or the head-

light flasher is operated. The blue light will go out when switching to low beam.



The **PSD indicator light** comes on if the automatic limited-slip differential is activated.



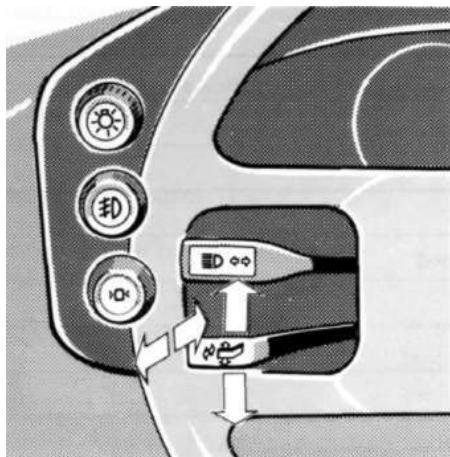
The **parking light indicator** comes on when the parking lights are turned on. The light will go out as soon as the headlights are switched on.



The **stop lamp warning light** comes on every time the ignition is turned on and goes out after depressing the brake pedal. If the light stays on a bulb is defective.



The **brake fluid warning light** flashes when the brake fluid level falls below the required minimum.



Information system

The information system helps enhance road safety and operational reliability. Automatically and without any action on the part of the driver, it provides notification of faults in a number of systems. In the event of a system malfunction, a symbol appears in the instrument cluster display, accompanied by an explanatory worded message.

The text appears in the language assigned to the national version of the vehicle. Your authorized Porsche dealer can change the information system to several languages stored in the system.

Electronic components can store warnings as they occur, and at your authorized Porsche dealer these can later be read out.

This system can help to protect you or Porsche from unjustified liabilities.

The messages have been subdivided into three priority groups:

Priority I

Faults which are detrimental to road safety and operational reliability and can cause immediate damages are indicated by red lettering and flashing symbols. Stop and rectify the fault immediately.

Priority II

Faults which could cause damage to your Porsche are indicated by red lettering and a symbol which does not flash. The fault in question must be rectified at the earliest possible opportunity.

Priority III

If a part has to be changed or the water in the washing-water reservoir topped up, the fault is indicated by red lettering and a symbol which does not flash. In this event, it is not necessary to interrupt the journey immediately or seek the assistance of an authorized Porsche dealer.

If the oil level is too low, the corresponding fault message will appear as soon as the ignition is switched on, irrespective of whether the engine is started or not. The other fault messages can appear once the engine has been started and the brake pedal pressed. If the park brake is not released the warning lamp remains lit, accompanied by the fault message at speeds above 10 km/h (6 mph).

Fault acknowledgement

Pulling the control lever acknowledges the fault message and cancels the worded message. The messages issued for priority I and II faults are repeated 15 or 30 minutes and after acknowledgement after every engine start until the fault in question is rectified.

Messages for priority III faults are issued once only. If the fault in question is not rectified, the message reappears every time the engine is restarted only.

Faults of different priorities occurring simultaneously are displayed in sequence. Once one fault is acknowledged, other faults of the same priority can be displayed, followed by those of lower priority. Each fault message must be acknowledged in turn, before the on-board-computer and auxiliary functions can be called up.

Warnings displayed in response to faults

Priority I	ENGINE TEMP.		TOO HIGH	over 250° F / 120° C, see "Cooling system"
	OIL PRESSURE		INSUFFICIENT	See "Engine oil pressure"
	CHECK		BRAKE FLUID!	See "Brake fluid reservoir"
Priority II	ENGINE TEMP.		TOO HIGH	Up to 246° F / 118° C, see "Cooling system"
	TOOTHED BELT		SERVICE	Toothed belt slack. Have belt checked and retensioned
	CHECK		OIL LEVEL!	See "Engine oil"
	SAVE POWER		SERVICE	See "Voltmeter"
	CHECK		COOLANT LEV.	See "Cooling system"
	CALL		RANGE!	See "Fuel gauge" and on-board computer functions
	RELEASE		PARK BRAKE	Message is cancelled once park brake is released
	ANTILOCK		OFF	See "ABS braking system"
	AIRBAG		MALFUNCTION	See "Air bag system"
	DIFFERENTIAL		CONTR. OFF	See "Automatic limited-slip differential (PSD)"
Priority III	BRAKE PADS		SERVICE	Brake pads down to wear limit – replace pads
	STOP LAMP		FAILURE	See "Fuses" and "Replacing bulbs"
	TAILLAMP		FAILURE	See "Fuses" and "Replacing bulbs"
	REFILL		WASHER FLUID!	See "Windshield washer reservoir"

Selectable on-board-computer and auxiliary functions

When the ignition is switched on, the following appear:

Display, left: odometer reading

Display, centre: last on-board-computer function selected

Display, right: tripmeter I reading

With the ignition on, the on-board-computer and auxiliary functions below can be called up in turn with the aid of the information-system control lever. The letters, digits and symbols for all the function displays are orange. Any messages concerning faults occurring simultaneously in the car will appear in red. Once the ignition is switched off, the last function selected is displayed until the central locking system is activated, or for a period not longer than 4 minutes.

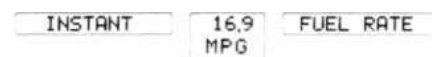
On-board-computer functions

Press the control lever forwards to enter the on-board-computer selection mode.

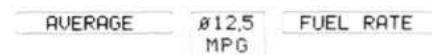
The function selected appears in the centre display. Worded messages appear on the left and right. Push the lever up to select the next function; pushing the lever down calls up the previous function. The worded messages are cancelled when the lever is pulled, or automatically after 4 minutes.

After this, the auxiliary functions reappear in the left and right displays.

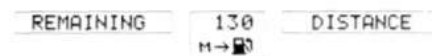
American measuring units will be changed into metric units by pulling the lever twice within 1 second (this applies only for U.S. specified vehicles).



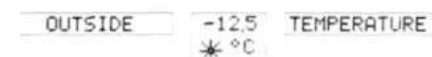
Instant fuel rate.



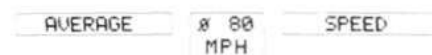
Pull control lever for 3 seconds to reset.



Range calculated on the basis of fuel left in tank, present consumption and average consumption.



Reading between -40° and +140° F. (-40° and + 60° C). The outside temperature display is not an ice warning!



Pull control lever for 3 seconds to reset.

Auxiliary functions

Pull the control lever to call up auxiliary functions

Push the lever **down** to change from odometer reading to digital speedometer reading and vice versa.

7407 MILE

Memory cannot be erased

152 MPH

Readings at speeds above 10 km/h (6 mph)

Push the lever **up** to select tripmeter I, tripmeter II or stopwatch. To reset the tripmeters, **press** the **zero button** in the instrument cluster for at least 2 seconds.

Tapping the button is sufficient for operating the stopwatch.

404.1 M I

Tripmeter for distance travelled

253.3 M II

Tripmeter for interim readings or distances between refuelling stops

9:59.9 MIN

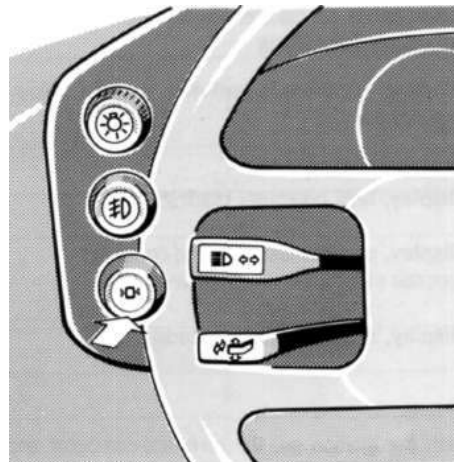
Start: push button for 1st time

Stop: push button for 2nd time

Reset: push button for 3rd time

Stop is indicated by a flashing colon. A four-digit reading appears once the stopwatch has been stopped. Once the stopwatch has been activated, it continues to run even after the ignition is switched off.

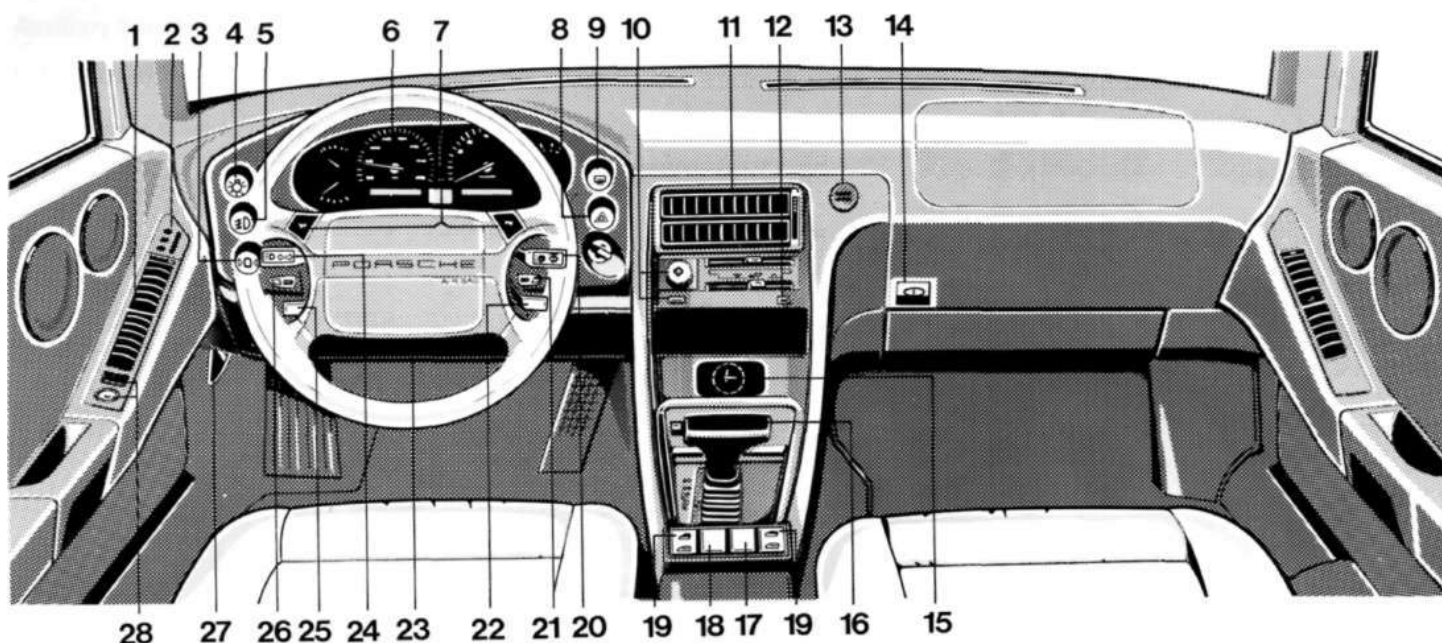
American measuring units will be changed into metric units by pulling the lever twice within 1 second (this applies only for U.S. specified vehicles).



Zero button

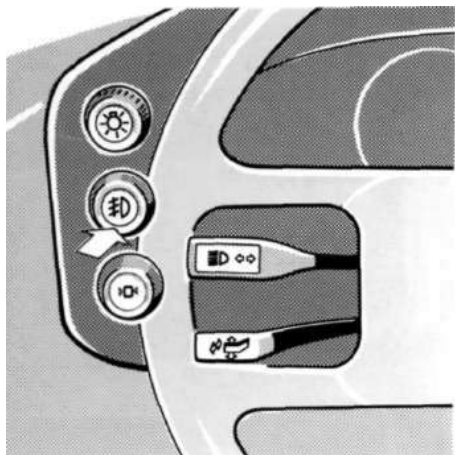
This **button** is used **to** operate the stopwatch **and to reset the tripmeter I and II**. The button must be pressed for at least 2 seconds to reset the tripmeter.

Tapping the button is sufficient for operating the stopwatch.
(see also "Information system")



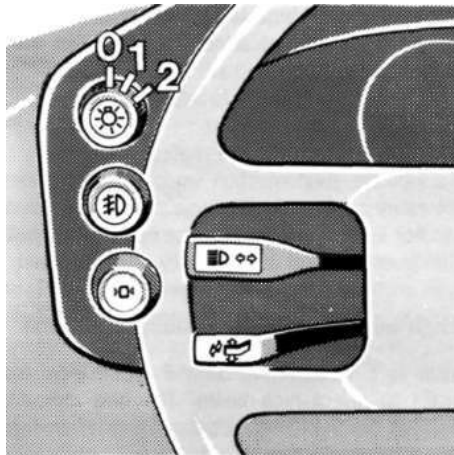
Dashboard panel

- | | | |
|--|--|--|
| 1 Side window defogger/defroster vents | 11 Center air vents | 21 Intermittent wiper interval control |
| 2 Seat position memory | 12 Central door locking button | 22 Automatic speed control lever |
| 3 Zero button | 13 Inside-temperature sensor | 23 Locking lever for steering wheel/
instrument cluster height adjustment |
| 4 Light switch | 14 Glove compartment lock | 24 Turn signal/headlight dimmer flasher/
parking light switch lever |
| 5 Fog light switch | 15 Clock | 25 Control lever for information system |
| 6 Instrument cluster | 16 Gearshift/selector lever | 26 Instrument illumination control |
| 7 Horn | 17 Rear window wiper switch | 27 Engine compartment hood release lever |
| 8 Emergency flasher switch | 18 Sunroof switches | 28 Side view mirror control |
| 9 Rear window defogger switch | 19 Power window switches | |
| 10 Automatic climate control | 20 Windshield wiper and windshield/
headlight washer switch lever | |



Fog lights

With headlights on the fog lights can be turned on or off by depressing the switch. The switch is illuminated when the fog lights are on.



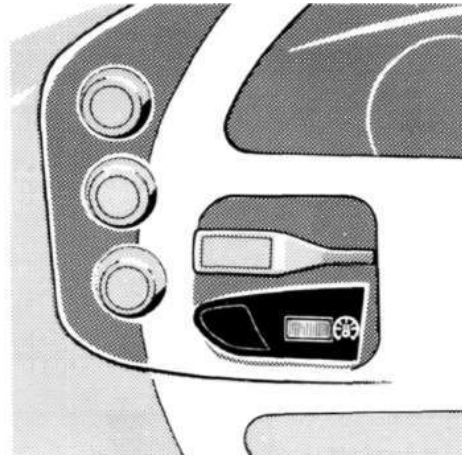
Light switch

- 0 - Lights switched off
- 1 - Parking light
- 2 - With the ignition on, the headlights come on once the lamp units emerge.

Tail lights, side marker lights, license plate and instrument lights are on in switch position 1 and 2.

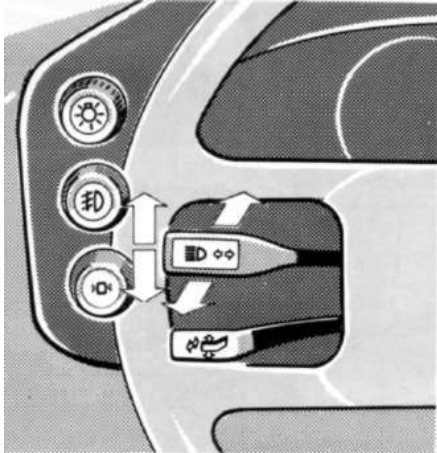
If the lights are switched off after the ignition, the headlamps extended.

When you open the door while the lights are on, the **gong** will sound. It is your reminder to switch off the lights.



Instrument illumination control

With headlights on, the brightness of the instrument illumination can be adjusted by turning the thumbwheel on the left side underneath the instrument cluster.



Switch lever for turn signal/ headlight dimmer with ignition on and parking lights with ignition off

Turn signal indicator

Lever up - right turn signal
Lever down - left turn signal

The turn signal lever turns off automatically when the steering wheel is straightened out after completing a turn.

If a turn signal bulb is defective, the indicator light flashes at about twice of the normal frequency.

Lane changer

To indicate your intention when changing lanes on expressways, slightly push the turn signal indicator lever up or down to the resistance point. The lever turns off automatically when released.

High beam/low beam headlight dimmer

With light switch in position 2, push lever forward to select high beam. The blue indicator light in the instrument cluster lights when high beam is switched on.

Pull lever toward steering wheel to select low beam.

You can flash signal other motorists by repeatedly pulling and releasing the lever.

Headlight flasher

During daylight, you can flash signal other motorists with your additional headlights (in lieu of horn) by repeatedly pulling and releasing the lever. With headlights on, the additional headlights will flash together with the headlights.

Parking lights

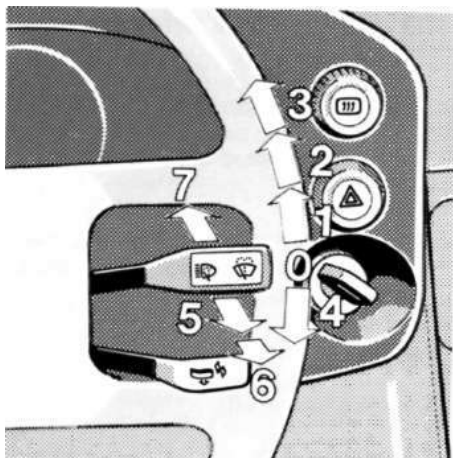
Lever up -
right side parking lights on

Lever down -
left side parking lights on

Switch lever for windshield wiper/washer and headlight washer

This lever has 7 switch positions. The electric wiper system is actuated by pulling the lever up or down to the following 4 positions:

- 0 wipers turned off
- 1 wipers on slow speed
- 2 wipers on medium speed
- 3 wipers on fast speed
- 4 **Intermittent wipe:** The wipers operate automatically at regular intervals.



- 5 Windshield washer:** Pulling the lever from its basic position towards the steering wheel activates the windshield washer pump in the first stage.

Releasing the lever causes the wiper to perform several dry wipes.

- 6** In the second stage, the windshield washer and the wipers operate together. When the ignition is switched on, the washer nozzles are heated.
- 7 Headlight washer:** Push lever toward instrument cluster to operate headlight washer.

A separate pump supplies high-pressure water to the spray nozzles located in front of the headlights on the bumper. The high pressure stream soaks the dirt on the lenses and washes it off. Repeat the wash cycle as necessary to remove heavy dirt accumulation.

The headlight washer system operates only with the headlights on.

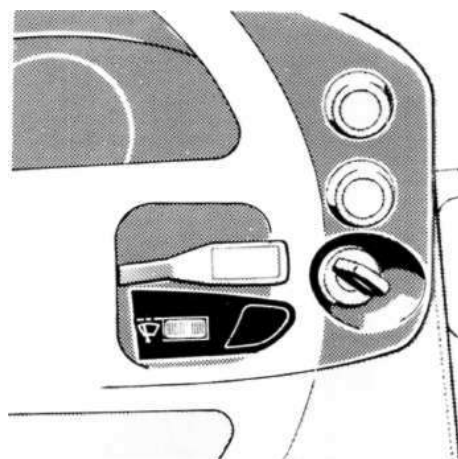
Avoid running the wiper blades over a dry windshield to prevent scratching the glass. Spray on washer fluid first. A scratched windshield will reduce visibility.

Always loosen blades frozen to glass before operating wipers to prevent damage to wiper motor.

WARNING

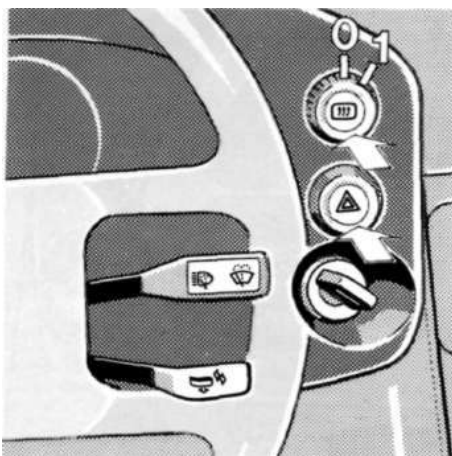
Worn or dirty wiper blades will reduce visibility, making driving hazardous. Clean blades regularly to remove road film and carwash wax buildup.

Clean all inside and outside window glass regularly. See "Car care instructions".



Wiper interval

The wiper interval can be adjusted by turning the thumbwheel in the instrument cluster.



Emergency flasher switch

If your car is disabled or parked under emergency conditions, depress the switch to make all four turn signals flash simultaneously. The light in the switch flashes at the same frequency.

The emergency flasher works independently of the ignition switch position.

WARNING

Whenever stalled or stopped for emergency repair, move the car well off the road. Turn on the emergency flasher and mark the car with road flares or other warning devices. Do not remain in the car.

Do not park or operate the car where the hot exhaust system may come in contact with dry grass, brush, fuel spill or other flammable material.

Before working on any part in the engine compartment, turn the engine off and let it cool down sufficiently. Hot components can burn skin on contact.

Remember the air conditioner condenser fan is thermostatically controlled and may come on at anytime, regardless of ignition switch position.

Rear window defogger/defroster

The rear window defogger/defroster heating element is actuated by a push button/rotary switch. The switch is illuminated when the heating element is energized.

After the rear window has been cleared, switch off the rear window defogger to avoid unnecessary drain on the battery.

To defog - switch **not** depressed

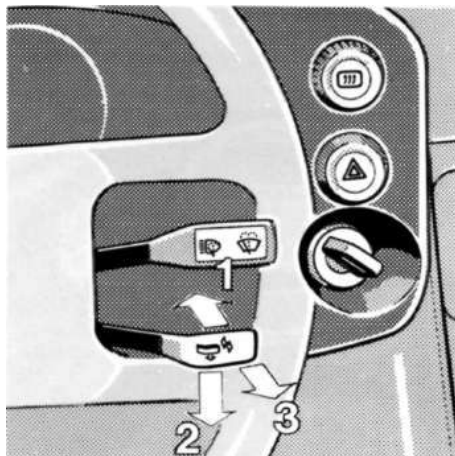
0 - Heating element off.

1 - Heating element on. The heating element will provide a steady energy output to keep the rear window free from fog.

To defrost - switch depressed (arrow)

0 - Heating element is fully energized for defrosting. After about 15 minutes the heating turns off automatically.

1 - Heating element is fully energized for defrosting. After about 15 minutes, the heating element automatically reduces energy output to "defogging".



1 Set/accelerate 2 Reset 3 Cancel

Automatic speed control

The automatic speed control allows you to maintain a constant cruising speed of 25 mph (40 km/h) or higher, without actuating the accelerator pedal. Any manual operation, such as accelerating, gearshifting or braking can be done independent of the automatic speed control. The spring loaded control lever operating the automatic speed control is located just below the wiper/washer lever.

While driving with the automatic speed control set (at speeds above 25 mph or 40 km/h), do not bring shift lever into the Neutral position as excessive engine rpm will result.

To operate the automatic speed control

Accelerate to the desired cruising speed, push lever toward instrument cluster (arrow 1) and release. This sets the cruising speed and stores it in a memory.

After a second or two, automatic speed control will take over, and you can remove your foot from the accelerator pedal. The set cruising speed will be maintained automatically.

WARNING

Do not use the cruise control when it may be unsafe to keep the car at a constant speed. For example, a constant speed may not be safe in heavy traffic, or on winding or slippery roads. With the cruise control system engaged, the engine speed will not return to idle when removing the foot from the accelerator pedal.

Please observe all local and national speed limits.

Passing:

When you want to drive faster for a brief moment, for example when passing another vehicle, actuate the accelerator. When you take your foot off the accelerator pedal, the preset speed will automatically be resumed.

Gearshifting:

When shifting gears, the automatic speed control is only disengaged as long as the clutch pedal is depressed. The preset speed will be resumed as soon as you take your foot off the clutch pedal.

Braking and stopping:

Whenever you apply the brake or come to a stop, the automatic speed control is disengaged. Move the lever down (arrow 2), and the preset speed will be resumed.

Switching system off:

To switch the automatic speed control off, move the lever toward you (arrow 3). To resume the preset speed, move the lever down (arrow 2).

To change the preset cruising speed
Increase preset speed:

Accelerate by depressing the accelerator pedal. When the desired speed is reached push lever toward instrument cluster (arrow 1) and take your foot off the accelerator pedal. Now the new cruising speed is set and stored in the memory.

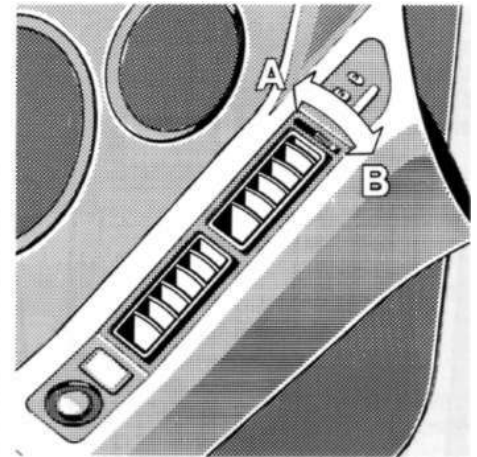
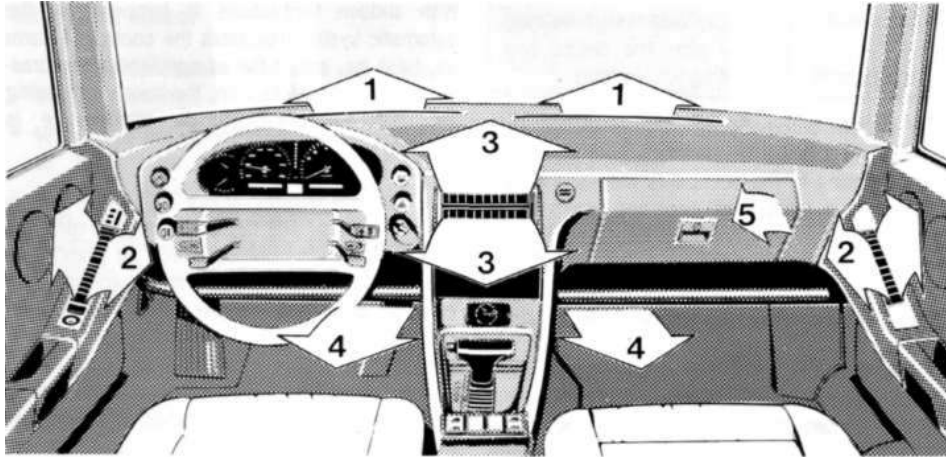
As an alternative, you can hold the lever in the front position (arrow 1), without depressing the accelerator pedal. The car will accelerate on its own. When the desired speed is reached, release the lever.

Decrease preset speed:

Apply the brake, which will disengage the automatic speed control. When the vehicle has slowed down to the desired speed, push lever toward instrument cluster (arrow 1) to set the new cruising speed.

As an alternative, disengage the automatic speed control by moving the lever toward you (arrow 3). When the vehicle has slowed down to the desired speed, push lever toward instrument cluster (arrow 1) to register the new cruising speed in the memory.

Note: When driving up a hill, if the engine power is insufficient in a particular gear, the speed control will be disengaged automatically. Shift to a lower gear to avoid lugging the engine.



Air outlets

- 1 Defogger/defroster nozzles for windshield
- 2 Defogger/defroster vents for side windows
- 3 Air vents for passenger compartment
- 4 Air outlet nozzles for foot wells
- 5 Air nozzle inside glove compartment

Air outlets for windshield and footwell

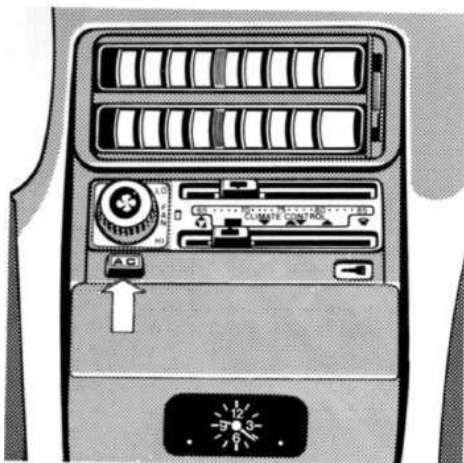
The air outlets for the windshield and the footwell are fixed in place. Only the fan switch is used to regulate the air flow.

Center and side nozzles

The air flow from the center and side nozzles can be varied by pivoting the nozzle inserts and by adjusting the vents.

A lever attached at the side of the nozzles provides continuous control for the air flow to the side and center nozzles.

- A - Nozzle opened
- B - Nozzle closed



Maximum heating output and fast defrosting can be obtained only after the engine has reached normal operating temperature.

This system automatically controls the air flow distribution and the temperature level inside the car according to the occupants wishes. The distribution and mixture of cool and warm air is electrically regulated and kept constant, regardless of weather conditions.

Servomotor-controlled air mixing valves automatically mix the cold and warm air.

The temperature inside the vehicle (temperature sensor behind the screen mask) and outside the vehicle (temperature sensor in the wheel box) are used for quick identification of temperature fluctuations and control of the servomotor.

With sudden fluctuations in temperature, the automatic system regulates the control of warm air, fresh air, and, if the air conditioner compressor has been switched on, the supply of cooling air until the preset inside temperature is reached.

The air conditioner works only when the engine is running. The higher the engine rpm, the more intensive the cooling effect. Air from inside the car is drawn through the evaporator for cooling and then reenters the car interior through the air outlets.

Proper operation of the air conditioner is guaranteed only if the windows and roof are closed and the outlet nozzles at the side and the center are fully opened.

Automatic climate control

WARNING

Familiarize yourself thoroughly with the proper use and function of the ventilation/heating, defogging/defrosting and the air conditioning system.

For safe driving it is extremely important that you follow the operating instructions in this manual. If in doubt, consult with your Porsche dealer.

"AC" pressure switch

When the weather is warm, supplying of fresh air is not always enough to attain the desired temperature within the car.

First set the temperature desired using the temperature lever. Then switch on the air conditioner by pressing the AC switch in the center console (arrow).

If no cooling of the air is required in transitional or colder seasons, the air conditioner should not be switched on due to considerations of fuel economy.

If the vehicle has been standing for a fairly long time in intense sunlight, it is recommended that the inside of the vehicle be thoroughly ventilated by opening the car windows and switching on the air conditioner.

When the air conditioner is switched on, additional cooled air reaches the glove compartment through a nozzle.

In damp weather it is recommended to switch on the air conditioner, even if the outside temperature is low. This dehumidifies the air and prevents the windshield from fogging up.

Important notes:

- The air conditioner operates only with the engine running.
- When the air conditioner is switched on, at least one air outlet vent must be opened, since otherwise the vaporizer can ice up. The condensate forming during operation of the air conditioner escapes through openings at the bottom of the vehicle.
- The air conditioner must be switched on briefly at least once a month to lubricate the seals and bearings of the air conditioner compressor and the expansion valve. This is particularly important in the winter when the air conditioner is not needed. The outdoor temperature must be above 32° F/0° C.
- Whenever the air conditioner does not function properly, e. g. no cold air escapes even though the unit is switched on, switch it off and immediately see your Porsche dealer.

The following controls make possible optimum adjustment of the unit to your individual air conditioning desires.

Temperature control - upper lever

The lever provides continuous control for the temperature in the passenger compartment. Shoving it to the right raises the temperature. The value on the temperature scale corresponds to an average inside temperature.

No automatic temperature control takes place in program settings  and .

Fan speed control - rotary switch knob

The air **volume** is controlled by a 4-speed fan. When the ignition is turned on, the fan automatically operates at low speed, even with the switch in 0 position. By turning the knob clockwise, fan speeds 1 - 4 can be selected to increase the air volume.

Program control - lower lever

There are several programs available in order to adapt to individual needs with an automatically controlled air conditioner:



Supply of outside air switched off. For brief operation, e.g. when passing through disagreeable odors. At temperatures above 32° F/0° C the inside air is additionally dried by the air conditioner which switches on automatically.



Air flow distribution only through side window and center air vents.



Air flow distribution through footwell outlets. The side and center vents can be opened optionally.



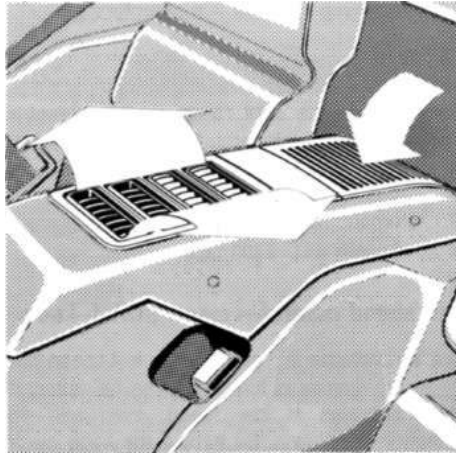
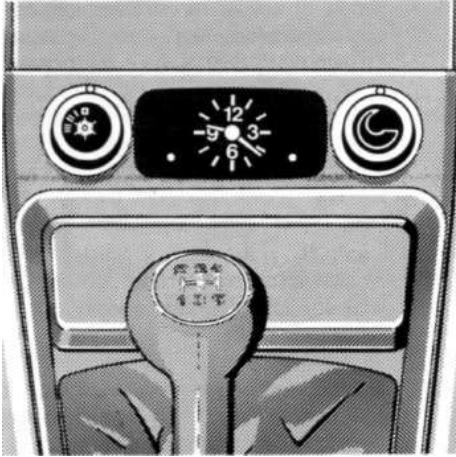
Air flow distribution through wind-shield and footwell outlets. The side and center vents can be opened optionally.



Air flow distribution through wind-shield outlets. The side and center vents can be opened optionally.



Automatic air flow distribution for heated air through windshield outlets and open side window vents. Heating system and fan motor are automatically switched on maximum output and high speed for fast defrosting or defogging. At temperatures above 32° F /0° C the inside air is additionally dried by the air conditioner which switches on automatically.



Additional vaporizer for increased cooling output

In vehicles with increased cooling unit output there is an additional vaporizer with a fan installed instead of the floor console.

When the air conditioner switch is pressed in, and the air conditioner is turned on, the back vaporizer can be switched on by turning the button at the left in the center console to the right. Fan speeds from 1 to 3 can be adjusted.

Turning the button at the right to the right increases the cooling output from the rear vaporizer.

The inside air is drawn in through the rear grid, cooled, and circulated in the floor area. If the AC switch has not been pushed in, only circulation of the air is provided.



Cigarette lighter

The cigarette lighter can be operated with the ignition in position 1 or 2. To operate, push in knob. When ready for use, the lighter will snap back. With the cigarette lighter removed, the socket may be used for small electrical appliances, such as a shaver, hand vacuum cleaner or air compressor to inflate the collapsible emergency spare tire. The maximum rating of such equipment should not exceed 120 Watt/12 Volt.

With the engine not running, electrical appliances must be used no longer than 5 minutes (battery run-down).

Do not damage the socket by trying to insert plugs of the wrong design.

Clock

Left button:

clockwise adjustment.

Right button:

anticlockwise adjustment.

Tapping the button:

minute hand jumps forwards one minute.

Pressing the button:

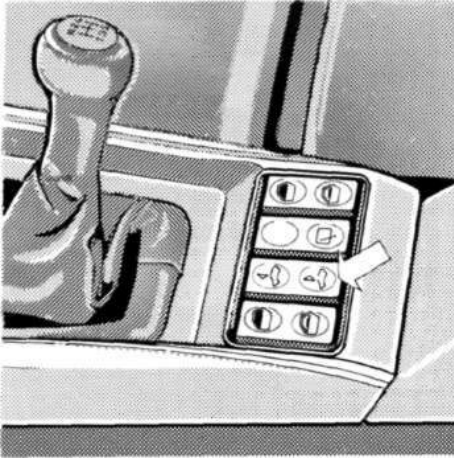
the longer the button is pressed, the quicker the clock is adjusted.

Ashtray

The ashtray is located in front of the gearshift lever in the center console. To empty tray, pull it out of its well.

WARNING

Never use ashtray as waste paper disposal.
Fire hazard!



Power sunroof

The roof can be opened and closed, fully or partially, by depressing the respective symbol on the rocker switch in the center console in front of the gear shift lever.

The mechanism has a built-in safety feature. Should the moving roof encounter an obstacle, it will stop automatically to avoid possible injury.

Opening sunroof

Tapping the switch opens the sunroof in stages to the desired position.

Pressing the switch for longer than 0.5 seconds automatically opens the sunroof fully. The movement of the sunroof can be stopped at any position by tapping the switch again.

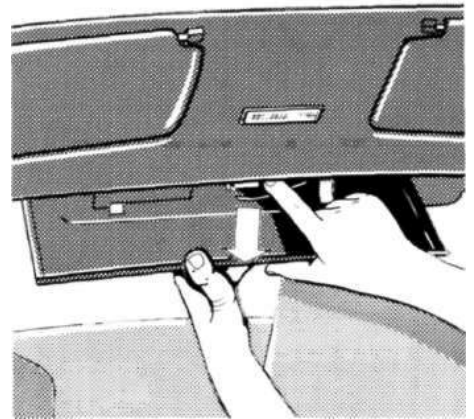
Closing sunroof

To close the sunroof, the switch must be pressed until the sunroof has reached the desired position.

Door lock contact

If the key is held in the locking position when locking a door, the sunroof and the door windows will close in succession automatically.

Do not operate the sunroof at driving speeds exceeding 60 mph or 100 km/h. The force to overcome wind resistance at higher speeds may cause damage to the sunroof.

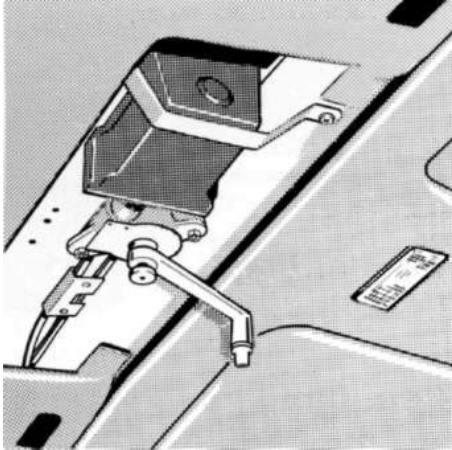


Manual operation

If the electric drive mechanism fails, the roof can be operated manually. The crank handle provided for this purpose is in the glove compartment.

Remove the cover from the electric drive mechanism at the rear of the headliner by pulling it down and disengaging the spring catch.

Remove screw and washer on bottom of drive mechanism. Keep screw and washer within easy reach.



Install handle in slot of drive mechanism and tighten thumb screw.

Close the roof, remove the handle and reinstall washer and screw. Replace the cover.

Do not depress the rocker switch but let your Porsche dealer correct the fault.



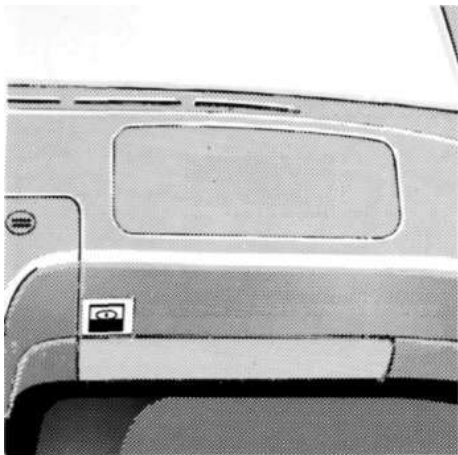
Rear window wiper

To avoid scratching the glass, the rear window should be sufficiently wet before turning on the wiper.

To actuate the wiper, push the rocker switch in the center console.

The wiper action disengages or engages automatically when the luggage compartment lid is opened or closed.

When cleaning the rear window, the wiper arm should be lifted only slightly.



Glove compartment

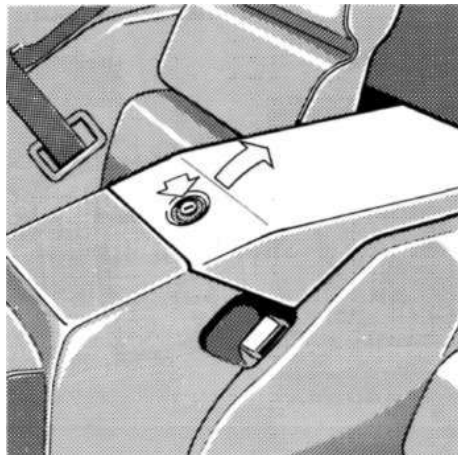
The illuminated glove compartment can be opened by pulling the recessed handle.

The glove compartment can be locked or unlocked with the ignition key.

WARNING

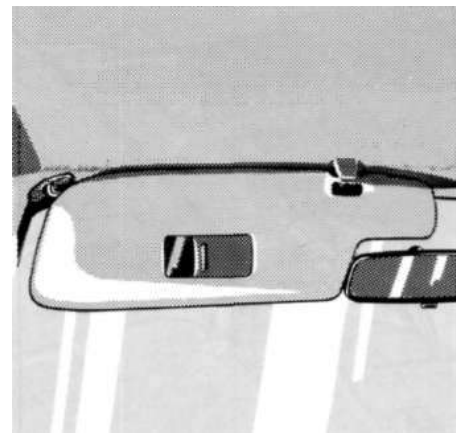
Keep glove compartment door closed while driving to prevent injury during a collision.

Make sure the glove compartment door is closed when the vehicle is parked (battery run-down).



Rear seat glove compartment

To open the glove compartment, press the button (arrow) and lift the lid. The glove compartment is lockable.



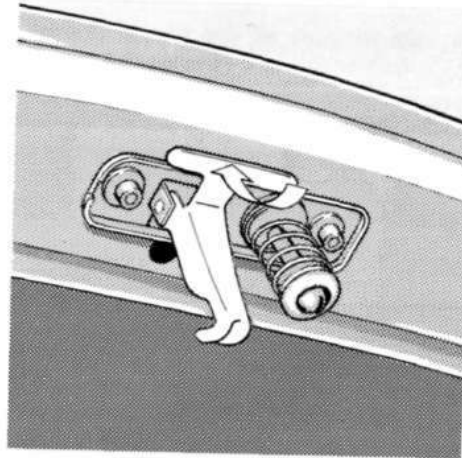
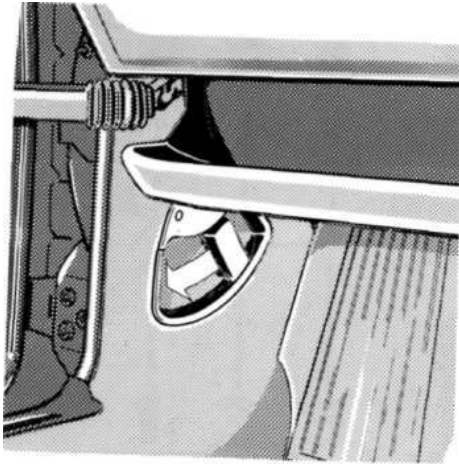
Sun visors

The front sun visors can be moved to the sides as well as forward (arrows).

The rear sun visors can be moved backward.

Vanity mirror

The vanity mirrors are incorporated into the rear side of the sun visors and can be fastened with a slide.



Engine compartment hood

To release

Slide the release lever (arrow) on the left side underneath the dashboard panel.

The hood springs up slightly under spring pressure.

To open

Lift hood slightly and press safety catch handle upward (arrow). Then lift up the hood.

The windshield wipers should not be tilted forward.

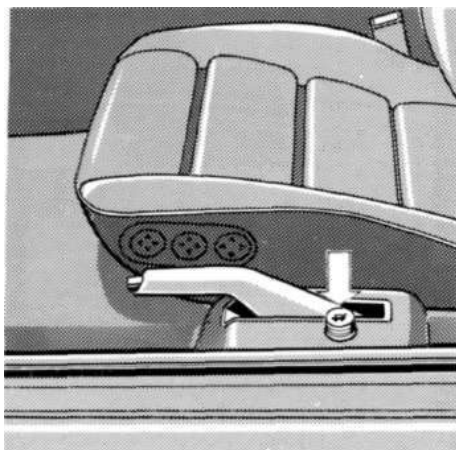
The engine compartment light will come on when the hood is open.

To close

Lower the hood slowly and then push down with both hands until the lock snaps shut.

WARNING

Should you notice at any time while driving that the hood is not secured properly, please stop at once and close it.

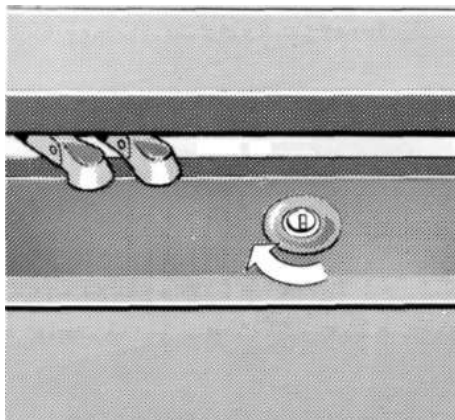


Hatchback release

With one or both doors open, you can release the hatchback by pulling the button on the left of the driver's seat. The hatchback will open automatically.

Also see "Hatchback".

Be careful when removing large objects through the rear. Sharp edged objects may damage the defogger wires in the rear windows.



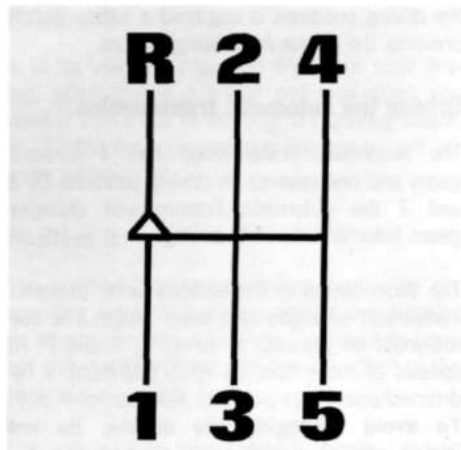
Hatchback

To open...

see "Hatchback release" or insert the key into the lock and turn clockwise. The hatchback springs up slightly under spring pressure. Lift the hatchback by hand to open.

To close...

Lower the hatchback slowly and then push down with both hands until lock snaps shut. Pull up on hatchback to make sure it is securely locked.



Gearshifting manual transmission

The Porsche transmission with servo-lock synchronisation permits rapid and precise shifting of gears. When changing gears make sure that the clutch pedal is fully depressed to the floor, and that the gearshift lever is completely engaged. The engine speeds for the individual gears are listed on this page.

Reverse

Reverse should only be selected after the vehicle has come to a complete stop.

The clutch pedal must be depressed several seconds before shifting into reverse; only then move the gearshift lever to the left, overcoming the spring resistance, and to the front.

Both back-up lights come on when the transmission is put into reverse (with ignition on).

The gear positions are illustrated in the diagram.

If you wish to shift from **1st gear** into **Reverse**, the gearshift lever must first be brought into the **Neutral** position and then shifted into Reverse. This is necessary because of the reverse gear lock-out mechanism.

For smooth shifting, observe the following shift points which apply to standard gear ratios only:

Maximum downshifting points

5th to 4th gear
129 mph/207 km/h or 4800 rpm

4th to 3rd gear
97 mph/156 km/h or 5000 rpm

3rd to 2nd gear
70 mph/112 km/h or 4700 rpm

2nd to 1st gear
45 mph/ 73 km/h or 4300 rpm

Minimum upshifting points

1st to 2nd gear
15 mph/24 km/h or 2200rpm

2nd to 3rd gear
25 mph/40 km/h or 2400 rpm

3rd to 4th gear
40 mph/64 km/h or 2750 rpm

4th to 5th gear
45 mph/72 km/h or 2300 rpm

Please observe all local and national speed limits!

Controls for automatic transmission

The individual driving ranges are selected automatically depending on

- selector lever position
- speed
- accelerator pedal position

The position of the gear shift lever lights up in the instrument cluster display field whenever the vehicle lights or ignition are switched on.

Removing the ignition key is only possible if the selector lever is in position **"P"**.

Remember the following basic rules:

Apply the parking brake or foot brake before selecting a driving position. When the selector lever is in a driving position, the car may creep even at idle speed. Therefore, do not release the parking brake or foot brake until you are ready to move.

Do not accelerate while selecting a driving position. At this time the engine must run at idle speed so that no undue stress will be placed on the automatic clutches in the transmission.

Do not step on the accelerator until positive contact has been made.

If the selector lever is unintentionally moved into Neutral (N) while driving, switch off the automatic speed control, take your foot off the accelerator pedal and wait until the engine speed has dropped to idle before selecting a driving position.

Never get out of the driver's seat when the engine is running and the selector lever is not in the "P" position. **Move the selector lever to "P" and apply parking brake.**

Always make sure the selector lever is in the "P" position when checking under the hood. Otherwise, any increase in engine speed may set the vehicle in motion, **even with the parking brake applied.**

A driving position must never be used for holding the vehicle at rest uphill. Always use your foot brakes when stopped on inclines.

WARNING

While driving with the automatic speed control set (at speeds above 25 mph or 40 km/h), do not bring shift lever into the Neutral position to prevent excessive engine rpm.

Starting the engine

is only possible when the selector lever is in **Neutral** or in **Park (N or P)**. As long as one of

the driving positions is engaged a safety switch prevents the engine from being started.

Driving the automatic transmission

The Automatic Transmission has 4 forward gears and one reverse. In driving positions D, 3 and 2 the Automatic Transmission changes gears automatically while driving.

The push button in the selector lever prevents inadvertent selection of a lower range. The button must be pressed to select 1, R and P. At speeds of more than 15 km/h (10 mph), a hydromechanical lock prevents selection of R or P. **To avoid damaging the engine, do not under any circumstances exceed the engine speeds listed below when selecting a lower driving range:**

From D to 3 4650 rpm or 210 km/h (130 mph)

From 3 to 2 4250 rpm or 130 km/h (80 mph)

Position D

is the driving position normally used for city and highway driving. It ranges from zero to top speed, and all four gears shift automatically depending on driving speed.

Position 3

is to be used for mountain driving or slow driving, when towing a trailer and also when you want to make use of the engine's braking effect. In "3", the first, second and third gears will engage automatically.

Position 2

This position is to be used when climbing or descending extreme gradients and towing a trailer on mountain roads. Since the transmission does not shift past 2nd gear, the braking effect of the engine is increased.

The transmission may switch between 1st and 2nd gear when driving, depending on prevailing conditions and the position of the accelerator pedal.

The reverse position R

Reverse position should be selected only when the car has come to a full stop and the engine is running at idle speed.

The back-up lights come on automatically when you engage Reverse (**with** ignition on).

Emergency starting

Should the engine fail to start see "Emergency starting with jumper cables" or consult your authorized Porsche dealer.

Do not start or tow the car without ATF in the transmission, as this will result in serious damage to transmission and torque converter.

Putting the car in gear

With the parking brake or foot brake set, shift into the range you wish to use, usually position D. To accelerate, release the brake and depress the accelerator pedal.

WARNING

Do not release the brake before you are prepared to move, because power is transmitted to the wheels as soon as a driving range is engaged.

Selecting a driving position while driving

is easy. Simply release the accelerator pedal and move the selector lever from the position you are into the position you want. Then step on the accelerator again.

WARNING

Do not shift to a lower driving position until vehicle speed has dropped below the specified limits. Engine speed will suddenly increase and may cause engine damage and loss of vehicle control.

Stopping

When stopping temporarily, at traffic lights for example, it is not necessary to move the selector lever to Neutral. Simply apply the brakes. To start again release the brake and accelerate.

Position P Parking

When parking your car, apply the parking brake first, and then move the selector lever to position P. To do this, depress the button and push the lever through R to P. The transmission is then mechanically locked. Park may only be engaged when the car is stationary.

Do not remove the key from the ignition steering lock until you have parked the car, because removal of the key locks the steering wheel.

Shift out of the Park position, before releasing the parking brake.

When the car is parked on a steep hill, shifting out of Park may be a little harder. This is due to the weight the car exerts on the transmission.

Position N Neutral

Shift to this position for standing with brakes applied.

Never use Neutral for coasting downhill. You may lose control over the car because of reduced engine braking and cause serious damage to the transmission when a driving range has to be selected.

Maneuvering

When alternating between Drive (D) and Reverse (R) (for instance, while maneuvering the car into a tight parking space), only shift into **Reverse** or **Drive** when the car has come to a full stop and the engine is running at idle speed.

Stuck in snow, mud or sand

When alternating between **Drive** and **Reverse** in an effort to free the vehicle, depress the accelerator pedal lightly while the transmission is in gear, and release the accelerator pedal while shifting. Do not race the engine and avoid spinning the wheels.

Do not repeatedly "rock" back and forth while wheels are spinning as serious damage may occur in the automatic transmission and other critical parts.

If you cannot free the vehicle after a few "rocking" attempts, call for help or a tow truck.

Accelerator pedal position

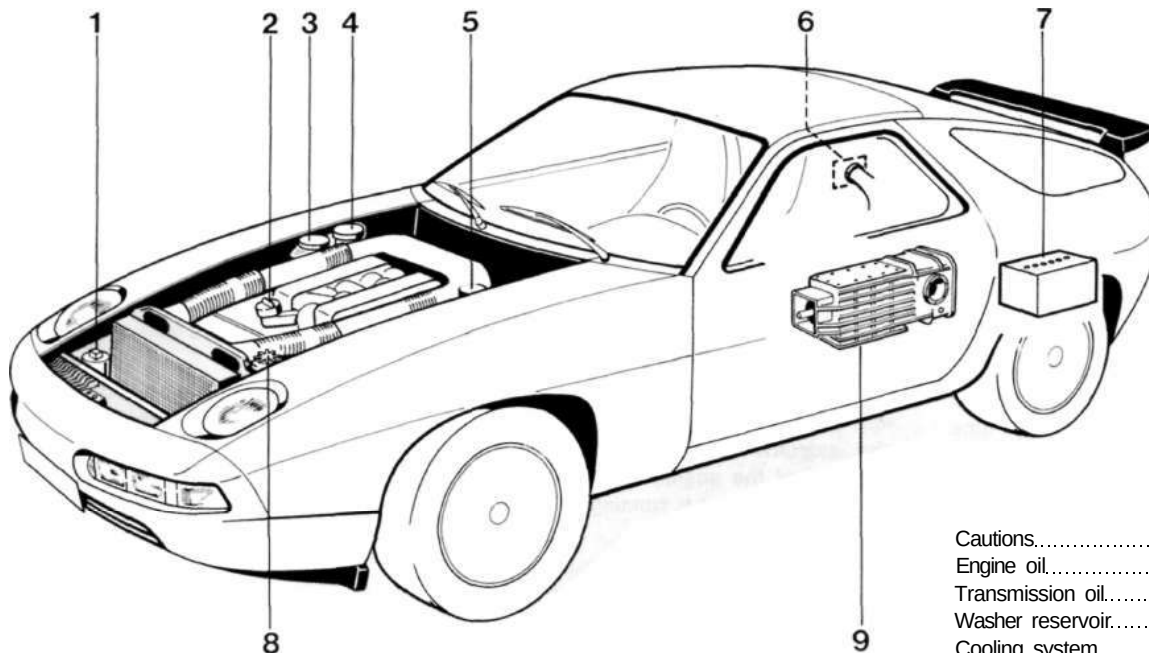
- Under moderate acceleration in the **part load range**, upshifts are effected at low speeds for the sake of economy and quietness.
- **Under full acceleration**, the upshift points slide to higher speed ranges.
- For maximum acceleration, the accelerator pedal must be pressed down past its point of resistance at full load (**kick-down**). The transmission may shift down to a lower gear, depending on selector lever position and road speed. When the engine speed increases, the transmission shifts up into the next gear.

The downshift will also occur when there is a rapid movement of the accelerator pedal, depending on selector lever position and road speed. In this case, the kick-down switch does not have to be activated.

Use care when using the kick-down on slippery roads. Rapid acceleration may cause skidding.

As soon as you release the pedal from the kick-down position, the next higher gear can be automatically engaged.

Maintenance, Car Care



- 1 Refrigerant
- 2 Engine oil
- 3 Windshield/headlight washer fluid
- 4 Coolant
- 5 Brake fluid

- 6 Fuel
- 7 Battery electrolyte
- 8 Hydraulic fluid for steering
- 9 Transmission oil or ATF

Cautions.....	70
Engine oil.....	71 - 73
Transmission oil.....	73
Washer reservoir.....	74
Cooling system.....	74, 75
Power steering.....	76
Air filter.....	76
Brake fluid reservoir.....	77
Fuel.....	78 - 80
Additional equipment.....	81
Car care instructions.....	82 - 86

Exercise extreme caution when working under the engine hood

The engine compartment of any motor vehicle is a potentially hazardous area. If you are not fully familiar with proper repair procedures, do not attempt the adjustments described on the following pages. This caution applies to the entire vehicle.

WARNING

Ignoring following instructions may cause serious personal injury.

- Only work on your vehicle outdoors or in a well ventilated area.
- Ensure that there are no open flames in the area of your vehicle at any time when gasoline fumes might be present. Be especially cautious of such devices such as hot water heaters which ignite a flame intermittently.
- Before working on any part in the engine compartment, turn the engine off and let it cool down sufficiently. Hot engine compartment components can burn skin on contact.
- Even after the engine has stopped, the radiator fan may continue running until temperature of the coolant has dropped to a certain level. Therefore, never touch the fan blades as they will rotate spon-

taneously when the thermostat turns the fan on, even with ignition off.

- * Be alert and cautious around engine at all times while the engine is running.
- If work has to be done with the engine running, always set the parking brake, and make sure the shift lever is in either Neutral or Park.
- * In particular, be very careful to ensure that items of clothing (ties, sleeves etc.), jewelry or long hair cannot get caught in the fan, V-belts or other moving parts.
- * Your Porsche is equipped with a transistorized ignition system with breakerless distributor. When the ignition is on, high voltage is present in all wires connected with the ignition system; therefore, exercise extreme caution when working on any part of the engine while the ignition is on or the engine is running.
- Always support your car with safety stands if it is necessary to work underneath the car. The jack supplied with the car is not adequate for this purpose.
- When working underneath the car without safety stands but with the wheels on the ground, make sure the car is on level ground, that the wheels are blocked, and that the engine cannot be started.

REMOVE THE IGNITION KEY.

- Do not smoke or allow an open flame around the battery or gasoline.
- Keep a fire extinguisher in close reach.
- Incomplete or improper servicing may cause problems in the operation of the car. If in doubt about any servicing, have it done by your authorized Porsche dealer or any other properly equipped and qualified workshop.
- Improper maintenance during the warranty period may affect your warranty coverage.

Engine oil level

Engine oil consumption

It is normal for your engine to consume oil. The rate of oil consumption depends on the quality and viscosity of oil, the speed at which the engine is operated, the climate, road conditions as well as the amount of dilution and oxidation of the lubricant.

Because of these variables, no standard rate of oil consumption can be established, but drivers should expect an increased oil consumption at high speeds and when the engine is new.

- * **The engine in your vehicle depends on oil to lubricate and cool all of its moving parts. Therefore, the engine oil should be checked regularly and kept at the required level.**
- * **Make it a habit to have the engine oil level checked with every fuel filling.**
- * **Lack of sufficient engine oil may lead to severe engine damage.**
- * **The oil pressure warning light is not an oil level indicator.**

The oil level should be between the "max" and "min" marks on the dipstick. If the oil level drops below the "min" mark or if the oil level sending unit is not working, a fault

message appears in the information system display when the ignition is switched on. Top up the engine oil or replace oil level sending unit. See "Cautions".

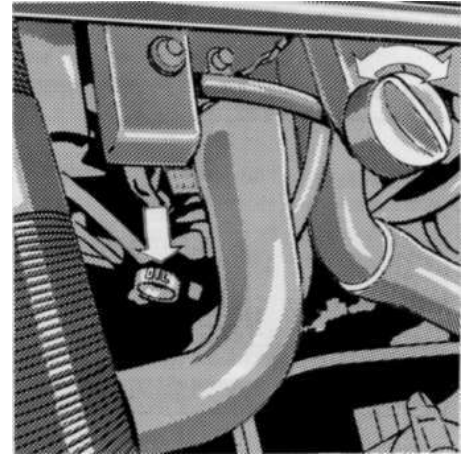
Checking oil level

To get a true reading, the car should be on level ground. After turning off the engine, wait a few minutes for the oil to return to the oil sump.

1. Pull out dipstick and wipe it dry with a clean cloth or paper towel.
2. Reinsert dipstick; push it in all the way down for an accurate reading.
3. Pull dipstick out again. The oil level is correct if it is between the "max" and "min" marks on the dipstick.
4. If oil level is below "min" mark, or not showing on dipstick, add oil immediately. The difference between the two marks is about 1.6 U.S. qt. or 1.5 Liter.

Adding engine oil

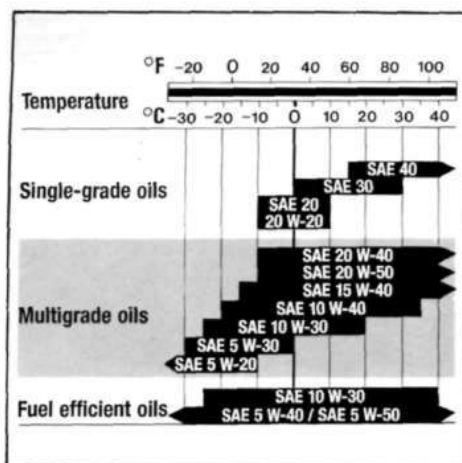
Only add the amount of oil that is needed. The correct oil grade and viscosity recommendation is given under "Engine Oils".



1. Remove oil filler cap (arrow).
2. Top up with engine oil.
3. Check oil level with the dipstick - upper mark should not be exceeded.
4. Replace cap and tighten.

WARNING

The oil filler cap and dipstick must be secure to avoid oil spills and resulting fire hazard.



Examples of approved viscosity classes



Look for
this label

Engine oils

Use only engine oils which meet the specifications designated by Porsche. Your Porsche dealer will be glad to advise you on the correct type of oil for your engine.

These oils can be intermixed.

Since, however, each brand of oil has a special composition, you should, if possible, use the same oil brand if it becomes necessary to top up between oil changes. Porsche engines have long intervals between oil changes. You can make best use of these long oil change intervals

by using multigrade oils or multigrade fuel efficient oils since these are largely independent of seasonal fluctuations in temperature.

If your vehicle is used in stop-and-go traffic in winter, the engine will not always reach its optimum operating temperature. Condensation from products of combustion may accumulate in the oil. It is therefore advisable to change the oil in spring so that your engine once again has a 100 % efficient engine oil.

Engine oil performance class

Engine oil is not only a lubricant, but also serves to keep the engine clean, to neutralize the dirt which penetrates into the engine through combustion and to protect the engine against corrosion. To perform these functions, the oil contains additives which have been specially developed for these functions.

So-called mineral oils are produced directly from crude oil. The oils can be further refined (hydrocrack oils) or totally converted through a number of chemical processes (synthetic oils). These oils are structurally more efficient and require fewer additives than simple mineral oils. Such oils are also known as non-conventional oils.

The efficiency of an oil is expressed by classifications. The requirements for Porsche engines

are API class SG (US specification) and CCMC G4/G5 (European specification).

Viscosity

Engine oil is viscous when cold, and thin-bodied when warm. The viscosity of an oil is expressed by its SAE class. For cold viscosity, the SAE class is given as a number and the letter "W" (as in winter); for hot viscosity, the SAE class is given only as a number.

The viscosity of an oil is, therefore, always the same for a specific temperature range if it has the same number of an SAE class.

E.g.: A 10 W-30 oil and a 10 W-40 oil have the same viscosity when cold; when hot the oil with the number 30 is thinner than the oil with the number 40.

Single-grade/multigrade oils

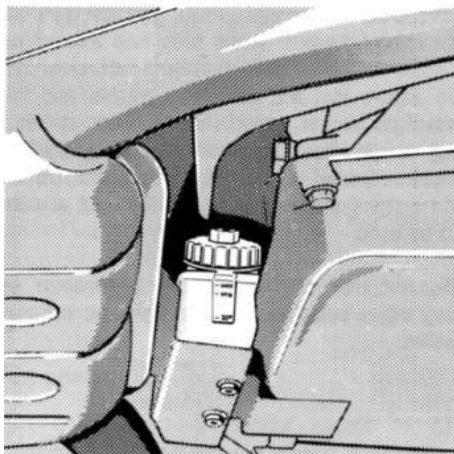
Oils with two viscosities are called multi-grade oils; oils with only one viscosity are termed single-grade oils.

Single-grade oils can only be used for the narrow temperature range identified by their SAE number; multigrade oils cover a wider temperature range (see chart).

Fuel efficient oils

Fuel efficient oils have low viscosity at low temperatures and high thermal stability at high temperatures.

As high-performance oils, these oils are manufactured only as synthetic or hydrocrack oils at present.



enough ATF, if the fluid level is between the MAX and the MIN mark on the reservoir.

The level should never be above or below these two marks.

Should the fluid level in the transparent reservoir drop below the MIN mark or rise above the MAX mark, do not just add or drain ATF. Have your dealer check and correct the cause promptly.

Automatic transmission fluid

The torque converter and the transmission are lubricated with Automatic Transmission Fluid (ATF). The final drive requires hypoid oil. See "Filling Capacities".

In the event of a noticeable loss of ATF, contact your dealer immediately.

Do not tow the car or run the engine without ATF in the transmission.

The automatic transmission may be damaged by even a tiny speck of dirt, only a clean funnel or spout must be used when adding ATF.

Checking the ATF level

The ATF should be checked and changed at the intervals listed in your **Maintenance Schedule**. A correct ATF level is very important for the proper functioning of the transmission.

The reading should be done when the ATF is warm, with the engine idling, the selector lever in Neutral and the parking brake applied.

The level of the ATF can be checked visually through the transparent reservoir, located at the rear end of the transmission housing. You have

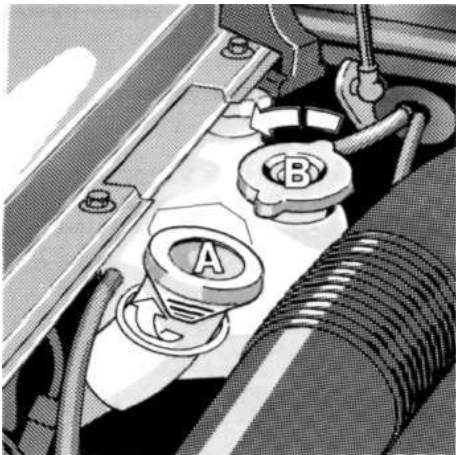
Manual transmission oil

The transmission oil has to be changed at the intervals listed in your **Maintenance Schedule**.

See "Filling Capacities".

We recommend that you have the transmission oil changed at your Porsche dealer, who has the required lubricants and the necessary filling equipment.

If you suspect an oil leak in the transmission, have your dealer check it out immediately.



Windshield washer fluid reservoir (A)

The transparent fluid reservoir is located in the right rear in the engine compartment, in front of the expansion tank (see illustration) and has a capacity of approx. 7.5 liters (2 U.S. gals.). If the fault message appears in the information system display, there is approx. 1 liter (1 U.S. qt.) of fluid remaining in the reservoir. As clear water is normally not adequate to keep your windshield and headlights clean, add a cleaning solution to the water.

To top up with washing fluid, you can pull out the filling tube extension.

To assure that the windshield washer and the headlight washer systems also function at freezing temperatures, anti-freeze/cleaning solution must be added to the water beforehand. Follow the instructions on the can for the right amount to be used.

Do not use engine coolant antifreeze or any other solution that can damage the car paint.

Cooling system (B)

Only use additives recommended for aluminium engines and radiators. Your Porsche dealer will be able to advise you.

For year round driving, anti-freeze is added at the factory for temperatures down to:

-23° F/30° C for U.S.
-40° F/40° C for Canada

Because of its anti-corrosion properties, anti-freeze should also remain in the cooling system for summer operation. Cooling system capacity and specified anti-freeze and water ratios are listed under "Filling Capacities".

Use any quality phosphate-free anti-freeze containing ethylene glycol, available at your Porsche dealer. **Anti-freeze other than specified by Porsche for aluminium engines and radiators may cause corrosion of the cooling system, leading to engine overheating and damage.**

Only for topping up coolant, a small amount of anti-freeze containing ethylene glycol and phosphates may be used if recommended anti-freeze is not available.

The anti-corrosion properties and the antifreeze consistency will diminish gradually. We recommend renewing the coolant mixture at least every 2 years.

WARNING

Even after the engine has stopped, the radiator fan may continue running until temperature of the coolant has dropped to a certain level. Therefore, never touch the fan blades as they will rotate spontaneously when the thermostat turns the fan on, even with ignition off.

Checking coolant level in expansion tank

A correctly functioning cooling system requires only minor care. The coolant level should be checked from time to time, and always before going on a longer trip.

The **expansion tank** with filler cap opening is located in the right rear of the engine compartment (see illustration). Since the expansion tank is transparent, it is not necessary to unscrew the filler cap.

When the engine is cold, the coolant level should reach the manufacturing seam on the expansion tank. When the engine is warm, the coolant level will be above the manufacturing seam.

Since the closed cooling system loses almost no coolant, **topping up** is normally not required. An obvious loss of coolant indicates leakage. The fault will be indicated by a fault message in the information system display. Top up the coolant and contact your dealer.

WARNING

Do not open the filler cap when the engine is hot because of the danger of scalding. Allow the engine to cool down. Protect your hands, arms and face.

Using a thick rag, open the cap carefully and only enough to allow excess pressure to escape before removing the cap.

To avoid damage to the engine, **only add cold antifreeze and cold water** to the cooling system **when the engine is also cold**.

A warm engine should only be topped up if the coolant level has dropped appreciable below the manufacturing seam. Too much added coolant will escape through the pressure cap when coolant warms up.

For more details see "coolant temperature gauge and coolant temperature warning light".

Fan control

This device permits cooling output to be adapted to the operational status of the engine. A control unit processes the information it receives from the sensors in the engine compartment and passes the appropriate signals to the fans. If more air is needed, the speed of the two continuously adjustable electric cooling fans is increased. If the temperature of the coolant drops below 75° C, the fans are switched off; in the event of a fault, they operate at maximum speed.

The system has both auto and remote supervision. Should a component fail, the coolant temperature warning light gives indication of excessively high coolant temperatures and a fault message appears in the information-system display.

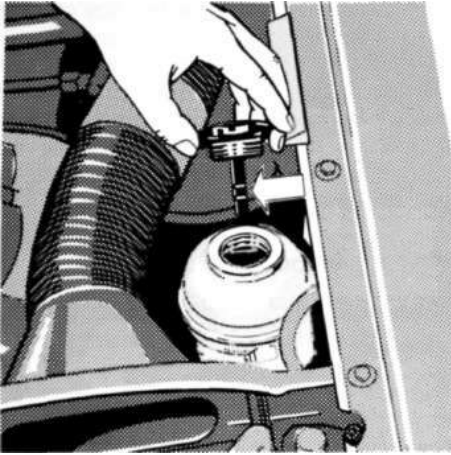
When the engine is warm, the fans may continue to run after the ignition key has been removed. To avoid any danger of injury, the fans are switched off when the engine-compartment hood is opened. However, this protective measure to prevent the fans starting suddenly while the hood is open is only fully operative as long as the key is removed from the ignition.

Winter operation

At the beginning of the winter season, have the coolant checked for anti-freeze concentration.

The ratio between water and anti-freeze, necessary to prevent freezing, depends on the anticipated outside temperatures. The ratios can be taken from the mixing chart listed under "Filling Capacities" or from the container of the anti-freeze manufacturer.

Increasing the anti-freeze in the coolant further than shown on the container is not only uneconomical, it is also detrimental to engine cooling.



Power steering fluid reservoir

The reservoir is located in the engine compartment on the left side.

To check fluid level . . .

1. Unscrew the reservoir cap.
2. Wipe the dipstick clean. Let the engine run at idle speed. Screw on the cap and then screw it off again. The fluid level should be between the upper and lower marks. If necessary, top up with ATF Dexron II D®.

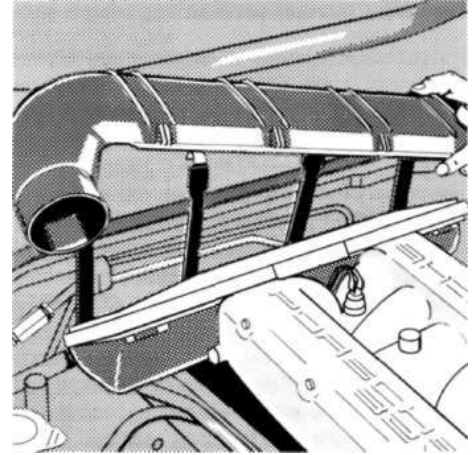
3. Put the cap back on and screw tight.

If the engine is not running, power assisted steering is no longer effective. You can continue to steer the car but considerably more effort will be required to turn the steering wheel.

Changing air cleaner filter element

A dirty air cleaner not only reduces engine performance, but can lead to premature engine wear. The filter element must be replaced at the intervals listed in your **Maintenance Schedule**. If driving is mostly done in areas where the air is very dusty, the air cleaner should be checked and cleaned frequently - perhaps daily.

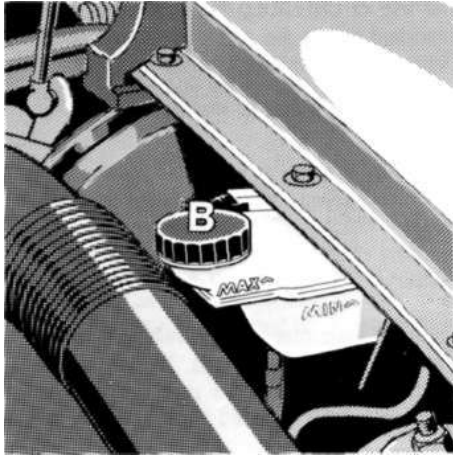
1. Detach air intake hoses from air cleaner housing. Make sure that each hose stays connected to the toothed belt covers.
2. Loosen rubber fasteners and remove top of filter housing together with filter element.



3. Clean filter housing with lint-free rag and install new filter element.
4. Reattach air intake hoses to air cleaner housing.

WARNING

The paper filter element must never be cleaned or soaked with gasoline, cleaning solvents or oil. Doing so may cause a fire or explosion and result in serious personal injury.



Brake fluid reservoir (B)

The brake fluid reservoir is located in the engine compartment.

The brake fluid reservoir has three chambers: one for each of the dual brake circuits, and one for the clutch.

Check the brake fluid level regularly. The fluid level should always be between the MIN and MAX marks on the transparent reservoir.

To add brake fluid, unscrew the cap. The vent bore in the cap should be kept clean.

Should the fluid level drop below the MIN mark, the brake fluid warning light comes on and a fault message appears in the information system display. Pull off the road, stop the engine and add brake fluid immediately or contact the nearest Porsche dealer to have the cause located and corrected.

WARNING

Brake fluid has to be replaced in accordance with the intervals specified in your Maintenance Booklet.

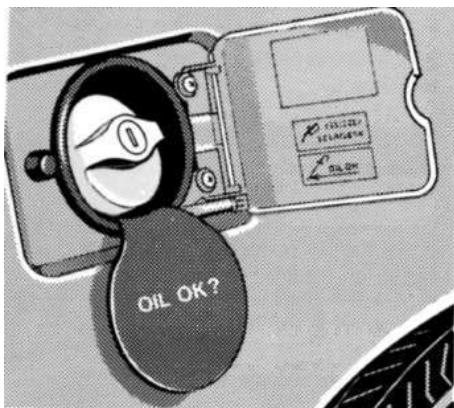
If brake fluid must be added to the reservoir, use only new and unused original Porsche brake fluid.

Do not use any other brake fluid or brake fluids that have absorbed moisture from the open air, or brake fluid that is dirty. It may cause premature wear or unreliable braking action.

Do not add or mix DOT 5 silicone type brake fluid with the brake fluid in your vehicle as severe component corrosion may result. Such corrosion could lead to brake system failure.

The brake warning light does not indicate brake fluid level. Check fluid level between regular maintenance services.

Brake fluid is poisonous. Brake fluid is also harmful to the paint of your vehicle.



Fuel filler cap

Never run the tank completely out of gas.

The lockable fuel filler cap is located under the flap in the rear quarter panel behind the right rear wheel.

When putting the cap back on the fuel filler neck, be sure cap is securely seated. Twist cap clockwise, until it stops with an audible click and then lock with the ignition key.

We recommend you turn off the engine when filling the fuel tank.

Fuel tank capacity is listed under "Filling Capacities"

Porsche does not recommend the use of fuel additives.

If you lose your fuel filler cap, replace it immediately with a cap of the same design to reduce the possibility of a fire in a collision.

Fuel recommendations

Your Porsche is equipped with a catalytic converter and must use **UNLEADED FUEL ONLY**.

Your engine is designed to provide optimum performance and fuel economy using unleaded premium fuel with an octane rating of 98 **RON** (93 **CLC or AKI**). Porsche therefore recommends the use of these fuels in your vehicle.

Porsche also recognizes that these fuels may not always be available. Be assured that your vehicle will operate properly on unleaded premium fuels with octane numbers of at least 95 **RON** (90 **CLC or AKI**), since the engine's "Electronic Octane™ knock control" will adapt the ignition timing, if necessary.

Federal law prohibits use of leaded fuel in this vehicle.

The use of **UNLEADED FUEL ONLY** is critically important to the life of the catalytic converter. Deposits from leaded gasolines will ruin the converter and make it ineffective as an emission control device.

Cars with a catalytic converter have a smaller fuel tank opening, and gas station pumps have smaller nozzles. This will prevent accidental pumping of leaded fuel into cars with a catalytic converter.

Unleaded fuels may not be available outside the continental U.S. and Canada. Therefore, we recommend you do not take your car to areas or countries where unleaded fuel may not be available.

Octane ratings

Octane rating indicates a gasoline's ability to resist detonation. Therefore, buying the correct octane gas is important to prevent engine damage.

The RON octane rating is based on the research method. The CLC (U.S. Cost of Living Council octane rating) or AKI (anti knock index) octane rating usually displayed on U.S. gasoline pumps is calculated as research octane number plus motor octane number, divided by 2, that is written as:

$$\frac{\text{RON} + \text{MON}}{2} \quad \text{or} \quad \frac{\text{R} + \text{M}}{2}$$

The CLC or AKI octane rating is usually lower than the RON rating:

For example:

95 RON equals.....90 CLC or AKI

WARNING

Never carry additional fuel in portable containers in your car. Such containers, full or partially empty, may leak, cause an explosion, or result in fire in case of a collision.

Always use unleaded fuel with octane ratings of at least 95 RON or 90 CLC or AKI.

Gasolines containing alcohol and ether

Some areas of the U.S. require oxygenated fuels during certain portions of the year. Oxygenated fuels are fuels which contain alcohols (such as methanol or ethanol) or ether (such as MTBE).

Under normal conditions, the amount of these compounds in the fuel will not affect driveability.

You may use oxygenated fuels in your Porsche, provided the octane requirements for your vehicle are met. We recommend, however, to change to a different fuel or station if any of the following problems occur with your vehicle:

- Deterioration of driveability and performance.
- Substantially reduced fuel economy.
- Vapor lock and non-start problems, especially at high altitude or at high temperature.
- Engine malfunction or stalling.

Fuel economy

Fuel economy will vary depending on where, when and how you drive, optional equipment installed, and the general condition of your car. A car tuned to specifications and correctly maintained, will help you get maximum fuel economy.

- Have your vehicle tuned to specifications.
- Fuel injection should be adjusted to specifications.
- Spark plugs should be clean, properly gapped and fire efficiently.
- Air cleaner should be dirtfree to allow proper engine "breathing".
- Battery should be fully charged.
- Wheels should be properly aligned.
- Tires should be inflated at correct pressures.
- Keep a light foot on the gas pedal.
- Drive smoothly, avoid abrupt changes in speed as much as possible.
- Avoid jack rabbit starts and sudden stops.
- Do not drive longer than necessary in the lower gears. Shifting up early helps to save fuel.
- Avoid unnecessary idling. Turn the engine off.

- Prolonged "warm up" idling wastes gas. Start the vehicle just before you are ready to drive. Accelerate slowly and smoothly.
- Any additional weight carried in the vehicle reduces fuel economy. Always keep cargo to a minimum and remove all unnecessary items.
- Organize your trips to take in several errands.
- Use air conditioner only when needed.
- All electrical equipment contribute to increased fuel consumption.

The EPA estimated m.p.g. is to be used for comparison purposes, actual mileage may be different from the estimated m. p.g., depending on your driving speed, weather conditions and trip length. Your actual highway mileage will probably be less than the estimated m.p.g.

Please observe all local and national speed limits.

Operating your Porsche in other countries

Government regulations in the United States and Canada require that automobiles meet specific emission regulations and safety standards. Therefore, cars built for the U.S. and Canada differ from vehicles sold in other countries.

If you plan to take your Porsche outside the continental limits of the United States or Canada, there is the possibility that

- unleaded fuel may not be available;
- unleaded fuel may have a considerable lower octane rating. Excessive engine knock and serious damage to both engine and catalytic converter could result;
- service may be inadequate due to lack of proper service facilities, tools or diagnostic equipment;
- replacement parts may not be available or very difficult to get.

Porsche cannot be responsible for the mechanical damage that could result because of inadequate fuel, service or parts availability.

If you bought your car abroad and want to bring it back home, be sure to find out about shipping and forwarding requirements, as well as current import and customs regulations.

Additional equipment

Roof racks

Normal commercially available roof racks **cannot** be fitted. If an original **Porsche rack** (as available hitherto) is fitted, the permissible roof load is 35 kg (77 lbs).

With the **"Porsche Roof Transport System"** you can transport a wide variety of sports and hobby equipment, up to a roof load of 75 kg (165 lbs).

There are many different racks to choose from. Your Porsche dealer will be glad to advise you on the versatility of the "Roof Transport System".

To ensure minimum noise, maximum comfort and economy and a desirable level of safety when driving with an unloaded roof rack, you should not exceed a maximum speed of 180 km/h (110 mph).

When the roof rack is loaded, the recommended maximum speed depends on the nature, size and weight of the load. You should not, however, exceed a speed of 140 km/h (85 mph) at any time.

WARNING

Make sure that the load is carefully mounted. Secure it additionally by locking the roof transport system.

Radio reception

The reception quality of your car radio changes constantly while you are driving. Interference due to buildings, topographic features or the weather are inevitable. FM stereo reception is particularly sensitive to changing conditions. To suppress interference, you can switch your radio over to "mono" operation or select a different FM stereo channel.

Car telephone

Any portable telephone or radio transmitter which is used in a Porsche must be properly installed in accordance with the technical requirements of Porsche. The antennas for all radios and telephones with a transmitting antenna must be externally mounted. The improper installation of radios or telephones or use of a radio or telephone with a transmitting antenna inside the car may cause the warning lights to come on. See your authorized Porsche dealer for details.

Car care instructions

Regular and correct care helps to maintain the value of your car and is also a precondition for the New Vehicle Warranty and the Anti Corrosion Warranty.

Your authorized Porsche dealer has specially developed car-care products from the Porsche program available either singly or as complete car-care sets. He will be pleased to help you select suitable products.

Whether you use Porsche products or other commercially available cleaning agents **first** make sure of their correct application.

The Porsche paint finish is of a high quality baked synthetic enamel. The color and enamel type designation are indicated on the "paint number sticker. When buying touch-up paint, always give the paint and the car's identification numbers to your dealer.

A well-cared for Porsche can look like new for many years. It all depends on the amount of care the owner is willing to give the car.

WARNING

Cleaning agents may be poisonous. Keep them out of the reach of children.

Observe all caution labels. Failure to do so may result in serious personal injury or property damage.

Always read directions on the container before using any product. These directions may contain information necessary to avoid personal injury.

Most chemical cleaners are concentrates which require dilution. High concentrations might cause problems ranging from irritation to serious injury as well as damage to your vehicle.

Do not use gasoline, kerosene, naphtha, nail polish remover or other volatile cleaning fluids. They may be toxic, flammable or hazardous in other ways. Only use spot removing fluids in well ventilated areas.

Do not clean the underside of chassis, fenders, wheel covers, etc., without protecting your hands and arms as you may cut yourself on sharp-edged metal parts.

Moisture and road salt on brakes may affect braking efficiency. Test the brakes after each vehicle washing.

Washing

The best method of protecting your car from the damaging effects of the environment is frequent washing and the application of a preservative. The underside of your vehicle should also be washed thoroughly, at the latest when salt is no longer spread on the roads.

The longer salt, road dust and industrial dust, dead insects, bird droppings or substances from trees (resin, pollen) are allowed to remain on the bodywork, the more serious is their harmful effect.

Bodywork which is inaccessible to the car wash must be cleaned by hand and dried.

New cars should be washed carefully with plenty of clear water to protect the new paint work. Dark paint finishes show up the smallest of surface damage (e.g., scratches) more readily than lighter colors.

Dark colors are also more susceptible to scratches because of the composition of their pigments and therefore require special care and attention.

When washing by hand, use abundant water, a soft sponge or wash brush, and the Porsche car shampoo. Begin by spraying the body thoroughly with water to rinse away loose dirt. Do not wash your car in bright sunlight or while the bodywork is still hot. After washing, rinse the car with plenty of water and then dry with a chamois leather.

Do not use the same chamois leather for drying as you use for cleaning the windshield and windows.

The moisture which gets on to the brakes during a car wash can reduce braking efficiency or make the brakes pull unevenly. Always apply the brakes a few times after washing the car to test braking efficiency and dry the brake discs.

Dust should never be wiped off the car with a dry cloth since dust particles are abrasive and could dull and damage the surface finish.

Preservation

The paintwork contains certain oils which maintain its high luster and prevent it from becoming brittle. Climatic influences can remove these oils from the paintwork. This should be counteracted by applying a paint preservative early enough to restore the oils preserving the high luster and preventing dirt from settling on the surface and industrial dust penetrating the paint.

Provided it is washed and treated with preservative regularly, the brand new finish of your car will be retained for years to come.

Apply the Porsche paint preservative after the car wash and polish it dry to obtain a bright finish or simply add the Porsche liquid preservative regularly to the final rinse water and rub down with a leather chamois.

Cleaning and preserving engine compartment

The engine compartment and the surface of the engine are treated with a corrosion-inhibitor at the factory.

If degreasing solvents are used to clean the engine compartment or the engine is washed down, the process almost invariably removes the corrosion-inhibiting coating. It is then absolutely necessary to have a durable preservative applied to all surfaces, body seams, joints and assemblies in the engine compartment. This also applies when corrosion-inhibited parts are replaced.

Effective rust-proofing is particularly important during the cold weather season. If your car is driven frequently in areas where salt has been spread on the roads, the whole engine compartment should be cleaned thoroughly after the winter to prevent salt causing any lasting dam-

age. A full underbody wash should also be performed at the same time.

Windows

The road dust which settles on the windshield and windows contains particles of tire rubber and oil residue. The interior trim and upholstery release particles, particularly in strong sunlight, which collect on the insides of the windows. These deposits are augmented by impurities in the air which enters the car through the fresh air vents.

The Porsche spray-on window cleaner can be used to clean the windows, both inside and outside. Remember to clean the wiper blades as well and replace them once or twice every year, depending on condition. If you use a chamois leather for the windows, do not use it for the paintwork as it will otherwise pick up a certain amount of preservative or polish and could smear the windows and thus impair vision.

Remove dead insects with the Porsche insect remover.

Polishing

Do not resort to using Porsche polish until it becomes evident that the normal preservatives no longer produce the desired finish.

Caution: Do not apply silicone polishes to the windshield or windows.

The paintwork of your car is exposed to all manner of mechanical and chemical conditions, particularly climatic ones such as bright sunlight, rain, frost and snow. Ultraviolet light, rapid changes in temperature, rain, snow, industrial dust and chemical deposits constantly attack the paint which is only able to withstand such exposure in the long term if it is given regular care and attention.

Black matte finished parts should not be treated with preservatives or polishes as this will spoil the matte effect.

Spots and stains

Tar stains, grease, oil spots and dead insects cannot always be removed by washing alone. They can cause discoloration if allowed to remain on the paintwork. They should therefore be removed without delay with Porsche Tar Remover or Porsche Insect Remover.

Wash the affected area immediately after treating it.

Minor paint damage

Minor paint damage, such as scratches, scores or chips caused by flying stones, should be covered immediately with the Porsche Touch-up Applicator before corrosion sets in. However, if there are already traces of corrosion, they must first be removed carefully and thoroughly. Coat the area with a rust-proofing primer and finish off with a top coat. The paint code and color number are found on the vehicle's paint data plate.

Undersealing

The underside of your car is durably protected against chemical and mechanical influences.

As it is not possible to exclude the risk of damage to this protective coating in day to day driving, it is advisable to have the underside of the car inspected at certain intervals - preferably before the start of winter and again in spring - and the undersealing restored as necessary.

Your authorized Porsche dealer is familiar with the bodyseal treatment procedures and has the necessary equipment for applying factory approved materials. We recommend that you entrust him with all such work and inspections.

Unlike conventional spray oils, undersealing and rust-proofing compounds based on bitumen or wax do not attack the anti-drumming materials applied at the factory.

Before applying fresh underseal, carefully remove deposits of dirt and grease. Once it has dried, the new undersealing compound forms a tough protective coating which provides efficient rust-proofing of the floor panels and components.

WARNING

Do not apply any undersealing on or near exhaust manifold, exhaust pipe, catalytic converter or heat shields. With the engine running, the material may overheat and ignite.

Always apply a fresh coating of suitable preservative to unprotected areas after cleaning the underside of the body or the engine or carrying out repairs to underbody components.

Light lenses and plastics

Use only soap and water solution for cleaning the plastic light lenses. Never use chemical cleaning agents for this purpose. The same applies to other plastic parts and plastic films.

Door, roof, lid and window seals

Rubber seals tend to age and become brittle or crack if they are not treated occasionally with glycerine or talcum powder.

Light alloy wheels

Pitting may occur if metallic particles which cause contact corrosion (e.g. brass or copper in brake dust) are allowed to remain on the aluminium for too long.

Regular care is necessary in order to retain the attractive surface finish. The wheels should be washed down with a sponge or wash brush about every two weeks. In areas where salt is spread on winter roads or there is a lot of airborne industrial dust, it is best to clean the wheels weekly.

The Porsche Light Alloy Wheel Cleaner (pH-value 9.5) can be used for this purpose.

If the pH-value of the detergent is incorrect, the protective coating on the wheels will be destroyed.

Every three months you should coat the wheels with a non-corrosive grease (vaseline) after cleaning. Using a clean cloth thoroughly rub the grease into the surface.

Polishes which dissolve oxides, as frequently used for other metals, or abrasive tools or agents are unsuitable because they break down the oxide film of the protective coating and will cause discoloration of the wheel.

Leather care

Leather is a natural material. The tanned hide is a product of nature. The natural surface markings of leather skins, such as creases, healed scratches, insect bites, structural differences and slight variations in shade and grain add to the attractiveness of the real leather product.

We recommend that the leather be treated or cleaned initially after the first few weeks or after the car has covered a few thousand miles. Only by doing so can the leather patina, which emphasizes the inherent qualities of the leather upholstery, begin to form.

Cleaning is best performed with a white, soft woolen cloth and a cleaning agent with a neutral

soap basis (mild soap and water solution). If the leather is heavily soiled the Porsche Cockpit Cleaner can also be used. Please follow the instructions on the containers carefully.

Do not use aggressive cleaners or hard objects.

Take special care not to dampen the other side of the perforated leather trims.

Once you have cleaned the leather (especially the heavily used leather seats) treat it with the Porsche Leather Care Agent. Leather should be cleaned and treated several times a year, depending on how quickly it becomes dirty.

Fabric, upholstery and carpets

Use only a vacuum cleaner or a medium stiff brush. Remove stains and spots with Porsche stain remover.

The Porsche range of accessories includes floor mats to protect the carpets in Summer and Winter.

Care of the seat belts

If it becomes necessary to clean the belts, you can use any mild washing agent. Allow the belts to dry prior to retracting, but avoid direct sunlight.

If unsuitable cleaners are used or any attempt is made to dye or bleach the belts, the webbing may be weakened and thus constitute a safety risk.

Storing your Porsche Vehicle

If you intend to store your Porsche for a prolonged period, please consult your authorized Porsche dealer. The staff will be glad to advise you on the most suitable and necessary methods.

Practical Tips, Emergency Service

Cautions.....	88
Tool kit, car jack.....	89
Tires, wheels.....	90 - 93
Spare tire.....	94
Lock-up wheel nuts.....	95
Changing a wheel.....	96
Lifting vehicle.....	97
Battery.....	98, 99
Emergency starting.....	100, 101
Fuses and relays.....	102
Replacing bulbs.....	103 - 107
Headlight adjustment.....	108
Manual operation of headlights.....	109
Emission control system.....	110, 111
Fuel evaporation control.....	112
Vehicle towing.....	112, 113

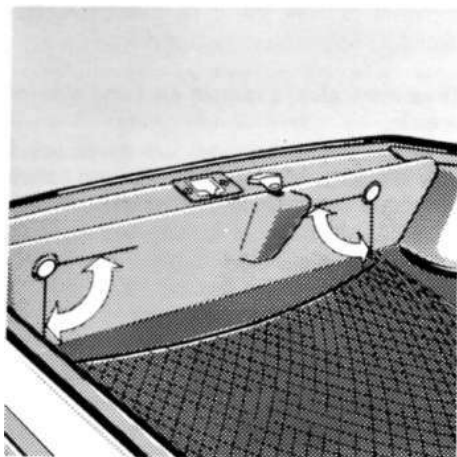
Exercise extreme caution when working under the engine hood

The engine compartment of any motor vehicle is a potentially hazardous area. If you are not fully familiar with proper repair procedures, do not attempt the adjustments described on the following pages. This caution applies to the entire vehicle.

WARNING

Ignoring following instructions may cause serious personal injury.

- Only work on your vehicle outdoors or in a well ventilated area.
 - Ensure that there are no open flames in the area of your vehicle at any time when gasoline fumes might be present. Be especially cautious of such devices such as hot water heaters which ignite a flame intermittently.
 - Before working on any part in the engine compartment, turn the engine off and let it cool down sufficiently. Hot engine compartment components can burn skin on contact.
 - Even after the engine has stopped, the radiator fan may continue running until temperature of the coolant has dropped to a certain level. Therefore, never touch the fan blades as they will rotate spontaneously when the thermostat turns the fan on, even with ignition off.
 - * Be alert and cautious around engine at all times while the engine is running.
 - * If work has to be done with the engine running, always set the parking brake, and make sure the shift lever is in either Neutral or Park.
 - * In particular, be very careful to ensure that items of clothing (ties, sleeves etc.), jewelry or long hair cannot get caught in the fan, V-belts or other moving parts.
 - * Your Porsche is equipped with a transistorized ignition system with breakerless distributor. When the ignition is on, high voltage is present in all wires connected with the ignition system; therefore, exercise extreme caution when working on any part of the engine while the ignition is on or the engine is running.
 - * Always support your car with safety stands if it is necessary to work underneath the car. The jack supplied with the car is not adequate for this purpose.
 - * When working underneath the car without safety stands but with the wheels on the ground, make sure the car is on level ground, that the wheels are blocked, and that the engine cannot be started.
 - Do not smoke or allow an open flame around the battery or gasoline.
 - Keep a fire extinguisher in close reach.
 - Incomplete or improper servicing may cause problems in the operation of the car. If in doubt about any servicing, have it done by your authorized Porsche dealer or any other properly equipped and qualified workshop.
 - Improper maintenance during the warranty period may affect your warranty coverage.
- REMOVE THE IGNITION KEY.

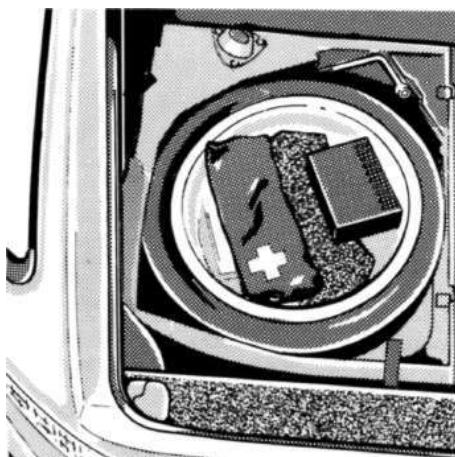


Tool kit

The tool kit is a lift-out tray fitted into the rear cross wall of the car. To remove or replace the tray, turn both holding knobs 90° (arrows).

The tool kit contains tools needed for minor emergency road side repairs or adjustments.

Regulations in some countries require additional tools. Details should be obtained before leaving for a foreign country.



Car jack

The car jack and the rim wrench are located underneath the luggage compartment, together with the collapsible spare tire. The tire is covered by a lid with a quick release catch.

WARNING

Use the jack only for changing a wheel. Never jack up other vehicles or other loads with it.

Follow all warnings and instructions found in this manual for changing a tire.

The jack must never be used as a support to work underneath the vehicle. If the jack is accidentally dislodged, you or bystanders could be seriously injured, when working under the vehicle, always use safety stands specifically designed for this purpose.

Tires/Wheels

The original equipment tires and wheel rims on your Porsche comply with all applicable Federal Motor Vehicle Safety Standards.

For your driving safety remember the following:

- Wheel rims and wheel bolts are matched to fit your Porsche.
- If you intend to use other than original equipment wheels, be sure that they conform to Porsche specifications for your model.
- The use of wheel rims and wheel bolts that do not meet specifications of the original factory installed equipment will affect the safe operation of your vehicle.
- Before you plan on exchanging wheels, or snow tires already mounted on wheel rims, consult your Porsche dealer. He has the technical information necessary to advise you which wheel rims and wheel bolts are compatible with the original factory installations.

Tire pressures

WARNING

Incorrect tire pressures cause increased tire wear and adversely affect road holding of the vehicle, leading to loss of control.

For safety reasons do not use tire inflating bottles.

Always use an accurate tire pressure gauge when checking inflation pressures. Do not exceed the maximum tire inflation pressure listed on the tire sidewall (Also refer to "Technical data"). Cold tire inflation pressure means: when a car has not been driven for at least 3 hours or less than 1 mile. Never let any air out of warm tires to meet cold tire pressure specifications.

Tire traction

WARNING

When driving on wet or slushy roads, a wedge of water may build up between the tires and the road. This phenomenon is known as aquaplaning and may cause partial or complete loss of traction, vehicle control or stopping ability. Reduce speed on wet surface.

Tire life

Tire life depends on various factors, i.e., roads, traffic and weather conditions, driving habits, type of tires and tire care.

Inspect your tires at least every 2000 miles or 3000 km for wear and damage. If you notice uneven or substantial wear, wheels might need

alignment or tires should be balanced or replaced.

Tires must always remain on same side of vehicle.

After changing, adjust tire pressure and torque wheel nuts diagonally to 94 ftlb (130 Nm). See "Changing wheels".

Tire wear

The original equipment tires on your Porsche have built-in wear indicators. They are molded into the bottom of the tread grooves and will appear as approximately 1/2 in (12 mm) bands when the tire tread depth is down to 1/16 of an in (1.6 mm).

When the indicators appear in two or more adjacent grooves, it is time to replace the tires. We recommend, however, that you do not let the tires wear down to this extent. Worn tires cannot grip the road surface properly and are even less effective on wet roads.

In the United States, state laws may govern the minimum tread depth permissible. Follow all such laws.

WARNING

Do not drive with worn tires or tires showing cuts or bruises as they may lead to sudden deflation.

If you notice that tires are wearing unevenly, consult your Porsche dealer. Uneven wear may not always be due to improper wheel alignment. It can be the result of individual driving habits such as cornering at high speeds. If the tire pressure is not checked and adjusted regularly, abnormal tire wear can also occur.

Tire care

WARNING

Avoid damaging tires and wheel rims. If you must drive over a curb or other obstacle, drive slowly and at an obtuse angle. Frequently check tires for uneven wear and damage.

Remove imbedded material.

Replace worn or damaged tires immediately.

Replace missing valve dust caps.

Keep oil, fuel, brake fluid, etc. away from tires.

Keep tires inflated correctly.

Tire damage/puncture

Regularly check tires for imbedded material, cuts, punctures, cracks and bulges (side wall).

For safety reasons do not use tire inflating bottles to inflate a flat tire.

In case of tire damage, where it is uncertain whether there is a break in the ply with all its consequences or tire damage caused by thermal or mechanical overloading due to a loss of pressure or any other prior damage, we recommend that the tire be replaced for safety reasons.

If one faulty tire is replaced it should be noted that the difference in tread depth on one axle must not exceed 30 %. Handling inconsistencies may result.

Performe visual inspection.

Parking at the curb

Hard impacts against curbs (or traffic islands) are dangerous and may cause hidden tire damage which is not noticeable until later. (Danger of accidents at high speeds). Tires have a memory!

WARNING

If you must drive over a curb, drive slowly and, if possible, at a right angle. Exercise care when parking along curbs.

Tire replacement

If in doubt, contact your Porsche dealer or Porsche importer of your country. If you do not use a Porsche recommended replacement tire, make sure that you purchase your new tires from a reputable tire specialty dealer and that the dealer complies with all manufacturers warnings for those tires.

Before mounting new tires, check with your Porsche dealer about the current release status.

For tires with **ZR quality standard**, there are currently no standards concerning tire strength at speeds above 240 km/h (150 mph).

For this reason, only use tire makes and types tested by Porsche.

Tires should be replaced at least on one axle at a time. Only tires of the same make and type must be combined. Mixed tires are not permissible.

Whenever you replace tires, make certain that you install new valves. Initially, new tires do not have their full traction. You should therefore drive at moderate speeds during the first 60 - 120 miles (100-200 km).

If new tires are fitted only on one axle, a noticeable change in handling occurs due to the different tread depth of the other tires. This happens especially if only rear tires are replaced. However, this condition disappears as the new tires are broken in. Please adjust your driving style accordingly.

Installation of new tires should only be done by a qualified tire technician.

Wheel balancing

A wheel should always be balanced after a tire repair. Even with regular use a wheel can get out of balance, and should, therefore, be balanced from time to time. Unbalanced wheels may affect car handling and tire life.

When balancing wheels, use only balancing weights supplied through the Porsche parts service.

Wheels

If you intend to use other than original equipment wheels, be sure that they conform to Porsche specifications for your model.

Check with your Porsche dealer regarding the correct wheel specifications for type and model year.

Removing and storing tires

The driving direction should be clearly marked on all tires before removing them for storage. This is to make sure that they are mounted and run in the same direction as before.

When fitting tires already mounted on rims, ensure that the colored wheel bolt is always across from the valve. Always screw the lockable wheel nut onto this bolt. When removing, mark the direction of rotation on each wheel, e.g. FR, FL, RR and RL. This precaution ensures that the wheels will be remounted in the same position, thus obviating the risk of imbalance.

The supposition that tires become long wearing due to storage and age is unfounded. Chemical additives, which make the rubber elastic, lose their effectiveness in the course of time and the rubber perishes. **Therefore, the tires, especially the collapsible spare tire, should from time to time undergo a visual check. For this, pump up the collapsible spare tire.**

Under no circumstances should tires be older than 6 years.

The age of the tire can be seen from the "DOT" code number. If, for example, the last three numbers read 121, this means it was produced in the 12th week of 1991.

Store tires in a cool and dry place.

Snow tires

For a better grip on snow and ice use radial M+S tires or snow tires with studs. Check with your local Motor Vehicle Bureau for possible restrictions.

WARNING

The standard tires profile and rubber mixture are optimized for wet and dry driving conditions, and may not prove favorable for snow conditions. Therefore install M+S tires before driving in such conditions. Failure to use the proper tires and wheels could result in loss of control and damage to the vehicle and personal injury.

Before mounting snow tires, consult with your Porsche dealer. He has the technical information necessary to advise you on wheel and tire compatibility.

Snow tires should have the same load capacity as original equipment tires and should be mounted on all four wheels. Snow tires with studs should be run at moderate speeds when new in order to give the studs time to settle.

When fitting tires already mounted on rims, ensure that the colored wheel bolt is always across from the valve. Always screw the lockable wheel nut onto this bolt. When removing, mark the direction of rotation on each wheel, e.g. FR, FL, RR and RL. This precaution ensures that the wheels will be remounted in the same position, thus obviating the risk of imbalance.

WARNING

Tires with badly worn treads and studs are very dangerous. Make sure they are replaced immediately.

Do not drive a vehicle equipped with snow tires at prolonged high speed. Snow tires do not have the same degree of traction on dry, wet or snowfree roads as a normal tire. Furthermore, snow tires wear rapidly under these conditions.

Snow tires do not fulfill their purpose if the tread depth is less than 5/32 in/4 mm. **Comply with all state and local laws governing snow tire and tread depth requirements.**

Snow chains

WARNING

Snow chains cannot be fitted on standard size wheels. To prevent damage to body, axle or brake components, snow chains can be fitted only to the rear wheels, and only with the tire/rim combination listed in the Technical Data.

To ensure adequate clearance between chain and body, Porsche recommends only the use of fine-link chains such as those approved by Porsche.

Follow instructions issued by the supplier of the chains.

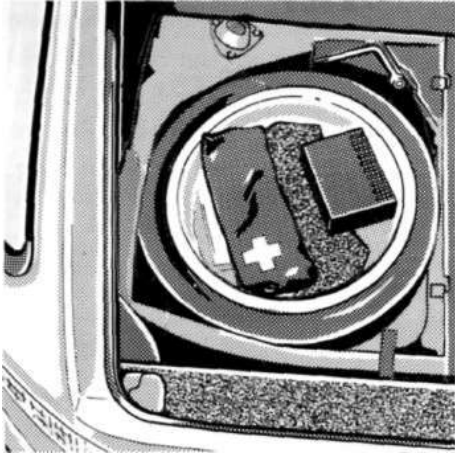
Different states and countries have varying statutory requirements regarding maximum speed. Check with local authorities for possible restrictions.

Remove chains as soon as roads are free of ice and snow.

Tire designations

Due to new speed and load ratings for radial tires, new designations have come into force for snow tires for your Porsche.

The designation to be used for ZR tires is e.g., 225/45 ZR 17 (Z = code letter for radial tires for speeds above 240 km/h (150 mph).



Collapsible spare tire

The spare tire is stored underneath the luggage compartment cover. It is covered by a lid with a quick release catch. The car jack, the electric air compressor kit and the tire pressure gauge are stored inside the wheel rim. This kit also includes a plastic cover for the road wheel to keep luggage compartment or car interior clean.

Due to tread and space saver design features of the collapsible tire, car handling may be affected.

Therefore, do not drive more than 50 mph/ 80 km/h with moderate acceleration when using the collapsible spare tire. It is for emergency use and short distances only. Only one collapsible spare tire may be fitted to the car. Remount the original road tire as soon as possible.

Inflating the collapsible tire

WARNING

Do not overinflate your spare tire.

Inflate the collapsible tire with the electric air compressor that comes with your Porsche. Do not use other equipment!

1. Mount spare wheel **before** inflating the tire.
2. Attach hose of air compressor to tire valve and insert plug of electric cord into cigarette lighter socket.
3. **The required tire pressure is 36 psi or 2.5 bar.** Check pressure with tire pressure gauge.
4. Disconnect hose and electric cord and store air compressor.

5. Have flat road tire repaired and remounted on car at next service stop. Remember, **the collapsible tire is for emergency use and short distances only.**

When the air is released from the collapsible tire, it will return to its original shape after cooling down for several hours. Store collapsible tire in the luggage compartment.

The collapsible spare tire cannot be repaired or mounted with standard workshop equipment. Repair and remounting must only be done by the tire manufacturer.

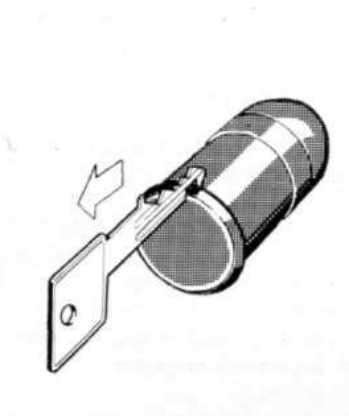
Tire tread depth

As required by law, the tread depth of the collapsible tire is the same as that of the original equipment tire. Replace a worn collapsible spare tire in time.

If air compressor does not work

Check if tobacco or any other foreign matter is lodged in the cigarette lighter socket. Remove carefully with a wooden pick. Do not use metal object to prevent short circuit.

Check if fuse is blown. Replace with new equivalent fuse.



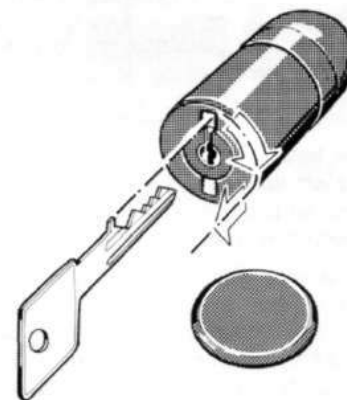
Lock-up wheel nuts

The wheels of your vehicle are theftproof by means of a wheel nut lock. The wheel nut lock consists of a wheel nut and a plug-on sleeve with lock. The locking mechanism is identical for all four wheel nuts. When taking the vehicle to your Porsche dealer or to a workshop for wheel or tire service, remember to leave one key with the service attendant.

In case of loss, duplicate keys cannot be furnished by your Porsche dealer. Do not leave these keys in the vehicle. Keep them in a safe place.

Removing the wheel nut lock

1. Pull off the plastic cap with the key.
2. Insert the key into the lock and turn until it engages in the recess.
3. Turn the key slightly and withdraw it together with the lock.



Fitting the wheel nut lock

1. Remove key and press on plastic cap.
2. Fit wheel nut lock to the colored wheel bolt opposite the valve until it clicks into place.

Changing a wheel

WARNING

Failure to follow these instructions may result in serious personal injuries to you or to bystanders.

- If you have a flat tire, move a safe distance off the road. Turn the emergency flasher on and use other warning devices to alert other motorists.
- Do not park your vehicle where it may contact dry grass, brush or other flammable material. The hot parts of the exhaust system could set such material on fire, thereby causing both property damage and severe or fatal physical injury.
- Passengers must not remain in the vehicle when it is jacked up.
- Before you change a wheel, be sure the ground is level and firm. If necessary, use a board under the jack to ensure that the jack does not sink into the ground.
- Set the parking brake and block the wheels opposite the flat tire on the other side of the vehicle.
- The jack is only to be used for changing a wheel. Do not use it as a support to work under the car.

- **Never jack the car up by the body or the bumpers.**

Sequence of operation

1. Loosen the wheel nuts about one turn. Do not yet remove the nuts.
2. Securely insert the car jack in the front jack port located under the body. There are two on each side; front and rear.

Do not raise the vehicle until you are sure the jack is securely engaged.

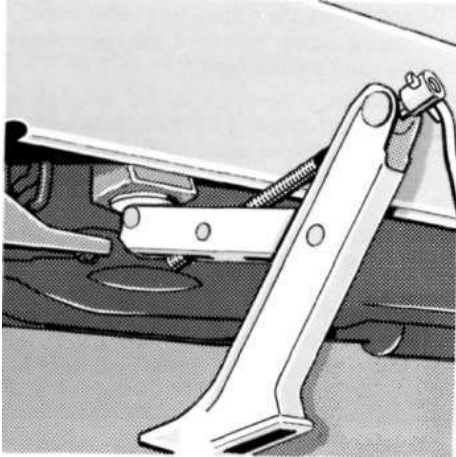
3. To raise the car, turn the handle clockwise. Only raise the car as much as is needed to change the wheel.
4. Fully unscrew all wheel nuts, remove the wheel and put the collapsible tire on.
5. When the wheel is in position, reinstall the nuts and handtighten them crosswise. When tightened crosswise, the nuts will center the wheel correctly. Make sure that the colored wheel bolt is always across from the valve. Screw the lockable wheel nut onto this bolt.
6. Inflate the tire with the air compressor. For safety reasons do not use tire inflating bottles. Check pressure with tire pressure gauge.

7. To lower the car, turn the jack handle counterclockwise till tire touches ground.

8. Fully lower the vehicle and remove jack.

9. Firmly tighten the wheel nuts again in a crosswise pattern.

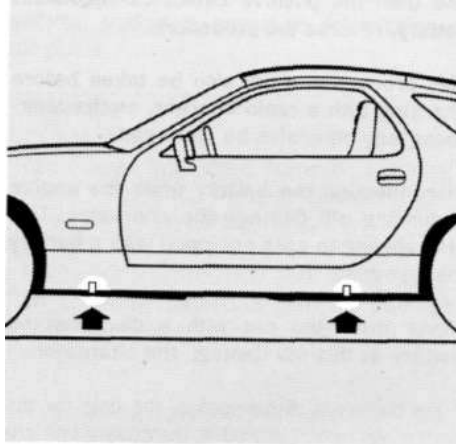
Correct tightness of the wheel nuts is important. Correctly tightened nuts should have a torque of 94 ft. lb. (130 Nm). This torque can be obtained with the wheel nut wrench by any person of average strength. If in doubt about the correct tightness of wheel nuts, have it checked with a torque wrench by your dealer or at a service station.



Lifting vehicle

Lifting with car jack

The jack ports are located below the front and the rear of the doors underneath the floor pan, hidden from view.



WARNING

Follow all warnings and instructions found in this manual for changing a tire.

The car jack must never be used as a support to work underneath the vehicle. If the jack is accidentally dislodged, you or bystanders could be seriously injured. When working under the vehicle always use safety stands specifically designed for this purpose.

Jacking at any other place may damage the vehicle or may result in personal injuries.

The vehicle should never be lifted or jacked up from underneath the engine oil pan, the transmission housing, or the front or rear axle. This could lead to serious damage.

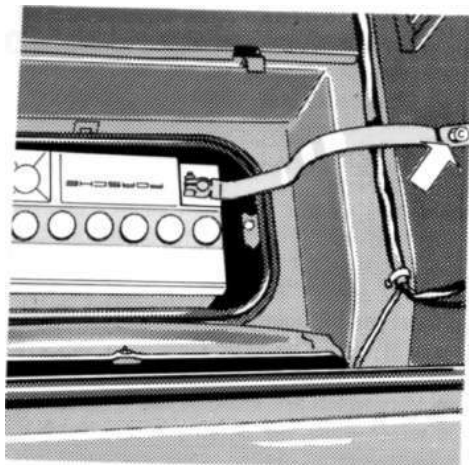
Lifting with workshop hoist or floor jack

Make sure there is sufficient clearance between pads and vehicle before driving vehicle onto hoist, especially if the vehicle has a large front panel or spoiler. **The vehicle must be lifted only at the lift points for the car jack.**

Take care to avoid damaging critical components which are close to the lift points.

WARNING

When removing components such as engine block, transmission housing, fuel tank, wheels, front or rear axle, anchor vehicle to hoist or add corresponding weights to maintain the center of gravity. Otherwise the vehicle might tilt or slip off the hoist, causing serious damage or personal injury.



Battery

The battery is located underneath the collapsible spare tire in the luggage compartment. The battery is accessible after taking out the spare tire.

Only use an original Porsche battery, with the correct part number, as a replacement.

Before work is done on the electrical system, the battery must be disconnected to prevent short circuiting. First disconnect the negative ground wire at body (arrow)

and then the positive cable. To reconnect battery, reverse the procedure.

This precaution must also be taken before charging with a rapid charger, as the alternator may otherwise be damaged.

Disconnecting the battery while the engine is running will damage the alternator. This also applies to cars equipped with a battery main switch.

Never drive the car with a disconnected battery as this will damage the alternator.

If the battery is disconnected, the data for the engine electronics stored in the control unit are erased. When the battery is reconnected, the engine should be run for approx. 10 minutes to allow the control unit to re-acquire these data. During this period, the engine may idle unevenly or too fast.

Curtail unnecessary power consumption, particularly in city traffic or when travelling short distances only.

WARNING

Do not lay tools or other metal objects on the battery as they could cause a short circuit across the battery terminals.

Do not expose the battery to an open flame or electric spark. Hydrogen gas generated by the battery is explosive.

Do not let battery acid come in contact with skin, eyes, fabric or painted surfaces.

If you get electrolyte, which is an acid, in your eyes or on skin, immediately rinse with cold water several minutes and call a doctor.

Spilled electrolyte must be rinsed off at once with a solution of water and baking soda to neutralize the acid and prevent damage to fabric and metal.

Checking the electrolyte fluid level

The electrolyte fluid level in your battery can be checked by unscrewing and opening the filler vent caps of **each** cell. The fluid level should meet the indicator mark in each cell. If necessary, top off with distilled water.

How often water must be added depends on operating conditions and on the time of year. Generally, the electrolyte level must be checked more often in the summer than in the winter, and more often when driving long distances.

Only fill up to mark, otherwise the electrolyte will overflow when the battery is being charged and cause damage.

Battery care

- Battery should be securely mounted.
- Terminals and connections should be kept clean and properly tightened. Corrosion can be prevented by coating terminals and connections with petroleum jelly or silicone spray.
- Vent caps must be securely tightened to prevent spillage.

Winter operation

During the winter months, battery capacity tends to decrease as temperatures drop. Additionally, more power is consumed while starting and the headlights, heater, rear window defogger, etc., are used more frequently. Let your Porsche dealer test the battery's capacity before winter sets in. A well charged battery will not only prevent starting problems but will also live longer.

Battery charging

Automotive batteries lose their efficiency when not in use. The charge available in your battery can be measured with a hydrometer. We recommend that battery voltage be tested by your Porsche dealer who has the appropriate equipment. If the car is not driven for prolonged periods, the battery must be charged at least every 6 weeks.

A discharged battery allows rapid formation of sulfates, leading to premature deterioration of the plates.

WARNING

Charge battery in a well ventilated area. Keep away from open flame or electrical spark. Do not smoke. Hydrogen gas generated by the battery is explosive.

Electrolyte fluid that may spill during charging should be washed off with a solution of warm water and baking soda to neutralize the acid.

If you get electrolyte in your eyes or on your skin, immediately rinse with cold water for several minutes and call a doctor.

Never charge a frozen battery. It may explode because of gas trapped in the ice. Allow a frozen battery to thaw out first.

Never use a fast charger as a booster to start the engine. This may seriously damage the vehicle's electrical system and the charger.

Fast charging a battery is dangerous and should only be attempted by a competent mechanic with the proper equipment.

Slow battery charging

WARNING

Heed all warnings and follow instructions that come with your battery charger.

- Disconnect battery cables and remove the battery.
- All vent caps should be open. The fluid level should meet the indicator mark in each cell.
- Connect charger cables.

Charger cables must be connected POSITIVE (+) to POSITIVE (+) and NEGATIVE (-) to NEGATIVE (-).

- Do not connect or disconnect charger cables while charger is operating.
- Switch on charger.
- Normally, a battery should be charged at no more than 10 percent of its rated capacity. Rated capacity of the battery in your vehicle is listed on the battery housing.
- After charging, turn off charger and disconnect charger cables. When the electrolyte fluid has stopped "bubbling" in the cells, close the vent caps.
- Tighten the vent caps and reinstall battery.

Emergency starting with jumper cables

WARNING

Improper use of booster battery to start a vehicle may cause an explosion.

Lead-acid batteries generate explosive gases. Keep sparks, flames and lighted cigarettes away from batteries.

Do not charge a frozen battery, thaw it out first. Gas trapped in the ice may cause an explosion.

No attempt should be made to jump start any vehicle with a low electrolyte level in the battery.

Check electrolyte level of each cell. If necessary, fill with distilled water to just above plates.

Make sure the voltage of both batteries is the same.

The capacity (Ah) of the booster battery should not be lower than that of the discharged battery.

Vehicle with discharged battery: turn off lights and accessories, remove key, move lever to N or P and set parking brake.

Vehicle with booster battery should not be running. Disconnect ground cable.

Remove vent caps from booster battery and discharged battery. Preferably lay a cloth over open vents to reduce explosion hazard.

How to use jumper cables

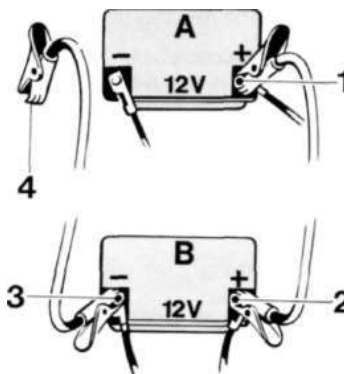
WARNING

To avoid serious personal injury and damage to the vehicle, heed all warnings and instructions of the jumper cable manufacturer.

Only jumper cables of adequate diameter cross-section and fitted with insulated alligator clips should be used.

The jumper cables must be long enough so that neither vehicles nor cables touch another.

When connecting jumper cables, make sure that they cannot get caught in any moving parts in the engine compartment.



A - Discharged Battery
B - Booster Battery

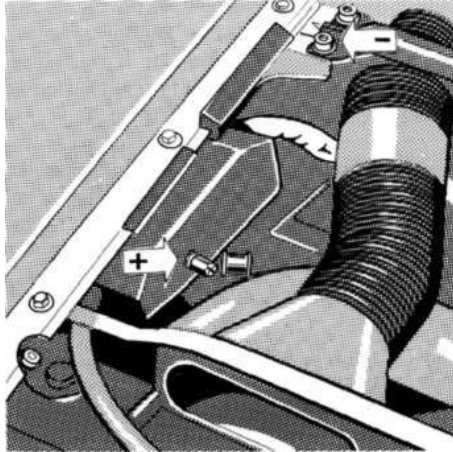
Improper hook-up of jumper cables can ruin the alternator.

Always connect POSITIVE (+) to POSITIVE (+), and NEGATIVE (-) to NEGATIVE (-).

1. Connect clamp of plus-cable to positive (+) terminal of discharged battery (1).
2. Connect clamp on opposite end of cable to positive (+) terminal of booster battery (2).

3. Connect clamp of minus-cable to negative (-) terminal of booster battery (3).
4. Connect clamp on opposite end of cable to a bare metal part (4) of car with discharged battery. Connect clamp as far away from battery as possible.
5. Start engine in the usual manner. If engine fails to start, do not continue to crank but contact nearest workshop.
6. With engine running, remove jumper cables from both cars in exact reverse order: Steps 4 through 1.
7. Reconnect ground cable of booster battery.

Do not try to start car by pushing or towing. Damage to the catalytic converter, the transmission, and/or other components of the car may result.



Start assist connecting points sequence

On right side of engine compartment you will find a positive (+) battery post (remote connection).

First connect clamp at end of positive (+) cable to the remote connection in the engine compartment (+ arrow). Then connect clamp at other end of positive (+) cable to the positive (+) terminal of the booster battery.

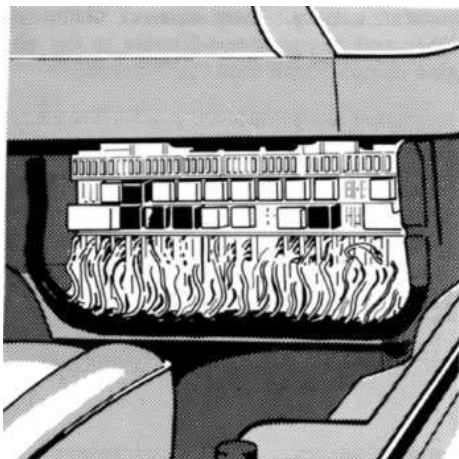
Next connect clamp at end of negative (-) cable to the negative (-) terminal of the

booster battery. Then connect clamp at other end of negative (-) cable to the engine compartment strut rod (- arrow).

CAUTION:

The cable clamps must not contact each other, and the plus-cable leading to the positive (+) post must not contact any metal part of the car.

Do not try to start car by pushing or towing. Damage to the catalytic converter and other components of the car may result.



Fuses and relays

A failure in the electrical system may be caused by a blown fuse or a faulty relay.

The central fuse/relay board is located in the passenger's footwell and protected by a cover plate. The light for the board comes on when a door is opened.

The use of the fuses and relays is shown in a list on the floor board.

Before replacing a fuse, turn off all electrical components and the ignition; remove the key. Replacing a fuse or a relay with the engine running or the ignition on could cause electrical shock.

When replacing a fuse, do not hold fuse by its metal parts. In case of a repeated short circuit, the new fuse will burn out again, causing possible injury.

If a fuse blows repeatedly, do not keep on replacing it. The cause of the short circuit or overload must be found.

Never try to "repair" fuses: you may cause serious damage to other parts of the electrical system.

To replace a fuse...

1. Lift carpet in the passenger's footwell and tilt up the protective cover plate from fuse/relay board.
2. In a blown fuse, the metal strip has melted. In order to replace the fuse, it must be pulled out. The tool for doing this is located at the top left on the central electrical system.
3. Carefully install new fuse. Use only fuses with the same rating as replacements!
4. Replace cover plate and carpeting.

It is advisable to always carry a few spare fuses in the car.

Relays

Under the fuses, there are relay boards attached for various electrical switching functions. Testing and replacement of a defective relay should only be done by an authorized Porsche dealer.

The relay for the rear window wiper is located on the back left, under the tool plate, the time relay for the seat heater is located under the seat.

If you need a circuit diagram, your Porsche dealer will be glad to help you.

However, in order to avoid damage to electrical or electronic components, we recommend having all work, including the installation of electrical accessories, done by your Porsche dealer.

Only use accessories approved by Porsche.

Replacing bulbs

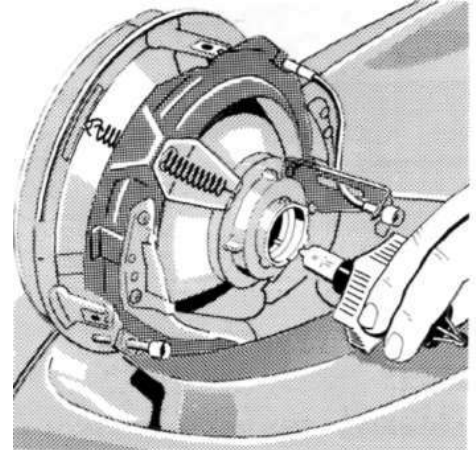
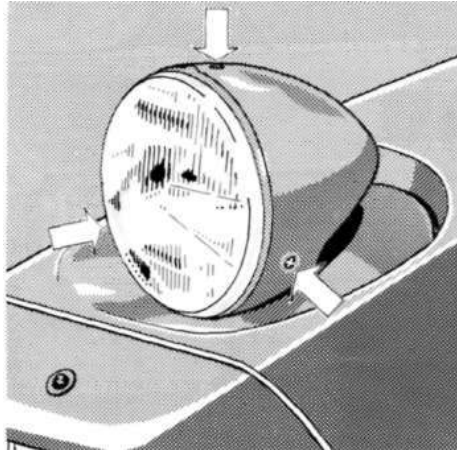
To avoid short circuits, turn off the respective electrical components when changing light bulbs.

Keep bulbs free of grease and dirt. Hold them only with a clean cloth or soft paper.

Do not use chemical cleaning agents for the plastic lenses. Plastic lenses should only be cleaned with water or a mild soap/water solution.

We recommend you keep an assortment of spare bulbs in the car.

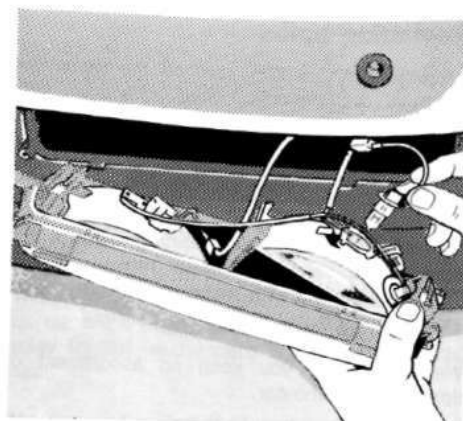
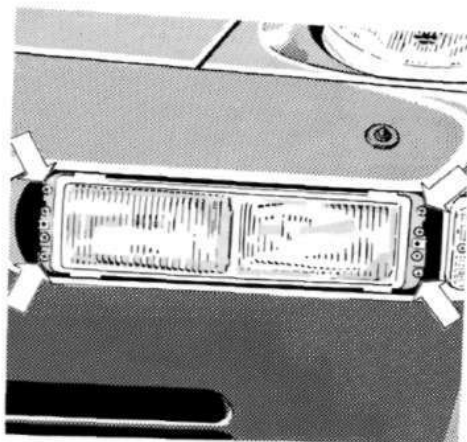
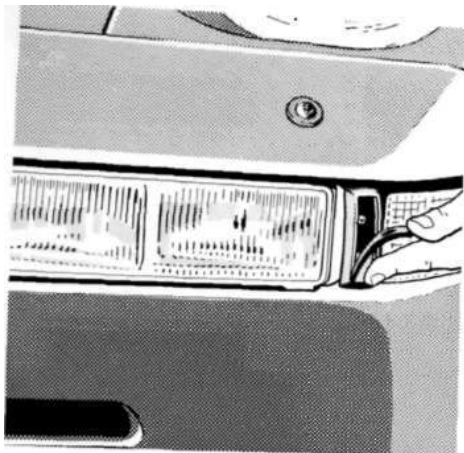
When traveling abroad, remember that some countries require spare bulbs as part of the safety equipment.



Headlights

(high beam, low beam)

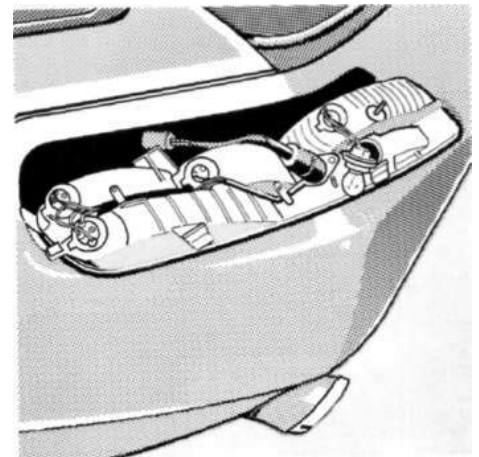
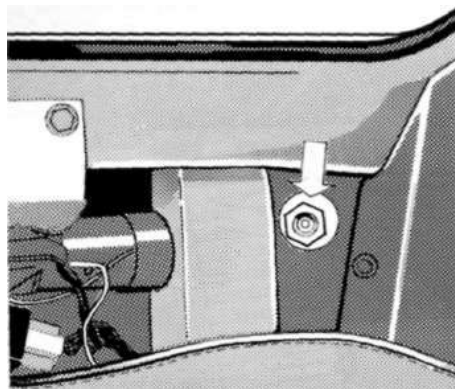
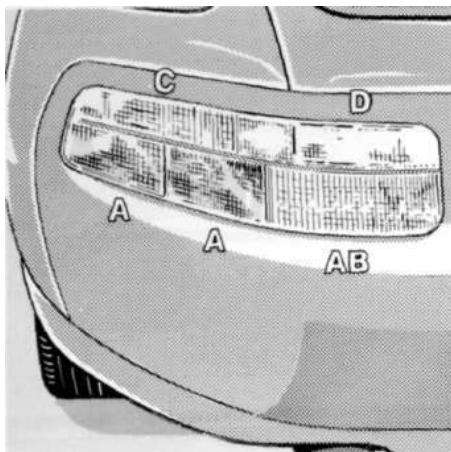
1. Turn the ignition on.
2. Turn light switch to position 2 to raise the headlights.
3. Turn the ignition off.
4. Unscrew the 3 Phillips screws (arrows) and remove headlight cover.
5. Turn holder of defective bulb anticlockwise to limit stop and remove.
6. Unplug wires, replace bulb and reconnect the wires.
7. Reinstall bulbholder. Be sure that guide pins on bulb base fit into socket of reflector. Turn bulbholder clockwise to limit stop.
8. Check functioning of bulb and adjust headlights.
9. Reinstall headlight cover.



Additional headlights

(fog lights, high beam)

1. Remove cover of rubber buffer.
2. Remove Phillips screws from rubber buffer and the transparent side cover with a screwdriver.
3. Remove Phillips screws holding the lamp (arrowed) and pull out the lens as a unit.
4. Disconnect wire. Push down holding clamp for bulb.
5. Remove defective bulb and replace. Be sure pins on bulb base fit into socket of reflector.
6. Reinstall lamp, tighten screws. Check functioning and adjustment of light.
7. Install rubber buffer and side cover and tighten retaining screws.

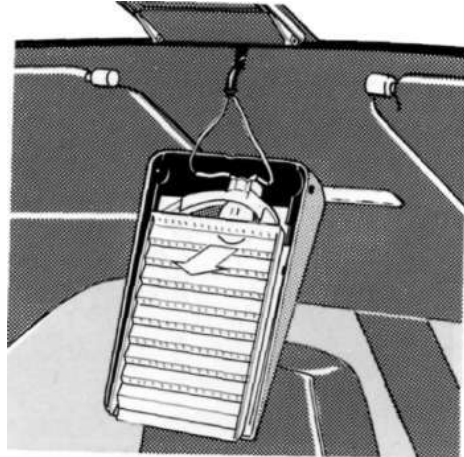


Tail lights

A-tail lights
B-stop light
C-turn signal light
D-back-up light

If a tail light or stop light fails, a fault message appears in the information system display.

1. Remove tool tray from the rear cross wall inside luggage compartment.
2. Use the spark plug spanner to unscrew the hex nut (arrowed) which holds the tail light unit in place and remove the unit from the rear bumper.
3. Turn holder of defective bulb anticlockwise to limit stop and remove bulb-holder.
4. Remove bulb from bulbholder and fit new bulb. Reinstall bulbholder and turn clockwise to limit stop.
5. Install tail light unit in bumper and tighten retaining nut.
Do not overtighten.
6. Check function of light.



Front turn signal lights Front parking lights

1. Remove screws holding the lens and remove lens.
2. Remove bulb from bulbholder and fit new bulb.
3. Reinstall lens, tighten screws. Check functioning of light.
4. Install plastic trim and tighten retaining screws.

Additional stop light

1. Remove Phillips screws from light unit and remove unit.
2. Lightly pull lens out and replace defective bulb.
3. Check functioning of light.
4. Reinstall lens and light unit. Tighten retaining screws.



License plate lights

1. Unscrew both screws and lift out lamp housing.
2. Replace bulb.
3. Reinstall lamp housing and make sure it is firmly seated.
4. Check light.

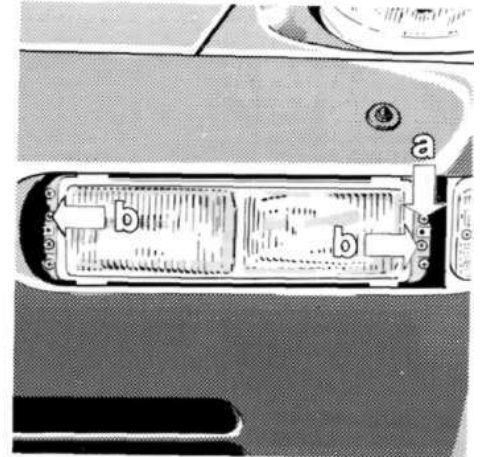
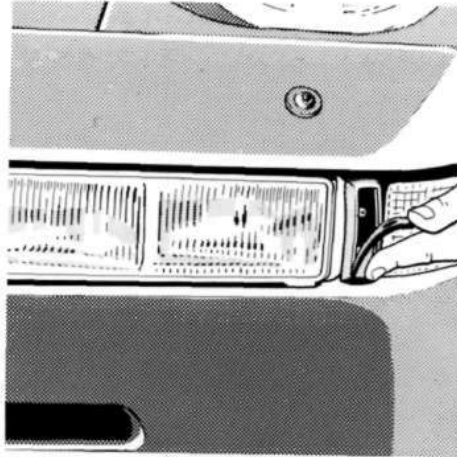
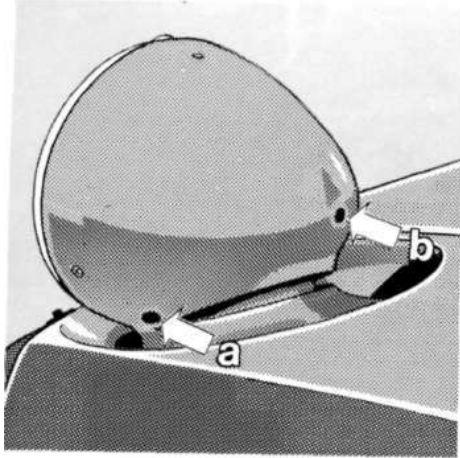
Interior lights

The following description applies to the dome lights, courtesy lights and the luggage compartment light:

1. Insert screwdriver in cut-out on headliner and carefully pry out the lamp housing.
2. Remove defective bulb between contact springs and insert new bulb.
3. Insert one side of the lamp housing into cut-out and press firmly on the other side. Light unit will snap into place.

Ashtray light

1. Remove the two screws in ashtray housing and pull the housing upward and out.
2. Slide bulb holder out of the housing and replace defective bulb.
3. Slide bulb holder back into housing and check light by turning on the ignition.
4. Reinstall the ashtray housing.



Headlight adjustment

Headlight adjustment should be done with a headlight aiming device under the following conditions:

At curb weight of car (i.e. car ready for use and with full fuel tank).

Driver's seat should be occupied by a person or a weight of approx. 155 lbs (70 kg).

Tire pressure must be correct.

Roll car forward a few feet so that the suspension settles into normal position.

1. Remove cover of rubber buffer.
2. Remove Phillips screws from rubber buffer and the transparent side cover with a screwdriver.

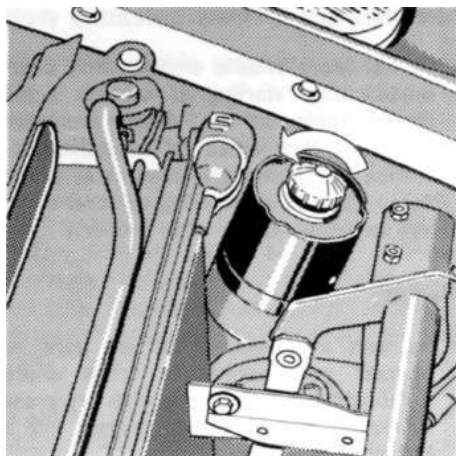
Adjustment screws

Each headlight and each additional headlight has two adjusting screws. One for lateral and one for vertical setting. Each fog light has one adjusting screw for vertical adjustment. By turning these screws left or right, the corresponding beam position is effected. Each fog light has one adjusting screw for vertical adjustment.

Screw "a" (lateral adjustment)
 right turn = beam moves right
 left turn = beam moves left

Screw "b" (vertical adjustment for headlight and fog light)
 right turn = beam moves up
 left turn = beam moves down

Screw "b" (vertical adjustment for additional headlight only)
 right turn = beam moves down
 left turn = beam moves up



Manual operation of retractable headlights

If **the** retractable headlights do not work automatically, they can be opened manually by turning the knob on the end of the motor drive shaft (arrow). To do this, remove the rubber cap from the driving motor. The connecting rod assembly is designed in such a way that it needs only be turned to the left to either raise or retract the headlights.

WARNING

Do not turn the knob on the drive shaft as long as the automatic mechanism is operating. The motor may turn suddenly and cause injury. Before turning **the** knob, check whether the motor will work with the ignition in position 1 or 2 **and** the light switch in position 2.

Emission control system

In the interest of clean air

Pollution of our environment has become a problem that is of increasing concern to all of us. We urge you to join us in our efforts for cleaner air in controlling the pollutants emitted from the automobile.

Porsche has developed an emission control system that controls or reduces those parts of the emission that can be harmful to our environment. Your Porsche is equipped with such a system.

Porsche warrants the Emission Control System in your new car under the terms and conditions set forth in the Warranty Booklet.

You, as the owner of the vehicle, have the responsibility to provide regular maintenance service for the vehicle and to keep a record of all maintenance work performed. To facilitate record keeping, have the service performed by authorized Porsche dealers. They have Porsche trained mechanics and special tools to provide fast, efficient service.

To assure efficient operation of the Emission Control System:

- Have your vehicle maintained properly and in accordance with the recommendations described in your Maintenance Booklet. Lack of proper maintenance, as well as improper use of the vehicle, will impair the function of the emission control system and could lead to damage.
- Do not alter or remove any component of the emission control system unless approved by the manufacturer.
- Do not alter or remove any device, such as heat shields, switches, ignition wires, valves, etc., which are designed to protect your vehicle's emission control system.
- Do not continue to operate your vehicle if you detect engine misfire or other unusual operating conditions.

Starting

- Do not leave vehicle engine idling unattended after starting. If warning lights should come on to indicate improper operation, they would go unheeded. Extended idling also produces heat, which could result in overheating or other damage to the vehicle or other property.

Parking

- As with any vehicle, do not park or operate your vehicle in areas where combustible materials, such as dry grass or leaves, can come into contact with a hot exhaust system.

Undercoating

- Do not apply additional undercoating or rustproofing on or near the exhaust manifold, exhaust pipes, catalytic converter or heat shields. During driving the substance used for undercoating could overheat and cause a fire.

How emission control works

When an automobile engine is running, it uses energy generated through the combustion of a mixture of air and fuel. Depending on whether a car is driven fast or slowly or whether the engine is cold or hot, some of the fuel (hydrocarbons) may not be burned completely but be discharged into the engine crankcase or exhaust system. Additional hydrocarbons may enter the atmosphere through evaporation of fuel from the fuel tank. These hydrocarbons (HC), when released into the air, contribute to undesirable pollution.

In addition, carbon monoxide (CO) and oxides of nitrogen (NOx) contribute to engine emissions. They, too, are formed during the combustion process and discharged into the exhaust system.

To reduce these pollutants, your Porsche is equipped with a precisely calibrated fuel injection system to assure a finely balanced air/fuel mixture under all operating conditions.

Oxygen sensor

The oxygen sensor, installed in the exhaust pipe continuously senses the oxygen content of the exhaust and signals the information to an electronic control unit. The control unit corrects the air/fuel ratio, so that the engine always receives an accurately metered air/fuel mixture.

Crankcase ventilation

Through crankcase ventilation undesirable emissions from the engine crankcase are not permitted to reach the outside atmosphere. These emissions are recirculated from the crankcase to the air intake system. From here the emissions mix with the intake air and are later burned in the engine.

Catalytic converter

The catalytic converter is an efficient "clean-up" device built into the exhaust system of the vehicle. The catalytic converter burns the undesirable pollutants in the exhaust gas before it is released into the atmosphere.

The exclusive use of unleaded fuel is critically important for the life of the catalytic converter. Therefore, only unleaded gasoline without additives must be used.

The catalytic converter will be damaged by

- push or tow starting your vehicle
- misfiring of the engine
- turning off the ignition while the vehicle is moving or
- driving until the fuel tank is completely empty
- by other unusual operating conditions.

Do not continue to operate your vehicle under these conditions, as otherwise fuel can reach the catalytic converter. This could result in overheating of the converter. Federal law prohibits use of leaded gasoline in this car.

Fuel evaporation control

Fuel tank venting

The expansion chamber and the safety valve prevent fuel from escaping to the outside at extreme high outside temperatures and when the car is driven or parked at an incline or in any other nonlevel position. The safety valve works as a restrictor in the tank vent line between the expansion chamber and the carbon canister.

Vapor control system and storage

When the fuel tank is filled, vapors are collected in the expansion chamber and fillertube by a vent line leading the vapors to the activated carbon canister where they are stored as long as the engine does not run. During running of the engine, the vapors are stored in the activated carbon canister as long as the temperature controlled ON/OFF valve is in the OFF-position.

The temperature controlled ON/OFF valve stops purging of the canister during all other running conditions of the engine if the coolant temperature of the engine is below a defined temperature.

Purge system

Fuel vapors from the carbon canister will be mixed with fresh air taken from the engine compartment. This mixture will be directed via two vacuum controlled valves to the air intake system housing.

The temperature controlled ON/OFF valve has the following functions:

To stop purging of the canister during idle (the rich vapor flow from the canister would influence the mixture characteristic).

To allow purging of the canister during all other running conditions of the engine.

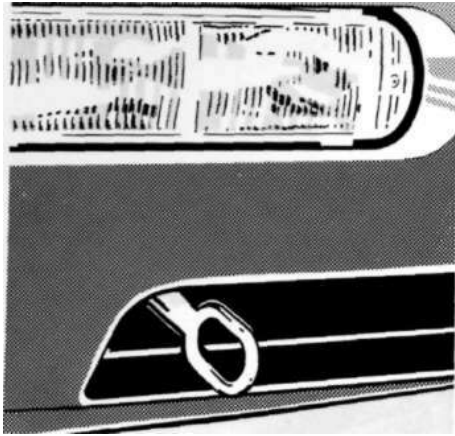
The vacuum controlled ON/OFF valve has the function to control the purge flow (high intake vacuum means low purge flow and low intake vacuum means high purge flow).

Towing

Certain state statutes and local ordinances prohibit towing with a chain, rope or even a tow bar. In addition, damage to your vehicle may result from improper procedures. Consult your authorized Porsche dealer for details.

Vehicle towing

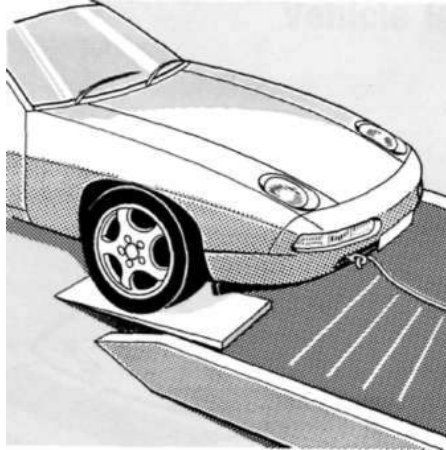
Flat bed towing is the preferred type of towing to be used on Porsche vehicles. Under certain circumstances, wheel lifts may be used when the vehicle will not roll. The vehicle must be towed with all four (4) wheels off the ground, otherwise damage to the vehicle may result.



Towing eyes

A threaded towing eye is contained in the tool kit. This is to be used only to pull the vehicle onto the flat bed if the vehicle will roll freely. Under no circumstances is the vehicle to be secured using the towing eye. Damage to the vehicle will result.

Screw the towing eye into the hole to the right of the radiator. To do this remove the cap with the aid of the Allen key.

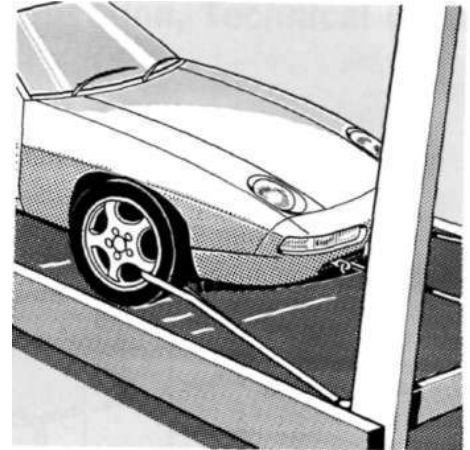


Pulling vehicle onto flat bed

Position wooden ramps at the base of the flat bed to reduce the angle of the pull. Reel in the hoist cable and check the underside of the vehicle for any interference.

Tieing down vehicle on flat bed

Carefully feed towing straps through the opening in the rear wheels. Make sure metal parts of straps do not damage rim. Make sure the strap is flat over the rim bead. Make sure brake backing plate is not damaged.

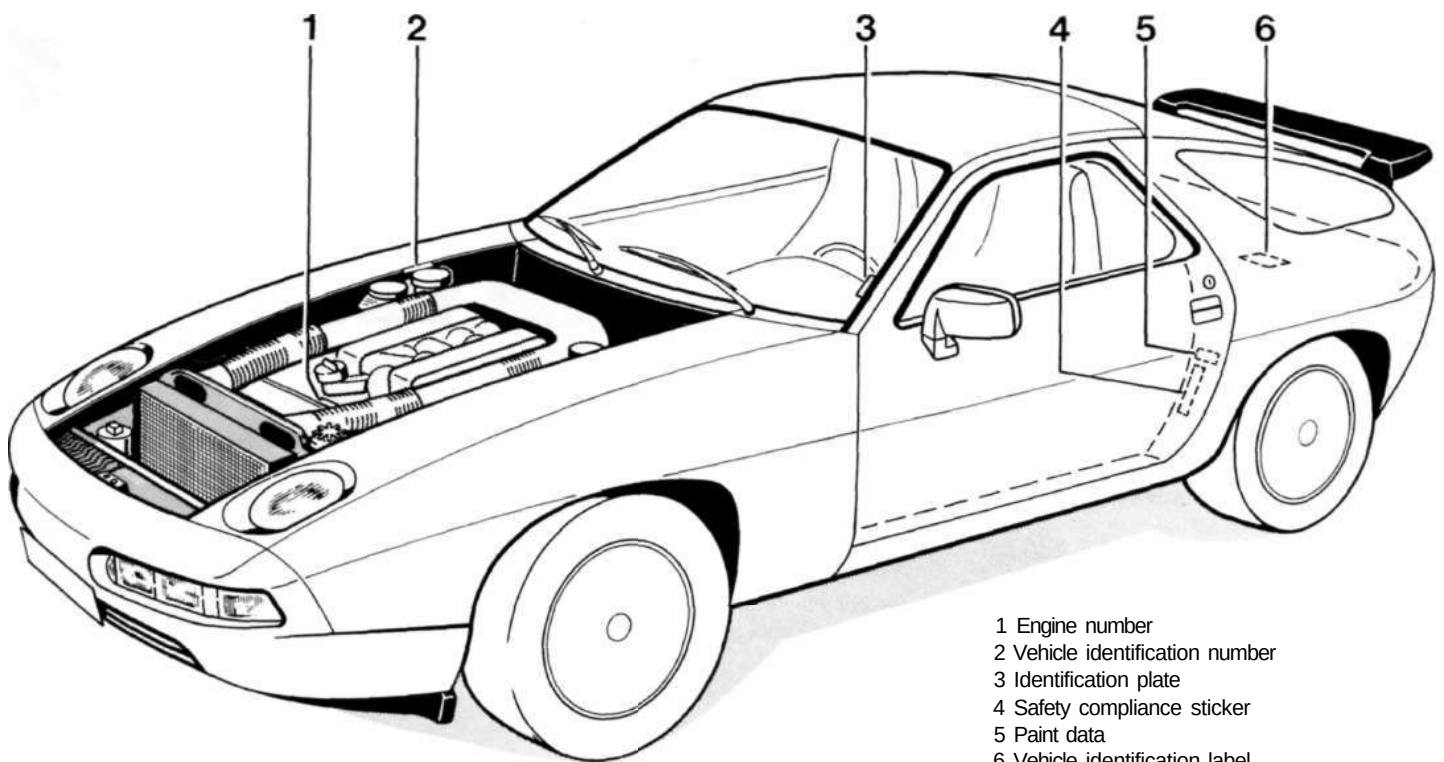


Secure straps to rear of flat bed. Reel in hoist cable only far enough to tension tie-down straps.

Carefully feed towing straps through the opening in front wheels. Make sure metal parts of straps do not damage rim. Make sure the strap is flat over the rim bead. Make sure brake backing plate is not damaged.

Secure straps to front of flat bed. Release tension on hoist cable, but do not disconnect. Use hoist cable as a safety cable.

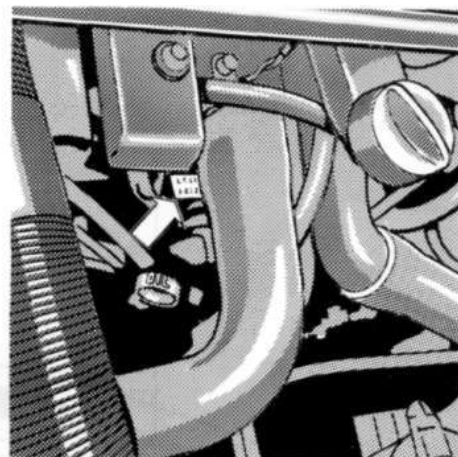
Vehicle Identification, Technical Data



- 1 Engine number
- 2 Vehicle identification number
- 3 Identification plate
- 4 Safety compliance sticker
- 5 Paint data
- 6 Vehicle identification label

Vehicle identification

When ordering spare parts *or* submitting inquiries, always quote vehicle identification and engine number to assure correct and prompt service.



Radio number

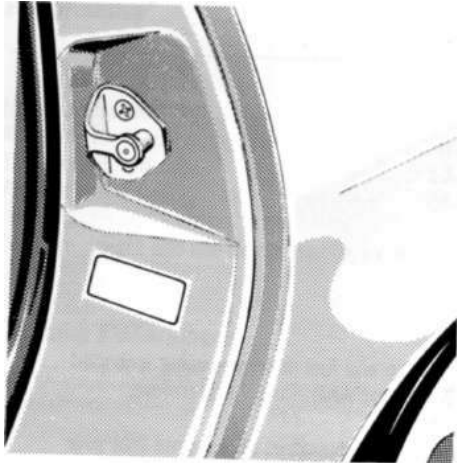
The radio number is beneath the ashtray cover. The number is revealed by removing the ashtray.

Vehicle identification number

In accordance with Federal Safety Regulations, the vehicle identification number of your car is located on the left* windshield post and can be seen from the outside.

Engine number

The engine number is stamped on the front reinforcing rib in the top half of the crankcase.



Paint number

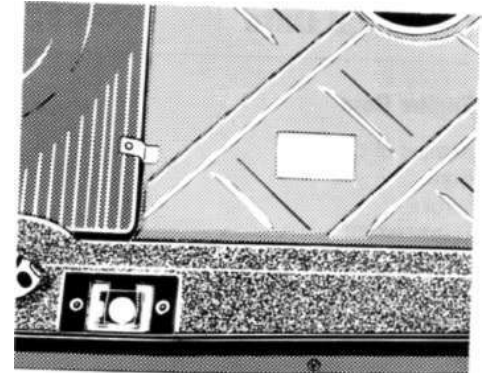
The paint number sticker is on the door jamb on the driver's side.



Safety compliance sticker

The safety compliance sticker is your assurance that your Porsche complies with all Federal Motor Vehicle Safety Standards which were in effect at the time the vehicle was manufactured. It is located on the doorsill on the driver's side.

This sticker also shows the month and year of production and the vehicle identification number of your car (perforations) as well as the Gross Vehicle Weight Rating and the Gross Axle Weight Rating.



Vehicle identification label

The vehicle identification label is located underneath the luggage compartment floor cover, next to the spare wheel well.

This label contains the following information:

1. Vehicle Identification Number
2. Vehicle Code
3. Engine and Transmission Code
4. Paint and Interior Code
5. Option Codes

A duplicate of this label is in your Maintenance Booklet.

Technical Data

Engine Data

Number of cylinders
Bore
Stroke
Displacement
Compression ratio
SAE net-horsepower SAE J 1349
SAE net-torque SAE J 1349
Max. permissible rpm
Fuel octane rating

M 28.49/50

3.94 in./100 mm
3.38 in./85.9 mm
329.3 cu. in./5397 cm³
10.4 : 1
345 hp/257 kW at 5700 rpm
369 ft lb/500 Nm at 4250 rpm
6800

Your engine is designed to provide optimum performance and fuel economy using unleaded premium fuel with an octane rating of 98 **RON** (93 **CLC** or **AKI**). Porsche therefore recommends the use of these fuels in your vehicle.

Porsche also recognizes that these fuels may not always be available. Be assured that your vehicle will operate properly on unleaded premium fuels with octane numbers of **at least 95 RON** (90 **CLC** or **AKI**), since the engine's "Electronic Octane™ knock control" will adapt the ignition timing, if necessary.

Spark plugs
Spark plug gap
Alternator output
Firing order
Ignition system
Fuel system
Timing gear
Belts

Bosch WR 7 DTC
0.031 ± 0.004 in./0.80 mm ± 0.1 mm
1610W/115AAC
1-3-7-2-6-5-4-8
Electronic map-controlled ignition with knock control
AFC (Air Flow Control)
Overhead camshafts, bucket tappets with hydraulic valve play compensation, 32 valves
Alternator: Polyrib K 6-872; air pump 12.5 x 925-FO toothed belt;
air conditioning pump 12.5 x 1080; servo pump 12.5 x 1000

Performance*

	Manual transmission	Automatic transmission
Maximum speed	171 mph (275 km/h)	171 mph (275 km/h)
Acceleration 0 - 60 mph	5.5 seconds	5.6 seconds
Time at end 1/4 mile	13.7 seconds	14.1 seconds
Time at end 1 km	24.7 seconds	25.2 seconds

*At curb weight and half-load capacity, excluding optional equipment and accessories.

Climbing Performance

		Manual transmission	Automatic transmission
Approximate values at	1st gear	approx. 60 %*	approx. 60 %*
curb weight and	2nd gear	approx. 60 %*	approx. 47 %
half-load capacity	3rd gear	approx. 40 %	approx. 27 %
	4th gear	approx. 27 %	approx. 17 %
	5th gear	approx. 18 %	

* The slip limit on a dry road surface and with standard tires is at approx. 60 %

Power train

		Manual transmission	Automatic transmission
Gear ratios	1st gear	3.775	3.870
	2nd gear	2.519	2.250
	3rd gear	1.795	1.440
	4th gear	1.358	1.000
	5th gear	1.000	
Reverse gear		3.314 : 1	5.590 : 1
Rear axle ratio		2.727 : 1	2.538 : 1
Clutch	Single plate dry disc, hydraulically operated		

Filling Capacities

Engine oil	Approx. 2 U.S. gals, or 7.5 liters. Check oil level with dipstick a few minutes after engine has stopped. The difference between the max. and min. marks on the dipstick is approx. 1.6 U.S. qts. or 1.5 liters. Porsche does not recommend the use of oil additives. See also "Engine Oils".
Cooling system with heating	Approx. 4.23 U.S. gals, or 16 liters. Factory filled to -22° F (-30° C) for U.S.A. and -40° F (-40°C) for Canada. Only use phosphate-free anti-freeze containing ethylene glycol recommended for aluminum engines and radiators.
Manual transmission	Approx. 1.27 U.S. gals, or 4.8 liters. Use hypoid oil SAE 75W-90 conforming to API/GL 5 or Mil-L 2105 B.
Automatic transmission with torque converter	Approx. 2.46 U.S. gals, or 9.3 liters ATF Dexron II D®. At oil changes 1.93 U.S. gals, or 7.3 liters are required.
Differential of automatic transmission	Approx. 0.5 U.S.gal. or 1.9 liters hypoid oil SAE 75 W-90 conforming to API/GL5 or Mil-L 2105 B.
Power steering	Approx. 0.74 U.S. qt. or 0.7 liters ATF Dexron II D®.
Fuel tank	Approx. 23 U.S. gals, or 86 liters including a reserve of 3.2 U.S. gals, or 12 liters.
Brake fluid	Approx. 0.42 U.S. pint or 0.2 liters. Only use original Porsche brake fluid.
Windshield/headlight washer system	Approx. 2 U.S. gals, or 7.5 liters.
Refrigerant for air conditioning	Approx. 30.5 oz or 860 g (air conditioning with additional vaporizer 37 oz or 1050 g) Refrigerant 134a.

Cooling system mixing chart
(Average values)
Anti-freeze-Water

Temp, down to	Anti-freeze	Water	Anti-freeze	Water
-30° F (-22° C)	45 %	55 %	7.2 liters/7.6 U.S. qts.	8.8 liters/9.3 U.S. qts.
-35° F (-31° C)	50 %	50 %	8.0 liters/8.4 U.S. qts	8.0 liters/8.4 U.S. qts.
-40° F (-40° 0	55 %	45 %	8.8 liters/9.3 U.S. qts.	7.2 liters/7.6 U.S. qts.
Consult your authorized dealer about the approved anti-freeze mixtures.				

Rims, tires

Summer tires

front 225/45 ZR 17 on rims 7,5 J x 17 H2 or AH (65 mm*)
rear 255/40 ZR 17 on rims 9 J x 17 H2 or AH (55 mm*)

Snow tires

225/45 R 17 90 T M+S on 7,5 J x 17 H2 or AH (65 mm*) rims front and
8 J x 17 H2 or AH (52 mm*) rear

The load rating and code letter for maximum permissible speed (e.g. 90T) are minimum requirements. **When fitting new tires or changing tires, follow the instructions in the section "Tires/Wheels".**

Collapsible spare tire

165/70-16 92 P on 5.5 J x 16 H2 rim. Maximum speed 50 mph or 80 km/h.

Tire pressure, front and rear with cold tires

for summer tires 2,5 bar (36 psi) front and rear
for snow tires 2,5 bar (36 psi) front, 3,0 bar (44 psi) rear
Collapsible tire: 2,5 bar (36 psi)

Snow chains

Snow chains cannot be mounted on standard size wheels. Mounting is only possible on rear wheels with snow tire size 225/45 R 17 on rims 8 J x 17. Maximum speed 30 mph or 50 km/h. See also section "Tires/Wheels".

*Rim offset

Weights

	Manual transmission	Automatic transmission
Curb weight ¹	3593 lbs./1630 kg	3637 lbs./1650 kg
Maximum load capacity ²	650 lbs./ 295 kg	606 lbs./ 275 kg
Maximum permissible weight	4244 lbs./1925 kg	4244 lbs./1925 kg
Maximum axle load, front*	2072 lbs./ 940 kg	2072 lbs./ 940 kg
Maximum axle load, rear*	2425 lbs./1100 kg	2425 lbs./1100 kg
Permissible rack load*	165 lbs./ 75 kg	165 lbs./ 75 kg

Dimensions (at permissible max. load)

Wheel base	98.43 in./2500 mm
Wheel track, front	61.06 in./1551 mm
Wheel track, rear ³	63.62 in./1616 mm
Turning circle (curb to curb)	35.7 in/ 10.9 m
Turning circle (wall to wall)	38.4 in/ 11.7 m
Length	178.07 in./4523 mm
Width	74.41 in./1890 mm
Height (at curb weight)	50.47 in./1282 mm
Ground clearance	4.53 in./ 115 mm

Do not exceed total permissible weight.

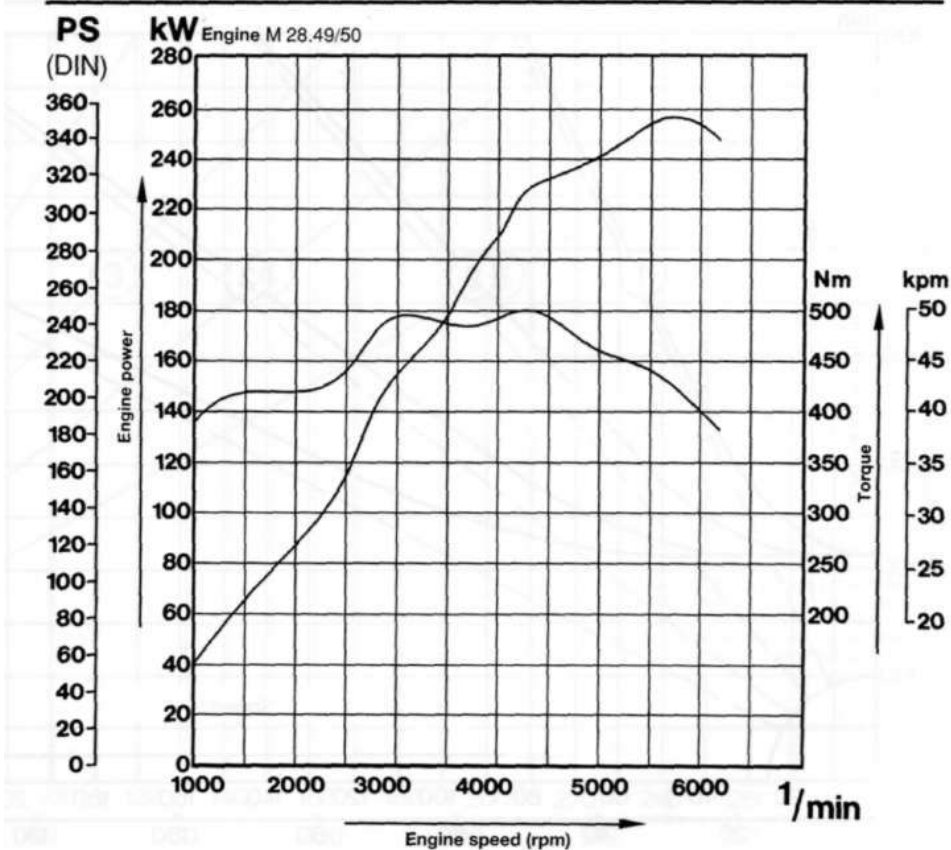
- 1) Automatic 3638 lbs./1650 kg
- 2) Automatic 606 lbs./275 kg
- 3) inc. standard 38 mm spacers

The vehicle capacity weight (max. load), the Gross Vehicle Weight Rating (GVWR) and the Gross Axle Weight Ratings (GAWR) for front and rear, are listed on the sticker on the doorsill on the driver's side.

The gross vehicle weight rating includes the weight of the basic vehicle plus full fuel tank, oil and coolant, plus max. load which combines passenger (150 pounds/68 kg per designated seating position) and luggage weight. Luggage weight may not be increased by the use of roof, ski or luggage racks, unless passenger capacity is reduced accordingly.

Full-load curves

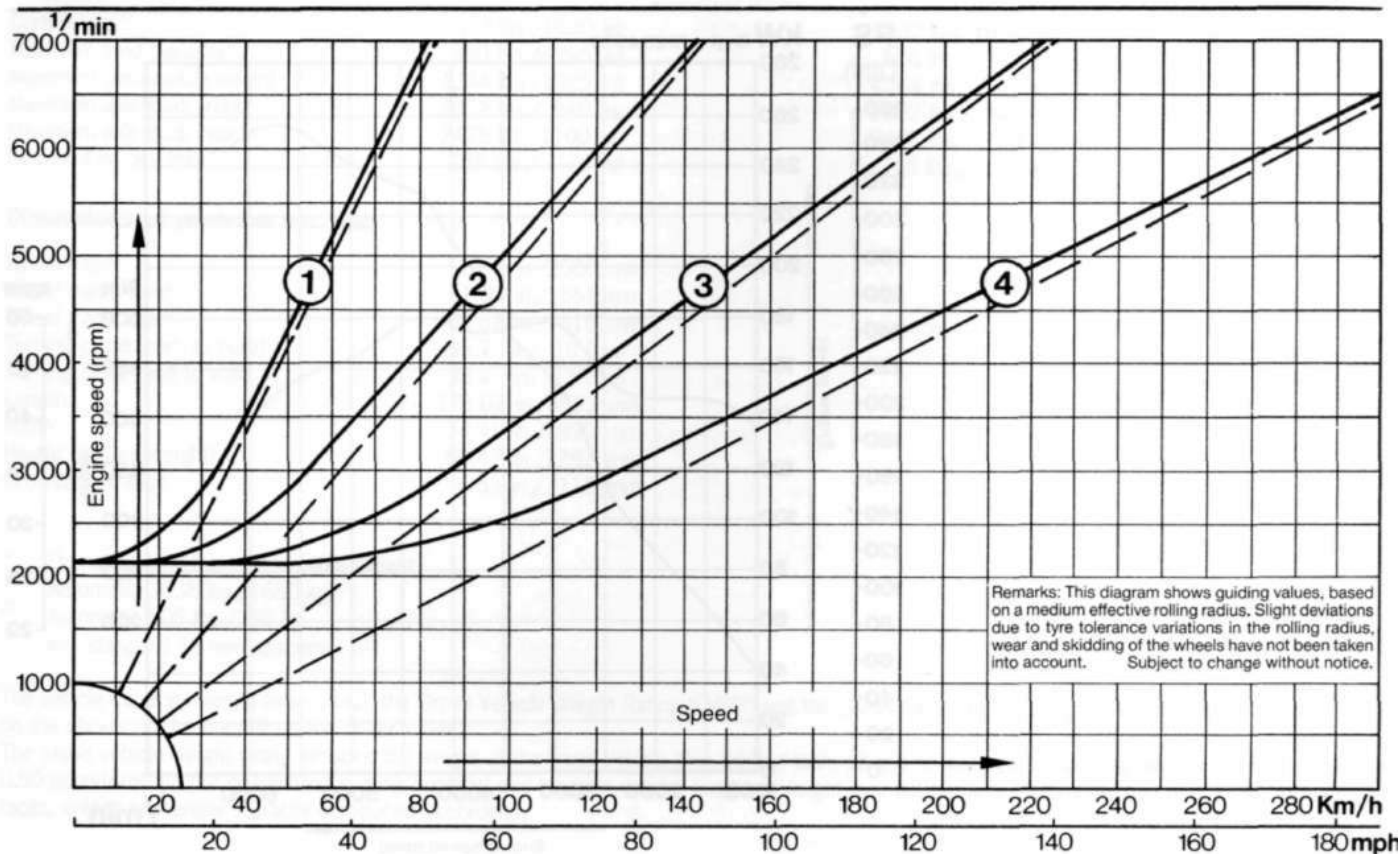
928 GTS



Transmission diagram

Automatic A 28/18

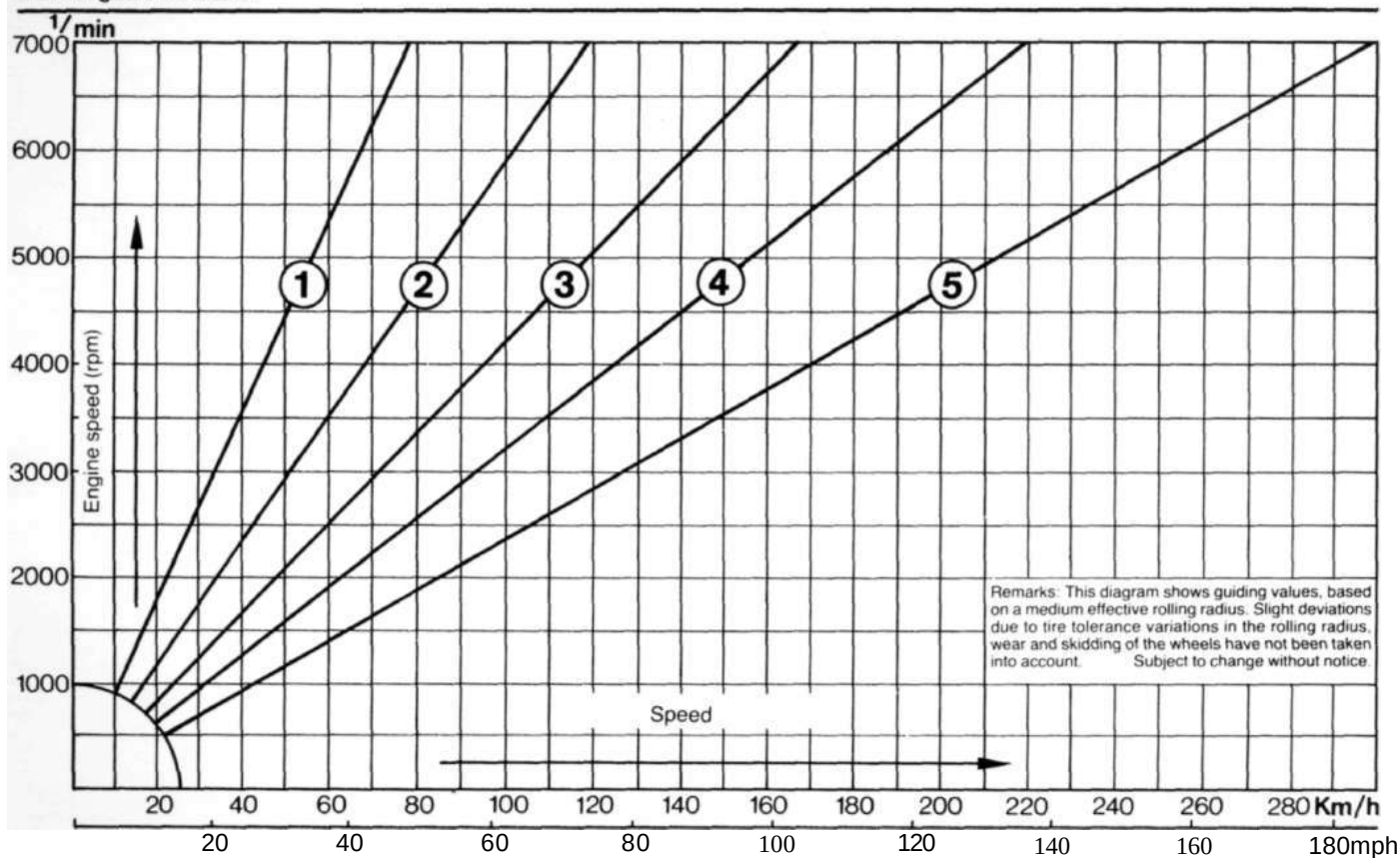
928 GTS



Transmission diagram

Manual gearbox G28/57

928 GTS



Index

Index

A

ABS brake system.....	32, 33
Acceleration kick-down.....	68
Accelerator pedal.....	68
Additional equipment.....	81
Adjusting headlights.....	108
Air bag system.....	28, 29, 42
Air compressor, tire.....	94
- conditioning.....	55 - 58
- cleaner filter.....	76
Alarm system.....	16
Alternator warning light.....	40, 41
Anti-freeze.....	74, 75, 120
Antilock brake system.....	32, 33
Anti-theft alarm.....	16
Ashtray/light.....	59, 107
Automatic garage door.....	37
- speed control.....	53
- transmission.....	66 - 68
- transmission fluid (ATF).....	73

B

Battery.....	98 - 101
Brake booster.....	31
- fluid.....	77
- pads.....	10, 31
- parking.....	30
- pedal.....	31

- system.....	30 - 33
- warning light.....	31
Break-in-hints.....	10
Bulbs - replacing.....	103 - 107

C

Capacities.....	120
Car care instructions.....	82 - 86
Car telephone.....	81
Catalytic converter.....	111
Cautions.....	70, 88
Central door locking.....	15
Changing a wheel.....	94 - 97
Child restraint systems.....	26, 27
Cigarette lighter.....	59
Cleaning.....	82 - 86
Climate control system.....	55 - 58
Clock.....	59
Clutch.....	35
Collapsible spare tire.....	94
Coolant temperature gauge.....	41
Cooling system.....	74, 75
- fan control.....	75
Corrosion prevention.....	82 - 86

D

Dashboard.....	48
Defogging/defrosting.....	52
Dimensions.....	122
Directional signals.....	42, 50
Doors locks.....	14, 15
Driving hints.....	8 - 10

E

Electrical system.....	98 - 109
Emergency flasher.....	52
- starting.....	67, 100, 101
Emission control system.....	110, 111
Engine compartment.....	63, 83
- exhaust.....	10
- hood release.....	63
- number.....	116
- oil.....	71 - 73, 120
Engine specifications.....	118
- speed, maximum.....	10, 65, 118

F

Fan - radiator.....	75
Fan switch.....	57
Filling capacities.....	120
Flasher - emergency.....	52
Fog lights.....	49, 104
Fuel economy.....	80
- evaporation control.....	112
- filler cap.....	78
- gauge.....	40
- recommendations.....	78, 79
- tank.....	78, 120
Fuses and relays.....	102

G

Gasohol.....	79
Gasoline - octane ratings.....	78 - 80, 118
Gear ratios.....	119

Gearshiftin.....	65
Glove compartment.....	62
Gong.....	12, 25, 36, 49

Hatchback release.....	64
Headlights.....	49, 50, 103, 104, 108, 109
Headlight dimmer/flasher.....	50
- washer lever/reservoir.....	50, 51, 74
- switch.....	49
Heater/ventilation controls.....	55 - 57
High beam/low beam lever/light.....	42, 50
Hood release.....	63, 64

I/J

Identification plates.....	115 - 117
Ignition/steering lock.....	36
Information system.....	44 - 46
Instrument cluster.....	38
- illumination.....	49
Interior lights.....	14, 18, 107
Intermittent wiper interval.....	51
Jack	89, 94, 97
- lifting points.....	97

K/L

Keys.....	12 - 13, 95
Kickdown - acceleration.....	68
Lane changer.....	50
Leather.....	85
Lights - ashtray.....	107

- fog.....	49, 104
- interior.....	14, 18, 107
- license plate.....	107
- parking.....	50, 106
- stop.....	105, 106
- switch.....	49
- tail.....	105
- turn signal.....	50, 105, 106
- warning.....	40 - 42
Limited slip differential - PSD.....	34, 42
Lockable wheel nuts.....	95
Locks - doors, wheels.....	14, 15, 95
Luggage compartment.....	23
- light.....	18
Lumbar support.....	21

M/O

Manual transmission.....	65
Mirrors.....	24, 62
Octane ratings.....	78 - 80, 118
Odometer.....	39, 46
Oil level/checking.....	71 - 73
- grades.....	72, 73, 120
- pressure gauge/warning light.....	40
- transmission.....	73
On-board-computer functions.....	45, 46
Oxygen sensor.....	111

P

Paint number.....	117
Paint damage.....	84
Parking brake lever.....	30

Parking brake light.....	42
- lights/lever.....	50, 106
Performance.....	119
Polishing.....	83, 84
Power steering fluid.....	76, 120
- windows.....	17
Pressure - tires.....	90, 94, 121
PSD - Limited slip differential.....	34, 42
Puncture.....	91

R

Radiator fan.....	75
Radio reception.....	81
Rear seats.....	23
- window defogger/defroster.....	52
- window wiper switch.....	61
- view mirrors.....	24, 62
Refrigerant.....	120
Reporting safety defects.....	2
Roof rack.....	81, 122

S

Safe driving hints.....	8, 9
Safety belts.....	25 - 27, 86
Seats, front/rear/electric.....	19 - 23
- heating.....	21
- position memory.....	22
Selector lever.....	66 - 68
- position indicator.....	39
Shift points.....	65 - 68
Sliding roof- electric.....	60, 61
Snow chains.....	93, 121

Spare tire - collapsible.....	94
Specifications - engine.....	118
Speed control - automatic.....	53, 54
Speedometer.....	39
Starting hints/engine.....	36, 37, 110
Steering lock.....	36
Steering wheel adjustment.....	19
Sun visors.....	62
Sunroof.....	60, 61

T

Tachometer.....	39
Technical data.....	118 - 125
Theft protection.....	16
Tires.....	90 - 96
Tire size/pressure.....	90, 93, 121
Toolkit.....	89
Towing.....	112, 113
Transmission.....	65 - 68, 73, 119
Trip odometer.....	39, 46
Turn signal lights/lever.....	50, 105, 106

U

Undercoating.....	84, 110
Unleaded fuel.....	78, 118
Upholstery, care of.....	85

V

Vanity mirror.....	62
Vehicle care.....	82 - 86
Vehicle identification.....	115 - 117

- label.....	117
- towing.....	112, 113
Ventilation/heater controls.....	55 - 58
Voltmeter.....	40, 41

W/Z

Warning functions.....	44
Warning indicator lights.....	40 - 42
Washer system.....	50, 51, 74
Washing the car.....	82 - 86
Weights.....	122
Wheels.....	85, 90 - 96, 121
Wheel changing.....	94 - 97
- nuts, lockable.....	95
Window switches.....	17
Windshield washer reservoir.....	74
- wiper interval.....	51
- wiper washer lever.....	50, 51
Zero button.....	46