
PORSCHE

928

OWNER'S MANUAL

MODEL '82



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NOTE TO OWNERS

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

NOTE AUX PROPRIETAIRES

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 Clientele Porsche
1940 Eglinton Ave. East
Scarborough
Ontario M1L2M2

Your car may have all or some of the components described in this manual. Should you find explanations of a feature or equipment not installed in your car, your 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 make technical improvements at any time during the model year and specifications are subject to change without notice.

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.

Your **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.

The **Warranty & Maintenance** booklet also contains detailed information about the warranties covering your Porsche. These warranties are:

"Warranty for new Porsche vehicles", "Warranty against corrosion for new Porsche vehicles", "Warranty for new Porsche vehicle emission control system", "Emissions performance warranty" (USA only), and "California emission control system warranty" (California USA only).

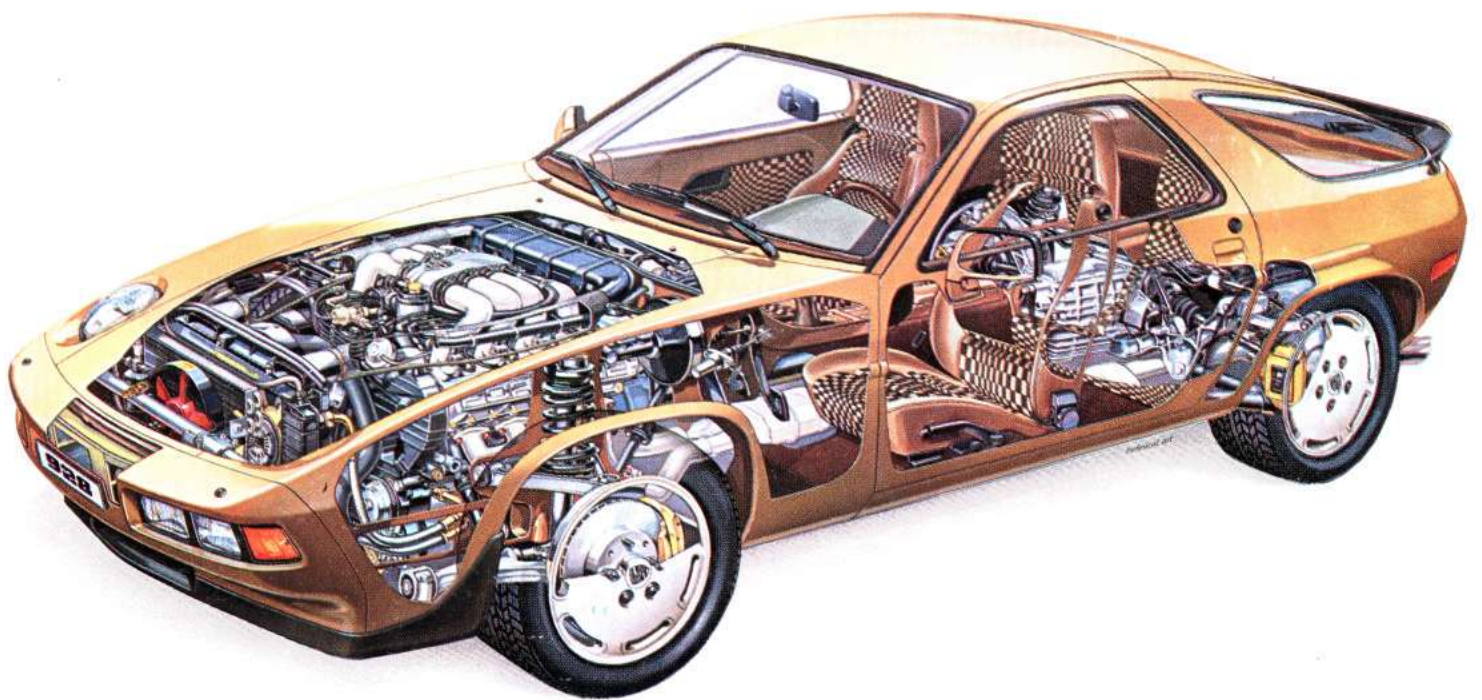
Always carry your **Warranty & Maintenance** booklet with you when you take your Porsche to an authorized dealer for service. It provides your Service Adviser with the information he needs and enables him to record each service.

The **Owner's Manual** and the **Warranty & Maintenance** record belong with the car. They should be

left in the vehicle when sold, to make all operating, safety and maintenance service information available to the new owner. If you bought this car as a **used car**, be sure to send in a NOTICE OF USED CAR PURCHASE post card. This card can be found in the **Warranty & Maintenance** booklet or obtained from your Porsche dealer.

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

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



Index

A

Acceleration kick-down. 47
Accelerator pedal. 47
Adjusting headlights. 79
Air compressor. 68-69
Air conditioning. 35-38
Air cleaner. 65
Alternator warning light. 28-29
Anti-freeze. 49,60,90
Anti-theft alarm. 10
Ashtray/light. 39,78
Automatic garage door. 23
Automatic speed control. 32
Automatic transmission. 45-47
Automatic transmission fluid (ATF). 59

B

Battery. 49,74,80
Brake -booster. 21
-fluid. 62
-pads. 48
-parking. 20,46
-pedal. 21
-system. 89
-warning lights. 26-29,34
Brake-in-hints. 48
Bulbs - replacing. 75 78
Buzzers. 9,22

C

Capacities. 90
Car care instructions. 51-53
Catalytic converter. 63,83
Cautions. 55
Center console.....22,40,41
Central door locking. 11
Central warning light system. 34
Changing a wheel. 70-71
Cigarette lighter. 39
Cleaning. 51-53
Clutch. 21
Collapsible spare tire. 68-69
Coolant temperature gauge. 27
Cooling system. 60-61
Corrosion prevention. 49

D

Dashboard. 34
Defogging/defrosting. 17,30,35-38
Dimensions. 88
Directional signals. 27-28,31
Doors locks. 9-11, 50
Driving hints. 8

E

Electrical system. 72-80,86
Emergency flasher. 30
Emergency service. 56
Emergency starting. 46,80,81
Emergency towing. 81
Emission control system. 82-85

Engine -compartment. 53
- hood release. 43
-number. 6
-oil. 48,49,57-58,90,91
-specifications. 86-87
- speed, maximum. 44,89

F

Fan - radiator. 27
Fan switch. 38
Filling capacities. 90
Flasher-emergency. 30
Fog lights. 24,77
Fuel consumption gauge. 25
Fuel -economy. 64
-fillercap. 63
-gauge. 27
-recommendations. 50,63
-tank. 63,90
Fuses and relays. 72-73

G

Gasohol. 64
Gas station information. 96-98
Gasoline-octane ratings. 50,63,86,90
Gear ratios. 87
Gearshifting. 44
Glove compartment. 9,42

H

Headlights. 76,78-79
Headlight dimmer/flasher. 31
Headlight washer lever/reservoir. 33,60
Headlight switch. 24
Heater/ventilation controls. 35-38
Highbeam/lowbeam lever/light. 25,31
Hood release. 43

I/J

Identification plates	6
Ignition/steering lock	22
Instrument cluster	15,22
Instrument illumination	22,24
Intensive windshield washer/ switch/reservoir	33,65
Interior lights	12,78
Intermittent wiper interval	33
Jack	56
Jack lifting points	70-71

K/L

Keys	9-11
Kickdown-acceleration	47
Lane changer	31
Lights -ashtrays	78
-fog	24,77
-interior	12,78
- license plate	77
-parking	31,76
- switch	24
-tail	77
-turn signal	21,76,77
- v a n i t y mirror	42
-warning indicator	27-29,34
Locks	9-11,22,50
Loudspeaker balance control	20
Luggage compartment	15,43
-light	12

M/O

Maintenance	56
Manual transmission	44,87
Mechanical fan	27
Mirrors	17,42

Octane ratings	50,63,86,90
Odometer	24
Oil changing/checking	57-58
-filter	58
-grades	91
- p r e s s u r e gauge/warning lights	28
-transmission	59

P

Paint number	6
Parking brake lever	20
Parking lights/lever	31,76
Performance	89
Polishing	51
Power steering fluid	65
Powerwindows	11,34
Pressure-tires	66-67,88

R

Radiatorfan	27,55,60
Rear seats	15
Rear window defogger/defroster	30
Rear window wiper switch	41
Rear view mirrors	17
Roof rack	49-50

S

Safe driving hints	7,8
Safety belts	18-19
Seats, front/rear/electric	14-16
Selector lever	45,46
Shift points	44
Sliding roof -electric	40-41
Spare tire -collapsible	68-69
Specifications-engine	86-87
Speed control -automatic	32
Speedometer	25

Starting hints/engine	22-23
Steering lock	9-11,22
Sun visors	42

T

Trip odometer	25
Technical data	86-91
Tires	48,49,66-67
Tire size/pressure	66-67,88
Tool kit	56
Towing	46,81
Transmission	44-47,59,87
Trip odometer	24
Turn signal lights/lever	31,76,77

U

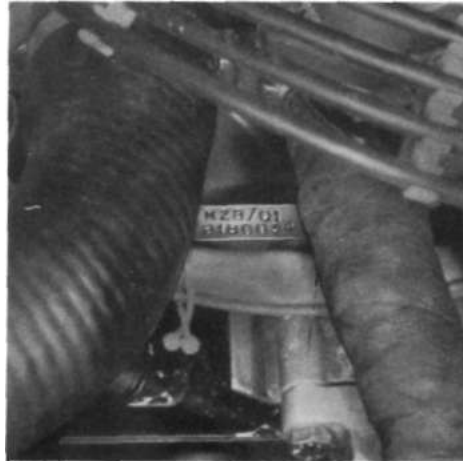
Undercoating	49,82
Unleaded fuel	50,63,83
Upholstery, care of	51-52

V

Vanity mirror	42
Vehicle identification	6
-label	7
Ventilation/heater controls	35-38
Voltmeter	28-29

W

Warning indicator lights	27-29,34
Washer system	33,60,65
Weights	88
Wheels	49,66-67,88
Wheel changing	70-71
Window switches	11,34
Windshield washer reservoir	60
Windshield/wiper washer lever	33
Winter operation	49



Location of Vehicle Identification Number, Paint and Engine Number

When ordering spare parts or submitting inquiries, always quote vehicle identification and engine number to ensure correct and prompt service.

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

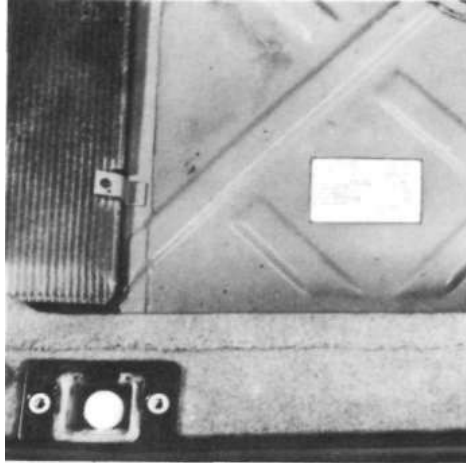
The paint number is on the doorjamb on the driver's side.



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 door-sill on the driver's side.

The 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.

The label contains the following information:

1. Vehicle Identification Number
2. Vehicle Code
3. Engine Number
4. Paint and Interior Code
5. Option Codes

A duplicate of the label is in your Warranty and Maintenance brochure.

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.

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

Before going on a trip...

- 1 - Be sure tires are inflated correctly. Look for bruises and tire wear.
- 2- See that wheel bolts or nuts are not loose or missing.
- 3- Check engine oil level, add if necessary. Make it a habit to have engine oil checked with every second fuel filling.
- 4 - Check coolant level to assure sufficient engine cooling.
- 5 - Be sure you have a well charged battery. Each cell should be filled to level with distilled water.
- 6- Check brake fluid level. If too low, have brake system checked.
- 7 - Replenish windshield washer fluid.
- 8 - Replace worn or cracked wiper blades.
- 9 - See that all windows are clear and unobstructed.
- 10 - Check whether headlight and tail light lenses are clean.
- 11 - Check under car for leaks.
- 12 - Be sure all lights are working and headlights are aimed correctly.

In the drivers seat...

- 1 - Depress plate in center of steering wheel to check whether horn is working.
- 2 - Position seat for easy reach of controls.
- 3 - Adjust inside and outside rear view mirrors.
- 4 - Use safety belts.
- 5-Check operation of foot and parking brakes.
- 6-Check all warning and indicator lights when starting the engine.
- 7 - Do **not** leave car idling unattended.
- 8- Lock doors from inside, especially with children in the car.

Have the engine oil, the coolant level and the oil level of the automatic transmission checked regularly, even inbetween the recommended maintenance intervals.

On the highway...

- 1-Always drive defensively. Expect the unexpected.
- 2- Use signals to indicate turns and lane changes.
- 3 - Turn on headlights at dusk.
- 4-Always keep a safe distance from the car in front of you, depending on traffic, road and weather conditions.
- 5-Reduce speed during night hours and inclement weather.
- 6 - Observe speed limits and obey highway signs.
- 7 - When tired, get off the highway, stop and take a rest. Turn the engine off. Do **not** sit in the car with engine idling. See warning on Engine Exhaust.
- 8 - When stopped or parked, always set the parking brake.
- 9 - When stalled or stopped for repairs, move the car well off the road. Set the emergency flasher and use road flares or other warning devices to warn other motorists.

Turn the engine off before you attempt any checks or repairs on the car.

Do not invite car theft!

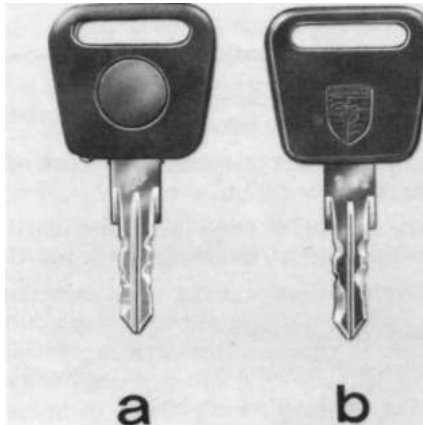
An unlocked car with the key in the ignition switch invites car theft.

A steering wheel lock and a buzzer alarm are standard equipment in your Porsche. The buzzer will sound if you open the driver's door while the key is still in the ignition lock. This is your reminder to remove the key from the ignition and lock the doors.

Do **not** remove the key from the steering lock while you are driving or as the car is rolling to a stop. The steering column is locked when you remove the key, and you will not be able to steer the car.

The new format of the master and auxiliary 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 the manufacturer.

Should you need new keys, you must give the key number. This number is noted on the plastic tag on the keys. Keep this tag in a safe place - not in the vehicle.



a Master key
b Auxiliary key

Keys

Your Porsche comes with two each of the following keys:



- a - master key for ignition lock, door locks, luggage compartment lock and glove compartment lock.
- b - auxiliary key for ignition lock, door locks and luggage compartment lock

Key light

The master key has 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.**

S-key (illuminated)	Locks	Key functions	Auxiliary key
	Doors	Activate alarm by locking with S-key. Deactivate alarm by unlocking with S-key. Auxiliary key - lock or unlock when alarm not required (see "Central door locking system").	
	Luggage compartment	Activate alarm by closing rear lid, then turn S-key counter-clockwise. Deactivate alarm by unlocking rear lid with S-key. Auxiliary key - lock or unlock when alarm not required.	
	Ignition/steering	Lockable with either key.	
	Glove compartment	Lockable with S-key only.	
	Fuel filler cap	Lockable with auxiliary key only.	

Anti-theft alarm (optional equipment)

If your Porsche is equipped with an anti-theft alarm system, you will be given a duplicate set of the master S-key illustrated above, instead of the "regular" master key. The alarm system can only be activated or deactivated with the S-key.

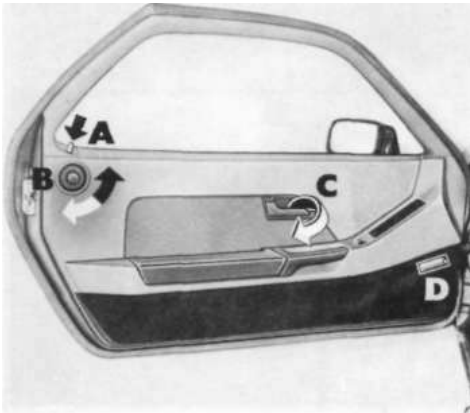
Functions for both S-key and auxiliary key are described above, as they pertain to individual locking operations.

Attempting to open the doors, the rear lid or the engine hood by any other means when the alarm system is activated, will produce an intermittent high noise for about 30 seconds.

The engine cannot be started while the alarm system is activated.

Keep the S-key in your personal possession at all times. Leave the auxiliary key only with an attendant when the car is being serviced.

Keep plastic tag with key number in a safe place. Do not leave it in the vehicle.



Central door locking system

The central door locking system enables you to lock or unlock both doors simultaneously by operating one door lock.

The central door locking system functions only when both doors are fully closed. If one door is „centrally" locked before the other door is fully closed, the „centrally" locked door will unlock automatically.

Always drive with locked doors to prevent inadvertent opening of a door from the inside, especially with small children in the car.

The car is safely locked when locking knob „A" is fully down on both doors. If locking knob „A" is not fully down on one door, open that door again, close it firmly and repeat the locking operation.

On a centrally locked vehicle, the passenger door can also be unlocked and locked from inside by turning locking knob „B". Locking knob „B" is operational only with door fully closed.

With the ignition key in Pos. „1" or „2" the electric circuit of the door locking mechanism is interrupted, so that each door can be unlocked or locked from the inside only by manually raising or depressing locking knob „A". This safety feature prevents the doors from being locked automatically through a short circuit or during an accident.

With the ignition key in Pos. „0" the central locking system and locking knob „B" are operational.

Doors

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

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

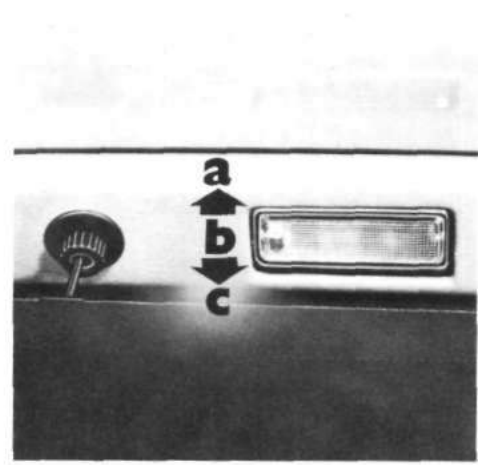
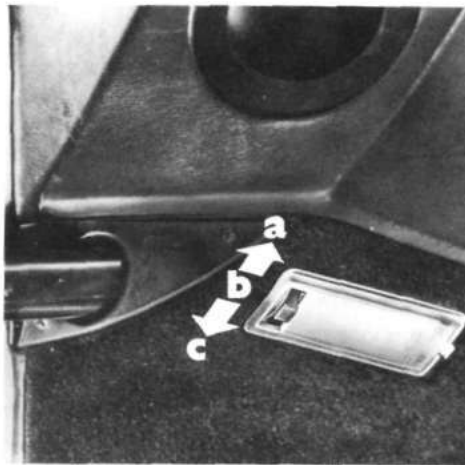
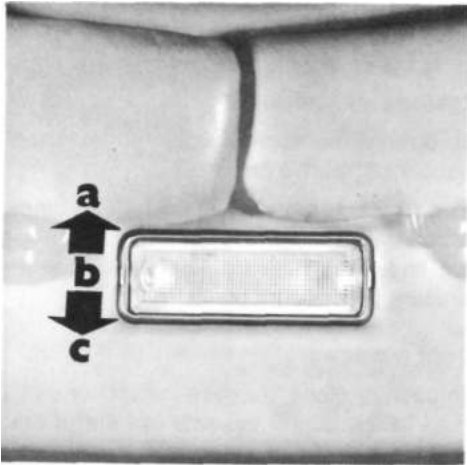
The armrests have a built-in storage compartment. To open, press knob in hand cutout and tilt armrest outward. To close, tilt compartment toward door panel.

Door windows

To open or close, depress the rocker switches in the center console in front of the shift lever.

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

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.



Interior lights

Dome lights

The dome lights have a built in rocker switch which is operated by tilting the lamp lens as follows:

- a - light on continuously
- b - light off
- c - light on with front doors or hatchback open.

Door courtesy lights

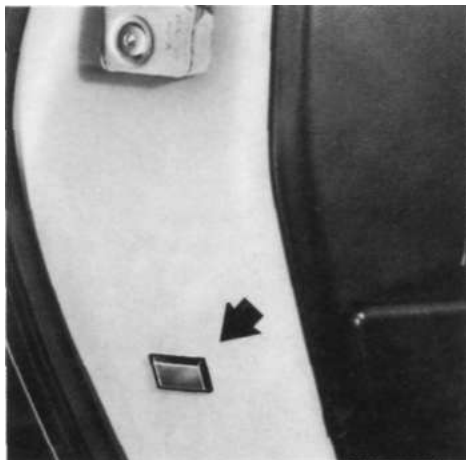
Switch positions for the lower door panel lights are as follows:

- a - light on with front doors or hatchback open
- b - light off
- c - light on continuously.

Luggage compartment light

The luggage compartment light is located on the hatchback. The three switch positions are:

- a - light on with front doors or hatchback open
- b - light off
- c - light on continuously.



Door warning lights

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



Front seats

Correct seat positioning is important for safe and comfortable driving. Therefore, the seat and the backrest angles in your Porsche are fully adjustable.

Seat adjustment

To move the seat forward or backward, pull the locking lever at the front of the seat up. Now slide the seat to the desired position. Let the lever go, and move the seat slightly back and forth to make sure it is securely engaged.

Do not attempt to adjust the driver's seat while driving! The seat may suddenly **jerk forward or backward causing loss of control.**

Backrest release

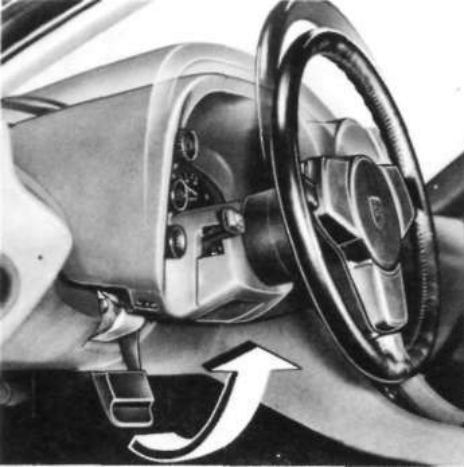
The backrest can be folded forward for easy access to the rear seats. To release, press the locking button on the side of the backrest (arrow) and, at the same time, tilt the backrest forward. When the backrest is tilted back, the lock will engage automatically.

Backrest adjustment

Turn handwheel on the outboard side of the seat (arrows), with your body weight taken off the seatback.

Front passengers should not ride in a moving car with the seatback reclined. Safety belts offer maximum protection only with the seatback in an upright position.

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



Steering wheel adjustment

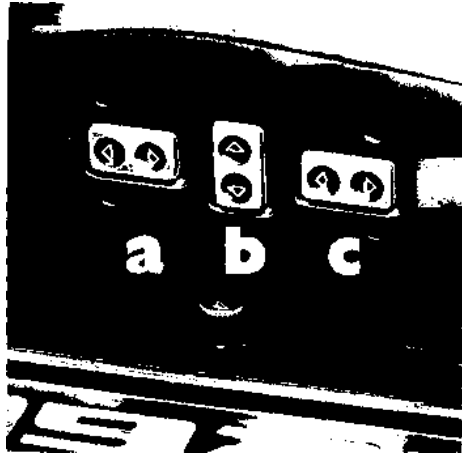
Release locking lever under instrument cluster for desired positioning (arrow), then lock securely.

Rear seats - luggage compartment

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

Unsnap the luggage compartment cover from the upright rear seat backrests and the rear cross wall.

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



a backward/forward
b height
c backrest angle

Electric seats

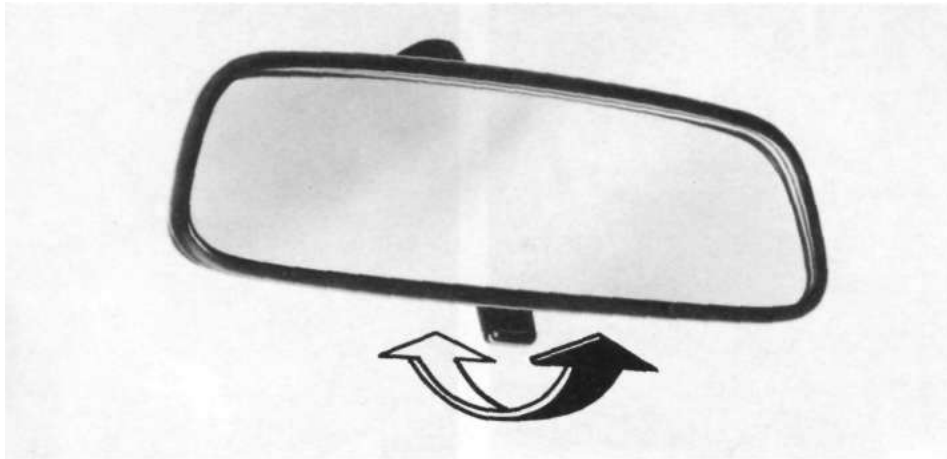
The rocker switches for a smooth three-way seat adjustment are located at the outboard side of the seat.

Note:

Before operating the switches, tilt the safety belt buckle at inboard side of seat out of the way to prevent the buckle from getting squeezed in-between seat cushion and backrest, which could damage both buckle and seat Cover.

Manual operation

If the electric mechanism fails, the seat can be moved forward or backward by pushing the locking lever under the front of the seat toward outboard side of seat. Slide the seat to the desired position and let the lever go. Move the seat slightly back and forth to make sure it is securely engaged.



Rear view mirrors

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

We recommend you do not put decals or other signs on the windows of your car that may interfere with the driver's vision.

when the ignition is turned on. The control switch is located next to the side window vents in the armrest.

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 up or down (arrows).

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 can be adjusted from the inside by remote control

The electrically heated outside mirror for the passenger side can be adjusted with the same control switch, by pressing the rocker switch beside the adjuster switch into the appropriate position.

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

Inertia Real Safety Belt

For your and your passenger's protection, wear safety belts at all times while the car is in motion.

Your Porsche is equipped with a safety belt for each front and rear seat.

The inertia real safety belt provides safety with freedom of movement. It adjusts automatically to your size and movements as long as the pull on the belt is slow. A sudden motion locks the belt.

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.

To release a locked belt, lean back to take the body pressure off the belt.

A shoulder belt should not be worn by a person less than 4' 11"/1.50 m in height, or with an erect seating height of less than 2' 5"/74 cm, because the belt would not be in its most protective position and may therefore increase the possibility of injury in a collision.

For maximum safety and protection, we recommend that small children travel in the rear seats.

When driving in foreign countries, the wearing of safety belts may be required by law.



Safety belt warning system

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

When the ignition is turned on, the warning light in the center console and the buzzer will come on for about 6 seconds. The buzzer will go off as soon as the driver has buckled up. The warning light will go off after 6 seconds.

Fastening the belt

Sit back in your seat so that your body is supported by the backrest. Grasp the belt tongue and pull the belt in a slow continuous motion across your chest and lap. Insert the belt tongue into the belt buckle on the inboard side of the seat. Push down until securely locked with an audible click.

Be sure the belts are not twisted. Keep belt buckles free of obstruction that may prevent secure locking.



Adjusting the belt

For best protection, belts should fit snugly across lap and chest. If belt has too much slack, pull shoulder section in direction of arrow to make sure the belt is drawn snug around your hips.

Make sure the shoulder belt does not press against solid or fragile items, such as ball point pens, pipe, lighter or glasses.

Do not wear the belts loosely.

Do not strap in more than one person with each belt.



Releasing the belt

To unfasten belt, push the red release button marked PRESS. Belt tongue will spring out of buckle.

To store lap/shoulder belt, allow belt to wind up on retractor as you guide belt tongue to its stowed position on door post. Mark section across your lap with moveable stop to keep belt tongue from sliding down when belt is wound up.

The belt of the **unoccupied passenger** seat should always be fully wound up, with belt tongue in **stowed** position. This reduces the possibility of the belt tongue becoming a striking object in case of a sudden stop.

Belt care

Keep belts fully wound up when not in use. In properly stowed position, belts are protected from dirt and damage.

Check belts and mechanisms regularly. If belts do not work properly, see your Porsche dealer to have them repaired or replaced. Do not modify or disassemble the safety belts.

If belts show damage to webbing, bindings, buckles or retractors, they should be replaced.

Belts that have been subjected to excessive stretch forces in an accident must be replaced.

Keep belts clean. If they need cleaning, use a mild soap solution, but do not remove belts from car. Do not use other cleaning agents as they will weaken the webbing.

Never bleach or dye safety belts.

Do not allow safety belts to retract until they are completely dry. Dry belts in shade.

The seatbelt should not be used to hold a child's seat as the diagonal belt will not provide the needed protection.



Parking brake lever (arrow)

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

To set the parking brake...

- press in the release button (arrow) at the end of the lever as you pull the lever up. The parking brake engages as soon as you release the button in the raised lever.

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.

Always set the parking brake when parking your car. 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 central warning light and the parking brake light will go out after the engine is started and the parking brake is fully released (see "Central warning light system").

Loudspeaker balance control

The volume of the loudspeakers in the door and in the rear of the vehicle can be balanced by turning the loudspeaker balance control knob (A), located next to the parking brake lever.

Brake pedal

Your Porsche is equipped with a hydraulic dual circuit brake system with self adjusting disc brakes at the front and rear. Make it a habit to check the operation of your brakes before driving off. The movement of the brake pedal should not be obstructed by a floor mat or other objects.

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

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 96 km/h, for example, it is not twice but four times longer than at 30 mph or 48 km/h. Tire traction is also less effective when the roads are wet or slippery. Therefore, always maintain a safe distance.

Moisture or road salt on brakes affects braking

Driving through water may reduce tire traction. Moisture on brakes from road water or car wash or coating of road salt may affect braking efficiency. Cautiously apply brakes for a test. Brakes will dry and salt coating will be cleaned off after a few cautious brake applications.

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.

Brake warning lights

The central warning light and the brake fluid warning light in the combination instrument will flash when the level in the brake fluid reservoir is too low. To report a brake circuit failure, the central warning light and the brake pressure warning light will flash (see "Central warning light system").

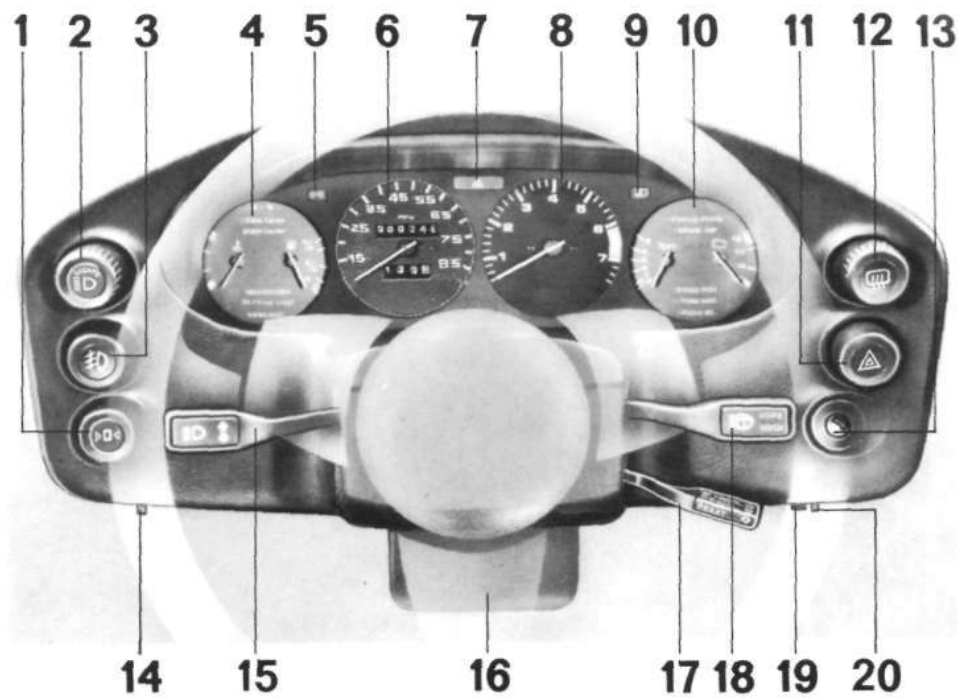
Clutch

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.

The specified maximum rpm figures should not be exceeded when shifting down, as otherwise the engine speed would be too high. This applies to standard gear ratios only.

Instrument cluster



- | | | |
|-------------------------------|--|--|
| 1 Odometer reset switch | 9 High beam indicator light | 16 Locking lever for steering wheel / instrument cluster height adjustment |
| 2 Light switch | 10 Right combination instrument | 17 Automatic speed control lever |
| 3 Fog light switch | 11 Emergency flasher switch | 18 Windshield wiper and windshield/headlight washer lever |
| 4 Left combination instrument | 12 Rear window defogger switch | 19 Intensive washer system switch |
| 5 Turn signal indicator light | 13 Ignition/starter switch with steering lock | 20 Intermittent wiper interval control |
| 6 Speedometer | 14 Instrument illumination control | |
| 7 Central warning light | 15 Turn signal/headlight dimmer flasher/ parking light lever | |
| 8 Tachometer | | |



Ignition/Starter Switch with Steering Lock

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

For your safety, fasten safety belts.

Manual transmission:

- Move gearshift lever to **Neutral**.

Automatic transmission:

- Move gearshift lever to **Neutral** or **Park**.

Never start or let the engine run in an enclosed unventilated area. Exhaust fumes from the engine contain carbon mono-

xide which is a colorless and odorless gas. Carbon monoxide can be fatal if inhaled.

There are 4 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, rear window defogger/defroster and fresh air ventilation. The instrument cluster illumination will come on and can only be turned off with key in position "0".
- 2- Ignition **on, steering unlocked.** All electric circuits are operational. With the engine stationary, the central warning light and all individual warning lights located in both combination instruments will light up for a bulb check.
- 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 central and indivi-

dual warning lights should go out. The STOP LAMP will go out after depressing the brake pedal and the PARK BRAKE light after fully releasing the parking brake (see "Central warning light system"). 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 will have to be switched off and then on again. 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.

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

See also Starting Hints and Brake-in Period.

The steering column will lock when you remove the key. Therefore do not remove the key while you are driving or as the car is rolling to a stop.

Starting Hints

For your safety, fasten your seat belts!

Before starting the engine, make sure the gearshift lever is in Neutral.

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.

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 the engine is **hot**, fully depress the accelerator pedal while starting.

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 restarting.

Do not let the engine idle to warm it up. After starting, accelerate gradually and maintain moderate speed. Avoid high rpm and full throttle until the engine has reached normal operating temperature.

Avoid extended periods of idling. **Never leave engine idling unattended.** If warning lights should come on to indicate improper operation, they would go unheeded. This could result in severe damage to the car.

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

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.



Fog lights

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

Trip odometer

The trip odometer in the lower part of the speedometer instrument can be turned back to zero by depressing switch "B".



Light switch - with ignition on

- 0 - lights off
- 1 - parking lights on (2 front/2 rear)
- 2 - headlights on and raised

In positions 1 and 2, the following lights are also on:

- tail lights
- instrument illumination
- shift pattern illumination for automatic transmission gearshift lever

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.



USA

Tachometer

The transistorized tachometer operates on the pulse count principle and 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.



Canada

Fuel Consumption Gauge

The gauge measures fuel consumption in gallons or liters per hour while the engine is idling and when driving at speeds up to 20 mph or 33 km/h.

When driving at speeds above 20 mph or 33 km/h (regardless of what gear or driving range has been selected), the gauge shows

In US: the fuel consumption in miles per gallon,

in Canada: the fuel consumption in liters per 100 km.

Since individual driving habits, road, traffic and weather conditions influence fuel consumption, let the fuel consumption gauge assist you in driving for optimum fuel economy.



USA

Speedometer

The speedometer indicates driving speed per hour.

In **USA:** Miles and Kilometers per hour

In **Canada:** Kilometers per hour

The upper odometer records total distance driven and cannot be turned back.

The trip odometer in the lower part of the instrument can be turned back to zero by depressing the odometer reset switch on the lower left side of the instrument cluster.



OXS

(oxygen sensor) light

The OXS light functions as a "Service Reminder". The light will come on (and stay on) every 30,000 miles or 48,000 km to remind you to take your car to your Porsche dealer for the scheduled emission control maintenance service.



Central warning light

The central warning light in the instrument cluster will light up or flash when a fault occurs in one of the vehicle's systems. (Refer to "Central warning system").

The OXS lamp lights up when the ignition is turned on and should go out after the engine has been started. If the light does not go out after the engine has started, a malfunction may have occurred in the monitoring system. Have your dealer locate and correct the cause promptly (see "Emission Control System" for more details).

High beam indicator light

The blue light in the instrument cluster will light up when the selector lever is pushed forward. The blue light will go out as soon as low beam is selected.

Turn signal indicator light

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



Coolant temperature gauge and warning light

Needle in white field - engine is cold

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

Needle in center striped field - normal

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

Needle in red field - warning

If needle enters the red field, the engine is overheating. The central warning light will also come on. Reduce speed and engine rpm. If the needle does not return to the center field, and the central warning light remains on, pull off the road, turn off the engine and let it cool down.

Coolant temperature warning light

If this light comes on, check whether the V-belt driven **mechanical fan** is working. If the fan is not working, the V-belt may be loose or broken. The belt should be tensioned or replaced. Do **fan** in front of the air conditioner condensor is working.

On vehicles equipped with a factory installed air conditioner, also check whether the **electric fan** in front of the air conditioner is working.

WARNING: Do not touch the fan blades. Wait until the engine has cooled down. The electric fan switches on automatically when the coolant reaches 92° C (198° F) and continues to run - even with the engine turned off - until the coolant temperature has dropped to 87° C (189° F).

If the **electric fan** is not working, there may be a malfunction in the temperature sensor switch or in the electrical system. Check for a blown fuse.

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 (revolutions per minute).

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



Fuel level gauge and warning light

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

Fuel level warning light

This light comes on when the fuel reserve level in the tank is down to about 2.11 U.S. gals, or 8 liters. Time to refuel.

The central warning light and the warning lights in the combination instrument light up for a bulb check when the ignition is turned on. They should go out as soon as the engine is started. Also see "**Central warning light system**".

TAIL LAMP warning light comes on when a bulb is defective.

STOP LAMP warning light comes on and goes out after depressing the brake pedal. If the light **stays on** a bulb is defective.

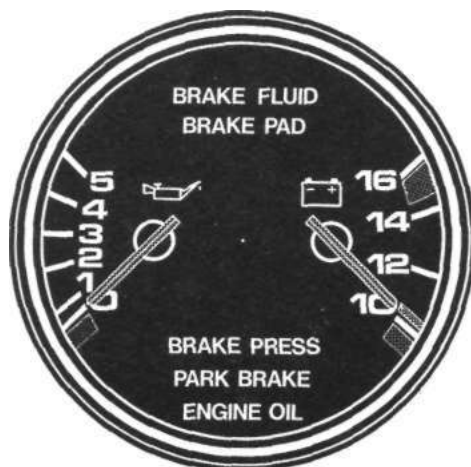
WASHER FLUID warning light comes on when level in the windshield/headlight washer reservoir is down to 2 U.S. qts. or 2 liters.

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.

COOLANT warning light comes on when the fluid level in the expansion tank falls below the required minimum. Occasionally, the light may come on when starting the engine. As soon as the engine warms up, the coolant in the reservoir will expand, rise above the minimum level, and the light will go out. If the **COOLANT** warning light remains on, top up immediately and have the cooling system inspected for leaks.

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

 **Trailer turn signal indicator light**
Not connected



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.

If the oil pressure should drop suddenly while you are driving, this light and the central warning light will flash. Pull off the road and **stop the engine immediately**. Check the engine oil level. If it appears to be normal, contact the nearest workshop.



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.

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 may be 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.

The central warning light and the warning lights in the combination instrument light up for a bulb check when the ignition is turned on. They should go out as soon as the engine is started. Also see "**Central warning light system**".

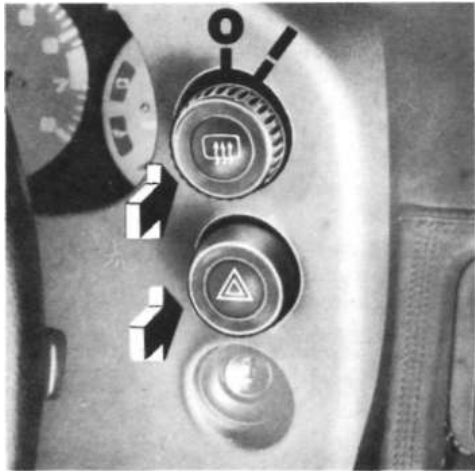
BRAKE FLUID warning light **flashes** when the brake fluid level falls below the required minimum.

BRAKE PAD warning light comes on when a brake pad is worn.

BRAKE PRESS warning light **flashes** if one of the circuits in the brake system should fail.

PARK BRAKE warning light comes on and **stays on** until parking brake is **fully** released.

ENGINE OIL warning light **flashes** if, with the ignition on, the engine stationary, and the vehicle in level position, the amount of oil in the sump is less than 1.59 U.S. gal. or 6 liters. **Do not attempt to start the engine! Add oil at once.**



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.

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.

Cautions:

- **Whenever stalled or stopped for repair, move the car well off the road. Turn on**

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.

To defog - switch **not** depressed

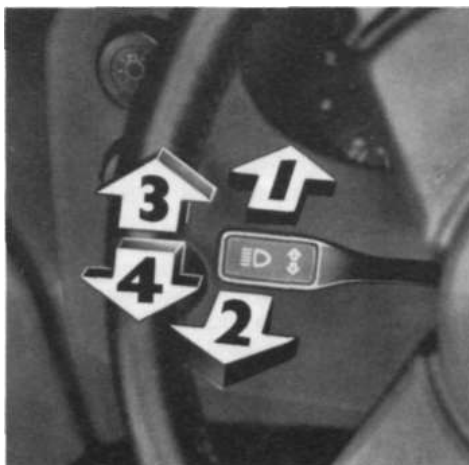
0 - heating element **off**.

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".



Headlight dimmer and parking
light lever - with ignition on
Turn signal/highbeam/lowbeam

Turn signal indicator

Lever up - r i g h t turn signal (arrow 3)

Lever down - left turn signal (arrow 4)

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

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

Lane changer

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

High beam/low beam -with ignition on and light switch in position 2, push lever forward to select high beam (arrow 1). The blue indicator light in the instrument cluster comes on when high beam is switched on.

Pull lever toward steering wheel (arrow 2) to select low beam.

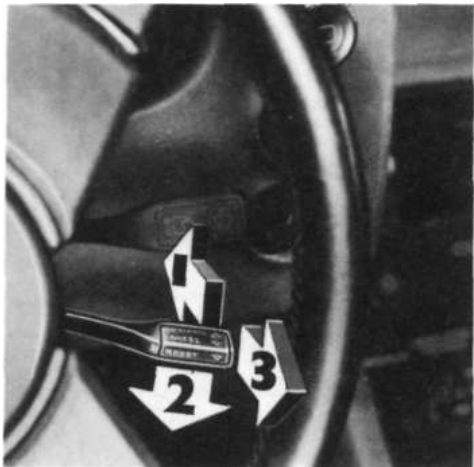
Parking lights-with ignition off

Lever up -

right side parking lights on (arrow 3)

Lever down -

left side parking lights on (arrow 4)



- 1 Set/accelerate
- 2 Reset
- 3 Cancel

Automatic Speed Control

The automatic speed control allows you to maintain a constant cruising speed of 30 mph (50 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.

CAUTION: While driving with the automatic speed control set (at speeds above 30 mph or 50 km/h), do not bring shift lever into the Neutral position to prevent excessive engine rpm.

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.
- **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:

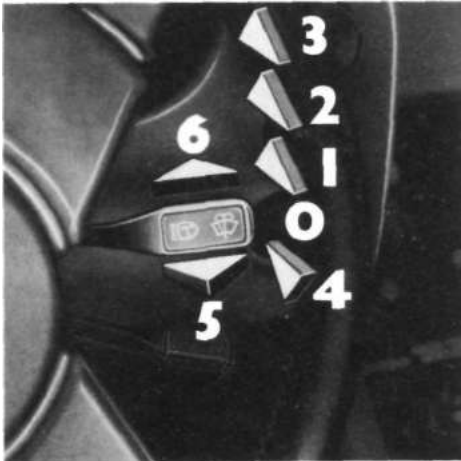
- Accelerate by depressing the accelerator pedal. When the desired speed is reached move the lever up (arrow 1) and take the foot off the accelerator pedal. Now the new cruising speed is set and stored in the memory.
- As an alternative, you can hold the lever in the up position (arrow 1), without depressing 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, move the lever up (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, move the lever up (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.

CAUTION: Do not use the automatic speed control when driving on winding or slippery roads, or in varying and dense traffic.



Windshield wiper/washer and headlight washer (where applicable) lever

This lever has 6 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 - wipers on intermittent speed

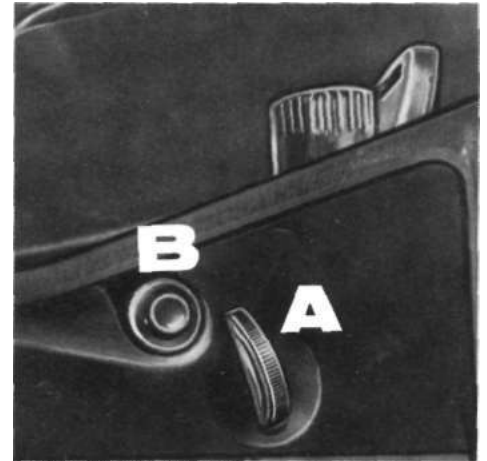
The intermittent wiper interval can be adjusted by turning thumbwheel "A" on the right side underneath the instrument cluster.

The electric washer system is actuated as follows:

- 5 - pull lever toward steering wheel to operate windshield washer. Fluid can be sprayed onto the windshield from any selected wiper speed position
- 6 - push lever toward instrument cluster to operate headlight washer

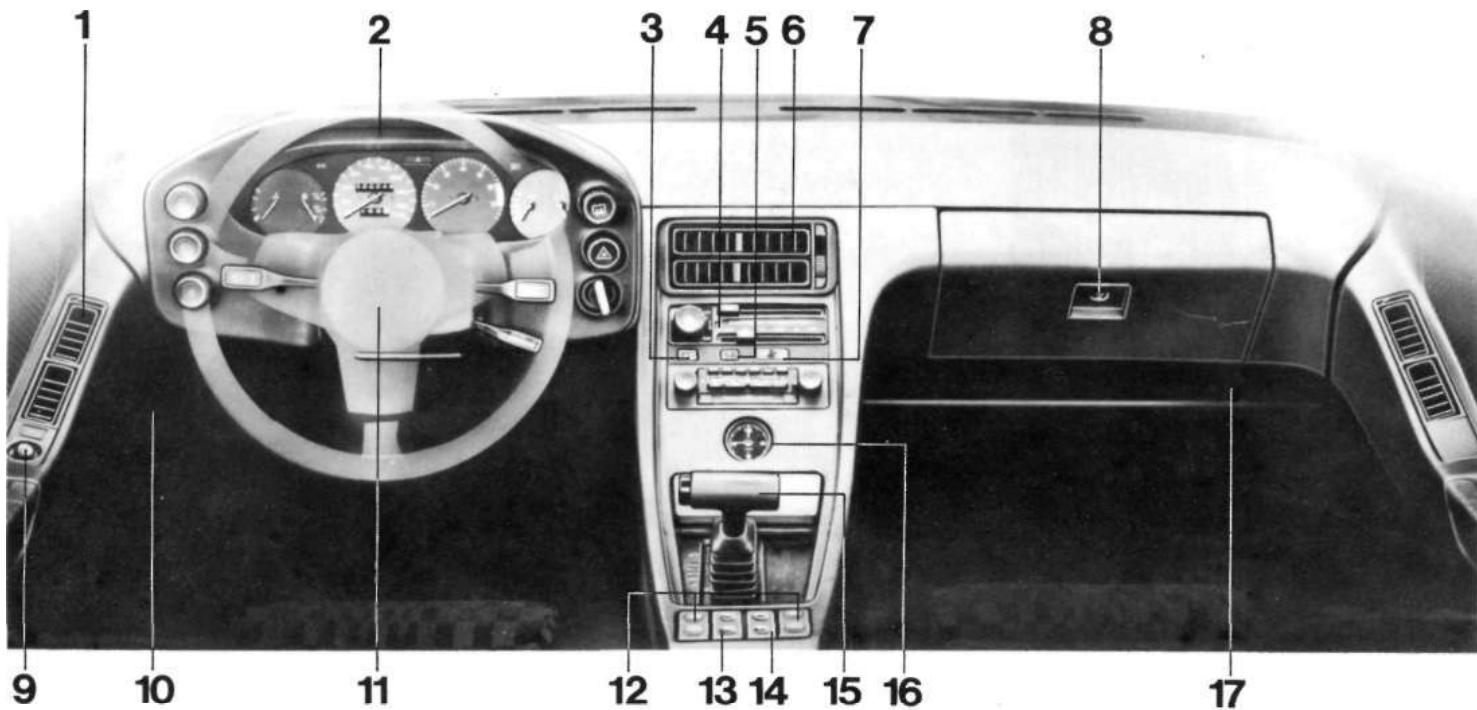
The headlight washer system operates only with the headlights on and raised.

Before operating the wipers, the windshield must be sufficiently wet to prevent the glass surface from being scratched. Check wiper blades frequently and replace at least once a year.



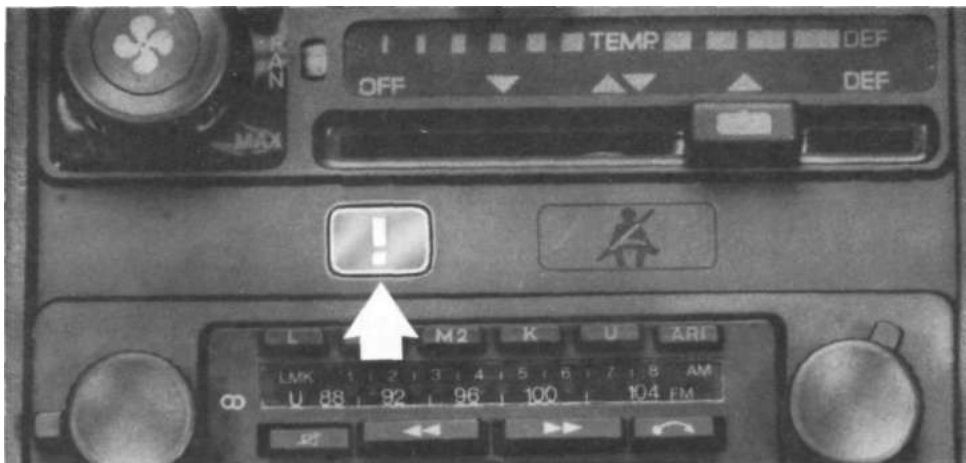
Intensive windshield washer system (where applicable)

By depressing switch "B" on the right side underneath the instrument cluster, a supply of special intensive cleaning solution is pumped to the windshield. Heavy road dirt, silicone or insects can be removed quickly without smearing. The spray duration is controlled by a time relay to avoid excessive use of the special cleaner. The regular windshield wiper/washer system can then be operated to finish the cleaning process.



Dashboard panel and center console

- | | | |
|---|--|---------------------------------|
| 1 Side window defogger/defroster vents | 4 Heating and air conditioning controls | 12 Power window switch |
| 2 Instrument cluster | 5 Reset button for central warning light | 13 Electric sliding roof switch |
| 3 A/C switch (standard air conditioning system) | 6 Center air vents | 14 Rear window wiper switch |
| | 7 Safety belt warning light | 15 Gearshift lever |
| | 8 Glove compartment lock | 16 Clock |
| | 9 Side view mirror adjuster | 17 Open storage shelf |
| | 10 Front hood release lever | |
| | 11 Horn | |



Central warning light system

This electronic warning system monitors the most important functions of your Porsche for increased safety and reliability of performance. Should a problem arise, the central warning system will inform you immediately.

The central warning light is located in the center of the instrument cluster. The individual warning lights are divided between the two combination instruments.

When the ignition is turned on, the central warning light and all individual warning lights

will light up for a bulb check. As soon as the engine is started, the lights should go out. The STOP LAMP light will go out after the brake pedal has been depressed. The PARK BRAKE light will go out as soon as the **parking brake lever is fully released**.

Should a problem arise, the central warning light will light up or flash, together with the respective individual warning light.

Note: If the engine has been started by towing or pushing, the warning lights **will not** go out. The ignition must be turned off and the engine restarted.

The control function of the central warning light system is divided into two major groups:

- Group "A" - engine oil pressure
- engine oil level
 - brake circuit (pressure) failure
 - brake fluid level

Any malfunction reported by the system must be corrected immediately.

- Group "B" - brake wear (pads) indicator
- parking brake
 - coolant level
 - coolant temperature
 - fuel reserve level
 - windshield and headlight washer (where applicable) fluid level
 - stop lamps
 - tail lamps

Any malfunction reported by the system should be corrected as soon as possible.

Reset button (white arrow)

By pressing this button, you can turn off the central warning light for group "B" related problems. The individual warning light in the respective combination instrument will remain on as a reminder to have the fault corrected.

The reset button does not apply to group "A" related problems. Both central and individual warning lights will continue to flash because an immediate remedy of the problem is necessary.


Climate control system

Your Porsche factory installed climate control system combines ventilation, heating, defrosting/defogging and air conditioning for year-round driving comfort.

Fresh air ventilation can be obtained by turning the ignition key to position "2" and by selecting a fan speed.

The heater works only when the engine is running. Maximum heating output is achieved when the engine has reached operating temperature.

The air conditioner works only when the engine is running. The higher the engine rpm, the more intensive the cooling effect. Air temperature is kept constant by a thermostatic sensor located between the cooling fins of the evaporator. Air from inside the car is drawn through the evaporator for cooling and then reenters the car interior through the air outlets.

The air conditioner compressor is activated automatically, when the "program" control lever is moved to the following positions: **AUTO**, **BI**, .

With an activated compressor, the engine runs at increased idle speed.

Operating hints

To obtain maximum cooling, move temperature control lever to the extreme left and turn the fan control knob to speed 4. With air distribution lever in position **AUTO** cool air will flow from open side window/center air vents, as well as from footwell and glove compartment nozzles.

During periods of high humidity and low temperatures, the air conditioner can be switched on together with the heating system. Move both temperature and air distribution levers to desired settings and turn fan control knob to speed 2 or 3. These adjustments will provide pleasant mixture of cool/warm air circulation. The air will be dehumidified to prevent windows from fogging.

The air conditioner should be switched on briefly at least twice a month. Periodic operation of the air conditioner is necessary to lubricate the crankshaft seals and the expansion

valve. This is especially important during the cold season when the air conditioner is not used.

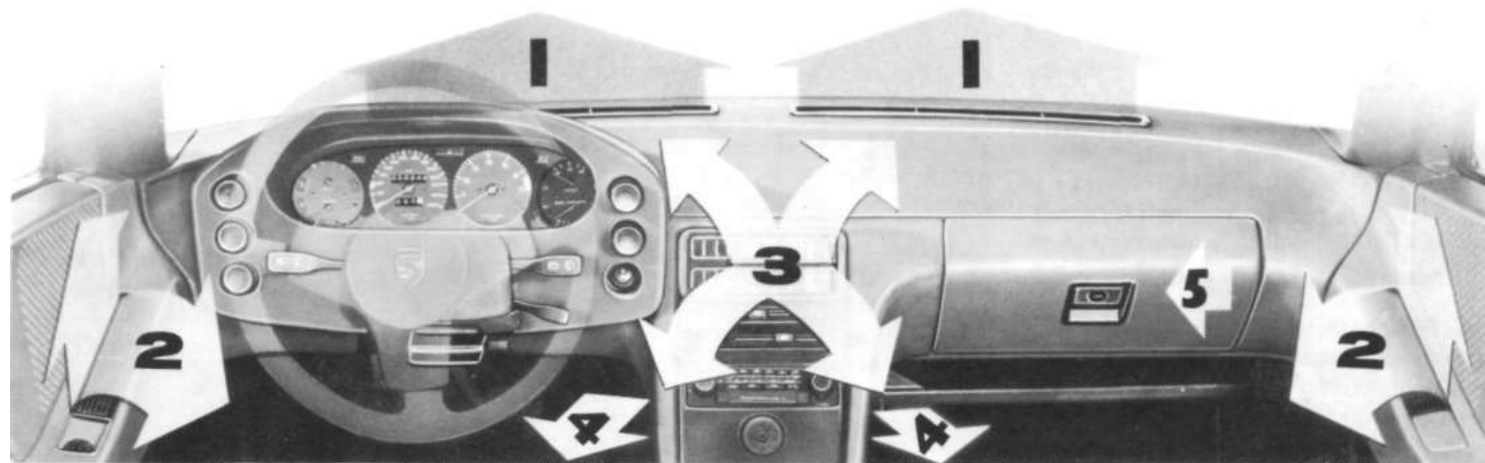
Caution: Should uncooled air flow from the air outlets, switch the system off. Further operation could lead to compressor damage. Have your Porsche dealer locate and correct the problem. He has qualified personnel and the necessary equipment.

Maintenance

The condenser should be checked periodically for cleanliness. If clogged with dirt or insects, the condenser should be washed down with water. After the winter months before extended summer usage, the air conditioner should be checked and, if necessary, serviced.

Payload reduction

The weight of the air conditioner installation reduces the vehicle's capacity weight. For weight information see sticker on left door sill.



Air outlets

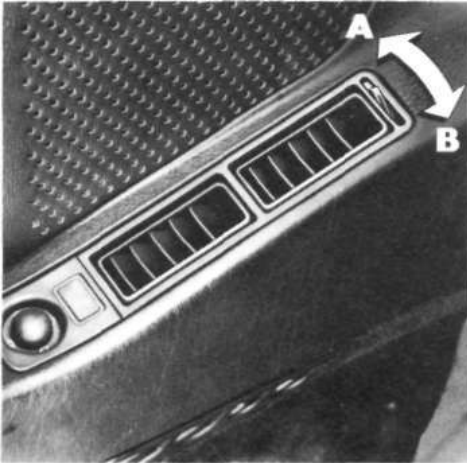
- 1 - defogging/defrosting nozzles for wind-shield
- 2 - defogging/defrosting vents for side win-dows

3 - air vents for passenger compartment

4 - air outlet nozzles for foot wells

5 - air nozzle inside glove compartment

Each individual vent outlet is adjustable to permit the regulation of air flow within the vehicle.



Side window vents

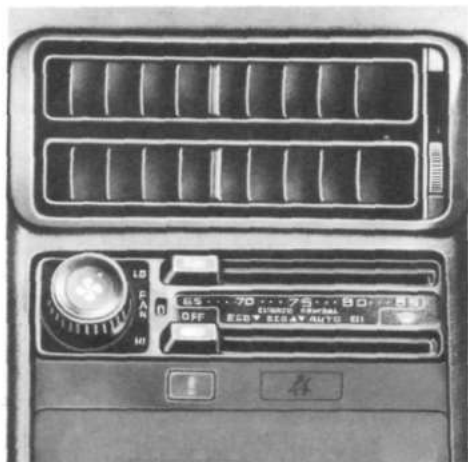
The air outlets in the armrests permit adjustment of air flow either sideways or up and down. Open and close vents with small side lever:

- A - vents closed
- B - vents open

Center air vents

The center air vents direct air flow to the passenger compartment and are adjustable either sideways or up and down. Open and close vents with small side lever.

When the temperature control lever is in the defrost position, the vents will close automatically.



Automatic climate control

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 electronically regulated and kept constant, regardless of weather conditions.

Individual controls

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 OFF position. By turning the knob clockwise, fan speeds 1-4 can be selected to increase the air volume.

Temperature control - upper lever

Move lever to desired temperature setting.

Program control - lower lever

OFF - climate control system and fan motor off.

ECO - Automatic air flow distribution for heating system only. Cooling is not possible, since the air conditioner compressor is not activated for reasons of fuel ECOmy! This setting is recommended for outside temperatures of 40°F/5°C.

ECO▼ - Air flow distribution through footwell outlets only.

ECO▲▼ - Air flow distribution through windshield and footwell outlets.

AUTO - air conditioner compressor activated. Automatic air flow distribution for heating and air conditioning system through footwell outlets and open side window/center air vents. Vents can be closed manually if desired.

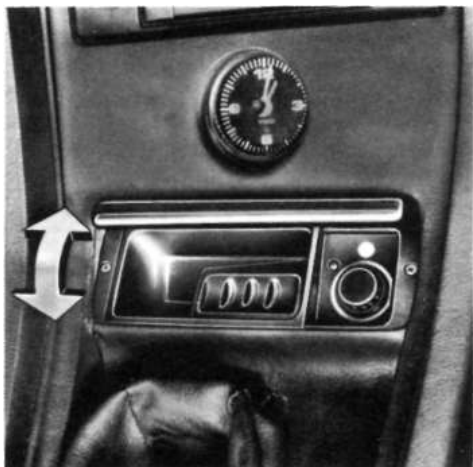
BI - air conditioner compressor activated. Automatic air flow distribution for heating and air conditioning system through windshield and footwell outlets in addition to open side window/center air vents.



- air conditioner compressor activated. Automatic air flow distribution for heated and dehumidified air through windshield outlets and open side window vents. Center air vents will close automatically. Heating system and fan motor are automatically switched on maximum output and high speed for fast defrosting or defogging.

Note:

A cold start shut-off system will prevent unheated air emission through the footwell outlets. At engine coolant temperatures below 113°F/45°C, the air flow is automatically directed toward the windshield. At engine coolant temperatures above 113°F/45°C, the automatic climate control system resumes normal operation.



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

Clock

Set the clock by turning the button in the center of the dial. With the battery connected and well charged, the electric clock is automatically wound by current pulses.



Ashtray

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



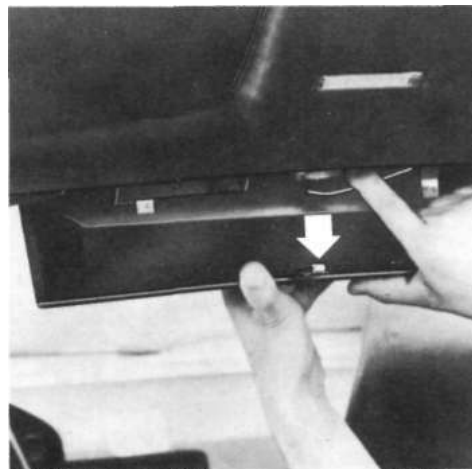
Electric sliding roof (optional equipment)

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 gearshift lever.

The mechanism has a built-in safety feature. Should the moving roof encounter an ob-

stacle, it will stop automatically to avoid possible injury.

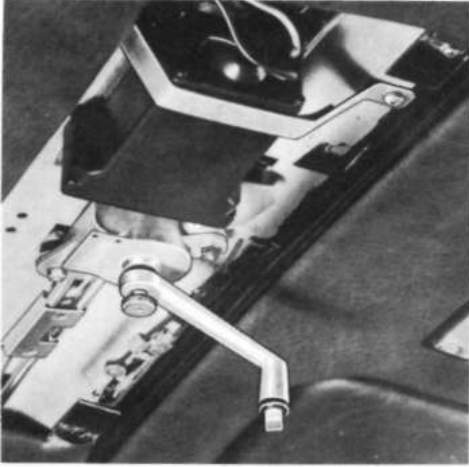
Do not operate the sliding roof at driving speeds exceeding 62 mph or 100 km/h. The force to overcome wind resistance at higher speeds may cause damage to the sliding roof.



Manual operation

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

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 re-install washer and screw. Replace the cover.

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

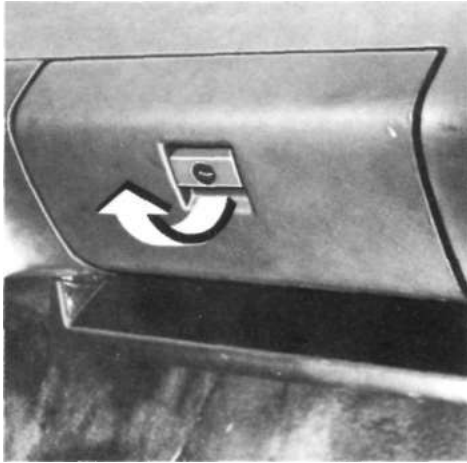
Rear window wiper

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 should be lifted only slightly.

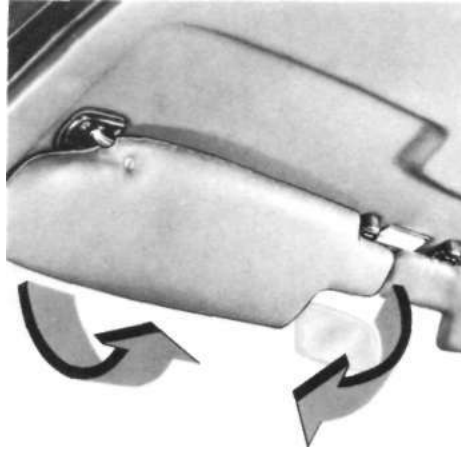


Glove compartment

The illuminated glove compartment can be opened by pulling the recessed handle in the lid (arrow).

The glove compartment can be locked or unlocked with either the master or the auxiliary key.

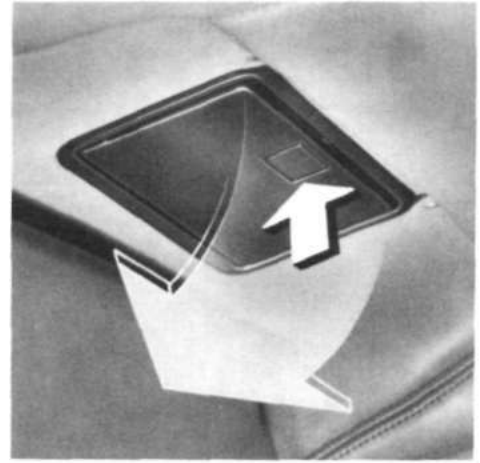
An additional storage shelf is located under the glove compartment.



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.

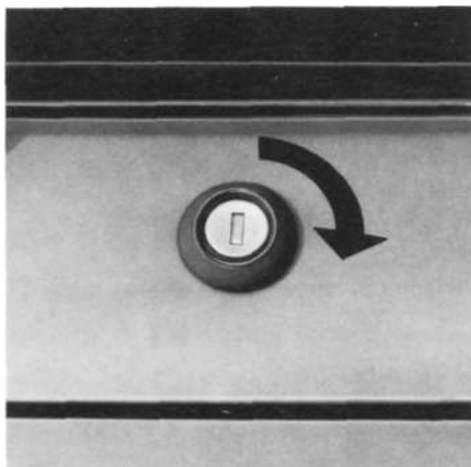


Vanity mirror

The vanity mirror is located in the headliner behind the sun visor on the passenger side.

On cars equipped with an electric sliding roof, the vanity mirror is located in the cover trim underneath the sun visor.

When opened (arrows), the mirror is illuminated.



Luggage compartment lid

(If vehicle is equipped with an anti-theft alarm see "Anti-theft alarm".)

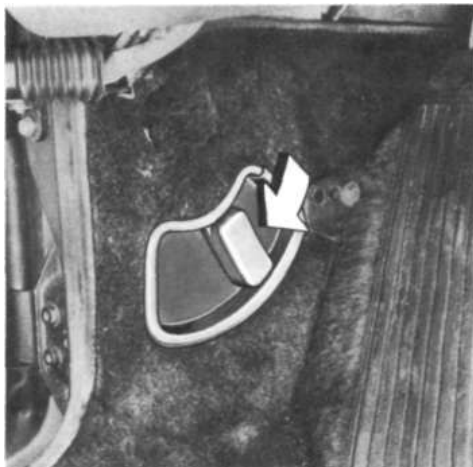
To open...

- insert the master or auxiliary key into the lock and turn clockwise. The lid springs up slightly under spring pressure. Lift the lid by hand to open.

To close...

- lower the lid slowly and then push down with both hands until the lock snaps shut.

Protect your luggage and other belongings from the sun and "inquisitive eyes" by using the snap-on luggage cover.

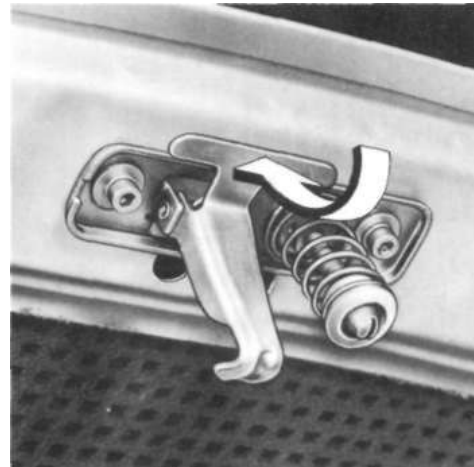


Engine compartment hood

To release...

- slide the release lever (arrow) on the left side underneath the dashboard panel. The hood springs up slightly under spring pressure.

Caution: Do not drive with the hatchback open to prevent exhaust gas from being drawn into the car. If you must drive with an opened hatchback, open the windows and turn on the fan to force fresh air inside the car.

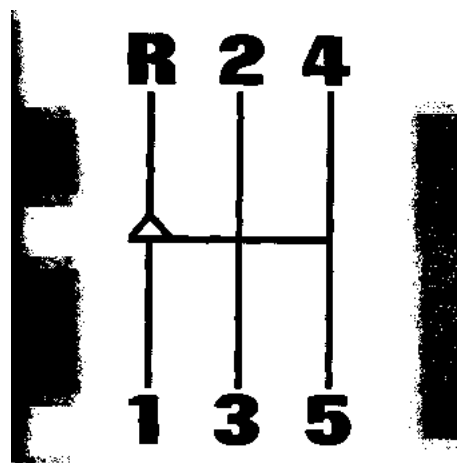


To open

- Lift hood slightly and press safety catch handle upward (arrow). Then lift up the hood. **The windshield wipers should not be tilted forward.** With light switch in either position 1 or 2, the engine compartment light will come on automatically.

To close

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



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 in the chart on this page.

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).

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

Maximum downshift points

5th to 4th gear
120 mph / 192 km/h or 4500 rpm
4th to 3rd gear
89 mph / 142 km/h or 4500 rpm
3rd to 2nd gear
65 mph / 103 km/h or 4500 rpm
2nd to 1st gear
45 mph / 71 km/h or 4200 rpm

The gear positions are shown in the diagram above.

If you wish to shift from **1st gear** into **Reverse**, the gearshift lever must first be brought into the **Neutral** position between 4th and 5th gear and then shifted into Reverse. This is necessary because of the reverse gear lock-out mechanism.

For smooth shifting, observe the following shift points (applies to standard gear ratios only):

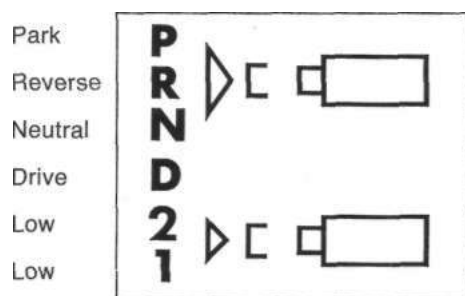
Minimum upshifting points

1st to 2nd gear
15 mph / 24 km/h or 1900 rpm
2nd to 3rd gear
25 mph / 40 km/h or 2300 rpm
3rd to 4th gear
40 mph / 64 km/h or 2700 rpm
4th to 5th gear
48 mph / 77 km/h or 2400 rpm

Please observe all local and national speed limits!

Controls for Automatic Transmission

The selector lever has 6 positions:



Start in Neutral or Park

The selector lever has a push button in the handle. The push button must be depressed when selecting the following positions:

From	P to R	} depress push button in handle
	R to P	
	N to R	
	2 to 1	

The selector lever can be moved freely between the other positions.

The selector lever console is illuminated when the ignition is turned on.

Driving the Automatic Transmission

There are a few points you should know if you want to take full advantage of the Automatic Transmission.

Remember the following basic rules:

... Apply the parking brake or foot brake before selecting a driving range. When the selector lever is in a driving range, 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 range. 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.

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

CAUTION: While driving with the automatic speed control set (at speeds above 30 mph or 50 km/h), do not bring shift lever into the Neutral position to prevent excessive engine rpm.

The driving ranges

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

Position D

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

Position 2 and 1

are 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.

Position 2

should only be used to 95 mph or 150 km/h. In "2", only the first and second gears will engage automatically. Therefore, only shift down into driving range "2" when the speed is below 80 mph or 130 km/h. It is not necessary to let up on the accelerator.

Position 1

is needed on rare occasions. It should only be used up to 65 mph or 105 km/h. In "1" the transmission will stay in first gear and not shift into the second or third gear. **Only shift down into "1" when the car speed is below 45 mph or 75 km/h.**

The reverse driving range R

The reverse driving range 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).

Starting the engine N or P

is only possible when the selector lever is in **Neutral** or in **Park**. As long as one of the driving ranges is engaged a safety switch prevents the engine from being started.

Moving off

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

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 range while driving

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

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.

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. At driving speeds above 10 mph or 15 km/h, a hydraulic lock prevents the driver from unintentionally moving the selector lever into position R or P.

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.

Mountain driving

When driving on long, steep and winding mountain roads select range 2 or 1.

Emergency starting

Your Porsche with Automatic Transmission **cannot be started by pushing or towing**. Should the engine fail to start consult your nearest 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.

Neutral

Shift to this position for standing with brakes applied.

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

Maneuvering

When alternating between forward and reverse drive (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 repeat "rocking" back and forth with wheels spinning at high engine speed and heavy throttle, as serious damage may be caused to 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

For good fuel economy we recommend smooth and even acceleration. Very fast, racy driving, alternating between full throttle and hard braking, raises the fuel consumption considerably. Also, tires and brake linings wear faster. It is more economical to drive smoothly and at fairly constant speed.

Accelerator "Kickdown"

When depressing the accelerator pedal you will find resistance at the throttle position. By applying greater pressure the pedal can be pushed beyond this point to the kickdown position. The transmission will now shift automatically into the next lower gear to give you maximum acceleration, and only shift up again after the engine has reached maximum speed in that particular gear.

Be careful when using the kickdown on slippery roads. Rapid acceleration may cause skidding.

Please observe the following when applying the accelerator kickdown:

With the selector lever in D, you can apply the kickdown to make the transmission shift down into second gear when driving below 80 mph or 130 km/h and down to first gear when driving below 45 mph or 75 km/h.

With the selector lever in "2", you can apply the kickdown to make the transmission shift down into first gear when driving below 45 mph or 75 km/h.

As soon as you release the pedal from the kickdown position the next higher gear is automatically engaged.

Please observe all local and national speed limits.

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

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.

There are no specific break-in rules for your Porsche; however, by observing 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 max. engine speed of 5.000 rpm (revolutions per minute).

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

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 120 miles /200 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.

Engine Oil Consumption

Oil consumption in the engine is normal. 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.

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

Hints for Winter Operation

Engine oil

High quality multi-grade oils are suitable for all year round driving. Seasonal oil changes are therefore not necessary. Only if multi-grade oils are not readily available should a single-grade oil of the correct viscosity be used for winter weather driving. Specifications of the various oils to be used are detailed under "Filling Capacities". **The use of oil additives is not recommended by Porsche.**

Battery

When outside temperatures fall, the battery's capacity decreases, but at the same time the load placed on it increases considerably. Therefore check the condition of the battery in time and, if necessary, have it charged. Check also the level of the electrolyte and add distilled water if required. Battery terminals should be greased with petroleum jelly.

Corrosion prevention

The road salts used to keep streets and highways free of ice and snow promote corrosion. Therefore, we recommend frequent car washing and regular waxing of all painted body parts. Have the factory applied undercoating inspected by your Porsche dealer before and after the winter months. Refer to "**Cleaning**

your Porsche" for more corrosion prevention details.

Coolant

For year round driving, your Porsche is delivered with anti-freeze coolant in the radiator for temperatures down to -23° F/-30° C for U.S.A.
-40° F/-40° C for Canada.

Anti-freeze consistency

At the beginning of the winter season, have the coolant checked for antifreeze consistency, particularly if you have added only clear water before. Use any quality anti-freeze containing ethylene glycol.

The mixing ratios between water and anti-freeze depend on outside temperatures to be expected and are listed under "Capacities". The ratios can also be taken from the container of the anti-freeze manufacturer. **Do not use engine coolant anti-freeze or any other solution that can damage the car paint.**

Washer reservoir

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

Winter tires, snow chains

Winter radial ply tires give good traction in snow or slush. For a better grip on hard snow or ice, you can use winter tires with studs,

but check with your local Motor Vehicle Bureau for possible restrictions.

Winter tires with studs should be run at moderate speed when new to give the studs time to settle.

Winter tires should always be mounted on all four wheels. They should also conform to the same load requirements as original equipment tires.

For safety reasons, it is not advisable to drive with winter tires at prolonged high speeds. Winter tires do not have the same degree of traction on dry, wet or snow-free roads as regular tires. Winter tires would wear rapidly under these conditions.

Snow chains can only be mounted on the rear wheels. Use only snow chains with fine pitch links, so that enough space remains between the chains and the inside of the wheel arches.

Wheels must rotate freely in all steering positions with chains mounted to prevent damage to body, rear axle or brake components. Follow instructions issued by the supplier of the chains. Remove chains as soon as roads are free from snow.

Your Porsche dealer can assist you in choosing suitable winter tires and snow chains.

Roof racks

The installation of commercially available roof racks is not compatible with the roof design of your Porsche.

When installing the **Genuine Porsche Roof-rack** available up till now, the maximum permissible weight load of 75 lbs or 35 kg must not be exceeded.

The "**New Genuine Porsche Roof load Transport System**" provides for maximum permissible weight loads of up to 165 lbs or 75 kg.

Your Porsche dealer will be glad to advise you which type of roof rack can best serve your individual needs and load carrying requirements.

Rubber moldings

Rubber moldings around the doors and the rear hood should be lightly coated with glycerine or talcum to protect them against freezing.

Locks

Locks can freeze in the winter if water gets into the lock cylinders. When washing your car in the winter, do not aim the water jet directly at the locks. It is a good idea to tape the keyholes to prevent the water from seeping into the lock cylinder. Water in the locks must be removed with compressed air afterwards. Squirt lock de-icer, antifreeze, or glycerine into the lock cylinders to prevent freezing.

To open a frozen lock, warm up the key before inserting it. Do not use hot water as it will later freeze in the lock.

Emergency equipment

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

Note: We recommend to have a maintenance service performed prior to the cold season and in accordance with the Maintenance Schedule.

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 considerably 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.

Car care Instructions

Regular and correct care helps to maintain the value of your car and is also a precondition for the long-life guarantee.

The Porsche paint finish is of a high quality baked synthetic enamel. The color and enamel type designation are indicated on a plate attached to the left front doorjamb. 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 10 years later. It all depends on the amount of care the owner is willing to give the car.

Your Porsche dealer has a number of car-care products and can advise you which ones to use for cleaning the interior and exterior of your car.

- **Always read directions on the container before using any product.**
- **Most chemical cleaners are concentrates which require dilution.**
- **Be aware of caution labels.**

Following are a few hints on how to keep your Porsche looking young and beautiful.

Car washing

The longer the dirt is left on the paint, the greater the risk of damaging the glossy finish, either by scratching if the dirt is rubbed into the paint, or simply by the chemical effect dirt

particles have on the paint surface. Therefore dirt should be washed off as soon as possible.

Dust should never be wiped off the car with a dry rag since dust particles are abrasive and will rapidly dull the finish and cause scratches that may be difficult to repair.

Pumper your Porsche! Wash it by hand! The mechanical brushes in an Automatic Car Wash may not reach every angle of the vehicle, and some **tracks may cause damage to the underbody.**

- Do not wash or dry your car with the engine running.
- Do not clean the undersides of chassis, fenders, wheel covers, etc., without protecting your hands and arms. You may cut yourself on sharp-edged metal parts.
- Do not wash your car in direct sunlight.

Wash your car often, use plenty of water, a car-wash and wax solution and a soft sponge or hose brush. Begin by spraying water over the dry car to remove all loose dirt before applying the car-wash and wax solution. Use plenty of water to rinse the car off. Wipe the car dry with a chamois to avoid water spots.

The underside of the car picks up dirt and salt and should be sprayed with a powerful jet of water. This is easier to do after the car has been driven in rain.

Moisture on brakes may affect braking efficiency. Cautiously apply the brakes for a test after each car wash.

Care to the finish

Oils contained in the paint are the most important ingredients contributing to the elasticity of the finish. Because these oils are gradually lost, due to weather and similar causes, they must be replenished through regular and proper care of the finish. Given proper care, the original finish will retain its luster for many years. Ask your dealer for approved cleaning agents and preservatives. The use of polishes is recommended only after it becomes evident that the normal preservatives no longer accomplish the job.

Care of plastic and dull finishes

Plastic parts, such as light bulb lenses, decorative stripes, panels, etc., will come clean during car washing. Should additional cleaning or spot removal be necessary, use a soft brush or cloth soaked with a mild detergent solution. Then rinse thoroughly and immediately with clear water. **Do not use anything** which could mar the plastic or dull finished surface, such as wax or polish, harsh detergents or chemical cleaning solvents.

Metal trim

Bright or black anodized trim will come clean when you wash the vehicle. To protect the trim, use car wax.

Touch-up paint

Your dealer has touch-up paint for minor scratches and stone chips. Scratches should be touched up soon after they occur, to prevent corrosion. If corrosion formation becomes visible, however, a simple touch-up job will not suffice. The affected surface must be smoothed with sand paper and covered with an anti-rust primer, before restoring the painted finish.

Removing spots

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. Keep them out of reach of children.

Tar

Do not allow tar to remain on the paint finish. Remove it as soon as possible with a cloth soaked with a special paint cleaner. If you do not have a tar remover, you may substitute with turpentine. After applying a cleaning fluid, always wash with a lukewarm soap/solution and apply a new wax coat.

Insects

Remove as soon as possible with a lukewarm soap/water solution or apply insect remover.

Tree sap

Remove with a lukewarm soap/water solution. Do not allow tree sap or bird droppings to harden on the paint surface.

Windows

Keep silicone polishes off the windshield to avoid wiper smear in rain.

Clean all windows regularly to remove road film and car-wash wax buildup. Use a lukewarm soap/water solution or an alcohol base commercial window cleaning agent for the inside and outside. If a chamois is used for polishing the glass, it should exclusively be used for that purpose.

Wiper blades

Remove all wiper blades periodically and clean them thoroughly with an alcohol base cleaning solution. Use a sponge or soft cloth and wipe lengthwise.

Weatherstrips

To seal properly, weatherstrips around hood, windows and doors must be pliable. To retain flexibility of the rubber, spray with silicone, coat with talcum powder or glycerine.

Cloth upholstery and carpet

Clean with a vacuum cleaner or a soft brush. Dirt spots can usually be removed with a lukewarm soap/water solution.

Use spot remover for grease and oil spots.

Do not pour the liquid on the cloth material. Dampen a clean cloth and rub carefully, starting at the edge and working inward.

Leatherette, leather and interior trim

Use all purpose cleaner or a dry foam cleaner.

Grease or paint spots can be removed by wiping with a cloth soaked with all purpose cleaner. Leatherette parts of the headliner and side trim panels can be cleaned with a soft cloth or brush and all purpose cleaner.

Occasionally a colorless leather preservative should be applied.

Light alloy wheels

To preserve the decorative appearance of the light aluminum cast, some special care is necessary. Aside from road dirt and salt sprays, brake metal dust will exert corrosive effects. If left on too long, brake metal dust can cause pitting. Wash the wheels with a sponge or hose brush every other week. Road salts should be removed weekly with an acid free cleaning solution. Every three months (after regular cleaning) the wheels should be coated with petroleum jelly. Rub it in firmly with a soft cloth. Never use abrasive or metal polishing cleaning agents.

Remember that moisture and road salt on brakes may affect braking efficiency. Test the brakes after each car or wheel wash.

Engine compartment

The engine compartment, as well as all engine, transmission, front and rear axle assembly surfaces have been treated at the factory for protection against corrosion. If it becomes necessary to steam clean or otherwise wash the engine compartment, the wax based protective coating is usually lost. It is therefore important to re-apply this protective coating to all engine compartment panels, flanges, cavities, seams and engine assembly surfaces.

The accelerator cable return spring **must** be lubricated after each engine compartment cleaning.

Chassis

The lower body shell of your Porsche is thoroughly protected against corrosion. However, it is recommended to have the underbody inspected twice a year. Any detected damage to the undercoating, due to road hazards, should be repaired promptly. Oil based protective sprays must not be applied. Only tar or wax based anti-corrosion protectors are compatible with the factory applied undercoating. Before application, road dirt and oily substances must be removed.

Whenever the lower body shell, axle, transmission or engine assemblies are repaired, the lost anti-corrosion coating of the affected surfaces should be renewed.

Your Porsche dealer has the knowledge, equipment and personnel to advise and assist you.

Exercise Extreme Caution when working under the Engine Hood

- Before working on any part in the engine compartment, turn the engine off.
 - If work has to be done with the engine running, exercise extreme caution to prevent neckties, jewelry or long hair from getting caught in the electric radiator fan or the V-belt driven mechanical fan.
 - **Even when the engine is turned off, the electric air conditioner condensor fan will continue running until the coolant temperature has dropped to 87° C/189° F. As long as the engine is still hot, the electric fan may also switch itself on suddenly. Wait until the engine has cooled down sufficiently.**
 - 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 under 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 with wedges, and that the engine cannot be started. REMOVE THE IGNITION KEY TO PREVENT INADVERTENT STARTING OF ENGINE.
- 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.

- Do not smoke or allow an open flame around the battery or gasoline.
- Keep a fire extinguisher in close reach.

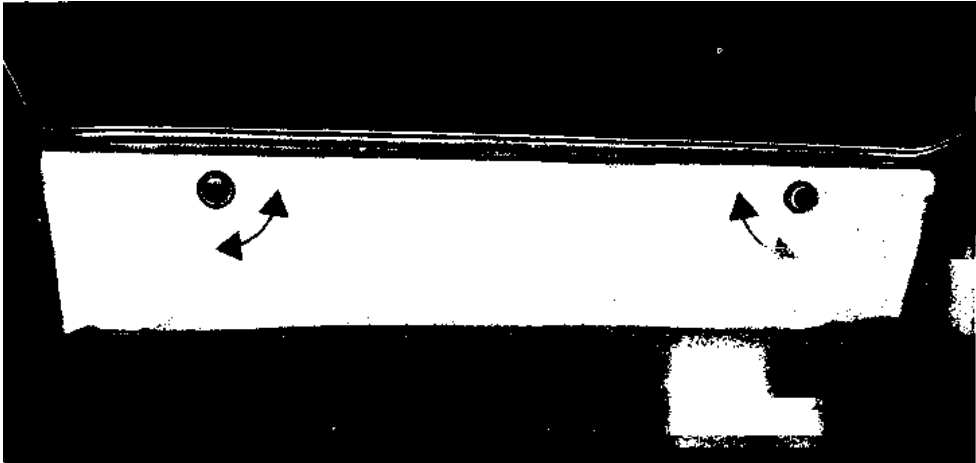
**Maintenance and
Emergency Service**

The recommended service intervals, as listed in the Maintenance Record, apply under normal driving conditions.

The condition of oil, and of wear and tear items depends greatly on the amount of driving and on driving habits. Therefore, oil and wear and tear items should be checked more frequently and possibly changed at shorter intervals.

Incomplete or improper servicing may cause problems in the operation of the car and affect your warranty coverage. If in doubt about any servicing, have it done by a qualified mechanic or by your Porsche dealer.

See "Cautions"



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 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 is located underneath the luggage compartment, together with the collapsible spare tire. The tire is covered by a lid with a quick release catch.

The **jack should only be used for changing a wheel. Do not use it as a support to work underneath the car.**

Engine oil

Always use a quality oil labeled "For service API/SE". Let your Porsche dealer assist you with selecting the correct grade and viscosity.

Porsche recommends not to use any oil additives.

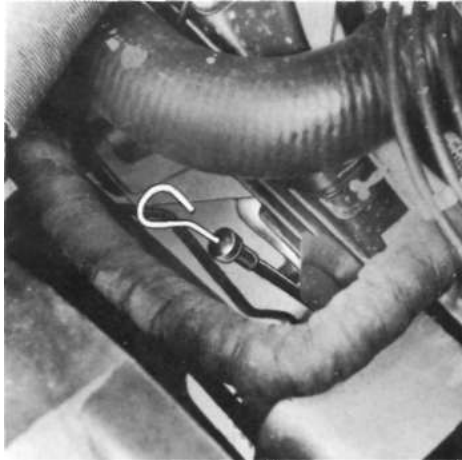
The engine in your car depends on oil to lubricate and cool all of its moving parts. Therefore the engine oil should be checked regularly and kept at the required level. Make it a habit to have the engine oil level checked with every second fuel filling.

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 clean with a rag.
2. Reinsert dipstick; push it in all the way 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.



Should the engine oil level be too low, the central warning light and the engine oil level warning light will flash as soon as the ignition is turned on (see "Central warning light system"). Do not start the engine but add oil immediately or contact your Porsche dealer.

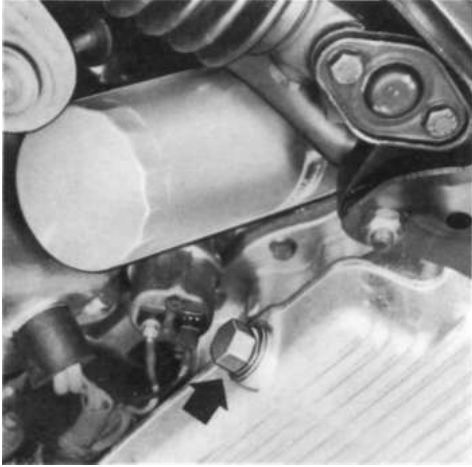
See "Cautions"



Adding engine oil

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

1. Remove oil filler cap (arrow).
2. Top up with quality oil labeled "**API Service SF or SE**".
3. Check oil level on dipstick - upper mark should not be exceeded.
4. Replace cap and tighten.



Changing engine oil

With the engine at operating temperature and the ignition off.

- 1 - loosen and remove oil filler cap
- 2 - loosen oil drain plug (arrow) on oil pan and allow oil to drain completely

Note:

When removing oil drain plug with your fingers, keep your arm as horizontal as possible to prevent hot oil from running down your arm. Wear eye protection.

Changing oil filter

The oil filter should be changed at the intervals listed in your **Maintenance Schedule**.

- 1 - loosen oil filter element with appropriate wrench and remove
- 2 - lightly coat new filter seal with oil
- 3 - screw on new filter element until seal just contacts the crankcase. Only hand-tighten according to filter manufacturer's instructions on container or filter element
- 4 - run the engine and check for leaks.

- 3 - clean oil drain plug and replace, using a new gasket. **Do not overtighten the plug**
- 4 - fill the crankcase with about 8.5 U.S. qts. or 8 liters of engine oil labeled "API Service SF or SE" (see "Filling Capacities")
- 5 - check the oil level with dipstick and re-install oil filler cap
- 6 - run engine to operating temperature and check for leaks.

See "Cautions".

The engine oil should be changed at the intervals listed in your **Maintenance Schedule**. If you drive mostly short distances or in dusty areas, the engine oil should be changed more frequently.

Be mindful of how you dispose of used engine oil. Do not dump it on the ground, into open streams or down sewage drains. Your zoning regulations or environmental rules will tell you how you can dispose of it. Should the disposal of old engine oil present a problem, we suggest that you have your oil changed at your dealer or at a service station.

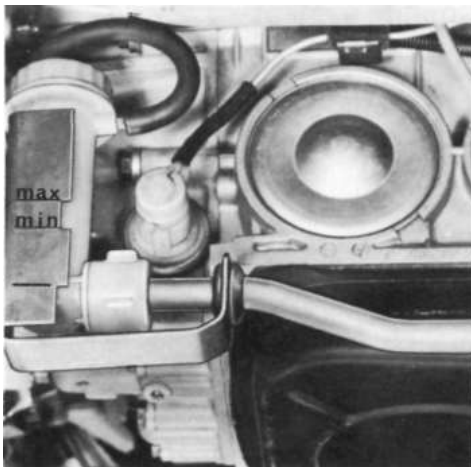
Manual transmission oil

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

Hypoid oil SAE 75W90 labeled "For Service API/GL5 or Mil-L 2105B" **must be used for the manual transmission** (also for limited slip differential). Also 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.



Automatic transmission fluid

The torque converter and the transmission are lubricated with Automatic Transmission Fluid (ATF). The final drive requires hypoid oil SAE 90 only.

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 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 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.

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

Changing the ATF

The ATF has to be changed at the intervals listed in your **Maintenance Schedule**. When refilling, the level must reach **the mark below the MIN mark**. Also see "Filling Capacities". The hypoid oil in the final drive does not have to be changed.



Windshield washer fluid reservoir

The transparent fluid reservoir is located in the right rear of the engine compartment, in front of the expansion tank (see illustration). Clear water is normally not adequate to keep your windshield and headlights clean. Add a solution, such as windshield washer solvent and anti-freeze. Porsche does not recommend the use of a "special silicone remover" cleaning agent. Consult your Porsche dealer regarding accurate mixing ratios or follow instructions on container of the anti-freeze manufacturer.

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

Cooling system

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

- 23° F/-30° C for U.S.A.
- 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 anti-freeze consistency will diminish gradually. We recommend renewing the coolant mixture at least every 2 years.

Warning: The air conditioner condensor fan is electrically driven. It is switched on automatically by a thermostat when the coolant reaches 92° C/198° F. Even when the engine is turned off, the fan will continue running, until the coolant temperature has dropped to 87° C/189° F and until the engine itself has cooled down sufficiently.

See "Cautions".

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 filler mark on the expansion tank. When the engine is warm, the coolant level will be above the filler mark.

Since the closed cooling system loses almost no coolant, **topping up** is normally not required. An obvious loss of coolant indicates leakage. In this case 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. Open the filler cap to the first catch to allow pressure to escape before removing the cap.

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

To avoid damage to the engine, only add cold anti-freeze 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 appreciably below the filler mark. Too much added coolant will escape through the pressure cap when coolant warms up.

Bleeding cooling system

If more than about 1.1 U.S. qt. or 1 liter must be added, the cooling system should be bled.

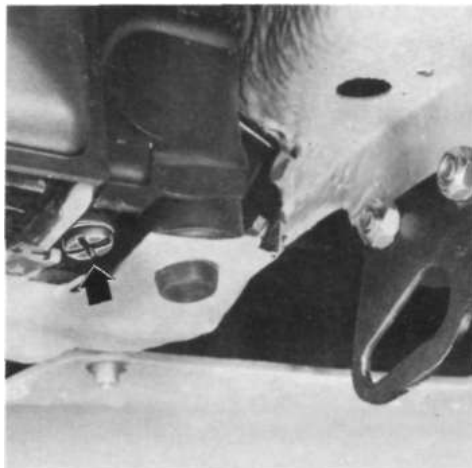
- 1 - move the temperature control lever (upper lever) in the center console all the way to the right.
- 2 - start the engine and allow it to run at increased idle for about one minute
- 3 - turn the engine off
- 4 - recheck the coolant level and add as necessary.

For anti-freeze/water mixing ratios and cooling system capacity, see "Winter Operation" and "Filling Capacities", respectively.

Changing coolant

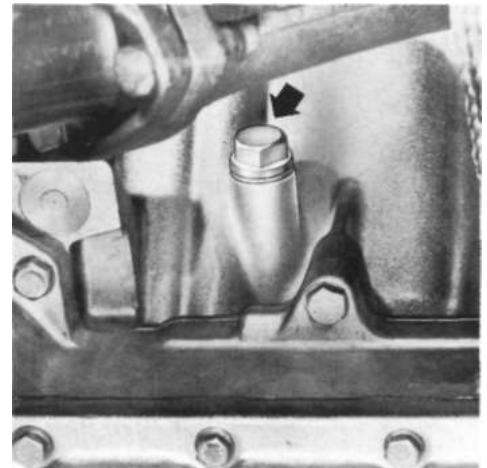
(with cold engine only)

- 1 - move temperature control lever at all the



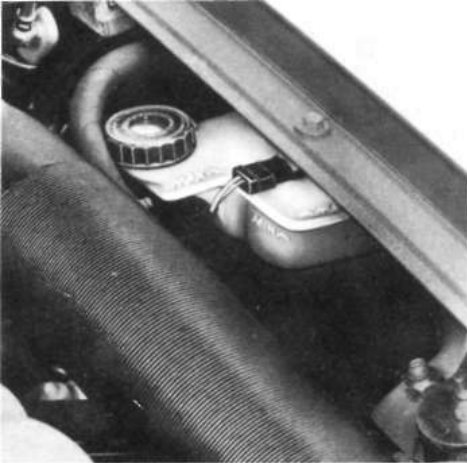
way to the right. On vehicles equipped with an automatic climate control system, also turn on the ignition, leaving key in position "2" for about 1 minute. Then turn ignition off.

- 2 - remove filler cap from expansion tank
- 3 - unscrew and remove drain plug (arrow) from radiator and drain coolant
- 4 - unscrew and remove drain plugs (arrow) from left and right hand sides of crankcase and drain coolant
- 5 - replace seals for drain plugs on crankcase and the O-ring for drain plug on radiator.



Tightening torques:

- radiator plug:
1.1-1.5 lbft or 1.5-2.0 Nm
 - crankcase drain plugs:
33-37 lbft or 45-50 Nm
- 6 - add coolant until level reaches edge of filler cap opening (with heater lever set at "warm")
 - 7 - run engine at increased idle until it reaches operating temperature and recheck coolant level
 - 8 - coolant level should be in the middle of expansion tank.



Brake fluid reservoir

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. Since the reservoir is transparent, the fluid level can be checked without removing the filler cap. The fluid level should always be between the MIN and MAX marks.

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

Every 2 years the brake fluid has to be replaced. See Maintenance Schedule.

Warning: Brake fluid is poisonous!

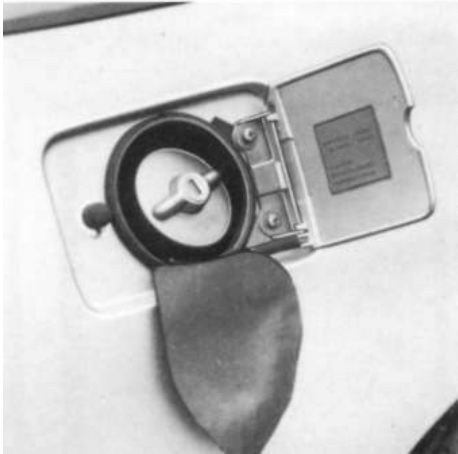
Caution: Brake fluid must not come into contact with paintwork.

If brake fluid must be added to the reservoir, use only new and unused DOT 3 or DOT 4 brake fluid that meets SAE specification J1703 and conforms to Motor Vehicle Safety Standard 116. Using any other brake fluid, or using brake fluid that has absorbed moisture from the open air, or brake fluid that is dirty, 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 car as severe component corrosion may result. Such corrosion could lead to brake system failure.

If the brake fluid level should drop below the MIN mark, the central warning light and the brake fluid warning light will flash (see "Central warning light system").

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.



Fuel filler cap

The 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 counter-clockwise, until it stops with an audible click.

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

Fuel tank capacity

Fuel tank capacity is listed under "Filling Capacities".

Fuel Recommendation

Your Porsche is equipped with a catalytic converter and must use UNLEADED FUEL ONLY. Minimum octane rating is 91 RON (87 CLC rating on U.S. fuel pumps).

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.

Porsche recommends not to use any fuel additives.

Octane ratings

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

Regular fuels have an octane rating ranging from 91 to 95 RON (Research Octane Number), which corresponds to 87 to 91 CLC (U.S. Cost of Living Council octane rating).

The 91 RON octane rating which you will find on a label on the right side of the engine compartment of your car is based on the research method. The CLC octane rating usually displayed on U.S. gasoline pumps is calculated as research octane number plus motor octane number, divided by 2, that is:

$$\frac{\text{RON} + \text{MON}}{2}$$

The CLC octane rating is usually 4 points lower than the RON rating:

91 RON equals.	87 CLC
95 RON equals.	91 CLC

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.

Gasohol

A mixture of unleaded gasoline and ethanol (ethyl alcohol) known as "Gasohol" is available in gas stations in some areas.

Porsche vehicles are designed and certified to use gasoline as specified under "**Fuel Recommendation**". You may decide to use Gasohol in your Porsche, provided it contains not more than 10 % ethanol and the octane requirements for your car are met.

However, we strongly recommend to switch back to gasoline without ethanol, if you experience the following adverse effects on your vehicle because of the use of gasohol.

- Deterioration of drivability and performance
- Substantially reduced fuel economy
- Generation of vapor lock and hot start problems, especially at high altitude or at high temperatures
- Engine malfunction or stalling.

The continued use of gasohol under these conditions may adversely affect the fuel and emission control systems of your vehicle.

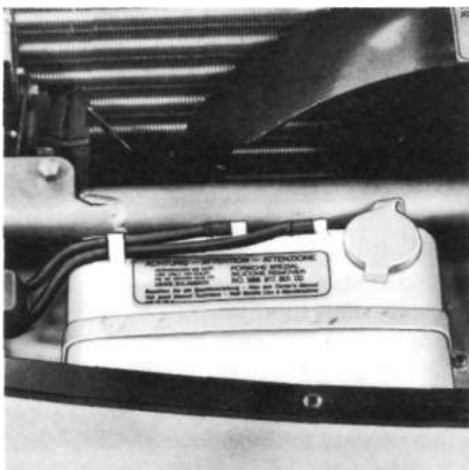
Fuel Economy

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.

- Keep a light foot on the gas pedal.
- Drive smoothly, avoid quick acceleration, sudden changes in speed and abrupt stops.
- Avoid unnecessary idling. Turn the engine off.
- Do not carry unnecessary weight.
- Use air conditioner only when needed.
- Wheels should be aligned and tires inflated at correct pressures.

For good fuel economy we recommend smooth and even acceleration. Very fast, racy driving, alternating between full throttle and hard braking, raises the fuel consumption considerably. Also, tires and brake linings wear faster. It is more economical to drive smoothly and at fairly constant speed.

Please observe all local and national speed limits.



Intensive windshield washer system reservoir (where applicable)

The reservoir is located in the engine compartment in front of the radiator.

To avoid paint damage, we recommend the exclusive use of a "special silicone remover" cleaning agent. Clear water and anti-freeze will not be sufficient.

Your Porsche dealer can advise you which product to use.

(Also refer to "Filling capacities" and "Cooling system mixing ratios".)



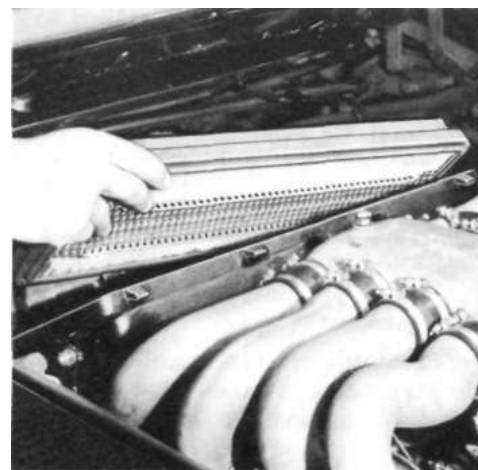
Power steering fluid reservoir

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

To check fluid level...

- 1 -remove cap from reservoir
- 2-with engine running at operating temperature, the fluid level should meet the mark on the reservoir. **If necessary, top up with ATF Dexron®.**
- 3 -reinstall cap and make sure that sealing ring is seated correctly.

If the power steering system fails because the engine has stalled, or the car is being towed, the vehicle can still be steered. However, much greater effort is needed, especially at low speeds and in sharp turns.



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.

Tires, Wheels

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

Tire pressures

For good car handling and long tire service life, it is important to maintain recommended tire pressures. Tires which are inflated above or below specifications can cause increased tire wear, high gas consumption and affect road holding of the car.

In the interest of safety, check the tire pressure of all tires at least once a week, and always before going on a long trip.

Always use 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.

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 light alloy wheels, use only adhesive balancing weights supplied through the Porsche parts service.

Tire life and rotation

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 when necessary.

Porsche recommends rotation every 3000 miles or 5000 km. Rotation and balancing, although an expense to you, will prolong tire life.

Tires must always remain on same side of vehicle.

After rotation, adjust tire pressure and torque wheel nuts diagonally to 94 ft lb (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.

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 replacement

In the interest of maximum safety and best all-around car handling, always buy replacement tires that have the same specifications with regard to tire size, design, load carrying capacity, tread pattern, etc. This also applies to Porsche-recommended alternate replacement tires.

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 recommended 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 be more than 30 %.

Tire specifications are imprinted on the sidewall of the tires. If in doubt, check with your Porsche dealer.

When replacing tubeless tires, always install new valve stems. When replacing tires requiring an inner tube, always install new tubes.

New tires do not possess maximum traction. They tend to be slippery. Break new tires in by driving at moderate speed for the first 60-120 miles or 100-200 km.

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.

Tire care

- Avoid damaging tires and wheels rims. If you must drive over a curb or other obstacle, drive slowly and at an angle. Frequently check tires for uneven wear and damage.
- Remove imbedded material.
- Replace worn or damaged tires promptly.
- Replace missing valve dust caps.
- Keep oil and gasoline from tires.
- Keep tires inflated correctly.

Winter tires

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

Winter tires should have the same load capacity as original equipment tires and should preferably be mounted on all four wheels. **Winter tires with studs** should be run at moderate speeds when new in order to give the studs time to settle. Tires with badly worn treads and studs are very dangerous. Make sure they are replaced promptly.

Winter tires do not fulfill their purpose if the tread depth is less than 5/32 in (4 mm).

Refer to **"Hints for winter operation"** for additional details.

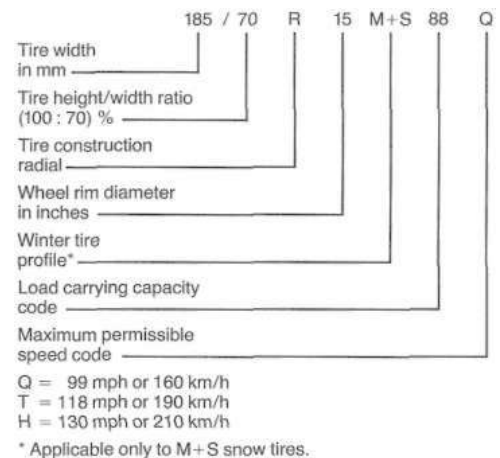
Removing and storing tires

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 remounting, put tires with the most tread depth at the front. Have tires/wheels balanced as soon as possible.

Store tires in a cool and dry place.

New Tire Identifications

The European tire manufacturers have changed their tire identification system for SR and HR-tires pertaining to maximum permissible speed and maximum load carrying capacity for belted tires. The following is an example only.



During the transition period some tires might show both old and new identification codes, such as: 185/70 SR 15 M+S 88 Q. In this instance, the new codes apply.

The identification codes for VR tires remain unchanged; for example: 225/50 VR 16. (V= maximum permissible speed for radial tires, i. e. over 130 mph or 210 km/h).



Collapsible spare tire

The collapsible spare tire is located underneath the luggage compartment. It is covered by a lid with a quick release catch. The car jack is stored behind the spare tire. Stored inside the wheel rim is the electric air compressor kit. 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 or 80 km/h when using the collapsible spare tire. It is for emergency use and short distances only. Use the original road tire as soon as possible.

Inflating the collapsible tire

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

1. Install 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 32 psi or 2.2 bar.** Check pressure with tire pressure gauge.
4. 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 compartment underneath 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 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

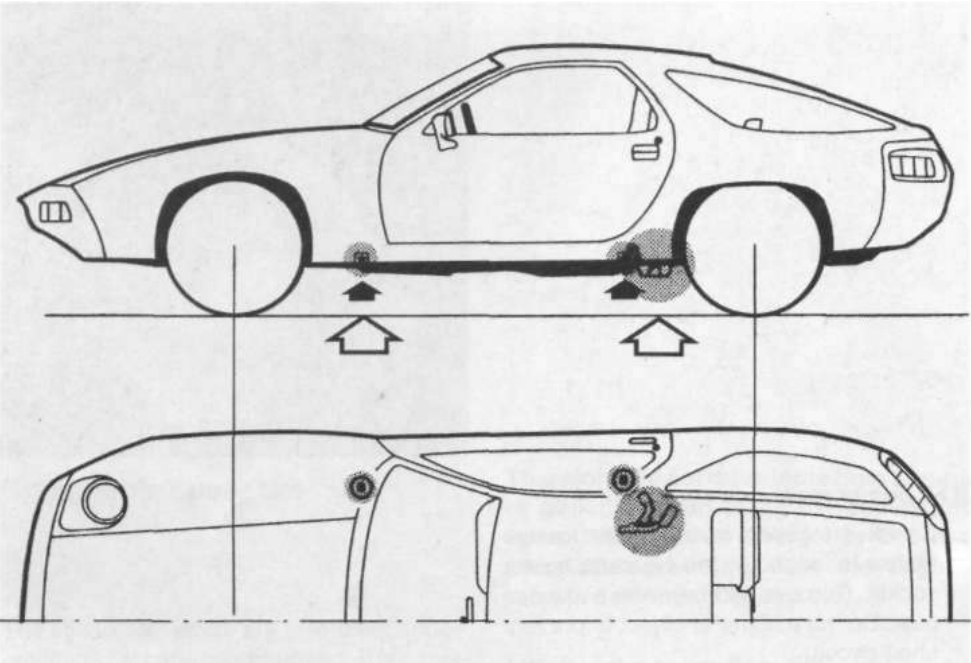
...Check if tobacco or any other foreign matter is lodged in the cigarette lighter socket. Remove carefully with a wooden pick. Do not use metal object to prevent short circuit.

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

Maintenance of air compressor

The air compressor is maintenance-free. Do not apply oil or any other lubricant.

The air filter should be cleaned periodically to assure maximum efficiency of the unit.



Black arrows: Jackports for car jack
White arrows: Lifting points for workshop hoist
or floor jack

Changing wheels

If you have a flat tire, move off the road. Turn on the emergency flasher. In addition, mark the position of your car with flares or other warning devices to alert other motorists.

Before you change a wheel, be sure the ground is level and firm, especially near the jack supports.

Set the parking brakes and block the wheels opposite the defective wheel on the other side of the car.

The car 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 bumpers or the body. Passengers should not remain in the car when the car is jacked up.

Sequence of operations

- 1 -Loosen the wheel nuts about one turn. Do not yet remove the nuts.
- 2 -Securely insert the car jack in the jack-port located under the body. There are two on each side; front and rear.
- 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 and remove the wheel.
- 5 -When the spare wheel is in position, re-install the nuts and handtighten them crosswise. Be sure the wheel nuts are inserted with the beveled edge toward the wheel. When tightened crosswise, the nuts will center the wheel correctly.
- 6 - Inflate the collapsible spare tire with the air compressor. Check pressure with tire pressure gauge.
- 7 -To lower the car, turn the jack handle counterclockwise. Remove the jack.
- 8 -Firmly tighten the wheel nuts again in a crosswise pattern.

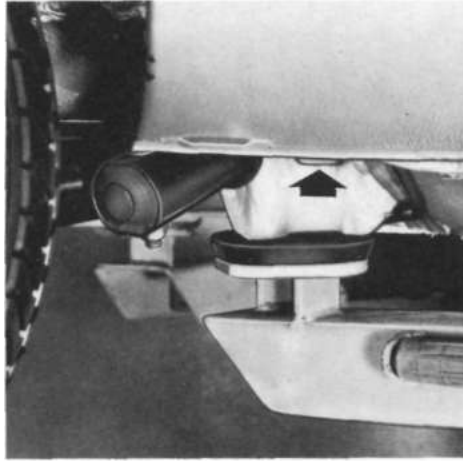
Correct tightness of the wheel nuts is important. Correctly tightened nuts should have a torque of 94 ft. lb. (130 Nm). This torque can be obtained with the wheel nut wrench by any person of average strength. If in doubt about the correct tightness of wheel nuts, have it checked with a torque wrench by your dealer or at a service station.



Lifting car with car jack

The car should be jacked up only at the jackport points illustrated above and on preceding page (black arrows).

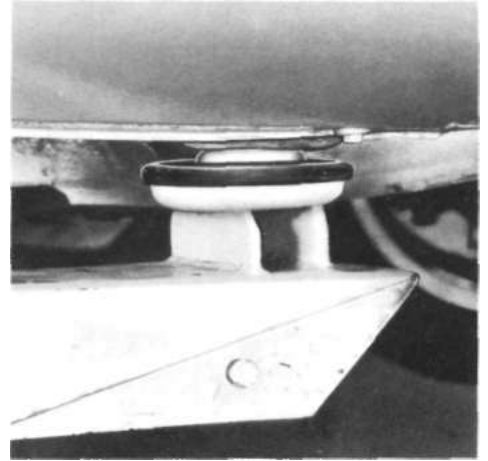
Caution: If work is to be done underneath the vehicle, the car must be supported by suitable chassis stands or raised with a workshop hoist.



Lifting car with workshop hoist

Make sure there is sufficient clearance between pads and vehicle, before driving car on hoist. The car must only be lifted at the lift pad points illustrated on preceding page (white arrows).

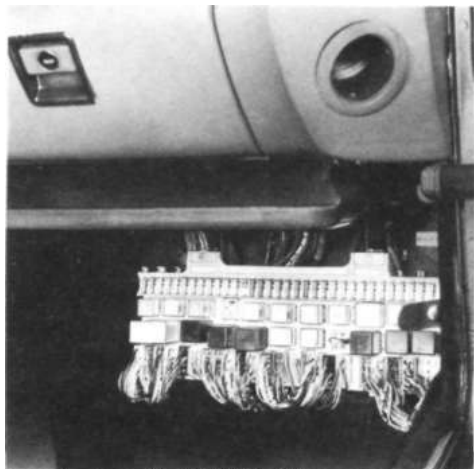
The rear lifting points are located on the rear axle control arm mount illustrated above (arrow).



Lifting car with floor jack

The same lifting points illustrated for the hoist also apply when using a floor jack. The rear end of the car can also be lifted with a floor jack in the center of the rear suspension cross member. To avoid possible damage, it is recommended to insert a wooden disc or a rubber pad between the floor jack and the lift point pads as illustrated above.

Caution: The vehicle should never be jacked up from underneath the engine oil pan or the transmission. Severe damage could result.



Fuses and relays

A failure in the electrical system may be caused by a burned fuse or a faulty relay.

The central fuse/relay board is located in the passenger's footwell and protected by a cover plate.

The relay board holds a row of 34 fuses along the top edge, numbered 1 through 34. Underneath are two rows of relays, identified with Roman numerals I-XXII.

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. On no account should fuses be patched up with tin foil or wire as this may cause serious damage elsewhere in 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 - turn fuses between contact springs until metal fuse strip faces upward. In a blown fuse the metal strip is separated
- 3 - take out blown fuse by carefully depressing the upper contact spring
- 4 - carefully install new fuse so that the metal strip is visible. The fuse must fit tightly between the contact springs - do not bend the contact springs
- 5 - replace cover plate and carpeting.

It is advisable to always carry a few spare fuses in the car.

Relays

- I & II - rear window defogger
- III - not connected
- IV - not connected
- V - emergency flasher unit
- VI - power window controls
- VII - headlight washer pump
 - (where applicable)
- VIII - not connected
- IX - not connected
- X - two-tone horn
- XI - not connected
- XII - fog lights
- XIII - intermittent wiper speed control
- XIV - bridge (starter relay)
- XV - intensive washer system pump
 - (where applicable)
- XVI - EFI-control unit
- XVII - fuel pump
- XVIII - extra cooling fan for A/C
- XIX -
- & XX - retractable headlight relays
- XXI - fresh air fan
- XXII - defroster

The seatbelt warning system relay is located behind the radio.

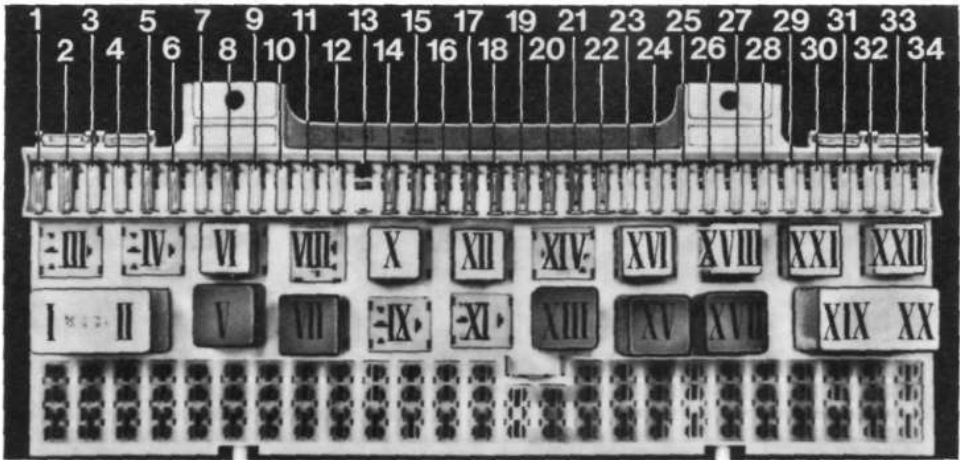
The rear window wiper relay (where applicable) is located on the left-hand side behind the tool kit tray.

The relay for the automatic forward slide seat mechanism is located under the seat.

Fuse Chart

No. Electrical component Amperes

1	fog lights	16
2	not connected	
3	engine compartment/license plate lights	8
4	switch illumination lights	8
5	cigarette lighter	16
6	windshield wipers, intensive windshield washer	16
7	not connected	
8	sliding roof (optional equipment)	16
9	backup lights/outside mirror control, rear window wiper, automatic climate control	8
10	brake lights/automatic speed control	8
11	instrument and switch illumination	8
12	combination instrument, warning lights	8
13	not connected	
14	power seat controls (optional equipment)	25
15	two-tone horn, power antenna, rear window wiper (return)	16
16	electric radiator fan	25
17	heating	25
18	rear window defogger	25
19	headlight motor	16
20	headlight washer	16

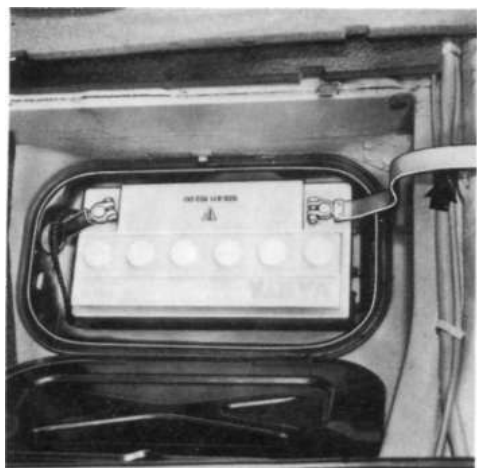


Relays

To preclude any possibility of damage, we recommend you have a defective relay checked and exchanged by your Porsche dealer.

Two additional 400 mA fuses for the central locking system are located above the central fuse/relay board.

21	power window controls, central door locking system	25	27	low beam/right	8
22	fuel pumps	16	28	side marker light/left	8
23	interior lights/clock	8	29	side marker light/right	8
24	high beam/left, high beam indicator light	8	30	turn signal/front left	8
25	high beam/right	8	31	turn signal/rear left	8
26	low beam/left	8	32	turn signal/front right	8
			33	turn signal/rear right	8
			34	not connected	



Battery-12 Volt

The battery is located underneath the collapsible spare tire in the luggage compartment. The battery is accessible after taking out the spare tire.

A replacement battery should always have the same rating as the original equipment battery. Specifications are printed on the battery housing.

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.

Disconnecting the battery while the engine is running will damage the alternator. This also applies to cars equipped with a battery main switch.

Important cautions and warnings

- **Never drive the car with a disconnected battery as this will damage the alternator.**
- **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 up with distilled water.

Only top up to mark, other wise 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.
- Spilled electrolyte fluid should be rinsed off at once with a baking soda and water solution to neutralize the electrolyte fluid and to prevent damage to fabric and metal.

During the winter months, battery capacity tends to decrease as temperatures drop, and headlights, heater, rear window defogger, etc., are used more frequently. Curtail unnecessary power consumption, particularly in city traffic or when travelling short distances only.

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.

5 to 15 ampere charging rate.

Heed all warnings and follow instructions that come with your battery charger.

Never charge a frozen battery. It may explode. Allow a frozen battery to thaw out first.

Quick-charging a battery is dangerous and should only be attempted by a competent mechanic with the proper equipment.

Before charging a battery, disconnect the battery: first the ground strap, then the positive cable.

All vent caps should be open. If fluid level is low, it should be topped up to the full mark in each cell.

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.

After charging, disconnect charger. When the electrolyte fluid has stopped "bubbling" in the cells, close the vent caps.

Reconnect the positive cable first, then the negative ground strap.

Replacing bulbs

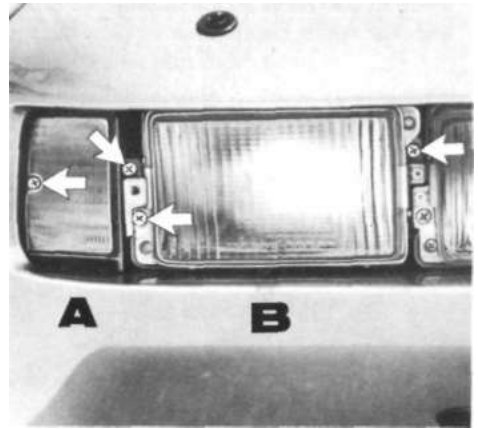
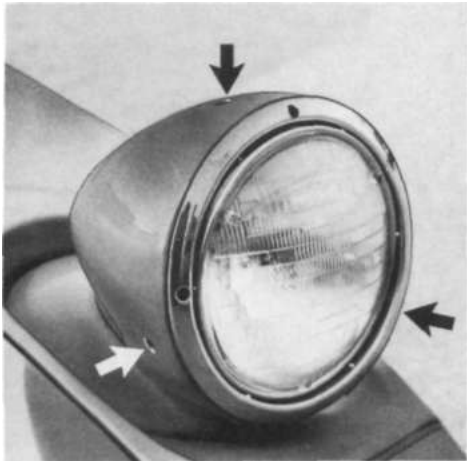
To avoid short circuits, turn off the respective electrical components when changing light bulbs.

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.



Sealed Beam Headlights

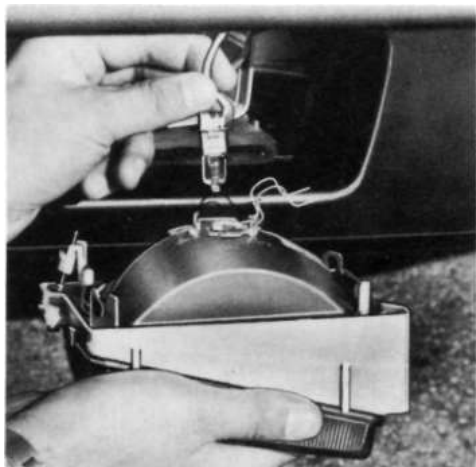
Replacing light unit

- 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 Philips screws (arrows) and remove headlight cover and trim ring

- 5 - unscrew the 3 small Philips screws from sealed beam securing ring and remove ring
- 6 - unplug wires, replace sealed beam unit and reconnect the wires
- 7 - reinstall sealed beam securing ring
- 8 - check lights
- 9 - reinstall trim ring and headlight cover.

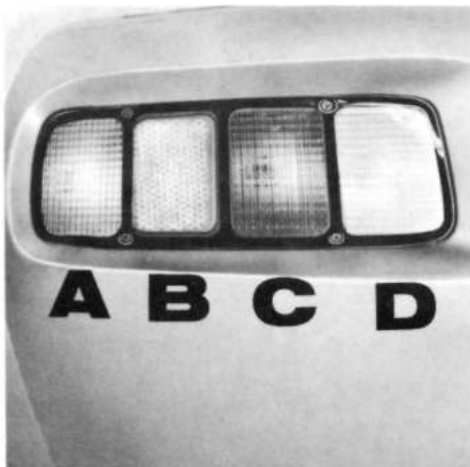
Front turn signal lights (A) Front parking lights (B)

- 1 - remove screws from plastic trim, take off trim
- 2 - remove screws holding the lens, and remove lens
- 3 - remove bulb from bulbholder, and fit new bulb
- 4 - reinstall lens, tighten screws. Check functioning of light
- 5 - install plastic trim and tighten retaining screws.



Fog lights

- 1 - remove screws from plastic trim, takeoff trim
- 2 - remove Philips screws. Take off lamp
- 3 - disconnect wire. Push down holding clamp for bulb
- 4 - remove defective bulb and replace. Be sure guide pins on bulb base fit into socket of reflector
- 5 - reinstall lamp, tighten screws. Check functioning and adjustment of light
- 6 - install plastic trim and tighten retaining screws.



Tail lights

The tail lights are housed in one unit.

- | | |
|-----------------------|-------------------|
| A - turn signal light | C - stop light |
| B - tail light | D - back-up light |
- 1 - Remove Philips screws and lamp lens.
 - 2- Replace bulb.
 - 3- Reinstall lamp lens and tighten Philips screws evenly, alternating from one to the other.
 - 4 - Check light.



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.



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.



Interior lights

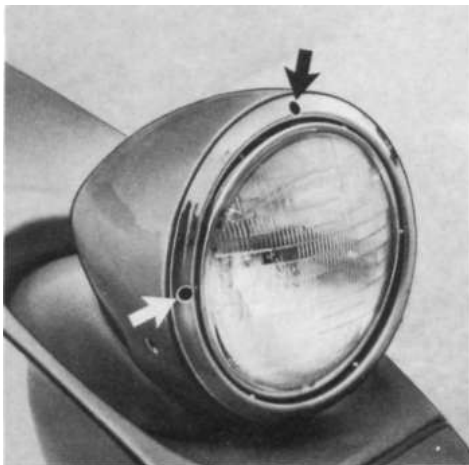
The following description applies to the dome lights and the lower door panel lights:

- 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.

Manual Operation of Retractable Headlights

If the retractable headlights do not work automatically, they can be operated manually by turning the knob on the end of the motor drive shaft (arrow). The connecting rod assembly is designed in such a way that it need 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.



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 seeks its normal position.

Adjustment screws

Each headlight and fog light has two adjusting screws, one for lateral setting, and one for vertical. By turning these screws left or right, the corresponding adjustment in beam position is effected.

Screw "a" (lateral adjustment)

right turn = beam moves right
left turn = beam moves left

Screw "b" (vertical adjustment)

right turn = beam moves up
left turn = beam moves down

Emergency starting with jumper cables

Warnings:

Improper use of a booster battery to start a car represents an explosion hazard.

Lead-acid batteries generate explosive gases. Keep sparks, flame and lighted cigarettes away from batteries.

If battery is frozen, thaw it out first. Otherwise it may explode, because of gas trapped in the ice.

To avoid serious injury and damage to car, heed all warnings and instructions of jumper cable manufacturer. Also see "cautions".

Make sure the voltage of both batteries is the same. A 12-Volt battery has 6 vent caps. Check electrolyte level of each cell. If necessary, fill with distilled water to just above plates.

The capacity (Ah) of the booster battery should not be lower than that of the discharged battery.

Car with discharged battery: turn off lights and accessories and remove ignition key. Move shift lever to N or P and set the hand brake.

Car with booster battery should not be running. Disconnect ground cable.

Remove vent caps from booster and discharged battery. Preferably lay a cloth over open vent caps to reduce explosion hazard.

How to use jumper cables

The jumper cables must be sufficiently long for vehicles not to touch. 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.
2. Connect clamp on opposite end of cable to positive (+) terminal of booster battery.
3. Connect clamp of minus-cable to negative (-) terminal of booster battery.
4. Connect clamp on opposite end of cable to a bare metal part bolted directly to the engine block or to the engine block itself 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.

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

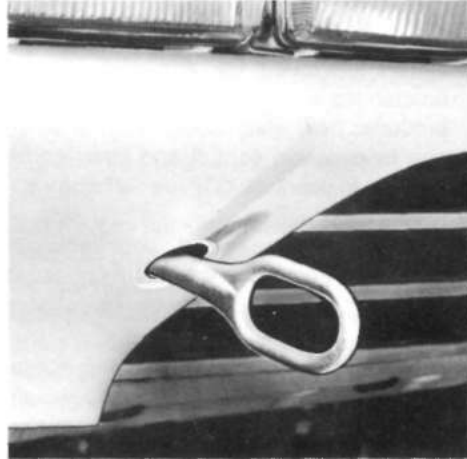


clamp at other end of positive (+) cable to the positive (+) terminal of the booster battery.

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.

Caution: Do not try to start car by pushing or towing. Damage to the catalytic converter and other components of the car may result.



Emergency Towing with Tow Rope

Always observe local laws and municipal ordinances governing towing.

Note: If you are towing another car, it should not be heavier than your Porsche (approx. 3350 lbs. or 1520 kg).

The towing eye is in the tool kit located in the rear of the car. If you are towing a car, mount the towing eye at the rear of the car above the license plate (see illustration). If your car is being towed, remove the plastic body plug from the right front of the car before mounting the towing eye (see illustration). Always check to make sure the towing eye is securely screwed in.

Manual Transmission

- Place gearshift in Neutral.
- Release parking brake.
- Brake booster will not be operative when the engine is not running. More brake pedal pressure will be required to bring car to a stop.
- Turn ignition key to position 2 to unlock steering and to be able to operate turn signals, parking and stop lights.
- The driver of the towing car must be very careful when driving off and shifting to avoid sudden and abrupt jerks.
- The driver of the towed car must always keep the tow rope taut.

Automatic Transmission

When towing your car with automatic transmission, also observe the following in addition to the items listed under Manual Transmission.

The towing speed should not exceed 30 mph/50 km/h, and the towing distance should not be longer than 30 miles/50 km. For greater distances, the vehicle must be transported on a trailer.

This is very important because the transmission will not be adequately lubricated due to the lack of oil pressure normally provided when the engine is running.

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

Emergency push-starting

Your Porsche with automatic transmission cannot be started by pushing or towing. Should the engine fail to start, consult your nearest Porsche dealer.

In case of a defective or rundown battery, the engine can only be started after replacing the battery or with the aid of jumper cables.

Note: The central warning light and all individual warning lights will be on when your car is being towed. They can only be turned off when the engine is started.

An Important Word of Caution on the Emission Control System in Your Car

Your Porsche is equipped with a **Lambda Emission Control System**. The major components of this system are **three way catalytic converter** and **oxygen sensor**.

These components are designed to burn carbon monoxide, hydrocarbons and oxides of nitrogen in the exhaust gas. Normal operating temperature of the exhaust system will not cause any heat related problems if you maintain and use your car properly. Lack of necessary maintenance, maladjustment of the fuel system or ignition timing, or improper use of the car may cause overheating problems. This can lead to damage to the catalytic converter and other components of your car.

Therefore:

- Have your car maintained properly in accordance with the service recommendations of the Warranty & Maintenance booklet.
- 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, valves, which are designed to protect your car and the

environment.

- Do not leave your car with engine idling unattended after starting. Extended idling produces heat which could result in damage to emission control and other components in your car.
- Do not continue to operate your vehicle if you detect engine misfire or other unusual operating conditions.
- Do not park your car over combustible material, including grass or leaves, which may come into contact with the hot exhaust system.

Undercoating

Do not apply additional undercoating on or near the exhaust manifold, exhaust pipes, catalytic converter or heat shields. The

substance used for undercoating could overheat during driving and cause a fire.

In the interest of clean air

Pollution of our environment 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 long recognized its responsibilities not only toward its customers but also toward the public in general. We have 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. On the following page we explain how the Porsche emission control system works, and what you can do to keep it in working order.

Your new car is warranted under the terms and conditions set forth in the Warranty & Maintenance 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.

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 slow 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 (NO_x) contribute to harmful engine emissions. They, too, are formed during the combustion process and discharged into the exhaust system. To reduce these pollutants to a minimum, your Porsche is equipped with a **Lambda Emission Control System**.

Controlled Combustion System

The amount of pollutants emitted from an engine greatly depends on the combustion of the air/fuel mixture. Complete burning of the air/fuel mixture is therefore very important. An improved combustion process in

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 (OXS)

The oxygen sensor installed in the exhaust manifold makes it possible to maintain the air/fuel mixture ratio at the desired level of $\lambda = 1.0$. The oxygen sensor continuously measures the oxygen content of the exhaust gas 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. The **lambda control system** is monitored by the oxygen sensor (see "Warning lights").

Three way catalytic converter

Harmful pollutants in the exhaust gas can be reduced to a minimum with the three way catalytic converter. However, the catalytic converter can only achieve this reduction with the aid of the **lambda control system**. This system is designed to maintain close control of the air/fuel mixture ratio under all operating conditions. At an air/fuel mixture ratio of 14.5 to 1 ($\lambda = 1.0$), hydrocarbons (HC), carbon monoxide (CO) and

oxides of nitrogen (NO_x) can be controlled efficiently and simultaneously by the three way catalytic converter. If, at any time, the air/fuel mixture ratio is either below or in excess of $\lambda = 1.0$, pollutants increase.

The use of UNLEADED FUEL is critically important. Deposits from leaded gasolines will make the catalytic converter ineffective as an emission clean-up device. Therefore only unleaded gasoline without harmful additives must be used.

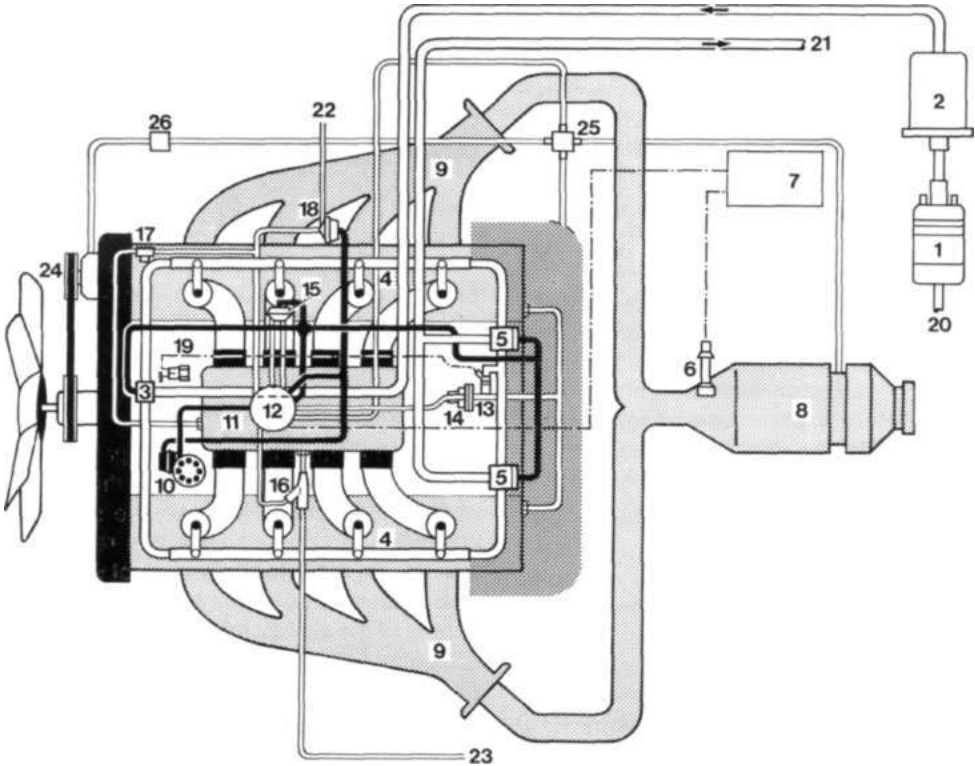
Crankcase Ventilation

Through Crankcase Ventilation harmful 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.

Emission Control System

V

- 1 Fuel pump
- 2 Fuel filter
- 3 Fuel pressure damper
- 4 Fuel injector (8 x)
- 5 Fuel pressure regulator
- 6 Oxygen sensor
- 7 Control unit
- 8 Three way catalyst
- 9 Exhaust manifold
- 10 Ignition distributor
- 11 Intake manifold
- 12 Throttle valve housing
- 13 Cold start injector
- 14 Aux. air valve for cold start
- 15 Vacuum limiter (vehicles with manual gearbox only)
- 16 Venturi tube
- 17 El. air valve
- 18 Control valve
- 19 Thermo time switch
- 20 from fuel tank
- 21 to fuel tank
- 22 to charcoal canister
- 23 to brake booster system
- 24 Secondary air pump
- 25 Air diverter valve
- 26 Check valve



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 non-level 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 filler tube 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 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

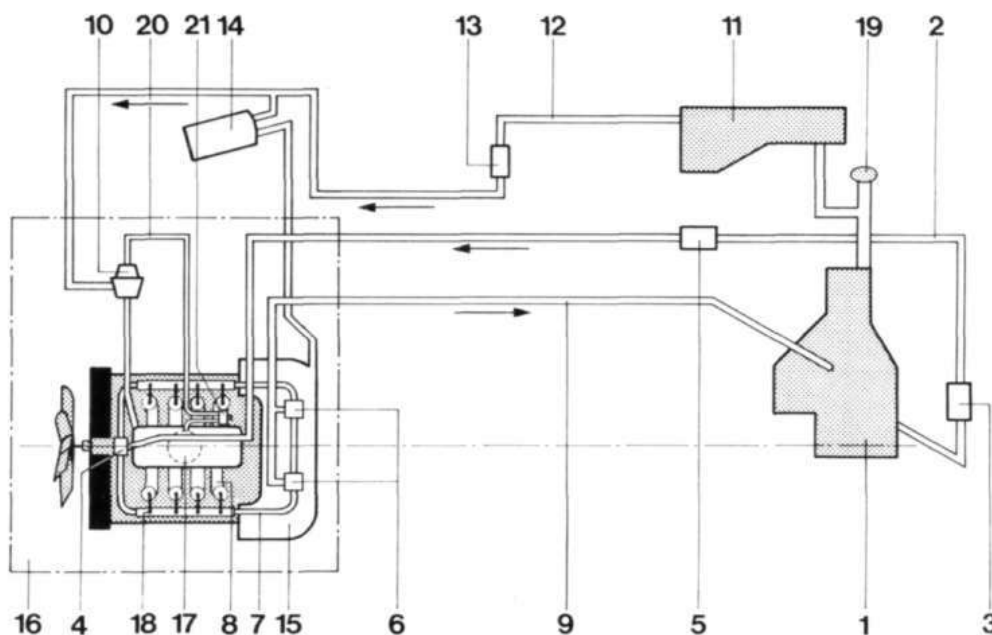
Fuel vapors from the carbon canister will be mixed with fresh air taken from the engine compartment. This mixture will be directed via a vacuum controlled valve to the air intake system housing.

The control 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 and at the same time limiting the max. purge flow with its calibrated orifice.

- 1 Fuel tank
- 2 Fuel line
- 3 Fuel pump
- 4 Fuel pressure damper
- 5 Fuel filter
- 6 Fuel pressure regulator
- 7 Fuel injection lines
- 8 Air distributor/intake manifolds
- 9 Fuel return line
- 10 Control valve
- 11 Expansion chamber
- 12 Tank vent line
- 13 Safety valve
- 14 Carbon canister
- 15 Air cleaner
- 16 Engine compartment
- 17 Throttle plate
- 18 Injection valve
- 19 Filler cap
- 20 Vacuum control line
- 21 Temperature controlled ON/OFF valve



Technical Data

Engine M 28.15/16

Number of cylinders	8
Bore	3.74 in/95.0 mm
Stroke	3.11 in/78.9 mm
Displacement	272.97 cu.in./4474 cm ³
Compression ratio	9:1
SAE net-horsepower SAE J 245	220 hp/165 kW at 5500 rpm
SAE net-torque SAE J 245	265 ft.lb/348 Nm at 4000 rpm
Max. permissible rpm	6200
Fuel octane rating	Unleaded fuel only 91 RON (87 CLC rating on fuel pumps in U.S.A.)
Sparkplugs	Bosch WR 8 DS; Beru RS 35
Spark plug gap	0.028-0.032 in/0.7 + 0.1 mm
Battery capacity	12 Volts, 88 Ah
Alternator output	1260W/90AAC
Firing order	1 - 3 - 7 - 2 - 6 - 5 - 4 - 8
Ignition timing	23° before TDC at 3000 rpm with distributor vacuum disconnected
Ignition	Transistorized ignition system with breakerless distributor
Fan belts	Alternator 9.5 x 875 LA; cooling fan and air pump 12.5 x 1040 LA-FD toothed belt; Air conditioning pump 12.5 x 1125 LA. Servo pump 12.5 x 975 LA
Valve clearance	Self-adjusting hydraulically operated

Engine Design Specifications

Design	8 cylinders in V configuration
Operating cycle	4 stroke
Cooling	water cooled
Lubrication	pressure-fed from sump
Cylinder block and head	light metal alloy
Valve operation	1 overhead camshaft per cylinder bank
Camshaft drive	toothed V-belt
Crankshaft	forged
Fuel supply	electric pump
Fuel injection	EFI (Electronically controlled Fuel Injection system, air flow sensitiv, also known as L-Jetronic)

Power Train

	Manual transmission			Automatic transmission
	Number of teeth	Gear ratio	Total ratio	Gear ratio
Gear ratio 1st gear	$\frac{32 \cdot 44}{23 \cdot 17}$	$\triangleq 3.6010 : 1$	9.9028 : 1	2.306 : 1
2nd gear	$\frac{32 \cdot 39}{23 \cdot 22}$	$\triangleq 2.4664 : 1$	6.7826 : 1	1.460 : 1
3rd gear	$\frac{32 \cdot 34}{23 \cdot 26}$	$\triangleq 1.8194 : 1$	5.0034 : 1	1 : 1
4th gear	$\frac{32 \cdot 28}{23 \cdot 29}$	$\triangleq 1.3433 : 1$	3.6941 : 1	
5th gear	$\frac{1}{1}$	$\triangleq 1 : 1$	2.7500 : 1	
Reverse	$\frac{32 \cdot 50}{23 \cdot 22}$	$\triangleq 3.1621 : 1$	8.6958 : 1	1.836 : 1
Rear axle ratio	$\frac{33}{12}$		2.7500 : 1	2.750 : 1

Clutch	Double plate dry disc
Power transmission	Double constant velocity joints and drive shafts

Rims, Tires, Wheel Alignment

Summer tires	215/60 VR 15 on 7 J x 15 H 2 rims or 225/50 VR 16 on 7 J x 16 H 2 rims
Winter tires	185/70 R15 M+S 88 Q or T on 7 J x 15 H 2 rims or 205/55 R16 M+S 88 Q or T on 7 J x 16 H 2 rims
Collapsible spare tire	165-15 LRB on 5 J x 15 H2 rim
Tire pressure, front and rear with cold tires	36 psi or 2.5 bar for summer and winter tires; 32 psi or 2.2 bar for collapsible spare tire
Wheel camber*	Front -30' ± 10'. Rear -40' ± 10'. Maximum difference left to right 10'.
Toe-in*	Front 0° ± 5' under 33 lb or 150 N pressure. Rear + 10' ± 5'
Toe angle difference*	At 20° lock to left and right -1 ° ± 20'
Caster*	3° 30' ± 15' difference left to right maximum 20'

* At curb weight (unladen with full tank)

Weights

Curb weight ¹⁾	3351 lbs/1520 kg
Maximum load capacity	683 lbs/ 310kg
Maximum permissible weight	4123 lbs/1870 kg
Maximum axle load, front*	1985 lbs/ 900kg
Maximum axle load, rear*	2205 lbs/1000 kg
Permissible rack load*	165 lbs / 75 kg

* Do not exceed maximum permissible weight
) Automatic 3385 lbs/1535 kg

Dimensions

(at permissible max. load)

Wheelbase.98.43 in/2500 mm
Wheel track, front.61.10 in/1552 mm
Wheel track, rear.60.20 in/1529 mm
Turning circle (curb to curb).31 ft 6 in/ 9,6 m
Turning circle (wall to wall).37 ft 8 in/11,5 m
Length175.67 in/4462 mm
Width.72.28 in/1836 mm
Height (at curb weight).50.47 in/1282 mm
Ground clearance.4.72 in/ 120 mm

Performance*

Maximum speed
Acceleration 0-62 mph (0-100 km/h)
Time for 1/4 mile
Time for 1 km

Manual transmission

143 mph (230 km/h)
7,5 seconds
15,5 seconds
28 seconds

Automatic transmission

140 mph (225 km/h)
8,5 seconds
16 seconds
29 seconds

At curb weight and half-load capacity excluding optional equipment and accessories.

Climbing Performance

Approximate values at curb weight
and half-load capacity

Manual transmission

1st gear approx. 62 %
2nd gear approx. 41 %
3rd gear approx. 28 %
4th gear approx. 18 %
5th gear approx. 11 %

Automatic transmission

1st gear approx. 39 % 58 %
2nd gear approx. 21 % 35 %
3rd gear approx. 11 % 21 %

* shortly climbing performance

Brake System

Hydraulic dual circuit brake system with diagonal brake circuits
Front and rear: Disc brakes
Brake power assist
Parking brake acting on rear wheels

Chassis Suspension

Unitized construction
Suspension

Shock absorbers
Stabilizers

Independent suspension with double control arms, coil spring and shock absorber assembly
for each wheel, front and rear
Double acting hydraulic shock absorbers, front and rear
Diameter 28 X 4 mm front, 22,5 x 3,5 mm rear

Filling Capacities

Engine oil	Without filter change approx. 7.93 U.S. qts. or 7.5 liters; with filter change approx. 8.45 U.S. qts. or 8 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.
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 (also for limited slip differential)	Approx. 4 U.S. qts. or 3.8 liters. Use hypoid oil SAE 75 W-90 labeled "For Service API/GL5 or Mil-L 2105 B". If 75 W-90 hypoid oils is not readily available, use 80 W-90.
Automatic transmission with torque converter	Approx. 1.59 U.S. gal. or 6 liters ATF Dexron®. At oil changes 1.45 U.S. gal. or 5.5 liters are required.
Differential of automatic transmission	Approx. 2.11 U.S. qts. or 2 liters hypoid oil SAE 90 according to API classification GL 5 or Mil-L 2105 B.
Power steering	Approx. 0.74 U.S. qt. or 0.7 liters ATF Dexron®.
Fuel tank	Approx. 23 U.S. gals, or 86 liters including a reserve of 2.11 U.S. gals, or 8 liters. Unleaded fuel only! Minimum octane rating 91 RON (87 CLC rating on fuel pumps in U.S.A.).
Brake fluid	Approx. 0.42 U.S. pint or 0.2 liters. Only use brake fluid conforming to specifications SAE J1703, DOT 3 or DOT 4.
Windshield/headlight washer system	Approx. 8.5 U.S. qts. or 8 liters.

Cooling system mixing chart
(Average values)

Anti-freeze-Water	Temp, down to	Anti-freeze	Water	Anti-freeze	Water
Consult your authorized dealer on the approved anti-freeze mixtures.	-30° C (-22° F)	45%	55%	7.2 liters/7.6 U.S.qts.	8.8 liters/9.3 U.S.qts
	-35° C (-31 °F)	50%	50%	8.0 liters/8.4 U.S.qts.	8.0 liters/8.4 U.S.qts
	-40° C (-40°F)	55%	45%	8.8 liters/9.3 U.S.qts.	7.2 liters/7.6 U.S.qts

Engine Oils — petroleum based and/or synthetic based

Always use quality oil labeled **"API Service SF or SE"**. The terms SF or SE may appear on the oil container singly or in combination with other designations, for example: SE/CC, SF/CC or SF/CD. Engine oils are graded according to their viscosities. The grade to be used depends on existing or anticipated seasonal climates. Refer to the temperature chart when selecting engine oil. If you need to add oil, it is permissible to mix oil of different viscosities. As the temperature ranges for different oil grades overlap, **brief** outside temperature variations are no cause for alarm. When using SAE 10 W or SAE 5 W-20 engine oil, avoid high speed long distance driving if outside temperature rises above the indicated limits.

Single grade oil

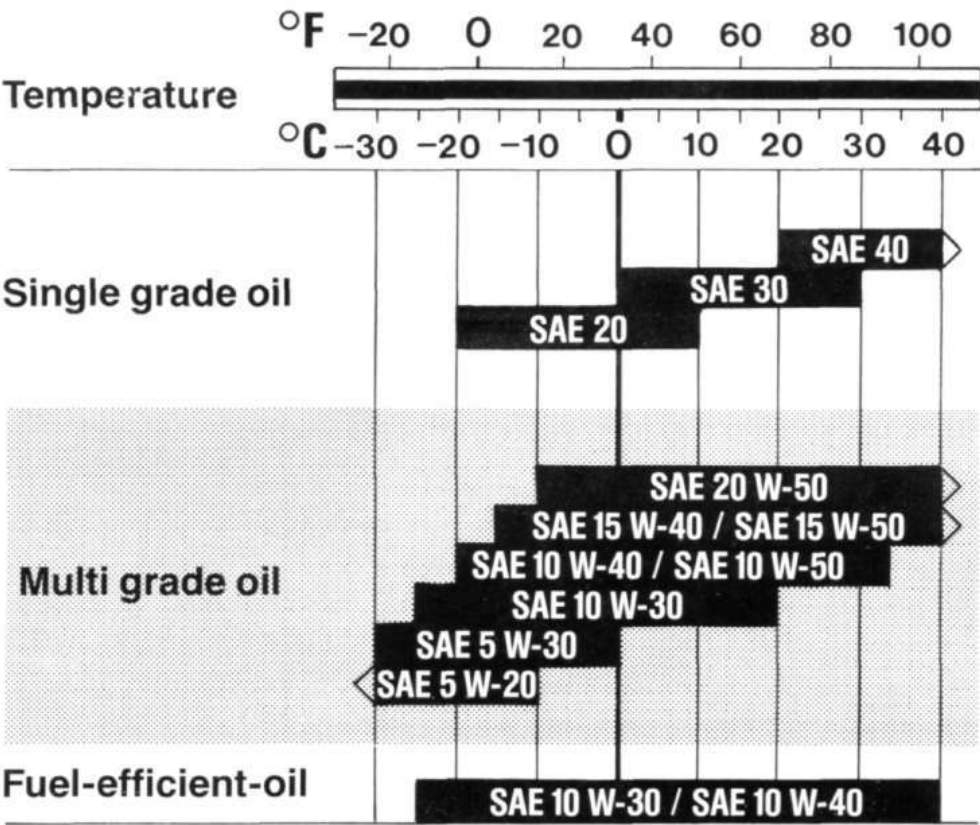
Porsche recommends the use of single grade oils **only** if multi grade oils are not readily available. However, engine oil changes must then be performed according to seasonal temperature changes to guard against engine damage.

Multi grade oil

For all year round driving use multi grade oil. **Oil change intervals specified in the Warranty & Maintenance brochure accompanying the vehicle must be adhered to, including intervals for oil filter change.**

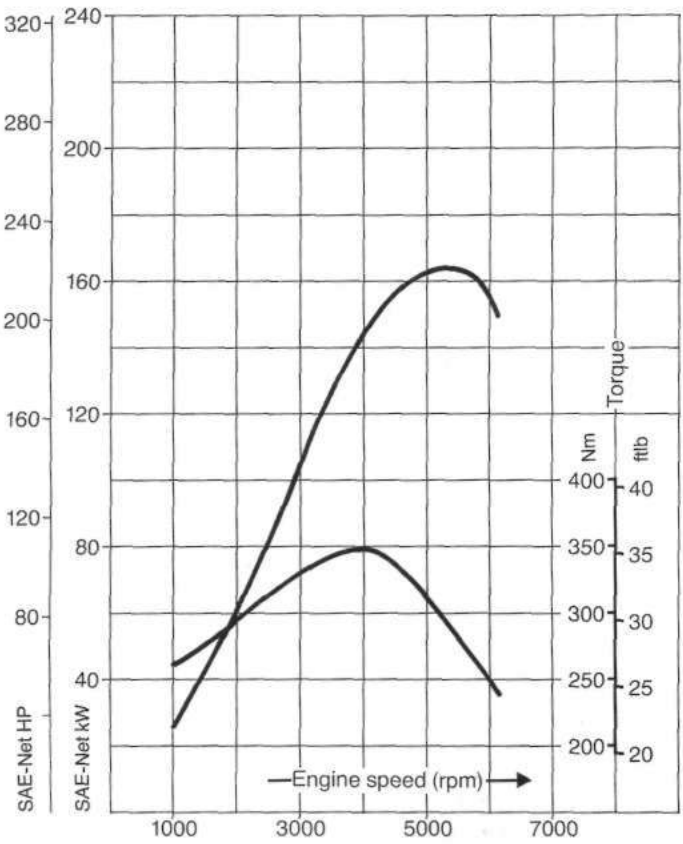
Fuel-efficient-oil

For all year round driving a top quality "Fuel-efficient"-oil can have a beneficial influence on fuel economy. Before selecting these unconventional oils, consult your Porsche dealer.



Full-power Curves

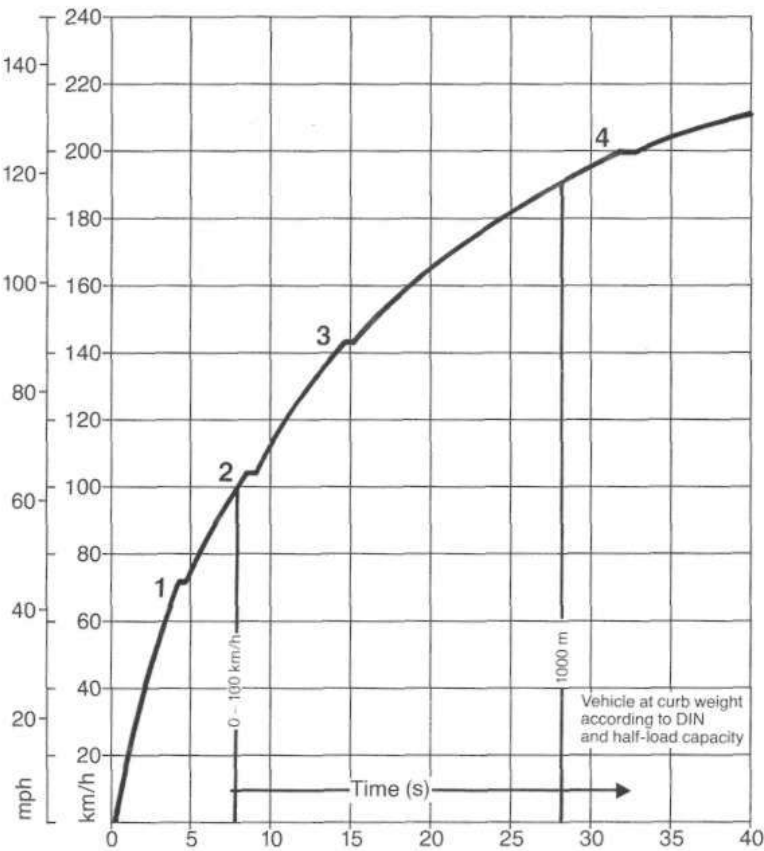
928



Acceleration Curve

Manual gearbox

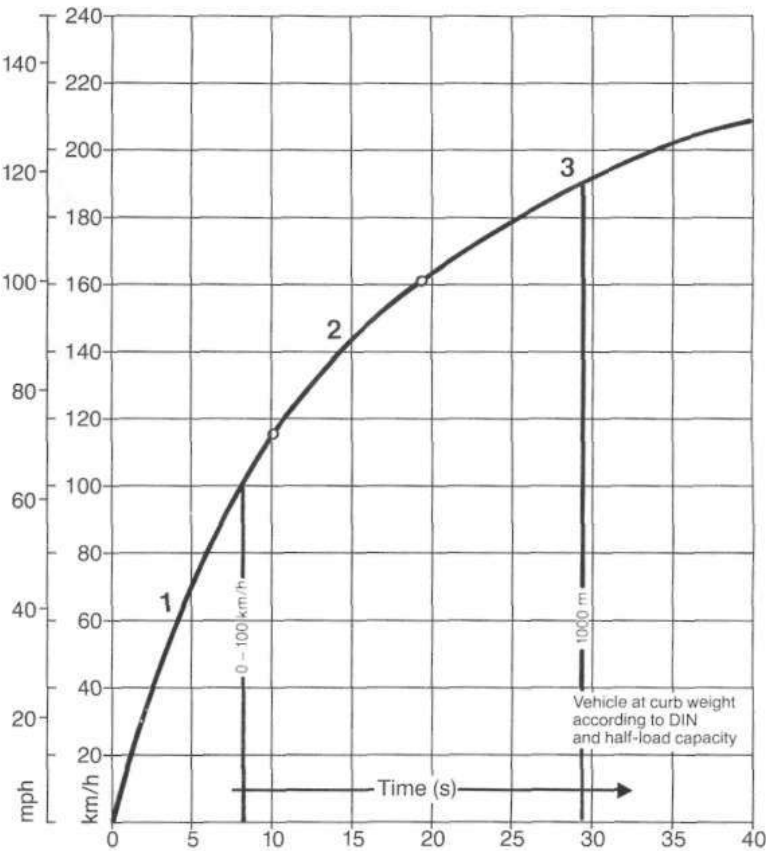
928



Acceleration Curve

Automatic

928

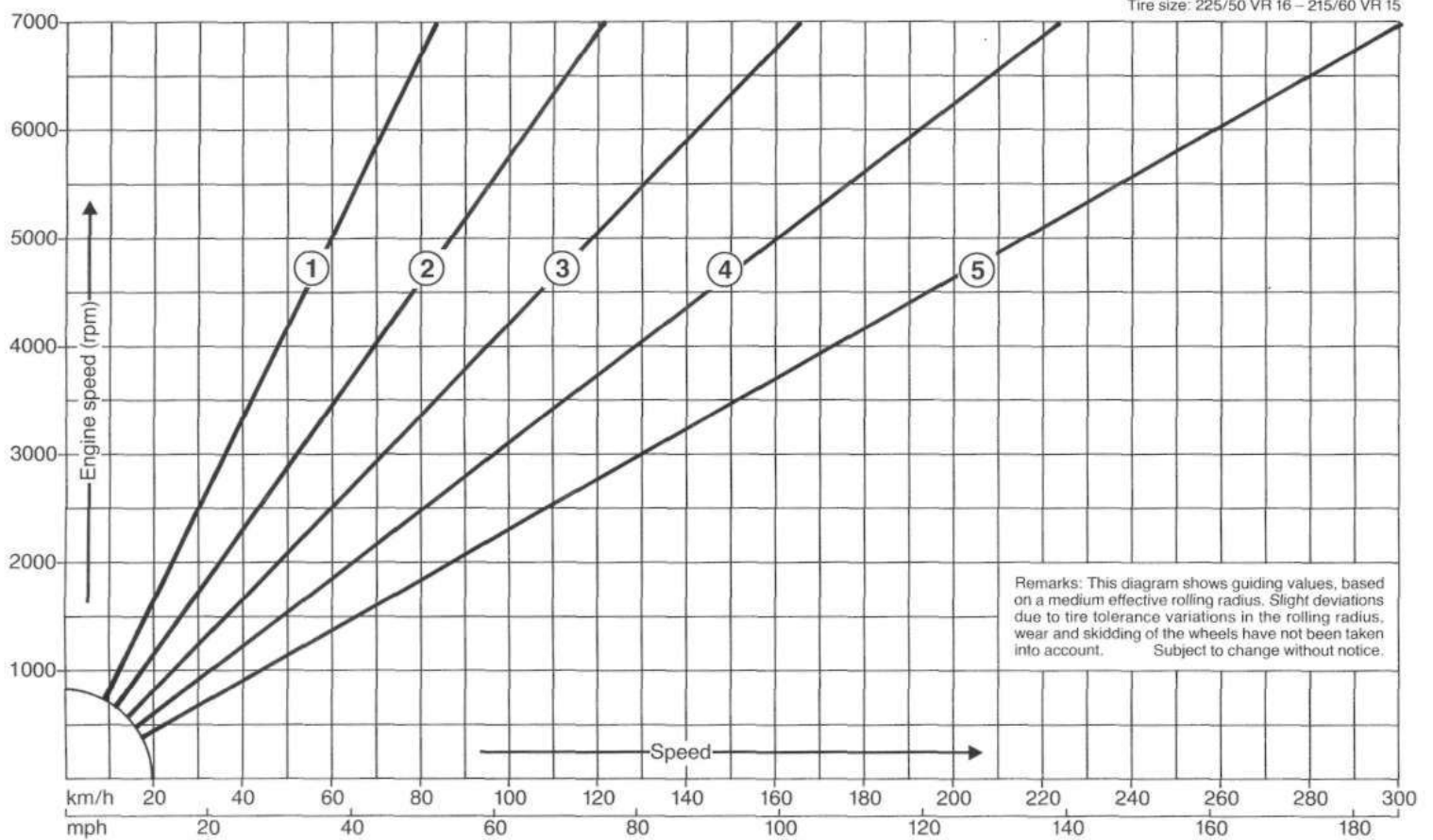


Transmission Diagram

Manual gearbox

928

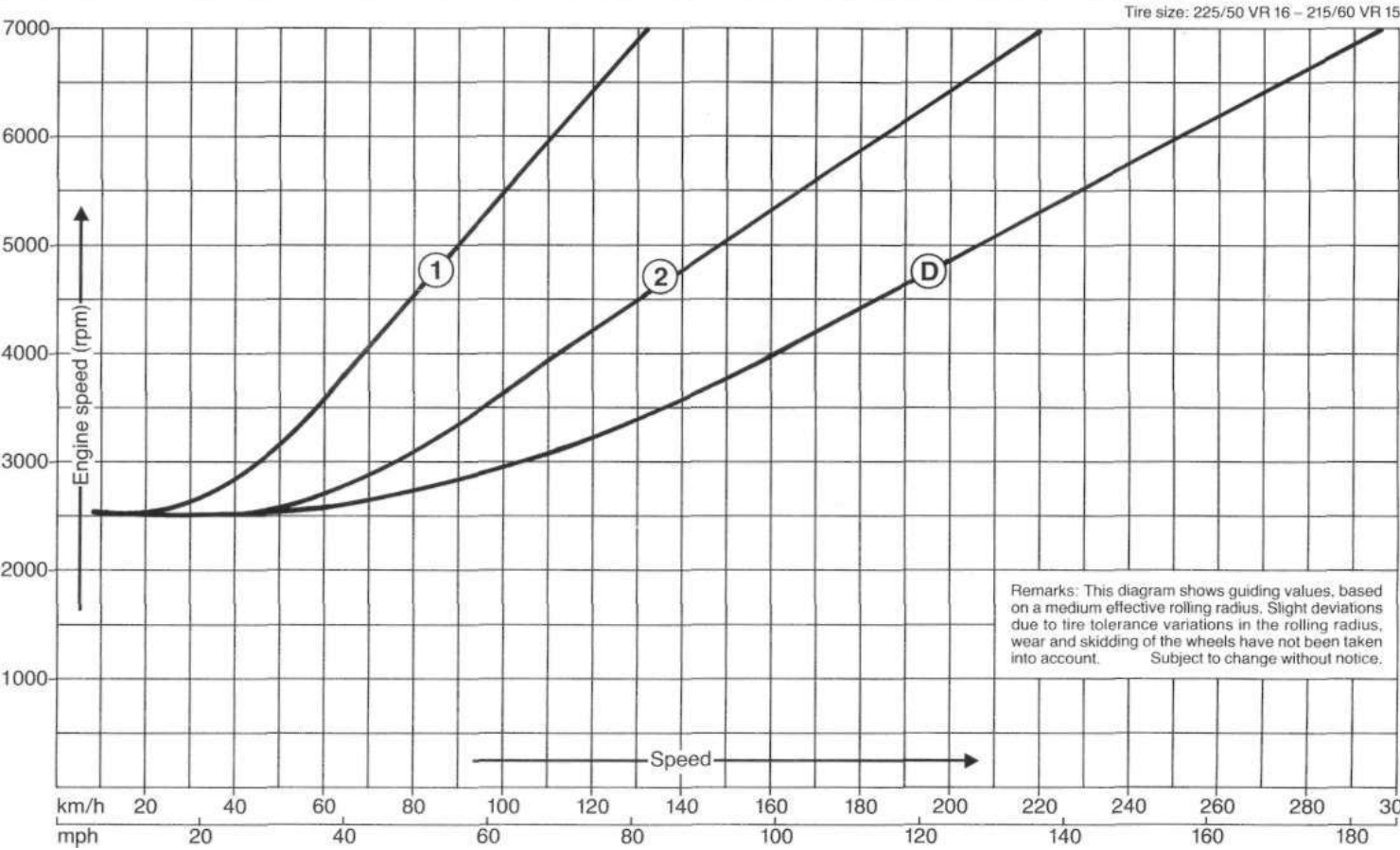
Tire size: 225/50 VR 16 – 215/60 VR 15



Transmission Diagram

Automatic

928



Gas Station Information

Starting

Manual transmission: Only start in Neutral.
Automatic transmission: Start in Neutral or Park.

Starting engine

Just turn ignition key. Do not depress accelerator pedal when starting. This applies to warm or cold engine.

Emergency starting

Car with automatic transmission cannot be started by pushing or towing.
See "Emergency starting with jumper cables".

Fuses and relays

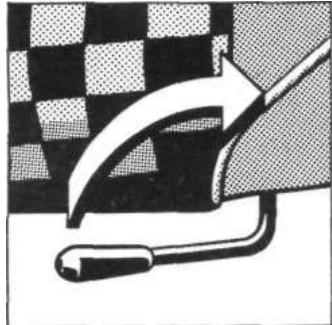
In footwell on passenger side.

Fuel recommendation

91 RON (87 CLC on U.S. fuel pumps) minimum.

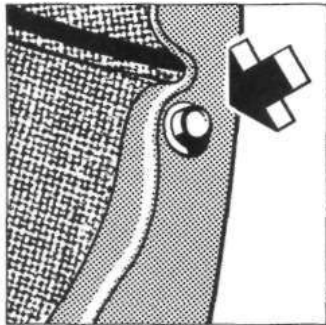
UNLEADED FUEL ONLY.

Fuel tank capacity: 23 U.S. gals, or 86 liters.



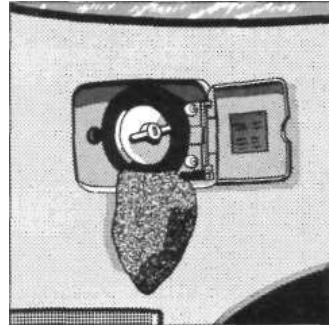
Seat adjustment

Pull lever in front of seat.



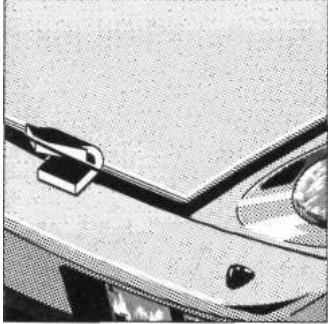
Backrest

Press button on side of seat-back.



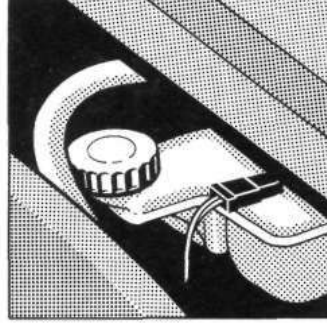
Fuel cap

Located in the right rear panel.
To close, twist cap to stop.



Engine hood release

Pull lever on left underneath dashboard. Pull safety hook under hood. Lift engine hood.



Brake fluid reservoir

Level should be between MIN and MAX marks.

Only use new, unused brake fluid according to SAE recommendation J 1703, DOT 3 or DOT 4 and conforming to Motor Vehicle Safety Standard 116.



Engine oil dipstick

Check oil level a few minutes after engine has stopped. Level should be between upper and lower marks on dipstick. Difference between marks is approx. 1.6 U.S. qt. or 1.5 liter.

Battery

Underneath spare tire in luggage compartment. Check each cell. Top up with distilled water. Never disconnect battery while engine is running: this will destroy the alternator. Before connecting quick-charger, battery must be disconnected.

Do not use silicone base brake fluid (DOT 5). Even the smallest traces may cause severe corrosion in the brake system.

Engine oil

Use only quality oil labeled "**API Service SF or SE**". Details under "Engine Oils". Without filter change 7.93 U.S. qts. or 7.5 liters; with filter change 8.45 U.S. qts. or 8 liters.

Check oil level as prescribed.

Manual transmission

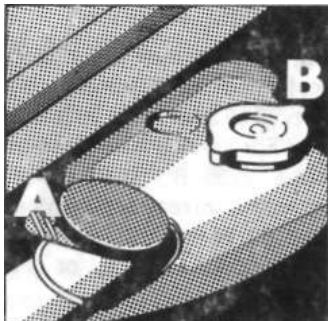
For manual transmission (also for limited slip differential) use hypoid oil SAE 75 W-90 labeled "For service API/GL 5 or Mil-L 2105 B". If 75 W-90 hypoid is not readily available, use 80 W-90. Total quantity approx. 4 U.S. qts. or 3.8 liters.

Automatic transmission

ATF lubricates torque converter and transmission. Check ATF level visually through transparent reservoir at rear end of transmission housing when ATF is warm, with engine idling, selector lever in Neutral and car on level ground.

Should level be below MIN or above MAX mark, do not just add or drain ATF. Have a Porsche dealer correct the cause promptly.

For differential use oils API/GL 5 (or Mil-L 2105 B), viscosity SAE 90.



Windshield washer fluid reservoir (A)

8.5 U.S. qts. or 8 liters.

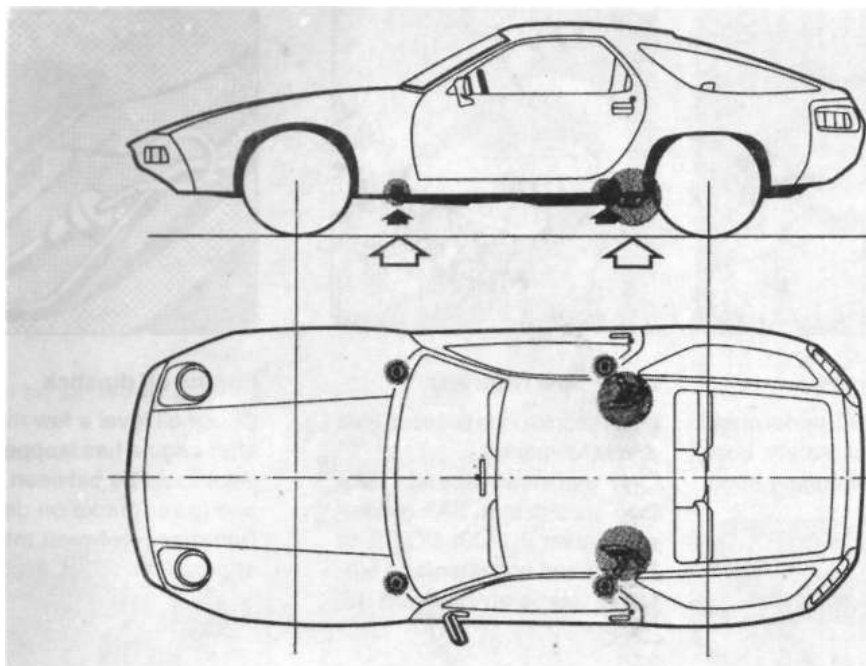
Coolant reservoir (B)

Anti-freeze must remain in cooling system all year round.

Coolant level should be up to filling mark when engine is cold.

Always add anti-freeze and water in ratio specified under "Filling Capacities".

Use only additives recommended for aluminium engines and radiators. See "Cooling System".



Jack support points

Black arrows: Jackports for car jack

White arrows: Lifting points for workshop hoist or floor jack

Tire pressure, front and rear

36 psi or 2.5 bar for summer and winter tires.

32 psi or 2.2 bar for collapsible spare tire.

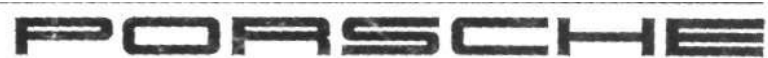
Spare tire, jack

Underneath luggage compartment.

Tool kit

Fitted into rear cross wall.

Never lift car by bumpers.

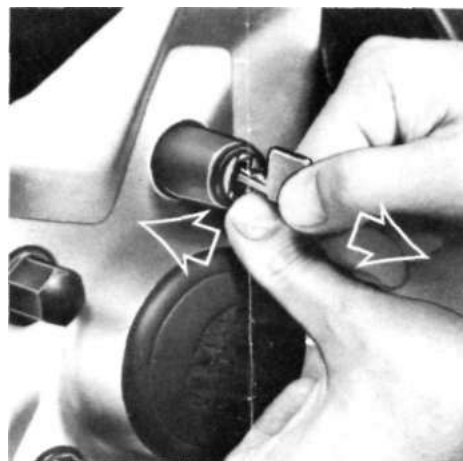


Anlage zur Betriebsanleitung Modell 1982
Supplement to Driver's Manual 1982 model
Annexe aux instructions de service, modele 1982
Alfegato alle istruzioni di servizio, modello 1982
Anexo a las instrucciones de servicio del modelo de 1982

Abschließbare Radmuttern für 5-Loch Felgen

Die Räder Ihres Fahrzeuges können durch ein Radmutter-Schloß gegen Diebstahl gesichert werden. Das Radmutter-Schloß besteht aus einer Radmutter und einer aufsteckbaren Hülse mit Steckschloß. Die Schließung ist bei allen 4 Radschließern gleich.

Zur Demontage des Radmutter-Schlusses die Kunststoff-Abdeckkappe abnehmen, den Schlüssel bis zum Anschlag in das Schloß einführen, um ca. 90° nach rechts oder links



drehen und die Hülse mit dem Schlüssel abziehen.

Zur Montage des Radmutter-Schlusses den Schlüssel bis zum Anschlag in das Schloß einführen und die Hülse auf die Radmutter schieben.

Vor Abziehen des Schlüssels kontrollieren, ob die Hülse am Bund der Radmutter ansteht. **Beim Abziehen des Schlüssels muß die Hülse gegen die Radmutter gedrückt werden.** Kunststoff-Abdeckkappe aufstecken.

Nachträgliches Auswuchten der Räder ist im Regelfall nicht erforderlich.

Lock-up wheel nuts for 5-hole rims

The wheels of your vehicle can be made theft-proof by means of a wheel nut lock. The wheel nut lock consists of a wheel nut and a plug-on sleeve with lock. The same lock is used on all 4 wheels.

To remove the wheel nut lock, take off the plastic cap, insert the key as far as it will go into the lock, turn approx. 90° to left or right and remove the sleeve with the key.

To fit the wheel nut lock, insert the key as far as it will go into the lock and slip the sleeve onto the wheel nut.

Before removing the key check whether the sleeve is up against the shoulder of the wheel nut.

When removing the key press the sleeve against the wheel nut. Fit the plastic cap.

It is not usually necessary to re-balance the wheels.

Ecrous de roue antivol pour jantes à cinq trous

Les roues de votre voiture peuvent être protégées contre le vol grâce à une serrure antivol d'écrous de roue. Celle-ci se compose d'un écrou de roue et d'un fourreau amovible à serrure enfichable. La fermeture est identique pour les 4 serrures d'écrous de roue.

Pour le démontage de la serrure d'écrous de roue, déposer le cache en plastique, introduire la cle dans la serrure jusqu'en butée, la tourner d'environ 90° vers la droite ou vers la gauche et retirer le fourreau avec la cle.

Pour le montage de la serrure d'écrous de roue, introduire la cle dans la serrure jusqu'en butée et engager le fourreau sur l'écrou de roue.

Avant de retirer la cle, contrôler si le fourreau est bien en appui contre l'épaulement de l'écrou de roue.

En retirant la cle, le fourreau doit être pressé contre l'écrou de roue. Emboîter le cache en plastique.

En règle générale, un rééquilibrage des roues n'est pas nécessaire.

Dado fissaggio ruota dotato di serratura per cerchi a 5 fori

Le ruote della vostra vettura si possono assicurare contro il furto mediante una serratura sul dado. La serratura del dado fissaggio ruota consta di un dado e di una bussola innestabile con chiusura a chiave. La chiusura è la stessa per tutte e quattro le serrature della ruota.

Per lo smontaggio della serratura del dado fissaggio ruota togliere la calotta parapolvere in plastica, introdurre la chiave nella serratura fino al punto di arresto, girare verso destra o sinistra di circa 90° e staccare il manicotto con la chiave.

Per il montaggio della serratura del dado fissaggio ruota, introdurre la chiave nella serratura fino al punto di arresto e far scorrere la bussola sul dado di fissaggio ruota.

Prima di togliere la chiave controllare se la bussola sporge sul collare del dado stesso.

Togliendo la chiave, la bussola deve essere spinta contro il dado di fissaggio. Rimontare la calotta parapolvere in plastica.

In linea di massima non si rende necessario effettuare a posteriori un'equilibratura delle ruote.

Tuercas con cerradura para Maritas de 5 orificios

Las ruedas de su vehículo pueden asegurarse contra robo mediante una cerradura para tuercas. La cerradura de tuerca de rueda consta de una tuerca para rueda y de un casquillo encajable con cerradura insertable. El cierre es idéntico en las cuatro cerraduras de rueda.

Para desmontar la cerradura de tuerca de rueda, retire la caperuza de plástico, introduzca la llave hasta el tope en la cerradura, gire aprox. 90° a derecha o izquierda y extraiga el casquillo con la llave.

Para montar la cerradura de tuerca de rueda introduzca la llave hasta el tope en la cerradura y cale el casquillo sobre la tuerca de la rueda.

Antes de sacar la llave controle si el casquillo está acoplado al reborde de la tuerca.

Al sacar la llave, debe oprimirse el casquillo contra la tuerca de la rueda. Colocar la caperuza de plástico.

Por lo regular no es necesario equilibrar las ruedas posteriormente.