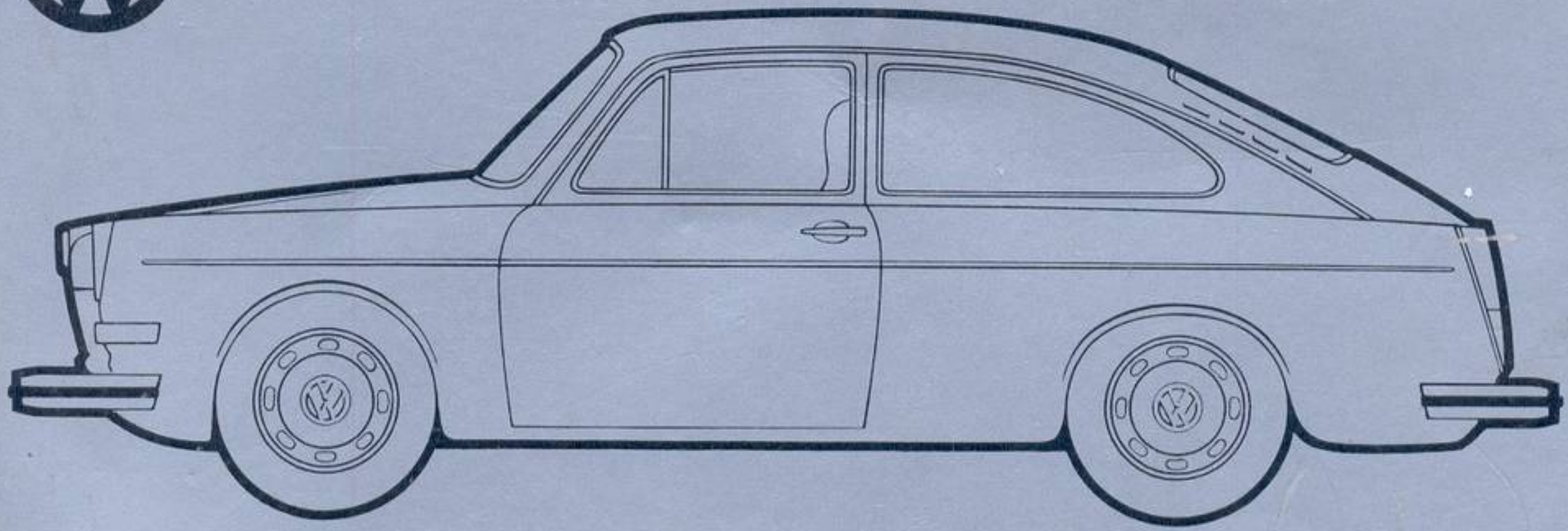
Volkswagen Owner's Manual: Operation and Maintenance 1973 Models

Type 3



Volkswagen Owner's Manual: Operation and Maintenance

1973 Models

Volkswagen
Type 3 Basic Compact

Volkswagen
Type 3

Volkswagen
Squareback Sedan

Volkswagenwerk Aktiengesellschaft

3.02.563.005.23 · Printed in Germany · 3. 73

The VOLKSWAGEN OWNER'S MANUAL consists of two major parts: operation description and Diagnosis & Maintenance record.

The first part acquaints you with your Volkswagen Warranty and the operation of your car. It also gives you information on fuel, oil, lubrication, plus technical data.

The second part deals with the maintenance of your Volkswagen. It explains what the VOLKSWAGEN DIAGNOSIS and MAINTENANCE is all about, and how to keep your Volkswagen in top driving condition. Check the mileage chart at the end of this manual. It will tell you when to bring your car to your Authorized Volkswagen Dealer for periodic oil change, diagnosis and maintenance services.

The first maintenance service at 600 miles is free of charge (you only pay for engine and transmission oil).

You are further entitled to free diagnosis services at 6,000, 12,000, 18,000 and 24,000 miles.

Always have your Volkswagen Owner's Manual with you when you take your car to an Authorized Volkswagen Dealer for service . . . it provides your Service Adviser with the information he needs, and enables him to make the necessary entries for you.

Please read this manual before you drive your new Volkswagen. Acquaint yourself with its features, and know how to operate it more safely . . . because the more you know about it, the more you will enjoy driving your Volkswagen.

Pictures and text in this manual are based on the 1973 Volkswagen Type 3 with Manual Transmission. Where the controls, equipment and technical data of the VW Type 3 Basic Compact, the VW Squareback Sedan and the Automatic Transmission differ considerably, we will point this out in the text.

Various items shown or described in the manual may be options on certain models. Check with your Authorized VW Dealer on available options or accessories.

It has always been Volkswagen's policy to continuously make technical improvements; therefore, the right is reserved to make changes at any time during the model year without notice.

Contents

Volkswagen offers a quality product. Maintain this quality by having your Volkswagen serviced regularly. A service schedule that we recommend is explained in the section Volkswagen Diagnosis and Maintenance.

Should you have occasion to make use of your Volkswagen Warranty, it is always helpful to have the related service receipts handy.

WARRANTY VOUCHER

for the new VW automobile

Type: 3611

Chassis No. 363 210 5270

Engine No. _____

In accordance with the **terms of warranty** printed overleaf.

425 415
COURTESY
VOLKSWAGEN, INC.
TULSA, OKLA.
(Stamp of Selling VW Dealer)

The warranty commences at the date the VW automobile is delivered to the original purchaser,

viz. on 8/73
(To be filled in by selling VW Dealer)

and covers a period of 24 months or the period before the vehicle has been driven 24,000 miles, whichever event shall first occur. Should any warranty claim arise, you are requested to present this voucher to your VW Dealer.

Volkswagenwerk of America, Inc.

Air Conditioner Installation

425 415
COURTESY
VOLKSWAGEN, INC.
TULSA, OKLA.
(Stamp of Installing VW Dealer)

8/17/73
Date

00423
At Mileage

Make, Model

Auxiliary Heater Installation

(Stamp of Installing VW Dealer)

Date

At Mileage

Make, Model

Speedometer Replacement

(Stamp of Replacing VW Dealer)

Date

At Mileage

Make, Model

Except for the following warranty and the Emission Control System warranty by Volkswagen of America, Inc., no express warranties as to Volkswagen vehicles sold in the United States are made either by Volkswagen of America, Inc. ("VWoA"), or by the manufacturer, the distributor or the selling dealer.

Warranty for New Volkswagen Vehicles

This warranty is issued by Volkswagen of America, Inc. ("VWoA"), the authorized United States importer of Volkswagen vehicles.

Free repair or replacement in the United States and Canada of defective parts for 24 months or 24,000 miles

1. VWoA warrants that every Volkswagen vehicle imported by VWoA and sold as a new vehicle to a retail customer by an authorized United States Volkswagen dealer will be free from defects in material and workmanship under normal use and service for 24 months after the date of delivery of the vehicle to the original retail customer or until the vehicle has been driven 24,000 miles, whichever comes first. This warranty is limited, however, to the following: If any part of the vehicle becomes defective under normal use and service and the vehicle is brought during this period to the workshop of any Authorized Volkswagen Dealer in the continental United States, Hawaii or Canada, the dealer will, without charge, either repair the defective part or replace it with a new or factory reconditioned part.

Maintenance required to keep warranty in effect

2. In order to keep this warranty in effect, the owner must have the vehicle maintained and serviced as prescribed in the Volkswagen Maintenance Schedule.

Items not covered by warranty

3. VWoA's warranty does not cover: (i) Defects, damage or deterioration due to normal use, wear and tear or exposure; (ii) normal maintenance services, such as fuel system cleaning and wheel, brake or clutch adjustments; (iii) the replacement of service items, as for instance, spark plugs, ignition points, wiper blades or brake linings; (iv) deterioration of upholstery, soft trim and appearance items; (v) damage or defects due to misuse, alteration, negligence or accident; (vi) damage or defects due to the repair of the vehicle by someone other than an Authorized Volkswagen Dealer or the installation of parts other than genuine Volkswagen parts; (vii) damage or defects due to the use of the vehicle in competitive events, including rallies and races; and (viii) loss of time, inconvenience, loss of use of the vehicle or other consequential damage.

Warranty outside the United States and Canada

4. If the vehicle is brought to an authorized Volkswagen workshop outside the continental United States, Hawaii or Canada, VWoA's warranty will not be applicable and defective parts will be repaired or replaced free of charge with new or factory reconditioned parts only within the terms and limitations of the warranty for new Volkswagen vehicles in effect in the country where such authorized Volkswagen workshop is located.

No other warranties made

5. This warranty and the Emission Control System warranty for Volkswagen vehicles are in lieu of all other express warranties of VWoA, the manufacturer, the distributor and the selling dealer. Neither VWoA nor the manufacturer assumes, or authorizes any person to assume, on its behalf, any other obligation or liability.

Let us explain the warranty...

Volkswagen of America, Inc. is proud of the quality of the automobiles it imports. It warrants new vehicles for a period of 2 years or 24,000 miles from the date of purchase, whichever comes first. In general, the complete vehicle including battery and tires is covered under the provisions of the Volkswagen New Vehicle Warranty. It will be honored by any Authorized Volkswagen Dealer in the continental United States, Hawaii and Canada.

This warranty is transferable if the ownership of the vehicle changes within the above period.

In order to keep the warranty in force, you, as the owner of the vehicle, have certain responsibilities. It is important that the vehicle be maintained properly. To facilitate record keeping, this booklet provides space for listing diagnosis, maintenance, and oil change services as they are performed.

Diagnosis and maintenance services should be performed by Authorized Volkswagen Dealers. They have Volkswagen-trained mechanics and special tools to provide fast, efficient service in accordance with Volkswagen quality standards.

The terms of your warranty require you to keep a maintenance record of your vehicle. Provided that maintenance or oil change services were performed in accordance with Volkswagen specifications, dated bills of other than Authorized Volkswagen Dealers will be accepted as proof that these services were performed when required.

Not all repairs, adjustments and replacements, however, are the result of defects in material or workmanship. There are other circumstances beyond the control of the manufacturer that might make a workshop visit necessary. These depend mainly on where you drive and how you drive. They would include weather and atmospheric conditions, varying road surfaces, individual driving habits and vehicle usage.

For example, you are required to pay for the following:

Lubrication services.

Diagnosis and Maintenance services – expect those free of charge as specified in the Owner's Manual.

Wheel alignment and wheel balancing. The frequency of these services depends on driving conditions such as rapid starts and stops, tire skidding, hitting pot holes and curbs, etc.

Mechanical adjustments – including brakes, clutch, door locks – are required as a matter of normal operation of a motor vehicle. This protects you against early or expensive replacements.

Brake and clutch linings are directly affected by driving habits and use. The replacement of linings and the reconditioning of brake drums or brake discs should be performed whenever necessary.

Spark plugs and ignition points are subject to wear. Periodic replacements ensure you of maximum engine performance and gasoline economy.

Wiper blades will have a varied life expectancy, depending on climatic conditions and extent of use. You are the best judge of when they should be replaced.

Light bulbs and fuses are service items.

Paint, chrome, trim and other items are affected by normal wear and exposure. Proper care of these items can add to their appearance and durability. (Imperfections are normally apparent during New Vehicle Delivery Inspection. For your protection, please report any imperfection to your dealer immediately.)

Tires and battery are subject to wear. If there is a manufacturer's defect, you pay only for the amount of use you obtained. An adjustment for tires is based on the remaining tread depth. Battery adjustment is according to time used, based on 24 months of service. This is known as the pro-rata method of adjustment.

Volkswagen parts, accessories and exchange units are identified by these trademarks.

All meet the same exacting quality control standards as the original equipment on the car, and comply with all applicable Government safety regulations.

They are guaranteed to be free from defects in material or workmanship for a period of 6 months or 6,000 miles, whichever comes first.

All Volkswagen Parts and accessories are available at your Authorized Volkswagen Dealer.

Also, ask him about rebuilt parts under the Volkswagen Exchange Service . . . they cost less than new parts but carry the same warranty.

Dear VW Owner:

A lot has gone into the manufacture of your Volkswagen. Including advanced engineering techniques, rigid quality control and demanding inspections. The engineering and safety features that have gone into your VW will be enhanced by . . . you,
the safe driver

- who knows his vehicle and all the controls,
- who maintains his vehicle properly,
- who uses his driving skills wisely.

Because safe driving is important to you, we urge you to read this manual carefully, to maintain your VW properly and to follow the check list shown on this page whenever you use your VW.

Before getting behind the wheel:

1 – Make sure that the tires are inflated correctly.
2 – Watch the tread depth indicator on the tires. Look for bruises and wear.
3 – See that all windows are clean and unobstructed.
4 – Check that headlight and tail light lenses are clean.
5 – Check that all lights are functioning properly.
6 – Check turn signal lamps and indicator lights (ignition).

In the driver's seat:

1 – Position seat properly for easy reach of controls.
2 – Adjust inside and outside mirrors for unobstructed rear view.
3 – Fasten safety belts.
4 – Check brake warning light when starting the engine.
5 – Check brake operation.
6 – Make sure that all doors are closed securely and locked.

And when you are 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 – Follow at a safe distance. A good rule of thumb is to allow a minimum of one car length for each 10 mph of speed.
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.
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.

TYPE PASSENGER CAR
MANUFACTURED BY VOLKSWAGENWERK AG (month/year)
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.
(chassis number)
GVWR LB. 0000
GAWR LB. FRONT 0000/REAR 0000

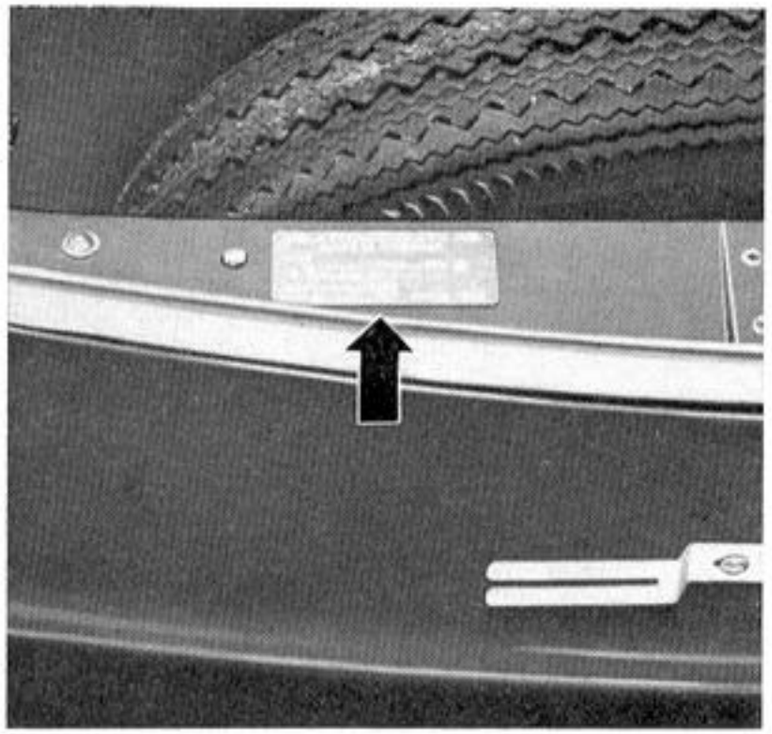
This sticker is your assurance that your 1973 Volkswagen complies with all U.S. Federal Motor Vehicle Safety Standards which were in effect at the time the vehicle was manufactured. You can find this sticker on the left doorjamb.

The sticker also shows the month and year of production and the chassis number of your car (perforation) as well as the **G**ross **V**ehicle **W**eight **R**ating and the **G**ross **A**xle **W**eight **R**ating.

Vehicle Identification

The identification plate

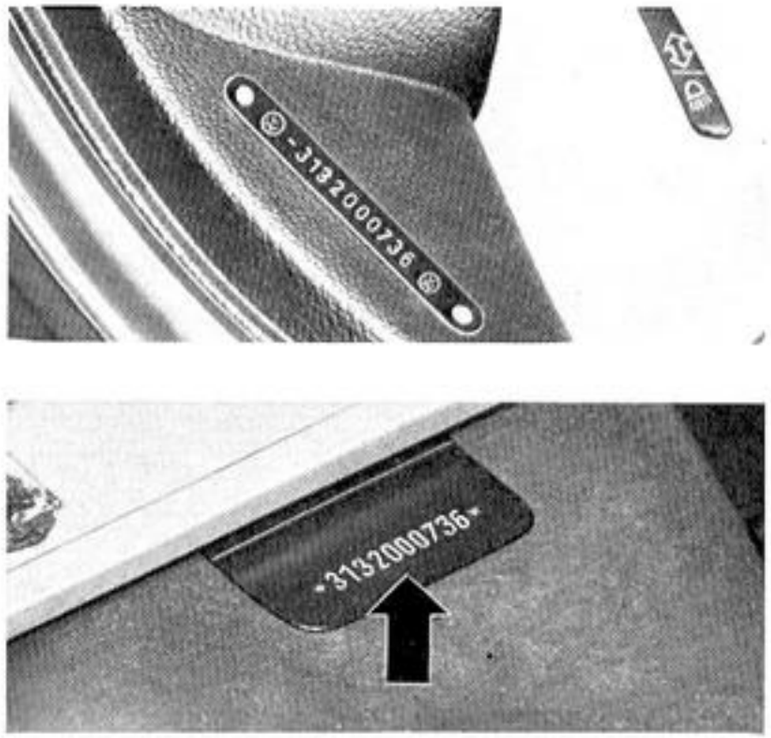
is the "birth certificate" of your Volkswagen. It is located under the front hood beside the hood lock.



The plate shows such information as manufacturer's name, place of origin, model, weights and "Fahrgest.-Nr.", which is the chassis number of your car.

The chassis number

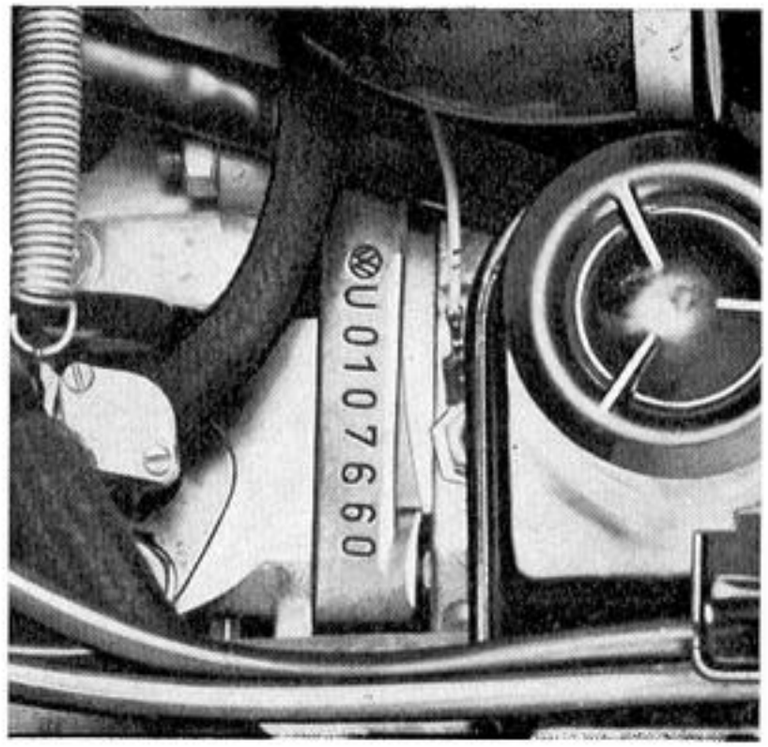
is also located on the instrument panel on the driver's side so that it is visible from the outside through the windshield. This is for your protection .... to aid in the apprehension of car thieves and the recovery of stolen vehicles.



The chassis number is also stamped on the frame tunnel under the rear seat.

The engine number

is stamped on the crankcase housing between the ignition distributor and the engine oil breather.



Keys

Your Volkswagen comes with two sets of keys:

The key with the elongated head is for the doors and the ignition/steering lock. On the VW Squareback Sedan, it is also for the rear luggage compartment lid.

The key with the round head is for the glove compartment only. The glove compartment of the Type 3 Basic Compact does not have a lock.

Do not invite car theft

by leaving your car unattended with the key in the ignition lock. Take the key with you and lock the doors.

A buzzer will remind you when you open the driver's door and the key is still in the ignition lock.

It is a good idea to keep a record of your key numbers in your wallet together with your license. If you should lose a key, your Authorized VW Dealer will thus be able to quickly secure a replacement key for you.

Doors

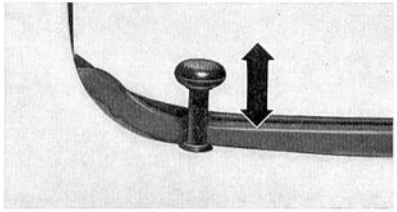
Always drive with locked doors to prevent inadvertent opening of a door from the inside, especially with smaller children in the car.

To lock and unlock doors from the outside

You can lock and unlock your car with a key, of course.

But you can also lock it without a key.

First push in the inside locking knob on the upper door panel. Then depress the plunger in the outside door handle as you close the door.

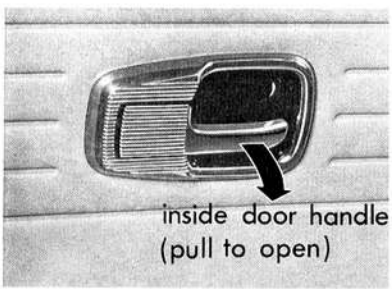


If the door, with the locking knob depressed, closes by itself, the locking device will disengage automatically. We provided this additional feature so you won't be locked out if the door should slam shut while the key is still inside the car.

To lock and unlock doors from the inside –

depress or pull out the locking knob.

Since your Volkswagen is almost air tight it will be easier to close the door if you open a window slightly.



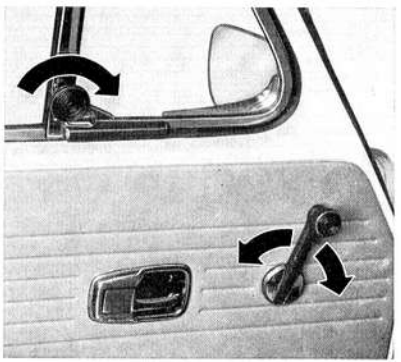
Windows

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

You can lower and raise the windows in the front doors by means of winders. We cushioned the knobs for your safety.

To open the vent window, turn knob into driving direction, move locking lever forward and push out window.

To make closing the vent window easier, we suggest you first push on the forward part of the vent window so that it fits snugly against the weather-stripping. Then grasp the knob, and move the lever back to lock it in place.



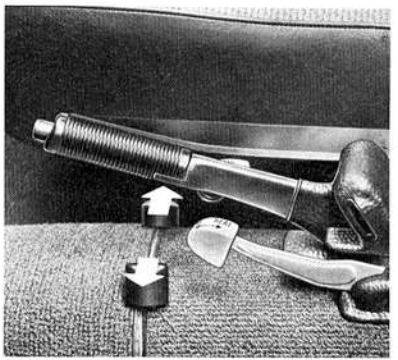
Seats

We recommend you do not adjust the driver's seat while driving. Your seat may suddenly jerk forward or backward, which could result in loss of control.

Your Volkswagen has adjustable front seats with built-in headrests.

Seat adjustment

To move the seat forward and backward, pull the lever on the inboard side of the seat. 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.



Safety belts

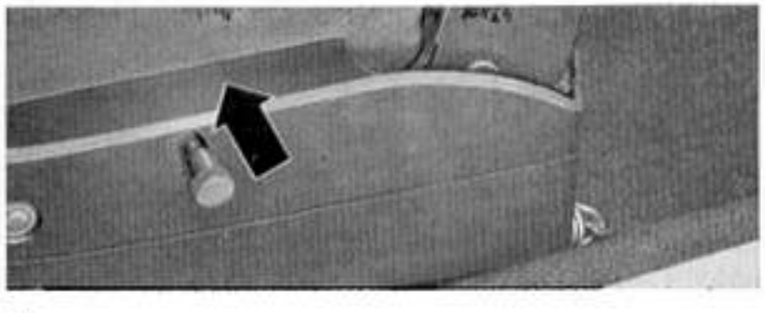
Backrest adjustment

To adjust the backrest, lift the lever at the outboard side of the seat cushion as you exert slight body pressure in the direction desired. Let the lever go to lock the backrest in position.

We have installed a lock on the side of the backrest.

You can disengage this lock by pulling up the lever. Tilt the backrest forward and out of the way for easy access to the rear seat.

After tilting the backrest back in the VW Squareback, adjust it again to your most convenient position.



A safety belt is provided for each seating position in your Volkswagen.

For your protection, **fasten your safety belt before driving off and wear it at all times while the car is in motion.**

Safety belts that were subjected to excessive stretch forces during an accident should be replaced.

An audio-visual warning system for the front seats will remind the driver and front passenger to put on their safety belts. The buzzer will sound and the FASTEN SEAT BELTS sign on the dashboard will light up as soon as a gear is engaged. The warning system will also be activated if the passenger in the front passenger seat is not wearing a safety belt.

Make sure the belt of the unoccupied passenger seat is fully wound up on its retractor so that the belt tongue is in its stowed position behind the assist strap on the doorpost. This reduces the possibility of its becoming a striking object in case of a sudden stop.

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

Safety belts for front seats

The front seats are equipped with lap/shoulder belts with an automatic locking retractor. The belt adjusts automatically to your size and movements as long as the pull on the belt is slow. **A sudden motion locks the belt.** The automatic locking mechanism in the retractor will also lock the belt when driving down a steep hill or in a curve, and when the car's speed is reduced.

A shoulder belt should not be worn by a person less than 4′7″ in height, because it would not be in its most protective position, and therefore may increase the possibility of injury in a collision.

To fasten your lap/shoulder belt, grasp the belt tongue and pull the belt in a continuous slow motion across your chest and lap. Insert the belt tongue into the corresponding anchor housing on the center tunnel and push down until it is securely locked with an audible click. **Belts should not be worn twisted.**

To unfasten the belt, push in the release marked PRESS on the corresponding anchor housing. The belt tongue will spring out of the anchor housing.

To store the lap/shoulder belt, guide the belt tongue to its stowed position behind the assist strap on the door post. For the passenger's comfort, the retracting forces of the belt are relatively low and winding up of the belt may be slow. Make sure the belt is fully wound up on the retractor.

Safety belts for rear seats

The rear seats are equipped with lap belts with an automatic locking retractor. The belt adjusts to your size and movements as long as the pull on the belt is slow. **A sudden motion locks the belt.**

To fasten your lap belt, grasp the belt tongue on the outboard side of the seat, and pull it across your lap and insert the tongue in the inboard buckle. Push in until you hear a click to be sure the belt is locked securely.

To unfasten the belt, push in the release marked PRESS in the buckle.

To store the belt, guide the belt tongue to the retractor. Make sure the belt is fully wound up on the retractor. Belt tongue and buckle should always be kept on top of the seat for ready use. Do not permit them to get caught under the seat.

Belt care

Keep safety belts clean. If cleaning is necessary, wash them with a mild soap solution, without removing them from the car.

Do not allow the belts to retract until they are completely dry.

Do not bleach or dye safety belts. Do not use any other cleaning agents. They may weaken the webbing.

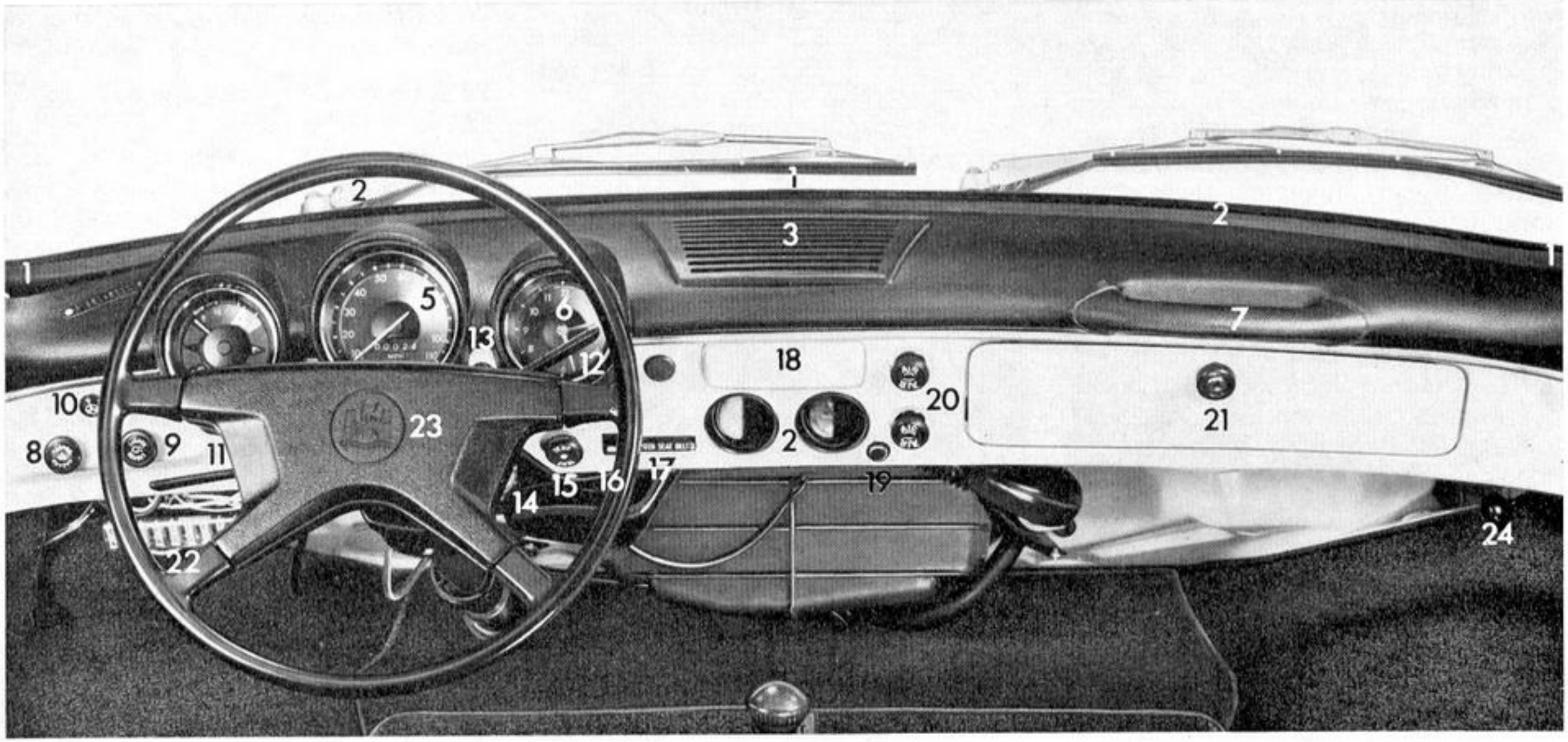
Check buckles and retractors for proper function. Check belt webbing and bindings for damage.

Instrument panel

The padded instrument panel and steering wheel are attractively styled for maximum safety and driving ease.

The various controls, gauges and warning lights are conveniently arranged and marked with readily recognizable symbols.

A padded assist handle above the glove compartment lid is provided for easier passenger entrance and exit.



Page

1 – Vents for heating and defrosting (there are 3) 24
2 – Vents for fresh air ventilation (there are 2 on the windshield and 2 on the dashboard) 25
3 – Loudspeaker grille
4 – Fuel gauge with warning lights 12
5 – Speedometer dial 12
6 – Clock (except Type 3 Basic Compact) 12
7 – Assist handle
8 – Emergency flasher switch 10
9 – Headlight switch 11
10 – Knob for fresh air fan 25
11 – Turn signal and headlight dimmer switch lever 13
12 – Windshield wiper/washer lever 13
13 – Brake warning light 11
14 – Ignition/steering lock 10
15 – Control knob for Auxiliary Heater (optional equipment) 28
16 – Switch for rear window defogger (except Type 3 Basic Compact) 14
17 – Safety belt warning light 6
18 – Ashtray 15
19 – Spot light to illuminate the heater levers between the front seats 24
20 – Fresh air control knobs (there are 2) 25
21 – Glove compartment, lockable (except Type 3 Basic Compact) 15
22 – Fuse box 38
23 – Horn
24 – Release for fuel tank flap 41

Ignition/steering lock

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

Fasten safety belts.

Make sure the gearshift lever is in Neutral before turning the ignition key. The Automatic Transmission can be started in Neutral or Park (see also page 19).

1 – Ignition off/steering locked.
Insert the key. If it is difficult to turn the key, gently move the steering wheel until the key turns freely.

2 – Ignition on/steering free (for towing).

3 – Starter engages.
The key returns to position 2 as soon as it is released. Never operate the starter longer than a few seconds. If the engine should fail to start, turn the key back to position 1, and repeat the starting procedure. More on starting on page 20.

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.

To remove the key and to lock the steering, turn the key back to position 1 and pull it out. Turn the steering wheel until it locks.

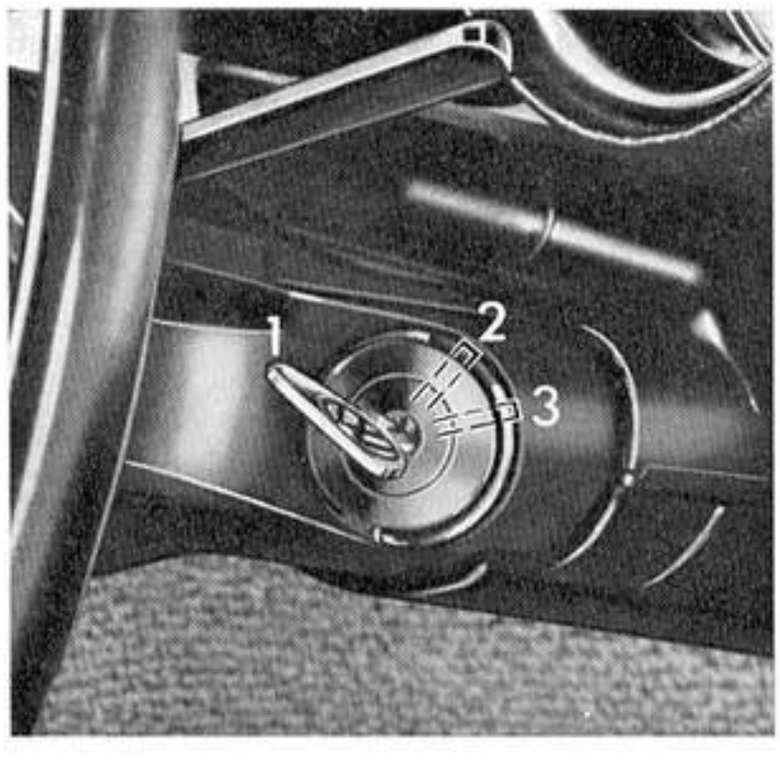
If you leave the key in the ignition/steering lock, the buzzer will sound when the driver's door is opened. This is your reminder to remove the key.

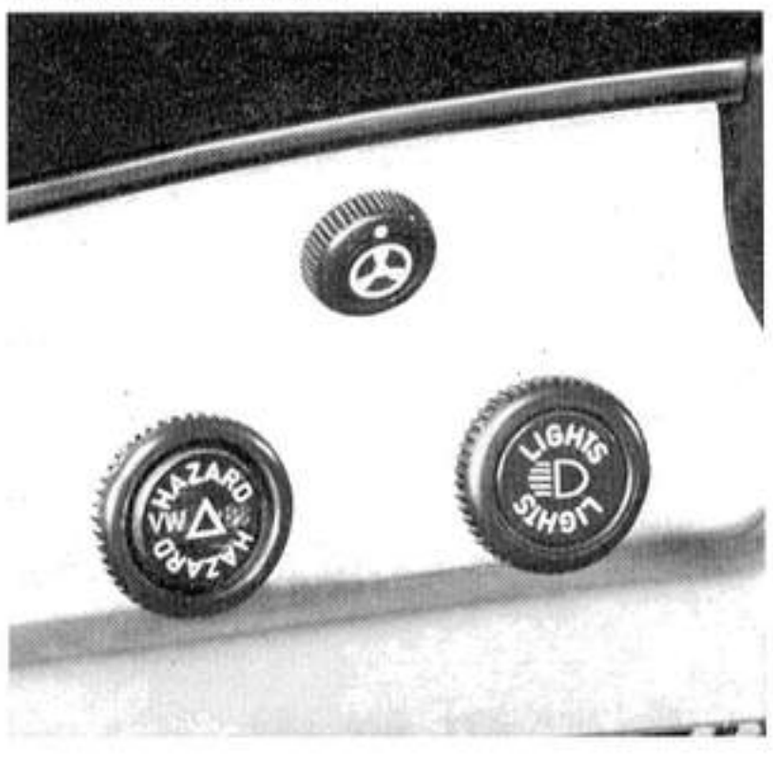
Emergency flasher switch

If your car is disabled or parked under emergency conditions, pull the switch to make all four turn signals flash simultaneously. The warning light in the switch knob flashes, too.

When the headlight switch is operated, the emergency flasher knob glows with reduced brightness for easy recognition in the dark. When the emergency flasher is not in operation, the brightness of the light can be regulated together with the instrument panel lights (see instrument illumination). The light has full brightness when the emergency flasher system is in operation.

Move the car well off the road when stalled or stopped for repairs. Do not remain in the car.





Headlight switch

Pull the knob to the first stop to turn on the parking and side marker, license plate, tail and instrument lights, the emergency flasher light, spot light for the heater levers and the light in the TEMP-switch for the optional Auxiliary Heater . . . and, on cars with Automatic Transmission, the light for the selector lever console.

The green indicator light – b – in the fuel gauge dial lights up when the parking lights are on. It will go out as soon as you pull the knob to the second stop to turn on the headlights. The headlights only work with the ignition on.

To preserve the battery, the headlights will go out automatically when the ignition is turned off or when the engine is started.

Instrument illumination

Adjust the brightness of the instrument lights and the heater lever spot light by turning the headlight switch knob.

Brake warning light (B)

Your Volkswagen is equipped with a dual circuit brake system. Both circuits, one for the front brakes and one for the rear brakes, can function independently.

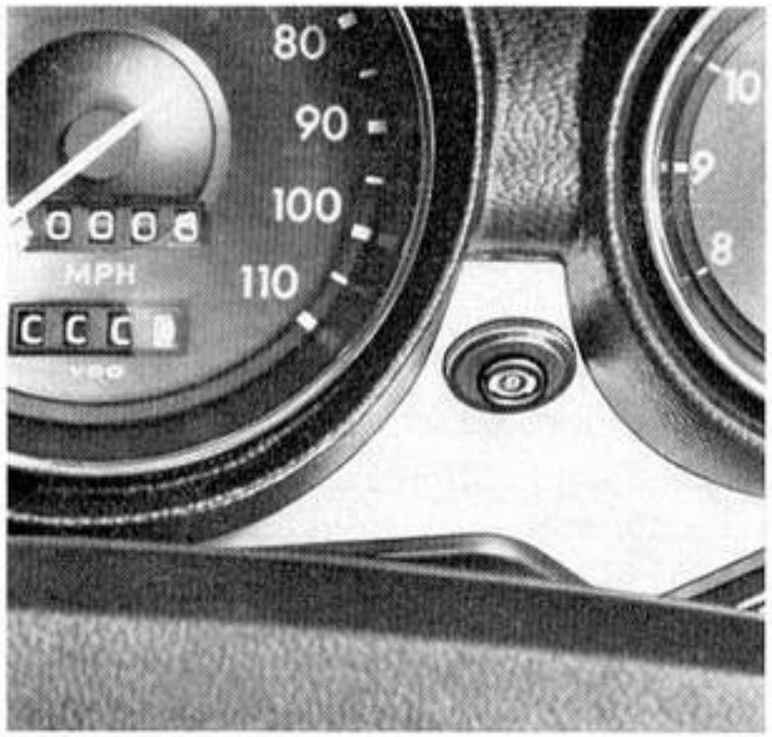
If the brake warning light lights up when you apply the brakes while driving, one of the two brake circuits may have failed.

The other brake circuit will still operate, but a longer distance and greater pedal pressure are required to bring the car to a halt.

Pull off the road and stop.

Try out the effectiveness of the brakes by carefully starting and stopping on the road shoulder.

If you judge that the brakes operate safely enough to take you to the nearest dealer, proceed cautiously and at low speed. If you do not feel it is safe to continue, have your car towed to the nearest dealer for repair.



Proper functioning of brake warning light

The brake warning light will light up when the ignition is turned on. It will go out after the engine has been started. This is your assurance that the brake warning light functions properly.

If the brake warning light does not light up when turning on the ignition, or if it does not go out after starting, there may be a defect in the electrical system. If this is the case, contact your Authorized VW Dealer.

Fuel gauge

It only indicates the fuel level when the ignition is turned on. When the needle is on "R", there is a reserve of about 1 gallon of fuel left in the tank . . . time to refuel at the next gas station.

The following indicator or warning lights are in the fuel gauge dial:

a – green ◁▷ turn signals
b – green ≡D parking light
c – blue ≡D high beam
d – red OIL oil pressure
e – red Ⓖ generator

The red warning lights for oil pressure and generator in the fuel gauge dial will light up when the ignition is turned on. They should go out after you have started the engine.

d – Oil pressure warning light OIL

Stop at once . . .
if the oil pressure warning light comes on while you are driving.

Turn the engine off!

Check the oil level to make sure you have enough oil. If the oil level is normal, do not drive on but contact your nearest Authorized VW Dealer.

An occasional flickering of the oil pressure warning light when the engine is idling after a long high-speed trip is no cause for concern if the light goes out upon acceleration.

e – Generator warning light Ⓖ

If this light comes on when you are driving, the generator has stopped charging. You can drive on. But try to get the vehicle to your dealer as soon as possible because the battery will soon run down.

Speedometer

The speedometer indicates vehicle speed. The 5-digit odometer records the miles driven. The 4-digit trip odometer (except Type 3 Basic Compact) can be reset to zero by turning the knob to the right to record a driven distance. The last digit in red indicates 1/10 of a mile.

Clock

(except Type 3 Basic Compact)

The clock is electric. To set the clock, depress the knob in the dial center and turn.

Turn signal/headlight dimmer switch lever and windshield wiper/ washer lever

There are two levers just behind the steering wheel:

The lever on the left side is for the turn signal/headlight dimmer switch.

The lever on the right side is for the windshield wiper/washer system.

The turn signals and the windshield wipers only work with the ignition on.

Turn signals ⇔

Lever up — right turn signal
Lever down — left turn signal

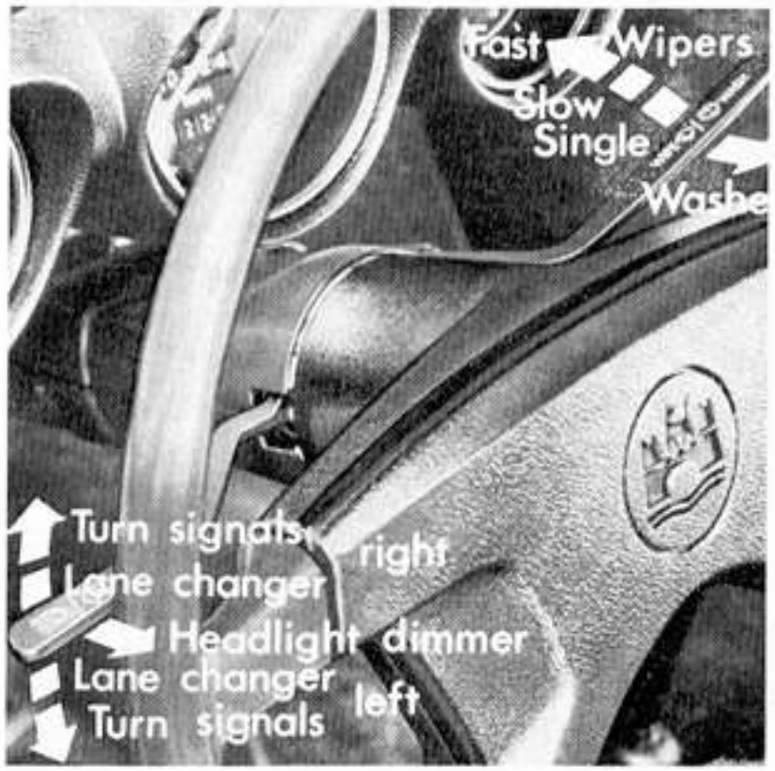
The green turn signal indicator lights come on in the fuel gauge dial when you operate the lever.

The turn signals are cancelled automatically when you have completed a turn (like driving around a corner), and the steering wheel returns to the straight-ahead position.

If a turn signal is defective, the control lights flash at about twice the normal frequency. Have your Authorized VW Dealer check and repair it for you.

Lane changer

To indicate your intention when changing lanes on expressways, slightly lift or depress the lever to an intermediate position. The lever will return to the OFF position when released.



Headlight dimmer

Dim the headlights by pulling the lever toward the steering wheel. The blue indicator light in the fuel gauge dial will light up when the high beams are on.

Windshield wipers WIPE

The windshield wiping system operates at two speeds: low and high.

Lifting lever to first stop — low speed
Lifting lever to second stop — high speed

If you just slightly lift the lever before reaching the first stop, the wipers will wipe as long as the lever is held in this position and come to a stop when released.

To give you full battery power while starting the engine, operating windshield wipers will stop automatically at this moment.

Windshield washer WASH

To spray washer fluid on the windshield, pull the lever toward the steering wheel. You can operate the washer from any selected wiping position.

Avoid running the wiper blades over a dry windshield . . . you may scratch the glass. Spray washer fluid on it first.

Rear window defogger

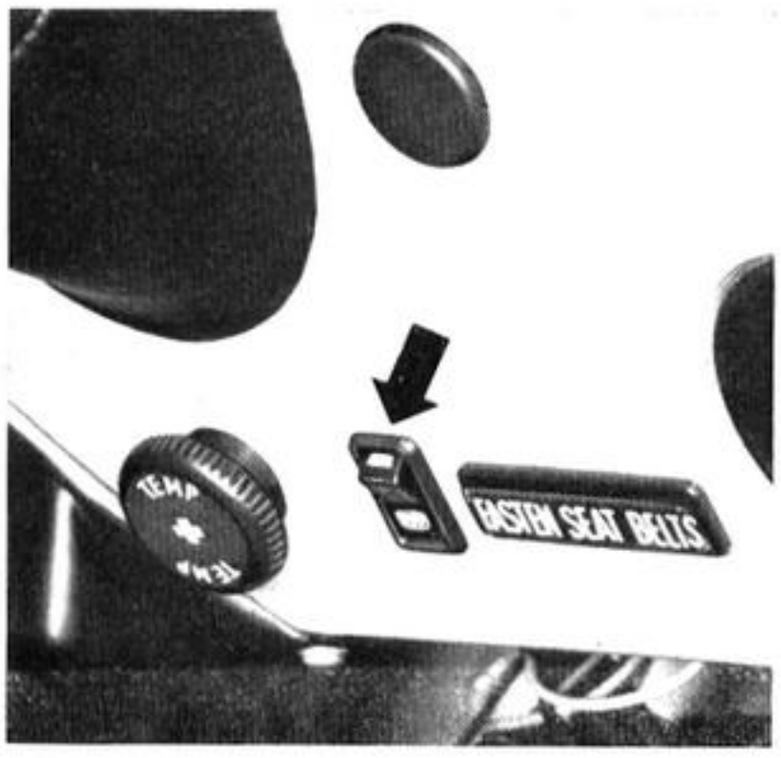
(except Type 3 Basic Compact)

The rear window defogger – together with the flow through ventilation – will help to keep the inside of the rear window clear of condensation and frost in the winter.

The rocker switch for the rear window defogger is located on the right side of the steering column. A red dot on the rocker switch will appear when the defogger is switched on.

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

The filler panel between the rear seat and the rear window should not be used for storage, even for small and light items. During sudden stops, these articles may cause injury when dislodged. Larger items may also reduce vision to the rear.



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.

Outside mirror

The outside mirror is hinged and folds flat against the car when struck from either direction.

Inside day-night mirror

(except Type 3 Basic Compact)

You can move the day-night mirror from clear daylight visibility to non-glare visibility at night by adjusting the lever upward or downward at the bottom of the mirror.

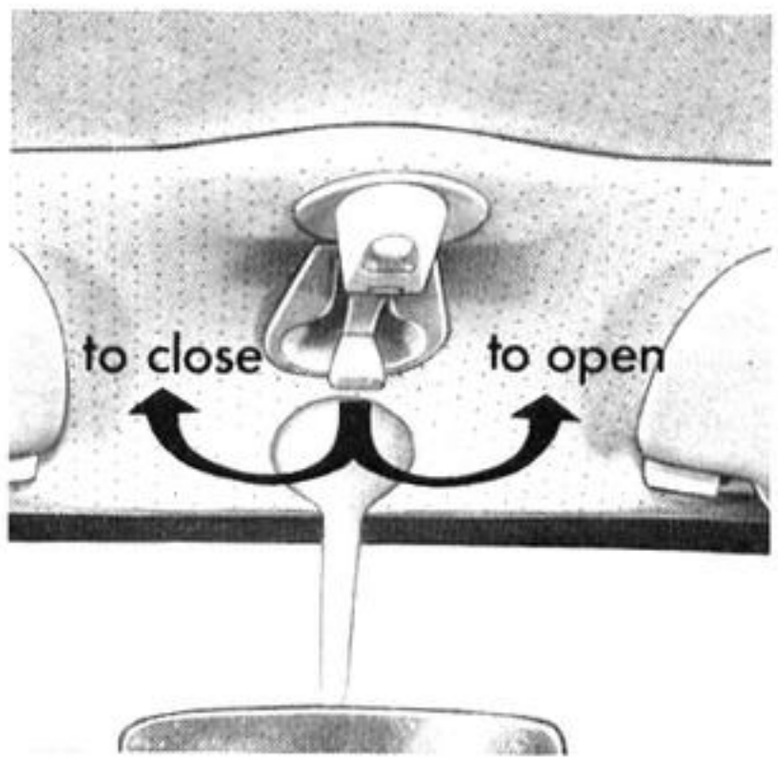
Sliding roof

(optional equipment)

To open the sliding roof, pull the handle out and turn counterclockwise. To close the sliding roof, turn the handle clockwise.

The sliding roof is locked in any open position.

For safety reasons, fold the handle back into its recess as shown in the illustration.

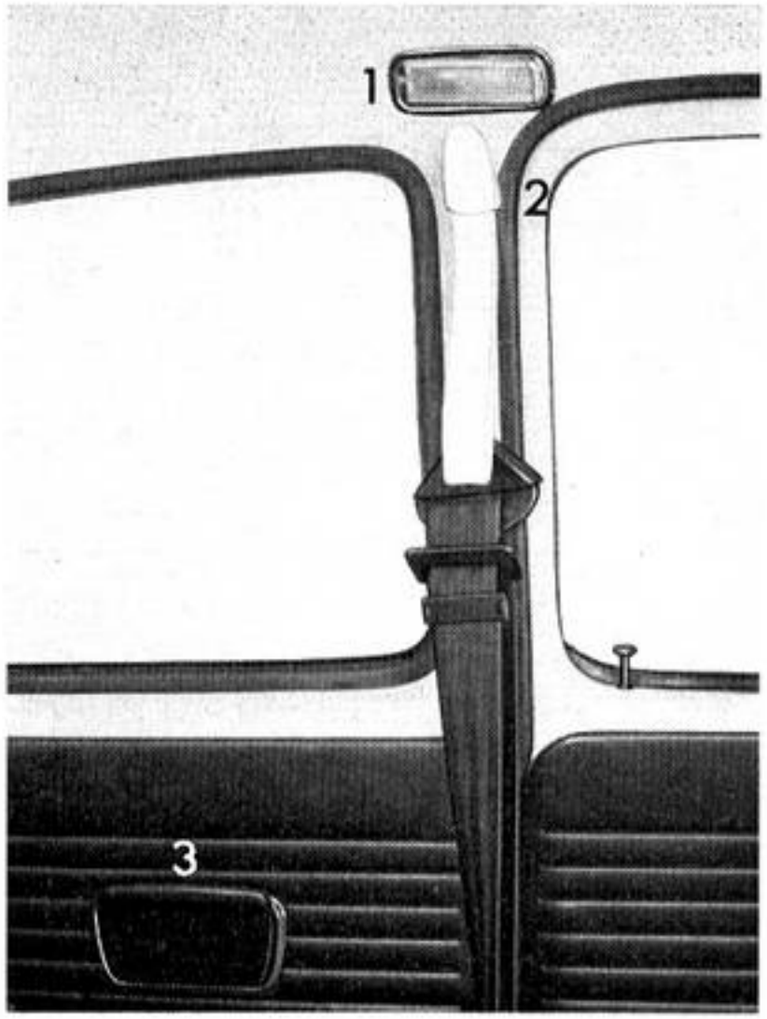


Interior light (1)

The interior light has three switch positions:

light on – with doors open
light on – all the time
light off – all the time

Your Volkswagen may be equipped with either one of two types of interior lights. On one type, the switch is operated by depressing a lens side, on the other by moving a small knob up or down.



Assist straps and coat hooks (2)

There is one assist strap and one coat hook on each side on the door post.

Hang clothes in such a way that they do not impair the driver's vision.

Sun visors

You can lift the visors out of the center mounting and move them towards the door windows to prevent glare from the sides.

Ashtrays

Front ashtray

Pull to open the ashtray in the instrument panel. To remove the tray, depress the leaf spring which you see just beneath the top cover. Now pull out the tray.

To put it back in, fold the top cover down, insert the tray in the guide rails and push in with the heel of your hand.

Rear ashtray (3)

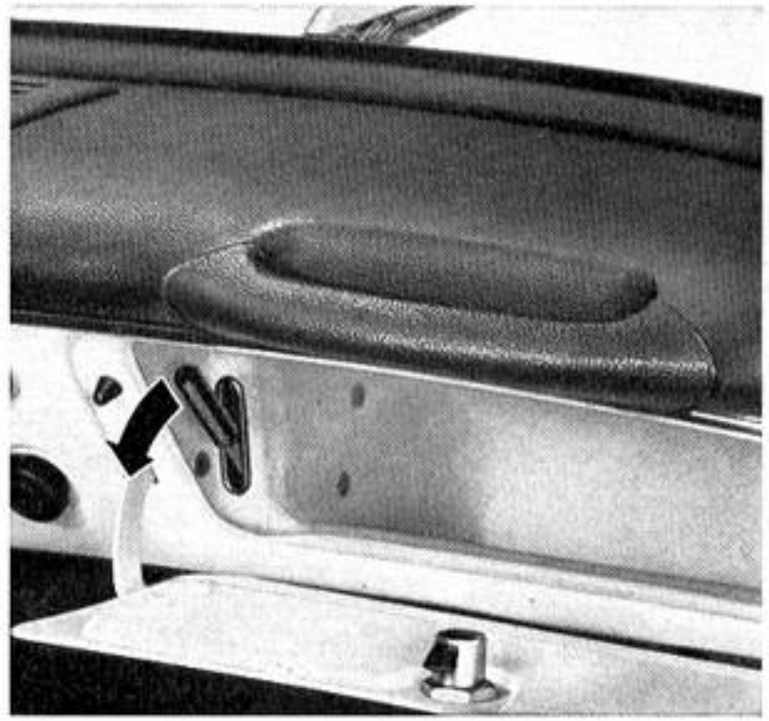
To remove the ashtray in the rear passenger compartment, press down on the tray and pull out.

To re-install, just push the ashtray back in again.

Glove compartment

To open	– Turn knob to left
To close	– Press door; lock engages
To lock or unlock (except Type 3 Basic Compact)	– Turn key to right or left

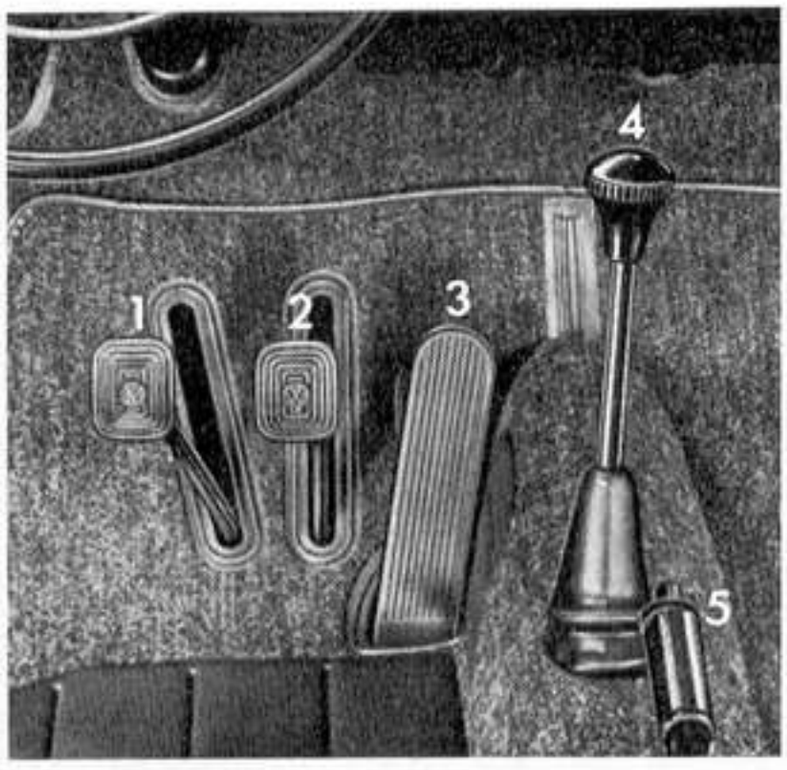
Inside the glove compartment is the **release lever for the front hood.** A locked glove compartment prevents access to the front luggage compartment and the spare wheel.



Controls for Manual Transmission

1 — Clutch pedal

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



2 — Brake pedal

Make it a habit to check the operation of your brakes. You will remember from page 11 that the brake warning light will alert you if one brake circuit may have failed.

Make sure that the movement of the brake pedal is not obstructed by a floor mat, or any other object.

Volkswagen automobiles have excellent brakes, but they are still subject to wear . . . depending on how the brakes are used. If you find that the brake pedal travel has increased, have the brakes adjusted; if necessary, between the specified maintenance intervals.

Keep in mind that the braking distance increases very rapidly as the speed increases. At 60 mph, for example, it is not twice but four times longer than at 30 mph. Tire traction is also less effective when the roads are wet and slippery. Therefore, always maintain a safe distance.

Driving through deep water may reduce tire traction. Moisture on the brakes may also affect braking efficiency. Cautiously apply the brakes for a test. If you notice a lag in the braking action, the brakes may be wet. They will dry after you have applied the brakes a few times, but do it very cautiously.

Brake linings may not have the highest possible braking efficiency when new. Therefore allow for longer braking distance during the initial 100 to 150 miles. This also applies when brake pads or shoes are renewed.

3 — 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.

You can drive most economically between:

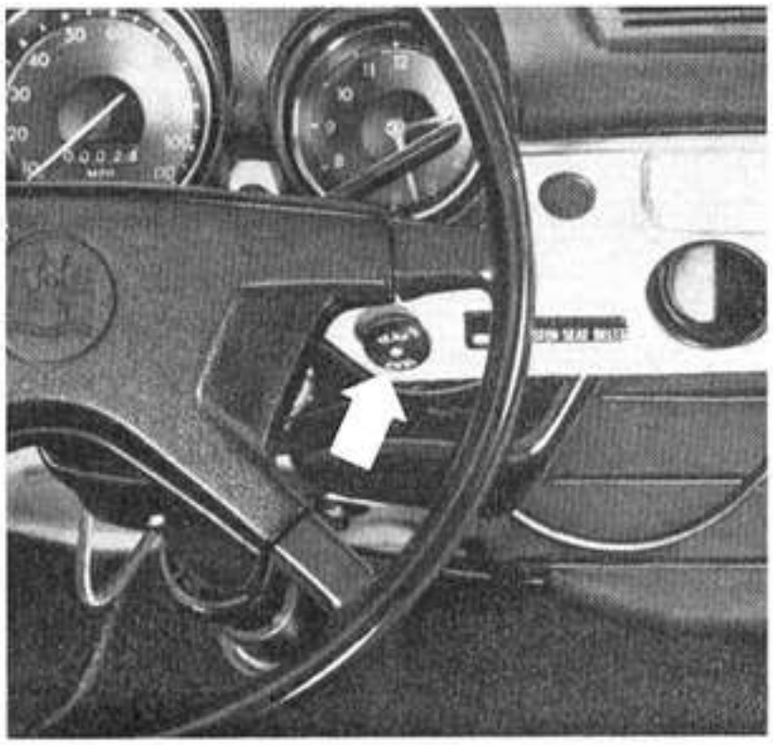
10 and 20 mph in 2nd gear

20 and 35 mph in 3rd gear

30 and 60 mph in 4th gear

VW Auxiliary Heater (optional equipment)

Do not start or let the engine or heater run in an enclosed, unventilated area to warm up the car. Exhaust fumes from the engine or gasoline heater contain carbon monoxide, which is colorless and odorless. Carbon monoxide, however, is a very harmful gas, and may be fatal if inhaled.



To switch the heater on, pull the knob (arrow) out. This lights up a green indicator light in the knob.

The indicator light will also glow when the headlight switch is operated while the Heater is not in operation. This feature has been provided for easy recognition of the knob in the dark.

To avoid an unnecessary drain on the battery switch the heater off after about 25–30 minutes if the engine has not been started in the meantime.

A heat limit switch will turn the heater off periodically. The heater will come on again automatically within 3 minutes.

To switch the heater off, push the knob in. The indicator light then goes out but the blower motor continues to run until the heater has cooled down.

The heater must be switched off when filling the fuel tank.

When it is very cold, the full battery capacity is required to start the engine. To avoid starting difficulties, it is advisable not to preheat the vehicle interior under these conditions, that is, do not switch the heater on until the engine is running.

The heater normally requires no special maintenance. It is advisable, however, to have the heater plug checked once a year before the cold weather sets in and a new plug installed if necessary. The fuel system should also be checked for cleanliness and the electrical connections for tightness.

During the winter and when driving over very poor roads, mud or snow may tend to accumulate in the exhaust and combustion air intake pipes. Have these pipes checked for blockage from time to time so that the heater continues to work properly.

When the heater is not in use for long periods, for instance during the summer, the fuel in the heater can evaporate. It is therefore advisable to operate the heater briefly once a month when it is not in regular use.

Heat output: 8,000 BTU/h
Fuel: Gasoline from fuel tank
Fuel consumption:
appr. 0.7 pint/h (0.6 Imp. pint/h)
Current consumption: 40 watts

4 — Gearshift lever

The Manual Transmission is fully synchronized. The four forward gears and a reverse gear are arranged as illustrated. The shift pattern is also shown on the face of the ashtray in the dashboard.

Resting your hand on the shift lever knob while driving will cause premature wear to the transmission.

Speed ranges

You can drive your Volkswagen at full speed from the first day. You do not have a break-in schedule. There are, however, certain recommended speed ranges for the various gears:

1st gear	0 — 15 mph
2nd gear	10 — 35 mph
3rd gear	20 — 55 mph
4th gear	30 mph and up

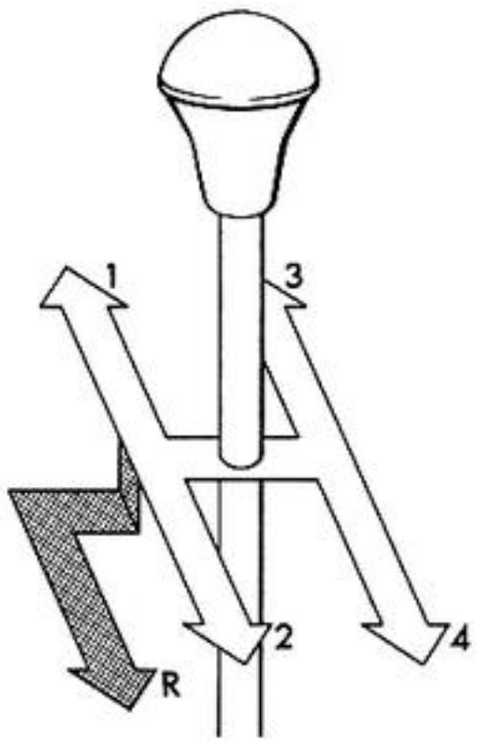
If you have a traffic situation where it is necessary for you to overtake rapidly, you can accelerate, for a brief period only, up to

43 mph in 2nd gear
60 mph in 3rd gear

Reverse

Only shift into Reverse when the car is not moving. To engage reverse gear, press the lever down, move it to the left and pull back.

The back-up lights go on automatically when you engage reverse gear (with the ignition on).



5 — Parking brake lever

To set the parking brake, press in the release button at the end of the lever as you pull up the lever. The parking brake is engaged as soon as you release the button on the raised lever.

To release the parking brake, pull the lever up slightly as you depress the release button. Then push the lever all the way down.

Be sure it is fully released. A partially engaged parking brake promotes wear of the brake lining.

Do not remove the key from the steering lock while the car is rolling to a stop. The steering column is locked as soon as you remove the key. Take out the key only after the car is parked.

Always set the parking brake when parking your car. On steep hills also turn the wheels toward the curb.

VW Automatic Transmission

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

The selector lever has 6 positions:

P = Park
R = Reverse
N = Neutral
D = Drive
2 = } Lower driving ranges
1 = }

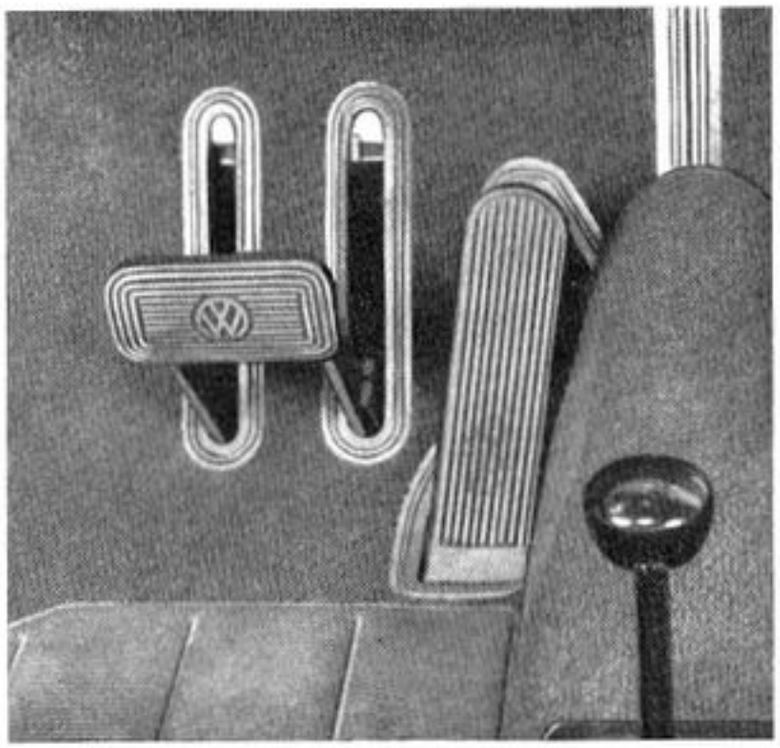
From N to R: lift lever and push forward
From R to P: lift lever and push forward
From P to R: lift lever and pull back
From R to N : just pull lever back

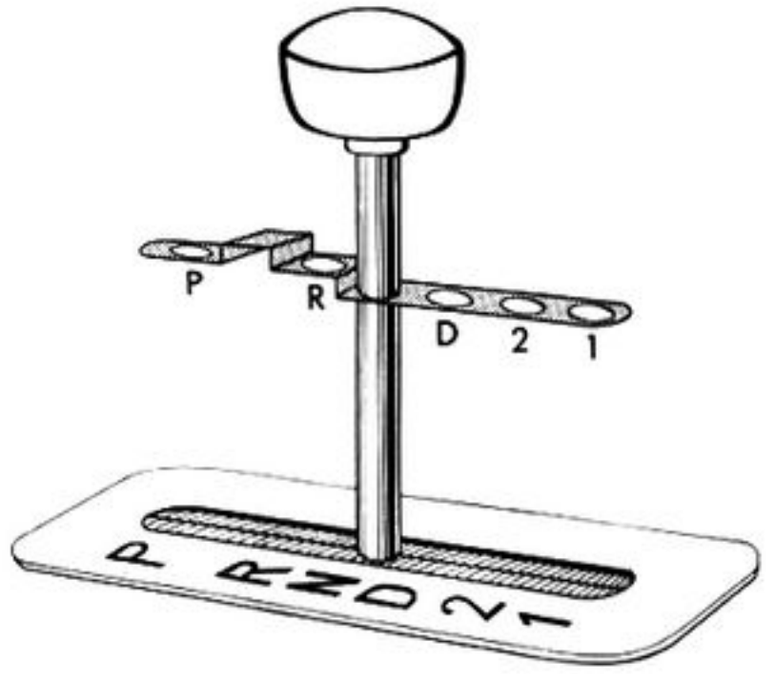
Remember the following basic rules:

- 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 an idling 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 idling speed so that no undue stress will be placed on the automatic clutches in the transmission.

- If the selector lever is accidently 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.





It is easy to move the selector lever between Neutral and the forward driving ranges Drive, 2 and 1. When engaging Reverse or Park and moving the lever back into Neutral, observe the following:

The selector lever console is illuminated when the parking or headlights are switched on.

Trailer hauling

It is possible to tow a trailer with your Volkswagen. When towing a trailer, start out in a lower driving range (Automatic Transmission) with this extra load. Also, shift to a lower gear or range when driving up or down steep hills.

The total weight of a trailer (without brakes) should not exceed 1025 lbs. with the Type 3 and Type 3 Basic Compact and 1080 lbs. with the Squareback Sedan.

The trailer tongue load should be 55 to 88 lbs. Distribute load in the trailer evenly.

And remember: the additional trailer weight affects the braking of your car so that a longer distance is needed to bring the car and trailer to a stop. Test the brakes before starting out on a trip with a trailer.

Towing

Your Volkswagen is equipped with two towing eyes: one at the **front** on the right lower section of the axle beam and the other underneath the right **rear** bumper bracket. They are for emergency towing and short distances only.

Always observe state laws and municipal ordinances governing towing.

Manual Transmission

When towing your Volkswagen with Manual Transmission, place the gearshift lever in Neutral. Turn the ignition on to be able to operate parking lights, turn signals and stop lights. Be sure to release the parking brake.

Please keep in mind . . .

The towing eyes on your Volkswagen are not designed for towing by commercial tow trucks. Also, never have your VW towed by the bumper.

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 Volkswagen with Automatic Transmission, please also observe the following in addition to the items listed under Manual Transmission:

The towing speed should not exceed 30 mph, and the towing distance should not be longer than 30 miles. 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. These limitations do not apply if the car is lifted at the rear or if the drive shafts are disconnected.

The driving ranges

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

Position D

is the driving range to be normally used for day-to-day driving and highway driving. It ranges from zero to top speed, and all three gears engage automatically while driving.

Positions 2 and 1

are to be used for mountain driving or slow driving, and also when you want to make use of the engine's braking effect.

Position 2

should only be used up to 60 mph. In "2", only the first and second gear will engage automatically. Therefore, only shift down into driving range "2" when the car speed is below 60 mph. It is not necessary to let up on the accelerator.

Position 1

is needed on rare occasions. It should only be used up to 40 mph. In "1" the transmission will stay in first gear and not shift into the second or third gear. Therefore, only shift down into "1" when the car speed is below 40 mph.

The reverse driving range

should be selected only when the vehicle is stationary and without depressing the accelerator. To select reverse you must lift the lever slightly.

Accelerator "Kickdown"

If you need quick acceleration to pass moving vehicles or to climb steep grades, make use of the accelerator "kickdown" in your VW with Automatic Transmission.

It gives you the possibility to shift into a lower gear without moving the selector lever. The accelerator kickdown can only be applied with the selector lever in the driving ranges D and "2".

When depressing the accelerator pedal you will find resistance at the full 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 icy 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 55 mph and down to first gear when driving below 35 mph.

With the selector lever in "2", you can apply the kickdown to make the transmission shift down into first gear when driving below 35 mph.

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

Starting the engine

is only possible when the selector lever is in Neutral or Park. As long as one of the driving ranges is engaged a safety switch prevents the engine from being started. For further details on starting see also page 10.

Moving off

With the parking brake or foot brake set, shift into the range you wish to use, normally 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

is easy. Simply release the accelerator pedal and move the selector lever from the range you are 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 one of the brakes. To start off again release the brake and accelereate.

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 idling speed.

Mountain driving

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

Parking

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

When parking your car, apply the parking brake and move the selector lever to position P. To do this, move the lever through Reverse and lift it to the Park Position. The transmission is then mechanically locked.

The Park position may only be engaged when the car is stationary.

Emergency starting

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

Starting hints

Before turning the ignition key, make sure the gearshift lever is in **Neutral** (Manual Transmission).

The **Automatic Transmission** can only be started in **Neutral or in Park.**

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

Always fully depress the accelerator pedal first, and keep it depressed while operating the starter. This holds true for a cold engine and an engine at operating temperature no matter what the outside temperature is. The electronic fuel injection system, with which your Volkswagen is equipped, automatically supplies the right amount of fuel that is required for starting.

Operate the starter for a few seconds only.

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

Winter operation

Your Volkswagen has an air-cooled engine. Do not, under any circumstances, try to influence the heating of the vehicle by covering up the louvers in the rear fenders. These louvers must always be clear so that air can flow into the fuel injection system and to the engine cooling fan.

Battery

During the winter months, the battery is subjected to greater use than in the summer months. More current is consumed when starting at very low temperatures. Lights and the rear window defogger are used more often. Besides, the battery tends to decrease in capacity as the temperature drops.

Therefore, it is very important to keep your battery in the best possible condition. See also "Battery" on page 40.

Do not expose battery to open flame or electric spark as hydrogen gas generated by the battery is explosive. Do not let battery acid come in contact with skin, eyes, fabric or painted surfaces.

A really cold battery may not have the same capacity as a battery at normal temperature. If you mainly drive short distances or in city traffic, have the battery checked and, if necessary, charged between regular inspections.

Door locks

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

To open a frozen lock, warm up the key before inserting it. It might also help to warm the lock. 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.

Engine oil

To make starting easier during the cold winter months, we suggest you choose a thinner grade motor oil. Turn to page 52 for the recommended oil grades.

If you drive mostly short distances and in city traffic, we recommend you have your engine oil changed at 1500-mile intervals in the winter.

Transmission oil

SAE 90 grade transmission oil can generally be used all year. Only in areas with a cold climate is it necessary to use the thinner SAE 80 transmission oil during the winter months.

In arctic climate and areas with temperatures consistently below $-13\,^{\circ}$F, use Automatic Transmission Fluid (ATF) for the manual transmission and final drive. **Note:** This does not apply to the final drive of the Automatic Transmission. When the temperature rises, replace the ATF with SAE 80 or SAE 90 grade transmission oil. See also page 53.

Windshield washer

Add anti-freeze to the washer fluid, such as Volkswagen's Windshield Washer Anti-freeze & Solvent, to prevent it from freezing. Follow the instructions on the can for the right amount to be used.

Spark plugs

Make sure the spark plugs are not worn or have a gap larger than 0.028 inch.

For further details on spark plugs see page 47.

If the engine does not start the first time or stalls, turn the ignition key all the way to the left and restart.

It is not necessary to warm up the engine by letting it idle with the car stationary . . . drive off immediately and maintain moderate speed until the engine is warm.

Winter starting of Manual Transmission

On the Manual Transmission, also depress the clutch pedal when starting so that the starter only has to crank the engine.

Luggage compartments

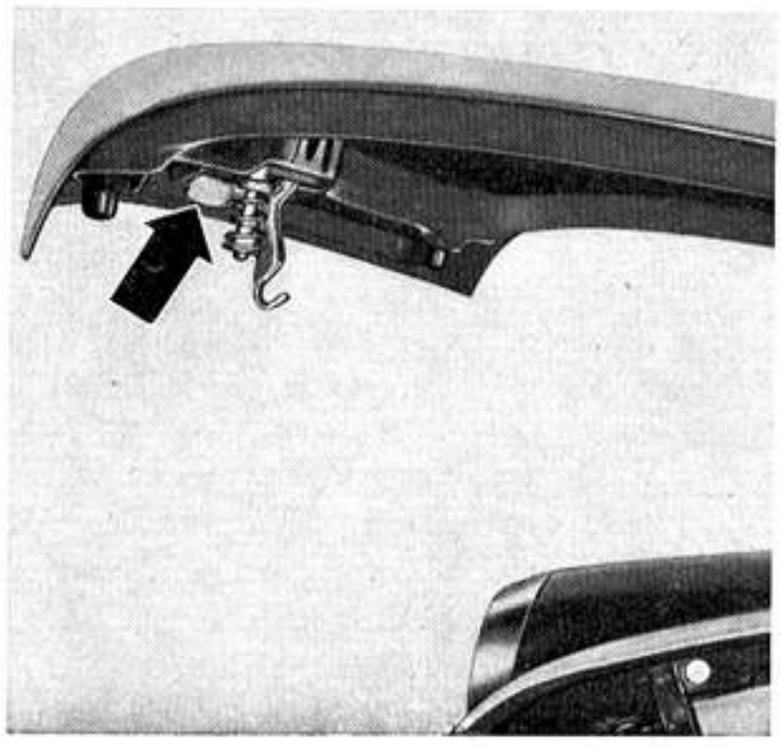
Your VW Type 3 has two luggage compartments, one under the front hood, and the other under the rear hood.

Since improper weight distribution can affect the car handling, take advantage of the two luggage compartments. Load the front luggage compartment first, using the heaviest pieces of luggage, if possible.

Front luggage compartment

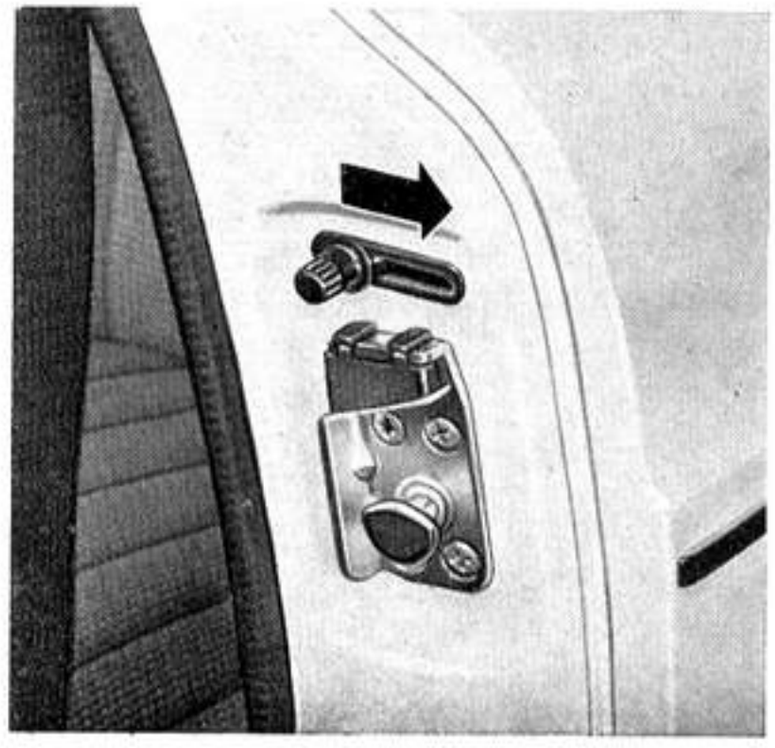
To **unlock** the front hood, pull the release lever inside the glove compartment. See page 15. The hood springs up slightly under spring pressure. To open it fully, pull the lever underneath the hood to disengage the hook.

To **lock** the front hood, lower the hood and press it down firmly. Always press down at the front near the lock. Make sure the hood is securely locked.



Rear luggage compartment in the VW Type 3 and Type 3 Basic Compact

Additional luggage can be stored in the luggage compartment under the rear hood. To **unlock** the rear hood, move the lever in the left door lock pillar outward (in direction of arrow). Lift hood to open. A light (except on the Type 3 Basic Compact) illuminates the rear luggage compartment when the car lights are on. It goes out when the hood is closed. The rear luggage compartment is locked when you close the hood.



VW Squareback Sedan

The **front luggage compartment** in the VW Squareback Sedan is the same as in the Type 3. For details see page 21.

The **rear luggage compartment** provides generous loading space.

For better car handling, distribute loads as far forward as possible. Make use of the two luggage compartments in your Squareback.

When transporting luggage or other cargo, secure it in place. This precaution will help prevent such articles from shifting during a sudden stop.

The rear luggage compartment is easily accessible through the lid at the rear of the car. You **lock** and **unlock** it with the ignition key.

Do not drive with the rear luggage compartment lid open to preclude the possibility of exhaust fumes entering the car.

To open the lid, depress the lock and raise the lid until it is held in the fully open position by the torsion springs. Do not let the lid fly open on its own.

To close the lid, swing it down firmly. Always make sure it is properly closed and locked.

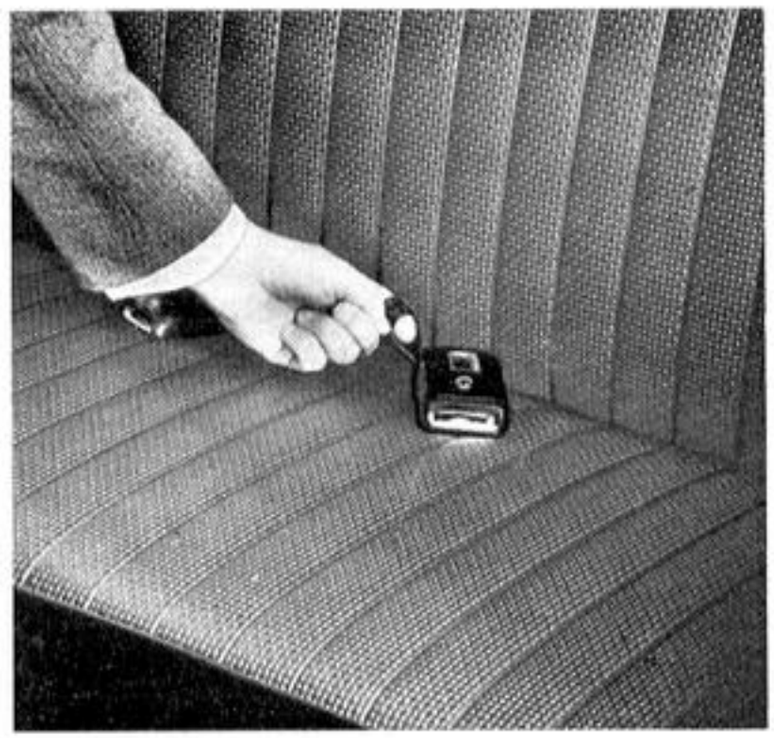
Increasing the load surface

You can substantially increase the load surface by folding the rear seat to form a deck.

When folding the rear seat, stand between the front and rear seats. Never do it from the rear luggage compartment. Always use the handle behind the top of the backrest when folding down or lifting the backrest. Keep hands away from hinges and folding edges.

To form a rear deck, proceed as follows:

Lift the seat cushion, as shown in the illustration. Fold it toward you to an upright position. Tuck away the safety belts.



Tires

Your Volkswagen is equipped with tubeless bias ply tires. Volkswagen tires comply with all applicable U. S. 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, increased gas consumption and affect the road holding of the car.

VW-recommended **cold[1] tire inflation pressures** are listed on a sticker on the inside of the glove compartment door.

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

For road use do not exceed the maximum tire inflation pressure listed on the tire sidewall.

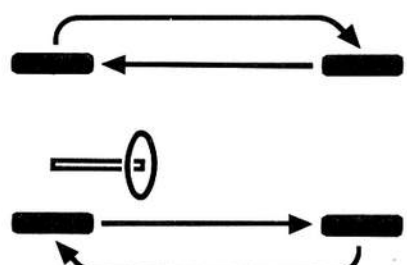
Spare tire pressure

Since the spare tire supplies the pressure to operate the windshield washer, the pressure of the spare tire should be between 29–42 psi (2.0–3.0 kg/cm²). For the Squareback Sedan, it should be up to a maximum of 56 psi (4.0 kg/cm²).

This pressure level is only to be maintained for the operation of the windshield washer system. For road use, the pressure in the spare tire should be adjusted as specified on the sticker on the inside of the glove compartment door. See also page 33.

Tire rotation

If uneven tire wear should occur, we recommend that the tires be rotated, as shown in the sketch below. Afterwards, the tire pressures must be corrected. The wheel bolts should be torqued diagonally to 87–94 ft. lbs.. Also, see page 37.



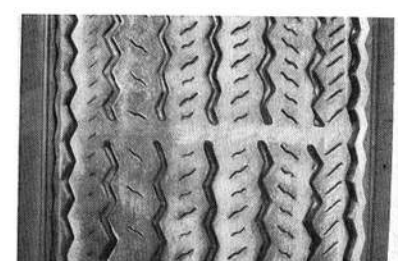
Wheel balancing

A wheel should always be balanced after a tire repair. Also, since regular use can cause tire imbalance, the wheels should be balanced from time to time. Unbalanced wheels may affect car handling and tire life.

Tire wear

The original equipment tires on your VW have built-in tread wear indicators. They are molded into the bottom of the tread grooves and will appear as approximately 1/2 inch bands when the tire tread depth becomes 1/16 of an

Indicator visible – tread worn



To release the backrest, lift the lever on the left, as seen in driving direction. Fold the backrest down by using the handle behind the top of the backrest.

Do not allow children to kneel or sit on the rear load surface while the car is in motion.

To set the rear seat up again

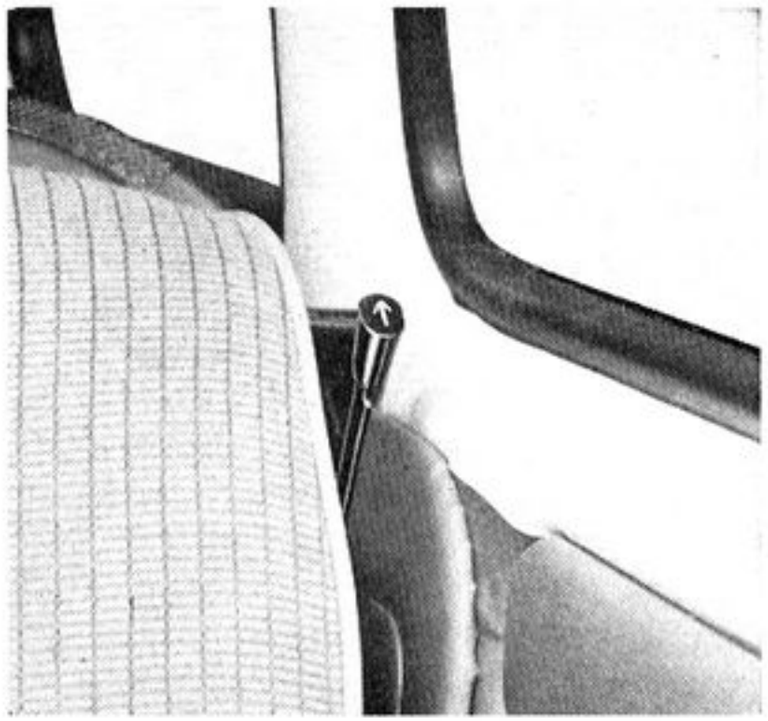
Grab the handle to lift the backrest. Reposition or hold up the safety belts to make sure they will be on top of the seat cushion when folding the seat cushion back.

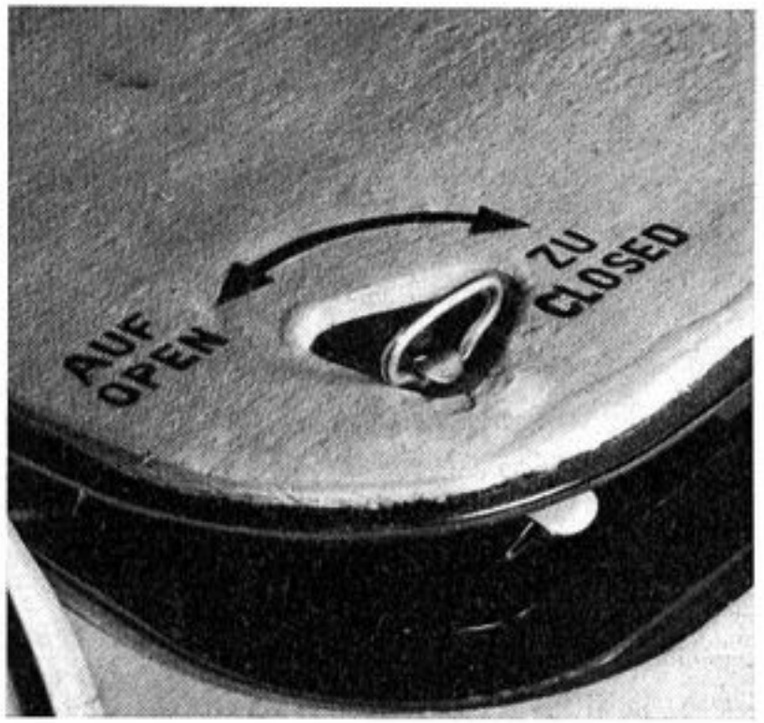
Backrest and seat cushion will lock in place automatically.

Engine compartment

You have access to the engine through the rear luggage compartment. First fold or roll up the floor covering. Then turn the lid handle to the OPEN position, lift the lid and take it out.

To close the engine compartment lid, do the opposite in reverse order.





Heater/Defroster

A fresh air heater/defroster is standard equipment on your Volkswagen. The control levers are located on the tunnel between the front seats.
The heater lever spot light will illuminate the levers when the parking or headlights are turned on.
The brightness of the spot light and instrument illumination can be adjusted by turning the light switch knob (see page 11).

1 a — Heater temperature lever (TEMP)

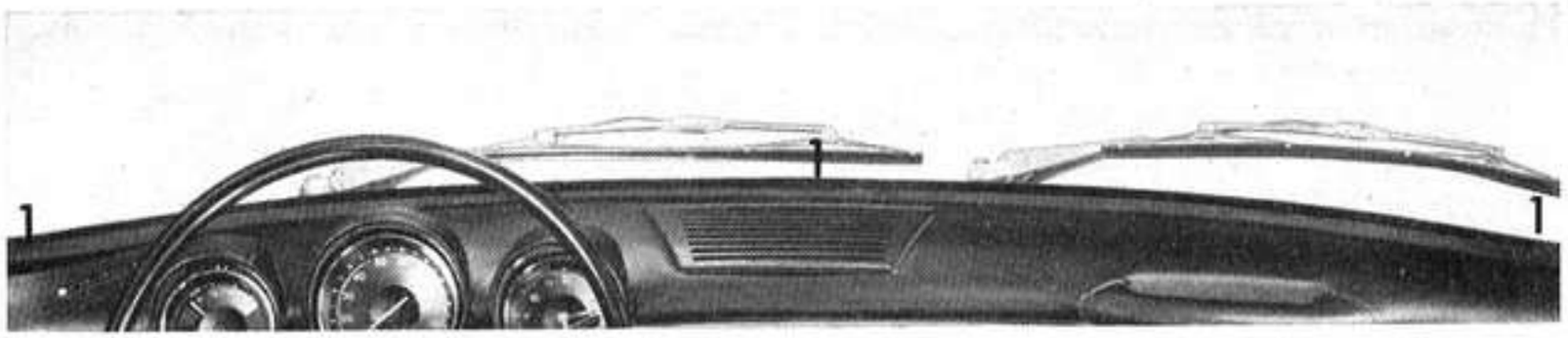
The lever toward the passenger's seat controls the temperature level.

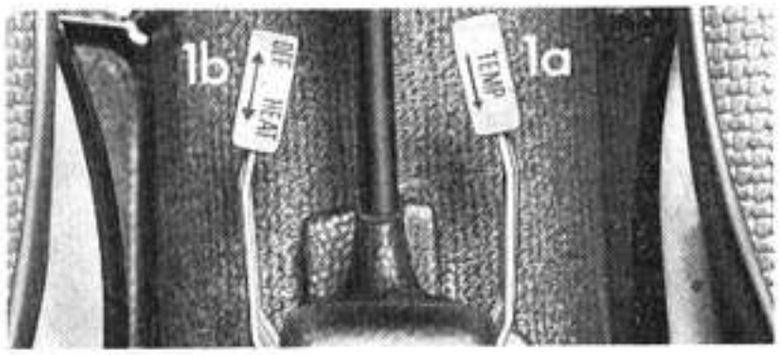
Lever up — heat on fully
Lever down — heat off

By setting it at any intermediate position, you can select the degree of heat that is most comfortable for you. After a reasonable warm-up time, which also depends on the speed of your car, the warm air will enter the car through the three vents (1) at the lower edge of the windshield and outlets in the front and rear footwells.

Footwell outlets

There are four footwell outlets, two in the front and two in the rear. The front outlets are located just beneath the doors, the rear outlets are under the rear seat.





Front and rear footwells are opened and closed with the heat distribution lever – 1 b –.

1 b — Heat distribution lever for front and rear footwells (DEF-HEAT)

With the lever on the tunnel next to the driver's seat, you can control the distribution of heat to the front and rear footwells.

Lever down — front and rear footwells closed
Lever up — front and rear footwells fully open

You can select any intermediate position to regulate the distribution of heat to the front and rear footwells.

Hints for defogging and defrosting

Defogging and defrosting your windshield will be more effective if you direct the total air flow toward the windshield.

Here is what to do:

1. Heater temperature lever (1 a) all the way up (TEMP) — heat is on.

2. Heat distribution lever (1 b) all the way down (DEF) — no heat to the front and rear footwells.

3. To increase the fresh air flow, turn the fresh air knobs – 20 – to the left, close the flaps in the outlets – 2 b – and turn on the fresh air fan – 10 – (see next page).

Now all air is directed toward the windshield.

inch. 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.

If you notice that tires are wearing unevenly, consult your Authorized VW 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.

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

Tire replacement

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

Tire specifications are imprinted on the sidewall of the tires. If in doubt, check with your Authorized VW Dealer.

Replace all 4 tires at the same time. If this is not possible, replace tires in pairs, either front or rear.

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—100 miles.

Winter tires

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

Inflation pressures for winter tires are listed on the sticker on the inside of the glove compartment door.

Do not exceed the maximum tire inflation pressure listed on the tire sidewall.

Winter tires do not fulfill their purpose if the tread depth is less than $^{5}/_{32}$ in. For safety reasons, it is not advisable to drive with winter tires at top speeds. Winter tires do not have the same degree of traction on dry, wet or snow-free roads as regular tires.

When winter tires are installed, it may be neccessary to fit clips on the lower torsion arms of the front axle to prevent the tires from rubbing in the wheel housing on full steering lock.

Tire care

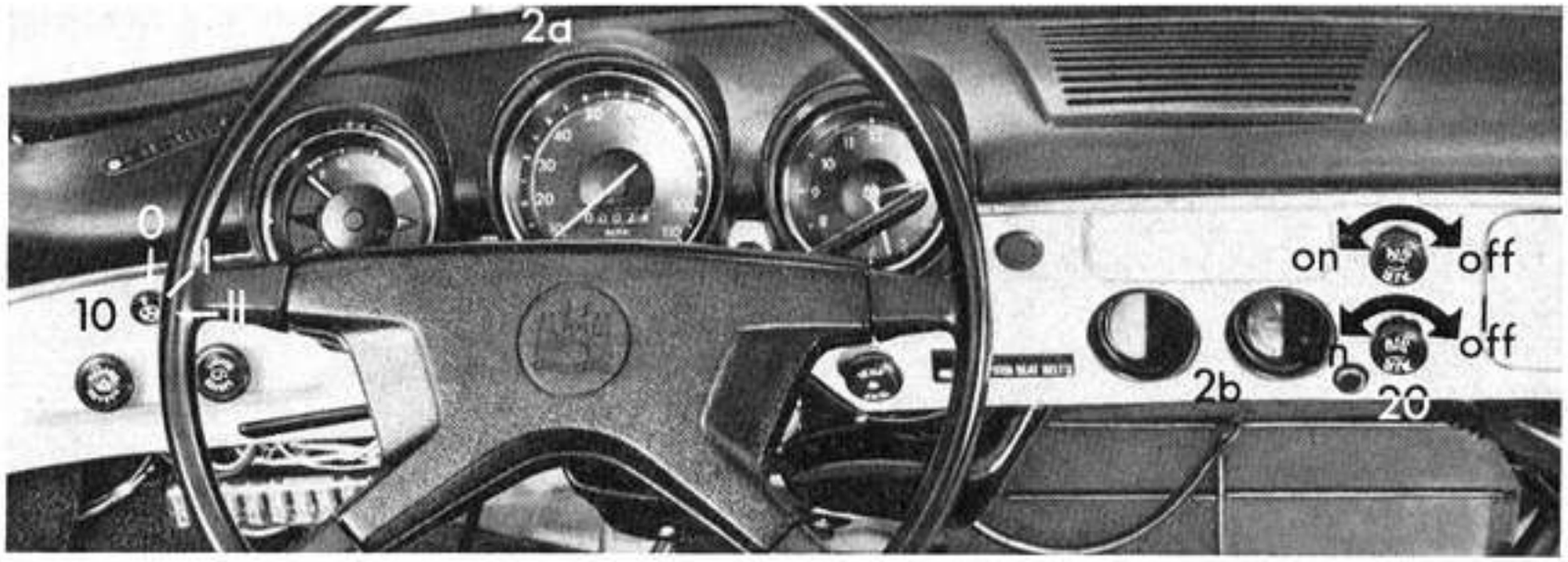
1 — Frequently check tires for damage. Remove imbedded material.
2 — Keep oil and gasoline away from tires.
3 — Replace worn tires in time.
4 — Replace missing valve dust caps as soon as possible.

Ventilation

Flow-through ventilation provides a continuous draft-free exchange of air while driving. Air enters the car through the grille on the front hood and the inside vents below the windshield. A water separator prevents rain from entering.

The air in the passenger compartment is drawn out through inside openings near the rear window and escapes to the outside through louvers.

A two-speed electric fan behind the instrument panel increases the flow of air when driving at low speeds and also supplies fresh air when the car is standing still (ignition on).



2 a and 2 b — Fresh air vents and outlets

Fresh air comes out through the vents below the windshield (2 a) and the outlets on the dashboard (2 b).

Volume and direction of the air coming from the outlets on the dashboard can be controlled separately by adjusting the flaps in the outlets (2 b). They can be opened or closed by pressing against one side of the flaps. When the flaps are closed, the entire volume of fresh air flows through the vents at the windshield (2 a).

20 — Fresh air control knobs

You can regulate the volume of fresh air for each side separately by turning the knobs.

Upper knob for right side
Lower knob for left side

Turn knobs to left
— air flow increases

Turn knobs to right
— air flow decreases

To stop the air flow completely, turn the knobs to the right beyond the pressure point.

10 — Fresh air fan

You can increase the regular air flow by turning on the two-speed fan.

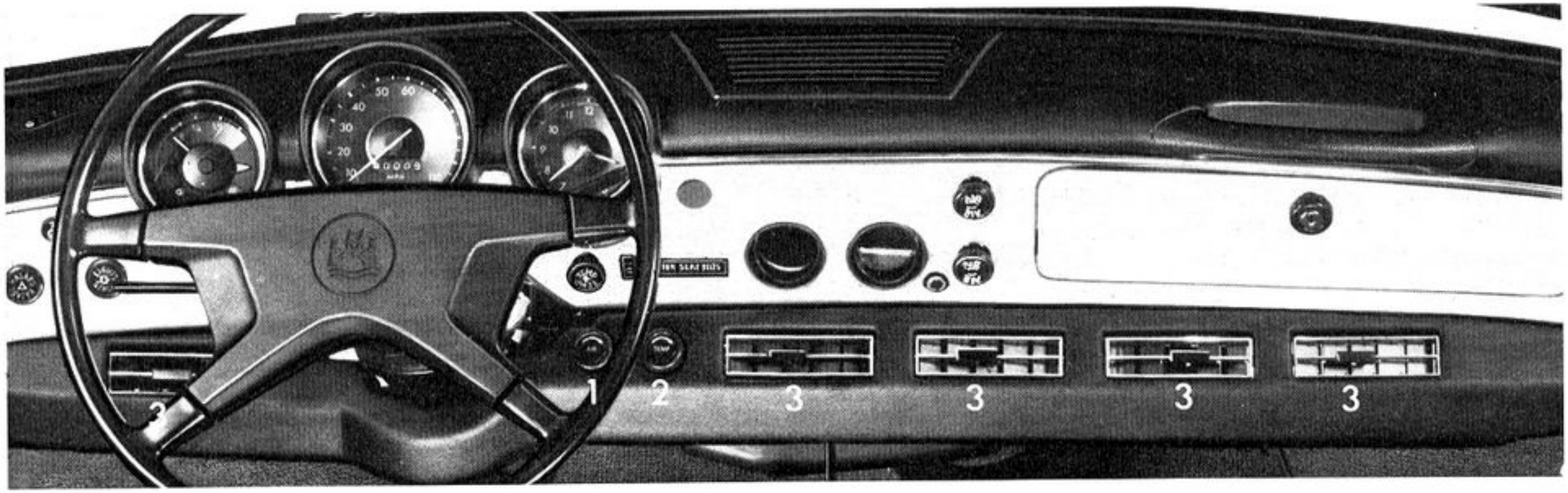
The switch positions of the fan knob are:

0 — OFF
I — low speed
II — high speed

The fan operation is most effective if you have turned the fresh air control knobs all the way to the left.
To give you full battery power while starting the engine, an operating fresh air fan will stop automatically at this moment.

VW Air Conditioner (optional equipment)

Operating controls



1 — Air volume switch ("FAN")

This switch serves two functions. It turns the air conditioning system on and off and controls the fan speed.

The fan positions are:

1st position — HIGH
2nd position — MEDIUM
3rd position — LOW

2 — Air temperature control ("TEMP")

By progressively turning the control to the right, the desired cooling range can be selected. It is in the coldest position when turned as far as possible to the right.

3 — Air discharge louvers

These movable louvers can be adjusted by moving the center vane to direct the conditioned air flow upward, downward or sideways.

Spare wheel

The spare wheel is stored in an upright position in the spare tire well under the front hood.

To **unlock the hood,** pull the lever inside the glove compartment. See also page 15.

The spare wheel is connected to the windshield washer container and supplies the pressure to operate the washer. The air supply to the windshield washer will be interrupted automatically by a cut-off valve if the tire pressure drops to 29 psi (2.0 kg/cm²); in the Squareback Sedan 36 psi (2.5 kg/cm²). This prevents the spare tire from being deflated below the required pressure.

Check the spare tire pressure from time to time and maintain it up to a maximum of 42 psi (3.0 kg/cm²); in the Squareback Sedan up to 56 psi (4.0 kg/cm²).

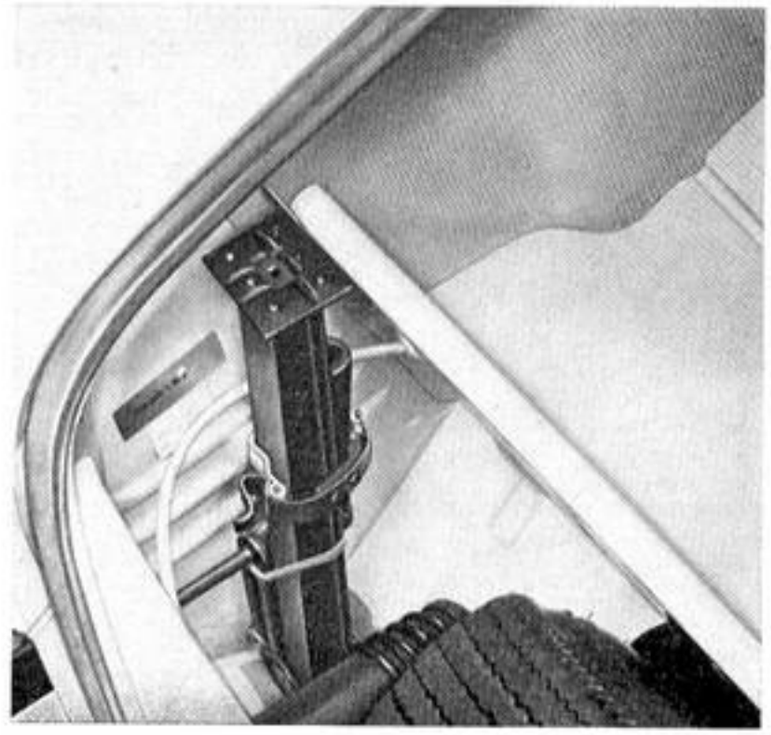
This pressure level is only required for the operation of the windshield washer system. For road use, adjust the spare tire pressure as specified on the sticker on the inside of the glove compartment door.

To check or correct the pressure, first unscrew the windshield washer hose from the valve of the spare tire (arrow). Reconnect the hose firmly after checking or inflating the spare tire.

Jack

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

The jack is located next to the spare wheel. It is held in stowage position by a clamp. To take out the jack, open the clamp first. Before putting the jack back in again, wind it down sufficiently. Tighten the clamp.



Starting the Air Conditioner

With the windows and fresh air regulator closed, turn the air temperature control to the desired position and select the air volume speed desired. On extremely hot days turn the air volume to full capacity and open a window. Within a few minutes, the hot air will be forced out of the car and the window can be rolled up as cooling starts.

Adjust the air discharge louvers to the desired position.

Stopping the Air Conditioner

Turning the air volume switch to the "OFF" position stops the entire air conditioning system.

When restarting a stalled engine, it is not necessary to turn off the air conditioner. The current to the air conditioner is interrupted during the starting process.

Operational hints

If the car interior becomes too cold after adjusting the air volume, turn the air temperature control to the left until the desired comfort level is reached.

If the windows fog over on the **exterior** on warm, humid days, turn the air temperature control to the left until the windows clear up, or turn the windshield wipers on.

If the windows fog over on the **interior,** they can be quickly cleared by turning on the air conditioner.

During highway driving, set the air temperature control in approximately the middle position.

Maintenance hints

During the winter season, it is advisable to operate your Air Conditioner for a brief moment every week. This will help to keep the seals and fittings properly lubricated.

After the winter months and before extended summer usage, the air conditioner should be checked and, if necessary, serviced by an Authorized VW Dealer.

The condenser should be checked periodically for cleanliness. If clogged in any area with dirt or insects, the condenser should be washed down with water. If the condenser fins are bent, the car should be taken to an Authorized VW Dealer for straightening of the condenser fins.

An air-conditioned Volkswagen should only be raised on a lift that provides adequate clearance to prevent damage to the refrigerant hoses.

Circuit breaker

An automatic resetting circuit breaker for the current supply of the air conditioning system is located under the rear seat. It is connected directly to the battery.

Note:

When a VW Air Conditioner is installed, the vehicle capacity weight will be reduced accordingly (see sticker on the inside of the glove compartment door).

Changing a wheel

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 rear wheels where the **jack ports** are.

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

For a more efficient and safe changing of a flat tire, observe the following 10 steps.

Further on, we expand on these steps in greater detail.

Step 1 – Take out tools, jack and spare wheel.

Step 2 – Remove hub cap.

Step 3 – Loosen wheel bolts. **Do not take them out.**

Step 4 – Securely insert the jack in jack port. There is **one** for each side. It is under the body toward the rear, and is used for front or rear wheel changing.

Never jack the car up by the bumper or the body.

Step 5 – Jack up car.

Step 6 – Change wheel and hand-tighten wheel bolts.

Step 7 – Lower car.

Step 8 – Further tighten the wheel bolts.

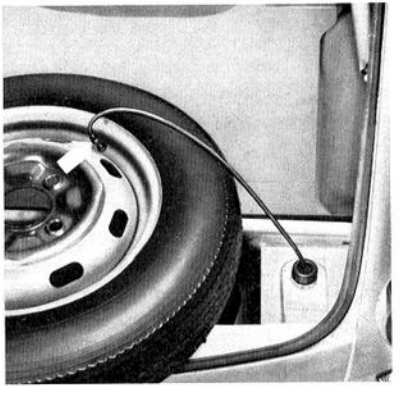
Step 9 – Replace hub cap.

Step 10 – Torque and air pressure adjustment.

Step 1 –
Take out your tool kit.

Take out the jack from under the front hood next to the spare wheel. To unlock the hood, pull the lever inside the glove compartment. Open the clamp that holds the jack in stowage position. (See previous page.)

Before you take out the spare wheel disconnect the hose (arrow) leading to the windshield washer container. To have better access to the valve of the spare tire, lift the spare wheel out of its well and place it on the edge of the car body.



Step 2 –
With the wheels still firmly resting on the ground, remove the hub cap of the defective wheel.

Insert the puller in the holes at the rim of the hub cap. Put the breaker bar through the puller, brace one end of the bar on the wheel rim and tug lightly on the other end.

When you place the hub cap face down you can use it as a tray for your wheel bolts.

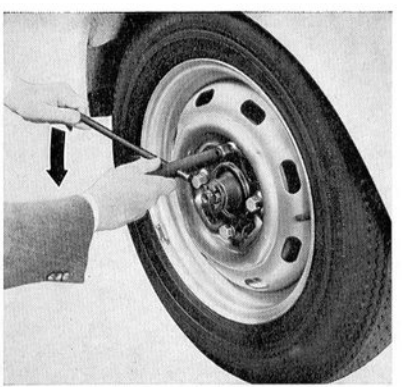
Step 3 –
Loosen all wheel bolts counterclockwise about one turn with the socket wrench. Insert the breaker bar to make full use of its leverage. **Do not yet remove the bolts.**

Step 4 –
Securely insert the jack into the jack port. There is one on each side under the body toward the rear and is used for front and rear wheel changing.

Provide for a **firm base for the jack on the ground.** If necessary, use a board.

Passengers should not remain in the car when the car is jacked up.

Never jack the car up by the bumper or body.

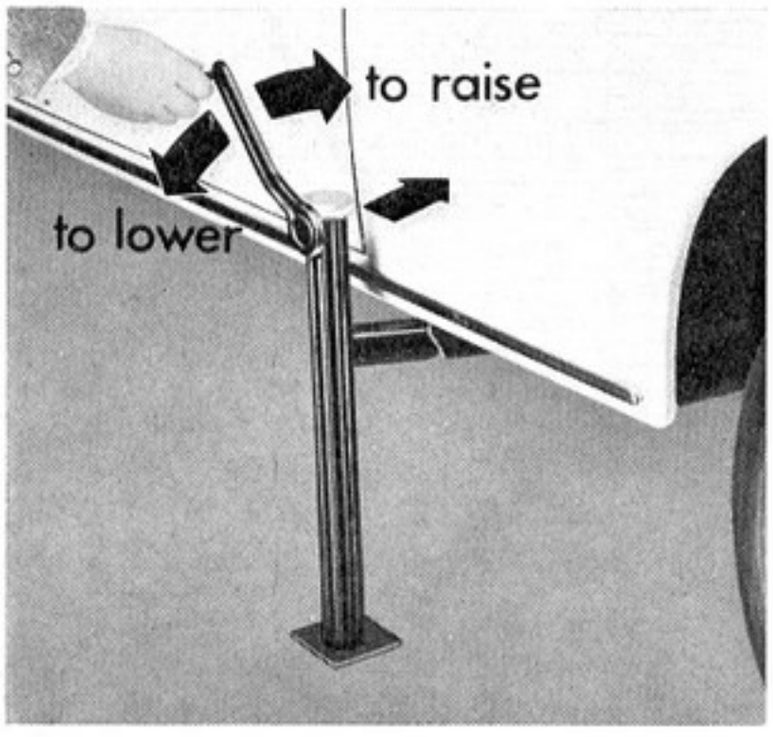


Step 5 –
Do not raise the car until you are sure the jack is securely engaged.

To raise the car, turn the handle clockwise.

To get the jack as vertical as possible, push the upper part of the jack toward the body while you are jacking up the car.

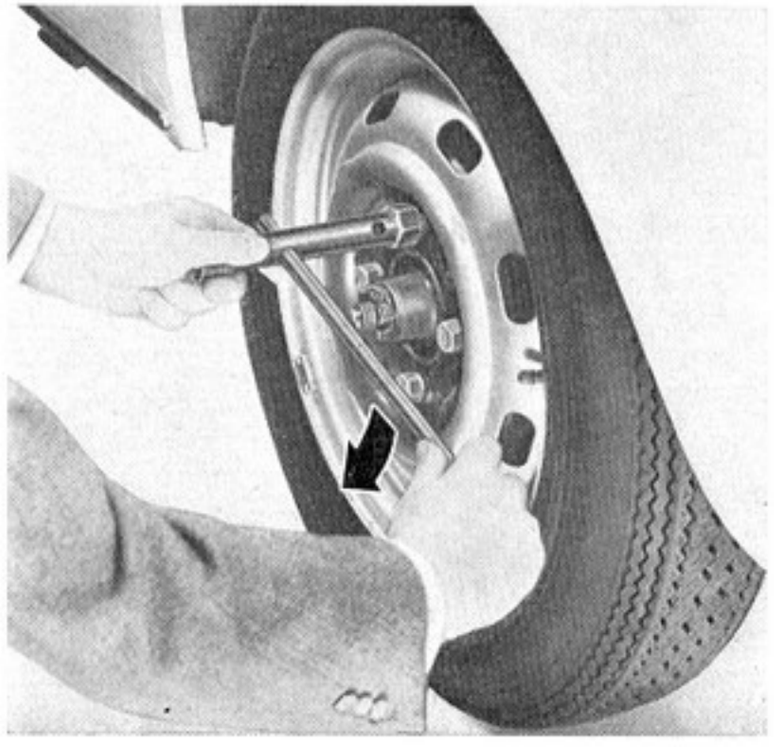
Only raise the car as much as is needed to change a wheel.



Step 6 –
Fully unscrew the wheel bolts and place them into the hub cap. Place the spare wheel against the wheel hub so that the bolt holes in the wheel are in line with the threaded holes in the wheel hub. Insert the wheel bolts and handtighten them crosswise before jacking the car down.

Step 7 –
To lower the car, turn the handle counterclockwise.

Step 8 –
Then go crosswise from one bolt to another tightening them firmly with the socket wrench and breaker bar.



Step 9 –
To install the hub cap, place it around the lower part of the wheel center, and with a firm push on the upper part, the hub cap will snap into place. Make sure it is properly seated.

Step 10 –
Correct tightness of the wheel bolts is important.
Correctly tightened bolts should have a torque of 87-94 ft.lbs. This torque can be obtained with socket wrench and breaker bar by any person of average strength. If in doubt about the correct tightness of the wheel bolts, have it checked with a torque wrench by your dealer or a service station.
Also, correct the **pressure of the tire** you have just put on.

Container for windshield washer fluid (1)

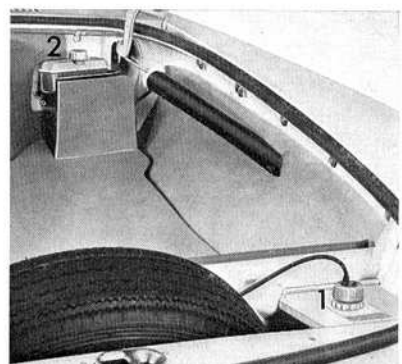
The windshield washer container has a capacity of 3.5 US pints (3.0 Imp. pt). To add washer fluid, just unscrew the filler cap. The container can be filled to the top.

As clear water is usually not adequate for cleaning the windshield, add a cleaning solution to the water such as Volkswagen's Windshield Washer Anti-Freeze & Solvent. It is a concentrate, so follow the directions on the can for the correct amount to be used.

You can use Volkswagen's Windshield Washer Anti-Freeze & Solvent all year. It helps to keep your windshield clean, and prevents freezing of the washer fluid in the winter.

Since the spare tire supplies the pressure to operate the washer, it should always be kept up to a pressure of 42 psi (3.0 kg/cm²). In the Squareback Sedan, the spare tire pressure should be kept up to 56 psi (4.0 kg/cm²).

To pressurize the spare wheel, see page 33.



Brake fluid reservoir (2)

The brake fluid should always be above the seam edge near the top of the reservoir. If it drops below this point, the cause should be corrected by your Authorized Volkswagen Dealer.

Every 2 years, the brake fluid has to be replaced.

See "Scheduled Maintenance" on page D 6 and "Additional Services Record" on page D 10.

Only **new, unused** brake fluid that meets the SAE recommendation J 1703 and conforms to Motor Vehicle Safety Standard 116 must be used.

Fuses

The 12-point fuse box with plug-in arrangement for relays is located under the instrument panel on the left of the steering column.

When a fuse is blown, it is not sufficient to merely replace 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 circuit. It is advisable to always carry a few spare 8 amp and 16 amp fuses in your car.

To replace a fuse, simply depress a contact on either side of the fuse.

There are ten 8 amp fuses (white) and two 16 amp fuses (red). No. 9 and No. 10 are the two 16 amp fuses.

1 – Tail light, left;
Parking and side marker lights;

2 – Tail light, right
License plate light;
Luggage compartment light
(Type 3 only)

3 – Low beam, left

4 – Low beam, right

5 – High beam, left;
High beam indicator light

6 – High beam, right

7 – Electric fuel pump for fuel injection
DO NOT attach any other equipment here!

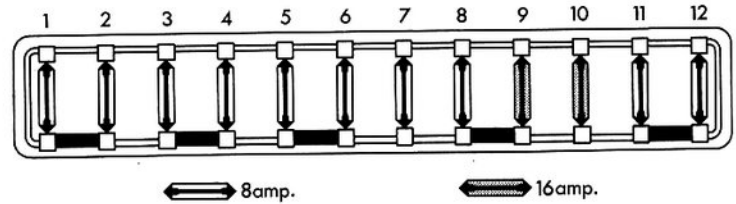
8 – Emergency flasher;
Interior light

9 – Buzzer

10 – Windshield wipers;
Fresh air fan;
Rear window defogger
(switch current)

11 – Stop lights;
Horn;

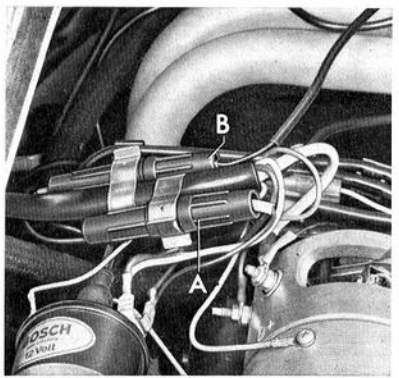
12 – Brake warning light
Back-up lights (on Automatic Transmission)
Turn signals

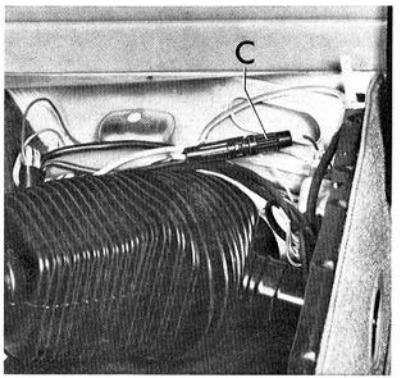


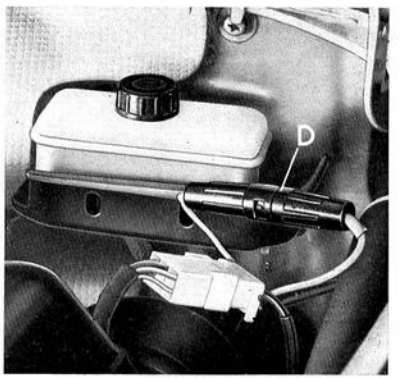
Additional fuses

Electrical equipment	Fuse	Location of fuse holder
Back-up lights (on Manual Transmission)	8 amp.	in the engine compartment near the ignition coil (A)
Kickdown (Automatic Transmission only)	8 amp.	in the engine compartment near the ignition coil (B)
Rear window defogger (main current)	8 amp.	underneath the rear seat on the left (C) (as seen in driving direction)
Auxiliary Heater (optional equipment)	16 amp.	in the front luggage compartment near the heater (D)

To replace a fuse in an inline fuse holder, pull the holder out of the clip, where necessary. To open the holder, grasp both ends of the holder, press lightly together and twist counterclockwise. Install fuse. To close the holder, put both ends together again, press lightly and twist clockwise.







Battery

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.

The battery is under the rear seat on the right, as seen in driving direction. Just take the rear seat out (see page 43).

The electrical system depends mainly on the battery. Therefore, the battery should be checked regularly and kept in good working condition.

Never drive the car with a disconnected battery as this may damage the electrical system.

Each filler plug has to be unscrewed to check the fluid level in each cell. If it is **below** the indicator, top it up with distilled water. **Only fill up to indicator.**

How often water must be added to the battery depends mainly on operating conditions and on the time of year. As a general rule, the battery electrolyte level must be checked more often in the summer than in the winter, and more often when driving long distances.

The terminals and connections should be kept clean and greased with silicone spray or petroleum jelly. Make sure the ground connection to the body is tight and free of corrosion.

When working on the battery, be sure not to short circuit the terminals. This would cause the battery to heat up very quickly, which could lead to damage.

Before having a quick-charge performed on a battery installed in a car, **disconnect both terminals to avoid serious damage to the electronic components of the electrical equipment.**

If you have not used your car for an extended period of time, have the battery recharged.

Fuel supply

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

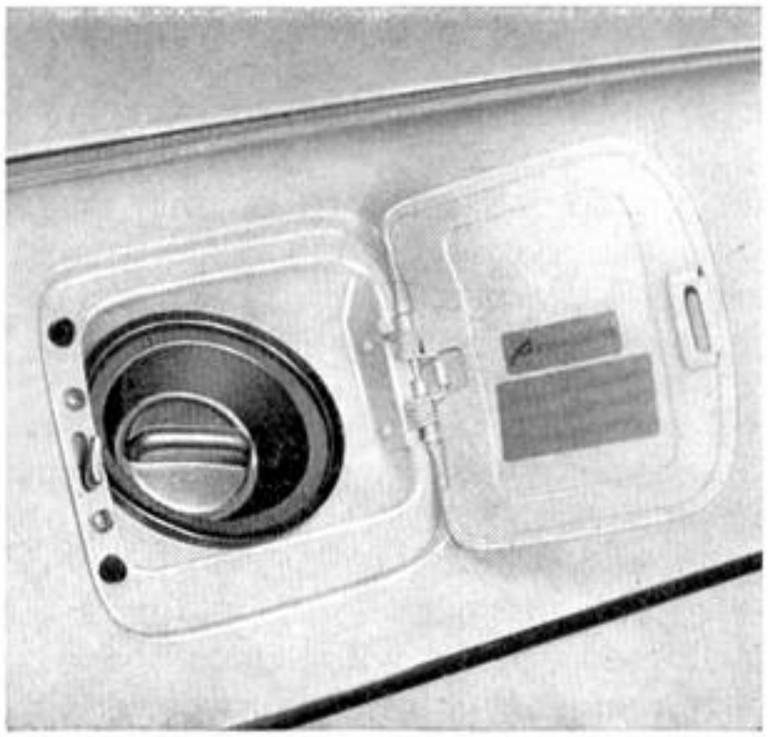
In the interest of cleaner air, the VW engine is designed to run also on low-lead or lead-free gasoline.
The engine requires "Regular" gasoline. The minimum octane rating is shown on the label on the inside of the fuel tank flap. If regular fuels with adequate anti-knock qualities are not available, premium fuels should be used or mixed with regular fuel. This might be necessary when traveling outside the United States or Canada.

Cleaning your VW

The filler neck to the fuel tank is in the right front fender. The flap opens when you pull the release strap on the right underneath the instrument panel.

The fuel tank has a capacity of 10.6 U. S. gallons (40 liters or 8.3 Imp. gal.). When putting the cap back on, turn the filler cap until you hear a click.

The Auxiliary Heater (optional equipment) must be turned off when filling the fuel tank.



The paint on your VW is very durable, and so is the upholstery. But a car can get a lot of abuse from industrial fumes and corrosive road salt to half-eaten lollipops and muddy dog feet.

A well-cared-for VW can look like new 10 years later. It all depends on the owner and the amount of care he is willing to give to his car.

Here are a few hints on how to keep your VW looking young and beautiful.

We have also compiled a list of cleaning products. They are available at any VW dealer.

Whenever using VW-recommended products or other cleaning agents, **follow the directions on the containers. Be aware of warning or caution labels.**

When cleaning upholstery and carpet, never use gasoline, kerosene, naphtha, nail polish remover or any other volatile solvents. They may be toxic or flammable and therefore hazardous. Keep all cleaning agents out of reach of children.

Application	Volkswagen Product
Car wash and liquid wax	Car Wash and Wax – ZVW 243 201
Paint preservative	Paint Preservative and Wax – 000 096 011
Paint waxing	Classic Car Wax – ZVW 246 101
Paint polishing and paint waxing	Combination Car Cleaner and Wax – ZVW 241 109
Paint polishing, remove paint oxidation	Paint Polish – 000 096 001
Preservation of chrome parts	Chrome Preservative – 000 096 067
Paint touch-up	Touch-Up Paint (all colors)
Upholstery cleaning, Whitewall tire cleaning	All Purpose Cleaner – ZVW 243 101
Windshield cleaning and washer anti-freeze	Windshield Washer Anti-Freeze & Solvent – ZVW 241 101

Washing your VW

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.

NEVER WASH IN DIRECT SUNLIGHT.

Use plenty of water, a car-wash soap, such as VW's Car Wash and Wax, and a soft sponge or hose brush. Begin by spraying water over the dry car to remove all loose dirt before applying the lukewarm soap/water solution. Use plenty of water to rinse the car off. Wipe the car dry with a chamois to avoid water spots.

Waxing

Waxing is not really needed when you have washed your car with VW's Car Wash and Wax. If you do not use a car wash liquid with wax, apply Paint Preservative and Wax to preserve the natural shine of the car.

To obtain a long lasting wax finish apply hard wax, such as VW's Classic Car Wax, eight to ten weeks after buying the car. Wax again when water remains on the surface in large patches instead of forming beads and rolling off.

Polishing

Use a polish such as VW's Paint Polish later in the car's life when the paint appears dull and loses its shine. **Do not polish a new car.** Always apply wax after polishing.

Cleaning windows

Clean windows with a sponge and warm water. Dry with a chamois.

Weatherstrips

To seal properly, weatherstrips around windows and doors must be pliable.

To retain flexibility of the rubber, spray with silicone, available from your VW dealer, or coat with talcum powder.

Windshield wiper blades

Remove the wiper blades periodically and scrub with a hard bristle brush and alcohol or a strong detergent solution.

Chrome care

To protect the car's chrome, apply VW's Chrome Preservative.

Touch-up paint

Your dealer has touch-up paint for minor scratches and stone chips. Scratches should be touched up soon after they occur.

Care of chassis

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.

Removing spots

Do not use gasoline, kerosene, naphtha, nail polish remover or other volatile cleaning fluids. They may be toxic or 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, such as Paint Preservative and Wax. If you do not have a spot remover, you may substitute with

turpentine. After applying a cleaning fluid, always wash with a lukewarm soap/water 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 to harden on the paint surface.

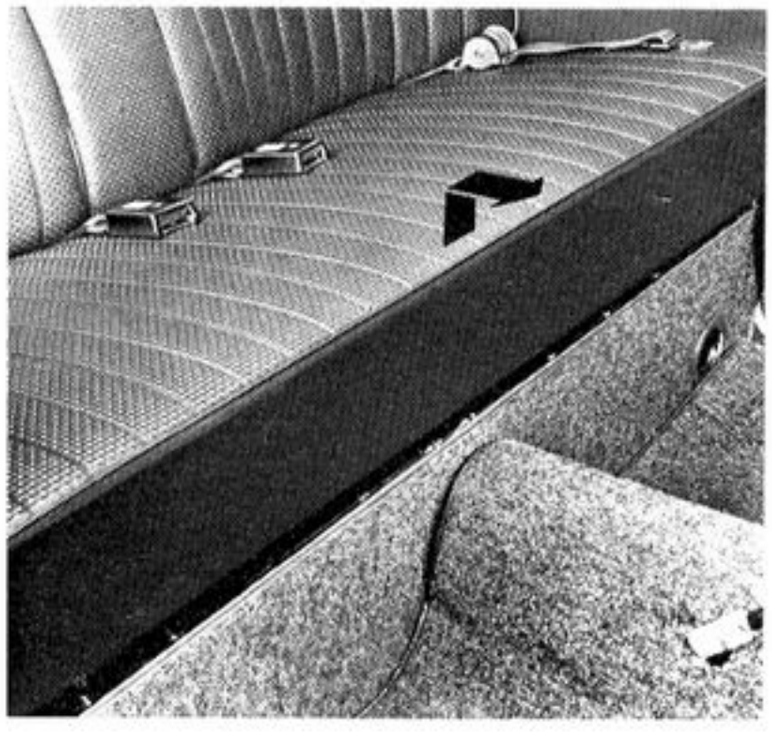
Cloth upholstery and carpet
Clean with a vacuum cleaner or a hard bristle brush. Dirt spots can usually be removed with a lukewarm soap/water solution.
Use spot remover for grease and oil spots. Do not pour the liquid on the cloth material. Dampen a clean cloth and rub carefully, starting at the edge and work inward.

Leatherette and interior trim
Use VW's All Purpose Cleaner or a dry foam cleaner.
Grease or paint spots can be removed by wiping with a cloth soaked with VW's 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.

Removing and installing the rear seat

To take the seat out, lift it at the front edge and pull it toward you.

To put the seat back in again, lift it into the car, place it on the front edge of the seat frame, and, with the front end tilted up, slide the seat fully back under the backrest. Position the safety belts on top of the seat cushion. Press down the front end of the seat to firmly position it on the pegs that hold the seat cushion in place.



Bulb chart

Bulb for	US Replacement bulbs	VW Part No.
Sealed beam (headlights)	6014	ZVP 118 114
Front turn signal/parking lights	1034	ZVP 118 034
Side marker lights	57	ZPP 118 057
Rear turn signal	1073	ZVP 118 073
Stop/tail lights	1034	ZVP 118 034
Back-up lights	1073	ZVP 118 073
License plate light (Volkswagen Type 3) ..	89	ZVP 118 089
License plate lights (Squareback Sedan) ..	67	ZVP 118 067
Instrument and warning lights	–	N 17 722 2
Warning lights for emergency flasher and brake operation, indicator lights for rear window defogger and Auxiliary Heater ..	–	N 17 751 2
Interior light, luggage compartment light (Type 3 only)	–	N 17 723 2
Selector lever console light (Automatic Transmission only)	–	N 17 751 2
Spot light for heater levers	–	N 17 751 2

Replacing bulbs

Headlights

Your Volkswagen is equipped with double filament seven inch sealed beam units. Should it become necessary to replace a unit, loosen screw in the center of the trim ring below the headlight and take off the trim ring:

Firmly grasp the loose screw (non-removable) and pull trim ring off.

Remove three short screws in sealed beam retaining ring and take ring off.

Do not alter the position of the long headlight adjustment screws.

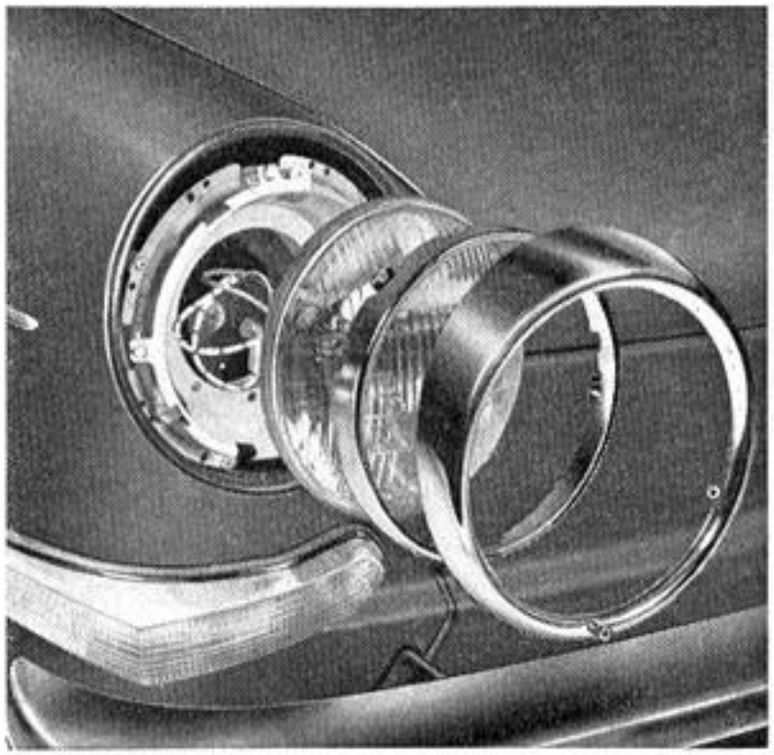
Take sealed beam unit out of support ring and pull cable connector off.

When installing new sealed beam units, be sure the three glass lugs engage properly in the support ring.

Before installing trim ring be sure the rubber gasket is in place. Loosely insert the screw for the trim ring and turn for 2 or 3 turns.

Position edge of trim ring over upper lug. Press ring over lug and tighten screw.

If no other headlight part as described here was removed or its position changed, it should not be necessary to aim the headlights. If in doubt have the adjustment checked at your dealer.



Front turn signal/parking light bulb or side marker light bulb

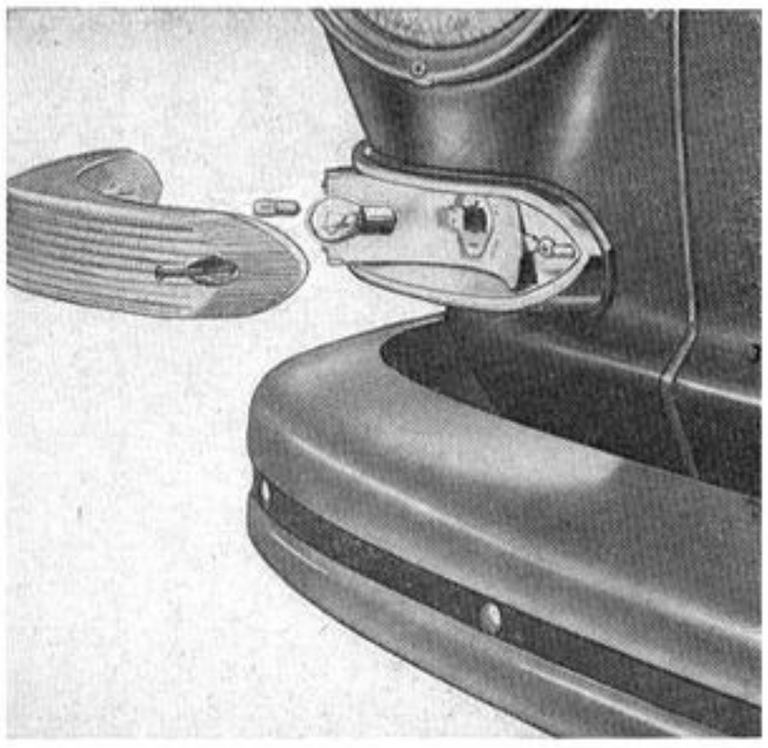
Remove two Phillips screws.
Take off lens.

Gently press bulb into holder, turn and take out.

Install new bulb.

Be sure the gasket is properly positioned when reinstalling the lens.

Tighten screws evenly. Do not overtighten as this may crack the lens.



Rear turn signal, stop/tail light or back-up light bulb

Unscrew two Phillips screws and remove lens.

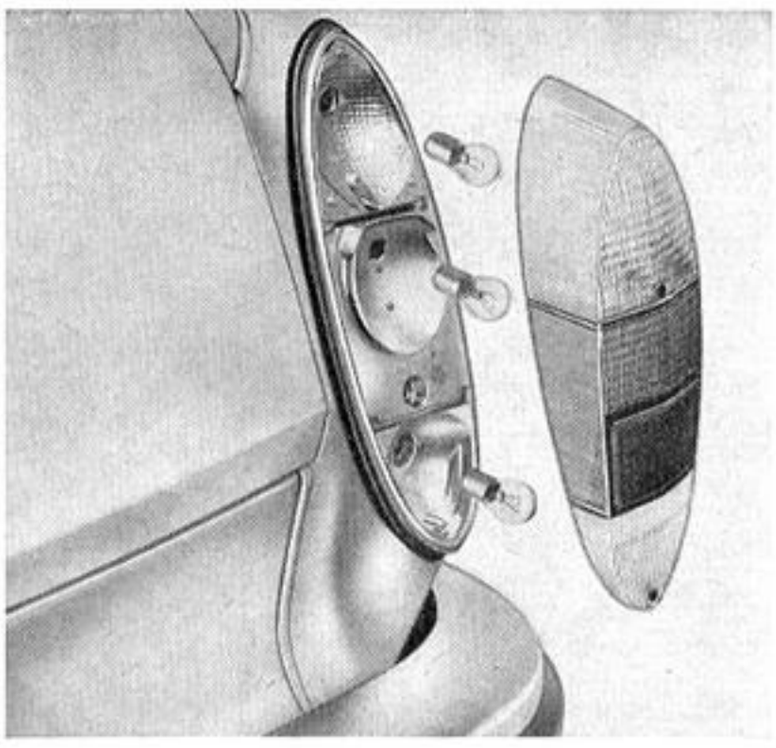
Bulb positions:

Top — turn signal light
Center — stop/tail light
Bottom — back-up light

Gently press bulb into holder, turn and take out. Install new bulb.

When inserting the stop/tail light bulb, the retaining pin nearest to the bulb glass must be downward.

Be sure the gasket is properly positioned when reinstalling the lens. Tighten screws evenly. Do not overtighten as this may crack the lens.



License plate light bulb

Volkswagen Type 3 and Type 3 Basic Compact

Open rear hood.

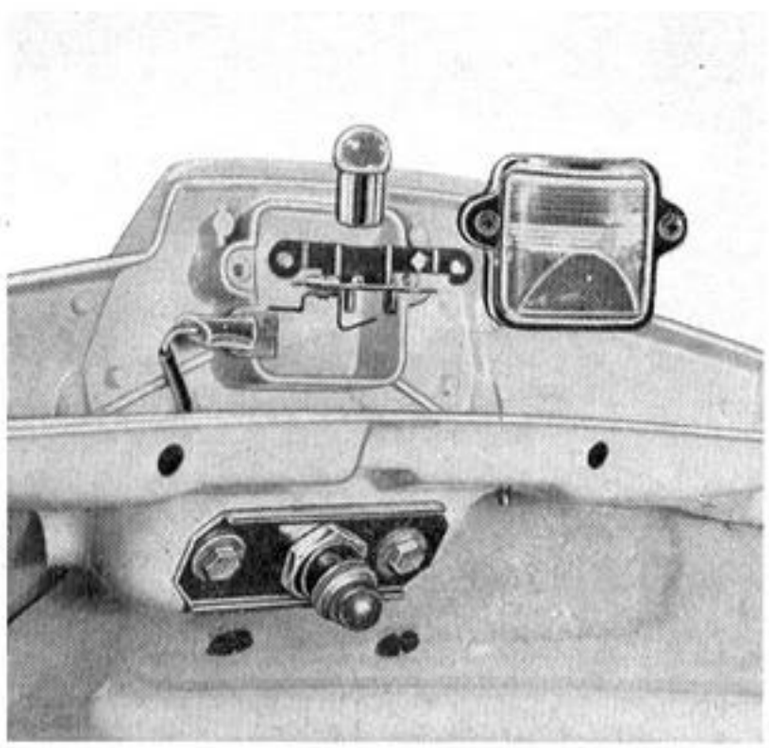
Remove screws on each side of lens and take off lens with bulb holder.

Pull bulb holder out of lens.

Gently press bulb into holder, turn and take out.

Install new bulb.

When installing be sure that the cable connector fits properly.



Squareback Sedan

Open rear luggage compartment lid.

Loosen 3 Phillips screws so that you can remove the insert together with the bulb holder.

Gently press bulb into holder, turn and take out.

Install new bulb.

During re-assembly be sure that the rubber gasket is properly seated.

Interior light bulb

Insert screwdriver at front behind the chromium plated frame and pry off carefully.

Take bulb out.

Install new bulb.

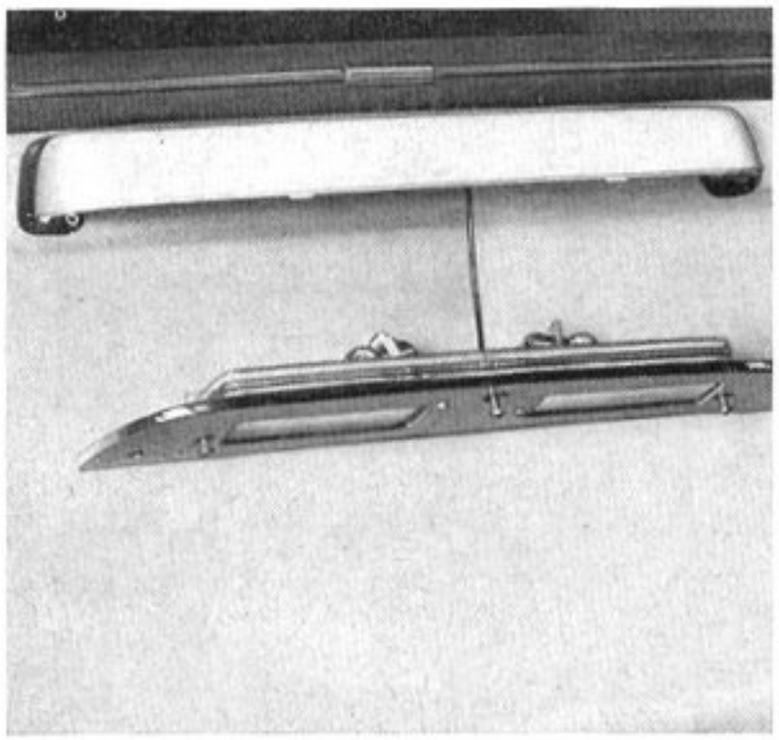
Insert housing at rear first, then press it in until retaining spring engages.

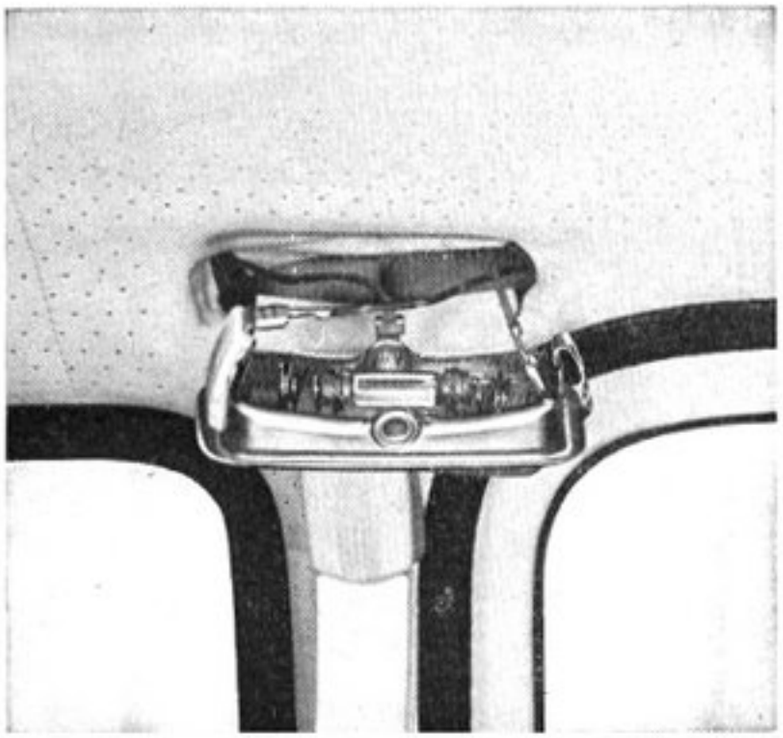
Rear luggage compartment light bulb (for Volkswagen Type 3 only)

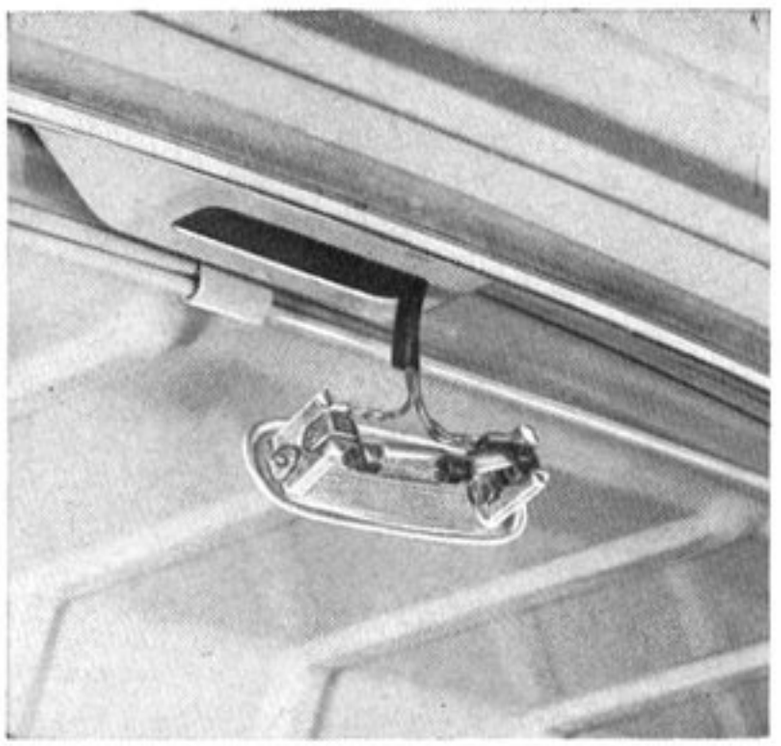
Open rear luggage compartment lid.

Insert screwdriver in lens cut-out on right side and carefully pry out. Exchange bulb.

Insert on either side and press in.







General services

Before working on any part in the engine compartment, turn off the engine and let it cool down sufficiently.

Incomplete or improper servicing may cause problems in the operation of the car. If in doubt about any servicing, have it done by your Authorized VW Dealer or any other properly equipped and qualified workshop.

Cleaning or replacing spark plugs

The correct spark plug gap is 0.028 inch. Since the spark plug gap tends to increase in time during normal operation, it is advisable to replace spark plugs every 12,000 miles.

Removing spark plugs

If your car is equipped with an air conditioner, remove the air cleaner.

Grasp the spark plug connector and pull it off. Do not pull on the ignition wires as they may separate from the connectors.

Unscrew the spark plugs with a suitable spark plug wrench.

Cleaning spark plugs

Dirty spark plugs should be cleaned with a sand blaster, but if not available, the carbon can be removed with a wooden or plastic pick. Do not use a wire brush. The plugs should also be clean and dry on the outside to avoid shorting and arcing. **The gap can be set by bending the outside electrode. The gap should be 0.028 inch.**

Installing spark plugs

Insert them by hand and screw them into the cylinder head as far as they will go. Only then use the spark plug wrench to tighten them firmly. Do not overtighten.

Checking the engine oil level

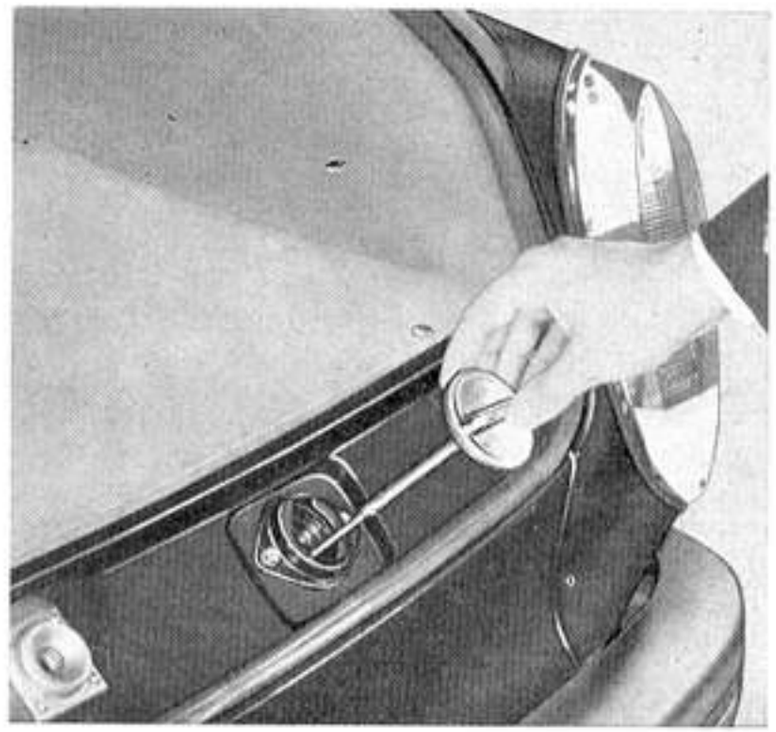
Your VW will usually not need additional oil between the scheduled changes.

Even so, you should check the oil level from time to time. To get a true reading, be certain the car is on level ground. Wait at least 5 minutes after the engine has been stopped; give the oil time to collect in the crankcase.

To check the oil level, take the dipstick out and wipe it clean first. Now, insert and pull it out again. You have enough oil in the engine if the oil level is between the upper and lower marks on the dipstick.

Only add the amount of oil that is needed.

Always select a well-known brand and the recommended grade. Details about the correct oil viscosities are on page 52.



Changing the engine oil

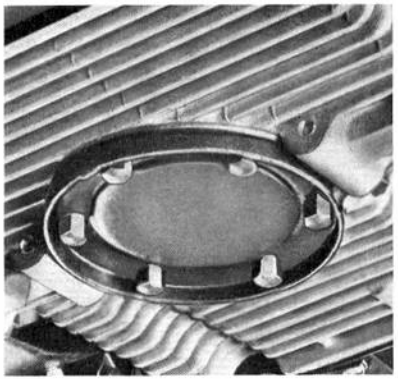
Change the oil in your engine at least every 3,000 miles. This is very important as the lubricating properties of oil diminish gradually during normal operation of the car.

Drain the oil when the engine is still warm. Loosen all six cap nuts. Then, after removing five of the nuts, pry the oil strainer cover loose. Allow the oil to drain.

After the oil is drained, remove the oil strainer to clean it. The cleaning of the strainer should be done with every oil change. Use new gaskets and copper washers when re-installing the strainer to be sure no oil leak will develop later.

Fill the engine with 5.3 U. S. pints (4.4 Imp. pt.) of oil labeled "For Service SD" or "SE" (or combination). For the right oil viscosity, see page 52.

Because of detergent additives in the oil the fresh oil will look dark after the engine has been running for a short time. This is to be expected, and there is no reason to change the oil at intervals shorter than 3,000 miles.



We recommend more frequent oil changes (every 1,500 miles) if you drive your car only short distances during the winter months. If you drive for only a few hundred miles a month under these conditions, we advise you change the oil every 6 to 8 weeks.

In arctic areas with temperatures generally below −13 °F, change the oil every 750 miles.

Manual Transmission oil

Both transmission and final drive are combined in one housing. The lubricant used is hypoid oil that is changed by your dealer only one time at 600 miles as part of the lubrication service. See page D 2.

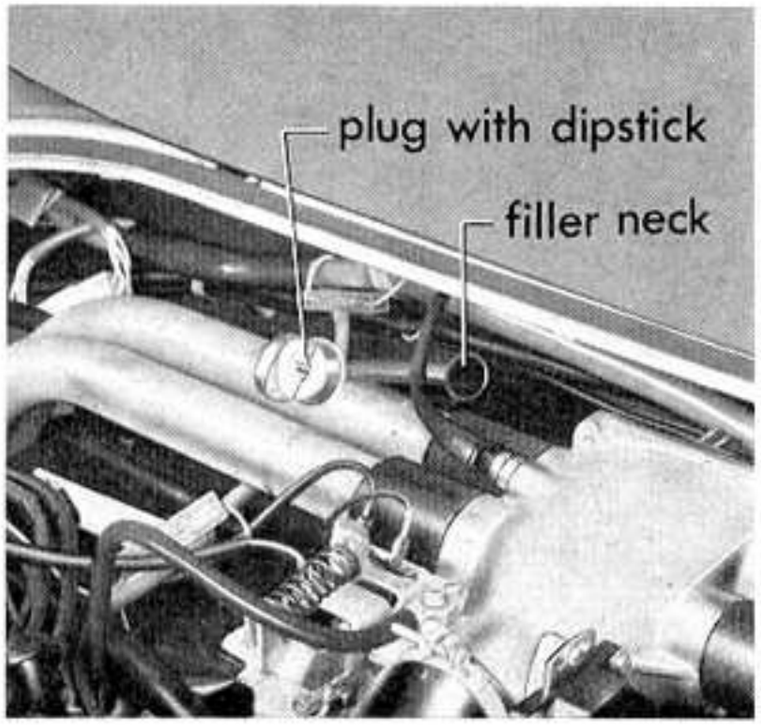
Should the need arise to replenish the oil filling, it should only be done with the necessary workshop equipment. Also, hypoid oil is generally not marketed in small quantities.

Automatic Transmission Fluid

Checking the ATF level

The torque converter and the transmission are lubricated with Automatic Transmission Fluid (ATF). The final drive requires hypoid oil SAE 90 only. The ATF has to be checked every 6,000 miles. 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 ATF filler neck is in the engine compartment on the left hand side above the air manifold pipes. The dipstick is attached to the plug. Pull it out and wipe it clean. The ring-shaped handle should be in the vertical position when reinserting the dipstick to measure the fluid level.



You have enough ATF if the fluid level is between the two marks on the dipstick. It should never be above or below these marks. If necessary, add ATF, but only as much as is needed, and have the transmission checked for possible leaks. Keep in mind that the difference between the lower and upper mark is only 0.85 U.S. pint (0.7 Imp. pt.). To add ATF, a clean funnel with an approximately 20 inch (50 cm) long hose should be used. For correct ATF specifications, see page 53.

Changing the ATF

Every 30,000 miles the complete ATF filling has to be changed. The ATF filling should be changed every 18,000 miles under heavy duty conditions such as: trailer towing, continued stop-and-go traffic, extended mountain driving, and at extremely high outside temperatures.

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

Air cleaner

All the dust present in the air drawn in by the engine is retained by the filter element in the air cleaner.

A dirty filter element not only reduces the engine output, it can also cause premature engine wear. If local conditions are such that the vehicle is often driven on very dusty roads, the cleaner must be serviced frequently, even daily if necessary.

Under normal conditions it is not necessary to service the filter element more frequently than is mentioned in the Diagnosis and Maintenance Service.

To check the filter element the air cleaner must be removed. Here is what to do:

Loosen Phillips head screw – A – of clamp for elbow connector to intake air distributor.

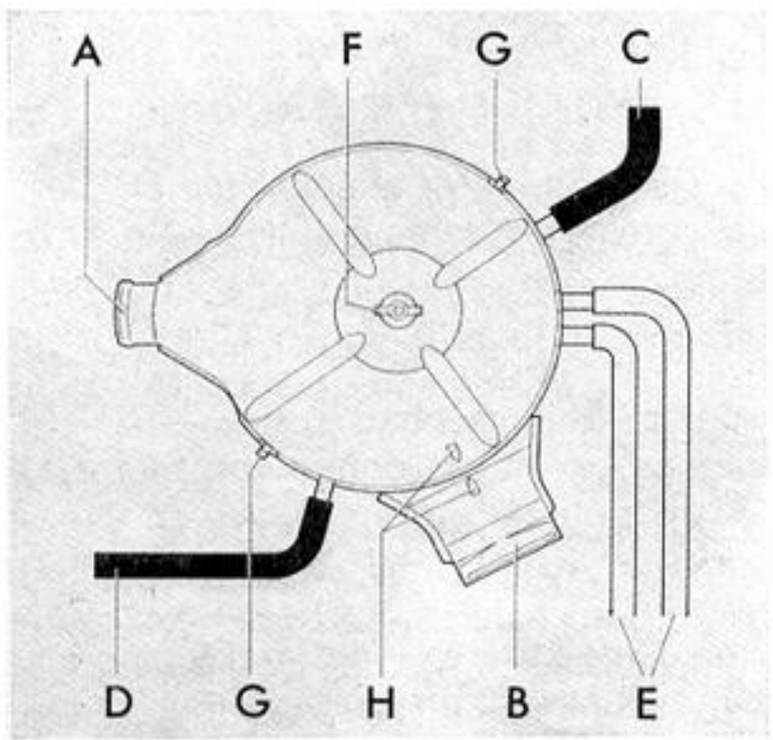
Release clip – B – on intake pipe and pull bellows from pipe.

For easier reinstallation note the hose attachments; interchanging of hoses affects the operation of the engine.

Pull off hoses C through E.

Remove air cleaner after loosening wing screw – F –. Keep air cleaner upright to avoid spilling oil.

Release the two clamps – G – and take off top part of cleaner. The top part must not be put down with the filter element upward.



When there is only 5/16 in. of oil above the sludge layer in the bottom of the lower air cleaner part, it must be cleaned and filled with fresh oil.

Clean lower part of cleaner carefully.

Fill cleaner to the mark with 0.85 U. S. pint (0.7 Imp. pt.) of fresh engine oil. SAE 30 oil should be used all the year except in areas with arctic climate where SAE 10 W oil should be used all year.

The top part does not normally need cleaning. If the bottom part or the filter element has become so dirty that the air inlet holes on the underside are partly blocked, the encrusted dirt should be scraped off with a wooden or plastic scraper.

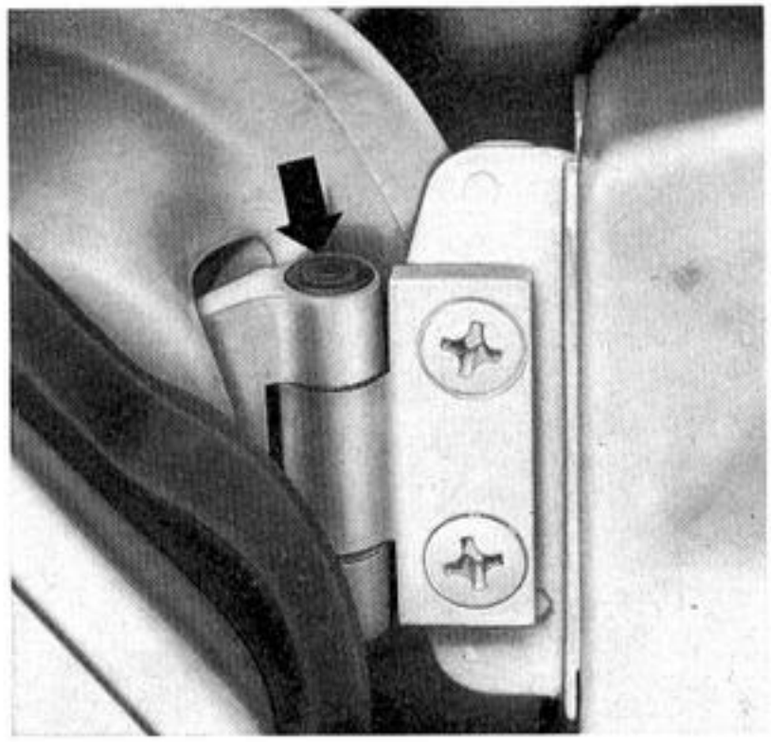
When assembling the cleaner note that the marks – H – on upper and lower parts are in line.

When installing the cleaner, ensure proper fit of bellows on intake pipe of air cleaner and elbow connector of intake air distributor.

Lubrication

Door hinges and locks

The **door hinges** should be lubricated every 3 months by putting a few drops of engine oil into the small oil chamber above each door hinge pin. The oil chamber is accessible after lifting the top plastic plug (arrow). After oiling reinstall the plug and wipe off excess oil.



The **door locks** should also be lubricated with a few drops of engine oil through the hole above the lock. Remove the plastic plug first. Use an oil can with a fine nozzle.

Lubricate the **door lock cylinders** with graphite. Dip the key into graphite and turn it in the lock a few times.

Also, lubricate the **hood locks** and the sliding surfaces of the **striker plates** lightly with dry stick lubricant.

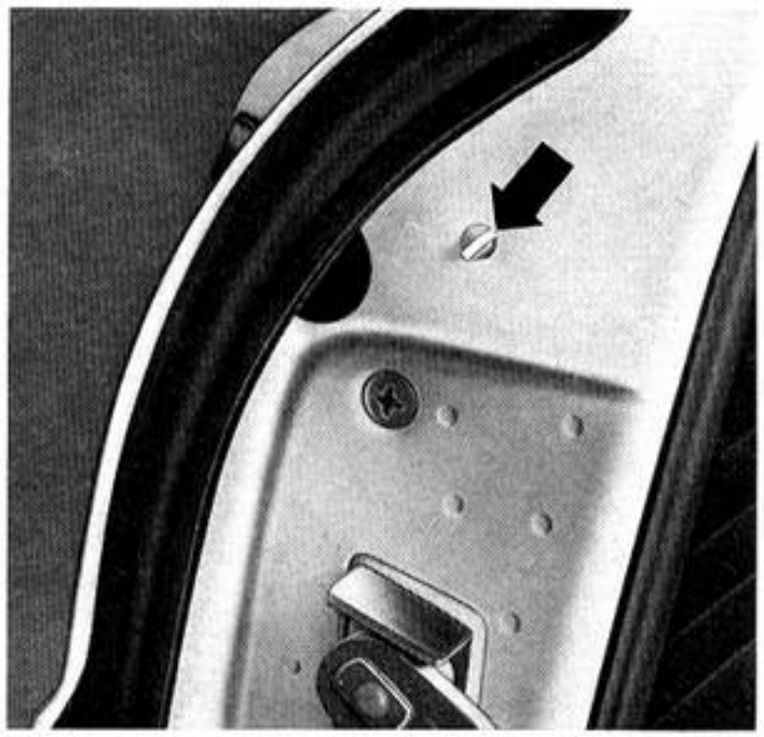
Front axle

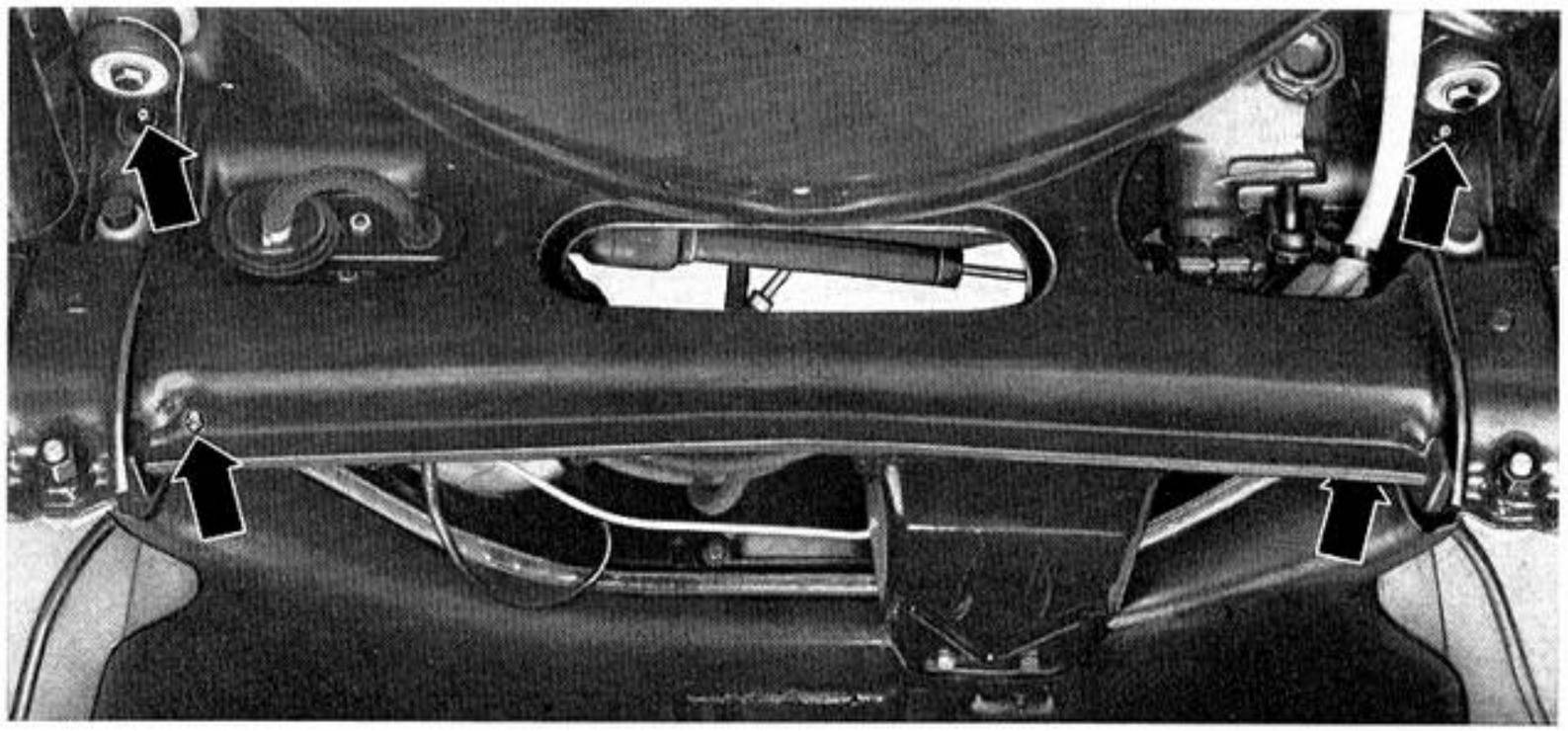
Lubricate the front axle once a year or every 18,000 miles (see VW-Diagnosis and Maintenance Schedule).

Lift the front end of the car to take the weight off the front wheels. This is necessary to free the bearings to accept the lubricant. There are 4 grease fittings for the front axle. For their location, see arrows in the illustration.

Before forcing grease into the fittings, be sure to wipe them clean with a piece of cloth. Force lithium-based multi-purpose grease into the fittings until fresh grease starts to emerge at the torsion arm sealing rings.

Wipe off any grease or oil that may have come in contact with tires or brake hoses because grease and oil have an adverse effect on rubber.





Engine oil

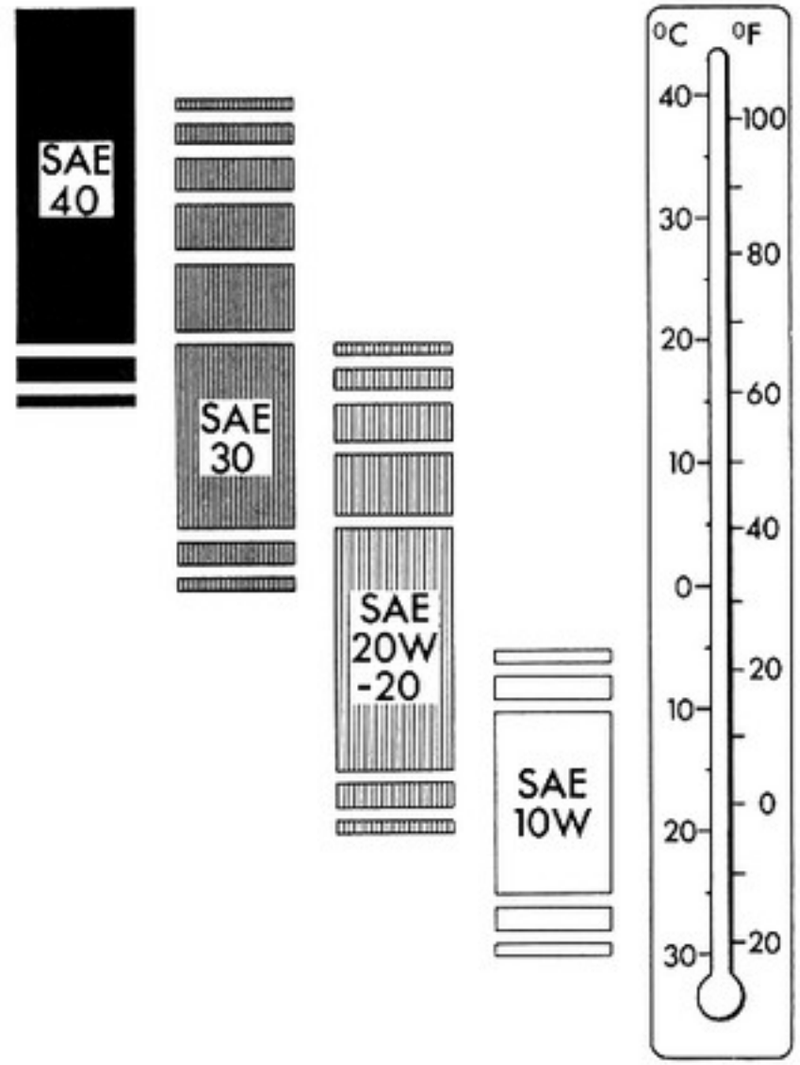
Always use a name brand oil labeled "For Service SD" or "SE" (or combination) for the engine of your Volkswagen.

Engine oils are graded according to their viscosity. The proper grade to be used in your engine depends on existing climatic or seasonal conditions.

The following table contains the grading for oils to be used in VW engines:

Tropical climate	Hot season		SAE 40
	Cool season		SAE 30
Moderate climate	Summer		SAE 30
	Winter	At average outside temperature above 5 ° F	SAE 20 W–20
		At average outside temperatures not lower than –13 ° F	SAE 10 W *

Temperature ranges of SAE grades



If outside temperatures are continuously below –13 ° F use SAE 5 W *.

* Avoid high speed long distance driving when using SAE 10 W or SAE 5 W if outside temperatures rise above the indicated limits.

As temperature ranges of the different oil grades overlap, **brief** variations in outside temperatures are no cause for alarm. It is also permissible to mix oil of different viscosities if you find it necessary to add oil.

Transmission oil and Automatic Transmission Fluid (ATF)

A — Manual Transmission

Transmission and final drive are both lubricated with hypoid oil according to Mil — L — 2105 — B specifications (additive basis: sulphur-phosphorus):

SAE 90	In general all year.
SAE 80	In areas with cold climate.
ATF	In areas with arctic climate and temperatures consistently below −13° F.

ATF is a special fluid for automatic transmissions, but ATF can also be used in the Manual Transmission under the above mentioned climatic conditions.

B — Automatic Transmission

The final drive must be lubricated **only** with hypoid oil SAE 90.
Automatic Transmission and torque converter require ATF all year.
All ATF's labeled "Dexron®" with a five-digit number preceded by the letter "B" can be used.

Lubricant additives

If a VW engine is properly maintained, it is uneconomical to mix any type of additive with fuel, or lubricating oils and transmission fluids.

Grease

1. **Multi-purpose grease with lithium base** should be used for the front axle.
2. **Dry stick lubricant** should be used for the hood locks and the sliding surfaces of the striker plates.
3. **Silicone spray or petroleum jelly** should be used for the battery terminals and posts.

Troubleshooting

Your Volkswagen should repay you with trouble-free driving if it receives regular maintenance.

Should you ever encounter difficulty in starting your engine or have trouble on the road, there are a few simple repairs which you can make to get your VW going again. Locate the PROBLEM and PROBABLE CAUSE of the trouble in the guide on the following three pages and follow the directions on WHAT TO DO.

Exercise extreme caution when working on any part of the car to prevent accidental injury. Incomplete or improper servicing may also cause problems in the operating of the car. If in doubt about any servicing, have it done by a qualified mechanic or by your Authorized VW Dealer.

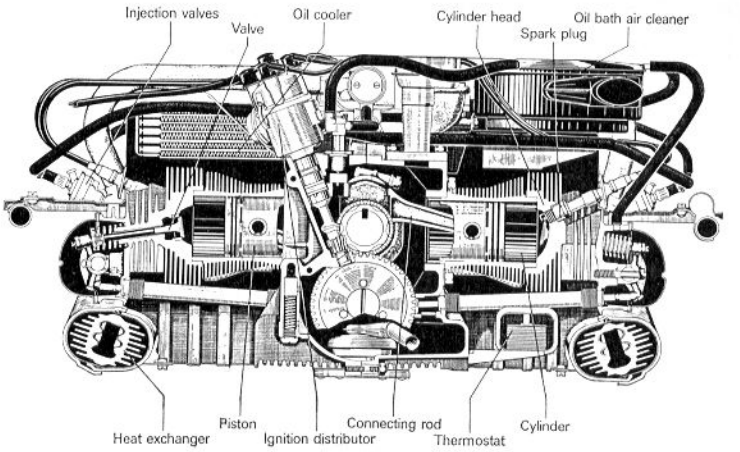
Note: The adjustment of idling and ignition timing requires special equipment. We suggest that you consult your Authorized Volkswagen Dealer.

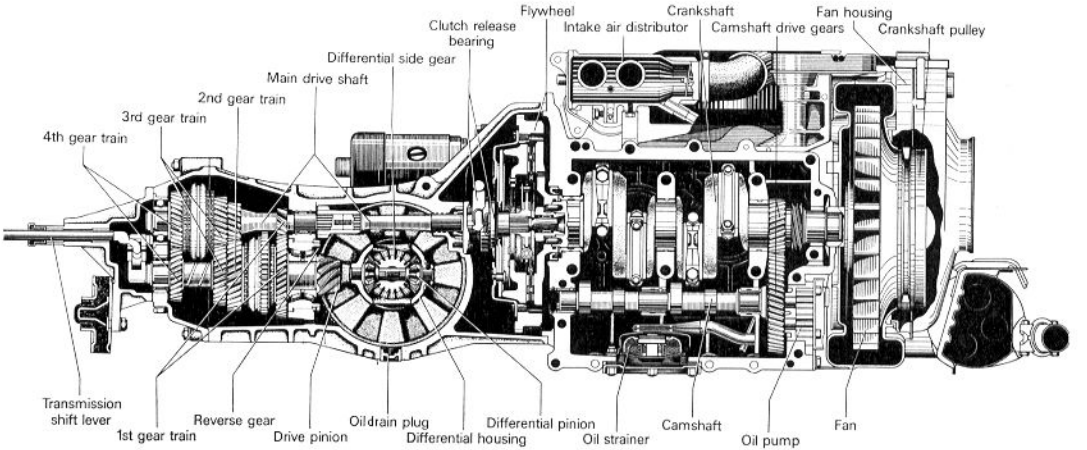
PROBLEM	PROBABLE CAUSE	WHAT TO DO
VW will not start: engine will not turn over or turns over too slowly.	1. Run down or dead battery.	1. Charge or replace battery.
	2. Loose connection A. At battery	2. Make sure that all connections are tight. A. Check both cable connections on battery and grounded end of ground strap.
	B. At starter	B. Check connections at solenoid, mounted on starter, under right rear of vehicle.
	C. At connector block on steering column under dashboard.	C. Check push-on connectors for tightness.
	D. At light switch or fuse box.	D. Check push-on connectors at back of light switch and on fuse box.
	3. Starter defective.	3. See your nearest Authorized VW Dealer.
	4. On vehicles with Automatic Transmission: The selector lever is not in starting position.	4. Shift into Neutral or Park.
VW will not start: engine turns over.	5. Loose connection in ignition system.	5. Check for loose connections at coil, distributor and spark plugs.
	6. Loose connection in primary circuit to coil.	6. Check push-on connector on coil (thin black wire). Check push-on connector on steering column under the dashboard for tightness. Check connectors at fuse box. Should the engine not start, ask for assistance.

PROBLEM	PROBABLE CAUSE	WHAT TO DO
VW will not start: engine turns over	7. If spark is present at black coil cable, trouble is in ignition system.	7. Check in this sequence: A. Turn ignition off. Remove distributor cap and rotor. Clean distributor contacts with stiff paper (post card). Have someone turn engine over with starter. Sparks should be visible between contacts. If no spark, check contact of cable connectors between coil and distributor cap. Check if contacts open. If there is still no spark, see your nearest Authorized VW Dealer. B. If sparks are visible between contacts disconnect high tension cable from center connection of distributor cap. With starter cranking the engine point cable to a metal part of the engine leaving a gap of approximately 1/4". Strong arcing sparks should appear. If there are no sparks, contact your nearest Authorized VW Dealer. C. If sparks appear at high tension cable, the distributor cap should be cleaned inside and out. Reconnect high tension cable. Remove all spark plugs. If plugs are clean and dry, reconnect ignition cables to spark plugs and bring spark plugs into contact with metal (ground). **Hold cable with dry piece of cloth to avoid shock.** Sparks should appear between spark plug electrodes when the engine is turned over. If not, clean and dry ignition cables and spark plug connectors and check that ignition cables are tight in distributor cap and plug connectors. Ask for assistance if the above steps did not ensure proper ignition. D. Dirty or wet spark plugs should be cleaned and dried. Install new plugs if necessary. Unburned gasoline on plug electrodes indicates excessive fuel supply.
	8. If spark is fairly good at plugs, trouble is most likely in fuel system. A. Caused by improper starting procedure. B. Engine flooded.	8. Check fuel system in the following sequence: A. Before turning on the ignition and starting the engine depress the accelerator pedal. B. Check all electrical connections in engine compartment. If engine still does not start, switch off the electrical fuel pump by taking fuse 7 **out** of the fuse box (see page 38). Depress accelerator pedal fully and start engine. Keep engine running until it stalls automatically. Install fuse and start engine as usual. If engine still does not start, ask for assistance.
	C. Fuse for electrical fuel pump is blown.	C. Replace fuse. If it blows again, ask for assistance.

PROBLEM	PROBABLE CAUSE	WHAT TO DO
Engine stalls shortly after starting.	9. Poor fuel supply.	9. See paragraphs 11 and 12.
Engine stalls while vehicle is driven.	10. Defect in ignition system. 11. Fuel supply is exhausted. 12. Fuel filter may be clogged, gasoline may be contamined by water or dirt.	10. See paragraph 5 through 7. 11. Check whether any gasoline is left in tank. 12. See your VW dealer for cleaning of all components of the fuel system.
Red warning light for oil pressure comes on while you are driving.	13. If light goes on, the oil pressure is too low.	13. Stop at once and check oil level. Add oil as necessary. If the oil level is sufficient and light goes on during driving, contact the nearest Authorized VW Dealer before driving on.
Red warning light for generator comes on while you are driving.	14. If light goes on, V-belt may be broken or slipping or generator does not charge.	14. Switch off all unnecessary electrical equipment (radio, etc.). Drive to nearest VW dealer as otherwise the battery will soon run down.

Engine with Manual Transmission





Owner Relations

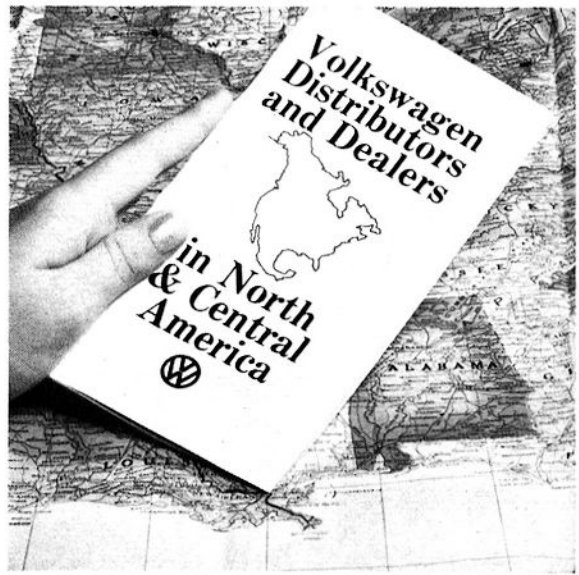
There are more than 1,500 Authorized Volkswagen Dealers in North and Central America. Their addresses and telephone numbers are listed in a booklet which is available at your VW Dealer.

Any one of these dealers is well equipped to help you with virtually all VW-related matters; and your dealer should be your primary source.

Should there be an occasion where you need further assistance, you may want to contact your area distributor. We show the addresses and telephone numbers of the VW distributors in the U. S. on the next page.

However, remember that ultimately your questions will be resolved in the dealership with dealer personnel and dealer equipment. We therefore suggest you contact your dealer first.

For quick reference, always include the chassis number in any correspondence.



Addresses of VW Distributors in the US:

Maine
Massachusetts
New Hampshire
Rhode Island
Vermont
Volkswagen Northeastern
Distributor, Inc.
100 Fordham Road
Wilmington, Massachusetts 01887
(617) 658-6700

Illinois
Iowa
Minnesota
North Dakota
South Dakota
Wisconsin
Volkswagen North Central
Distributor, Inc.
3737 Lake Cook Road
Deerfield, Illinois 60015
(312) 272-5500

Kentucky
Ohio
Midvo, Incorporated
5000 Post Road
Dublin, Ohio 43017
(614) 889-2911

Indiana
Michigan
Import Motors Ltd., Inc.
P.O. Box 2008 (2660 28th St., S.E.)
Grand Rapids, Michigan 49501
(616) 949-7788

Florida
Georgia
South Carolina
Volkswagen Southeastern
Distributor, Inc.
155 East 21st Street
Jacksonville, Florida 32203
(904) 355-1684

Delaware
Pennsylvania
Volkswagen Atlantic, Inc.
1001 South Trooper Road
Valley Forge, Pennsylvania 19481
(215) 666-7500

Alabama
Louisiana
Mississippi
Tennessee (West)
International Auto Sales & Service, Inc.
4200 Michoud Boulevard
New Orleans, Louisiana 70129
(504) 254-1500

Connecticut
New York
New Jersey
World-Wide Volkswagen Corporation
Greenbush Road
Orangeburg, New York 10962
(914) 359-5000

Washington, D.C.
Maryland
North Carolina
Tennessee (East)
Virginia
West Virginia
Volkswagen South Atlantic
Distributor, Inc.
9300 George Palmer Highway
Lanham, Maryland 20801
(301) 577-2600

Arizona
California (South)
Nevada (South)
Hawaii
Volkswagen Pacific, Inc.
11300 Playa Street
Culver City, California 90230
(213) 870-3381 or (213) 390-6226

Alaska
Idaho
Montana
Oregon
Washington
Riviera Motors, Inc.
P.O. Box 220 VW
(Five Oak Industrial RTE 1)
Hillsboro, Oregon 97123
(503) 645-5511

Arkansas
Missouri
Kansas
Nebraska
Volkswagen Mid-America, Inc.
8825 Page Boulevard
St. Louis, Missouri 63114
(314) 429-2141

Colorado
New Mexico
Oklahoma
Texas
Wyoming
Volkswagen South Central
Distributor, Inc.
P.O. Box 2207
San Antonio, Texas 78298
(512) 341-8881

California (North)
Nevada (North)
Utah
Reynold C. Johnson Company
7100 Johnson Industrial Drive
Pleasanton, California 94566
(415) 828-6700

Technical data

Engine

Four cylinder, four stroke, horizontally opposed, flat design, in rear.
Thermostatically controlled air cooling by fan on crankshaft.
Pressure oil feed with gear-type pump. Oil cooler.
Electric fuel pump. Electronic fuel injection. Activated charcoal filter in the fuel system.

Bore	3.36 in. (85.5 mm)
Stroke	2.72 in. (69 mm)
Displacement	96.6 cu. in. (1584 cc.)
Valve clearance with engine cold	Intake and exhaust 0.006 in. (0.15 mm)
Compression ratio	7.3 : 1
Maximum output SAE net	52 hp at 4000 rpm.
Maximum torque SAE net	77.0 ft. lbs. at 2200 rpm.
Fuel rating	"Regular" gasoline incl. low-lead or lead-free fuels *
Oil consumption	U.S. – 1.7 – 3.4 pints per 1000 miles Metric 0.5 – 1.0 liter per 1000 km Imp. – 1.4 – 2.9 pints per 1000 miles

* The correct fuel octane rating for your VW engine is listed on a sticker on the inside of the fuel tank flap.

Transmissions

Automatic Transmission

Automatic transmission combined with final drive in one housing.
The transmission consists of a hydrodynamic torque converter and planetary gearing with three forward gears and one reverse.
Drive shafts with two constant velocity joints per shaft.

Manual Transmission

Single plate, dry clutch.
Clutch pedal free play: 3/8–3/4 in. (10–20 mm).
Baulk synchronized four-speed gearbox and bevel gear differential in one housing.
Drive shafts with two constant velocity joints per shaft.

Chassis

General specifications

Platform frame with tunnel-shaped center member.

Front axle bolted to forked frame head, sub-frame at rear to carry engine-transmission unit.

Independent wheel suspension: torsion arms at front, trailing arms and diagonal links at rear.

Torsion bar springing, telescopic shock absorbers, stabilizer at front.

Roller steering (energy absorbing) with maintenance-free tie rods and hydraulic steering damper.

Footbrakes: Hydraulic, dual circuit system with discs at front and drums at rear.
Parking brake: Mechanical, effective on rear wheels.

Wheelbase	94.5 in. (2400 mm)
Turning circle	36.7 ft. (11.2 m)
Track at front	51.6 in. (1310 mm)
Track at rear	53.1 in. (1350 mm)
Wheels	4½ J x 15 safety rim wheels
Tires, tubeless	Bias Ply Tires
Tire size and pressures	Tire size and VW-recommended cold tire inflation pressures are listed on a sticker on the inside of the glove compartment door.

Electrical system

Voltage	12 Volts
Battery	45 Ah
Starter	0.7 hp, with Automatic Transmission 0.8 hp
Generator	max. 420 watts, early cut-in
V-belt size	9.1 or 9.5 x 1000 mm
Distributor	with combined vacuum and centrifugal spark advance
Firing order	1 – 4 – 3 – 2
Ignition timing	for correct specifications for your engine, see label in engine compartment
Contact breaker gap	0.016 in. (0.4 mm)
Spark plugs	Bosch W 145 T 1, Bosch W 175 T 1* / Beru 145/14, Beru 175/14 * / Champion L 88 A } or plugs with similar values from other manufacturers
Plug thread	14 mm
Electrode gap	0.028 in. (0.7 mm)

* To be used in vehicles driven at high speed for long periods in areas, where the average temperature is above 77° F.

Dimensions and weights

	Volkswagen Type 3	Volkswagen Squareback Sedan
Length	172.0 in. (4368 mm)	172.0 in. (4368 mm)
Width	63.2 in. (1605 mm)	63.2 in. (1605 mm)
Height	57.9 in. (1470 mm)	57.9 in. (1470 mm)
Ground clearance	5.9 in. (150 mm)	5.9 in. (150 mm)
Unladen weight (ready for use)	2226 lbs. (1010 kg)	2282 lbs. (1035 kg)
Vehicle capacity weight **	775 lbs. (350 kg)	900 lbs. (410 kg)
Gross vehicle weight	3108 lbs. (1410 kg)	3274 lbs. (1485 kg)
Gross axle weight, front	1278 lbs. (580 kg)	1278 lbs. (580 kg)
rear	1874 lbs. (850 kg)	2072 lbs. (940 kg)
Permissible roof weight ***	165 lbs. (75 kg)	165 lbs. (75 kg)
Permissible trailer weights:		
Trailer without brakes	1025 lbs. (465 kg)	1080 lbs. (490 kg)
Trailer with brakes	1764 lbs (800 kg)	1764 lbs. (800 kg)
Trailer tongue load	55 to 88 lbs. (25–40 kg)	55 to 88 lbs. (25–40 kg)

** Less, if an VW Air Conditioner is installed (see page 27).
*** Applies only to roof rack mounted to rain gutters. Distribute load evenly!

Capacities

Fuel tank	10.6 U.S. gal. (40 liters; 8.8 Imp. gal.)
Engine	5.3 U.S. pints (2.5 liters; 4.4 Imp. pints) of engine oil
Transmission and final drive	6.3 U.S. pints (3 liters; 5.3 Imp. pints) of hypoid oil, refill with 5.3 U.S. pints (2.5 liters; 4.4 Imp. pints)
On vehicles with Automatic Transmission:	
Torque converter and planetary gears	Approx. 12.7 U.S. pints (6 liters; 10.6 Imp. pints) ATF, refill with 6.3 U.S. pints (3.5 liters; 5.3 Imp. pints)
Final drive	Approx. 2 U.S. pints (1 liter; 1.8 Imp. pint) Hypoid oil SAE 90
Brakes	0.53 U.S. pint (0.25 liter; 0.44 Imp. pint) of brake fluid
Oil bath air cleaner	Approx. 0.85 U.S. pint (0.40 liter; 0.70 Imp. pint) of engine oil
Container for windshield washer	Approx. 3.5 U.S. pints (1.7 liter; 3.0 Imp. pints) of fluid operating pressure: Type 3 ..... 42 psi (3 kg/cm²) Squareback Sedan 56 psi (4 kg/cm²)

Performance

	Manual Transmission	Automatic Transmission
Maximum and cruising speed	84 mph.	81 mph.

Authorized VW Dealers use a unique service system specially developed for the VW.

Lots of service stations say they can repair Volkswagens and a lot of them really can. But they cannot offer you VW Diagnosis.

Instead of giving every VW the same basic maintenance, we treat each one as an individual.

And we have already prepared your car for an even more advanced diagnosis system. The socket in the engine compartment is a part of this system.

Specially trained diagnosticians will check your VW directly using special testing equipment; that means your car gets just the maintenance it needs. No more, no less.

And you get a test report so you know the exact condition of your VW.

It tells you a lot about the car you drive.

VW Diagnosis and Maintenance

The **VW Diagnosis and Maintenance Service** has been developed to give each car "tailored maintenance". In other words, just the proper amount of service that each individual car needs.

The **Diagnosis and Maintenance Record,** which appears at the end of this manual, shows you the mileage intervals at which diagnosis and maintenance services should be performed to keep your car in top driving condition.

Every Authorized Volkswagen Dealer at home or abroad will perform all the operations listed for VW Diagnosis, VW Maintenance, and the additional services (such as oil change, lubrication, brake fluid renewal), in accordance with Volkswagen quality service standards.

The **first maintenance service at 600 miles is free of charge;** you only pay for the engine and transmission oil change. From then on, every 6,000 miles your car will be tested through VW's unique diagnosis service system. You are entitled to **free diagnosis services at 6,000, 12,000, 18,000 and 24,000 miles.** The VW Diagnosis Test Report will show precisely what work might be necessary in addition to the regular maintenance and oil change services that your VW requires.

If your Volkswagen is driven less than 18,000 miles in twelve months, have the front axle lubricated once a year.

Of course, you can obtain a VW Diagnosis at any time – outside the regular schedule – at your Authorized VW Dealer. Especially if your drive less than 6,000 miles a year, we recommend you have a VW Diagnosis performed at least once a year.

Your Authorized Volkswagen Dealer will certify on the mileage chart at the end of this manual which services have been completed.

If you have your car serviced somewhere other than at an Authorized VW Dealer, retain all receipts so that you can verify that regular services were performed at the recommended time or mileage intervals.

Oil Change and Maintenance Service 600 Miles

The free maintenance service at 600 miles consists of the following: (Lubricants, fluid and materials such as gaskets are paid by the customer).

Oil Change

1 – Engine: Change oil, clean oil strainer.

2 – Manual Transmission: Change oil, clean magnetic drain plugs.

Maintenance Service

1 – Valves: Check and adjust clearance.

2 – Clutch pedal free play: Check and adjust.

3 – Rear axle: Check torque of bolts on constant velocity joints.

4 – Tires and wheels: Check tire pressures, including spare wheel.

5 – Brake system: Check for damage and leaks. Check brake fluid level, add if necessary. Adjust foot and parking brakes.

6 – Electrical system: Check operation of all components, adjust headlights if necessary.

7 – Fuel cap, tank and connections: Check visually.

During road test:

Check efficiency of braking, steering, heating and ventilation systems. Check overall performance.

After road test:

1 – Check and adjust idle speed.

2 – Check cylinder head covers for leaks.

VW Diagnosis and VW Maintenance

Oil Change Service

The engine in the Volkswagen requires little oil. But for long engine life, this oil should be changed every 3,000 miles. An oil change at a VW dealer includes the services shown below:

Engine: Change oil, clean oil strainer.

VW Diagnosis

A physical checkup of your VW is extremely important for determining the amount of additional maintenance your vehicle may need for continuing peak performance.

Listed on the following pages is the VW Diagnosis procedure which applies to your vehicle.

Chances are, if you have regularly maintained your vehicle, it is in good running condition.

The VW Diagnosis Test Report will be given to you so you will know the exact condition of your VW.

It is something you should know.

A VW Diagnosis every 6,000 miles consists of:
(only applicable operations on your vehicle will be performed)

Engine and clutch:

1 – V-Belt: Check tension and condition.

2 – Ignition system: Check with electronic equipment.

3 – Compression: Check.

4 – Water drain flaps and air intake housing bellows: Check.

5 – Exhaust system: Check for damage.

6 – Manual Transmission
Clutch: Check pedal free play.

7 – Engine: Check oil level.

Rear axle and transmission:

8 – Drive shafts: Check boots for leaks.

Front axle and steering:

9 – Front axle: Check dust seals on ball joints and dust seals on tie rod ends, check tie rods.

10 – Upper torsion arms: Check play.

11 – Ball joints: Check play.

12 – Steering: Check play.

13 – Front wheels: Check camber and toe.

Brakes, wheels, tires:

14 – Brake system: Check for damage and leaks.

15 – Brake pedal: Check free play.

16 – Brake pedal: Check pedal travel.

17 – Parking brake: Check adjustment.

18 – Brake fluid: Check level.

19 – Brake linings or pads: Check thickness.

20 – Tires, including spare wheel: Check for wear and damage, check and correct pressure.

Electrical system:

21 – Cranking system: Check with electronic equipment.

22 – Charging system: Check with electronic equipment.

23 – Kickdown switch and solenoid: Check.

24 – Check operation of headlights, high beam indicator light, parking lights, side marker lights, license plate light, emergency flasher, stop lights, tail lights, back-up lights, turn signals, horn, rear window defogger and brake warning light.

25 – Headlights: Check adjustment.

26 – Windshield wiper: Check operation.

27 – Windshield washer: Check operation and fluid.

28 – Battery: Check electrolyte level, check voltage under load.

Test Drive

Test drive if Diagnosis is not followed by maintenance or repair. If maintenance or repair follows the diagnosis, test drive after the job is completed.

1 – Check braking, clutch, kickdown, steering, heating, ventilation system (including fresh air fan) and overall performance.

2 – Check interior lights, instrument lights.

3 – Check ignition/steering lock and buzzer alarm.

4 – Check warning lights for generator and oil pressure.

5 – Automatic Transmission: Check ATF level.

VW Maintenance

After your vehicle receives a VW Diagnosis, your Authorized Volkswagen Dealer can perform the VW Maintenance.

The maintenance which should be performed at specified mileage intervals is shown below.

There may be additional maintenance required which will show up on the VW Diagnosis Test Report.

Your VW Service Manager or Service Adviser will explain the results of the VW Diagnosis in detail.

This will help keep a small maintenance problem from growing into a big maintenance problem.

So that your VW will keep running like a VW.

A VW Maintenance every 6,000 miles consists of:

1 – Engine: Change oil, clean oil strainer.

2 – Valves: Check and adjust clearance.

3 – Door hinges and door checks: Lubricate.

4 – Transmission: Check oil level, add if necessary.

5 – Automatic Transmission
Final drive: Check oil level, add if necessary.
Fluid pan: Check torque of bolts.

6 – Safety belt warning light and buzzer alarm: Check.

7 – Heater lever spot light: Check.

8 – Test drive: Check braking, clutch, kickdown, steering, heating, ventilation system and overall performance. Cylinder head covers: Check for leaks. Check operation of automatic transmission.

In addition

Every 12,000 miles

1 – Contact breaker points: Replace. Adjust dwell angle. Check timing, adjust if necessary.

2 – Spark plugs: Replace.

3 – Ignition system: Visually check distributor cap and rotor.

4 – Fuel system: Replace filter.

5 – Activated charcoal filter: Check visually.

Every 18,000 miles

1 – Front axle: Lubricate.

2 – Air cleaner: Clean and refill lower part with oil.

Every 24,000 miles

1 – Automatic Transmission
Filter element for exhaust recirculation: Replace (at least every 2 years).

2 – Fuel cap, tank and connections: Check visually.

3 – Ignition wires, distributor cap and rotor: Check, replace if necessary.

Every 30,000 miles

Automatic Transmission:

Change ATF (includes removing and installing oil pan).

Important:

Change ATF every 18,000 miles if vehicle is operated under heavy duty conditions such as trailer towing, high outside temperatures, continuous mountain driving or constant stop and go traffic. If in doubt, consult your Authorized Volkswagen dealer.

Every 48,000 miles

Activated charcoal filter: Replace

Every 2 years

1 – Brakes: Replace brake fluid.

2 – Brake warning light switch: Check functioning.