Volkswagen Owner's Manual: Operation and Maintenance

15.8 gals
Oil with filter 3.7 qts
6-12-87 Gas Receipt 17917
V BELT - 533K

MR. Wood
357-8650

1974 Models

Volkswagen Station Wagon and Kombi

Volkswagen Campmobile

Volkswagen Delivery Van

Volkswagenwerk Aktiengesellschaft

Gas. 6-12-87
Full 17917 mi.

3.02.562.011.23

Printed in Germany 10. 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 COMPUTER 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.

There is no extra charge for the first maintenance service at 600 miles (you only pay for lubricants and filters).

You are further entitled to a diagnosis at no extra charge 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 1974 Volkswagen Station Wagon with Manual Transmission. Where the controls, equipment and technical data of the commercial models 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.

Items not covered by warranty

3. VWoA is not responsible for: (i) damage or malfunctions resulting from: (a) accident, misuse, negligence or alteration; (b) improper repair of the vehicle, (c) use of the vehicle in competitive events; or (d) failure to follow recommended maintenance requirements; and (ii) loss of time, inconvenience, loss of use of the vehicle or other consequential damage.
Maintenance services, and the replacement of service items, such as air and fuel filters, and lubricants and fluids are also at the expense of the owner.

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.

Contents

1700 CC
Type-4

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: 2211

Chassis No. 224-2092228

Engine No. CW016885

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

407 310

Carl Crisler Motors, Inc.
New Orleans, La
(Stamp of Selling VW Dealer)

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

viz. on 12-20-4
(To be filled in by selling VW Dealer)

and covers a period of 12 months or the period before the vehicle has been driven 20,000 miles, whichever event shall first occur. Should any warranty claim arise, you are requested to present this voucher to your VW Dealer.

VOLKSWAGEN OF AMERICA, INC.

Air Conditioner Installation

(Stamp of Installing VW Dealer)

Date

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

Warranty for New Volkswagen Vehicles

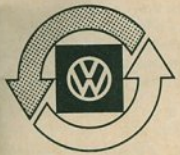
This warranty is issued by Volkswagen of America, Inc. ("VWoA"), the authorized United States importer of Volkswagen vehicles.

Free repair or replacement in the United States and Canada of defective parts for 12 months or 20,000 miles

1. VWoA warrants that every 1974 Volkswagen vehicle imported by VWoA and sold as a new vehicle to a retail customer will be free from defects in material and workmanship for 12 months after the date of delivery of the vehicle to the original retail customer or until the vehicle has been driven 20,000 miles, whichever comes first. This warranty is limited, however, to the following: If the vehicle becomes defective under normal use and service and 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, repair any 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.



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 and workmanship for a period of 6 month 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 light (ignition on).

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.

This additional line applies only to the Campmobile

1700 CC
Type 4 only

TYPE MULTIPURPOSE PASSENGER VEHICLE
MANUFACTURED BY **VOLKSWAGENWERK AG** (month/year)
INCOMPLETE VEHICLE MANUFACTURED (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(. . . .)
GAWR LB FRONT(. . . .)/REAR(. . . .)

This sticker is your assurance that your 1974 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 behind the front passenger seat.

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 sticker behind the driver's seat shows the color code.

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 left-hand engine cover plate.

The Engine Number

is stamped on the crankcase below the breather (not visible).

And also near the ignition coil.

Key

The same key is used for the ignition/steering lock, the doors and the rear luggage compartment lid.

It is a good idea to keep a record of your key number 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.

DO NOT INVITE CAR THEFT

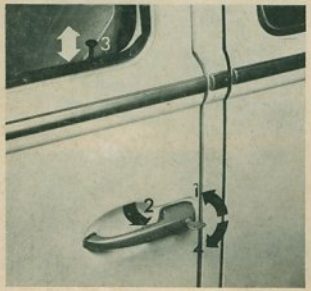
by leaving your car unattended with the key in the ignition lock. Take the key with you and lock the doors.

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

Doors

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

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



Front doors

Outside:

- Unlock by turning key to the left (1).
- Lock by turning key to the right (4).
- Open doors by squeezing trigger (2) in outer door handle.
- Doors can also be locked without a key. First depress locking knob (3), then squeeze trigger (2) in outer door handle as you close the door.

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

Inside:

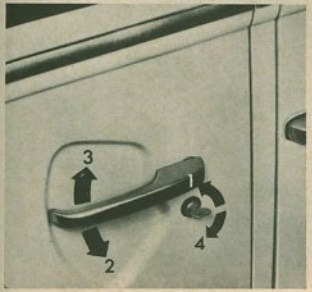
- Lock or unlock doors by depressing or raising locking knob (3).
- To open doors, pull inside door handle.

The sliding door

Always drive with a locked sliding door.

To open from the outside

Unlock the door with the key (1). Then press the handle down (2) and slide the door to the rear. The door is held in the fully open position by a catch.



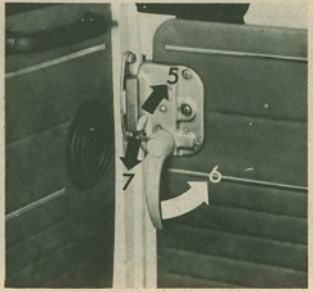
To lock from the outside

Pull the handle up to release the catch (3). Slide the door forward until it is closed. Then lock with the key (4).

You can only lock and unlock the sliding door from the outside with the key.

To open from the inside

Move the small sliding knob up (5) and pull the handle back (6).



To lock from the inside

Pull the handle forward to release the catch, close the door and move the small sliding knob down (7).

In the VW Kombi and VW Delivery Van,

embossed lines – A – on the cargo compartment floor mark the limit up to which cargo can be loaded without obstructing the operation of the sliding door.

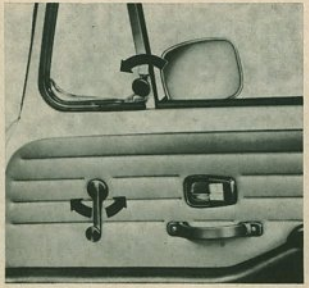
Windows

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 using the window winders. We cushioned the knobs for your safety.

Vent windows
(VW Station Wagon only)

To open the vent windows, turn knob in 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 weatherstripping. 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

To move the driver's seat forward and backward pull the lever at the front left hand 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.

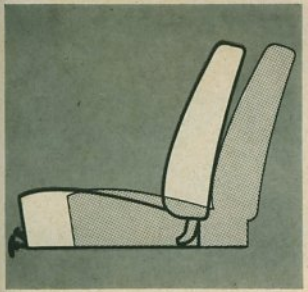
Head restraint (optional)

A head restraint can be installed for each seat. The head restraints cannot be adjusted.

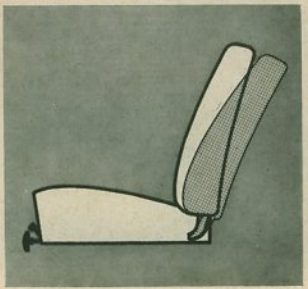
To remove, pull head restraint out. To install, push head restraint in as far as possible.

Removing and installing driver's seat

With the adjustment lever raised, slide the seat all the way forward until the runner touches the leaf spring stop. Stand outside the car, pull the leaf spring stop with the right hand and, with the adjusting lever raised, slide the seat fully off the tracks. Lift out.



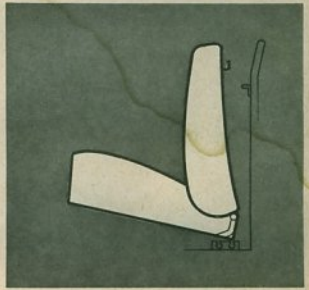
To reinstall the driver's seat, stand outside the vehicle and position the seat in front of the tracks. Hook the inboard seat runner on its track first. Then insert the outer runner by pulling the seat slightly toward you. With the adjustment lever raised, slide the seat back on the tracks.



The backrest is secured and cannot tilt forward accidentally. It can be adjusted to different angles by turning the hand wheel at the front of the seat.

The front passenger seat can be adjusted to two different positions. Lift the seat cushion at the front edge and move the seat into the second notch.

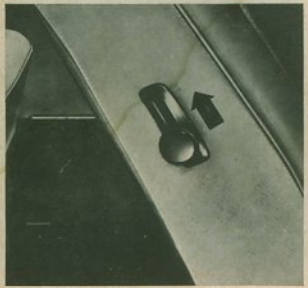
Keep the backrest hooked into the bracket on the partition when adjusting the seat position.



Removing and installing the front passenger seat

Lift it at the front edge first; then remove.

When putting the seat back in again, hold the seat with the seat cushion tilted toward the backrest, slide the hook on the rear side of the backrest into the bracket on the partition. Insert the seat cushion in the desired notch, and fold the seat cushion down. Always check to be sure the backrest is securely attached to the partition.

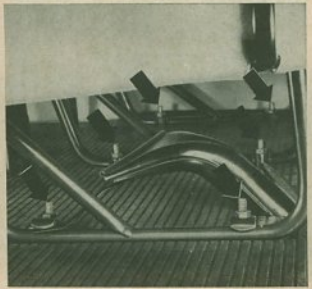


Passenger compartment

In the 9-seater version, the backrest of the first seat in the middle row can be tilted forward and out of the way for easy access to the rear bench. To disengage the lock of the backrest, pull up the lever on the side of the backrest.

Removing and installing seats in the rear passenger compartment

All seats in the rear passenger compartment can be taken out. First remove the side and front trimming from the seat frames.

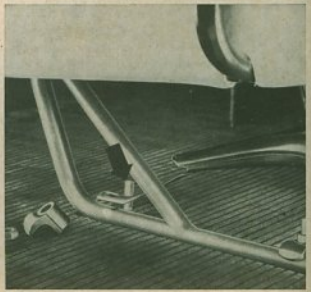


Then unscrew the nuts and take off the mounting supports. Remove seats. Take out bolts by turning them.

When reinstalling the rear seats, be sure to push belt tongue and buckle through between backrest and seat cushion. The safety belts should always be on top of the seat cushions for ready use.

Center seat bench

After loosening the seat retaining nuts of the center seat bench, remove the heater duct first. A flap will fold to cover the opening in the floor. When reinstalling the center bench, raise the flap and insert



the duct in the opening. Be sure the duct ends are positioned underneath the mounting supports before tightening the nuts.

When reinstalling the seats use all bolts, mounting supports, and nuts. Be sure to tighten the nuts firmly.

Safety belts

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.

Store safety belts of unoccupied seats properly. This reduces the possibility of their becoming a striking object in case of a sudden stop.

Belts should not be worn loose or twisted. They should fit snugly across your body. The lap belt section should be completely unrolled from the retractor.

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

Safety belts for front seats

The **front seats** are equipped with **combination lap/shoulder belts.** For easy storage a hook is provided on the door post.

In models with a three-passenger front seat, the middle seating position is equipped with a lap belt. See next page on how to use a lap belt.

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 **combination lap/shoulder** belt, grasp the belt tongue, take it off the hook on the door post and pull the belt across your chest and lap.

(Type A)

Insert the belt into the anchor housing on the inboard side of the seat and push down until it is **securely locked.**

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

When not in use the belt should be hung on the hook provided for this purpose on the door post.

Depending on the design of your safety belts for the front seats, the length of the belt can be either adjusted on the buckle or with an adjuster on the shoulder belt.

Adjusting length at buckle (Type A)

To adjust the length of the belts, press in the release in the buckle as you pull the respective belt section in the desired direction. With this release it is also possible to adjust the belt length with the buckle already engaged in the anchor housing. Take up any slack of the loose belt by moving the slide on the belt.

Adjusting length at shoulder belt:

To lengthen the belt lift the adjuster as indicated by arrow in the illustration. At the same time pull the belt on the buckle side. This adjustment can be made before or after buckling up.

To shorten the belt pull the free end as illustrated.

After each adjustment be sure belt is pulled snugly across your lap.

(Type B) lengthen

(Type B) shorten

Safety belts for rear seats

The rear seats are equipped with adjustable lap belts.

Pull the longer section 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.

The belt should not be worn loose or twisted.

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

To **lengthen** or **shorten** the rear belt, hold the belt tongue at a right angle to the belt and pull the respective belt section in the desired direction. Take up any slack of the loose belt end by moving the slide on the belt.

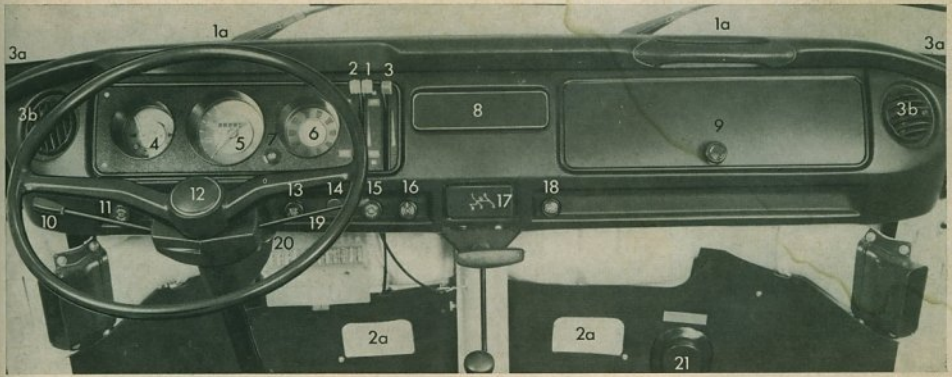
Belt care

Keep safety belts clean. If cleaning is necessary, wash them with a mild soap solution, without removing them from the car. Do not 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.

The belts should always be kept on top of the seat for ready use. Do not permit them to get caught under the seat.

Instrument panel



1 – Heater temperature lever (TEMP)
1a– Vents for heating and defrosting (two for each side)
2 – Heat distribution lever (HEAT-DEF)
2a– Warm air outlets for front leg area (one for each side)
3 – Fresh air control lever
3a– Vents for fresh air ventilation below the windshield (one for each side)
3b– Vents for fresh air ventilation on the dashboard (one for each side)
4 – Fuel gauge and warning lights
5 – Speedometer
6 – For installation of optional equipment: electric clock
7 – Brake warning light
8 – Plate over radio aperture
9 – Glove compartment
10 – Turn signal/headlight dimmer switch lever
11 – Headlight switch
12 – Horn button
13 – Interior light switch for rear
14 – Windshield wipers/washer lever
15 – Emergency flasher
16 – Control knob for Auxiliary Heater (optional equipment)
17 – Ashtray
18 – Rear window defogger
19 – Location for optional accessory switches
20 – Ignition/steering lock
21 – Container for windshield washer fluid

Ignition/steering lock

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

Fasten safety belts.
Make sure the gearshift lever is in Neutral (Manual Transmission) when starting the engine. The Automatic Transmission can be started in Neutral or Park (also see pages 19 and 22).

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 22.

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.

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.

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.

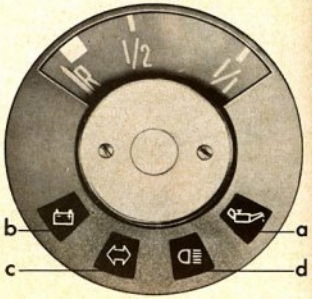
Fuel gauge

The fuel gauge only works with the ignition 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.

Indicator or warning lights

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



a – red oil pressure
b – red alternator
c – green turn signals
d – blue high beam

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

a – Oil pressure warning light

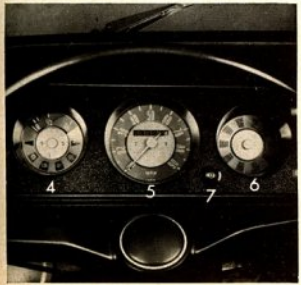
STOP AT ONCE . . .

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 cause is somewhere else, 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.



b – Alternator warning light

If this light comes on when you are driving, the alternator may have stopped charging or the fuse 11 in the fuse box may be blown. See page 38 (fuses) and page 55 (Troubleshooting, items 14 and 15).

Whenever stalled or stopped for repair, move the car well off the road. Turn on the emergency flasher and mark the car with road flares or other warning devices. Before working on any part in the engine compartment, turn the engine off and wait until it has sufficiently cooled down.

5 – Speedometer dial

The speedometer indicates the speed; the odometer records the miles driven. The last digit in red indicates 1/10 of a mile.

6 – This dial can be used for installation of **an electric clock,** which is optional equipment. To set the clock, depress the knob in the center and turn.

7 – 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.

11 – Headlight switch

Pull the knob to the first stop to turn on the parking lights, the side marker lights, the license plate, tail and instrument lights, emergency flasher light, and the light in the TEMP switch for the optional Auxiliary heater.

Pull the knob to the second stop to turn on the headlights (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 by turning the headlight switch knob.

13 – Interior light switch for rear passenger compartment

Pull out the knob to turn on the light in the rear of the passenger compartment.

15 – 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.

Move the car well off the road when stalled or stopped for repairs.

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.

18 – Rear window defogger

Turn ignition on first.
Pull out the knob to activate the rear window defogger.

The green control lamp in the knob will light up to remind you that the defogger is switched on.

The rear window defogger will help to keep the inside of the rear window clear of condensation and frost in the winter. Be careful when removing objects from the luggage compartment behind the rear seat. Sharp edges may damage the defogger in the rear window.

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

To give you full battery power while starting the engine, the operating rear window defogger will turn off automatically at this moment.

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 light comes 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.

Lane changer

If you are just changing lanes on an expressway, slightly lift or depress the lever. When you release your hold on the lever, it will return to the OFF position.

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

Headlight dimmer

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

Windshield wipers WIPE

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

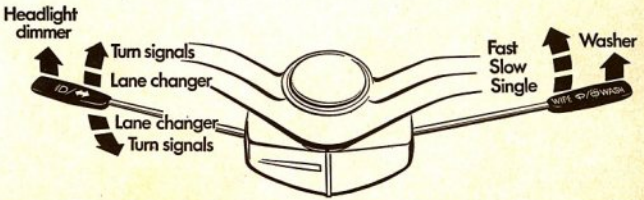
Lifting lever to first stop – low speed
Lifting lever to second stop – high speed
If you just slightly lift the lever before reaching the first stop, the wipers will wipe as long as the lever is held in this position and come to a stop when released.

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.



Sun visors

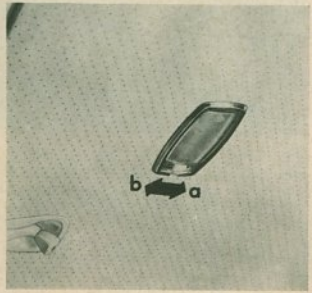
To protect the driver from side glare, the sun visor on the driver's side can be moved toward the door window after lifting it out of its center mounting. The sun visor on the passenger's side cannot be moved toward the side.

Front interior light

The switch positions are:

Front – ON (with doors open)
Center – OFF
Rear – ON (with doors closed)

a = front b = rear



Rear view mirrors

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

Inside day-night mirror

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.

Outside mirror

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

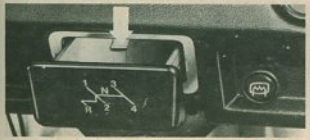
Coat hooks/Assist handles

For your convenience, there are altogether 5 coat hooks on the door posts.
Hang clothes in such a way that they do not impair the driver's vision.
For easier entrance and exit of passengers, we have provided 5 assist handles:

1 on the dashboard for the front passenger seat, and
4 in the rear passenger compartment.

Ashtrays

You will find one ashtray in the front on the instrument panel and two in the rear passenger compartment.



Front Ashtray

Pull to open it. You can remove the ashtray by depressing the leaf spring and pulling the tray out.

To put it back in, depress the leaf spring, insert the tray in the guide rails and push in with the heel of your hand.

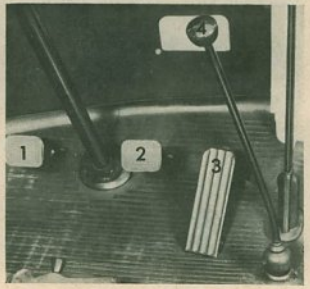
Ashtrays in the rear passenger compartment

To remove it, press down on the tray and pull out. To put it back in, insert the bottom of the tray first, then push in.

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 13 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 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 replaced.

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 23 mph in 2nd gear
15 and 35 mph in 3rd gear
30 and 50 mph in 4th gear

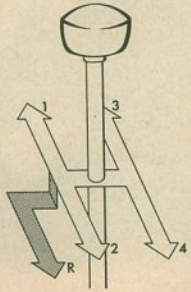
4 – Gearshift lever

Your Volkswagen has a fully synchronized transmission. The four forward gears and a reverse gear are arranged as illustrated. The shift pattern is also shown on the face of your 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 – 32 mph
3rd gear	15 – 52 mph
4th gear	from 30 mph up

If you have a traffic situation where it is necessary to accelerate in 2nd and 3rd gear above the recommended speed ranges, you may do so for a brief period only. A governor is installed on the engine to prevent damage from excessive engine speed (revolutions per minute).

Reverse

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

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

Controls for Automatic Transmission

5 – Parking brake

To set the parking brake, pull out the handle. To release the parking brake, first slightly pull the handle as you turn it to the right. Then push it all the way in. **Be sure the parking brake 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.

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

Remember the following basic rules:

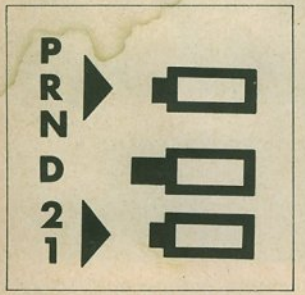
- You can start the engine with the selector lever in Neutral or Park.
- Apply the parking brake or foot brake before selecting a driving range. When the selector lever is in a driving range, the car may creep even at an idling speed. Therefore, do not release the parking brake or foot brake until you 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.

The selector lever has 6 positions:

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

The selector lever may be shifted freely between Neutral and the ranges Drive and 2. When selecting the other ranges, observe the following:

From N to R From R to P	depress push button in handle and push lever forward.
From P to R	depress push button in handle and push lever forward.
From R to N to D to 2	**just pull lever back.**
From 2 to 1	depress push button in handle and push lever forward.
From 1 to 2 to D to N	**just push lever forward.**



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

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.

Range 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.

Ranges 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.

Range 2

should only be used up to 55 mph. In "2", only the first and second gears will engage automatically. Therefore, only shift down into driving range "2" when the car speed is below 55 mph. It is not necessary to let up on the accelerator.

Range 1

Range 1 is needed on rare occasions, such as steep mountain driving. The first gear engages immediately upon selecting "1". In "1", the transmission will stay in first gear and not shift into second or third. Therefore, **do not select "1" when driving more than 30 mph.**

An interlock prevents inadvertent shifting into Range 1. When selecting "1", depress the push button in the handle and pull the lever back. When shifting back into 2, just push the lever forward.

The reverse driving range

should be selected only when the vehicle is stationary and without depressing the accelerator. To select reverse you must depress the push button in the handle and push the lever forward. To move the lever back to Neutral, just pull the lever back.

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 50 mph and down to first gear when driving below 30 mph. With the selector lever in "2", you can apply the kickdown to make the transmission shift down into first gear when driving below 30 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 pages 12 and 22.

Moving off

With the parking brake or foot brake set, shift into the range you wish to use, usually position D. To move off, release the brake and accelerate.
Do not release the brake before you are prepared to move, because power is transmitted to the wheels as soon as a driving range is engaged.

Selecting a driving range

is easy. Simply release the accelerator pedal and move the selector lever from the range you are in to the range you want. Then step on the accelerator again. To select Range 1, see pages 19 and 20.

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 accelerate.

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.

Starting hints

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 first; then move the selector lever to position P. To do this, depress the push button in the handle and push the lever forward to the Park position. The transmission is then mechanically locked.

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

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

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

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.

Fasten safety belts!

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.

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.**

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

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

Operate the starter for a few seconds only.

Summer starting

Operate the starter while slowly depressing the accelerator pedal.

Winter starting

First depress the accelerator pedal fully and release slowly to activate the automatic choke. Then start the engine.

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

Do not try 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.

Starting the engine at operating temperature

Before operating the starter, depress the accelerator pedal fully . . . **do not release it.** Now start.

Luggage compartment

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

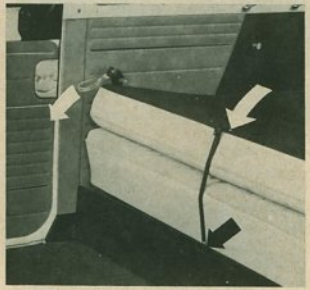
To open the lid, depress the lock and raise the lid until it is held in the fully open position by springs. Do not let the lid fly open on its own.

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

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

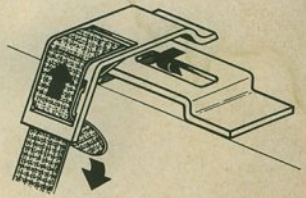
Increasing the luggage compartment
You can expand the luggage compartment by folding the backrest of the rear seat bench down and fastening the backrest in this position.

If your car is equipped with head restraints, take them off before folding the backrest down.



To **release** the backrest, pull the strap on the right, as seen in driving direction. When you fold the backrest back, it locks automatically in its place.

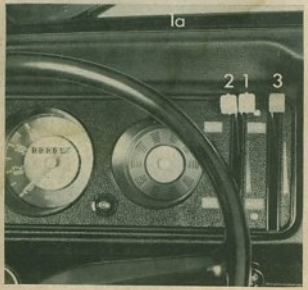
To **hold** the backrest in the folded-down position, take the retaining strap from under the seat bench through a cut-out in the kick panel and hook it into the bracket on the back of the backrest.



To **adjust** the length of the strap, unhook the strap and pull it through the hook in the desired direction.

Heater/Defroster (1/2)

A fresh air heater/defroster is standard equipment on your Volkswagen.
The three control levers are located on the instrument panel.



Heater temperature lever 1 (TEMP)

This right red lever controls the temperature level (OFF – MAX)

Lever up – heat off
Lever down – heat on fully

By setting the levers 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 the car, warm air will enter the vehicle through the two warm air vents – 1a – at the lower edge of the windshield.

Lever 1 also activates an electric fan in the engine compartment. The fan increases the flow of warm air when driving at low speeds and also supplies warm air when the car is standing still.

Heat distribution lever 2 (HEAT – DEF)

With the left red lever you can regulate the flow of warm air to the front leg area and to the rear passenger compartment.

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

You can select any intermediate position to regulate the heat for the front and rear.

The warm air outlets for the front leg area are underneath the dashboard. The heat outlets for the center seats in the rear passenger compartment are on the floor in front of the seats; and those for the rear seats are underneath the center seats.

Hints for defogging and defrosting

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

Here is what you do:

Heater temperature lever 1
(TEMP) on dashboard all the way down (MAX)
– heater is fully on

Heat distribution lever 2 (HEAT – DEF) on dashboard all the way down
– no heat to the rear and to the front leg area

To add fresh air, as needed, move blue lever 3 down
– ventilation on

Now all air is directed toward the windshield.

As soon as the windshield is clear the footwell outlets should be opend so that the interior of the vehicle heats up as quickly and evenly as possible.

Sliding roof (optional equipment)

To open the sliding roof, pull the handle out and turn it counterclockwise; to close the sliding roof, turn the handle clockwise. The sliding roof is locked in any open position.

a = to close b = to open

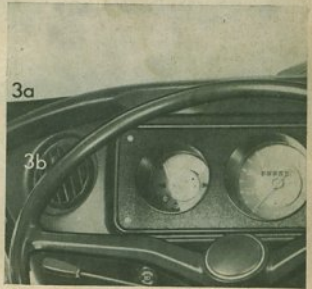
For safety reason, fold the handle back into its recess, as shown in the illustration.

Ventilation (3)

The fresh air circulation system provides a continuous draft-free exchange of air while driving.

With the blue lever – 3 – on the dashboard you can regulate the flow of fresh air.

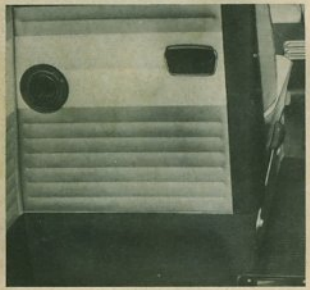
Lever up – ventilation off
Lever down – ventilation on



Fresh air enters through two vents – 3a – below the windshield and two round discharge vents – 3b – on the sides of the dashboard. You can regulate the flow of fresh air from the round discharge vents in any direction by turning them.

You can open and close these vents by adjusting the flap in the vents.

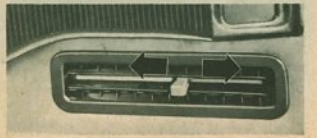
Two additional discharge vents are located on the partition between the driver's cab and the rear passenger compartment. They are individually adjustable and provide fresh air ventilation toward the rear.



Air that enters the interior of the car via the fresh air circulation system is drawn out through openings in the front door frames.

The air flow can be regulated by levers in the inside panel of the front doors.

Lever to the front –
fresh air circulation on
Lever to the rear –
fresh air circulation off



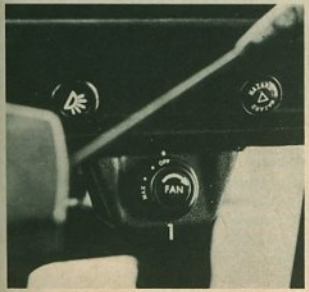
VW Air Conditioner (optional equipment)

Operating Controls

1 – Air volume switch ("FAN")

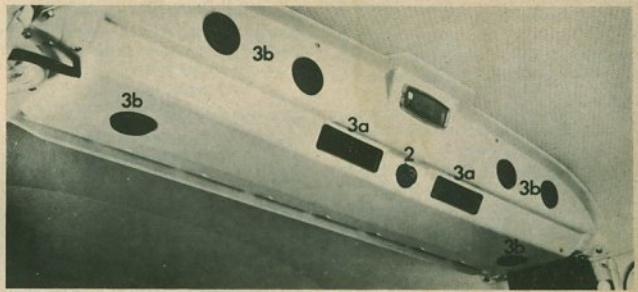
This switch serves two functions. It turns the air conditioning system on and off and controls the fan speed. The sequence of the fan positions is:

OFF – LOW – MEDIUM – HIGH

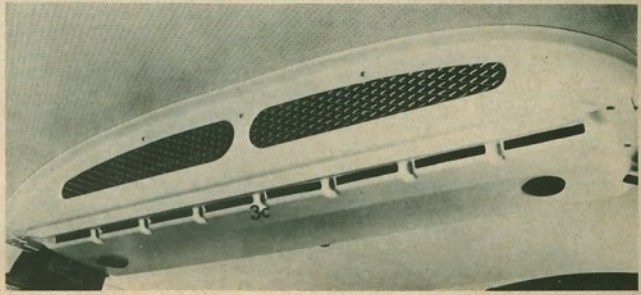


2 – Air temperature control ("TEMP")

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.



Station Wagon: View from the front



View from the rear

3 – Air discharge louvers

The two rectangular louvers (3a) can be adjusted by moving the vanes up, down or sideways to direct the air flow for the front seats in the desired direction.
The round louvers (3b) are adjustable by turning them clockwise or counter – clockwise.
The air outlets (3c) on the rear of the unit are fixed.

Starting the Air Conditioner

With the windows closed and the fresh air ventilation turned off, 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. This is to reduce the load on the electrical system and conserve the battery.

Operational hints

For best overall comfort do not aim the air flow directly at a person, but allow the cooling air to circulate throughout the vehicle.
If the car interior becomes too cold after adjusting the air volume, turn the air temperature switch 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 the Air Conditioner for a short time 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 the condenser is clogged with dirt or insects, it should be washed down with water.

If the condenser is 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 in the engine compartment. 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 behind the driver's seat).

Towing and trailer hauling

Towing

Always observe state laws and municipal ordinances governing towing.

We provided your Volkswagen with towing eyes at the front and rear. They are for emergency towing over short distances only.

When you tow your VW with the engine not running, the brake booster does not assist the braking force. To get the full braking effect, the driver must apply more force to the brake pedal.

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 light, turn signals and stop lights. Be sure to release the parking brake.

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.

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.

Trailer hauling

It is not possible to tow a trailer with your Volkswagen with Automatic Transmission.

When towing a trailer with your Volkswagen with Manual Transmission always shift to a lower gear when driving up or down steep hills with this extra load.

The total weight of a trailer without brakes should not exceed 1340 lbs. or 600 kg

The total weight of a trailer with brakes should not exceed 2204 lbs. or 1000 kg.

The trailer tongue load should be 55 to 110 lbs. or 25 to 50 kg. 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.

Winter operation

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 39.

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 surface.

If you mainly drive short distances or in city traffic, have the battery checked and, if necessary charged between regular inspections.

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.

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 the 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.

Windshield washer

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

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-miles intervals in the winter.

Transmission oil

SAE 80 or SAE 80/90 (multigrade) hypoid oil can generally be used in the transmission all year round.

Only in arctic climate and areas with temperatures consistently below –13° F, use Automatic Transmission Fluid (ATF) for the manual transmission and final drive. This does not apply to the final drive of the Automatic Transmission. When the temperature rises, replace the ATF with SAE 80 or SAE 80/90 (multi-grade) hypoid oil. See also page 53.

Spark plugs

Make sure the spark plugs are not worn or have a gap larger than 0.028 inch. or 0.7 mm. For further details on spark plugs see page 46.

Tires

Your Volkswagen is equipped with tubeless radial ply tires. Volkswagen tires conform to all applicable U. S. Federal Motor Vehicle Safety Standards.

Tire pressures

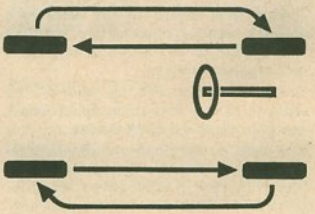
For good car handling and long service life, it is important to maintain recommended tire pressures. Tires which are inflated above or below specifications can cause increased tire wear, increased gas consumption and affect the road holding of the car.
VW-recommended cold tire inflation pressures are listed on a sticker on the steering column bracket.

For road use

do not exceed the maximum tire inflation pressure listed on the tire label.
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.

Spare tire pressure

The pressure of the spare tire should be 40 psi (2.8 kg/cm²). For road use, the pressure in the spare tire should be adjusted as specified on the sticker on the steering column bracket.



Tire rotation

If uneven tire wear should occur, we recommend that the tires be rotated as shown in the sketch above. Afterwards, the tire pressures must be corrected, and the wheel nuts/bolts torqued diagonally to 90 – 100 ft. lbs./12–14 mkg. Also see page 36

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 ½ inch bands when the tire tread depth becomes 1/16 of an 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.

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

Indicator visible – tread worn

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.

Tire replacement

To achieve best all-around car handling, replace all 4 tires at the same time. If this is not possible, replace tires in pairs, either front or rear.

For maximum safety, always buy replacement tires that show the same specifications with regard to tire size, 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.

New tires do not posses 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 snow 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.

Do not exceed the maximum tire inflation pressure imprinted on the sidewall of the tire.

Winter tires do not fulfill their purpose if the tread depth is less than $^{5}/_{32}$" (4 mm). 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.

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

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.

Spare wheel

Location in rear luggage compartment

The spare wheel is stored in the rear luggage compartment. To remove it, take off the cover and loosen the strap. When putting it back in again, be sure the plastic cap is in the shown position and tighten the strap.

Location under front seat bench

In models with a front seat bench, the spare wheel is located under the front passenger's seat. To remove the spare wheel, lift the front edge of the passenger seat to unhook the backrest. Fold the backrest forward, and move the seat approximately 1 inch/25 mm forward. Reposition the safety belts. Turn the seat toward the door. Take out the spare wheel from the driver's side.

(See page 8 on how to install the front passenger seat.)

Spare tire pressure

Check the tire pressure from time to time and maintain it at a maximum of 40 psi (2.8 kg/cm²).

Whenever you have to use the spare wheel, adjust the tire pressure as specified on the sticker on the steering column bracket.

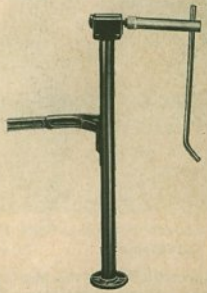
Jack

Warning

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

The jack and the tool kit are in a bag and stowed under the front passenger seat. See page 7 and 8 on how to remove and reinstall the seat.

A breaker bar and socket wrench necessary to operate the jack are in the tool kit.



Note:

Your Volkswagen may be equipped with a jack with a permanently attached handle. The operating procedure for either jack is the same.

Changing a wheel

If you have a flat tire, **move off the roadway. 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** 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 more efficient and safe changing of a flat tire, observe the following 10 steps.

Later 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 nuts/bolts. **Do not take them off.**

Step 4 - Securely insert the jack in jack port. There are two jack ports on each side of the car body.

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

Step 5 – Jack up car.

Step 6 – Change wheel and handtighten wheel nuts/bolts.

Step 7 – Lower car.

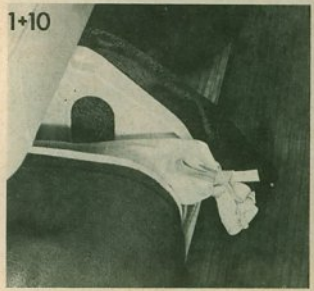
Step 8 – Further tighten the wheel nuts/bolts. **Do not overtighten.** **Important:** Torque adjustment.

Step 9 – Replace hub cap.

Step 10 – Correct the air pressure of the tire you have just put on.

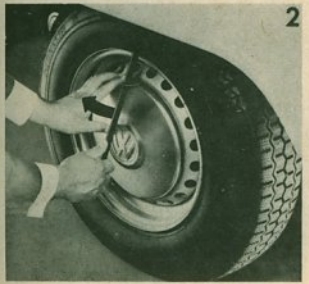
Step 1

Take out the bag with tool kit and jack from under the front passenger seat. Lift the front edge of the seat to unhook the backrest and remove the seat.



Step 2

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

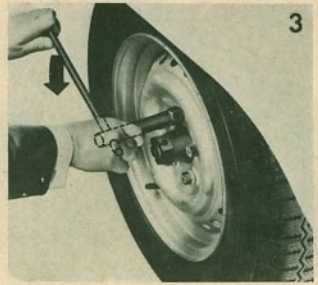


Insert the puller in the holes at the rim of the hub cap. Put the breaker bar through the puller, brace one end of the bar on the wheel rim and tug lightly on the other end.

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

Step 3

Loosen all wheel nuts/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 nuts/bolts.**

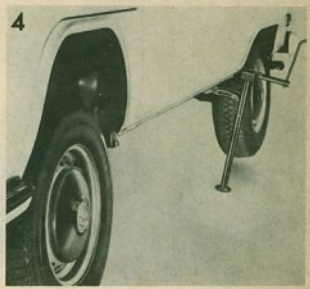


Provide a firm base for the jack on the ground. If necessary, use a board. Passengers should not remain in the car when the car is jacked up.

Only raise the vehicle as much as is needed to change the wheel.

Step 4

Securely insert the jack into the jack port closest to the wheel to be changed. There are two jack ports on each side under the car body for front and rear wheel changing. **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.

Raise the vehicle by turning the hex drive clockwise with socket wrench and breaker bar.

Step 6

Fully unscrew the wheel nuts/bolts and place them into the hub cap. Take the nut/bolt at the top off last. Place the spare wheel against the wheel hub and slightly rotate the wheel until a bolt hole in the wheel is in line with a threaded stud/hole in the wheel hub. Reinstall the

nuts/bolts and tighten them crosswise by hand before jacking the car down.

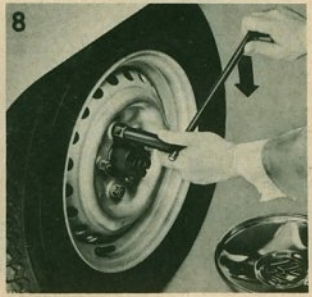
Step 7

To lower the vehicle, turn the hex drive counterclockwise with socket wrench and breaker bar.

Step 8

Then go crosswise from one nut/bolt to another tightening them firmly with the socket wrench and breaker bar.

Correct tightness of the wheel nuts/bolts is important.



Correctly tightened nuts/bolts should have a torque of 90–100 ft. lbs./12–14 mkg. This torque can be obtained with the socket wrench and breaker bar by any person of average strength. If in doubt about the correct tightness of the wheel nuts/bolts, have it checked with a wrench by your dealer or at service station.

Step 9

To install the hub cap, place it around the lower part of the wheel center. With a firm blow of your hand on the upper part, the hub cap will snap into place. Make sure it is properly seated.

Step 10

Adjust the air pressure of the tire you have just put on. For correct tire inflation pressures, see the sticker on the steering column bracket.

Store the jack and tool kit under the front passenger seat. See page 8 for instructions on how to reinstall the seat.

Container for windshield washer fluid

It is located on the right under the dashboard and has a capacity of 2.9 U.S. pints (2.4 Imp. pt./1.4 liters).

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 round. It helps to keep your windshield clean, and prevents freezing of the washer fluid in the winter.

After filling the windshield washer container, screw the cap on tightly.

Pressurize the container up to a maximum of 42 psi (3.0 kg/cm²) by attaching the hose from the air pump to the container hose.

Place plastic cover over container cap.

Brake fluid reservoir

It is located under the driver's seat (lift rubber mat). You can check the brake fluid level through a cut-out in the kick panel.

The brake fluid should always be between the upper and lower edge of the reservoir. If it drops below the lower edge, the cause should be corrected by your Authorized Volkswagen Dealer.

Every 2 years, the brake fluid has to be replaced. See "Additional Services Record" on pages D 10 and D 6.

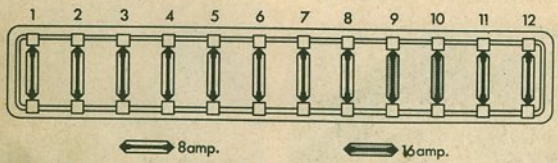
Only **new, unused** brake fluid that meets the SAE recommendation J 1703 and conforms to Motor Vehicle Safety Standard 116 must be used.

Luggage may not be stowed under the driver's seat which could damage the brake fluid reservoir.

Fuses

The 12-point fuse box with plug-in arrangement for relays is located under the instrument panel on the right hand side 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.



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, rear side marker light left

2 Parking lights, rear side marker light right, license plate light, tail light right, front side marker lights

3 Low beam left

4 Low beam right

5 High beam left, high beam indicator light

6 High beam right

7 Accessories

8 Emergency flasher, interior light at front

9 Interior light at rear, buzzer alarm, Auxiliary heater* (switch current)

10 Windshield wipers, rear window defogger, Auxiliary heater* (switch current)

11 Turn signals, warning lamps for alternator, oil pressure, fuel gauge, kickdown (Automatic Transmission only), back-up lights (Automatic Transmission only)

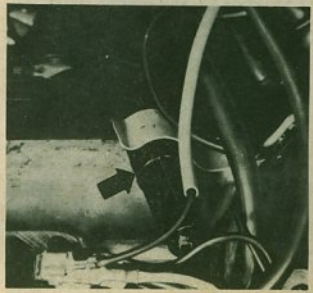
12 Horn, stop lights, brake warning light

* optional equipment

Additional fuses

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.

The 8 amp. fuse for the back-up lights is located in the engine compartment on a support near the ignition coil (arrow)**.



** Manual Transmission only

Battery

The electrical system and the ability of the engine to start readily depends to a great extent on the battery. Therefore, the battery should be checked regularly and kept in good working condition.

The 16 amp. fuse for the **warm air blower** is located in the engine compartment near the blower motor.

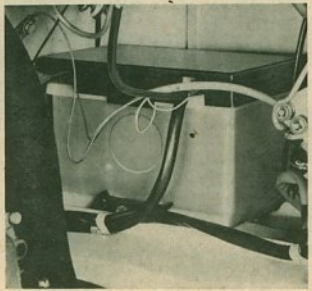
Two fuses for the **auxiliary heater*** are located under the instrument panel:

16 amp fuse for main current circuit – near fuse box.

8 amp fuse for heater booster (overheating switch) – in the front leg area.

behind front trimming on the left side.

* optional equipment



The battery is located in the engine compartment on the right hand side and should be taken out for checking and maintenance purposes.

To **remove** the battery, take off the plastic cover. Disconnect the battery ground strap (leave wire attached) and then the terminal from the positive post. Disconnect the center wire (electrolyte level sensor for diagnosis). Remove the front clamp. **Be sure the battery filler caps are in place before** taking the battery out.

When reinstalling the battery, be sure to reconnect the center wire to the battery. Do not interchange with the other wires.

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.

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 the 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.

Before **reinstalling** the battery, clean all terminals and connections. Remove corrosion. Put the battery in its stowage position and tighten the clamp firmly. Reconnect the positive cable first, then the ground strap and the center wire (electrolyte level sensor for diagnosis). Grease the terminals and battery post well with silicone spray or petroleum jelly. Keep the ground connection 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.**

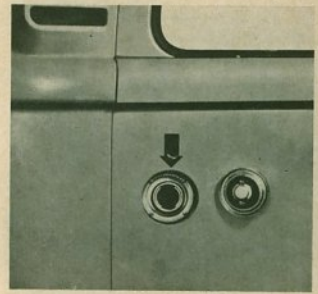
If you have not used your car for an extended period of time, you may need to have the battery recharged.

Fuel supply

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 oktane rating is shown on a plate visible after taking off the filler cap. 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 if regular gasolines have a lower octane rating than recommended by the manufacturer.

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.

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



The filler neck is located above the right rear wheel.

The fuel tank has a capacity of 14.8 US gallons (56 liters or 12.3 Imp. gal.).

Cleaning your VW

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, 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.**

Application	Volkswagen Product
Car wash and liquid wax Paint preservative	Car Wash and Wax — ZVW 243 201 Paint Preservative and Wax — 000 096 011
Paint waxing Paint polishing and paint waxing	Classic Car Wax — ZVW 246 101 Combination Car Cleaner and Wax — ZVW 241 109
Paint polishing, remove paint oxidation	Paint Polish — 00 096 001
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 washer cleaning and anti-freeze	Windshield Washer Anti-Freeze & Solvent — ZVW 241 101

When cleaning upholstery and/or 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.

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 with 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 well. 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 the 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 let tar remain on the paint finish. Remove it early 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 early with a lukewarm soap/water solution or apply insect remover.

Tree sap
Remove with a lukewarm soap/water solution. Do not permit tree sap to harden on the paint surface.

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.

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
Front and rear side marker lights	57	ZPP 118 057
Rear turn signal Stop/tail lights	1034	ZVP 118 034
Back-up lights	1073	ZVP 118 073
License plate light	89	ZVP 118 089
Warning lights for emergency flasher, brake operation, rear window defogger and Auxiliary Heater	—	N 17 751 2
Selector lever console light (Automatic Transmission only)	—	N 17 751 2
Interior lights	—	N 17 723 2

Replacing bulbs

Headlights

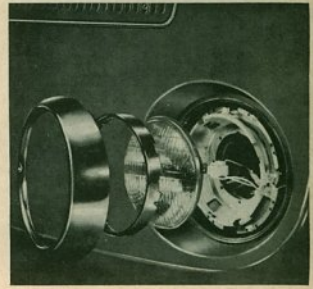
Your Volkswagen is equipped with double filament seven inch sealed beam units. Should it become necessary to replace a sealed beam, loosen the screw of the trim ring. Firmly grasp the loose screw (non-removable) and pull the trim ring off.

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

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

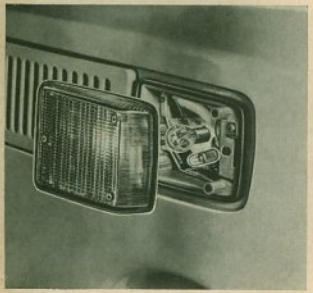
Take the sealed beam unit out of the support ring and pull the cable connector off.

When installing a new sealed beam unit, be sure the three lugs on the headlight engage properly in the support ring. Before installing the 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 the upper edge of the trim ring over the lug. Press the ring over the lug and tighten the screw.

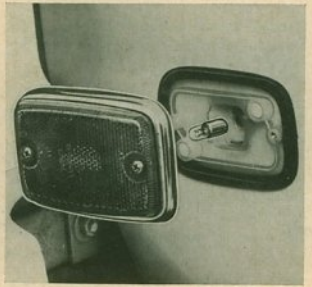


If no other headlight part as described here was removed or its position changed, it should not be necessary to aim the headlights. If in doubt have the adjustment checked by your dealer.

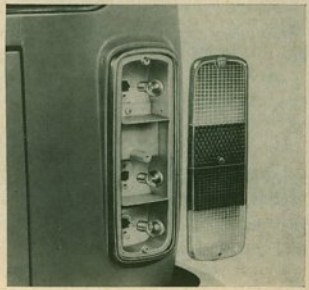
Front turn signal / parking light bulb and front side marker light bulb



Rear side marker light bulb



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



The following instructions apply to the replacement of the bulbs for the lights shown above:

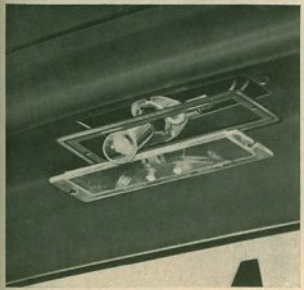
Remove Philips screws.
Take off lens.
Press bulb lightly into holder, turn it and take it out.
Install new bulb.
Be sure the gasket is properly positioned when reinstalling the lens.
Tighten screws evenly. Do not overtighten as this may crack the lens.

License plate light bulb

Open engine compartment lid.

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

Press bulb in lightly, turn and take out.



Install new bulb.

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

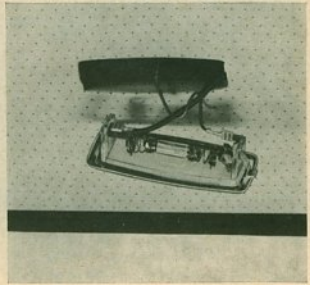
Tighten screws evenly.

Do not overtighten as this may crack the lens.

Interior light bulb

Pull interior light out carefully with a screwdriver.

Take bulb out.



Install new bulb.

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

General services

Before working on any part in the engine compartment, turn off the engine and let it cool down sufficiently. If work has to be done with the engine running, exercise extreme caution to prevent neckties, jewelry or long hair from getting caught in the V-belt.

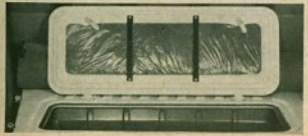
Incomplete or improper servicing may cause problems in the operation of the car. If in doubt about any servicing, have it done by your Authorized VW Dealer or any other properly equipped and qualified workshop.

Engine compartment

You have access to the engine compartment through the rear outside engine compartment lid and through another lid located inside the luggage compartment.

To open the lid inside the luggage compartment, roll the floor covering out of the way, then turn the lid handles to the **OPEN** position and lift up the lid.

To close the lid, perform the operation in reverse order.



Spark plugs

The correct spark plug gap is 0.028 inch/0.7 mm. Since the spark plug gap tends to increase in time during normal operation, it is advisable to replace spark plugs periodically (see Diagnosis and Maintenance Schedule).

0.028 inch/0.7 mm

Removing spark plugs

Turn the engine off!

For better access to the spark plugs, remove the air cleaner. See page 49 on how to remove and install the air cleaner.

Grasp the spark plug connector and pull it off. Do not pull 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 wood 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/0.7 mm.**

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.

When installing the end pieces of the cleaner duct, be sure the rubber sleeves between cleaner and end pieces, and the rubber seal on the carburetors are located properly.

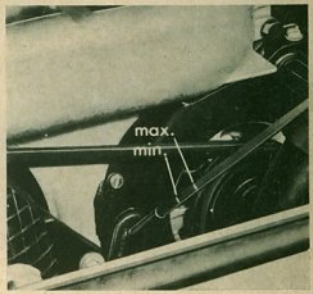
Reconnect all hoses. Interchanging of hoses affects the operation of the engine.

Therefore, make sure the hoses are properly reconnected.

Checking the engine oil level

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 engine oil at specified mileage intervals, but at least twice a year (see Diagnosis and Maintenance Schedule). This is very important as the lubricating properties of oil diminish gradually during normal operation of the car and by aging:

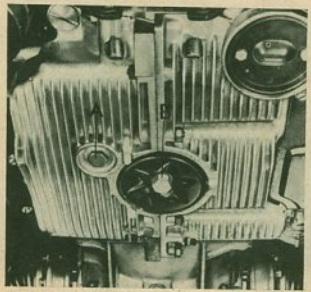
Drain the oil when the engine is still warm. Remove the drain plug – A – first. After the oil is drained, take out the oil strainer by removing the center nut – B – and clean it. The cleaning of the strainer should be done at specified mileage intervals (see Diagnosis and Maintenance Schedule). Use new gaskets and copper washers when reinstalling the strainer to be sure no oil leak will develop later.

Fill the engine with oil labeled "For Service SD" or "SE" (or combination). For the right oil viscosity, see page 52.

For engine oil capacity data, see page 61.

Important

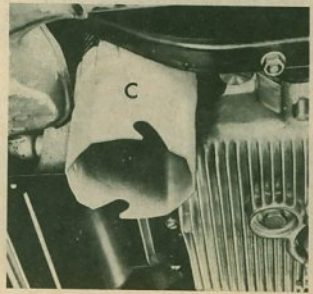
The center nut for the oil strainer should be tightened with a torque wrench. The correct torque is 1.0—1.3 mkg (7-9 ft. lb.).



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 recommended by the manufacturer.

A special wrench – C – should be used to screw the oil filter off and on.

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.

The transmission is checked for leaks during the maintenance service. Should the need arise to replenish the oil filling, it should only be done with the necessary workshop equipment. Generally, hypoid oil is not marketed in small quantities.

Automatic Transmission Fluid

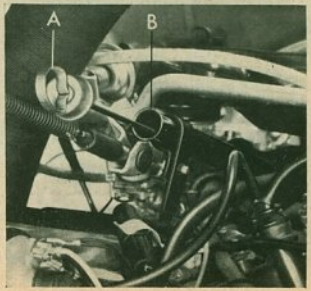
Checking the ATF level

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 at specified intervals (see Diagnosis and Maintenance Schedule). A correct ATF level is very important for the proper functioning of the transmission. The reading should be done when the ATF is warm; with the engine idling, the selector lever in Neutral and the parking brake applied.

The ATF filler neck is in the engine compartement on the left hand side above the ignition distributor. 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.

A = dipstick B = filler neck



Do not tow the car or run the engine when there is no ATF in the transmission

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 (0.74 Imp. pt./0.4 liters).

To add ATF, a clean funnel with a hose should be used. For correct ATF specifications, see page 53.

Changing the ATF

The complete ATF filling has to be changed at recommended mileage intervals. The ATF filling should be changed more frequently under heavy duty conditions such as: continued stop-and-go traffic, extended mountain driving, and at extremely high outside temperatures (see Diagnosis and Maintenance Schedule).

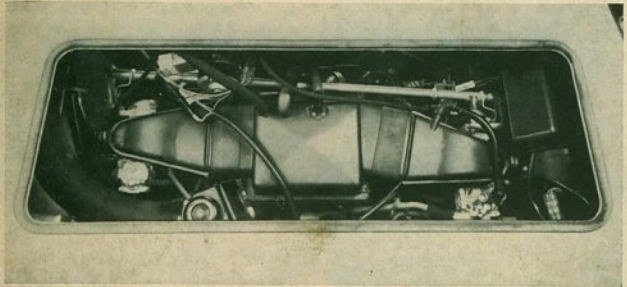
The transmission oil in the final drive does not have to be changed.

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 air cleaner not only reduces the engine output but 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 cleaned or replaced frequently.

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



Note

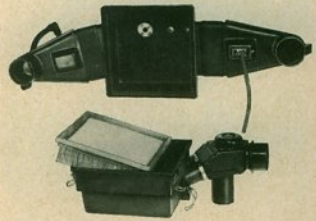
Under no circumstances may the paper element be cleaned or soaked with gasoline, cleaning solvents or oil.

To check or to replace the filter element, the air cleaner must be removed. Do the following:

Take all the hoses off the air cleaner. Note the hose connections since interchanging of hoses affects the operation of the engine.

Release the two clamps which hold the air cleaner to the engine. Pull back the clips which hold the air cleaner duct end pieces on the carburetors. Take end pieces off separately. Lift out air cleaner. Loosen the four clamps and take off the top part of the cleaner.

Take the filter element out and clean or replace it. Remove the dirt by shaking the filter element.



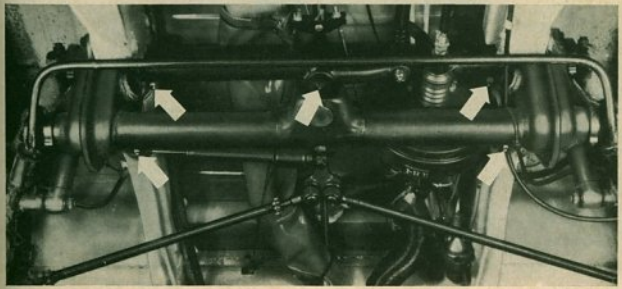
When installing the cleaner, check that the rubber seals on the carburetors and the rubber sleeves between cleaner's upper part and end pieces fit properly. Reconnect all hoses.

Lubrication

Front axle

Lubricate the front axle once a year or at specified mileage intervals (see 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 5 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 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.



Door hinges and locks

Above the door hinge pin is a small oil chamber which is sealed with a plastic plug. At least every six months, the amount of oil in the chamber should be checked after lifting the plug with a screw-driver. The chamber should be filled with SAE 30 engine oil. Press plug in and wipe off excess oil with a cloth.

At the same time, the hinge for the sliding door (see arrows). and the rear door hinges should be oiled.

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

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.

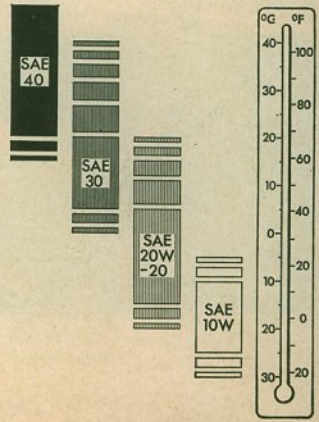
The following table contains the grading for oils to be used in VW engines:

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

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

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.

Temperature ranges of SAE grades



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

Transmission oil and Automatic Transmission Fluid (ATF)

Manual Transmission

Transmission and final drive are both lubricated with hypoid oil according to Mil – L – 2105 specifications (additive basis sulphur-phosphorus):
SAE 80 or SAE 80/90* In general all year.

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.

Automatic Transmission

The final drive has to be lubricated only with hypoid oil according to Mil–L–2105–**B** specifications (additive basis: sulphur-phosphorus):
SAE 90 all year round
Automatic Transmission and torque converter require ATF all year round.

All ATF's labeled "Dexron®" with a five-digit number preceded by the letter "B" can be used.

* multi-grade oil

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 two pages and follows the directions on WHAT TO DO.

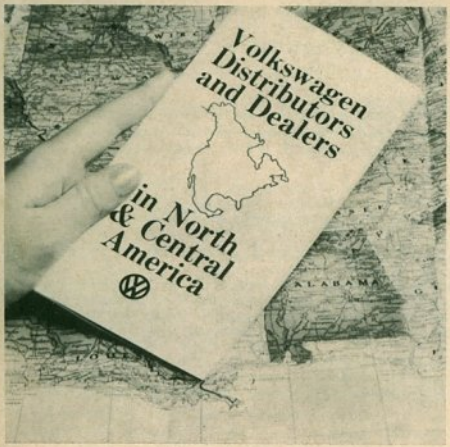
Caution

Exercise extreme caution when working on any part of the car to prevent accidental injury. To prevent sparking or accidental fires, disconnect battery ground cable when working on the electrical or fuel systems. Incomplete or improper servicing may also cause problems in the operation 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 2. Loose connection A. At battery B. At starter C. At connections behind dashboard 3. Starter defective 4. On vehicles with Automatic Transmission: The selector lever is not in starting position	1. Charge or replace battery 2. Make sure that all connections are tight A. Check both cable connections on battery and grounded end of ground strap B. Check connections at solenoid (mounted on starter) under right rear of vehicle C. Check push-on connectors behind dashboard 3. Ask for assistance 4. Shift into Neutral or Park
VW will not start: engine turns over	5. Loose connection in ignition system 6. Loose connection in primary circuit to coil 7. No spark at spark plugs	5. Check for loose connections at coil, distributor and spark plugs 6. Check push-on connector at coil (thin black wire). Check tight fit of spark plug connectors. Check ignition wires for tight fit. 7. If sparks appear at high tension cable, the distributor cap should be cleaned inside and outside. Reconnect high tension cable. Remove all spark plugs. If plugs are clean and dry, reconnect ignition cables to spark plugs and bring spark plugs in connection 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 Dirty or wet spark plugs should be cleaned and dried. Install new plugs if necessary. Unburned gasoline on plug electrodes points to excessive fuel supply

Problem	Probable Cause	What To Do
VW will not start: engine turns over	8. If spark is fairly good at plugs, trouble is most likely in fuel system	8. Check fuel system in the following sequence:
	A. Caused by improper starting procedure. If the accelerator pedal is depressed too often, the carburetor accelerator pumps inject too much gasoline	A. Depress accelerator pedal completely and operate starter for a prolonged period. If engine does not start, remove and dry spark plugs, turn over engine with plugs removed for approximately 30 seconds. Reinstall plugs and start engine
	B. Carburetors may be flooded, float or needle valve may be sticking	B. Tap around outside of carburator with wooden or plastic tool handle. Wait a few minutes and try starting again as described at 8 A
Engine stalls shortly after starting	9. Poor fuel supply 10. Automatic chokes do not open, excessive fuel supply	9. See paragraph 12 and 13 10. Check whether choke valves are in vertical position after ignition has been switched on for 2-5 minutes (depending on outside temperatures). Covers for choke units must be hot. If choke valves are binding in a closed position, open at fast idle cam and if necessary, retain with wire.
Engine stalls while vehicle is driven	11. Defect in ignition system 12. Fuel supply is exhausted 13. Gasoline may be contaminated by water, dust or dirt	11. See paragraphs 5 through 7 12. Check whether any gasoline is left in tank 13. 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	14. If light goes on, the oil pressure is too low	14. 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 alternator comes on while you are driving	15. Fuse 11 in the fuse box (see page 40) may be blown 16. If light goes on, V-belt may be torn or alternator does not charge	15. Replace fuse. If it blows again, do not drive on because the turn signals will not work. Ask for assistance. 16. If belt drives alternator without slipping, switch off all unnecessary electrical equipment (radio, etc.). Drive to nearest VW dealer as otherwise the battery will soon run down



Owner Relations

There are more than 1500 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.

Should you feel that you require assistance beyond that offered by your dealer or distributor, you may want to contact Customer Relations at Volkswagen of America, Inc., Englewood Cliffs, New Jersey 07632.

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 chassis number in correspondence.

Addresses of VW Distributors in the US:

Maine
Massachusetts
New Hampshire
Rhode Island
Vermont
Illinois
Iowa
Minnesota
North Dakota
South Dakota
Wisconsin

Volkswagen Northeastern
Distributor, Inc.
100 Fordham Road
Wilmington, Massachusetts 01887
(617) 658-6700

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 21 st Street (P. O. Box 2274)
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 of America, Inc.
Western Region
11300 Playa Street
Culver City, California 90230
(213) 390-8011

Alaska
Idaho
Montana
Oregon
Washington

Riviera Motors, Inc.
P.O. Box. 2963
(Five Oaks Industrial Park)
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

Volkswagen of America, Inc.
Western Region
7100 Johnson Industrial Drive
Pleasanton, California 94566 (415) 828-6700

Technical Data

Engine

Four cylinder, four stroke, horizontally opposed in rear. Thermostatically controlled air cooling by fan on crankshaft. Pressure oil feed with gear-type pump. Oil cooler, full flow filter and strainer. Mechanical fuel pump. Two downdraft carburetors with automatic chokes and accelerator pumps. Air cleaner with load and temperature sensitive intake air pre-heating. Activated charcoal filter in the fuel system.

Bore	3.66 in. (93 mm)
Stroke	2.60 in. (66 mm)
Displacement	109.5 cu. in. (1795 cc)
Compression ratio	7.3 : 1
Maximum output SAE net	65 hp at 4200 rpm
Maximum torque SAE net	92.4 lb. ft. at 3000 rpm
Valve clearence with engine cold	
Inlet	0.006 in. (0.15 mm)
Exhaust	0.008 in. (0.20 mm)

"Regular" gasoline, incl. low lead and lead-free fuels. The correct octane rating for your VW engine is shown on a plate visible after taking off the filler cap.

Automatic Transmission

Automatic Transmission combined with final drive. 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: 3/8–1 in. (10–25 mm)

Baulk sychronized four-speed transmission and bevel gear differential in one housing. Drive shafts with two constant velocity joints per shaft.

Chassis

Unitized body, frame plates reinforced with side and cross members, front axle bolted to frame side members, engine/transmission suspended in 4 bonded rubber mountings. Independent wheel suspension: torsion arms with ball joints at front, double jointed axle with trailing arms and diagonal links at rear. Torsion bar, telescopic shock absorbers, stabilizer at front.

Roller steering with maintenance-free tie rod and hydraulic steering damper. Hydraulic dual-circuit power-assisted foot brakes with pressure regulator for rear wheel circuit. Front wheels with disc brakes, rear wheels with drum brakes.
Mechanical parking brake effective on rear wheels.

Wheelbase	94.5 in (2400 mm)
Turning circle diameter	approx. 40 ft. (12.3 m)
Track at front*	54.8 in (1395 mm)
Wheel-toe angle (wheels pressed together)	0.024 ± 0.071 in. (0.6 ± 1.8 mm)
Camber	0° 40′ ± 20′
Track at rear*	57.2 in. (1455 mm)
Wheels	5½ J x 14 (Perforated discs with drop center rims)
Tire pressure	see sticker on the steering column bracket

* at gross vehicle weight

Electrical system

Voltage	12 Volts	
Battery	45 Ah	
Starter		
Manual Transmission	0.7 hp	
Automatic Transmission	0.8 hp	
Alternator with regulator	max. 55 A	
V-belt size	9.0 x 965	
Ignition distributor	with combined vacuum and centrifugal spark advance and speed limiter	
Firing order	1–4–3–2	
Ignition timing	for correct specification for your engine, see label in engine compartment	
Contact breaker gap	0.016 in. (0.4 mm)	
Spark plug	Bosch W 145 T2 Beru 145/14/3 Bosch W 175 T2* Beru 175/14/3*	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 average temperature is above 77° F.

Performance

Maximum and cruising speed	
Manual Transmission	79 mph
Automatic Transmission	74 mph

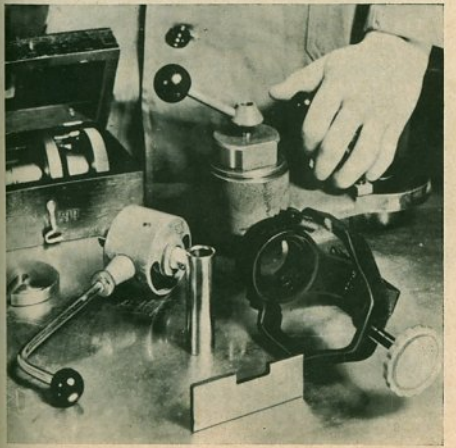
Capacities

Fuel tank	15.8 US gallons (13.2 Imp. gallons/56 liters)
Engine oil with filter change	3.7 US quarts (3.1 Imp. quarts/3.5 liters)
Engine oil without filter change	3.2 Us quarts (2.7 Imp. quarts/3 liters)
Transmission and final drive	7.4 US pints (6.1 Imp. pints/3.5 liters)
On vehicles with Automatic Transm.:	
Torque conv. and planetary gears	approx. 12.7 US pints (10.6 Imp. pints/6 liters)
refill with	6.3 US pints (5.3 Imp. pints/3 liters)
Final drive	approx. 2.0 US pints (1.8 Imp. pints/1liter)
Windshield washer	2.9 US pints (2.4 Imp. pints/1.4 liter)

Dimensions and weights

	Station Wagon	Kombi	Camp-mobile	Delivery Van
Length in./mm	177.4/4505	177.4/4505	177.4/4505	177.4/4505
Width in./mm	67.7/1720	67.7/1720	67.7/1720	67.7/1720
Height, unladen in./mm	77.0/1955	77.0/1955	80.0/2032	77.2/1960
Ground clearance in./mm	7.8/ 200	7.8/ 200	7.8/ 200	7.8/ 200
Unladen weight lbs./kg	3042/1380	2921/1325	3296/1495	2744/1245
Vehicle capacity weight* lbs/kg	1918/ 870	2149/ 975	1665/ 755	2326/1055
Gross vehicle weight lbs./kg	4960/2250	5070/2300	4961/2250	5070/2300
Gross axle weight front lbs./kg	2227/1010	2227/1010	2227/1010	2227/1010
Gross axle weight rear lbs./kg	2800/1270	2866/1300	2800/1270	2866/1300
Perm. roof and trailer weights:	220/100**	220/100**	220/ 100	220/100**
Roof weights lbs./kg	1340/ 600	1340/ 600	1340/ 600	1340/ 600
Trailer without brakes lbs./kg	2204/1000	2204/1000	2204/1000	2204/1000
Trailer with brakes lbs./kg	55–110	55–110	55–110	55–110
Trailer tongue load lbs./kg	/25–50	/25–50	/25–50	/25–50

* Less, if an VW Air Conditioner is installed (see page 28)
** Applies only to roof rack mounted to rain gutters. Distribute load evenly.



In any authorized VW dealer's service department, you get VW Specialists who know VW's intimately.

A VW Specialist works on VW's. Period.

Every so often he takes time off and gets a refresher course at one of our VW training centers.

So he learns to fix Volkswagens before he starts working on your car. Rather than while he is working on your car.

We think it is better that way.

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.

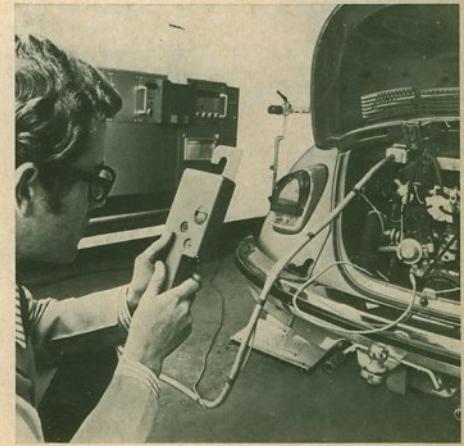
But they cannot offer you VW Computer Diagnosis.

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

Specially trained diagnosticians will check your VW directly using special testing equipment and 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 Computer Diagnosis and Maintenance

The **VW Computer 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 **Computer 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 Computer Diagnosis and Maintenance, and the additional services (such as oil change, lubrication, brake fluid renewal) in accordance with Volkswagen quality service standards.

The first oil change and maintenance service will be performed at 600 miles. There is no extra charge for the service; you only pay for lubricants and filters. From then on, every 6,000 miles your car will be tested through VW's unique diagnosis service system.

The first diagnosis tests at 6,000, 12,000, 18,000 and 24,000 miles will be done at no extra charge to you. 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 Computer Diagnosis at any time – outside the regular schedule – at your Authorized VW Dealer. Especially if you drive less than 6,000 miles a year, we recommend you have a VW Computer 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.

Scheduled Maintenance at 600 miles
(includes oil change and emission control maintenance)

The first maintenance service will be performed at 600 miles. There is no extra charge for the service; you only pay for lubricants and filters.

1 – Engine: Change oil. Replace oil filter.

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

3 – Valves: Check and adjust clearance.

4 – Clutch pedal free play: Check and adjust.

5 – Brakes: Check, adjust if necessary.

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

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

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

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

10 – 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 – Engine idle: Check and adjust.

2 – Cylinder head covers: Check for leaks.

Oil Change Service every 3,000 miles

The engine in the Volkswagen requires little oil. But for long engine life, this oil should be changed every 3,000 miles. This oil change is at your expense. It includes:

Engine: Change oil.

VW Computer 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 Computer Diagnosis procedure which applies to your vehicle.

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

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

It is something you should know.

VW Computer Diagnosis every 6,000 miles
(only applicable operations on your vehicle will be performed).

The first four diagnosis tests at 6,000, 12,000, 18,000 and 24,000 miles will be done at no extra charge to you. From then on, at 6,000 mile intervals the VW computer diagnosis test is at your expense.

Engine and Clutch:

1 – V-belt: Check tension and condition.

2 – Ignition system: Check with electronic equipement.

3 – Compression: Check.

4 – Exhaust system: Check for damage.

5 – Manual Transmission.
Clutch: Check pedal free play.

6 – Engine: Check oil level.

Rear axle and transmission:

7 – Drive shafts: Check boots for leaks.

Front axle and steering:

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

9 – Ball joints: Check play.

10 – Steering: Check play.

11 – Steering gear: Check for leaks.

12 – Front wheels: Check camber and toe.

Brake, wheels, tires:

13 – Brake system: Check for damage and leaks.

14 – Brake pedal: Check pedal travel.

15 – Parking brake: Check adjustment.

16 – Brake fluid: Check level.

17 – Brake linings or pads: Check thickness.

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

Electrical system:

19 – Cranking system: Check with electronic equipment.

20 – Charging system: Check with electronic equipment.

21 – Kickdown switch and solenoid: Check.

22 – 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.

23 – Headlights: Check adjustment.

24 – Windshield wiper: Check operation.

25 – Windshield washer: Check operation and fluid.

26 – 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 and instrument lights.

3 – Check ignition/steering lock and buzzer alarm.

4 – Check warning lights for alternator and oil pressure.

5 – Automatic Transmission: Check ATF level.

Scheduled Maintenance

(includes oil change and emission control maintenance – at your expense)

After your vehicle receives a VW Computer 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 Computer Diagnosis Test Report.

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

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

So that your VW will keep running like a VW.

Every 6,000 miles – at your expense

1 – Engine: Change oil. Replace oil filter.

2 – Valves: Check and adjust clearance.

3 – V-Belt for air pump: Check tension and condition, adjust or replace if necessary.

4 – Door hinges and door checks: Lubricate.
Sliding door mounting points: Lubricate.

5 – Manual Transmission: Check oil level, add if necessary.

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

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

8 – Brakes: Check, adjust if necessary.

9 – Clutch: Check, adjust if necessary.

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

At 12,000 miles – no extra charge

Spark plugs and ignition points replacement, including adjustment of dwell angle and timing needed at the 12,000-mile service will be provided by your authorized Volkswagen dealer at no extra charge, if performed from 11,000 to 14,000 miles. The necessary replacement at subsequent 12,000-mile intervals thereafter is at your expense.

In addition:

Every 12,000 miles – at your expense

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

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

3 – Timing vacuum hose: Check visually.

4 – Spark plugs: Replace.

5 – Activated charcoal filter: Check visually.

Every 18,000 miles – at your expense

1 – Front axle: Lubricate.

2 – Engine: Clean oil strainer.

3 – Air cleaner: Replace filter element (at least every 2 years).

4 – Air pump, air cleaner: Replace filter element (at least every 2 years).

Every 24,000 miles – at your expense

1 – Exhaust recirculation valve: Check, replace if necessary.

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

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

4 – Air pump, control valves, air injection hoses and manifolds: Check visually

5 – Crankcase ventilation hoses: Check visually.

Every 30,000 miles – at your expense

1 – 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 high outside temperatures continuous mountain driving or constant stop and go traffic. If in doubt, consult your Authorized Volkswagen Dealer.

Every 48,000 miles – at your expense

Activated charcoal filter: Replace.

Every 2 years – at your expense

1 – Brakes: Replace brake fluid.

2 – Brake warning light switch: Check functioning.

Delivery Inspection	600 miles		
4007 310	Engine and Transmission Oil Change	Maintenance Service	
Chrisler Motors, Inc.	(Dealer Stamp)	(Dealer Stamp)	
Date 12-05-74	Date 20-01-75	Date 20-01-75	
Miles 00010	Miles 00601	Miles 00601	

Oil & Filter 4706
Oil Change 8250

3,000 miles	6,000 miles	6,000 miles	9,000 miles	12,000 miles	12,000 miles
Oil Change Service	Diagnosis (No charge*) Valid only between 5,000 and 8,000 miles	Oil Change Service Maintenance	Oil Change Service	Diagnosis (No charge*) Valid only between 11,000 and 14,000 miles	Oil Change Service Maintenance
(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)
Date 29/11/75	Date 3-11-75	Date 3-11-75	Date 6/21/5	Date 12-2-75	Date 12-3-75
Miles 32471	Miles 5863	Miles 5863	Miles 8945	Miles 11875	Miles 11875
			20 18167		

15,000 miles	18,000 miles	18,000 miles	21,000 miles	24,000 miles	24,000 miles
Oil Change Service	Diagnosis (No charge*) Valid only between 17,000 and 20,000 miles	Oil Change Service Maintenance	Oil Change Service	Diagnosis (No charge*) Valid only between 23,000 and 26,000	Oil Change Service Maintenance
(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)
Date 04-17-76	Date 04-14-77	Date 6-12-87	Date	Date	Date
Miles 14930	Miles 19331	Miles 18000	Miles	Miles	Miles

* (Lubricants and filters are paid for by the costumer)

27,000 miles **Oil Change Service** (Dealer Stamp) Date Miles	**30,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**30,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles	**33,000 miles** **Oil Change Service** (Dealer Stamp) Date Miles	**36,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**36,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles
39,000 miles **Oil Change Service** (Dealer Stamp) Date Miles	**42,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**42,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles	**45,000 miles** **Oil Change Service** (Dealer Stamp) Date Miles	**48,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**48,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles
51,000 miles **Oil Change Service** (Dealer Stamp) Date Miles	**54,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**54,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles	**57,000 miles** **Oil Change Service** (Dealer Stamp) Date Miles	**60,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**60,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles

63,000 miles **Oil Change Service** (Dealer Stamp) Date Miles	**66,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**66,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles	**69,000 miles** **Oil Change Service** (Dealer Stamp) Date Miles	**72,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**72,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles
75,000 miles **Oil Change Service** (Dealer Stamp) Date Miles	**78,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**78,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles	**81,000 miles** **Oil Change Service** (Dealer Stamp) Date Miles	**84,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**84,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles
87,000 miles **Oil Change Service** (Dealer Stamp) Date Miles	**90,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**90,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles	**93,000 miles** **Oil Change Service** (Dealer Stamp) Date Miles	**96,000 miles** **Diagnosis** (Dealer Stamp) Date Miles	**96,000 miles** **Oil Change Service** **Maintenance** (Dealer Stamp) Date Miles

99,000 miles	100,000 miles	100,000 miles
Oil Change Service	**Diagnosis**	**Oil Change Service Maintenance**
(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)
Date	Date	Date
Miles	Miles	Miles

Additional Services Record

ATF (Automatic Transmission Fluid) changes apply to vehicles equipped with automatic transmission.

Important:

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

The boxes to the right indicate a brake service that is required in addition to the preceding Maintenance schedule.

Your Authorized Volkswagen Dealer will perform this service at the recommended intervals.

It is the best way to keep your VW running. And running. And running.

30,000 miles	60,000 miles	90,000 miles
ATF Change	**ATF Change**	**ATF Change**
(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)
Date	Date	Date
Miles	Miles	Miles

Brake Fluid Renewal
and checking of brake warming light switch

after 2 years of operation	after 4 years of operation	after 6 years of operation
(Dealer Stamp)	(Dealer Stamp)	(Dealer Stamp)
Date	Date	Date
Miles	Miles	Miles

The "National Traffic & Motor Vehicle Safety Act of 1966" requires manufacturers to be in a position to contact vehicle owners if a correction of a product defect becomes necessary.

Please fill in one of the attached postcards if you change your address or purchase a Used Volkswagen.

You need not use this card if you purchased your car through an Authorized Volkswagen Dealer.

Please quote the VW chassis number as it appears on the identification plate of the vehicle. Its location is shown on page 3. Do not use an abbreviated serial number.

Additional cards can be obtained from any Authorized Volkswagen Dealer.

Gas Station Information

Starting

Starting – summer
Start while slowly depressing accelerator

Starting – winter
Depress accelerator fully – release – start

Starting - engine at operating temperature
Depress accelerator fully – hold – start

Driving ranges
See shift pattern on ashtray.

Chassis number (Serial No., VIN)
Visible through driver's side of windshield.

Seat adjustment, front
Operate lever (A) at left hand side of seat.

Fuel recommendation
"Regular", low-lead or lead-free.
Min. octane rating listed on a plate visible after taking off fuel cap.

Fuel cap
Above right rear wheel.

Tire pressure
See sticker on steering column bracket

Engine oil dipstick
Check oil level 5 min. after engine has stopped. Level should be between upper and lower marks on dipstick.
Difference between marks is approx. 0.5 US qt. (0.4 Imp. qt./0.5 liter)

B = dipstick
C = oil filler cap
D = top mark
E = bottom mark

Engine oil grades
Use name brand oil labeled "For Service SD" or "SE" (or combination). See oil viscosity chart on page 52.

Transmission oil
For transmission and final drive use hypoid oil MIL – L – 2105 SAE 80 or SAE 80/90 all year.

ATF (Automatic Transmission)
Check ATF level with engine off. ATF tank cap has dipstick attached.

Use ATF "Dexron®" with 5-digit number preceded by B.

F = filler cap
G = dipstick
H = fluid tank