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Volkswagen

Owner's Manual

Owner's Manual

1996 Golf & GTI Models



How you can help the environment

The fuel economy of your Volkswagen, along with the pollutant content in the exhaust gas is influenced by how you drive.

Noise and wear are similarly influenced by the way you drive your car.

This Owner's Manual explains how to drive your Volkswagen in a way which is environmentally friendly – and how to save money at the same time. Just turn to the heading "Environment" in the index.

Please also be sure to read all of the sections in this manual marked with this symbol ❀.

Please do your part – for the sake of the environment.

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The Warranty booklet

contains detailed information about the warranties covering your Volkswagen.

The Maintenance booklet

explains how you can keep your Volkswagen in top driving condition by having it serviced regularly. Always have the Maintenance booklet with you when you take your vehicle to a Volkswagen dealer for service. Your Service Adviser will record each scheduled service.

In Canada,

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

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

Volkswagen of America, Inc.
Customer Relations/
Assistance à la Clientèle,
3800 Hamlin Road
Auburn Hills, MI 48326

If you sell your Volkswagen

all literature should be left in the vehicle to make the Warranty terms as well as all operating, safety and maintenance information available to the next owner.

If you change your address or if you bought this Volkswagen used

be sure to send in a "Notice of Address Change" / "Notice of Used Car Purchase" post card. This card can be found in the Warranty booklet or obtained from your Volkswagen dealer.

It is in your own interest that we be able to contact you should the need arise.

In addition to this Owner's Manual, your Volkswagen comes with a **Maintenance booklet, Warranty booklet** and for some models, a **supplement.**

Moreover, depending on the model and the equipment, there may be additional instruction booklets delivered with your vehicle (for example, Radio operation instructions).

If you are missing one of these publications, or if you believe that the information is not complete, contact your authorized Volkswagen dealer for assistance.

The Owner's Manual

and the supplement should be read carefully and as soon as possible to acquaint yourself with your vehicle.

Pay special attention to the chapter entitled "Vehicle operation". There you will see how to drive safely and economically, and how to minimize pollution.

For safety reasons please note also the information regarding additional accessories, modifications and parts replacement on page 153.

The other chapters are also important because correct operation of the vehicle - in addition to proper care and maintenance - serves to maintain the value of the vehicle. In many cases, it may also be one of the conditions for upholding warranty claims.

Notes explaining this manual:

This manual describes all the equipment intended at the time of printing. Some of the equipment may be available at a later date or not at all.

WARNINGS
concern safety and are highlighted like this throughout this manual.

Texts identified by this symbol and written in italics are important notes regarding the environment.

*Please note that items marked with an asterisk may be standard on certain models and optional on others.

Your Volkswagen has been conceived with the classic German passion for engineering excellence. Even in Germany, Volkswagen engineers are a breed apart. They are never just content to compete, they must excel.

A labor of love

Volkswagen engineers are innovators. They employ the most sophisticated technology, and when it is lacking, they create it themselves. They are perfectionists. They insist that their own craftsmanship undergoes inspection after inspection to assure that every Volkswagen meets their exacting specifications.

They are practical. They have built efficiency, reliability and durability into every Volkswagen that truly make it a great automotive value.

Share the feeling

But above all, Volkswagen engineers share a passion for performance, the results of which you will experience when you slip behind the wheel. Only then will you fully understand that you're not just driving a car, you're driving a Volkswagen.

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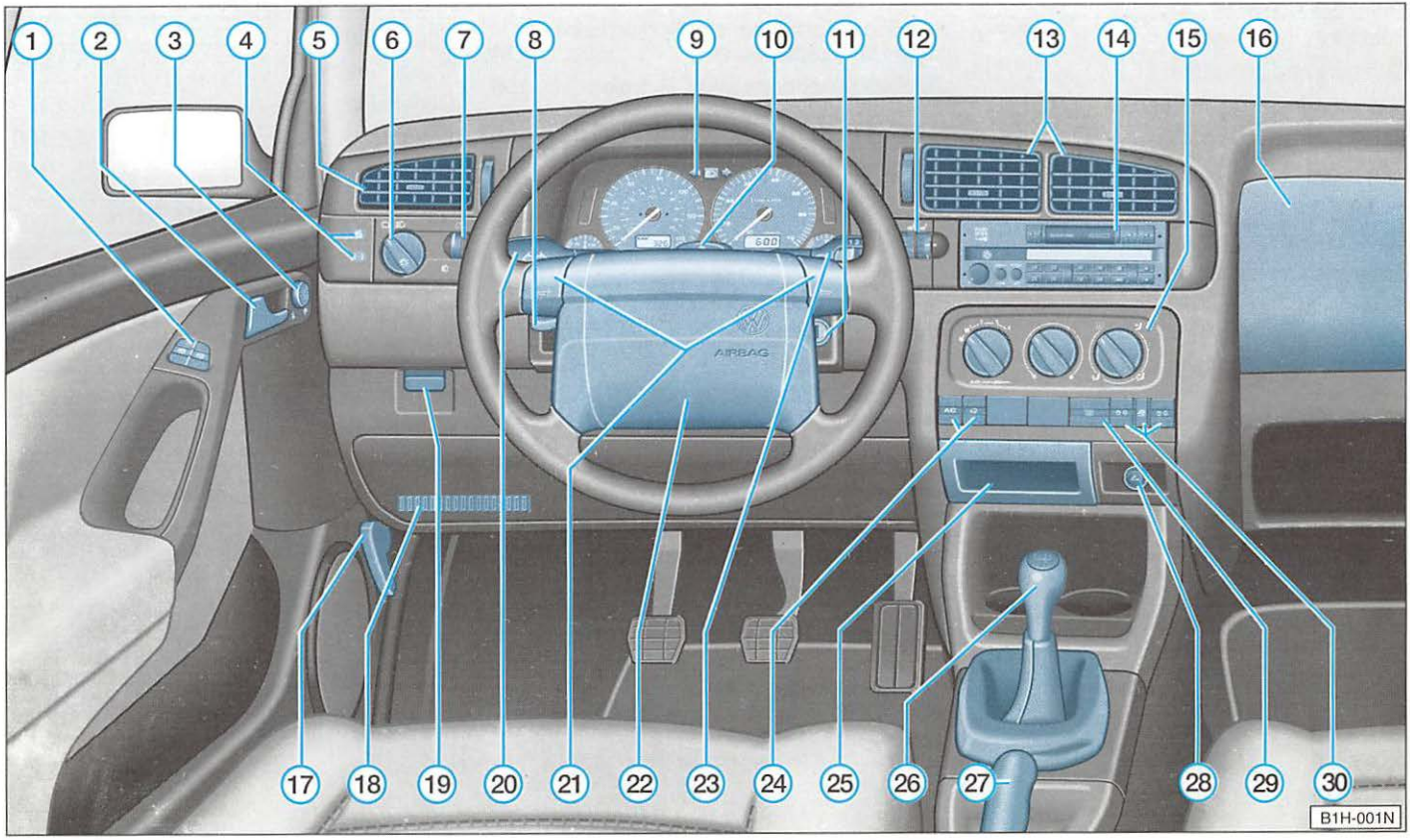
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Notes

■ Some features mentioned are standard equipment on some models only and options on others.

■ For technical reasons, the arrangement of the switches and indicator/warning lights may differ. The governing factor is the symbol on the switch itself.

[1] A separate brochure is provided for your factory-installed radio. If you replace your radio, please be sure to read the notes in the chapter "Do-it-yourself Service", page 170.

Warning and indicator lights

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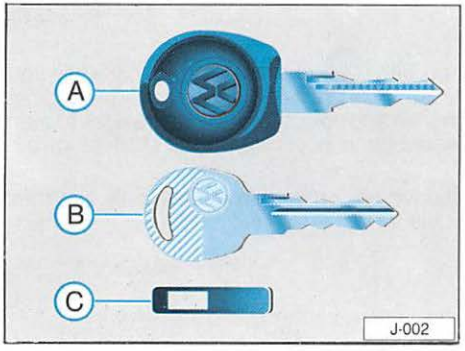
Symbol		Page
(ABS) ABS	Anti-Lock Brake System	73
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Notes

If one of the lights marked with  comes on suddenly while you are driving, move a safe distance off the road. Turn off the engine, turn the emergency flasher on and use other warning devices to alert other motorists. Go to listed page in your Owner's Manual for explanations.

Some of the lights mentioned are on certain models only and may be options on other models.

Keys



Your Volkswagen comes with three keys:

- two keys A
- one key B.

WARNING

Do not leave your vehicle unattended with the key in the ignition lock. Always lock all doors and take the key.

All keys can be inserted into locks either way.

A – Master key

This key fits all locks on the vehicle.

B – Secondary key

This key is only for the doors, and the steering/ignition lock.

The luggage compartment and lockable compartment* (located between the front seats) cannot be opened with this key.

In addition to this, you also cannot lock the rear seat backrest with this key.

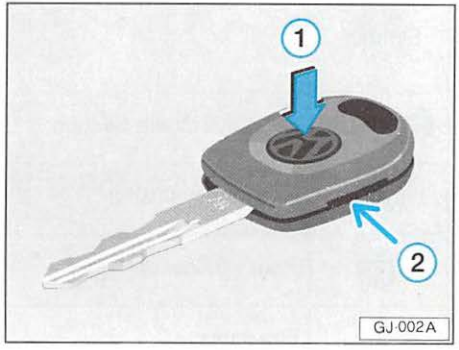
If you have to leave a key with somebody else, it may be advisable to give them this key only.

C – Tag

This tag gives the key number.

For your protection against theft:

- Record the key number and keep it in a safe place, such as your wallet. **Do not keep it in the vehicle.**
- If you should lose a key, provide your authorized Volkswagen dealer with the key number to obtain a duplicate key.



Master key with light*

To switch on light, press the button in the center of the key head (arrow 1) and hold.

To replace battery or bulb:

- Insert a coin into the slit on the side of the key head (arrow 2) and twist to open.
- Replace battery or bulb. Spare batteries or bulbs are available at your authorized Volkswagen dealer.

Dispose of dead batteries properly so as not to pollute the environment.

Always heed WARNINGS on next page.

A chime will sound when you open the driver's door with the key left in the ignition lock. This is your reminder to remove the key and lock the doors.

WARNING

■ Do not leave children unattended in the vehicle, especially with access to vehicle keys. Unsupervised use of the keys can result in starting of the engine or use of vehicle systems such as the power windows*, etc. which could result in serious personal injury.

■ Do not remove key from steering lock while you are driving or as the vehicle is rolling to a stop, otherwise the steering column will lock up, and you will not be able to steer the vehicle.

Power locks

The power locking system locks or unlocks doors, rear lid and fuel filler flap simultaneously. It is actuated from the driver's or passenger's door.

On vehicles with power windows, if you hold the key in the unlock position, you can also open the windows.

■ To lock and unlock from the outside, turn master key or secondary key in lock of driver's or passenger's door.

You can also close any power windows* and the power sunroof* while locking your vehicle:

Insert your key, turn and hold in the lock position until the windows and the roof are closed.

■ To lock and unlock from the inside, raise or depress locking knob on window sill of driver's door.

Selective unlock feature

Unlocking the driver's or passenger's door from the outside

The power locking system makes it possible to open just the driver's or passenger's door, without unlocking the rear doors, the rear lid and the fuel filler flap.

■ To unlock the driver's or the front passenger's door, insert the key into the lock and turn it **one time**.

■ If you want to unlock all the doors including the rear lid and the fuel filler flap turn the key **twice**.

When you unlock the driver's or passenger's door with the key from the outside or raise the locking knob in one of these doors from the inside, wait until the locking knobs are raised before you open one of the doors.

When the power locking system is actuated, the locking knobs on window sills should move simultaneously. If one knob does not move when locking doors, open that particular door and close it properly.

The rear lid can be locked and unlocked individually with the key; manual lock operation will override the power lock system.

WARNING

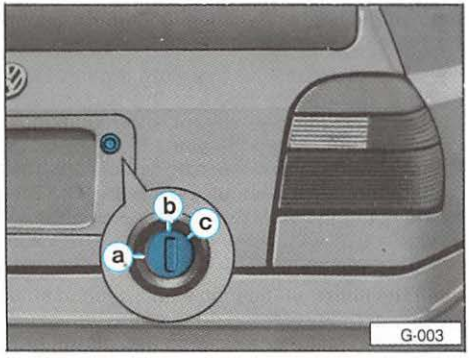
■ Locking doors from the inside can help prevent inadvertent door opening during an accident and can also prevent unwanted entry from the outside. Locked doors can, however, delay assistance to vehicle occupants and rescue from the outside in the event of an accident or other emergency.

■ Do not leave children inside the vehicle unsupervised. If locking knob in driver's door is depressed, all doors and the rear lid will be locked automatically. In an emergency it would be impossible to open the doors from outside without the key.

Note

If the power locking system should fail, you can still open all the locks with your key **except the fuel filler flap.**

To open the fuel filler flap in an emergency, see page 109.



Rear lid

■ With the key slot in horizontal position (**a**), the lid can be locked and unlocked by the power locking system.

■ With key slot in vertical position (**b**), the rear lid remains locked when the power locking system is actuated. This provision has been made to facilitate permanent locking of the rear lid when you leave your vehicle in a public garage or workshop. Take master key with you and leave secondary key with attendant.

WARNING

■ To help prevent poisonous exhaust gas from being drawn into the vehicle, always keep the rear lid closed while driving.

■ Do not transport objects larger than those fitting safely into the luggage area.

If the rear lid is closed with lock slot in vertical position, the luggage compartment can only be opened with the master key.

■ Insert key in lock slot.

■ Turn key all the way to right (**c**) and hold in this position.

■ Press lock cylinder in and raise lid.

■ Remove key.

Note

You can also open the rear lid from the inside using the remote rear lid release – see page 77.

To lock, unlock and open doors from the inside

■ To lock **all** doors and the rear lid simultaneously, press lower part of central locking switch located in the dash board. To unlock all doors and the rear lid simultaneously, press the upper part of the switch.

The central locking switch can also be used to lock and unlock the vehicle when the driver's door is open **and** the ignition key is removed from the steering lock. If you lock the vehicle with the driver's door open, you will still have to close and lock that door with the key. This feature helps to prevent you from being locked out of your car.

■ All doors can be locked or unlocked independently of the central locking system by depressing or raising the locking knob on the window sill.

■ To open doors pull the inside door handle after raising the locking knob.

Anti-theft alarm system

The anti-theft alarm system triggers an acoustic alarm and switches on the emergency flasher if it senses unauthorized interference with the vehicle.

When the vehicle is locked the alarm system monitors and protects the following parts of the vehicle:

- engine compartment
- luggage compartment
- doors
- ignition
- radio*

The windows and sunroof* are not monitored.

The alarm system is switched on automatically when the driver's or front passenger's door is locked. To do this, hold the key in the lock position for at least half a second. The system is activated about 30 seconds after the vehicle is locked.

An indicator light, located on the window sill of the driver's door, flashes and a "beep" will sound when the vehicle is locked to confirm that the alarm system is operative and that all doors, the rear lid and the engine hood are properly closed. If the light does not flash or if the "beep" does not sound, check the doors, lid and hood and close them properly.

Notes

- To see if your vehicle alarm system is on or not, insert your key into either front door lock and hold key briefly in the lock position. The light will flash briefly if the vehicle is locked.
- The alarm will not be triggered if a door or the lid or hood are still open or if they are closed when the system is already switched on.
- The rear lid can be opened separately with the key even when the system is active. This will not trigger the alarm. When the rear lid is closed the luggage compartment will again be included in the alarm circuit. The light will also flash briefly.
- The system switches off when either door is unlocked with the key.
- The alarm will be triggered if one of the doors, the engine hood or the rear lid are opened without the key, or if the ignition is switched on. When the alarm is triggered, a horn sounds and all four turn signals flash simultaneously for about 4 minutes. The engine cannot be started until the system is switched off with the key at either the driver's or front passenger's door.
- The alarm will be triggered a second time if one of the protected parts of the vehicle is interfered with again after the alarm has stopped (for instance if the rear lid is opened after one of the doors has been forced open). To make certain that the vehicle is secured, always make sure that the doors are locked (locking buttons in the down position) and the rear lid lock is in the vertical lock position.

Doors

To lock, unlock and open doors from outside

■ Lock and unlock the doors by turning the key to the right or left.

■ Open the doors by pulling the outer door handle.

■ All doors (except driver's door) can be locked by first depressing locking knob and then closing the door.

■ The driver's door can be locked only from the outside with the key. This precaution was taken to prevent locking the driver's door while the key is still in the vehicle.

To lock, unlock and open doors from the inside

■ To lock doors depress the locking knob.

WARNING

Locking doors from the inside can help prevent inadvertent door opening during an accident and can also prevent unwanted entry from the outside. Locked doors can, however, delay assistance to vehicle occupants and rescue from the outside in the event of an accident or other emergency.

■ To unlock doors, raise the locking knob.

■ To open doors, pull the inside door handle after raising the locking knob.



Child lock for rear doors*

To prevent children riding in the back seat from accidentally opening the rear doors*, a safety mechanism is provided.

■ To engage the child lock, move small lever downward. The inside door handle is locked and you can open the door from the outside. The lever must be raised to disengage.

■ For the comfort and convenience of adult rear seat passengers be sure to disengage the child lock when no longer needed.

Rear lid

To **unlock** rear lid, insert master key in key slot in vertical position. Turn until key is in horizontal position, (see page 13), press lock cylinder in and lift lid. Do not let the rear lid swing up by itself. Further information see page 77.

■ To **close** rear lid, swing lid down firmly and lock with your key.

WARNING

■ After closing the rear lid, always pull up on it to make sure that it is properly closed – otherwise it could open suddenly when vehicle is moving, even though the key has been turned to the locked position.

■ To help prevent poisonous exhaust gas from being drawn into the vehicle, always keep the rear lid closed while driving.

■ Do not transport objects larger than those fitting safely into the luggage area.

Keep the rear lid locked at all times to prevent unauthorized access to the vehicle.

Power Windows*

The switches are arranged as follows:

- In the driver's door armrest:
two switches for both front windows.
- In the front passenger's door armrest:
one switch for the front right window.

The power windows work only when the ignition is on. However, if the ignition is switched off, you can still operate the windows for about 10 minutes as long as one of the doors has not been opened.

Opening

To open the window, briefly push the bottom half of the switch. The **automatic opening feature** will open the window completely.

If you push the switch again, you will stop the window while it is opening.

If you quickly tap the switch, the window will open approximately one half inch (15 mm).

Closing

To close a window, briefly push the top half of the switch. The **automatic closing feature*** will close the window completely.

If you press the switch again, you will stop the window while it is closing.

If you quickly tap the switch, the window will close approximately one half inch (15 mm).

On vehicles without the **automatic closing feature** press and hold the top half of the switch until the window is completely closed.

For additional information see next page.

Always heed WARNINGS on next page.

Notes

■ **For safety reasons, the automatic opening and closing features only work when the ignition is switched on.**

Convenience close feature

■ You can also close the windows centrally with your ignition key after making sure that the windows are not obstructed: insert the key into the lock in the driver's or passenger's door, turn, and hold in the lock position.

If the vehicle is equipped with a sunroof, it will close after all the windows are closed. This prevents excessive drain on the battery. This convenience feature for the sunroof only works in the close direction. The windows and sunroof will stop as soon as the key is released.

Convenience open feature

As a ventilation aid in hot weather, both front windows can be lowered. Insert the key into the door lock and hold in the unlock position. Both windows will be lowered at the same time. The windows will stop as soon as the key is released.

WARNING

■ **Do not leave children unattended in the vehicle, especially with access to vehicle keys. Unsupervised use of the keys can result in starting of the engine and use of vehicle systems such as power windows, power sunroof, etc. which could result in serious injury.**

Remember also that the power windows are inoperative only after the ignition key has been removed and one of the doors have been opened.

■ **Be careful when closing your windows, otherwise serious personal injury could result!**

– **Always remove the ignition key whenever you leave your vehicle. However, remember, the power windows are switched off only when one of the doors is opened.**

■ **When locking your vehicle from the outside, no one should remain in the vehicle because the windows will not open in case of an emergency.**

■ **Do not stick anything on the windows or the windshield that may interfere with the driver's vision.**

Mirrors

Adjust the outside and inside mirrors before driving and after adjusting your seat to proper driving position. It is important for safe driving that you have good vision to the rear.

Inside day-night mirror

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

To ensure the best possible anti-glare effect, the lever on the lower edge of the mirror should be pointing forwards when the basic setting is made.

Daylight driving – lever to front

Night driving – lever to rear.

Outside mirrors

The outside mirrors are hinged and yield when pressed from either direction.

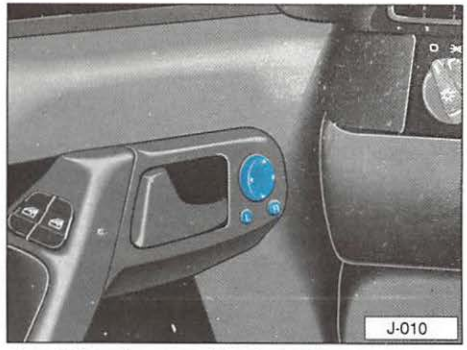
Adjust the outside mirrors so that the side of your own vehicle can just be seen. This setting ensures the best possible field of view, and in addition it serves as an instant check on the mirror setting.

The mirrors can be adjusted from the inside by moving the toggle knobs on the door panels.

WARNING

The right hand outside mirror has a curved (convex) surface. Always remember that vehicles or other objects seen in a convex mirror will look smaller and appear farther away than when seen in a flat mirror. Do not use this mirror to estimate distances of following vehicles when changing lanes.

Whenever possible, use the inside mirror to determine the actual distance and size of vehicles or objects seen in the convex mirror.



Outside mirrors with electric remote control*

These mirrors can be adjusted electrically from the inside by moving the knob on the driver's door panel. They work only with the ignition on. Press either of the two lower buttons **L** or **R** to select the left or right mirror.

If the electrical adjustment of the mirror should not respond, adjust the mirror by hand by pushing lightly on the edge of the mirror glass.

When the rear window defogger is switched on, the outside mirrors are electrically heated also.

Safety belts



Always wear your safety belts!

WARNING

Safety belts have been shown to be the single most effective means available for reducing the potential for serious injury and death in automobile accidents. Therefore, for your own protection as well as that of your passengers always properly wear safety belts when the vehicle is in motion.

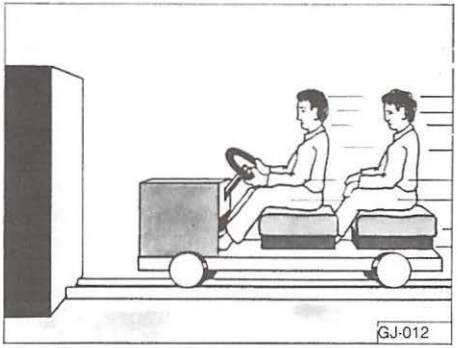
Pregnant women, injured or physically impaired persons should also use safety belts. Like all vehicle occupants, they are more likely to be seriously injured if they do not wear safety belts. The best way to protect the fetus is to protect the mother.

Why safety belts work and how to wear them properly is explained in this chapter. Read all the information given and always observe the following instructions and warnings pertaining to the use of the safety belts installed in your vehicle.

For information on child safety see page 36.

Why safety belts work

Safety belts can't work unless they are worn and worn properly.



The illustration above shows the passengers on a "vehicle"which is headed for a brick wall. They are not using safety belts.

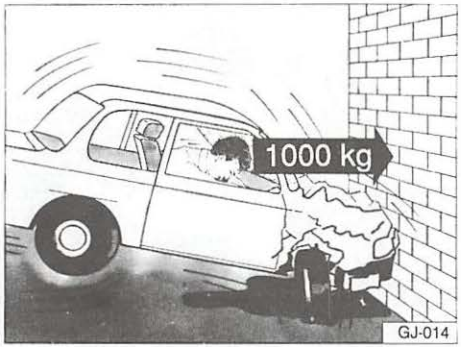
The physical principles involved are simple. Both the vehicle and the passengers possess energy which varies with vehicle speed and body weight. Engineers call this energy "kinetic energy".

The higher the speed of the vehicle and the greater the passenger's weight, the more kinetic energy there is and the more energy which must be "absorbed" in an accident.


GJ-013

Vehicle speed is, however, the most significant factor. If the speed doubles from 15 to 30 mph (25 to 50 km/h), for example, the kinetic energy increases 4 times!

Because these passengers are not using safety belts, their kinetic energy remains unchanged. They will keep moving at the same speed the vehicle was moving just before the crash, until something gets in the way – here, the wall.



GJ-014

The same physical principles apply to people sitting in a passenger car which is involved in a frontal collision.

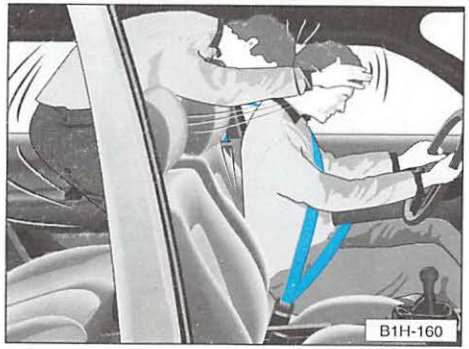
Even when driving at city speeds of 20 to 30 mph (30–50 km/h), the forces acting on the body can reach one ton (2000 lb/1000 kg) or more. At greater speeds these forces are even higher.

People who do not use safety belts are also not attached to their car. In a frontal collision they will also continue to move forward at the speed their car was travelling just before the impact.


B1H-120

Unable to resist the tremendous forces arising at impact, they will slam violently into the steering wheel, dashboard, windshield or whatever else is in the way. Their impact with the vehicle interior takes place with all of the kinetic energy they had just before their car crashed. Those who do not use safety belts can also be thrown out of their car where even more severe or fatal injuries can occur.

Nobody is strong enough to overcome the forces of an accident by holding tight or bracing themselves against the dashboard. Safety belts can help to reduce the risk of injury caused by uncontrolled impact with the vehicle and the possibility of ejection.



Passengers sitting in the rear seats who do not use safety belts endanger not only themselves but also front seat passengers. In a frontal collision they will also move forward where they can hit and injure the driver or front seat passenger.

Safety belts protect

Safety belts used properly can make a big difference. Safety belts help to keep passengers in their seats, reduce energy levels applied to the body in an accident gradually and help prevent the uncontrolled movement which can cause serious injuries. Safety belts also help to keep passengers in their seats.



Safety belts attach passengers to the car and give them the benefit of being slowed down more gently or "softly" through the give in the safety belts, crumple zones and other safety features engineered into today's cars. By reducing the kinetic energy over a longer period of time, the forces on the body become more "tolerable" and less likely to produce injury.

In addition, safety belts reduce the danger of being thrown out of the car.

Although these examples are based on a frontal collision, safety belts can also substantially reduce the risk of injury in other types of accidents. So, regardless of whether you are on a long trip or just going to the corner store, always buckle up and make sure others do, too.

The following pages provide important instructions which will enable you to use safety belts properly. **Be sure to read and follow the instructions carefully and heed all WARNINGS.**

To further increase the safety for the front passengers, the vehicle is equipped with a supplemental air bag system. See page 30.

The safety belts provided must nevertheless be worn because the air bags are activated only by severe frontal collisions. The air bags are not activated by minor frontal collisions, side and rear collisions, by a roll over or by cases where there is no considerable impact on the front of the vehicle.



Belt warning system

Your vehicle has a warning light to remind you to wear your safety belt.

If you do not put on your safety belt after switching on the ignition, the warning light in the instrument cluster will come on along with a warning tone for approximately 6 seconds.

Fasten your safety belt now and make sure that your passengers also properly put on their safety belts.

How to wear safety belts properly

On the previous pages, you have seen how safety belts offer protection in accidents. Accident statistics show that passengers properly wearing safety belts have a lower risk of being injured and a much better chance of surviving an accident. For this reason, wearing a safety belt is legally required in most countries and in much of the United States and Canada.

WARNING

Always fasten your safety belts before driving off. Always make sure your passengers are properly restrained – even those sitting in the rear.

Safety belts can only work when used properly. Always observe the following precautions:

- **Never wear belts twisted.**
- **Never strap in more than one person, including small children, with each belt. It is especially dangerous to place a safety belt over a child sitting on your lap.**



- **Never place your feet on the instrument panel or on the seat. Always keep both feet on the floor in front of the seat.**
- **Never wear belts over rigid or breakable objects in or on your clothing, such as eye glasses, pens, keys, etc. as these may cause injury.**

Always heed WARNINGS on next page.

■ **Never wear safety belts in any other way than illustrated and described in this chapter. For instance, do not wear shoulder part of belt under your arm or otherwise out of position. This would increase the risk of serious injury in case of an accident.**

■ **Several layers of heavy clothing may interfere with proper positioning of belts and reduce the overall effectiveness of the system.**

■ **Never allow safety belts to become damaged by being caught in door or seat hardware. Always keep belt buckles free of any obstruction that may prevent secure locking.**

■ **Never use comfort clips or devices which create slack in the shoulder belt portion and can increase the risk of injury in an accident. However such clips may be required in the proper use of some child restraint systems.**

■ **Inspect your belts periodically. If belts show damage to webbing, bindings, buckles or retractors, they must be replaced.**

■ **The belts must be kept clean as otherwise the retractors may not work properly (see also "Vehicle Care").**

■ **Safety belts that have been worn and loaded in an accident must be replaced by an authorized Volkswagen dealer.**

■ **Never modify, disassemble or attempt to repair the safety belts in your vehicle.**

Your Volkswagen has 5 seating positions. 2 in the front and 3 in the rear. Each seating position has been provided with a safety belt, which must be used in the interests of safety whenever the vehicle is in motion.

Lap-shoulder belt

The front seats are equipped with three-point safety belts.

The rear seat outside passenger positions are also equipped with three-point safety belts.

The combination lap-shoulder belts have locking retractors. The system adjusts automatically to your size and movements as long as the pull on the belt is slow.

Hard braking or a collision locks the belt. The belt will also lock when you drive up or down a steep hill or in a sharp curve.



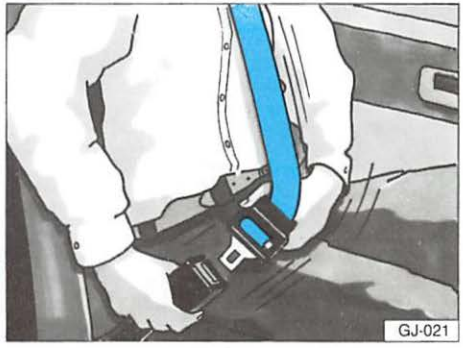
Fastening the safety belt

■ **Before fastening the safety belt, first adjust your seat – see page 45.**

WARNING

Safety belts only offer optimum protection when the seat back is upright and belts are properly positioned on the body. Improperly positioned safety belts can cause serious personal injury in an accident.

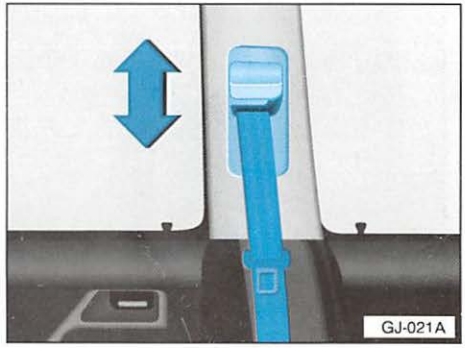
■ To fasten, grasp belt tongue and pull belt in continuous slow motion across your chest and lap.



■ Insert belt tongue into buckle on inboard side of seat. Push down until it is securely locked with an audible click. Pull belt to check.

WARNING

Always make certain that the safety belt tongue is inserted into the safety belt buckle associated with the corresponding seat. Attaching the safety belt to the buckle for another seat could reduce safety belt effectiveness and cause injury.



Safety belt height adjustors on the front seats can be used to adjust the height of the shoulder portion of the safety belt.

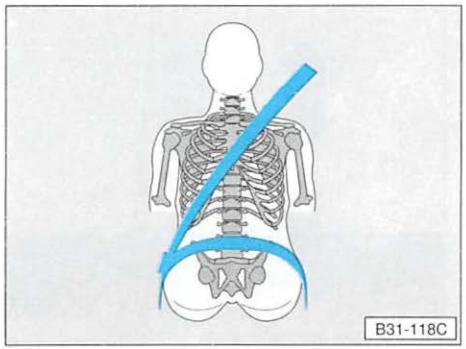
■ Press the handle slowly up or down so that the shoulder portion of the safety belt is positioned nearly midway over the shoulder.

■ Pull on the shoulder belt to check whether the belt anchor is securely locked in place.

Notes

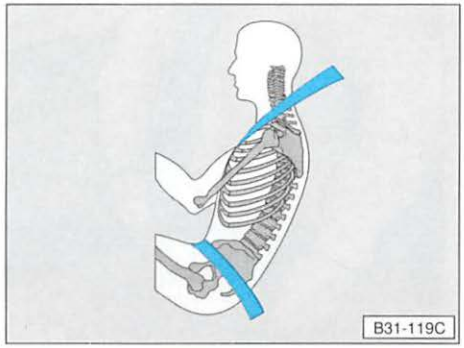
■ To make sure the safety belt fits properly, use the front seat height adjustment.

■ **Wearing your safety belt properly–see page 23.**



The shoulder belt must be positioned over the shoulder – **it must never rest against the neck and must fit against your body.** See illustration.

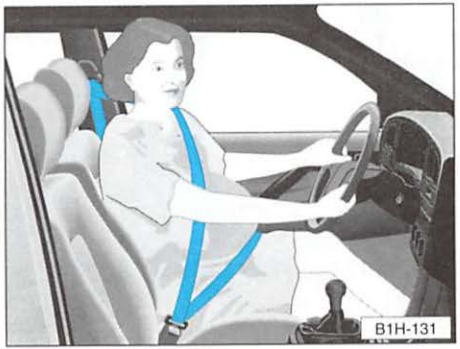
The lap belt must be worn low and tight across the pelvis. Pull belt tight if necessary.



WARNING

■ Always position safety belts properly over the body for maximum levels of safety. Improperly positioned safety belts can cause serious personal injury in case of an accident.

■ Safety belts worn too loose will allow too much forward movement of your body in a crash. This will increase the risk of personal injury.



WARNING

Pregnant women should especially make sure to wear the lap portion of the safety belt as low as possible across the pelvis so that there is no pressure on the abdomen.

Always heed WARNINGS on next page.

Automatic Locking Retractor (ALR)

The automatic locking retractor is necessary to secure child restraint systems.

The retractors for the front passenger and rear outboard three-point safety belts are equipped with an automatic locking feature in addition to the emergency locking feature.

If you need to install a child restraint system at an outer seating position of the rear seat, it must be secured by use of the belt after activating the automatic locking feature.

Activating the locking retractor

- Slowly pull the belt all the way out.
- Insert the belt tongue into the buckle for that seating position (pull on it to check!) and guide the rest of the belt with your hand back in place; while doing this you should hear an audible sound. This sound signals that the locking retractor has been activated.

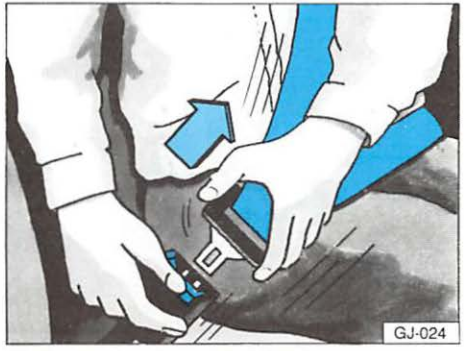
Deactivating the locking retractor

The locking retractor is deactivated by unfastening the safety belt and allowing the safety belt to retract completely to its stowed position. The safety belt can now be used as an ordinary three-point safety belt without the additional locking feature.

If a person sitting in the rear wearing the safety belt should activate the locking retractor, then the safety belt must be unfastened in order to deactivate the locking retractor.

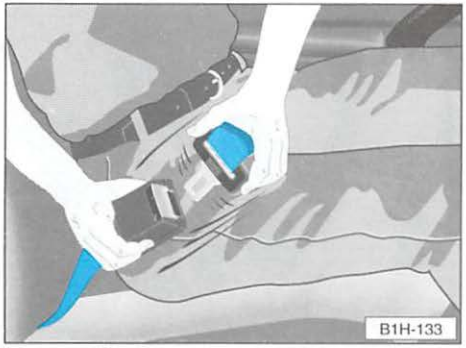
WARNING

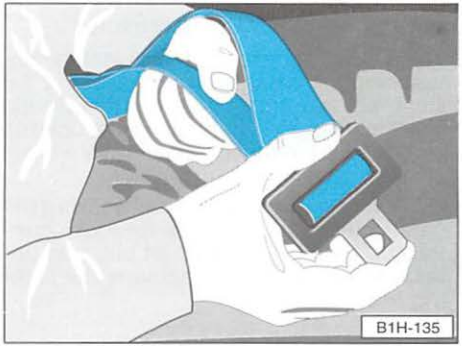
Never unfasten the safety belt to deactivate the locking retractor while the vehicle is in motion.

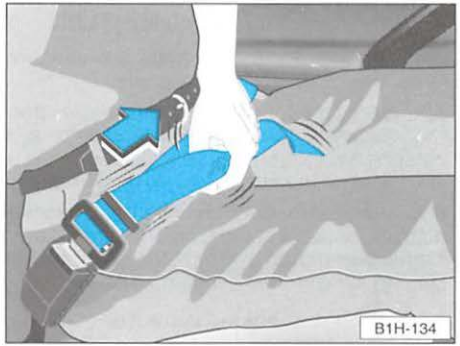


Unfastening the safety belt

- Push the orange release button on the buckle. The belt tongue will spring out of the buckle.
- Allow belt to wind up on retractor as you guide belt tongue to its stowed position.







Lap belt

The rear seating center position is equipped with a lap belt.

■ To fasten lap belt, grasp belt tongue and slowly and evenly pull across the pelvis. Insert belt tongue into the respective buckle and push down until it is securely locked with an audible click. Pull belt to check.

■ If the belt length is too short, you can lengthen the belt. Hold belt tongue at a right angle to the belt and loop out the required portion.

For easy operation, press cap and tongue of buckle together.

■ To tighten belt, buckle up and pull at loose end of the belt.

WARNING

To reduce the risk of injury in an accident, position the lap belt tight and as low as possible across the pelvis.

Pregnant women should especially make sure to wear the lap portion of the safety belt as low as possible across the pelvis so that there is no pressure on the abdomen.

■ To unfasten belt, push in the orange release button on buckle.

Note

For safety reasons, keep the belt on top of the seat and fastened together when it is not being used.

Belt tensioner*

The safety of the driver and front passenger **wearing their safety belts** has been increased not only by the air bag system but also by a special safety belt retractor for the three-point automatic safety belts.

The system is activated by sensors in the case of a serious front collision. A fine dust will be released from each belt tensioner. The safety belts will automatically be tensioned.

The belt tensioner will not activate in the event of light frontal or in any side or rollover or rear collisions.

WARNING

■ Due to special repair procedures, any work on the system, as well as the removal and installation of any components of the system, must be performed by an authorized Volkswagen dealer only.

■ The belt tensioner system works for one accident only. If the belt tensioners have been activated, then the system must be replaced.

■ If you should sell your vehicle, be sure to give the purchaser this Owner's Manual.

Notes

■ When the safety belt tensioner is activated, a fine dust is released. This is normal and is not caused by a fire in the vehicle.

■ Observe all safety regulations if the vehicle or individual parts of the system are to be scrapped. Your authorized Volkswagen dealers are familiar with these regulations and can perform this service for you.

Air bag system*

Your vehicle is equipped with two air bags, one for the driver and the other for the front passenger.

The word "AIR BAG" is stamped into the covers on the steering wheel and the instrument panel above the kneebar on the front passenger's side.

The air bags are intended to supplement the three-point safety belts. When the safety belts are properly worn, the supplemental air bag restraints can provide additional protection for the chest and face of the driver and the front seat passenger in the event of a severe frontal collision.

Aside from providing proven safety benefits, the safety belts are particularly important to help keep front seat occupants in the proper seated position so that the air bag can unfold properly and provide added protection as intended.

For details see page 44.

It is very important to remember that the supplemental air bag systems are not intended to provide this added protection in side impacts, rear impacts, roll-over accidents, or in less severe frontal impacts. **Therefore always wear your safety belts.** See pages 20 to 29.

The air bag system consists of the following components:

- an electronic control/monitoring unit,
- an inflatable air bag equipped with a gas generator located inside the steering wheel and,
- an inflatable air bag with a gas generator inside the instrument panel for the front passenger,
- an indicator light to the left of the light switch (see page 72).

In addition to this your vehicle is also equipped with a kneebar for extra protection.

The indicator light (readiness light) will light up for a few seconds each time the ignition is switched on.

The light monitors the electric control/monitoring unit, ignitor sensor circuits, and system wiring.

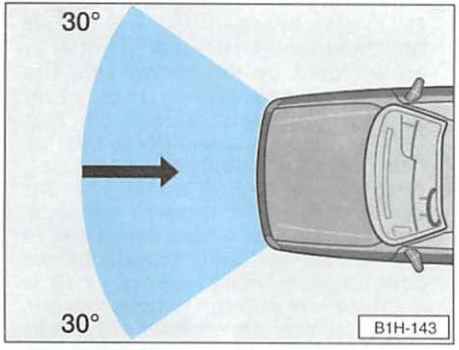
The system must be inspected if the indicator light:

- does not come on when the ignition is switched on;
- does not go out after a few seconds after the ignition is switched on, or;
- comes on while driving.

In the event of a system malfunction, the indicator light will first start flashing to catch the driver's attention and then stay on continuously to serve as a constant reminder to have the system repaired.

WARNING

If any of these conditions occur, have the system inspected immediately by your authorized Volkswagen dealer. Otherwise, the air bag may not function properly in case of a frontal impact.



How the air bag system works

Both air bags inflate only in a severe frontal collision occurring within the area indicated in the illustration. The air bags will not inflate in minor frontal collisions, side or rear collisions, in a rollover or in cases where there is no considerable impact to the front of the vehicle.

When the system is activated, the air bag fills with a propellant gas, breaks open the padded cover and inflates between the driver and steering wheel, as well as between the front passenger and instrument panel.



Fully inflated air bags in combination of properly worn safety belts slow down and limit the occupant's forward movement and help to reduce the risk of injury to the head and upper torso. See illustration.

Openings in the air bags then allow the gas to escape quickly. The air bags will deflate sufficiently, enabling the front occupants to see forward once the impact has been absorbed.

When the air bag system is activated, a fine dust is released. This is normal and is not caused by a fire in the vehicle.

This dust is mostly made up of a powder used to lubricate the air bags as they deploy and could irritate the skin.

WARNING

If you have been in an accident in which the air bags have deployed, be sure to wash your hands and face with mild soap and water before eating. Be careful not to get the dust into your eyes or into any cuts or scratches. If the residue should get into your eyes, flush them with water.

Always heed WARNINGS on next page.

Importance of proper seating position

WARNING

In order to help the air bag to do its job, it is important, both as a driver and as a passenger to maintain a proper seating position – see page 44.

In a frontal collision air bags must inflate within a fraction of a second and with a considerable amount of force in order to provide additional protection for the driver and front seat passenger. Do not sit any closer than necessary to the steering wheel and instrument panel. By keeping room between your body and the front of the passenger compartment, the air bag can inflate fully and completely as intended and do its job more effectively.

Be sure to always

- Adjust the driver's seat properly, consistent with your size. See also page 44.
- Make sure that the passenger's seat is no closer than necessary to the instrument panel.
- Maintain an upright seating position with your back against the backrest of your seat.

WARNING

■ Sitting too close to the steering wheel or dashboard will decrease the effectiveness of the air bags and can increase the risk of personal injury in an accident. Always wear safety belts properly and sit upright with the seat no closer to the steering wheel or instrument panel than necessary. If you are unrestrained, leaning forward, sitting sideways or out of position in any way, you are at greater risk of injury in a crash and may also receive serious injuries from the air bag if you are up against it when it inflates.

■ Objects between you and the air bag can increase the risk of injury in an accident by interfering with the way the air bag unfolds or by being pushed into you as the air bag inflates. Never place objects over or near the area identifying the air bag by the word "Air Bag" on the steering wheel and the instrument panel or between the area where the air bag is stored and yourself. These objects could cause injury especially in a crash severe enough to cause the air bag to inflate. Never hold objects in your hands or on your lap when the vehicle is in use.

■ Never let children ride unrestrained in the vehicle.
Children may be severely injured or killed when the air bag inflates if they are not properly restrained.

Use of child restraints on the front seat

A child seat or infant carrier installed on the front seat may be struck and knocked out of position by the rapidly inflating passenger's air bag in a frontal collision. The air bag could greatly reduce the effectiveness of the child restraint and even injure the child during inflation.

For this reason and because children are generally better protected - when properly restrained for their age and size - in a rear seating position, we strongly recommend that children always sit in the back seat. See "Child Safety" on page 36.

If exceptional circumstances require the use of a child seat on the front seat, the child's safety and well-being require that the following precautions be taken:

WARNING

■ Never install rearward facing child seats or infant carriers on the front passenger seat. A child will be seriously injured when the passenger air bag inflates and forces the child seat or carrier and child against the backrest, center arm rest or door. Always install rearward facing child seats or infant carriers on the rear seat.

■ Forward facing child seats or infant carriers installed on the front passenger's seat may interfere with the deployment of the air bag and cause serious injury to the child. Always install forward facing child seats and infant carriers on the rear seat.

If you must install a forward facing child restraint on the front passenger's seat in exceptional circumstances,

- **always make sure that the forward facing child seat has been designed and certified by its manufacturer for use on the front seat of a vehicle which is equipped with a passenger side air bag.**
- **always make sure that the passenger seat is adjusted as far to the rear as possible for the maximum possible distance between the instrument panel and the child. The backrest must remain in an upright position.**

Always heed WARNINGS on next page.

■ **Always follow the manufacturer's instructions provided with the child seat or carrier. For further details on the use of child restraints in your Volkswagen, see page 36.**

Care, Service and Disposal

There are some general requirements for air bags which must be observed to make sure that the effectiveness of the system will not be impaired and the components which have been discarded do not cause injury or pollute the environment.

WARNING

■ **Do not cover, obstruct or change the steering wheel horn pad or instrument panel in any way. Such action could adversely affect the performance of the air bag and increase the risk of injury.**

■ **For cleaning the horn pad or instrument panel, use only a soft, dry cloth or one which has been moistened with plain water. Solvents or cleaners could adversely affect the air bag cover and proper deployment of the system.**

■ **Do not make any repairs, adjustments or modifications to the air bag system.**

■ **Do not modify the front bumper or vehicle body structure.**
Such actions could adversely affect the performance of the air bag, bring about an inadvertent deployment, thereby increasing the risk of personal injury.

■ **To assure continued reliability, the air bag system must be inspected by a qualified Volkswagen technician 4 and 8 years from the date of manufacture appearing on the safety compliance sticker and every 2 years thereafter. See your authorized dealer.**

■ **If components of the air bag system must be discarded, or if the vehicle must be scrapped, certain safety precautions must be observed. Your authorized Volkswagen dealer knows these precautions and can give you the necessary information. Failure to follow these precautions and procedures could increase the risk of personal injury.**

■ Any work on the air bag system, such as removing/installing, repairing, or any work on the steering wheel must be performed by a qualified technician who has the training and special equipment necessary. Improper handling of the air bag system may result in serious personal injury. For any work on the air bag system, we strongly recommend that you see your authorized Volkswagen dealer.

■ The air bag system can only be activated once. After it has been used, it must be replaced.

■ If you sell your vehicle, be sure to inform the new owner of these important points and make certain that this manual is transferred to the new owner together with the vehicle.

Child safety

The physical principles illustrated on pages 20 – 29 also apply to children. In contrast to adults and teenagers, their muscles and bones are not fully developed. In many respects children have a greater risk of serious injury in accidents than adults.

Because children's bodies are not fully developed, they require restraint systems which are especially designed for their size, weight and body structure. Many countries and all States of the United States have laws which require the use of approved child restraint systems for infants and small children.

Child restraints, like adult safety belts, must be used properly to be effective. Used improperly child restraints can also increase the risk of serious injury in an accident.

WARNING

■ Accident statistics have shown that children are generally safer in the rear seat area than in the front seating position.

■ All vehicle occupants and especially children should be restrained whenever riding in a vehicle. An unrestrained child could be injured by striking the interior, or by being ejected from the vehicle during a sudden maneuver or impact.

Do not allow a child to stand or kneel on the seat. If a child is leaning forward, sitting sideways or is out of position in any way, the child not only can be injured in a crash but will also receive serious injuries from the air bag when it inflates.
A child restraint system can help protect a child in a vehicle.

■ A suitable child restraint properly installed and used at one of the rear seating positions provides the highest degree of protection for infants and small children in most accident situations.

■ Children who are less than 12 years old should normally sit in the rear.

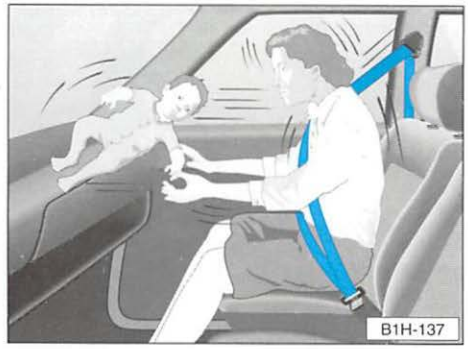
■ All children must use, depending on age and body size, either a child restraint system or the existing safety belts.



WARNING

■ **Your child may travel on the front passenger's seat only if you have a child restraint system which is specifically designed and approved by the child restraint system manufacturer for use in the front together with the restraint system installed at that position.**

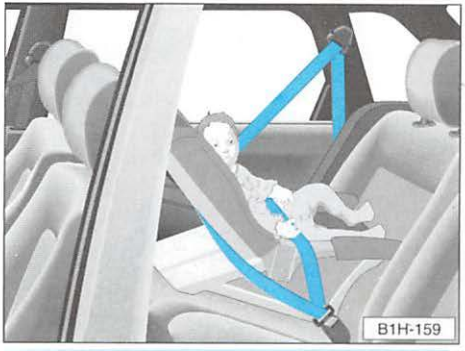
■ **Install rearward facing child seats only in rear seat area. Use of a rearward facing child seat on front passenger seat will lead to serious injury to the child when air bag inflates. When using a forward facing child seat on front seat, always make sure that passenger seat is in rearmost position.**



In a frontal accident at a speed of 20 – 35 mph (30 – 56 km/h) the forces acting on a 13 lb (6 kg) infant would be more than twenty times the weight of the child. This means that the weight of the child would suddenly be more than 260 lbs (120 kg). Only an appropriate child restraint system properly used can reduce the risk of serious injury under these conditions.

WARNING

Infants and older children must never ride in a vehicle sitting on the lap of an adult. Holding a child in your arms is never a substitute for a child restraint system and could cause serious injury to the child.



Forces acting on a child in an accident make it impossible to hold a child in the arms. The child would hit the dashboard, windshield or other parts of the vehicle interior and could receive serious injury. The adult's body could also move forward, particularly if the adult is not using safety belts and cause additional injury to the child.

WARNING

- **A suitable child restraint properly installed and used at one of the rear seating positions provides the highest degree of protection for infants and small children in most accident situations.**
- **Infants up to approximately 9 months old (22 lbs/10 kg) receive the best protection in special infant carriers and child seats designed for their age group. Many experts believe that infants and small children should only ride in special child restraints in which the child's back faces in driving direction.**



Babies and small children up to approximately 4 years old (40 lbs/18 kg) should be restrained in child seats with a front safety "shield", or should sit in a rear-facing child safety restraint system.



Children up to 7 years old (55 lbs/25 kg) are best protected in child safety seats designed for their age and weight. Experts say that the skeletal structure, particularly the pelvis, of these children is not fully developed and that they should not use lap belts.

WARNING

Always make sure that the shoulder portion of the three point belt is positioned midway over the shoulder of the child. The shoulder portion must never rest against or across the neck and it may never contact or remain in front of the face, chin or throat. The lap belt portion of the three point belt as well as any lap belt alone must always pass as low as possible across the pelvis, never over the abdomen.



Children of average size of about 7 years and older may use available three point combination lap and shoulder belts usually together with appropriate booster seats meeting all applicable safety standards. Booster seats raise the seating position of the child and reposition both the lap and shoulder portions of the safety belt so that they pass across the child's body in the right places.

Always heed WARNINGS on next page.

The routing of the belt over the child's body is extremely important for the child's protection whether or not a booster seat is used.

WARNING

Always make sure that the shoulder portion of the three point belt is positioned midway over the shoulder. The shoulder portion must never rest against or across the neck and it may never contact or remain in front of the face, chin or throat. The lap belt portion of the three point belt as well as any lap belt alone must always pass as low as possible across the pelvis, never over the abdomen.

Children of average size of about 7 years of age and older may use available lap belts in exceptional circumstances if the proper use of three point belts alone is not possible. Always remember that children do not have the pronounced pelvic structure required for the proper function of lap belts and that the child's safety absolutely requires that the lap belt be fastened snugly and as low as possible around the pelvis. The lap belt must never pass over the stomach or abdomen.

Younger children should only use a lap belt in very exceptional situations and only if no child restraint system for the child's size and weight or safer alternative means of transportation of the child is available. The use of a lap belt in these exceptional situations is better than permitting the child to remain totally unrestrained. A lap belt cannot provide the same level of protection as a proper child restraint. The use of a lap belt for younger children may violate laws in your state or province.

WARNING

■ An improperly worn safety belt will not provide optimum protection in an accident and may cause serious personal injury. Always make sure that children and other vehicle occupants properly wear available restraint systems. Carefully follow the instructions provided by the manufacturers of child restraints.

■ Commercially available child seats are required to comply with U.S. Federal Motor Vehicle Safety Standard FMVSS 213 (or in Canada CMVSS 213).

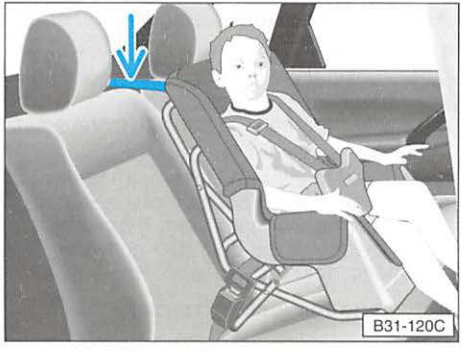
These standards include installation requirements which utilize a lap belt or the lap portion of a combination lap-shoulder belt such as that installed in your vehicle.

■ When purchasing a child restraint, select one which fits your child and vehicle.

Should these safety belts be too short, a special lap belt adapter is available from your authorized Volkswagen dealer.

■ Only use child restraint systems which fully contact the flat portion of the seat cushion. The child seat must not tip or lean to either side. We do not recommend the use of child seats which rest on legs or tube-like frames because they do not provide adequate contact with the seat.

■ Improperly or inadequately installed child restraint systems can increase the risk of injury to children in accidents. Therefore always carefully read and follow all instructions on installation and use that come with the system.



Child restraint anchorages for the rear seats

If your child restraint seat or seats are equipped with a tether strap you will want to use one or more of the three anchor points located behind each of the rear seating positions:

For additional information see also next page.

WARNING

■ Never use child restraint anchorages to secure safety belts of any kind.

■ The child restraint anchorages are only to be used to hold a child restraint system in its place.

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

■ Do not mount two child restraint seats on one anchor point.

■ Always follow the instructions provided by the manufacturer of the child restraint which you intend to install in your Volkswagen.

Always heed WARNINGS on next page.

An anchorage point is provided behind the rear seat backrest to connect a tether strap, if the child restraint system of your choice is so equipped.

If more than one child restraint system is to be used at the same time, the necessary hardware must first be mounted for the respective anchorage point.

See your authorized Volkswagen dealer for proper installation and positioning of additional hardware for the other anchorage points, if desired.

Automatic Locking Retractor

The retractors for the rear seat three–point safety belts and the front passenger three–point safety belt are equipped with an automatic locking feature in addition to the emergency locking feature.

If you need to install a child restraint system at an outer seating position of the rear seat or the front passenger seat, it must be secured by use of the belt after activating the automatic locking feature.

Activating the locking retractor

- Slowly pull the belt all the way out.
- Insert the belt tongue into the buckle for that seating position (pull on it to check!) and guide the rest of the belt with your hand back in place; while doing this you should hear a sound. This sound signals that the locking retractor has been activated.

Deactivating the locking retractor

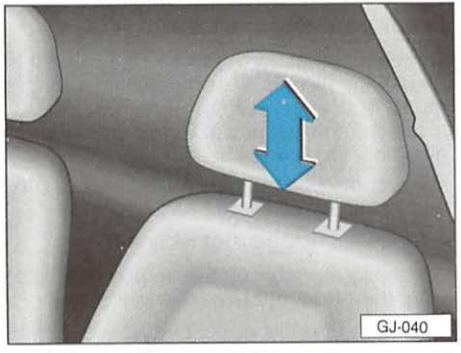
The locking retractor is deactivated by unfastening the safety belt and allowing the safety belt to retract completely to is stowed position. The safety belt can now be used as an ordinary three–point safety belt without the additional locking feature.

If a person sitting in the rear wearing the safety belt should activate the locking retractor, then the safety belt must be unfastened in order to deactivate the locking retractor.

WARNING

Never unfasten the safety belt to deactivate the locking retractor while the vehilcle is in motion.

Head restraints



The padded head restraints on the front and rear seats are adjustable.

Position head restraints according to the occupant's height. Properly positioned head restraints, together with the use of safety belts offer effective protection in most accident situations.

- For height adjustment, grasp firmly with both hands and pull up or push down.
- For maximum protection, the upper edge should be at eye level.

WARNING

Do not drive the vehicle without the head restraints provided. Head restraints are designed to help reduce injuries.

Front seats

The correct positioning of the seats is important:

- so that you can reach all the controls on the vehicle quickly and safely;
- so that you can drive or ride relaxed and help reduce fatigue;
- **and for maximum protection offered by the safety belts and air bag system.**

Therefore, always adjust the position of the seat as described in points 1 to 3 on the following pages. Remember to adjust the seats before fastening the safety belts and before driving off. Always be sure to follow these general guidelines:

WARNING

The front seats must not be pushed too close to the steering wheel or likewise to the instrument panel.

Driver's seat

To avoid contact with the air bag while it is unfolding, the driver must not sit any closer to the steering wheel than necessary and always properly wear available three point belts.

We recommend that you adjust the driver's seat as follows:

- Adjust the seat in the fore and aft direction so that you can easily push the pedals all the way while keeping your knee slightly bent.
- Adjust the seatback so that when you sit with your back against the seatback, you can still grasp the top of the steering wheel.

Front passenger's seat

To avoid contact with the air bag while it is unfolding, the adult front seat passenger must not sit any closer to the instrument panel than necessary and always properly wear available three point belts.

We recommend that you adjust the passenger's seat as follows:

- backrest upright (**not** reclined)
- feet comfortably on the angled floor (foot rest) in front of the passenger's seat
- with the feet as described above, adjust seat as far as possible to the rear of the fore and aft adjustment range.

For information on transporting children on the front passenger seat see page 37.

WARNING

■ Do not adjust seats while the vehicle is in motion. Your seat may move unexpectedly causing sudden loss of vehicle control or personal injury.

■ Always keep your feet on the floor when the vehicle is moving – never place them on the instrument panel or on top of your seat.

■ To reduce the risk of serious personal injury in an accident, front seat passengers must never ride in a moving vehicle with the seatback reclined. The risk of personal injury increases with increasing rearward angle of the seatback. Safety belts only offer protection when the seatback is upright and belts are properly positioned on the body. Improperly positioned safety belts can cause serious personal injury in an accident.

■ For driver's and passenger's protection, make sure front seats and seatbacks are securely latched in place.

■ Never store items under the seats. Loose objects can interfere with the seat latching mechanism and can also cause injury in an accident.



1 – Forward and backward adjustment

■ Pull handle in front of seat.

■ Slide seat into position.

■ Release the handle and move seat slightly back and forth to make sure it is securely locked into position.

2 – Seatback adjustment

Turn wheel on outboard side of seat cushion, with your body weight taken off the seatback.

3 – Height adjustment*

■ Shift your body weight forward and pull lever upwards.

■ Raise or lower the seat by shifting your weight upward or downward.

■ Release the lever to lock the seat at the desired height.

Rear seat

You can substantially increase the loading surface in the rear by folding down the rear seatback to form a deck.

The rear seatback is divided into two sections – one third/two thirds*.

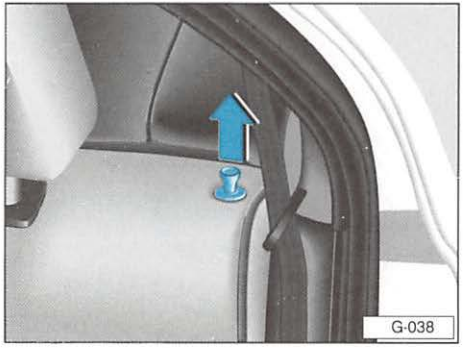
WARNING

■ Do not drive the vehicle without the head restraints provided. Head restraints are designed to help reduce injuries.

■ Do not allow passengers to occupy the rear load surface while the vehicle is in motion.

To increase the size of the luggage area, the rear seat can be folded forward; on vehicles with split rear seat* (60/40), the two parts can be moved separately.

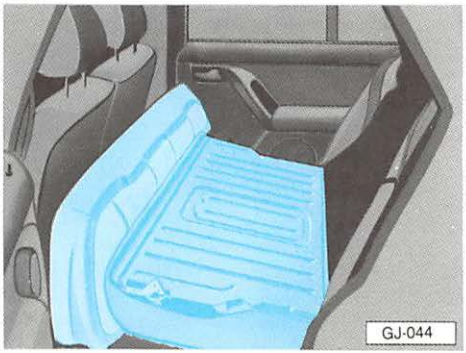
To prevent damage, the front seats must be positioned so that the rear seat does not touch the front seats when the rear seat is folded forward.



Folding the seat forward

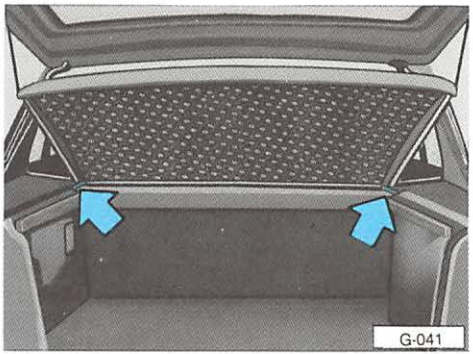
■ Lift seat cushion slightly by the loop and pull forward onto stop (arrow 1). Then fold the cushion forward (arrow 2).

■ Pull release knob in the rear seat backrest in direction of arrow and fold back forward.



Folding seat back

- First fold back rear seat backrest.
- Fold back the seat cushion and push to the rear until the seat cushion engages. When doing this, hold the up the center seat belt, otherwise the belt will be wedged between the backrest and seat cushion and then cannot be used.



Luggage compartment cover

- Unhook the retaining straps from the rear window frame.
- Pull the cover out from its side retainers.
- Pull the release knobs on the seatback and tilt the seatback slightly forward. Place the cover behind the seatback with the carpeted side facing the luggage compartment.
- Place the retaining straps between the seatback and the wheel housings.
- Put the seatback to its original position making sure the release knobs are securely latched into place.
- When reinstalling, slide the cover forward into its side retainers and reconnect the retaining straps.

While removing or reinstalling the luggage compartment cover, always hold the cover in a horizontal position to avoid damaging the headliner.

WARNING

■ Do not use the luggage compartment cover for storage, even for small and light items, e.g. clothes. During a sudden stop, stored articles could fly forward causing injury to vehicle occupants.

■ Even small objects can obstruct the rear vision necessary for safe driving.

■ Stored articles chafing against the rear window can damage the defroster wires.

■ Keep hands away from hinges and folding edges to avoid injury.

Luggage compartment

Transporting heavy objects can change the way your vehicle behaves. For best handling under these conditions, distribute loads evenly. Always place heavy cargo as far forward as possible in the luggage compartment. When transporting heavy objects, drive slowly and avoid sudden maneuvers.

WARNING

■ Never exceed the Gross Axle Weight Rating or the Gross Vehicle Weight Rating which are specified on the safety compliance sticker located on the left door jamb. Exceeding permissible weight ratings can change the way the vehicle handles and could result in accidents, personal injury and vehicle damage.

■ Take extra care when stowing articles in the vehicle: whenever possible, store articles in the luggage compartment.

■ If it is necessary to stow luggage or other items inside the passenger compartment be sure that they cannot fly forward in an accident or sudden maneuver and injure occupants.

■ To help prevent poisonous exhaust gas from being drawn into the vehicle, always keep the rear lid closed while driving. Therefore, do not transport objects larger than those fitting safely into the luggage compartment.

Filler panel

You can store light articles of clothing on the filler panel between the rear seat back and the rear window. Make sure you have a clear view to the rear.

WARNING

■ Never store hard or heavy items on the filler panel. During accidents or sudden stops these articles may fly forward causing personal injury.

■ Even small objects can obstruct the rear vision necessary for safe driving.

Stored articles chafing against the rear window can damage the defroster wires.

Pedals

The movement of the pedals must never be obstructed by a floor mat or any other object.

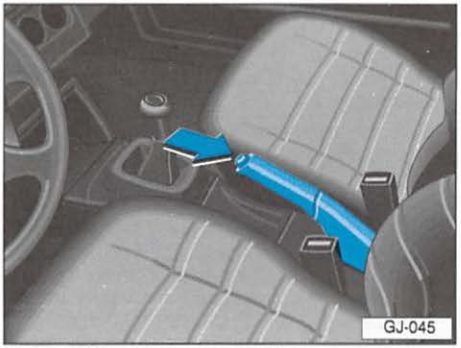
■ In case one of the two brake circuits fails, increased brake pedal travel is required to bring the vehicle to a full stop.

■ You should always be able to depress the accelerator and the clutch pedals all the way down to the floor.

■ All pedals must be able to return to their original position unhindered.

Only use floor mats which leave the pedal area free and can be secured with floor mat fasteners.

Parking brake lever



The parking brake lever is located between the front seats.

■ To set the parking brake, pull the lever up until strong resistance is felt. The parking brake must be pulled up all the way so that the vehicle cannot be moved. When the ignition is on, the brake warning light will light up.

■ Depress brake pedal and hold while releasing parking brake. To release the parking brake, pull the lever slightly up, depress the release button (arrow), and then push the lever all the way down. When the parking brake is fully released, the brake warning light will go out.

WARNING

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

■ Always set the parking brake when parking your vehicle. Move the selector lever to "P" (Automatic transmission) or move the gearshift lever to "R" or "1" (manual transmission). On hills, also turn the wheels toward the curb.

Automatic transmission*

Automatic shift lock (ASL)

Your Volkswagen is equipped with an Automatic Shift Lock (ASL). The ASL is an electro-mechanical device that locks the selector lever in the **P** (**Park**) and **N** (**Neutral**) positions when the ignition is on. The brake pedal must be depressed before the selector lever can be moved out of either position. This prevents the selector lever from being moved unintentionally into a driving position, resulting in an unwanted vehicle movement.

A time delay element prevents the selector lever from locking when it is moved through the "**N**" (**Neutral**) position (for example, going from "**R**" to "**D**"). This enables, for example, the vehicle to be rocked out of a stuck position. The locking element only locks the selector lever if it is left in the "**N**" (**Neutral**) position for more than about one second without the brake pedal being depressed.

In the **N** (**Neutral**) position, the selector lever will not lock when the vehicle is driving faster than 3 mph (5 km/h).

Ignition key safety interlock

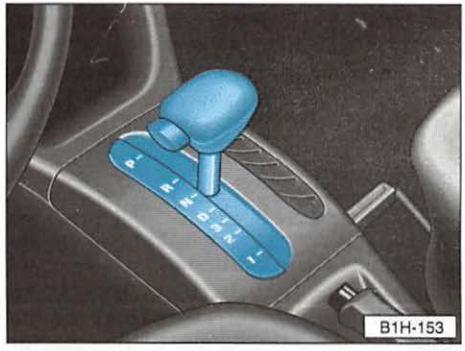
After switching off the ignition, you can remove the ignition key only when the selector lever is in the **P** (**Park**) position. When the ignition key is removed, the selector lever will be locked in the **P** (**Park**) position.

Selector lever positions

When the ignition is switched on, the position of the selector lever is indicated by the display in the instrument cluster.

The engaged selector lever position will appear bright against a dark background (negative on positive) while the other positions appear just the opposite.

If all the positions appear bright against a dark background at the same time, then there is a malfunction in the transmission – see under "Auxiliary mode" on page 55.



P – Park

Engage **P** (**Park**) only when the vehicle is stationary. Therefore, when parking your vehicle, depress the brake pedal first, apply the parking brake, and then move the selector lever completely to position **P. To do this depress the button in the handle of the selector lever and push it through R to P.** The transmission is then mechanically locked.

Before you move the shift lever from the **P** (**Park**) position to any other position, you must depress both the **brake pedal** and the button into the handle of the selector lever.

Shift out of the **P (Park)** position, before releasing the parking brake.

When the vehicle is parked on a steep hill, shifting out of **P (Park)** may be a little harder. This is due to the vehicle's weight exerted on the transmission.

R – Reverse

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

Before you move the selector lever to the reverse position you have to depress the push button in the handle of the selector lever.

When the ignition is switched on, the backup lights come on when the selector lever is moved into the "**R**" position.

N – Neutral

Shift to this position for standing with brakes applied.

To move the shift lever from the **N (Neutral)** position to any other position at speeds below 3 mph (5 km/h) or when the vehicle is stationary you must depress both the **brake pedal** and the button into the handle of the selector lever.

Do not use N (Neutral) for coasting downhill. Coasting downhill with the transmission in neutral and the engine not operating will result in damage to the automatic transmission.

D – Normal driving position

Position **D** is for normal city and highway driving. It ranges from zero to top speed and all four gears shift automatically, depending on engine load and driving speed.

Note

Irregardless of any "driving resistance", for example towing a trailer or driving in the mountains, a certain program is automatically selected. A lower gear will be selected when you need more power, and at the same time this avoids constant changing gears.

3 – Position for "hilly" stretches

This selector lever position is recommended in situations where the transmission shifts frequently between third and fourth gears in position **D**. Also, in position **3** the engine's braking effect is greater than in **D**.

In position **3**, the first, second and third gears will engage automatically.

2 – Position for mountainous regions

Use this gear when driving on slopes.

It is to be used for mountain driving or slow driving, and also when you want to make use of the engine braking, which is more effective than in **3**. In **2**, only the first and second gears will engage automatically.

1 – Position for steep hills

It is recommended to use this gear when driving on steep slopes.

This position provides the maximum engine braking effect. **To engage this gear, depress the push button in the handle of the selector lever first**. In **1** the transmission will stay in first gear and will not upshift.

In position 1, the cruise control* is inoperative.

Note

When manually downshifting, the selector lever will move into the lower gear position, however the Automatic transmission itself will not downshift until there is no possibility of overrevving.

Kick-down device

The kick-down device gives maximum acceleration when the accelerator pedal is pressed down past the full throttle position. Depending on road speed and engine speed, the upshift is either delayed (forced throttle) or the transmission changes down into the next lower gear.

WARNING

Be careful when using the kick-down on slippery roads. Rapid acceleration may cause skidding.

Driving the Automatic transmission

Starting the engine [1)]

The selector lever must be in **N (Neutral)** or **P (Park)**. If one of the driving positions is engaged a safety switch will prevent the engine from being started.

[1)] You will not be able to turn the key in the steering lock if you depress the button in the selector lever and hold it in while switching on the ignition.

Selecting a driving position

WARNING

■ When the selector lever is in a driving position, the vehicle may creep even at idle speed. Therefore, do not release the parking brake or foot brake until you are ready to move, because power is transmitted to the wheels as soon as a driving position is engaged.

■ If the engine must be running, never have any driving position engaged when checking under the hood. Make sure the selector lever is securely locked into the P position with the parking brake firmly set. Otherwise, any increase in engine speed may set the vehicle in motion, even with the parking brake applied.

Always heed WARNINGS on next page.

WARNING

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

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

■ Never shift into R (Reverse) or P (Park) when the vehicle is in motion.

Maneuvering

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

Stuck in snow, mud or sand

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

Do not repeat "rocking" back and forth with wheels spinning at high engine speed and heavy throttle, as serious damage may be caused to the Automatic transmission and other critical parts.

Parking

On flat terrain, it is enough to simply set the selector lever to position **P** – see page 52. On a very steep incline, however, you should first depress the brake pedal, engage the parking brake and then move the selector lever completely to position **P**. By doing this, the locking mechanism will not be overloaded and it will be easier to release the parking brake.

Stopping

■ When stopping briefly, at a traffic light for example, it is not necessary to move the selector lever to **N** (**Neutral**). Simply apply the brakes.

■ The driving positions must never be used for holding the vehicle on a hill. Always use your foot brake when stopped on inclines.

WARNING

■ Never get out of the driver's seat when the engine is running.

■ If you must get out of the vehicle, move the selector lever securely into the P (Park) position and apply parking brake firmly.

Emergency starting

Your Volkswagen with Automatic transmission cannot be started by pushing or towing. If engine does not start because of discharged battery, the vehicle can be started with jumper cables. Refer to "Emergency starting with jumper cables". Should the engine fail to start, consult your nearest authorized Volkswagen dealer.

Towing

To tow the vehicle, see instructions "Emergency towing" on page 173.

Auxiliary mode

If there should be a failure in the electronic system, this can be recognized in the selector lever position display. You can still drive on because the transmission will continue to work in a auxiliary mode:

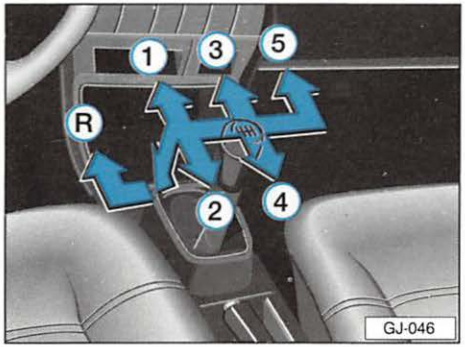
■ The transmission will upshift or downshift automatically as before, however, you will feel this by strong or harsh shifts. See your authorized Volkswagen dealer for assistance.

■ The transmission will no longer automatically upshift or downshift. You must then manually shift the transmission. In selector positions "**D**", "**3**" and "**2**", the transmission will remain in 3rd gear.

Selector positions "**1**" and "**R**" (**Reverse**) still operate normally.

Since two of the driving positions are no longer operative, the torque converter must now work harder – which could lead to overheating. See your authorized Volkswagen dealer immediately.

Manual transmission



Gearshift lever

Start engine with gearshift lever in Neutral and clutch pedal depressed.

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

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

Drive in 5th gear for optimum fuel economy when cruising. However, if more acceleration is required (when passing, for example), shift down.

To engage 5th gear, move shift lever to the right beyond the spring pressure point and push forward.

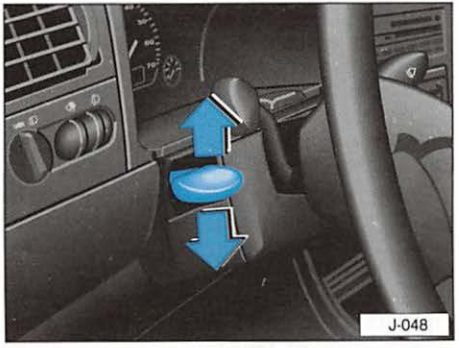
Reverse

Shift into R (Reverse) only when the vehicle is not moving.

To engage R (Reverse), move lever to left, press down, move further to left and push forward. Especially after some driving, depress the clutch pedal fully and rest the shift lever in **Neutral** briefly before shifting into Reverse.

Back-up lights go on when you engage reverse gear with ignition on.

Tilt steering wheel*



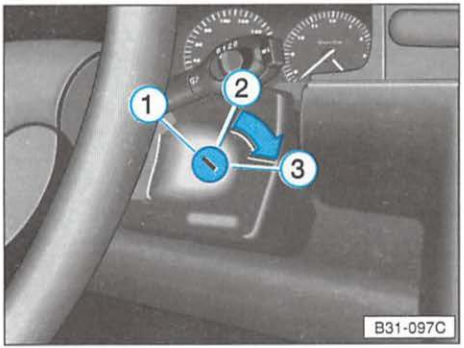
You can adjust the height of the steering wheel.

WARNING
Adjust the steering wheel only when the vehicle is stationary.

Pull the lever on the left side of the steering column downward, hold and adjust the steering wheel to the desired position.

WARNING
After adjusting the steering wheel, push the lever upward to securely lock it into place. This prevents the steering wheel from inadvertently changing its position while you are driving. Otherwise this could lead to a loss of control.

Steering lock/Ignition/Starter switch



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

Switch positions

1 - Ignition off/steering can be locked.
Pull out the key and turn steering wheel until it locks.

Ignition key safety interlock

On vehicles with Automatic transmission you can remove the ignition key only when the selector lever is in the **P** (**Park**) position. When the key is removed, the selector lever will be locked in "**P**".

WARNING

For vehicles with manual transmission:

- **To prevent sudden and unintended vehicle movement, always firmly set the parking brake when you remove the ignition key. Removing the ignition key will not lock the gearshift lever. The vehicle can move if the lever is moved out of gear.**
- **Never remove key from steering lock or turn key off while the vehicle is moving. The steering wheel will lock, causing loss of control.**

2 - Ignition on / steering free / glow plug operation.
If it is difficult to turn the key from position 1 to 2, gently move the steering wheel until the key turns freely.

3 - Starter engages.
Key returns to position 2 as soon as it is released.
For "Starting procedures", see following pages.
In position 3, the power supply to headlights, windshield wipers, blower motor and rear window defogger is temporarily interrupted to conserve battery power.

Before the starter can be operated again the key must be turned back to position 1.

The non-repeat lock in the ignition switch prevents the starter from being operated when engine is running as this could damage the starter.

In positions 2 and 3 several warning/indicator lights will come on. Refer to "Warning/indicator lights" for details.

Chime

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

Starting procedures

WARNING

- **Fasten safety belts before driving.**
- **Never start or let the engine run in a confined or enclosed, unventilated area. Exhaust fumes from the engine contain carbon monoxide, which is a colorless and odorless gas. Carbon monoxide can be fatal if inhaled.**
- **Never leave engine idling unattended. An unattended vehicle with a running engine is potentially hazardous.**

To avoid unnecessary engine wear and to reduce exhaust emissions, do not let your vehicle stand and warm up. Be ready to drive off immediately after starting your vehicle. Maintain moderate speed until the engine is completely warm. Remember the engine performs best at operating temperature.

Manual transmission

Start with gearshift lever in Neutral and clutch pedal depressed, so that the starter only has to crank the engine.

Automatic transmission

Engine will only start with selector lever in **N** (**Neutral**) or **P** (**Park**).

Starting gasoline engine

- **Do not depress** the accelerator pedal while starting. At extreme low temperatures, the engine will probably start better if you depress accelerator pedal slightly.
- As soon as the engine starts, release the ignition key.
- If the engine does not start the first time or stalls, turn the ignition off and restart.
- Operate the starter for no more than 10 seconds.
- Allow about 30 seconds between each starting attempt.
- When starting a very hot engine, it may be necessary to slightly depress the accelerator pedal after starting the engine.

If the engine still does not start, the fuse for the electric fuel pump may be blown – see page 164.

- **On vehicles with a catalytic converter, the engine must not be started by pushing for a distance of more than 50 yards (meters). Fuel could get into the catalytic converter and cause damage.**
- **Before you try starting the engine by pushing, you should try jump starting the engine using the battery from another vehicle – see page 172.**

Starting Diesel engine

On the **Diesel engine** the glow plug system is activated after closing the driver's door. If the engine is subsequently not started, the glow plug system will not be activated by each further opening and closing of the driver's door.

Idle speed control / cold starting

For technical reasons the cold start assist handle/idle speed boost will be dropped within the current model year.

Starting cold engine

■ Switch glow plugs on (key position 2) and start engine as soon as glow plug light goes out.

While glow plugs are working do not switch on any other heavy current consumers because this would place an unnecessary load on the battery.

Do not depress accelerator pedal while starting.

If engine starts to fire irregularly, keep operating starter for a few seconds longer (maximum 30 seconds) until engine runs on its own power.

■ If engine does not start, switch glow plugs on again and start as described. If the engine still does not start, the fuse for the glow plugs may have blown – see your authorized Volkswagen dealer.

WARNING

Do not use "starting assist fluids". They may be potentially explosive or cause a "run-away" engine condition. This could result in serious engine damage and personal injury.

Starting warm engine

■ Do not depress accelerator while starting.

■ The glow plug light will not light up. You can start the engine immediately.

Stopping engine

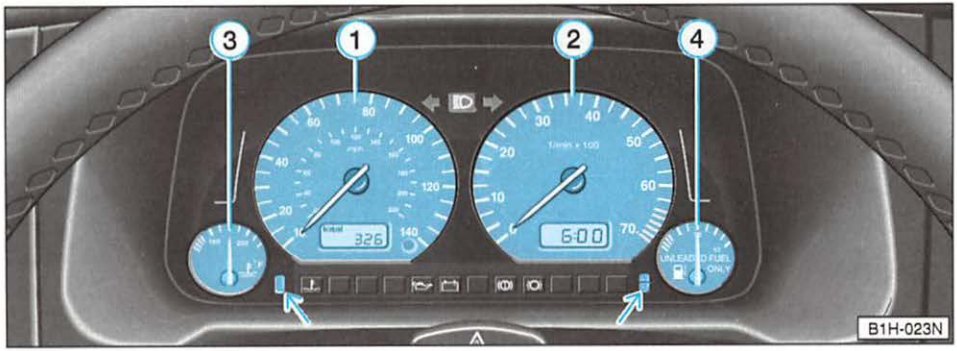
Do not stop the engine immediately after hard or extended driving. Keep engine running for about two minutes to prevent excessive heat build-up.

WARNING

- Before you check anything in the engine compartment, stop the engine and let it cool down. Hot components can burn skin on contact.
- Never touch the radiator fan, it is temperature controlled and can switch on suddenly – even when the ignition is off.

On vehicles with a catalytic converter, the ignition should not be switched off as long the vehicle is still rolling with a gear engaged, otherwise fuel could get into the catalytic converter and cause damage.

Instrument cluster



page
1 - Speedometer/odometer 62
2 - Tachometer with 62
Digital clock or 63
Multi–function indicator* 63
3 - Coolant temperature gauge 65
4 - Fuel gauge 66

1 – Speedometer/odometer

The **speedometer** indicates the speed.

The **odometer** indicates the distance driven.

USA models: Miles
Canada models: Kilometers

On the **trip odometer**, the last digit in red indicates $^{1}/_{10}$ of a mile or 100 meters.

To record a distance, reset the trip odometer to zero by pressing the button. On the electronic speedometer, the button must be pressed longer than two seconds.

2 – Tachometer

The shaded area at the end of the scale indicates maximum permissible engine rpm's (revolutions per minute) for all gears after the break–in period. Before reaching this area, the next higher gear should be selected or the foot eased off the accelerator pedal.

Upshifting early saves fuel and reduces engine noise.

Shift to the next lower gear when engine rpm's drops below 1,500 rpm.

2 – Digital clock

Set the time using the two buttons to the right under the tachometer. The upper button changes the hour and the lower button changes the minutes.

- Press the buttons briefly, for example with a ball point pen, to change the clock time one hour or one minute.
- Press and hold the buttons to change the hour or minutes continuously.

You can set the clock time exactly to the second using the minute button:

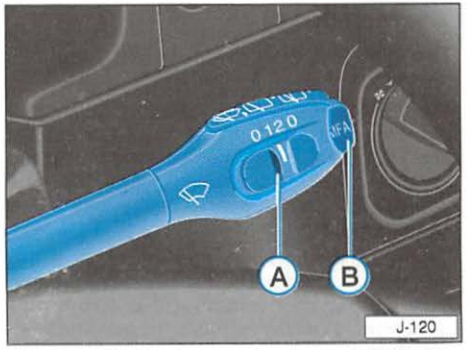
- Press button until time is one minute before time to be set.
- Press the button at the moment when the seconds indicator of an accurate clock shows a full minute or when the time signal is heard on the radio.

2 – Multi-Function Indicator*

The MFA (**M**ulti-**F**unktions-**A**nzeige) or Multi-Function Indicator generates the following useful information:

- Clock time
- Driving time
- Average fuel consumption
- Distance driven
- Average driving speed
- Engine oil temperature
- Ambient outside temperature

With the exception of time, the symbol for the function switched on appears at the upper edge of the display.



By repeatedly depressing button **B** in the windshield wiper lever with the ignition switched on, the time is displayed first followed by other information.

If button **B** is pressed for longer than one second, the display will change directly to the clock time.

The memories

The system is equipped with two automatic memories:

The **single trip** memory accumulates driving time, distance driven, fuel consumed and computes averages for driving speed and fuel consumed during a single trip. The information remains in storage when the ignition is turned off.

When the ignition is turned on again, accumulation and computations continue. However, if the ignition remains off for **two hours or longer**, stored information is automatically deleted.

The **total trip** memory stores accumulated data covering any number of successive trips, regardless of how long the ignition is off in between trips. Storage capacity of the **total trip** memory is:

Driving time	– 100 hours
Distance driven	– 9,999 miles (10,000 km)
Fuel consumed	– 264 gallons (1,000 liters)

To recall information, slide switch knob A on the windshield wiper lever to the desired position.

1 - Single trip memory
2 - Total trip memory

The following data can be recalled for display:

- Driving time
- Average fuel consumption
- Distance driven
- Average driving speed.

Erasing the memories

With the ignition on, you can erase each memory separately. Slide switch A past the appropriate detent to the 0 position, and hold for longer than one second.

If you disconnect the battery, all stored information will automatically be erased.

The displays

No symbol – Time

The time is shown even when the ignition is switched off.

Set the time with the buttons located on the right below the tachometer.

Driving time

In switch position 1 the driving time which has elapsed since ignition was switched on or the memory cancelled is indicated – see "Single trip memory".

In switch position 2 the total driving time for all individual journeys is indicated – see also "Total trip memory".

The maximum time in both switch positions is 99 hours 59 minutes. When this figure is exceeded the display starts at zero again.

Average fuel consumption **mpg (l/100km)**

Instantaneous fuel consumption will not be displayed in either switch position. When the ignition has been switched on or the memory in use erased, the average fuel economy or fuel consumption is indicated, after 10 seconds driving time and a distance of 100 yards/meters. Up to this point a dash appears instead of a figure. During the trip the indicated value is updated every 5 seconds.

In switch position 1 the average consumption for the single journey is indicated.

In switch position 2 the average consumption indicated is that obtained during all single trips – see also "Total trip memory" on previous page.

Note

The amount of fuel consumed will not be displayed.

Distance covered **miles (km)**

The information in "Driving time" also applies to "Distance covered". The maximum distance indicated is 9,999 miles (9 999 km).

Average speed **mph (km/h)**

The information in "Average fuel consumption" also applies here.

Engine oil temperature °F (C)

Engine oil temperature displayed will range between +122 and +320°F (+50 and +160 °C). When the engine is cold, dashes will be displayed. Maintain moderate speed until engine reaches operating temperature. Reduce engine speed if oil temperature approaches +293°F (+145°C).

Ambient outside temperature °F (C)

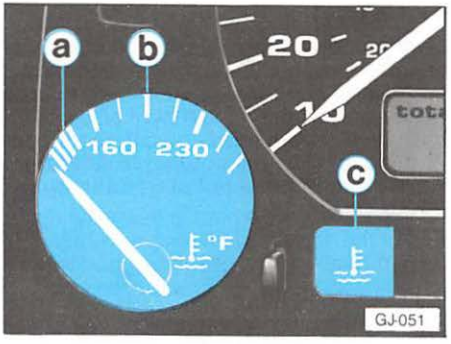
Displayed temperature will range between –40 and +122°F (–40 and +50°C).

When the vehicle is stationary, or when you are driving at very low driving speeds, the temperature displayed may be slightly higher than the actual ambient temperature. This is caused by heat radiated from the engine.

WARNING

If you are going to use the outside temperature display to determine frost conditions, remember that roads can still ice over at temperatures above 32°F (0°C).

All displayed degrees are momentary. They are not stored in memory.



3 – Coolant temperature gauge

The needle in the coolant temperature gauge will indicate the temperature of the coolant shortly after the ignition is switched on.

When the ignition is switched on, the warning light (**c**) will flash for a few seconds as a functional check.

a – Engine cold

Avoid high engine speeds and heavy throttle when the needle is at the lower end of the dial.

b – Normal temperature

During normal running, the needle will remain somewhere in the middle of the dial.If the engine is working hard at high outside temperatures, the needle may also go further upwards, **but this is no cause for concern as long as the coolant temperature warning light does not start flashing.**

If the coolant gauge needle nears the upper end of the scale and the engine appears to be overheating, turn off the air conditioner*.

c – Warning light

If the light flashes when driving, first check the coolant temperature gauge.

If the needle is in the normal range, add coolant at the next opportunity.

If the needle is in the warning range, the coolant temperature is too high.

Move the vehicle a safe distance off the road, stop the engine and depress the emergency flasher switch.

Notes

■ **Do not install accessories (fog lights or insect screens, for example) on top of the front bumper. They may restrict engine cooling and cause engine damage.**

■ **The front spoiler also serves as a duct for cooling air. If the spoiler should be damaged or even torn off (for example when driving up a curb), this could cause engine overheating. Contact your authorized Volkswagen dealer.**

4 – Fuel gauge



The needle in the fuel gauge will indicate the fuel level in the tank shortly after the ignition is switched on.

The fuel tank capacity is approximately 14.5 gallons (55 liters).

When the needle reaches the red area there is a reserve of about 1.8 U.S. gallons (7 liters) of fuel left in the tank.

Time to refuel.

Always turn off the ignition when refueling. If you add fuel while the ignition switch is on, the gauge may show inaccurate readings.

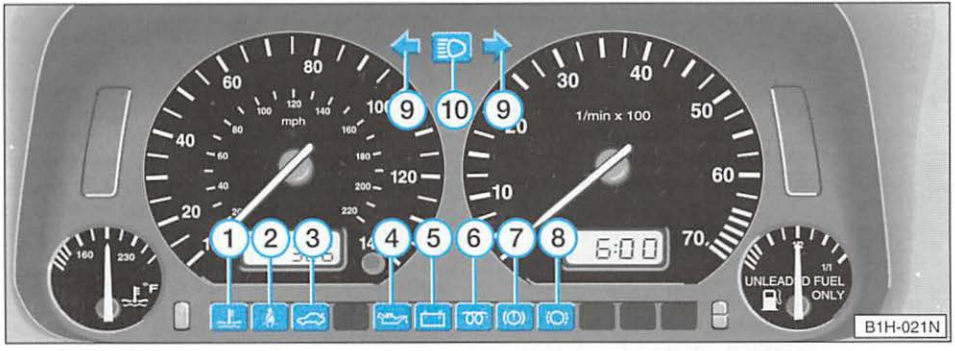
Warning / Indicator lights

Your vehicle is equipped with several important indicator and warning devices to monitor the continued reliable operation of your vehicle. Familiarize yourself with these devices so if one should come on you know what to do.

Failure to heed applicable warnings and important vehicle information may result in serious personal injury or vehicle damage.

WARNING

- **Whenever stalled or stopped for repair, move the vehicle a safe distance off the road, stop the engine and turn on the emergency flasher – see page 75.**
- **The engine compartment of any motor vehicle is a potentially hazardous area. Before you check anything in the engine compartment, stop the engine and let it cool down. Always exercise extreme caution when working under the engine hood.**



1 - Coolant temperature/level 67
2 - Safety belts 69
3 - Rear lid release 69
4 - Engine oil pressure 69
5 - Generator 70
6 - Malfunction indicator light 70
or Glow plug (Diesel models only) . 71
7 - Brake 71
8 - Brake wear indicator* 71
9 - Turn signals 71
10 - High beam 71
Additional Warning/Indicator lights 72

Note

The indicator lights in the instrument cluster are the same for both USA and Canada models.

1 – Coolant temperature/level

This light will come on for a few seconds just as a functional check when you switch on the ignition.

If the light does not go off afterwards, or should start to blink while you are driving, either the coolant temperature is too high, or the coolant level is too low.

Pull off the road, turn off the engine and let it cool down.

Check coolant level. Top up as necessary (see "Cooling system", page 133).

Always heed WARNINGS on next page.

WARNING

■ To reduce the risk of being burned, never open the hood if you see or hear steam or coolant escaping from the engine compartment. Wait until no steam or coolant can be seen or heard before carefully opening the hood.

■ The engine compartment of any motor vehicle is a potentially hazardous area. Before you check anything in the engine compartment, stop the engine and let it cool down. Always exercise extreme caution when working under the engine hood. Heed all of the WARNINGS on page 126.

■ Never touch the radiator fan, it is temperature controlled and can switch on suddenly – even when the ignition is off.

Reduce the risk of scalding from hot coolant by following these steps.

■ If the coolant reservoir cap must be removed, wait until the engine has cooled down.

■ Protect face, hands and arms by covering the cap with a large, thick rag to protect against escaping fluid and steam.

■ Turn the cap slowly and very carefully in a counter-clockwise direction while applying light, downward pressure on the top of the cap.

■ To help avoid being burned, do not spill antifreeze or coolant on the exhaust system or hot engine parts. Under some conditions, the ethylene glycol in engine coolant is combustible.

■ If the coolant level is normal, check the fuse for the radiator fan. Replace fuse if necessary – see page 164.

■ If the fuse is not blown, the belt driving the water pump is not broken and the warning light still does **not** go out, **do not continue driving.** See your authorized Volkswagen dealer.

■ If the coolant level and the V-belt are normal, the fuse is not blown and the warning light has gone out, the malfunction may be in the radiator fan. You can continue driving to the nearest authorized Volkswagen dealer. The wind from the moving vehicle will be enough to keep the engine cool. However, avoid idling for a long time or driving very slowly.

Refer to "Coolant temperature gauge" on page 65 for details.

2 – Safety belts

Refer to "Belt warning system" on page 23 for details.

3 – Remote rear lid release

The light comes on when the rear lid is open and the ignition is switched on.

The light will go off when the rear lid is closed again.

WARNING

■ If the light should come on while you are driving, stop and close the rear lid properly.

■ Never press the switch while the vehicle is in motion.

4 – Engine oil pressure

When the ignition is turned on, the oil pressure warning light comes on for a bulb check. It should go out after the engine has started.

If the warning light does not go out or flashes while driving (above 2000 engine rpm a buzzer will sound simultaneously). It indicates that the oil pressure is too low.

Stop the engine immediately, check the engine oil level and add oil if necessary.

If engine oil level is normal but the light continues to flash, do not continue to operate the vehicle. This could damage the engine.

Turn the engine off and contact the nearest authorized Volkswagen dealer for assistance.

The oil pressure light is not an indicator for low engine oil level. To check the oil level, always use dipstick (see page 130).

Engine oil temperature (see page 65).

Make it a habit to have the engine oil level checked with every fuel filling.

Always heed WARNINGS on page 126.

5 – Generator

This light comes on when the ignition is turned on and goes out after the engine is started. If the light does not go out after starting and revving up the engine momentarily or lights up while driving, there may be a malfunction in the electrical system, or the belts driving the generator may be loose or broken.

If the warning light suddenly comes on while driving, **stop the vehicle and turn off the engine**. Inspect the belts.

If the belts driving the generator are torn, you can still continue driving to the nearest authorized Volkswagen dealer. However, your battery will discharge.

6 – Malfunction Indicator Light*

CHECK

The Malfunction Indicator Light is part of the On Board Diagnostic system (OBD II). The light comes on when the ignition is switched on and will go out after the engine is started and the idle has stabilized. This is to assure you that the Malfunction Indicator Light is functioning properly.

If the light does not go out after the engine is started, or if it should come on while you are driving, this indicates that there is a malfunction in the engine system. If the light should start blinking, the catalytic converter could be damaged. Continue driving with **reduced power** and have the cause corrected promptly by an authorized Volkswagen dealer or a qualified workshop.

The On Board Diagnostic system in your vehicle monitors the various components of your Emission Control. Each controlled component in your engine system has been coded. In case of a malfunction the respective component will be identified and the fault stored in the control module's memory

On Board Diagnostic System (OBD II)

The stored data can only be displayed by using special testing equipment (generic scan tool for OBD II) to assure an accurate diagnosis.

A socket to connect the special testing equipment is located behind a protective cover (the symbol of the Malfunction Indicator Light is printed on it) to the right of the front ashtray.

To connect the special testing equipment, remove the ashtray, slide the protective cover to the left and remove and push the plug into the socket provided.

Your authorized Volkswagen dealer or a qualified workshop can interpret the code and make the necessary correction.

6 – Glow plug*

(Diesel models only)

When the engine is **cold** the warning lamp comes on when the key is turned to the driving position (key turned into position 2, ignition on).

When the light goes out, start the engine immediately.

As the Diesel engine glow period begins automatically after closing the driver's door, it can happen that after switching to the driving position (key turned into position 2) with a cold engine, that the glow plug warning lamp does not light up. The engine can be started right away.

When the engine is **warm**, the light will not come on. You can start the engine immediately.

7 – BRAKE or (!)

The light comes on while the engine is cranking. It goes out after the engine is started and the parking brake is fully released. This is your assurance that the brake warning light is functioning properly.

If the brake warning light does not light up when the engine is cranking or the parking brake is applied, there may be a malfunction in the electrical system. In this case, contact your authorized Volkswagen dealer.

WARNING

If the brake warning light does not go out with the engine running and the parking brake released or lights up while you are driving, the fluid level in the brake fluid reservoir is too low.

Proceed immediately to the nearest authorized Volkswagen dealer or qualified workshop and have the brake system inspected.

Please note, however, that after several brake applications, greater pressure on the brake pedal will be necessary to stop your vehicle. Consequently, you must also allow for increased braking distances.

8 – Brake wear indicator*

The brake wear indicator lights up for one second when the ignition is switched on as a functional check. If the lights does not go out, or if it should come one while driving, the front brake pads are worn. See your authorized Volkswagen dealer as soon as possible to have the brake pads checked.

9 – Turn signals

Refer to "Turn signal/headlight dimmer switch lever" on page 78 for details.

10 – High beam

The indicator lamp lights up when the high beams are switched on or when the headlight flasher is used.

Refer to "Turn signal/headlight dimmer switch lever" on page 78 for details.



Additional Warning/Indicator lights

The warning lights are located to the left of the light switch.

Air bag-System

The indicator light must come on when the ignition is switched on, and go out after a few seconds. If the light does not go out, or if it comes on while you are driving, this indicates a fault in the air bag system.

If the indicator light does not come on when the ignition is switched on, this also indicates a system malfunction. If any of these conditions occur, have the air bag system inspected immediately by your authorized Volkswagen dealer.

For more details, see page 30.

Anti-lock brake system[1)]* ABS

The electrical components of the ABS system are electronically monitored when starting off and while you are driving.

The warning light will come on for a few seconds when the ignition is switched on. The light will go out after an automatic check sequence has taken place.

WARNING

If the ABS warning light does not go out, or if it should come on while driving, the ABS system is not functioning properly. The vehicle can then be stopped with the standard brakes only (without ABS). Contact your authorized Volkswagen dealer as soon as possible.

For additional information on the ABS system, see page 102.

1) On Canadian vehicles, the warning light will indicate a malfunction in the ABS system.

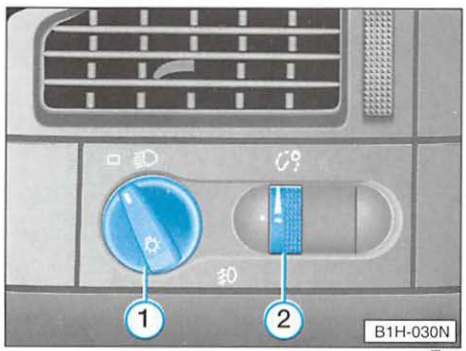
Malfunction can cause:

- **The ABS warning light to come on. The vehicle can still be braked, however, the ABS will not function. See your authorized Volkswagen dealer as soon as possible.**
- **The ABS warning light and the brake warning light come on together. The ABS will not function and you will notice a change in braking characteristic.**

WARNING

If both warning lights come on at the same time, the rear wheels could lock up first under hard braking. Rear wheel brake lock–up can cause loss of vehicle control and an accident. Have you vehicle repaired immediately by you authorized Volkswagen dealer or a qualified workshop. Drive slowly and avoid sudden, hard brake application.

Switches



1 – Lights

□ – Daytime running lights

≡D – Low and high beam

So that you may be more visible to other drivers during daytime driving, your vehicle is equipped with Daytime Running Lights (DRL's). When the ignition is switched on, the headlights (low beam with reduced brightness) will come on.

When outside lighting conditions require normal head light operation, you must turn the light switch to the ≡D position . Do not use the daytime running lights for night time or other low light conditions. In the DRL position, you can use the high beams for "flash" signaling but you cannot use them for continuous illumination. To use the high beam, the light switch must be turned to the ≡D position.

Turning the switch to the ≡D position will turn on the side marker lights, instrument panel lights, tail lights, parking lights and license plate lights, and will bring the low beam head lights to full brightness and enable use of the high beams. To conserve battery power, the headlights go out automatically when the ignition is turned off or when starting the engine. To turn off all the exterior lights, turn the light switch to the "off" position □ before exiting the vehicle.

Note

If headlight switch is left on and ignition key is removed a chime will sound when the driver's door is opened*. This is your reminder to switch off the lights before leaving the vehicle.

Front fog lights*

With the light switch turned to the parking light position or low/high beam position, pull the switch out to the detent.

The indicator light next to the fog light symbol comes on.

2 – Instrument illumination

With the lights switched on, turn the thumb wheel to adjust the brightness of the instruments.

Emergency flasher

The emergency flasher works independently of the ignition switch position.

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

WARNING

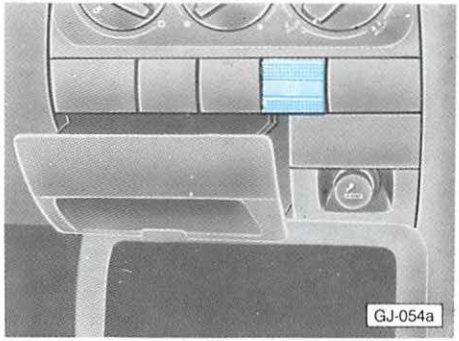
Move the vehicle a safe distance off the road when stalled or stopped for repairs. Do not park or operate the vehicle in areas where the hot exhaust system may come in contact with dry grass, brush, fuel spill or other material which can cause fire.

Electrically heated seats*

With the ignition on, the seat cushion and backrest of the front seats can be heated electrically.

The heating elements in both seats can be turned on and regulated separately with the two thumbwheel switches.

To switch off the seat heating, turn the thumbwheel switch all the way down.



Rear window defogger

The rear window defogger works only with the ignition on.

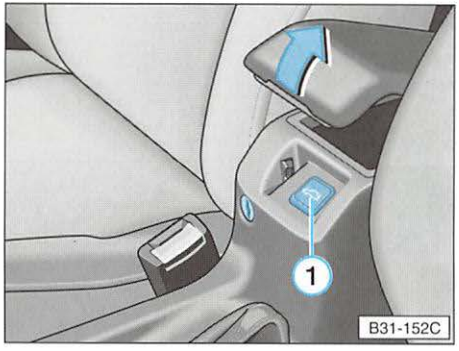
Depress the switch to turn on the rear window defogger.

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

Switch off the defogger when the rear window is clear. When you save electricity, you reduce fuel consumption.
See also page 98.

The rear window defogger is not designed for melting snow. Therefore, always remove heavy snow and ice accumulations before driving off.

When the rear window defogger is switched on, the outside mirrors (with electric remote control) are electrically heated at the same time.



Remote rear lid release

The button (**1**) is located below the lid for the lockable storage bin in the center console.

The lock for the luggage compartment is unlocked when you push this button with the ignition switched either **on or off**.

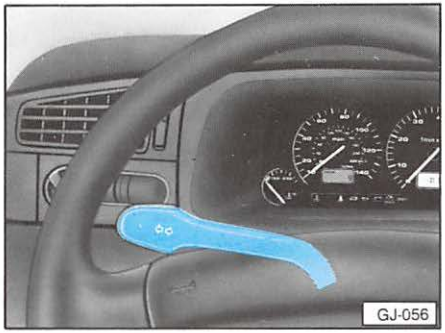
The rear lid will unlock regardless of the position of the key slot.

When the ignition is on, the light will come on whenever the rear lid is open (see page 69).

WARNING

- **If the light should come on while you are driving, stop and close the rear lid properly.**
- **Never press the switch while the vehicle is in motion.**

Turn signals/Headlight dimmer switch lever



Turn signals

The turn signal indicator light flashes when you operate the lever (ignition on).

Lever up – right turn signal

Lever down – left turn signal

The turn signals are cancelled automatically when you have completed a turn (for example, when turning a corner), and the steering wheel returns to the straight ahead position.

If a turn signal fails, the indicator light flashes about twice as fast. A light bulb may have to be replaced.

Lane changer

Move the lever up or down just to the point of resistance – the indicator light must also flash at the same time. The lever will return to the OFF position when released.

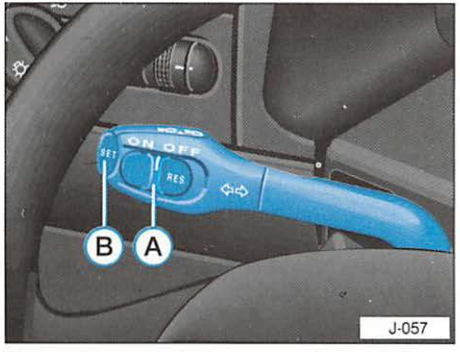
Headlight dimmer

With headlights on, you can switch to either high or low beam by pulling the lever toward the steering wheel past the point of resistance. When high beam is on, the indicator light will light up.

Headlight flasher

You can signal with your headlights by repeatedly pulling the lever just up to the point of resistance.

Cruise control*



The cruise control allows you to maintain a constant cruising speed above 22 mph (35 km/h) without actuating the accelerator pedal.

On vehicles with Automatic transmission, the cruise control will function only with selector lever in driving positions **D**, **3** or **2**. In any other selected driving positions the cruise control is automatically deactivated.

Any manual operation, such as accelerating, gearshifting or braking can be done independently of the cruise control.

The cruise control is operated with sliding button **A** and pressure button **B** located at the end of the turn signal/headlight dimmer switch lever.

WARNING

■ To help keep the vehicle under control, do not use the cruise control when driving on winding or slippery roads, in heavy or in varying traffic.

■ Do not use the Resume feature when the previously set speed is too fast for existing traffic conditions.

Sliding button **A** to position ON actuates the cruise control system.

Accelerate to the desired speed and depress button **B** (SET). This sets the cruising speed and stores it in a memory. The foot can then be taken off the accelerator pedal.

With button **B**, the programmed speed can also be increased. When the button is depressed, the vehicle accelerates until the button is released.

If you accelerate – for example when passing – the previously programmed speed will be resumed automatically after the accelerator pedal is released.

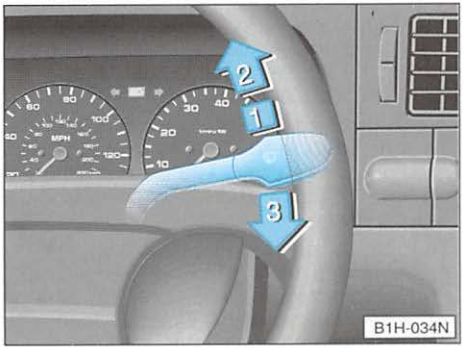
When the cruise control is switched on, do not shift into N (Neutral) without pressing the clutch! The engine will rev up immediately and may possibly be damaged.

The cruise control is temporarily disengaged when brake or clutch pedal is depressed or when the road speed drops considerably below programmed speed, for example when driving uphill.

To re-engage the system, slide button **A** to RES (Resume) and the vehicle will automatically accelerate to the previously programmed speed.

A programmed speed can be completely erased from the memory of the cruise control system by sliding button **A** to the OFF position. A programmed speed is always erased when the ignition is switched off.

Wiper and washer system



The wiper and washer system only works when the ignition is on.

The **heated* washer jets** do not have a separate switch. They are automatically switched on when the ignition is on.

Always loosen blades frozen to the glass and be sure to remove all snow and ice from the windshield first before you use the wipers to prevent damage to the wiping system.

Notes

- Filling washer container, see page 143.
- Replacing wiper blades, see page 144.

Windshield

Brief wiping:

Lift lever to pressure point before position 1.

Low wiper speed:

Lever in position 1.

High wiper speed:

Lever in position 2.

Intermittent wiping:

Lever in position 3.

The wipers operate about once every six seconds.

You can program the **adjustable intermittent wiping*** so that the pauses between wipes can last from 1.5 to 22 seconds.

To program:

- Switch on the intermittent wiping (lever in position 3).
- Switch off the intermittent wiping and then switch it back on after the desired pause length.

You can change the pause length as often as you like. After switching off the ignition, the selected pause length will be reset to six seconds.

Always heed WARNINGS on next page.

Automatic wiper/washer

Pull lever towards steering wheel and hold – wipers and washer work.

Release lever —

The washer stops and the wipers carry on for about four seconds.

Rear window

Press the lever briefly away from the steering wheel–

the wiper works about every six seconds (intermittent wipe). Press lever again briefly to switch rear wiper off.

Automatic rear wiper/washer

Press lever away from steering wheel and hold.

The wiper and the washer work as long as the lever is held in this position.

Release lever

The washer stops and the wiper continue for about four seconds.

WARNING

■ Worn or dirty wiper blades will reduce visibility, making driving hazardous. Clean blades regularly to remove road film and carwash wax buildup. Use an alcohol base cleaning solution, a lint free cloth and wipe along the blade.

■ Clean all inside and outside window glass regularly. Use an alcohol base cleaning solution and wipe dry with a lint free or a chamois cloth.

■ Do not use the wiper/washer in freezing weather without first warming the windshield with the defrosters, otherwise the washer solution may freeze on the windshield and obscure your vision.

■ Avoid running the wiper blades over a dry windshield to prevent scratching the glass. A scratched windshield will reduce visibility and increase glare at night.

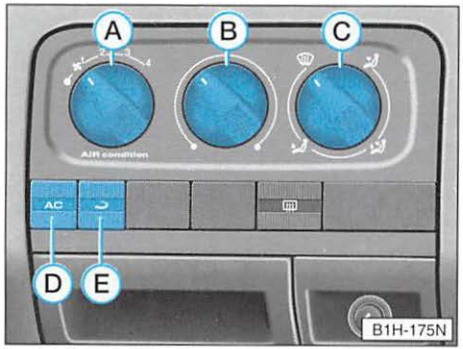
Ventilation/Heating/Air conditioning*

WARNING

- **Good visibility comes with windows free of fog, condensation and frost.**
- **For clear visibility and safe driving, it is extremely important that you thoroughly familiarize yourself with your Owner's Manual.**

Follow the operating instructions pertaining to the proper use and function of the ventilation/heating, defogging/defrosting and air conditioning system in this manual. If in doubt, consult your authorized Volkswagen dealer.

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



The air conditioning system combines both heating and cooling for maximum comfort in any season.

The air conditioner works only with the engine running, at outside temperatures higher than +40°F (+5°C) and with the fan switch turned to one of positions 1 to 4.

When you switch on the air conditioner, both the temperature as well as the humidity in the vehicle are reduced. This will contribute to the comfort of the passengers and will prevent the windows from fogging up on days when the humidity is very high.

Operating control

Switch A – Fan switch and System ON/OFF switch

The air flow volume can be set to four different speeds.

In the position **0**, the fan and air conditioner are switched off. If you do not want outside air which is polluted (i.e. exhaust fumes) to get into your vehicle, press the air recirculation button (**E**).

On vehicles equipped with a fresh air filter, dust, pollen etc. will be trapped by the filter. Switch **A** can be turned to any position.

Switch B – Temperature control

turn clockwise – warmer
turn counterclockwise – cooler

If you want the air conditioning to become cooler, turn the temperature control switch clockwise (**air conditioner on**).

Switch C – Airflow distribution

Turn knob to symbol...	Vents... fully open	Small amounts of air from vents
	1, 2	3, 4
	5	1, 2, 3, 4
	3, 4, 5	1, 2
	3, 4	—

For location of vents, see next page.

Button D – Air conditioner ON/OFF button*

Press this button to switch on the air conditioning. When the button is pressed, the indicator light in the switch lights up.

Press the button again to switch the system off. The "AC" symbol goes out.

Button E – Air recirculation*

Press this button to switch on the air recirculation. When you press this button, the indicator light in the switch lights up.

Press the button again to switch off the air recirculation. The light will go out.

WARNING

Since no fresh air comes into your vehicle and the windows could fog up with the air conditioning switched off, you should use the air recirculation for short periods of time only.

Note

You can press both the air conditioner button (**D**) and the air recirculation button (**E**) at the same time.

Air outlets

Depending on the setting of the temperature control (**B**) and buttons (**D**) and (**E**), heated or unheated outside air or cooled air will be emitted from all open vents.

The airflow distribution switch (**C**) controls the outlets.

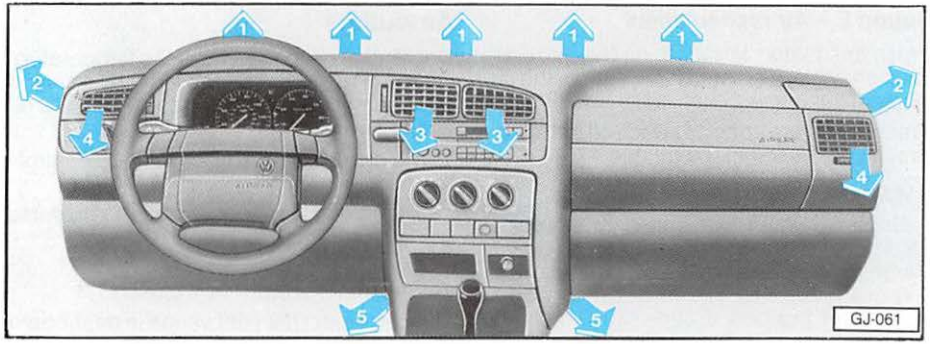
You can also close or open dashboard vents 3 and 4 individually:

Thumbwheel up – vent open.
Thumbwheel down – vent closed.

You can adjust the vent vanes in dashboard vents 3 and 4.

To adjust the airflow sideways, use the thumbwheel in each vent.

The rear footwells are heated at the same time when you select outlets 5.



Defrosting windshield and side windows

- Turn the fan switch (**A**) to position 3.
- Turn the temperature control switch (**B**) and the airflow distribution switch (**C**) all the way to the right.
- Close vents 3.
- Additional warm air can also be directed to the side windows via vents 4.

Defogging windshield and side windows

If your windows should fog up due to high humidity (for example on a rainy day), set the controls as follows:

- Turn the fan switch (**A**) to position 2 or 3.
- Turn the temperature control switch (**B**), into the heat range if necessary.
- Turn the airflow distribution switch (**C**) to . . . . . 
- Press the air conditioner button (**D**).
- Close vents 3.
- Additional warm air can also be directed to the side windows via vents 4.

Heating interior quickly

- Turn the fan switch (**A**) to position 3.
- Turn temperature control switch (**B**) all the way to the right.
- Turn the airflow distribution switch (**C**) to . . . . . 
- Close vents 3.
- Open vents 4 partially or all the way and adjust as desired.

Keeping interior comfortable

After the windows have been defogged, we recommend the following setting:

- Turn the fan switch (**A**) to either position 1 or 2.
- Turn the temperature switch (**B**) to the desired position.
- Turn the air flow distribution switch (**C**) to ..... 

or to ..... 

- If the windshield is fogging up, turn the switch to 
- Close vents 3.
- Additional warm air can also be directed to the side windows via vents 4.

Normal cooling

- Turn the fan switch (**A**) to any desired position.
- Turn the temperature control switch (**B**) to the desired temperature (you can also set it for heating).
- Turn the airflow distribution switch (**C**) to the desired position.

Note

If the airflow distribution switch is in this position, then at least one vent must always be open, otherwise the air conditioner can ice up. 

- Press the air conditioning button (**D**).
- Adjust vents 3 and 4 as desired.

Outside air will be drawn in and cooled.

Maximum cooling

- Close all windows and the sunroof*.
- Turn the fan switch (**A**) to position 4.
- Turn the temperature switch (**B**) to the left.
- Turn the air flow distribution switch (**C**) to ..... 
- Press the air conditioner button (**D**).
- Press the air recirculation button (**E**).
- Open vents 3 and 4.

At least one vent must always be open, otherwise the air conditioner can ice up.

Air from inside the vehicle will be drawn in and cooled (recirculation).

WARNING

Do not use the air recirculation over long periods of time because you will not receive any fresh outside air.

Note

Avoid smoking when you select air recirculation. Smoke drawn in will leave deposits on the evaporator. This results in permanent odors whenever you switch on the air conditioner. This can be eliminated only by exchanging the evaporator which is time consuming and expensive.

Ventilation (fresh air)

Unheated outside air will flow from vents 3 and 4 when you set the control switches as follows:

- Press the air conditioner button (**D**) to switch off the air conditioning.
- Turn the fan switch (**A**) to the desired position.
- Turn the temperature control switch (**B**) all the way to the left.
- Turn the airflow distribution switch to 
- Open vents 3 and 4.

If necessary you can turn the airflow distribution switch to another position.

General hints

- All controls except the fan switch (**A**), the air conditioner button (**D**) and the air recirculation button (**E**) can be set to any desired intermediate position.
- To prevent the windows from fogging up, always set the fan to a low speed when driving slowly.
- If the windows should nevertheless fog up, this may be caused by reduced airflow through the dust and pollen filter* - see page 145.
- Keep the air intake slot in front of the windshield free of ice, snow and leaves in order to maintain the proper functioning of the heating and ventilation systems.
- Vehicle heating is dependant upon the temperature of the engine coolant – therefore, your vehicle interior will warm up only when the engine has reached its operating temperature.
- Flow-through ventilation allows air to escape through openings in the rear of the vehicle. Be sure not to block these openings.

How to use the air conditioner more economically

When using the air conditioning, the air conditioner compressor decreases engine power and increases fuel consumption. To keep air conditioner use to a minimum, please take the following into consideration:

■ If your vehicle has been standing outside in the hot sun, first open a window or door to let the hot air escape before driving off.

■ Do not use the air conditioning if the windows or sunroof* are open.

■ If the desired temperature can be reached without having to switch on the air conditioner, then use fresh air operation.

If water drips under the vehicle...

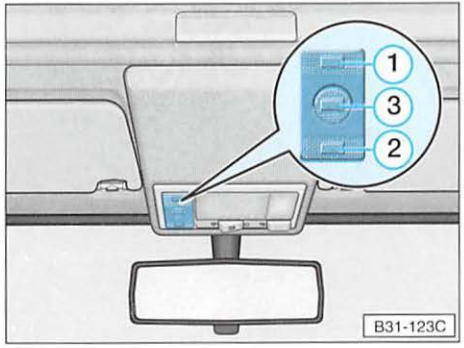
When the outside temperature is high and the air very humid, condensed water can drip off the evaporator under the vehicle. This is normal and does not indicate a leak.

Maintenance

The condenser should be checked periodically for cleanliness. If clogged with dirt or insects, the condenser should be washed down with water.

After the winter months and before extended summer usage, the air conditioner should be checked and, if necessary, serviced by your authorized Volkswagen dealer.

Power roof*



You can open or close the power roof only when the ignition is switched on.

To open:
Press the switch (**1**) towards the rear of the vehicle.

To close:
Press the switch (**2**) towards the front of the vehicle.

To lift:
Press the button (**3**).

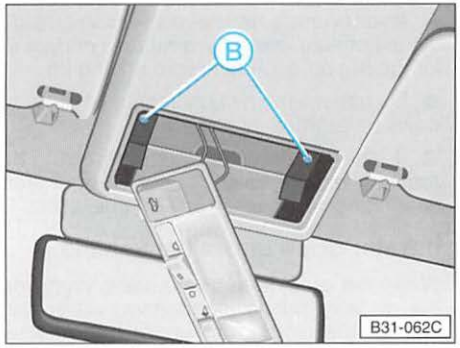
To lower:
Press the button (**2**).

Notes

- If you want to tilt the sunroof while it is open, press button (**3**).
- If you want to open the power roof while it is tilted open, press button (**1**).
- On the power roof with the glass insert* there is a sliding screen to protect against intensive sunlight. When you open the sunroof, the trim also automatically opens. If you desire, you can manually close the sliding screen when the roof is closed.
- On vehicles with power locks* you can also close the roof when you lock the vehicle with the key in the driver's door lock by holding the key in the lock position.

WARNING

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

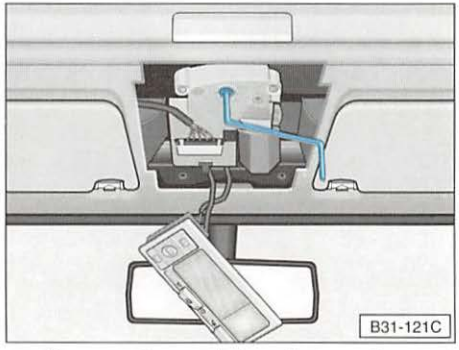


Emergency closing

If you cannot close the roof with the electric switch, you can close the roof manually.

- Insert a flat blade screwdriver between the dome light housing and headliner and pry off.
- Remove the two Phillips screws.
- Unhook the cover at the front edge, fold it downward and remove.

Further details see next page.



- Remove the crank from its mounting and insert it completely into the opening, (approximately 3 mm).
- Close the power roof using the crank.
- Replace the crank in its mounting.

Lockable compartment

The lockable storage compartment is located in the center console between the two front seats.

You can only lock or unlock the compartment with the master key .

Note

The storage compartment should be closed whenever you are driving so that you cannot unintentionally open the rear lid with the remote button.

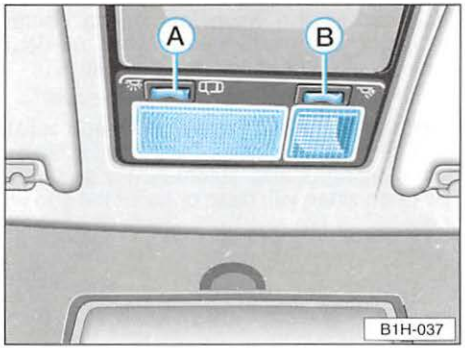
Sun visors

You can lift the visors out of the center mounting and move them toward the door windows to protect against side glare.

Vanity mirrors may have a sliding cover*.

On the illuminated* mirrors, the mirror lights can be turned on and off with the lift cover. The lighting is also automatically switched off or on when you raise or lower the sun visor.

Interior lights



Dome light, front* (A)

- To the left – ON (continuously)
- Center – OFF or door switch[1)]
- To the right – door switch or OFF[1)].

The interior lights have a time delay* and will go out about 12 seconds after closing the doors. If you switch on the ignition before then, the lights will go out.

[1)] only vehicles with power sunroof.

Reading light, front* (B)

- To the left – OFF or ON continuously[1)]
- Center – OFF[1)]

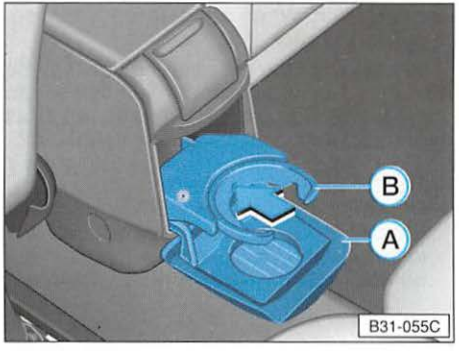
Reading light, rear*

- Press the rear half of the lens.

Luggage compartment light*

When you open the rear lid, the light comes on (regardless whether the ignition or the lights are switched on or off). **Always make sure the rear lid is completely closed when the vehicle is parked.**

Beverage holder



Rear beverage holder

There is a beverage holder located in the center console above the ashtray for the rear passengers.

To open – Fold the bottom of the beverage holder (**A**) down.

To close – Fold the bottom of the beverage holder (**A**) up.

Note

■ After pushing the ring (**B**) in the direction of the arrow, you can place round or square beverage containers in the holder.

■ If the bottom of the beverage holder (**A**) becomes unclipped, you can remount it by simply clipping it back into place.

Coat hooks

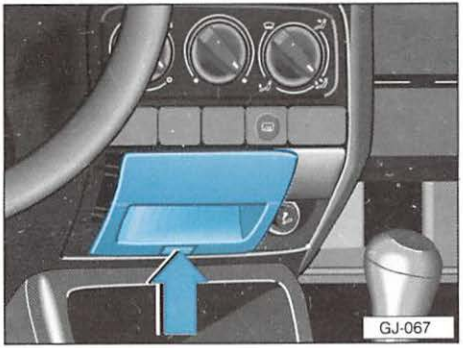
The coat hooks are intended for your convenience.

WARNINGS

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

■ Do not hang heavy objects on the coat hooks, as they could cause personal injury in event of a sudden stop.

Ashtrays



Front ashtray

■ To empty – Open ashtray, press spring (**B**) down and pull ashtray out.

■ To replace – Push ashtray into the guides.

WARNING
Never use ashtrays as waste paper receptacles... fire hazard!

Rear ashtray

■ To empty – Open ashtray, press in the retaining clip on the right side and remove ashtray.

■ To replace – Insert ashtray down and push in.

WARNING
Never use ashtrays as waste paper receptacles... fire hazard!

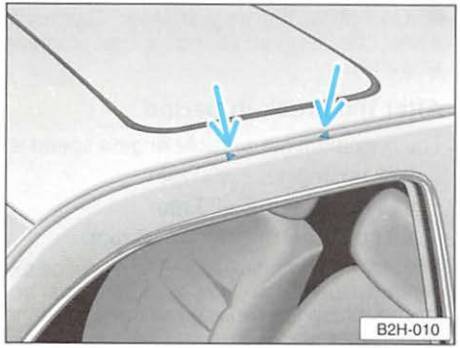
Cigarette lighter

Push knob in. When lighter is ready for use, it will spring back.

The socket of the cigarette lighter may be used for 12 volt appliances with maximum consumption of up to 180 watts, such as hand spot light, small vacuum cleaner, etc.

WARNING
Cigarette lighter and socket remain functional even after the ignition key is removed. Therefore, never leave children inside the vehicle without supervision.

Roof rack / Roof railings



If luggage carrying equipment is to be installed, please note the following:

■ To enhance the vehicle's streamlined design, rain gutters have been molded into the roof. Therefore, it is not possible to use normal roof racks. Only install a roof rack specifically designed for this vehicle.

■ These roof racks are the basis for a complete roof rack system. Additional attachments are necessary to safely transport luggage, bicycles, surf boards, skis or boats.

All necessary hardware for these systems is available from your Volkswagen dealer.

■ Any damage to the vehicle caused by using normal roof racks or other types of cross bars or incorrect installation is not covered by the Warranty.

■ The roof rack system must be installed exactly according to the instructions provided.

■ Always mount the roof rack system according to the instructions supplied. When installing the mounts on the roof, be sure the mounts are exactly in line with the triangular shaped marking stamped in the rain channel (see illustration).

■ Always distribute the loads evenly. Each cross bar can carry 88 lbs (40 kg) when the weight is evenly distributed over the entire bar length.

However, the total maximum permissible load carrying capacity of 165 lbs (75 kg) for the roof rack installation (including the weight of the roof rack system) must not be exceeded – see page 181.

■ Cargo which is large,heavy, bulky, long or flat will have an influence on the vehicle's aerodynamics, center of gravity and overall handling. Be sure to adjust your driving speed and behavior when transporting.

■ If you have installed cross bars on your vehicle, it is best to ask the car wash operator if they should be removed before going through an automatic car wash.

■ When not in use, remove the roof rack installation to reduce wind noise, improve on fuel consumption and to guard against theft.

■ Make sure that when you open the rear lid, it does not knock against the load on the roof.

The first 1,000 miles (1,500 km) - and afterwards

Break-in period

During the first few operating hours, the engine's internal friction is higher than later when all the moving parts have been broken in. How well this break-in process is done depends to a considerable extent on the way the vehicle is driven during the first 1,000 miles (1 500 kilometers).

For the first 600 miles (1 000 kilometers):

as a rule of thumb

- **Do not use full throttle.**
- **Do not drive faster than 3/4 of top speed.**
- **Avoid high engine speeds.**
- If possible, avoid towing a trailer.

WARNING

- **New tires tend to be slippery and must also be "broken-in". Be sure to remember this during the first 100 miles (160 kilometers).**

- **New brake pads do not have optimum friction properties and must be "broken-in" during the initial 100 to 150 miles (150 to 200 kilometers) of normal city driving. You can compensate for this by applying more pressure on the brake pedal. This also applies later when new pads are installed.**

From 600 to 1,000 miles (1 000 to 1 500 kilometers):

Speeds can gradually be increased to maximum road or engine speed.

During and after break-in period

- Do not rev the engine up to high speeds when it is cold. This applies when the transmission is in N (Neutral) or in gear.

Do not drive with unnecessarily high engine speeds - upshifting early saves fuel, reduces noise and protects the environment – see also page 97.

- Do not let the engine labor. Downshift when the engine is no longer running smoothly.

After the break-in period

The maximum permissible engine speed is:

172 hp engine: 6,500 rpm

115 hp engine: 5,400 rpm

90 hp Diesel engine: 5,100 rpm.

The maximum engine speed must not be exceeded. Upshift into the next higher gear before reaching the red area at the end of the tachometer scale - see page 62.

Excessive engine speeds are automatically reduced.

Operate your vehicle safely

The correct condition of the vehicle is essential for driving safety.

Therefore, always observe the following points before you drive off:

- **Check lights and turn signals**
- **Check fuel level**
- **Adjust the mirrors**
- **Make sure that all the lights as well as the windows are clean**
- **Make sure the air intake slot between the engine hood and the windshield is free of leaves, snow and ice**
- **Check warning and indicator lights when starting the engine.**

For driving safety, always follow the specified maintenance intervals in your **Maintenance booklet** - especially for changing the brake fluid, see page137.

Your personal driving style as well as your personal attitude influence driving safety to a great extent.

Therefore, for your own safety:

- **Wear your safety belts, even if you are just driving in the city – see page 20.**
- **Make sure that all passengers are wearing their safety belts, even those sitting in the rear – see page 20.**

Passengers not wearing safety belts endanger not only themselves in case of an accident, but also the driver and other passengers.

- **Adjust your seat so that you can easily reach all controls – see page 44.**
- **The seating position is important for the air bag performance – see page 32.**
- **Always adjust the head restraints to the correct height.**

The upper edge of the head restraint should be even with your ears.

- **Always make sure that the movement of the pedals is not hampered in any way – see page 50.**
- **Store luggage and light items properly**
  - **in the luggage compartment – see page 49.**
  - **on the rear filler panel – see page 49.**
  - **on top of the roof – see page 93.**

■ **If you drink, do not drive.**

The use of alcohol, drugs and certain medications will seriously impair perception, reactions and driving ability, and substantially increase the risk of an accident and personal injury.

■ **Do not drive if you are tired.**

Make frequent rest stops, at least after every two hours of driving.

■ **Always adapt vehicle speed to traffic, weather and road conditions.**

Remember that especially on smooth, slippery roads, vehicle handling and braking depend a great deal on tire adhesion. On wet roads, the front wheels can hydroplane at high speeds. If this happens, you will then, no longer be able to steer or brake properly.

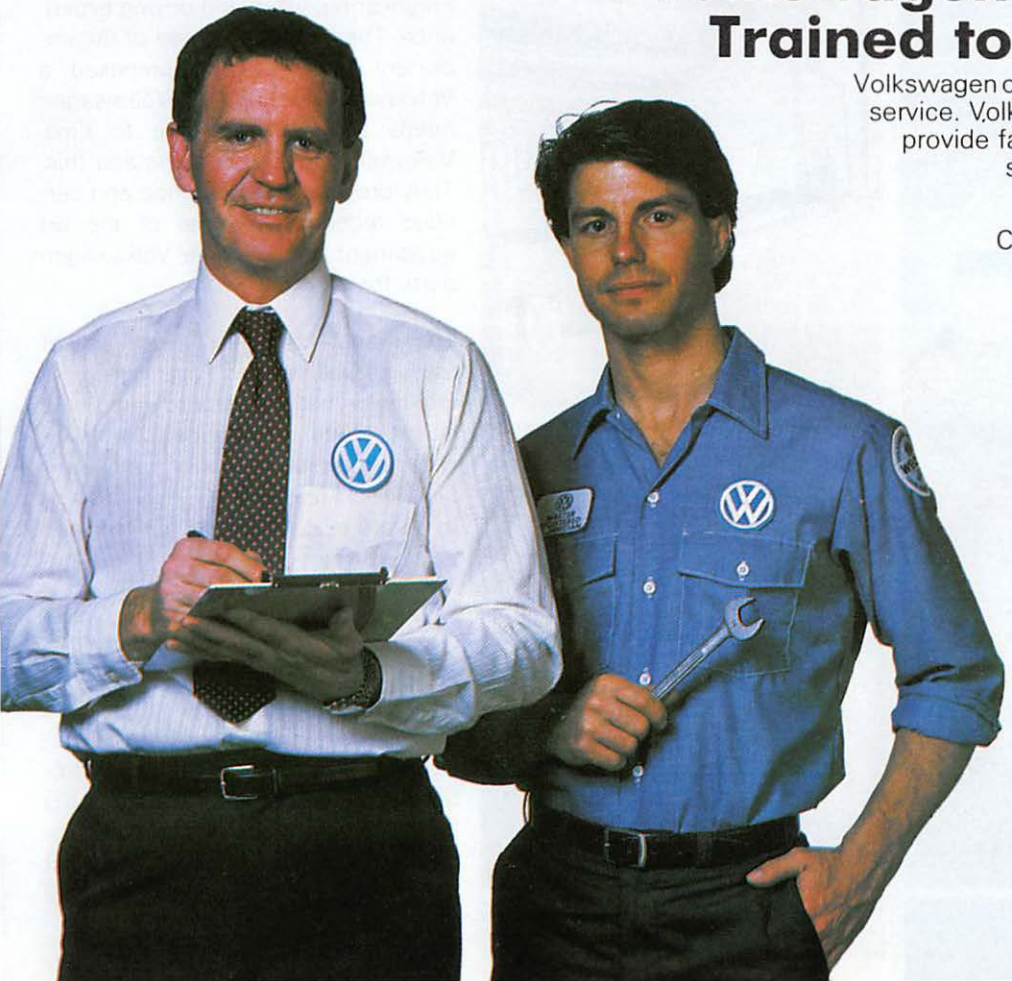
■ **Always observe the posted speed limits.**

Additional information regarding safety can be found in the individual chapters of this manual.

Volkswagen Professionals— Trained to Know Your Car

Volkswagen owners expect quality customer oriented service. Volkswagen dealers understand this. They provide factory trained and certified technicians, state of the art equipment and genuine Volkswagen parts for your car.

Competent know-how and commitment to you and your car, that's Volkswagen Service.





The Parts Story



Volkswagen Owners can select from a wide assortment of Genuine Volkswagen parts, accessories and car care products at their local Volkswagen Dealership.



Parts shipped from Kassel, West Germany are packaged in special containers for overseas distribution.



The central parts facility in Kassel, West Germany has automatic parts retrieval systems to expedite parts orders worldwide.

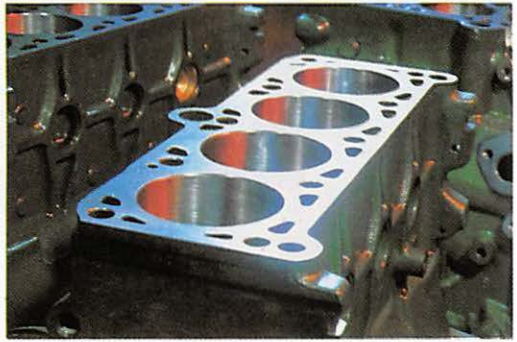
Engineering, value and driving experience. These are only three of the important reasons you purchased a Volkswagen. But, even a Volkswagen needs service from time to time. Volkswagen dealers understand this. They provide factory trained and certified technicians, state of the art equipment and genuine Volkswagen parts for your car.

The manufacture and availability of Genuine Volkswagen Parts involves a worldwide network, coordinated by a central parts distribution facility located in Kassel, West Germany. Genuine Parts are distributed from Kassel to strategically located Volkswagen parts distribution centers.

Kassel's vast manufacturing, warehousing and shipping complex inventories nearly 250 million parts. When you visit your local Volkswagen Parts Department, you benefit from this international experience. Utilizing microfiche and computers, trained Parts Professionals can access the latest information to help assure the correct part is selected for your exact model and year.

Hard-to-find parts can be traced by accessing the Volkswagen National Parts Locator System.





All Volkswagen replacement parts undergo a strict series of quality inspections to make sure they meet the exact specifications as the original parts they were built to replace.

Computerized parts inventory systems monitor each Dealership's inventory to maintain proper levels, so your needs can usually be fulfilled at once. Hard to find parts can be traced by accessing the Volkswagen National Parts Locator System, a procedure which almost always has the required item shipped to your local Dealership within 48 hours.

Genuine Volkswagen Parts are manufactured to the exact specifications as the original equipment they were built to replace. We are so confident in the reliability of our new and remanufactured Volkswagen parts, they are backed by an exclusive limited warranty.*

The planning for the uninterrupted supply of Genuine Parts, the adherence to strict quality control standards, and the friendly Parts Professionals, ready with reliable assistance. These are the commitments that Volkswagen makes on behalf of it's customer, you, the Volkswagen owner.

No one knows your Volkswagen quite like the people who built it, which is why when it comes to parts, accessories or car care products, ask for Genuine Volkswagen Parts and "Keep A Great Thing Going."

* See your local Volkswagen dealer for details regarding the Limited Parts Warranty.



Microfiche readers and computers assist our Parts Professionals in identifying the precise item required.



Genuine Volkswagen Accessories have been carefully selected to enhance your driving pleasure and accommodate your lifestyle. Each Genuine Volkswagen Accessory has been thoroughly tested for optimum performance and durability to ensure lasting satisfaction and to add value to your investment.

Our "Sound Choice" Audio Systems provide a quality of sound reproduction equal to the engineering standards you have come to expect from Volkswagen.

Specifically produced for use on your vehicle, the Volkswagen Car Care Collection includes cleaners and touch-up paints to maintain a showroom-new appearance, while the maintenance fluids help your Volkswagen operate at peak efficiency.

Genuine Volkswagen Accessories are designed exclusively for your model and make. Each item offers a combination of practicality and functional styling to enhance the Volkswagen driving experience. Ask your local Volkswagen Dealer for information about specific Genuine Volkswagen Accessories for your vehicle.

Accessories

Items available at time of purchase may differ from those shown here.



Operate your vehicle economically and minimize pollution

Various factors influence fuel consumption, engine wear, brakes and tires, environmental impact.

This chapter addresses some of these points.

Your personal style of driving
will determine the economy of your vehicle, as well as exhaust and noise levels.

Do not let your vehicle stand and warm up.
When the engine is idling, it takes a very long time to warm up. Moreover, during warm–up, both engine wear and exhaust gas emissions are very high. Therefore, be ready to drive off immediately after starting the engine and avoid high engine speeds.

Avoid full throttle.
Accelerating gently reduces fuel consumption, engine wear, and does not disturb the environment.

Upshift as early as possible - do not drive at unnecessarily high engine speeds.
The highest fuel economy and the least disturbance to the environment are attained when you drive at low engine speeds and in the highest possible gear.

For example, fuel consumption is twice as high in 2nd gear as it is in the highest gear. Also, lowering engine speeds means reduced engine noise. Therefore, drive as often and as long as possible in the highest gear.

Downshift only when the engine is no longer running smoothly.
Depending on the transmission you have, you can normally drive in the highest gear at 25 to 37 miles (40 to 60 km/h) on flat land and still be able to accelerate.

Avoid driving at high speed.
Fuel consumption, exhaust emissions and engine noise increase disproportionately at high speeds. If you drive at approximately three quarters of top speed, fuel consumption will be reduced by one half. Never drive faster than the posted speed limit.

Drive as smoothly as possible and keep a lookout ahead.
Unnecessary accelerating and braking increase fuel consumption and disturb the environment.

Switch off your engine if you are caught in a traffic jam or stopped for a train. This saves fuel and reduces emissions.

The external conditions

in which you drive also affect your fuel consumption.

The following conditions increase fuel consumption:

- Heavy traffic, especially in large cities with many traffic lights.
- Stop-and-go driving, especially short distances so that the engine never properly warms up.
- Driving in heavy, slow moving traffic in low gear so that the engine speed is relatively high when compared to the distance driven.

Plan your trips ahead of time. Organize your trips to include several errands and to avoid heavy traffic.

Of course, there are some conditions which will affect fuel consumption over which you have no control. For example, fuel consumption increases in the winter or under difficult conditions (bad roads; towing a trailer, etc.).

The technical requirements

for optimum fuel consumption and economy were "built" into your vehicle. Special attention was paid to the environment. To retain and make use of these characteristics, please note the following points:

Use only unleaded gasoline.

The use of leaded gasoline causes damage to the catalytic converter and other components of the emission system.

Have your vehicle serviced by an authorized Volkswagen dealer at the specified intervals – see page 122 and your Maintenance booklet.

Having your vehicle regularly serviced by an authorized Volkswagen dealer ensures that it runs properly and economically, that it does not disturb the environment, and that it has a long service life.

Check your tire pressure once a month.

Low tire pressure increases fuel consumption and tire wear, and impairs vehicle handling.

Do not carry unnecessary items in the luggage compartment.

Particularly in city traffic where you must often accelerate, weight influences fuel consumption.

Remove supplementary roof rack components when not in use.

At high road speeds, the increased air resistance caused by the cross bars also increases fuel consumption.

Switch off any electrical equipment when no longer needed.

The rear window defogger, additional driving lights and the heater blower consume a considerable amount of electricity. The more electricity you consume, the higher the fuel consumption. For example, if you keep the rear window defogger on for 10 hours, your fuel consumption will increase by approximately 1 quart (1 liter).

❀ ***Use the air conditioner only when really needed.***

The air conditioner decreases engine output and increases fuel consumption.

❀ ***Check your vehicle's fuel consumption regularly. Keep a written record or use the trip odometer.***

Check your fuel consumption each time you refuel. By doing this, you can discover any inconsistencies which could result in increased fuel consumption.

■ **Check your oil each time you fill your tank**

Oil consumption greatly is dependant upon engine load and speed.

It is normal for the oil consumption of a new engine to reach its lowest value after a certain mileage has been driven.

You must drive your vehicle approximately 3,000 miles (5 000 kilometers) before you can properly assess your oil consumption.

This also applies to fuel consumption and engine output.

■ **The published ENVIRONMENTAL PROTECTION AGENCY (EPA) and Transport Canada consumption estimates may correspond to your actual consumption on the road, which will vary depending upon vehicle load and speed, road and weather conditions, trip length, etc.**

The catalytic converter is an efficient "clean-up" device built into the exhaust system of the vehicle. The catalytic converter burns the undesirable pollutants in the exhaust gas before it is released into the atmosphere.

The exclusive use of unleaded fuel is critically important for the life of the catalytic converter and proper functioning of the engine – see page 110.

The catalytic converter will be permanently damaged by:

■ **exceeding the correct engine oil level – see page 130;**

■ **driving until the fuel tank becomes completely empty. The engine could misfire. Unburned fuel could also get into the exhaust system and this could cause the catalytic converter to overheat;**

■ **push or tow starting your vehicle;**

■ **turning off the ignition while the vehicle is moving – see page 61.**

■ **other unusual operating conditions.**

Do not continue to operate your vehicle under these conditions, as otherwise fuel can reach the catalytic converter. This could result in overheating of the converter, requiring its replacement.

To assure efficient operation of the Emission Control System:

■ Have your vehicle maintained properly and in accordance with the service recommendations as described in your Maintenance booklet. Lack of proper maintenance as well as improper use of the vehicle will impair the function of the emission control system and could lead to damage.

■ Do not alter or remove any component of the Emission Control System unless approved by the manufacturer.

■ Do not alter or remove any device, such as heat shields, switches, ignition wires, valves, which are designed to protect your vehicle's Emission Control System and other important vehicle components.

Note

Do not leave engine idling unattended after starting. If warning lights should come on to indicate improper operation, they would go unheeded. Extended idling also produces heat, which could result in overheating or other damage to the vehicle or other property.

WARNING

■ Parking

Do not park or operate the vehicle in areas where the hot exhaust system may come in contact with dry grass, brush, fuel spill or other material which can cause a fire.

■ Undercoating

Do not apply additional undercoating or rustproofing on or near the exhaust manifold, exhaust pipes, catalytic converter or heat shields. During driving, the substance used for undercoating could overheat and cause a fire.

Braking

General notes

■ The brakes on today's automobiles are still subject to wear depending largely on operating conditions and driving habits. On vehicles which are driven mostly in stop-and-go city traffic or which are driven hard, the brake linings should be checked by your authorized authorized Volkswagen dealer more often than specified in the **Maintenance booklet.**

■ On steep slopes you should use the braking effect of the engine. This way, you prevent wearing down the brake system. If you must use your brakes, do not hold the brakes down continuously. Pump the brakes in intervals.

■ Under certain conditions, for example, when driving through water or a very heavy rain, or even after washing your vehicle, the braking effect can be reduced due to the wet brake pads or pads which are iced-up in the winter. A few cautious brake applications should dry off the brake pads or remove ice coatings.

■ The effectiveness of the brakes can be reduced when the vehicle is driven on a salt-covered road and the brakes are not used. Clean off accumulated salt coating from brake discs and pads with a few cautious brake applications.

WARNING

■ If you damage the front spoiler, or if you install a different spoiler, be sure the air flow to the front brakes is not obstructed, otherwise the brake system could overheat.

■ Failure of one brake circuit will impair the braking capability resulting in an increased stopping distance.
Avoid driving the vehicle and have it towed to the nearest authorized Volkswagen dealer or qualified workshop.

Brake booster

WARNING

■ The brake booster works with a vacuum pressure which is created only when the engine is running. Never let the vehicle roll to a stop with the engine shut off.

■ If the brake booster is not working, for example when towing your vehicle, or because the brake booster has somehow been damaged, the brake pedal must be pressed harder to make up for the missing effect of the brake booster.

Always heed WARNINGS on next page.

Functioning of Anti-Lock Brake System (ABS)*

The ABS contributes effectively to vehicle control since it prevents the wheels from locking when the brakes are applied. This means that the vehicle remains steerable and is less inclined to skid.

Note

You don't have to "pump" the brake. Just hold the brake pedal down.

However, do not expect that the ABS shortens braking distance under all circumstances. When driving on gravel or on newly fallen snow on top of icy surfaces, braking distance may be even longer, therefore, under these circumstances, it is especially important that you drive slowly and with great care.

How the ABS system works

An automatic check is made when a speed of approx. 4 mph (6 km/h) is reached. When this happens a pumping noise can be heard.

If an individual wheel begins to rotate too slowly in relation to vehicle speed and tend to lock, the ABS automatically reduces brake pressure to prevent that wheel from locking.

This automatic adjustment process will cause a slight vibration of the brake pedal and some noises to alert you that vehicle speed must be adapted to existing road and traffic conditions.

WARNING
Although the ABS is very effective, always remember that braking capability is limited by tire traction. Always adjust your driving speed according to the road and traffic conditions. Do not let the extra safety afforded by the ABS tempt you into taking extra risks. The ABS cannot overcome the laws of physics.

If ABS is not functioning properly, a warning light will come on. See page 72 for additional details.

Conditions affecting braking efficiency

Moisture or road salt

WARNING

■ Under certain climatic and operating conditions such as passing through water, driving in heavy rain or after washing the vehicle, the effectiveness of the brakes can be reduced. In winter, ice can accumulate on the brake pads, linings, discs and drums. Cautiously apply brakes for a test. Brakes will dry and ice coatings will be cleaned off after a few cautious brake applications.

■ Driving for an extended period of time on salt-covered roads without using your brakes can also affect braking efficiency. Clean off accumulated salt coating from brake discs and pads with a few cautious brake applications.

Overheating the brakes

WARNING

■ Do not "ride the brakes" by resting your foot on the pedal when you do not intend to brake. This may cause the brakes to overheat, premature wear and increased stopping distance.

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

■ If you damage the front spoiler, or if you install a different spoiler, be sure that air flow to the front brakes is not obstructed, otherwise the brake system could overheat.

Trailer towing

Your Volkswagen was primarily designed for passenger transportation. If you plan to tow a trailer you should be mindful that your car will be performing a service for which it was not intended. The additional load will affect durability, economy and performance.

Trailer towing not only places more stress on the vehicle, it also calls for more concentration from the driver.

For this reason always follow the operating and driving instructions given.

Technical requirements

Trailer hitch

Use a weight-carrying hitch conforming to the gross trailer weight. The hitch must be suitable for your vehicle and trailer and securely bolted to the body. Only a trailer hitch with removable ball mount should be used. Always check with the trailer hitch manufacturer to make sure that you are using the correct hitch.

Do not use a bumper hitch.

The hitch must be installed in such a way that it does not interfere with the impact-absorbing bumper system. No modifications should be made to the vehicle exhaust and brake systems. From time to time, check that all hitch mounting bolts remain securely fastened.

When you are not towing a trailer, remove the trailer hitch ball mount. This prevents the hitch from causing damage should your vehicle be struck from behind.

WARNING

When you are no longer towing a trailer, remove the entire trailer hitch. When doing so, seal all bolt holes to prevent water and exhaust fumes from entering the vehicle.

Engine cooling system

After installing trailer towing equipment, you should also have the engine cooling system modified if this has not already been done at the factory. Otherwise, overheating may occur when the engine is working very hard (mountain driving, high outside temperature). Ask your authorized authorized Volkswagen dealer for advice.

Trailer brakes

If your trailer is equipped with a braking system, check to be sure that it conforms to all regulations.

The trailer brake system, must not be directly connected to the vehicle's brake system.

Safety chains

Always use safety chains between your vehicle and trailer.

Trailer lights

Trailer lights must meet all regulations. Do not connect the trailer light system directly to the light system of your vehicle. Be sure to check with your authorized Volkswagen dealer for correct wiring, switches and relays.

Mirrors

Check whether both sides of your trailer can be seen from the driver's seat. If necessary install extended rear-view mirrors.

Operating instructions

Maximum trailer weight

A trailer for your vehicle is limited to a typical class I or class II trailer. The maximum gross trailer weight and the tongue load must not exceed the specifications listed in the Technical Data section, page 180.

Do not exceed the gross vehicle weight, which is the weight of the vehicle, including driver, passenger, luggage, trailer hitch and tongue weight of the loaded trailer.

Trailer load distribution

Be sure the load in the trailer is held securely in place to guard against shifting, be it forward, backward or sideways.

Never allow a passenger to ride in a moving trailer.

Tongue load

For best vehicle handling under these changed conditions, adjust the trailer load so that the tongue load is at the maximum allowable or slightly lower. You can get an approximation of the tongue load with a bathroom scale or you may measure the load at a trucking company or weighing station.

Tire pressure

When towing a trailer, inflate the tires of your vehicle to the cold tire pressure listed under "Full load" on the sticker on the inside of the glove compartment door or on the right rear doorjamb. Inflate trailer tires to trailer and tire manufacturer's specifications.

Lights

The headlight settings should be checked with trailer attached before driving off and adjusted as necessary.

Check proper working of vehicle and trailer lights.

Safety chains

Be sure trailer safety chains are properly connected from trailer to the hitch on the vehicle. Leave enough slack in the chains to permit turning corners.

The chains should cross under the trailer tongue to prevent it from dropping in case of separation from the hitch.

Driving instructions

To obtain the best possible handling of vehicle and trailer, please note the following:

■ A "balanced" rig is easier to operate and control. This means that the tow vehicle should be loaded to the extent possible and permissible while keeping the trailer as light as possible under the circumstances. Whenever possible, transfer some cargo to the luggage compartment of the tow vehicle while observing tongue load requirements and vehicle loading considerations (see previous page).

■ The higher the speed, the more difficult it becomes for the driver to control the "rig". **Do not drive at the maximum permissible speed.** Reduce your speed even more under unfavorable load, weather or wind conditions - particularly when going downhill.

Be especially careful when passing other vehicles.

Reduce vehicle speed immediately if the trailer shows the slightest sign of swaying. Do not try to stop the swaying by accelerating.

Observe speed limits. In some areas speeds for vehicles towing trailers are lower than for regular vehicles.

- Always apply brakes early.
- **The cooling effect of the radiator fan cannot be increased by downshifting because fan speed is independent of engine speed. Therefore, when driving uphill, you can always drive in the highest possible gear with low engine speed.**

The coolant temperature gauge must be observed carefully. If the needle nears the upper end of the scale, reduce speed immediately and/or switch off the air conditioner.

If the warning light in the instrument cluster starts flashing, pull off the road, stop and let the engine idle for about 2 minutes to prevent heat built-up.

Trailer towing tips

Your vehicle handles differently when towing a trailer because of the additional weight and weight distribution. Safety, performance and economy will greatly depend on how carefully you load your trailer and operate your "rig".

Before you actually tow your trailer, practice turning, stopping and backing up in an area away from traffic until you learn the feel of your vehicle and trailer unit.

Backing-up is difficult and requires practice. Steering while backing-up is generally opposite of that when backing your vehicle without a trailer.

Maintain a greater distance between your vehicle and the one in front of you. You will need more room to stop.

To compensate for the trailer, you will need a larger than normal turning radius.

When passing, remember that you cannot accelerate as fast as you normally would because of the added load. Make sure you have enough room to pass. After passing, allow plenty of room for your trailer before changing lanes again.

Avoid jerky starts, sharp turns or rapid lane changes.

After parking, always block the wheels of both vehicle and trailer. Do not park with a trailer on a slope. If it cannot be avoided, do so only after doing the following:

- Apply foot brake.
- Have someone place wheel blocks under both vehicle and trailer wheels.
- With wheel blocks in place, slowly release brakes until wheel blocks absorb the load.
- Turn wheels to curb.
- Apply parking brake.
- Place Automatic transmission in "**P**" and manual transmission in first or reverse gear.

If you move the selector lever of the Automatic transmission to "**P**" before applying the parking brake and before blocking the wheels, you may require more force later to move the lever out of the "**P**" position.

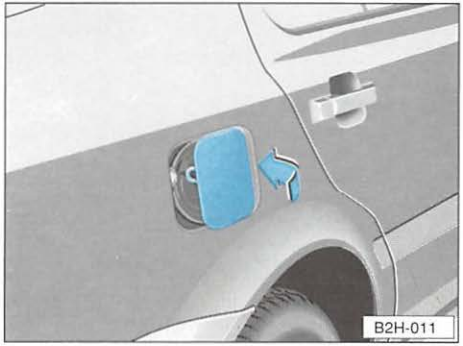
When restarting after parking on a slope, reverse the procedure:

- Start the engine.
- Shift transmission into gear.
- Release the parking brake and slowly move away from the wheel blocks.
- Stop and have someone retrieve the wheel blocks.

Notes

- **Do not tow a trailer during the break-in period of your vehicle.**
- If you tow a trailer, your Volkswagen may require more frequent maintenance due to the extra load - see also page 122.

Fuel tank



The fuel filler neck is located on the right rear side panel behind the fuel tank flap.

The power locking system automatically locks and unlocks the fuel tank flap. If the power locking system should fail, you can still open the flap manually – see next page.

Note

To open the fuel filler flap via the power locking system, insert the key to the driver's or front passenger's door and turn it twice, see also page 13.

The capacity of the tank is approx. 14.5 US gallons (55 liters) Reserve is approx. 1.8 US gallons (7 liters) of total capacity.

When refueling, hang the fuel filler cap on the fuel tank flap.

As soon as the correctly operated nozzle switches off automatically for the first time, the tank is full. Do not try to add more fuel, because the expansion space in the fuel tank will be filled – the fuel can then overflow when it becomes warm and pollutes the environment.

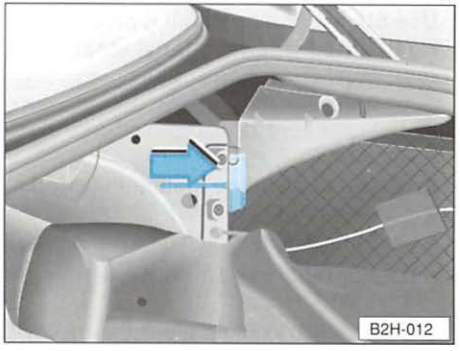
After filling your tank, screw the fuel filler cap back on until you hear it click shut.

Note

On vehicles equipped with a catalytic converter, never drive your vehicle until the fuel tank is completely empty. This could cause your engine to misfire and fuel could get into the exhaust system. This could cause the exhaust system to overheat and damage the catalytic converter.

WARNING

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



Emergency unlocking of fuel tank flap

If the power locking system should fail, you can still open the flap manually:

- Open the rear lid. Unhook the trim panel on the right side near the taillights and remove.
- Then push the locking rod in front of the white activator in the direction of the arrow – see illustration.

Fuel supply

Gasoline engine

Use only unleaded fuel in your vehicle.

The minimum fuel requirement is unleaded regular gasoline with an octane rating of 87 AKI (91 RON). You may also use unleaded premium gasoline.

Do not use leaded gasoline!

The use of leaded gasoline will severely damage your vehicle's catalytic converter and its ability to control exhaust emissions.

Unleaded gasoline are available throughout the continental USA, Canada, and in most European countries. We recommend you do not take your vehicle to areas or countries where unleaded gasolines may not be available.

Octane rating

Octane rating indicates a gasoline's ability to resist engine damaging "knock" caused by pre-ignition and detonation. Therefore, buying the correct grade of gasoline is very important to prevent possible engine damage and a loss of engine performance.

The recommended gasoline octane rating for your engine can be found on a label located on the inside of the fuel tank flap. This rating may be specified as AKI (CLC) or RON (ROZ).

Explanation of the abbreviations:

ROZ = **R**esearch **O**ktan **Z**ahl
RON = **R**esearch **O**ctane **N**umber
AKI = **A**nti **K**nock **I**ndex
CLC = **C**ost of **L**iving **C**ouncil.

The AKI or CLC octane ratings are normally displayed on gas station pumps in the USA and Canada.

Gasolines most commonly used have the following octane ratings:
Premium Grade: 91 – 96 AKI
Regular Grade: 87 – 90 AKI

Use of gasoline containing alcohol or MTBE (methyl tertiary butyl ether)

You may use unleaded gasoline blended with alcohol or MTBE (commonly referred to as oxygenates) if the blended mixture meets the following criteria:

■ **Blend of gasoline methanol (wood alcohol or methyl alcohol)**

– Anti-knock index must be 87 or higher
– Blend must contain no more than 3% methanol
– Blend must contain more than 2% CO solvents

Note

Methanol fuels which do not meet these requirements may cause corrosion and damage to plastic and rubber components in the fuel system.

■ **Blend of gasoline and ethanol (grain alcohol or ethyl alcohol)**

– Anti-knock index must be 87 or higher.

– Blend must not contain more than 10% ethanol.

■ **Blend of gasoline and MTBE**

– Anti-knock index must be 87 or higher.

– Blend must contain not more than 15% MTBE.

General notes

■ **Do not use fuels that fail to meet the criteria specified above.**

■ **Do not use fuel for which the contents cannot be identified.**

■ **Fuel system damage and performance problems resulting from the use of fuels different from those specified above are not the responsibility of Volkswagen and are not covered under the New Vehicle or the Emission Control System Warranties.**

■ **If you experience a loss of fuel economy or driveability and performance problems due to the use of one of these fuel blends, we recommend that you switch to unblended fuel.**

■ **If you are unable to determine whether or not a particular fuel blend meets the specifications above, ask your service station or its fuel supplier.**

Seasonally adjusted gasoline

Many gasolines are blended to perform especially well for winter or summer driving. During seasonal change-over, we suggest that you fill up at busy gas stations where the seasonal adjustment is more likely to be made in time.

Gasoline additives

A major concern among many auto manufacturers is carbon deposit build up caused by the type of gasoline you use.

Although gasolines differ from one manufacturer to another, they have certain things in common. All gasolines contain properties that can cause deposits to collect on essential engine components, specifically fuel injectors and intake valves. Although most gasoline brands include additives to keep engine and fuel systems clean, they are not equally effective.

After an extended period of using inadequate fuels, built-up carbon deposits can rob your engine of peak performance.

Damage or malfunction due to poor fuel quality is not covered by the Volkswagen New Vehicle Limited Warranty.

Recent fuel developments

Over the past few years, we have seen a great increase in gasoline manufacturers advertising the use of detergent additives. Many additives are primarily intended to keep fuel injectors clean.

However, they are not all equally effective in reducing carbon deposit build up on intake valves. We are aware that, at the time of printing, some manufacturers advertise and sell gasoline that contains the proper deposit control additives that will keep intake valves and injectors clean.

To assure the long-term performance of your vehicle's engine, you should use gasoline brands that include these deposit control additives.

If gasolines with additives are not available, contact your authorized Volkswagen dealer about proper fuel additives.

Diesel engine

Diesel fuel no. 2

Service stations offering Diesel fuel are generally located on truck routes or major highways. Directories of Diesel fuel stations are usually sold at Diesel fuel stations.

Some states in the USA require permits to purchase Diesel fuel. Check with your State Motor Vehicle Department.

Diesel fuel may not be available outside the continental USA and Canada. Be sure to check before traveling to other countries.

Your Diesel engine has been specifically designed to operate on Diesel fuel only. Therefore, do not use home heating oil or regular gasoline. The properties of these fuels may cause serious damage to the fuel injection system and to the engine. This could lead to additional expense and may also affect your warranty.

If Diesel fuel should get on any portion of a rubber hose, it must be wiped off immediately. Then wash the contaminated hose portion with soap and warm water. Do not allow Diesel fuel to remain on connecting hoses for any length of time. They may develop leaks and cause serious damage.

Winter operation

At temperatures below 20°F (–7°C), Diesel fuel no. 2 loses its fluidity due to wax separation, which may clog the fuel filter or tank strainer and keep the engine from running.

To help in preventing such conditions, the fuel filter in your vehicle is automatically preheated. Preheating the fuel filter makes operation of your vehicle possible with Diesel fuel no. 2 down to –10° F (–24° C).

■ If you expect temperatures below 5° F (–15° C) ask your fuel dealer whether their Diesel fuel no. 2 is sufficiently winterized for the prevailing temperatures.

WARNING

■ Do not use "starting assist fluids". They may be potentially explosive or cause a "run-away" engine condition. This could result in serious engine damage and personal injury.

■ Do not use fuel line antifreeze offered for gasoline engines

If unwinterized or insufficiently winterized Diesel fuel has already thickened to the extent that the engine will not start, this can be rectified by leaving the vehicle standing for some time in a heated shelter.

It is normal that the engine noise level (dieseling) is louder during the warm-up period in winter. It is also normal that whitish-blue smoke may be emitted from the exhaust after starting and during warm-up. The amount of smoke depends on the outside temperature.

Do not let your Diesel engine idle unnecessarily after a cold start-up. Driving off slowly will shorten the warm-up period.

Always heed WARNINGS on pages 123 and 126.

Cleaning and protection

Any automobile is subjected to abuse from industrial fumes, corrosive road salt, etc., to name just a few. A well cared for Volkswagen can look like new many years after purchase. Regular and correct care will contribute to maintaining the beauty and value of your Volkswagen.

Furthermore, this may be a condition for upholding a warranty claim should corrosion damage or paint defects occur.

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

Whether you use products recommended by Volkswagen or other commercially available cleaning agents, make very sure you apply them correctly.

Select only environmentally friendly cleaning products. Any remaining cleaning products do not belong in the household waste.

WARNING

- **Cleaning agents may be poisonous. Keep them out of the reach of children.**
- **Observe all caution labels.**
- **Always read directions on the container before using any product.**
- **Most chemical cleaners are concentrates which require dilution.**
- **Only use spot removing fluids in well ventilated areas.**
- **Do not use gasoline, kerosene, naphtha, nail polish remover or other volatile fluids. They may be toxic, flammable or hazardous in other ways.**

Care of exterior

Washing

The best protection against environmental influences is frequent washing and waxing.

How often this is required depends on how much the vehicle is used, where it is parked (garage, in the open under trees, etc.), the seasons, weather conditions and environmental influences. The longer bird droppings, insects, tree resin, road and industrial grime, tar, soot, road salt and other materials remain on the vehicle paint, the more lasting their destructive effect will be. High temperatures, e.g. from strong sunlight, intensifies the corrosive effect.

Under certain circumstances, weekly washing may be necessary. Under other conditions, a monthly washing and waxing may be adequate.

After the winter, the underside of the vehicle should be thoroughly washed.

Automatic car wash

The vehicle paint is so durable that the vehicle can normally be washed without problems in an automatic car wash. However, the effect on the paint depends to a large extent on the design of the facility, the filtering of the wash water, the type of wash and care material, etc. If the paint has a dull appearance after going through the car wash or is scratched, bring this to the attention of the operator immediately. If necessary use a different car wash.

Notes

- Before going through a car wash, be sure to take the usual precautions such as closing the windows and power roof. The Volkswagen roof antenna does not have to be removed.
- If you have installed additional accessories on the vehicle – such as spoilers, roof rack, etc. – it is best to ask the car wash operator if these should be removed.

Washing the vehicle by hand

In the interest of the environment, the vehicle should only be washed in special wash bays.

First soften the dirt with plenty of water and rinse off as well as possible.

Then clean the vehicle with a soft sponge, glove or brush starting on the roof and working down using only slight pressure. Special car wash soap should only be used for very persistent dirt.

Rinse the sponge or glove thoroughly and often.

Clean wheels and sill panels last, using a different sponge if possible.

After washing the vehicle, rinse thoroughly with water and wipe it off.

Notes

- Do not wash the vehicle in direct sunlight.
- If the vehicle is rinsed with a hose, do not direct the water into the lock cylinders – otherwise they may freeze up in the winter.

WARNING

- **Do not wash, wax or dry the vehicle with the engine running.**
- **Do not clean the underside of chassis, fenders, wheel covers, etc. without protecting your hands and arms. You may cut yourself on sharp-edged metal parts.**
- **Moisture and ice on brakes may affect braking efficiency. Test the brakes carefully after each vehicle wash.**

Washing your vehicle with a power washer

If you use a power washer, please note the following:

- Always follow the operating instructions for the power washer – especially for pressure and spraying distance.
- Make sure that the jet on the spray hose produces a "fan shape" spray. Do not use a jet which sprays the water out in a direct stream or one that has a rotating jet.
- Water temperature should not exceed 140°F (60°C).

WARNING

Never wash tires with a jet that sprays the water out in a direct stream. This could invisibly damage the tires – even if they are sprayed from a relatively large distance for a very short amount of time.

Polishing

Polish your vehicle only if the paint has lost its shine and the gloss cannot be brought back with wax. If the polish used does not contain preservative compounds, the paint must be waxed afterward.

Note

Do not treat matte painted and plastic parts with polish or wax.

Waxing

- A good wax coating protects the vehicle paint to a large extent against the environmental influences listed under "Washing" and even against light scratches.
- When water does not form small drops and roll off clean paint, apply a coat of good hard wax. Even if a wax solution is used regularly for washing your vehicle, it is advisable to protect the paint with a coat of hard wax at least twice a year.

Touch-up paint

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

If corrosion formation becomes visible, however, a simple touch-up job will not suffice. The affected surface must be smoothed with sand paper and covered with an anti-rust primer before the painted finish is restored.

The number for the original vehicle paint can be found on the vehicle identification label – see page 181.

Windows

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

Also, be sure to clean all windows regularly on the inside.

Use a plastic scraper to remove snow and ice from window and mirrors. To prevent dirt from scratching the window, always scrape in a forward direction – never back and forth.

In order not to damage the **wires of the rear defogger**, do not place any adhesive stickers in the inside of the rear window over the wires.

Weatherstrips

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

To seal properly, weatherstrips around hood, rear lid, doors, etc., must be pliable. Spray with silicone or coat with talcum powder or glycerine to retain flexibility of the rubber and to protect against freezing in the winter.

Dull finishes and plastics

Plastic parts, such as light bulb lenses, decorative stripes, panels, bumpers, etc., will come clean with regular washing. Should additional cleaning or spot removal be necessary, use a soft brush or cloth soaked with a mild detergent solution. Then rinse thoroughly and immediately with clear water.

Do not use anything which could mar the plastic or dull finished surfaces, such as wax, polish, abrasive detergents or chemical cleaning solvents.

Bright metal trim

Bright or black anodized trim will come clean with regular washing. To protect metal trim, use car wax. Remove spots or dirt from chrome and stainless steel with a chrome cleaner. Apply a chrome polish for continued luster and protection.

Steel wheels

Always include the hub caps and wheel rims when washing your vehicle to remove road dirt, salt sprays and brake dust. If necessary, use a commercial wheel cleaner to remove accumulated brake dust. Paint scratches should be touched up to prevent corrosion.

Light alloy wheels

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

WARNING

When washing wheels, remember that moisture, ice and road salt on brakes may affect braking efficiency. Test the brakes carefully after each washing. Heed WARNING on page 103.

Care of interior

Glass

Use the same cleaning agents as for exterior and polish dry.

Fabric

Use a vacuum cleaner or a soft bristle brush to remove dust and loose dirt from carpeting, upholstery, headliner and other trim. Dirt stains can usually be removed with a lukewarm soapy water or all-purpose cleaner solution, or a dry foam cleaner. For greasy, oily and other stubborn stains, use a spot remover. Do not pour the liquid on the fabric. Dampen a clean cloth and rub carefully, starting at the edge and working inward.

Plastic and vinyl

Use a clean, damp cloth or sponge to remove dust. For other soil, use a lukewarm all purpose cleaning solution or a mild saddle soap for vinyl trim. Remove water spots and soap traces with a clean, damp cloth or sponge. Use a clean, soft cloth to rub dry.

Grease, tar or oil stains can be removed with a clean cloth or sponge soaked with all purpose cleaner or with a solvent type vinyl cleaning agent.

Occasionally apply a colorless vinyl or leather preservative to retain the material's luster and pliability.

Cleaning and care of leather upholstery

Volkswagen does everything possible to preserve the special qualities of natural leather upholstery. When treating the hides, care is taken to avoid all processes which could impair the natural advantages of the material which make for extra comfort.

Because of the exclusive nature of the hides selected and the natural properties of the leather, this kind of upholstery requires a certain amount of care in everyday use since the leather is sensitive to oil, grease and dirt or wet clothing etc. If it is given regular attention, the leather upholstery will retain its high quality for many years.

Dust and small particles of dirt lodging in the pores, grain and seams can have an abrasive effect and damage the surface. If the vehicle is left standing for a long time in the sun, cover the upholstery or use the sun blinds to protect the leather from direct sunlight and prevent fading or discoloration.

Depending on the amount of use, clean it occasionally according to the following instructions. **Never use solvents, wax polish, shoe cream, spot removers or similar materials.**

For normal cleaning of leather-covered steering wheels, leather seat upholstery, etc., slightly moisten a cotton or woollen cloth with water and wipe over the areas affected.

More stubborn dirt can be removed using a mild soap solution (pure liquid soap: two teaspoons dissolved in 1 quart of water). **It is very important not to let the water soak through the leather or penetrate into the seams.** Then wipe off with a soft, dry cloth.

In addition to this regular cleaning, it is worthwhile treating the leather with a suitable leather-care product. This should be done about twice a year for upholstery in normal use. Apply these products very sparingly indeed and wipe off with a soft cloth after leaving for some time to take effect.

Safety belts

Keep belts clean. Very dirty belts may not retract properly.

For cleaning, use a mild soap and water solution. Let belts dry thoroughly and away from direct sunlight.

Do not allow inertia reel safety belts to retract before they are completely dry.

WARNING

■ Do not use chemical cleaning agents, bleach or dyes. They contain corrosive properties which weaken the webbing.

■ When cleaning your safety belts, inspect them for damage. If you discover damage, see your dealer.

■ Do not remove belts from the vehicle to clean them.

Engine compartment

WARNING

Before working in the engine compartment, be sure to read the information on page 126.

Remove leaves occasionally from the plenum panel in front of the windshield under the engine hood. This prevents the water drain holes from becoming blocked, and it prevents debris from entering the vehicle interior through the heating and ventilation ducts.

WARNING

Before reaching into the front plenum panel, always remove the ignition key. Otherwise, the windshield wiper system could unintentionally be switched on, possibly causing personal injury by the moving wiper linkage.

The engine compartment and transmission have been corrosion protected at the factory.

Good anti-corrosion treatment is very important, particularly in the winter. If the vehicle is frequently driven on salted roads, the entire engine compartment and plenum panel should be thoroughly cleaned at the end of winter and retreated so that the salt cannot have a damaging effect. At the same time, the underside of the vehicle should be washed as well.

Always switch off the ignition before washing the engine.

If the engine compartment is cleaned at any time with grease removing solutions[1], or if you have the engine washed, the anti-corrosion treatment is almost always removed as well. It is therefore essential to ask for a long-lasting corrosion protection of all surfaces, seams, joints and components in the engine compartment.

If you must rinse off gasoline, oil residue or grease while your are washing your engine, then the dirty water should be run through an oil separator filter. We recommend that you have your engine washed at a qualified workshop or service station.

[1] Use only the correct cleaning solutions. Never use gasoline or Diesel.

Chassis

The lower body shell of your Volkswagen is also thoroughly protected against corrosion. Any damage to the undercoating caused by road hazards should be repaired promptly.

WARNING

Do not apply additional undercoating or rustproofing on or near the exhaust manifold, exhaust pipes, catalytic converter or heat shields. During driving, the substance used for undercoating could overheat and cause a fire.

General notes

■ We recommend that you have the engine compartment and the underside inspected twice a year for any damage to the protective coating, preferably before and after the winter season. Have necessary repairs done as soon as possible.

Always heed WARNING on next page.

■ Also, whenever the lower body shell, axle, transmission or engine assemblies have been repaired, the lost anti-corrosion coating of the affected surfaces should be reapplied.

■ Oil-based protective sprays must not be applied. Only tar or wax-based anti-corrosion protectors are compatible with the factory applied corrosion protection. Before application, road dirt, salt spray deposits and oily substances must be removed.

Your authorized Volkswagen dealer stocks the cleaning and preservation solutions recommended by the factory for this purpose and has the equipment necessary to apply them. Therefore, any additional corrosion protection work should be performed by an authorized Volkswagen dealer.

WARNING

Use only the correct cleaning solutions. Never use gasoline, Diesel fuel or solvents which could damage rubber parts or painted surfaces and could cause a fire.

Body cavity sealing

All body cavities which could be affected by corrosion have been given thorough protection at the factory.

This sealing does not require any inspection or additional treatments. If any wax should seep out of the cavity when the ambient temperature is high, it can be removed with a plastic scraper and a suitable solvent.

If you use gasoline for removing the wax, keep sparks, flame and lighted cigarettes away. Never dump gasoline on the ground, into open streams or down sewage drains.

Be sure to observe all safety and environmental regulations.

Maintenance

Your vehicle has been designed to help keep maintenance requirements to a minimum.

However, a certain amount of regular maintenance is still necessary to assure your vehicle's safety, economy and reliability.

By regularly maintaining your vehicle, you assure that emission standards are maintained, thus minimizing adverse effects on the environment.

Maintenance Service is required every 12 months or 15,000 miles (24 000 kilometers), whichever occurs first.

In addition, it is necessary to perform an oil change 6 months after each Maintenance Service, or after each 7,500 miles (12 000 kilometers) whichever occurs first.

The first oil change must be performed 6 months after the delivery of the vehicle or after 7,500 miles (12 000 kilometers).

Under difficult operating conditions, for example at extremely low outside temperatures, in very dusty regions, when towing a trailer very frequently, etc., some service work should be performed between the intervals specified.

This applies particularly to:

- oil changes, and
- cleaning or replacing the air filter.

Important Considerations for You and Your Vehicle:

The increasing use of electronics, sophisticated fuel injection and emission control systems together with the generally increasing technical complexity of today's automobiles has steadily reduced the scope of maintenance and repairs which can be carried out by vehicle owners. **Also, safety and environmental** concerns place very strict limits on the nature of repairs and adjustment on engine and transmission parts which an owner can perform.

Maintenance, adjustments and repairs usually require special tools, testing devices and other equipment available to specially trained workshop personnel in order to assure proper performance, reliability and safety of the vehicle and its many systems.

Improper maintenance, adjustments and repairs can impair the operation and reliability of your vehicle and even void your vehicle warranty. Therefore, proof of servicing in accordance with the maintenance schedule may be a condition for upholding a possible warranty claim made within the warranty period.

Above all, operational safety can be adversely affected, creating unnecessary risks for you and your passengers.

If in doubt about any servicing, have it done by your authorized Volkswagen dealer or any other properly equipped and qualified workshop.

Always heed WARNINGS on next page.

However, we strongly urge you to give your authorized Volkswagen dealer the opportunity to perform all scheduled maintenance and necessary repairs. He has the facilities, original parts and trained specialists to keep your vehicle running properly.

The following pages describe a limited number of procedures which can be performed on your vehicle with ordinary tools, should the need arise and trained personnel be unavailable. Before performing any of these procedures, always thoroughly read all of the applicable text and carefully follow the instructions given. Always rigorously observe the **WARNINGS** provided.

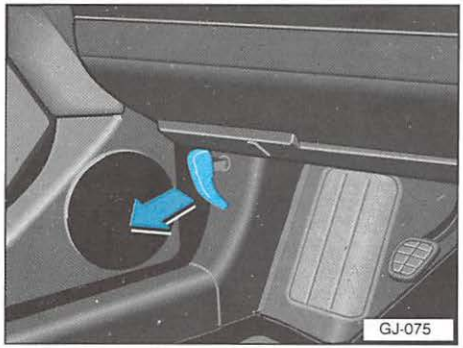
If you change the engine settings, this will adversely affect emission levels. This is detrimental to the environment and increases fuel consumption.

Always observe environmental regulations when disposing of old engine oil, used brake fluid, dirty engine coolant, spent batteries or worn out tires.

WARNINGS

- **Serious personal injury may occur as a result of improperly performed maintenance, adjustments or repairs.**
- **The engine compartment of any motor vehicle is a potentially hazardous area.**
- **Do not attempt any of the maintenance, checks or repairs described on the following pages if you are not fully familiar with these or other procedures with respect to the vehicle, or are uncertain as to how to proceed. Have the necessary work done by your authorized Volkswagen dealer or any other properly equipped and qualified workshop.**
- **Always support your vehicle with safety stands if it is necessary to work underneath the vehicle. The jack supplied with the vehicle is not adequate for this purpose.**
- **If you must work underneath the vehicle without safety stands but with the wheels on the ground, always make sure the vehicle is on level ground, that the wheels are always securely blocked and that the engine cannot be started. Always remove the ignition key.**
- **Always be extremely careful when working on the vehicle. Always follow commonly accepted safety practices and general common sense. Never risk personal injury.**

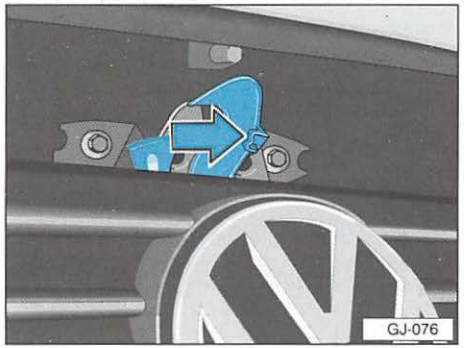
Engine hood



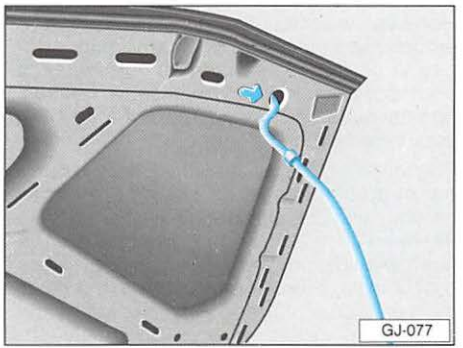
To **unlock** engine hood, pull the release lever on left under dashboard. Hood springs up slightly under spring pressure.

Note

Before opening the engine hood, make sure that the windshield wipers are folded flat against the windshield. Otherwise, they could damage the paint on the hood.



To open, lift the engine hood slightly and unhook the safety catch by pushing down.



Raise the hood completely, take the support rod out of its retainer and insert it into the hole provided in the hood reinforcement (see illustration).

To close, lift the engine hood slightly and unhook the support rod. Press the rod into its retainer on the front cross panel. Let the hood fall into its lock from a height of about 1 foot (30 cm).

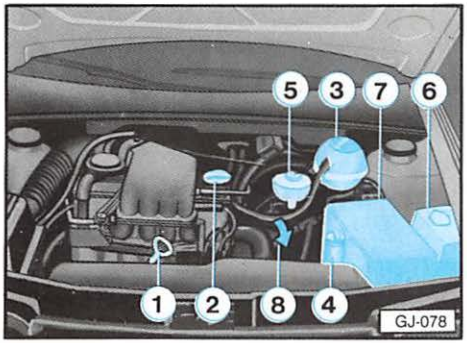
Do not press the hood down.

WARNING

■ For safety reasons, always make sure the engine hood is closed securely when driving. When you close the engine hood, check it to make sure the safety catch has properly engaged. The hood should be flush with the surrounding vehicle body parts.

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

Engine compartment



page

1 - Engine oil dipstick 130
2 - Engine oil filler cap 130
3 - Coolant expansion tank 133
4 - Power steering reservoir 132
5 - Brake fluid reservoir 136
6 - Windshield washer container 143
7 - Battery (protected by a cover) ... 138
8 - Not applicable

Always exercise extreme caution when working under the engine hood.

WARNING

Before you check anything under the hood:

- **Switch off engine - remove ignition key.**
- **Always fully set the parking brake, move selector lever to P (Park) (Automatic transmission) or Neutral (Manual transmission).**
- **Always let the engine cool down. Hot components will burn skin on contact.**
- **Never spill fluids on hot engine components. These fluids can cause a fire.**

- **Never touch the radiator fan, it is temperature controlled and can switch on suddenly - even when the ignition is off.**
- **If work on the fuel system or the electrical system is necessary:**

– Always disconnect the battery.

– Never smoke or work near heaters or open flames.

– Always keep an approved fire extinguisher immediately available.

- **Be especially careful if the engine is running.**

– Always fully set the parking brake, move selector lever to P–(Park) (Automatic transmission) or Neutral (Manual transmission).

– Always exercise extreme caution to prevent neckties, jewelry, long hair or loose clothing from getting caught in the radiator fan, V–belts or other moving parts.

■ To avoid electrical shock and personal injury while the engine is running or being started, never touch:

– Ignition cables

– Other components of the high voltage electronic ignition system.

When adding fluids, always make sure that they are poured into the proper container or filler opening, otherwise serious damage to vehicle systems will occur.

Engine oil

Specification and viscosity

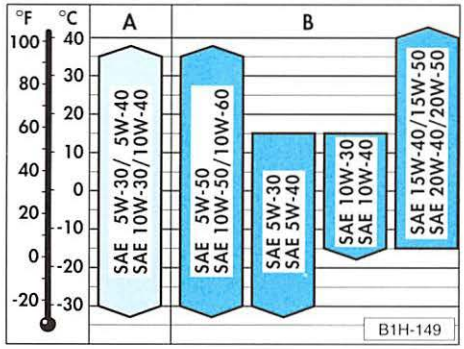
Your engine was factory filled with an all season high quality engine oil. If you need to add oil between oil changes use any high quality petroleum– or synthetic–based oil with correct specifications.

The following terms must appear on the oil container singly or in combination with other designations:

Gasoline engine: "API Service SF or SG".

Diesel engine: "API Service CD".

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



A = Energy conserving oil

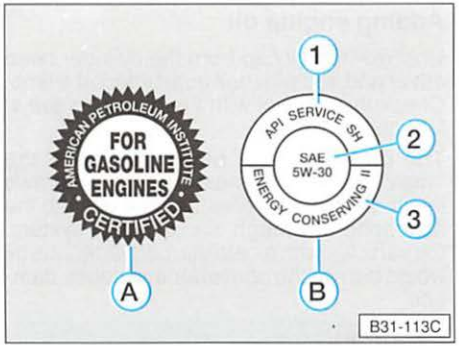
B = Multi-grade oil

Refer to the temperature chart when selecting engine oil. 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.

When using SAE 5 W-30 engine oil, avoid high-speed long-distance driving if outside temperature rises above the indicated limits.

Engine oil additives

Volkswagen does not recommend the use of oil additives. They may adversely affect your warranty.



Engine oil identification symbol

Oils of the proper quality for your vehicle will be identified with a new "starburst" symbol (**A**). The starburst symbol indicates that the oil has been certified by the American Petroleum Institute (API).

Another oil identification symbol (**B**) could be added to the oil container to help you select the correct oil.

1 - The top portion indicates the oil quality by API designations.

2 - The center portion shows the SAE oil viscosity grade.

3 - The lower portion indicates that the oil has fuel saving capabilities.

Note

You should look for one of these symbols on the front of the oil container, and use only oils that display these symbols.

Engine oil consumption

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

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

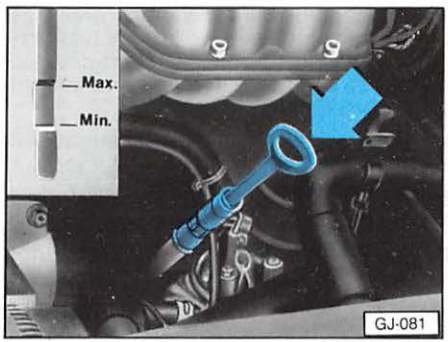
■ The engine in your vehicle depends on oil to lubricate and cool all of its moving parts. Therefore the engine oil should be checked regularly and kept at the required level.

■ Make it a habit to have the engine oil level checked with every fuel filling.

■ Lack of sufficient engine oil may lead to severe engine damage.

■ The oil pressure warning light is not an oil level indicator.

Always heed WARNINGS on page 126.



Checking the engine oil level

The best time to check the engine oil level is when the oil is warm.

To get a true reading, the vehicle should be on level ground.

- After turning off the engine, wait a few minutes for the oil to return to the oil pan.
- Pull out dipstick and wipe it clean with a rag.
- Reinsert dipstick; push it all the way in.
- Pull dipstick out again and read the level.
- Make sure that the dipstick is pushed in all the way.

Note

The top and bottom marks on the dipstick serve as the **"max"** and **"min"** markings. The oil level must be between these two marks. If the oil level goes down to the **"min"** mark, you must add oil. **Do not exceed the "max" marking**.

Adding engine oil

Unscrew the oil cap from the cylinder head cover and add oil a half quart (liter) at a time. Check the oil level with the dipstick, (see illustration).

The oil level must never be above the "max" mark. Otherwise oil could be drawn into the crankcase breather and get into the atmosphere through the exhaust system. On vehicles with a catalytic converter, the oil would burn in the converter and cause damage.

WARNING

The oil filler cap must be secure to avoid oil spill, which is a fire hazard.

Carefully screw the oil cap back on and insert the oil dipstick all the way. Otherwise oil could leak out when the engine is running.

Always heed WARNINGS on page 126.

Changing the engine oil

The engine oil must be changed according to the intervals specified in your Maintenance booklet.

This is very important because the lubricating properties of oil diminish gradually during normal vehicle operation.

If you drive mostly short distances, or if you operate the vehicle in dusty areas or under predominantly stop-and-go traffic conditions or when temperatures remain below freezing for extended periods, the engine oil should be changed more frequently.

Detergent additives in the oil will make fresh oil look dark after the engine has been running for a short time. This is normal and there is no reason to change the oil more often than recommended by the manufacturer.

WARNING

■ Drain the oil into a container that is designed for this purpose, one that is large enough to hold at least the oil filling of your engine.

■ Wear eye protection.

■ To reduce the risk of burns from hot engine oil let the engine cool down to the touch.

■ When removing the oil drain plug with your fingers, stay as far away as possible. Always keep your forearm parallel to the ground to help prevent hot oil from running down your arm.

■ Engine oil is poisonous. Keep it well out of the reach of children. Continuous contact with used engine oil is harmful to your skin. Always protect your skin by washing thoroughly with soap and water.

Before changing your oil, first make sure you know where you can properly dispose of the old oil.

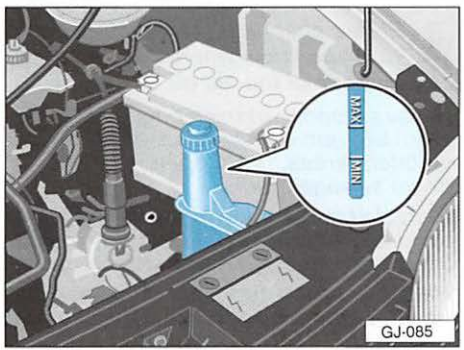
Always dispose of used engine oil properly. Do not dump it on garden soil, wooded areas, into open streams or down sewage drains.

Recycle used engine oil by taking it to a used engine oil collection facility in your area, or contact a service station.

Because of the problem of proper disposal, along with the special tools and necessary expertise required, we strongly recommend that you have your oil changed by an authorized Volkswagen dealer or a qualified workshop.

Always heed WARNINGS on page 126.

Power steering



The fluid reservoir is located in the engine compartment in front of the battery.

The power steering is filled with Volkswagen hydraulic oil No. G 002000.

A correct fluid level in the reservoir is important for the proper functioning of power steering.

With the engine running and the wheels in straight-ahead position, the fluid level in the power steering system must be checked at regular intervals.

There are corresponding markings for checking the power steering fluid level. They are located:

- on the exterior of the reservoir (illustration)
- on the dipstick, which is attached to the cap.

The fluid level should always be between the "**max**" and "**min**", markings. If the level should go below the "**min**" marking, have the power steering system inspected by your authorized Volkswagen dealer. It is not sufficient to just add hydraulic fluid.

Note

- **Since the hydraulic fluid also functions as a lubricant, serious damage to the pump and other components of the system could result if there is insufficient hydraulic fluid in the system.**
- **Be sure not to confuse brake fluid and hydraulic fluid. If the wrong fluid is used, the power steering system may fail.**
- **If the power steering system should fail, or if the engine is not running (for example, while being towed), you will still be able to steer the vehicle, however, more effort will be required.**

Always heed WARNINGS on page 126.

Cooling system

The cooling system is sealed and generally requires little attention.

The cooling system has been filled at the factory with a permanent coolant which does not need to be changed. The coolant consists of a mixture of water and the manufacturer's coolant additive G 11 V8B – antifreeze on glycol basis with anti-corrosion additives (40% for USA models; 50% for Canadian models). This mixture assures the necessary frost protection and protects above all the alloy components in the cooling system from corrosion and scaling, and raises the boiling point of the coolant.

Do not reduce the concentration of the coolant in the summer by adding plain water. **The coolant additive proportion must be at least 40% but not more than 60%** to maintain antifreeze protection and cooling efficiency.

For year–round driving, antifreeze is added at the factory for temperatures down to:

–13°F (–25°C) USA
–31°F (–35°C) Canada.

Use only the approved type of antifreeze, which is available from your authorized Volkswagen dealer.

Other types of antifreeze can above all significantly reduce corrosion protection. The resulting corrosion can cause a loss of coolant and therefore serious engine damage.

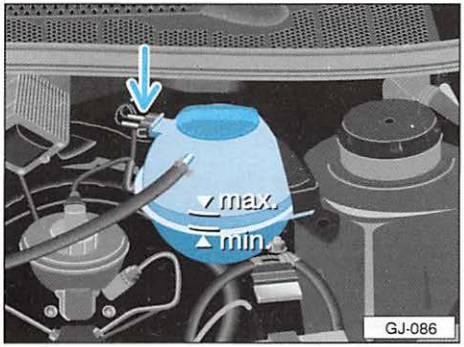
Checking the coolant level

The coolant expansion tank is located in the engine compartment next to the front plenum panel – see illustration.

WARNING

To reduce the risk of being burned, never open the hood if you see or hear steam or coolant escaping from the engine compartment. Wait until no steam or coolant can be seen or heard before carefully opening the hood.

Always heed WARNINGS on page 126.



The correct coolant level is important for proper functioning of the cooling system.

Therefore, check the coolant level regularly – preferably at every fuel filling.

To obtain an accurate reading, the engine must be switched off.

Since the expansion tank is transparent, the cap need not be removed to check the coolant level.

The coolant level must be between the "**min**" and "**max**" marks when the engine is cold and can be slightly above the "**min**" mark if the engine is warm.

The expansion tank in your vehicle is equipped with an electric coolant level checking device.

When the coolant level is too low, the warning light (see page 67) will flash until the coolant level has been restored to normal.

Coolant losses

Coolant losses may indicate a leak in the cooling system. In the event of coolant losses, the cooling system should be inspected immediately by your authorized Volkswagen dealer. It is not sufficient merely to add coolant.

In a sealed system, losses can only occur if the boiling point of the coolant is exceeded as a result of overheating.

Adding coolant

WARNING

Reduce the risk of scalding from hot coolant by following these steps.

- **Turn off the engine and allow it to cool down. The cooling system is under pressure.**
- **Protect face, hands and arms by covering the cap with a large, thick rag to protect against escaping fluid and steam.**
- **Turn the cap slowly and very carefully in a counter–clockwise direction while applying light, downward pressure on the top of the cap.**

If, in an emergency, only water can be added,the correct ratio between water and antifreeze (see previous page) must be restored as soon as possible.

If you have lost a considerable amount of coolant, then you should add cold antifreeze and cold water only when the engine is cold.

Always heed WARNINGS on page 126.

Do not fill above the max mark.

Excess coolant will be forced out through the pressure relief valve in the cap when the engine becomes hot.

Screw cap on again tightly.

WARNING

Antifreeze is poisonous. Always store antifreeze in its original container and well out of the reach of children. If you drain the coolant, it must be caught and safely stored.

Drained coolant should normally not be reused. Always dispose of used coolant observing all environmental regulations.

Radiator fan

The electric radiator fan is controlled by thermoswitches that switch on and off depending on coolant and engine compartment temperatures.

WARNING

Never touch the radiator fan, it is temperature controlled and can switch on suddenly – even when the ignition is off.

The radiator fan switches on automatically when the coolant reaches a certain temperature and will continue to run until the coolant temperature drops. This may last up to about 10 minutes.

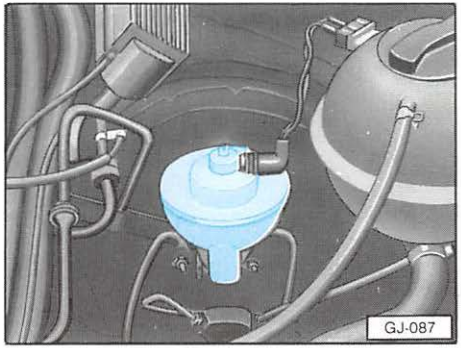
Always heed WARNINGS on page 126.

Transmission fluid

The ATF[1] level is checked in your scheduled maintenance services by your authorized Volkswagen dealer.

[1] **A**utomatic **T**ransmission **F**luid – Specification: ATF Dexron®

Brake fluid



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

Checking fluid level

The correct fluid level is important for the proper functioning of the brake system. The fluid level in the brake fluid reservoir should always be between the "**max**" and "**min**" markings.

The fluid level may drop slightly after some time due to the automatic adjustment of the brake pads. This is no cause for alarm.

If the brake fluid level falls considerably below the "**min**" mark, the brake warning light will come on. Do not continue to operate the vehicle. The complete brake system should be thoroughly checked by an authorized Volkswagen dealer or any other qualified workshop and the cause corrected.

The brake warning lamp lights up to indicate a low fluid level in the reservoir.
See page 71 for more details.

Contact an authorized Volkswagen dealer immediately.

WARNING

■ If the brake fluid becomes too old and the brakes are under constant and extreme use, a vapor lock may result and impair the effectiveness of the brake as well as vehicle safety.

■ Use only DOT 4 brake fluid that meets SAE specification J 1703 and conforms to Federal Motor Vehicle Standard 116.
The brake fluid must be new.

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

■ Brake fluid is poisonous. Therefore, it must only be stored in the closed original container out of the reach of children.

Changing brake fluid

Brake fluid absorbs moisture from the atmosphere. If the water content in the brake fluid is too high, corrosion in the brake system may result after a period of time. The boiling point of the brake fluid will also decrease considerably.

Therefore, the brake fluid must be changed every 2 years.

Remember also that brake fluid is harmful to the paint of your vehicle.

Because of the problem of proper disposal of brake fluid along with the special tools required and the necessary expertise, we recommend that you have your brake fluid changed by your authorized Volkswagen dealer.

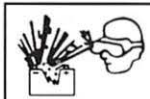
It is advisable to have the fluid changed during a Maintenance Service.

Always heed WARNINGS on page 126.

Battery

The battery is located under the front hood and is protected by a cover – see page 126.

WARNING
Always heed the following warnings and safety precautions when working on the battery.



Shield eyes. Explosive gases can cause blindness or injury.



No
– sparks
– flames
– smoking.



Flush eyes immediately with water.
Get medical help fast.



Sulfuric acid.
Can cause blindness or severe burns.



Always wear eye protection. Do not let battery acid or any lead particles get on your skin or clothing.



Battery acid contains sulfuric acid. Always wear gloves and eye protection. Do not tilt the battery because acid could leak out of the ventilation openings. If you get battery acid in your eyes or on your skin, immediately rinse with cold water for several minutes and call a doctor. If you should ingest any battery acid, get a doctor immediately.



Always keep the battery well out of the reach of children.



When a battery is charged, it produces hydrogen gas which is explosive and could cause personal injury.



Do not expose the battery to an open flame, electric sparks or an open light. Do not smoke. Do not reverse polarity.

- Before work is done on the electrical system, disconnect the negative ground cable.
- When working on the battery, be sure not to short circuit the terminals with tools or other metal objects. This would cause the battery to heat up very quickly, which could lead to damage or explosion and personal injury.

Always heed WARNINGS on page 126.

Battery acid level

Under normal operating conditions, the battery in your Volkswagen is maintenance-free.

At high outside temperatures it is advisable, however, to check the fluid level at regular intervals through the transparent battery housing. The fluid level should always be between the "**min**" and "**max**" marks in each cell.

If the fluid level is below the "**min**" marks, let your authorized Volkswagen dealer correct the condition.

WARNING

■ Always shield your eyes and avoid leaning over the battery whenever possible.

■ Do not let battery acid come in contact with skin, eyes, fabric, or painted surfaces.

Always heed WARNINGS on page 126.

■ If you get battery acid in your eyes or on your skin, immediately rinse with cold water for several minutes and call a doctor.

■ Do not expose the battery to an open flame or electric spark. Hydrogen gas generated by the battery can explode and cause personal injury.

Winter operation

During the winter months, battery capacity tends to decrease as temperatures drop. More power is also consumed while starting, and the headlights, blower fan, rear window defogger, etc., are used more frequently. Avoid unnecessary power consumption, particularly in city traffic or when traveling only short distances. Let your authorized Volkswagen dealer test the battery's capacity before winter sets in. A well charged battery will not only prevent starting problems but will also last longer.

If your vehicle is left standing for several weeks at extremely low temperatures, the battery should be removed and stored where it will not freeze. This will prevent it from being damaged.

When removing the battery, first disconnect both cables (see "Charging of battery"), then unscrew the battery mounting.

Charging of battery

WARNING

■ The battery contains sulfuric acid. Therefore, keep battery out of reach of children.

■ Charge battery in a well ventilated area. Keep away from open flame or electrical spark. Do not smoke. Hydrogen gas generated by the battery is explosive.

■ Always shield your eyes and avoid leaning over the battery whenever possible.

■ If you get battery acid in your eyes or on your skin, immediately rinse with cold water for several minutes and call a doctor.

■ Never charge a frozen battery. It may explode because of gas trapped in the ice. Allow a frozen battery to thaw out first.

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

■ Battery acid that may spill during charging should be washed off with a solution of warm water and baking soda to neutralize the acid.

■ Never use a fast charger as a booster to start the engine. This will seriously damage sensitive electronic components, such as glow plugs*, control units, relays, radio, etc., as well as the battery charger.

Slow battery charging

WARNING

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

■ It is not necessary to remove the battery from the engine compartment, and it is also not necessary to disconnect the cables.

■ Make sure the electrolyte level in each cell is between the "**min**" and "**max**" marks. If the fluid level is below the "min" mark, let your authorized Volkswagen dealer correct the condition.

■ Connect charger cables.

Charger cables must be connected POSITIVE (+) to POSITIVE (+) and NEGATIVE (–) to NEGATIVE (–).

Do not connect or disconnect charger cables while charger is operating to reduce the danger of explosion.

■ Switch on charger.

■ **Charging rate not over 6 amps.**

Normally, a battery should be charged at no more than 10 percent of its rated capacity

For example, a charging current of 4.5 amps. would be used on a battery rated at 45 Ah. Rated capacity of the battery in your vehicle is listed on the battery housing.

■ After charging, turn off charger and disconnect charger cables.

Replacing battery

A replacement battery must have the same specifications and dimensions as the original equipment battery. Specifications are listed on the battery housing. Make sure the replacement battery is installed correctly and securely.

Because of the problem of proper disposal of a battery, we recommend that you have your authorized Volkswagen dealer change the battery for you. Batteries contain sulfuric acid and lead and must always be disposed of properly observing all environmental regulations.

Always heed WARNINGS on page 126.

Spark plugs

Spark plugs are replaced during the Volkswagen scheduled Maintenance service.

If you replace the spark plugs between the Volkswagen Maintenance services, the following should be noted:

■ Engine, spark plugs and the ignition system are matched. To avoid faulty operation or engine damage, use only Original Volkswagen spark plugs. It is especially important to note the number of electrodes and heat value.

■ Since spark plug specifications may change for technical reasons during a current model year, we recommend that you obtain your spark plugs from an authorized Volkswagen dealer who has the latest information.

Always heed WARNINGS on page 126.

V-belt

■ The V-belts are among the most severely stressed parts of a vehicle. The belts therefore have very high quality requirements.

When replacing a belt, it is not sufficient to use just any belt of the same size. For safe operation, use only Genuine Volkswagen V-belts specially designed for your vehicle. The correct belts can be obtained at your authorized Volkswagen dealer.

WARNING

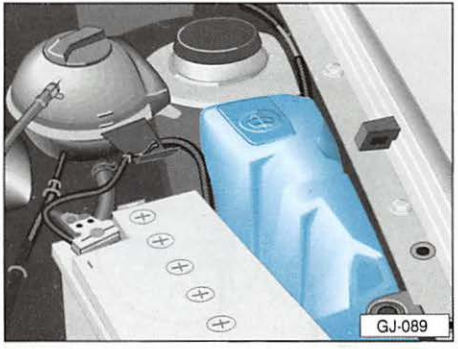
■ To prevent serious personal injury stay well clear of the V-belt when the engine is running. If you must check V-belt tension, turn the engine off and let it cool down. Hot components can burn skin on contact.

■ Never touch the radiator fan. It is temperature controlled and can switch on suddenly – even when the ignition is off.

■ Tensioning and replacing of V-belts should be performed by your authorized Volkswagen dealer or a qualified workshop.

■ Some engine types are equipped with long lasting **toothed belts** which only need to be inspected and tensioned, if necessary, during a scheduled Maintenance Service.

Windshield washer container



The windshield washer container is located on the left side of the engine compartment. The container holds 4.5 quarts (4.2 liters).

Filling the container

To add washer fluid, just lift the filler cap by the small tongue. The container can be filled to the top.

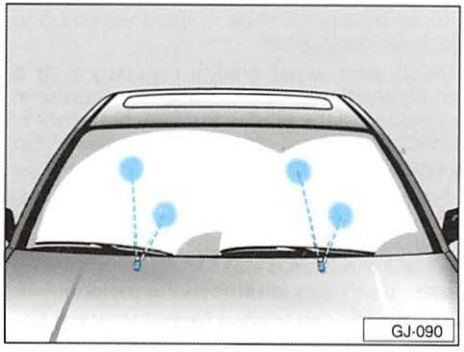
Since clear water is usually not adequate for cleaning the glass, add a cleaning solution to the water.

Use winterized windshield washer solvent during the cold season even though the vehicle is equipped with **heated* washer jets**. It helps to keep your windshield clean and prevents the fluid from freezing in the winter.

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

Follow the directions on the can for the correct amount to be used.

After filling the container, press the cap onto the filler neck.



Adjusting washer jets

When vehicle is stationary, the water should hit the windshield as illustrated.

Adjust the jets with a special equipment. See your authorized Volkswagen dealer.

Always heed WARNINGS on page 126.

Wiper blades

Wiper blades must be in good condition to provide clear vision.

Clean your wiper blades regularly with a windshield washer solution to prevent streaking. If the blades are very dirty, for example with insects, carefully clean the blades with a sponge or a soft brush.

If the wiper blades begin to streak the windshield, this could be caused by residue left on the windshield by automatic car washes. Fill the windshield washer container with a special solution to remove the residue.

Always loosen blades frozen to glass before operating wipers to prevent damage to the wiping system.

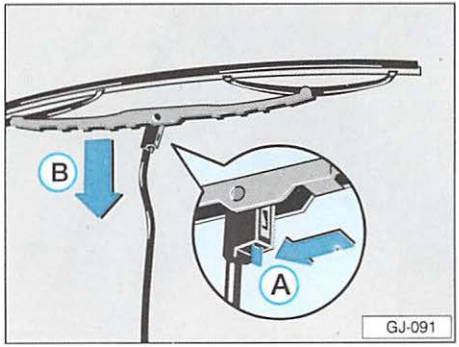
Always inspect the condition of your wiper blades. For safety reasons replace your wiper blades once or twice a year if necessary. See your authorized Volkswagen dealer for replacement blades.

Notes

■ **Commercial hot waxes applied by automatic car washes have been known to affect the cleanability of the windshield.**

■ **To prevent damage to wiper blades, do not use gasoline, kerosene, paint thinner, or other solvents on or near the wiper blades.**

■ **To prevent damage to the wiper arms or other components, do not attempt to move the wipers manually.**



Replacing wiper blades

■ Raise the wiper arm and hold wiper blade horizontally.

■ Depress locking spring (**A**) and remove blade by pulling it towards the windshield (**B**).

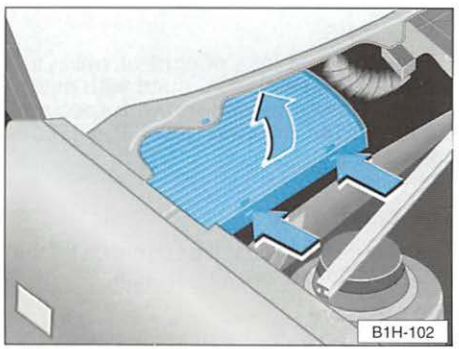
Installing new wiper blades

■ The locking spring must click into place on the wiper arm.

When installing wiper blades with molded wind deflectors, always make sure the deflector points down.

Always heed WARNINGS on page 126.

Dust and pollen filter*



The dust and pollen filter for the heating and ventilation system can be found under the two-piece cover on the right side in the plenum chamber.

The filter should be changed according to the details given in the Maintenance booklet. If the air flow reduces considerably, the filter should be changed earlier:

- Turn cover securing knob by 45 degrees and pull the cover off the engine bulkhead.
- Push back element spring clips and remove the filter.

Always heed WARNINGS on page 126.

Tires / Wheels

Tires are important but often abused parts of a vehicle, they not only influence comfort and ride, but perform vital safety functions. This section is intended to provide you with important information regarding their proper use, care and replacement.

■ Be sure to inspect your tires at least every 2,000 miles (3 000 kilometers) for wear and damage.

■ Damage to wheels and tires is not always easy to see. If you believe that a tire or wheel has been damaged, it is wiser to have it replaced as soon as possible. Internal tire damage can also lead to tire failure. See your authorized Volkswagen dealer for advice and assistance.

■ Mark tires before removing them. Remount tires on the same vehicle side because the rotation direction must stay the same.

■ Store removed tires in a cool, dry and preferably dark place. Tires which are not on wheels should be stored standing up.

■ New tires may have different tread depths due to the configuration and design by the tire manufacturers.

WARNING

■ Tires age even if they are not being used. Tires which are more than 6 years should only be used in an emergency and then with caution.

■ Avoid damaging tires and wheel rims. If you must drive over a curb or other obstacle, drive slowly and as nearly as possible at a right angle. Frequently check tires for uneven wear and damage.

■ Remove embedded material.

■ Replace worn or damaged tires immediately.

■ Replace missing valve dust caps.

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

■ Keep tires inflated correctly.

New tires

New tires tend to be slippery and cannot offer full traction until they have been properly broken in.

WARNING

To help avoid loss of control, always operate a vehicle equipped with new tires at lower speeds and with special caution for the first 100 miles (160 kilometers).

Tire service life

The service life of your tires depends for the most part on the following factors:

Tire pressure

Required **cold** tire inflation pressures are listed on a sticker on the inside of the fuel tank flap or on the driver's door lock jamb.

WARNING

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

■ Incorrect tire pressures can also lead to sudden deflation, resulting in an accident and personal injury.

Low tire pressures increase fuel consumption which is detrimental to the environment.

Tire pressures should be checked at least once a month and always before a long trip.

Tire pressures are very important, particularly when the vehicle is driven at higher speeds.

Always check tire pressures when the tires are cold. When the tires are warm, the pressure will be higher. **Do not reduce the pressure of warm tires.**

Do not forget to check the spare wheel. The inflation pressure is marked on the tire sidewall.

Use an accurate tire pressure gauge when checking inflation pressures. Do not exceed the maximum tire inflation pressure listed on the tire sidewall. Cold tire inflation pressure means: when a vehicle has been standing for at least 3 hours or driven for less than 1 mile (km).

Do not forget to replace the valve stem caps after checking tire pressure.

Driving habits

Fast cornering, heavy acceleration and hard braking all increase tire wear.

Wheel balancing

The wheels on new vehicles are balanced. When driving, however, various conditions can cause a wheel to become unbalanced. This may be noticed as vibrations in the steering.

Since tire imbalance can cause wear on the steering, suspension and tires, you should have your wheels rebalanced. A wheel should always be balanced if a new tire has been mounted or a tire was repaired.

Incorrect wheel alignment

Incorrect wheel alignment causes excessive and uneven tire wear, impairing the safety of the vehicle. If you notice excessive tire wear, contact your authorized Volkswagen dealer.



Tire wear

The original tires on your vehicle have built-in wear indicators. They are molded into the bottom of the tread grooves and will appear as approximately $^{1}/_{2}$ inch (12 mm) bands when the tire tread depth wears down to $^{1}/_{16}$ inches (1.6 mm). Depending on the tire manufacturer, there are six to eight wear indicators evenly spaced around the circumference of the tire. Markings on the sides of the tires (e.g. the letters "TWI" or a triangle) show the locations of the wear indicators.

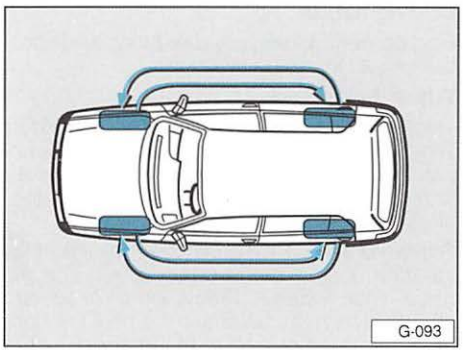
Always heed WARNINGS on next page.

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.

WARNING

■ Do not drive with worn tires or tires showing cuts, bruises or other damage because they may lead to sudden deflation causing loss of vehicle control and personal injury.

■ Since worn tires do not grip the road surface properly when the vehicle is driven on wet roads, the vehicle may tend to hydroplane sooner.



Tire rotation

If the front tires are worn more than rear tires, then you must rotate the front tires with the rear tires as shown in the illustration. By doing this, all tires will have approximately the same service life.

Tires should always remain on same side of vehicle.

Only when tires show unusual wear such as feather edging should they be rotated diagonally. Your vehicle may be equipped with tires which have a specified rotation direction. The rotation direction is identified by arrow markings on the sides of the tires. The rotation direction must not be reversed. Therefore, these tires cannot be switched diagonally. If in doubt, discuss any unusual tire wear with your authorized Volkswagen dealer's service department.

After rotation adjust tire pressure and torque wheel bolts diagonally to 80 ft lb (110 Nm). Refer to "Changing a wheel" on page 159 for details.

Wheel and tire replacement

Wheels and tires approved by the manufacturer have been specially matched to your vehicle and contribute largely to the road-holding and driving characteristics of the vehicle.

■ If the spare tire is different from the tires that you have mounted on your vehicle (for example winter tires or wide profile tires), then use the spare tire for a short period of time only and drive with extra care. Replace the flat tire with a regular tire as soon as possible.

■ Fitting and repairing tires requires expert knowlegde and special tools. This work should only be performed by a specialist.

■ We recommend that you have your tires changed by an authorized Volkswagen dealer, because they have the special tools and necessary expertise.

Furthermore, your authorized Volkswagen dealer stocks a range of tires and wheels.

- For safety reasons, tires should be replaced in pairs and not individually. The tires with the deepest tread should always be mounted on the front wheels.
- Never mount used tires if you are not sure of their previous history.
- Whenever replacing a tubeless tire, always install a new valve stem. Tire repair should only be performed by a specialist.
- In the interest of maximum safety and best all-around vehicle handling, always buy replacement radial tires that have the same specifications with regard to tire size, design, load carrying capacity, speed rating, tread pattern, tread depth, etc. This also applies to Volkswagen recommended alternate replacement tires.

Make sure that the new tires also meet the specifications listed on the label located on the inside of the fuel tank flap or on the driver's door lock jamb (right rear door well on the four door model).

Tire specifications

WARNING

Never mix tires of different design such as steel belted radials with radial bias belted or bias ply tires etc. Mixing tire types will adversely affect road holding and can lead to loss of vehicle control and personal injury.

A knowledge of tire designations makes it easier to choose the correct tires. Radial ply tires have the following designations:

e.g. **195 / 60 R 14 86 V**		
195	=	Tire width in mm
60	=	Height/width ratio in %
R	=	Tire construction: **R**adial
14	=	Rim diameter in inches
86	=	Load rating code
V	=	Speed rating code letter

The speed rating letter code indicates the maximum permissible road speeds:

Summer tires:

S – up to 110 mph (180 km/h)
T – up to 118 mph (190 km/h)
H – up to 130 mph (210 km/h)
V – up to 150 mph (240 km/h)
Z – over 150 mph (240 km/h).

"Z" tires carry the speed rating code letter in combination with the tire construction letter "R".

Winter tires see page 152.

Always heed WARNINGS on next page.

WARNING

■ Never operate a vehicle at speeds greater than the maximum speed rating of the tires with which it is equipped.

■ Exceeding the maximum speed for which tires are rated and approved will lead to sudden tire failure which can cause loss of vehicle control and personal injury.

■ Always observe speed limits and adjust your vehicle to prevailing road and traffic conditions.

The manufacturing date is also to be seen on the tire wall (possibly only on the inside of the wheel):

DOT ... **125** ... means that the tire was produced in the **12**th week of 199**5**.

Tire strength and performance decline with age – even if they are not used.

Tire manufacturers caution that a tire which is more than six years old cannot be expected to perform reliably in normal use.

WARNING

Old tires can fail in use, causing loss of vehicle control and personal injury.

Replace tires after six years regardless of tread wear. Always reduce speed and drive cautiously if you must use an old tire in an emergency. Replace the tire as soon as possible.

Tread wear

The tread wear grade is a comparative rating based on the wear rate of the tire when tested on a government test course. For example, a tire graded 150 would wear one and a half ($1^1/_2$) times as well as a tire graded 100. The relative performance of tires depends on actual conditions of use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

Traction A, B, C

The traction grades, from highest to lowest, are A, B and C and represent the tire's ability to stop on wet pavement as measured on government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

The traction grade is based on braking (straight ahead) traction tests and does not include cornering (turning) traction.

Temperature A, B, C

The temperature grades A (the highest), B and C, represent the tire's resistance to the generation of heat. Sustained high temperatures can reduce tire life, and lead to sudden tire failure. Grade C corresponds to a performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels than the minimum required by law.

Always heed WARNINGS on next page.

WARNING

The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup, possible tire failure, loss of control and personal injury.

If you wish to equip your vehicle with tires or wheels other than those installed at the factory, please note the following:

■ **For technical reasons it is not always possible to use wheels from other vehicles - under certain conditions not even wheels from the same vehicle model.**

■ **When installing different wheels (for example, wheels with winter tires), the correct wheel bolts with the proper length and conical shape must be used. The secure fit of the wheels and the proper functioning of the brake system are dependent upon this.**

■ **Wheel rims and wheel bolts are matched to fit your Volkswagen.**

■ **Before you plan on exchanging steel wheels, light alloy wheels, or winter tires already mounted on wheel rims, consult your authorized Volkswagen dealer. They have the technical information necessary to advise you which wheel rims and wheel bolts are compatible with the original factory installations.**

WARNING

■ **The use of tires, wheel rims and wheel bolts that do not meet specifications of the original factory installed equipment will adversely affect the safe operation of your vehicle and may cause an accident and personal injury.**

■ **If wheel trim discs or a front spoiler are installed, make sure the airflow for cooling the brakes is not obstructed.**

Winter tires

The tires for your vehicle were selected for optimal performance under normal driving conditions.

For winter driving, the driveability of your vehicle can be improved by installing all season tires or radial winter tires (M+S) with or without studs[1)].

All season tires are performance tires advertised by the tire manufacturer as suitable for all weather use or with special mud and snow (M+S) capability.

Winter tires, sometimes also called snow tires, are designed for maximum traction in mud and snow.

If your Volkswagen is equipped with high performance tires (identified by code letter H or V on the tire flank) and you drive frequently on ice or snow, you should consider the installation of all season or winter tires. Let your authorized Volkswagen dealer advise and assist you.

Always heed WARNINGS on next page.

1) Check with your local Motor Vehicle Bureau for possible restrictions.

When installing winter tires, please note the following:

- Only radial ply winter tires may be installed. Ask your authorized Volkswagen dealer for the recommended tire size.
- Winter tires **must** be mounted on all four wheels.
- Because of the special design characteristics of radial ply M+S tires, they must be inflated 3 psi above the cold tire inflation pressures required for the regular radial ply tires. However, do not exceed the maximum tire inflation pressure listed on the tire sidewall.
- Winter tires do not fulfill their purpose if the tread depth is less than $^{5}/_{32}$ of an inch (4 mm).

WARNING

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

■ Never mix tires of different design such as steel belted radials with radial bias belted or bias ply tires, etc. Mixing tire types will adversely affect road holding and can lead to loss of vehicle control and personal injury.

■ Winter tires with studs should be run at moderate speeds when new in order to give the studs time to settle.

Do not drive a vehicle equipped with winter tires at prolonged high speed.

Winter tires use a softer rubber compound and a deeper tread pattern and therefore have a lower speed rating and reduced traction and durability when used on dry roads.

■ Winter tires should have the same load capacity as original equipment tires.

■ When winter tires or all season tires are mounted, make sure you observe the speed limitations for which the tire is rated. The following speed rating code letters are applicable:

Q – up to 100 mph (160 km/h)

T – up to 118 mph (190km/h)

H – up to 130 mph (210 km/h).

WARNING

■ Winter tires available for your vehicle may have a maximum speed rating which is less than the maximum speed of your vehicle.

■ Exceeding the maximum speed for which tires are rated and approved will lead to sudden tire failure which can cause loss of vehicle control and personal injury.

■ Never operate a vehicle at speeds greater than the maximum speed rating of the tires with which the vehicle is equipped. Always observe speed limits and adjust your vehicle to prevailing road and traffic conditions.

Snow chains

Snow chains can be used on the front wheels only.

Only use chains with fine pitch links protruding no more than 1/2 inch (15 mm) from tire tread and side walls, including tensioner. Wheels must rotate freely in all steering positions with chains mounted to prevent damage to body, axle or brake components. **Drive slowly and follow the chain manufacturer's instructions.**

Snow chains may not be used on the compact spare wheel. See page 158 for details.

Remove chains when roads are free of snow. Otherwise, they can be damaged and impair vehicle handling.

Difficult operating conditions

Driving under difficult conditions

The vehicle construction and equipment is designed for normal operating conditions. This also applies to the frequency and the extent of service requirements as stated in the Maintenance brochure.

If you are planning to drive your vehicle under difficult operating conditions (for example, continuous trailer towing, very hot or cold weather, very dusty conditions, poor fuel quality, etc.) you may want to make special preparations such as changing to an appropriate oil viscosity, having your vehicle thoroughly inspected, etc. Furthermore, the maintenance should be matched to the operating conditions (see page 122).

Additional accessories, Modifications and Parts replacement

Your vehicle incorporates the latest safety design features ensuring a high standard of active and passive safety. This safety could be impaired by any non-approved changes to the original new-vehicle condition. For this reason, please observe the following points when installing additional accessories if parts have to be replaced or if any modifications are made to the vehicle:

■ **Always consult** an authorized Volkswagen dealer **before** purchasing accessories and **before** any modifications are carried out.

■ **In your own interest, we advise you to use only expressly approved Volkswagen accessories and genuine Volkswagen spare parts.**

These parts and accessories have been specially designed to be used on your vehicle.

■ Approved Volkswagen accessories and genuine Volkswagen parts are available from authorized Volkswagen dealers. These dealers also have the necessary facilities to install the parts properly.

Mobile telephones and CB radios

Mobile telephones or CB radios should not be used in the vehicle unless a separate outside antenna is installed.

If you use a mobile telephone or CB radio inside the vehicle without an outside antenna, the high frequency energy (resonance effect) emitted inside the vehicle can cause malfunctions in the vehicle's electronic system.

WARNING

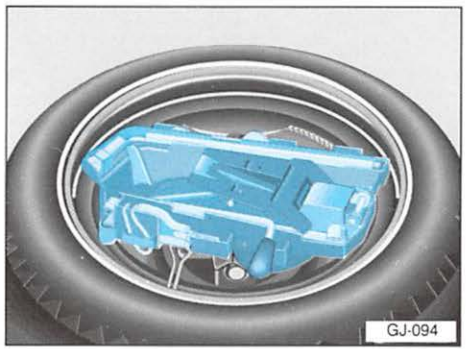
Using a mobile telephone or CB radio inside the vehicle without having a separate outside antenna could be dangerous to your health due to the high frequency energy emitted!

Moreover the unit only achieves maximum pick-up if an outside antenna is installed.

Note

Always heed the instructions of mobile telephones and CB radios.

Jack and tools



Your vehicle comes equipped with the following tools:

- Lug wrench
- Vehicle jack
  Before you put the jack back into the tool box, make sure it is completely rewound.
- Screwdriver with a hexagonal opening in the handle for removing wheel bolts. The screwdriver has a reversible blade (flat blade on one end and Phillips head on the other) and is inserted in the lug wrench.
- Hub cap puller clip*
- Tool* for removing wheel cap bolts.
- Open ended wrench 10 x 13

Note

The tool for removing and installing the spark plug connectors is mounted to the engine hood support (only 6-cyl. engine).

WARNING

■ Always make sure the jack, the tools, the spare tire and even a flat tire are secured in place and not loose, otherwise they could fly forward causing personal injury to passengers in the vehicle in an accident.

■ Use the jack only for changing a wheel. Never use the jack to lift other vehicles or other loads as this may lead to accidents and personal injury.

■ The jack must never be used as a support to work underneath the vehicle. If the jack is accidentally dislodged, you could be seriously injured.

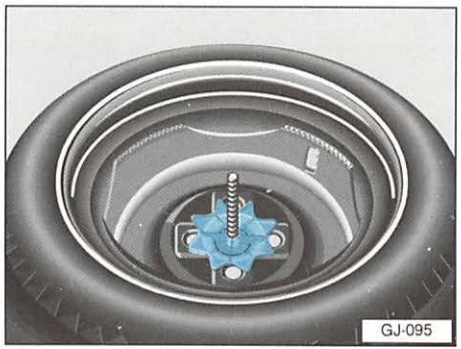
■ Do not raise the vehicle using a bumper jack. The bumper system would be damaged. Also, the jack may slip which could cause personal injury.

■ Do not support your vehicle on cinder blocks, bricks or other props. These may crumble under continuous load.

■ Do not start or run the engine while the vehicle is supported by the jack.

■ If you must work under the vehicle, always use safety stands specifically designed for this purpose.

Compact spare wheel



The spare tire is a compact tire and is secured to the recess in the luggage compartment with a plastic nut.

WARNING

Always tighten nut for the spare wheel or flat tire securely. Under no circumstances should you store the spare wheel, flat tire or jack and tools unsecured in the luggage compartment. This could cause serious personal injury to passengers in the vehicle in case of a collision.

Check the inflation pressure of the compact spare tire (60 psi/4.2 bar) periodically to keep the tire ready for use.

When using the compact spare wheel, note the following:

- **After installing the compact spare wheel, the tire inflation pressure should be checked and, if necessary, increased to 60 psi (4.2 bar).**
- **The load carrying capacity is marked on the tire sidewalls and must not be exceeded.**
- **Because this tire is smaller than the standard tire, vehicle ground clearance is reduced by about $1^{1}/_{4}$ inches (30 mm). Avoid driving over obstacles. To avoid damage, do not take your vehicle through an automatic car wash when the compact spare is installed.**
- **After installing the compact spare wheel, make sure that you remount the flat tire in its storage area properly and tighten the nut securely. See illustration.**
- **The compact spare tire should be properly remounted in its storage area as soon as the standard road tire can be repaired or replaced.**
- **Because the compact spare tire was specifically designed for your vehicle, it must not be used on any other vehicle. Likewise, compact spare wheels from other vehicles must not be used on your vehicle.**
- **The compact spare tire must not be mounted on any other wheels, nor must standard tires, snow tires, wheel covers or trim rings be used with the compact spare wheel. If such use is attempted, damage to these items or other vehicle components may occur.**

WARNING

■ The compact spare tire is for temporary use only and is so marked on the sidewalls.

■ Do not drive at speeds exceeding 50 mph (80 km/h) with the compact spare wheel mounted. Also rapid acceleration, hard braking and hard cornering must be avoided to help prevent loss of vehicle control!

■ Any continuous road use of the compact spare tire may result in tire failure, loss of vehicle control and injury to vehicle occupants.

■ Do not put a snow chain on your compact spare tire. Due to the smaller tire size, the chain will not fit properly and can thus damage your vehicle. You could also lose the chain, as well as control of the vehicle.

In the event of a flat front tire in road conditions which require snow chains, remove the undamaged rear road wheel on the same side first and mount the compact spare wheel there. Then remove the damaged front wheel, take off the snow chains and attach them to the rear road wheel prior to mounting on the front. Check and adjust tire pressure promptly.

■ Never use two or more compact spare tires at the same time.

Changing a wheel

WARNING

■ If you have a flat tire, move a safe distance off the road. Turn off the engine, turn the emergency flasher on and use other warning devices to alert other motorists.

■ Passengers must not remain in the vehicle when it is jacked up.

■ Make sure that passengers wait in a safe place away from the vehicle and well away from the roadway and traffic.

■ Before you change a wheel, be sure the ground is level and firm. If necessary, use a board under the jack.

■ After installing the spare wheel, make sure that you remount the flat tire in its storage area properly and tighten the nut securely.

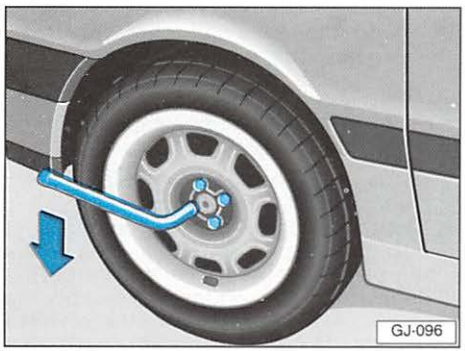
■ To help prevent the vehicle from moving suddenly and possibly slipping off the jack, always fully set the parking brake and block the wheel diagonally opposite the wheel being changed. When one front wheel is lifted off the ground, placing the Automatic transmission in P (Park), or engaging a gear in a Manual transmission will not prevent vehicle movement.

■ Remove the tools and spare wheel from the luggage compartment.

– Remove the wheel cover:

– Remove the wheel bolt caps using the hub cap puller clip.

– Remove the center cover using the lug wrench and the hub cap puller clip. Depending on the style of your hub cap, insert the clip into the holes either on the rim of the cover or in the rim. Then put the lug wrench through the clip and pry the cover off. Some of the alloy wheels have covers which you can pry off using the flat blade screwdriver.

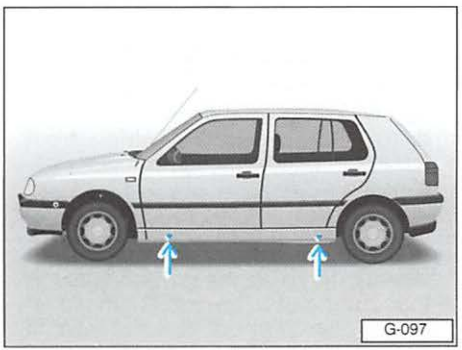


■ Mount the lug wrench over the wheel bolt all the way and turn to the left – see illustration. When doing this, hold the lug wrench at the end.

If the wheel bolts do not come loose, you can push the end of the lug wrench, if necessary, using your foot. Make sure you are standing firmly on the ground and hold on to the vehicle for support.

Loosen all wheel bolts about one turn.

Do not yet remove the bolts.



■ Position the vehicle jack under the vehicle:

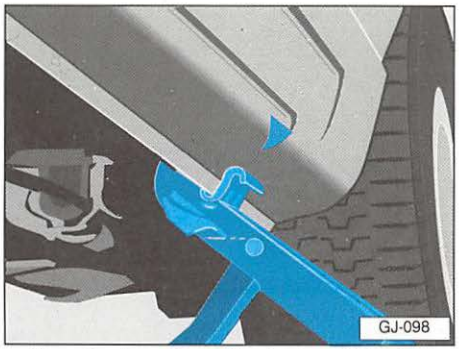
– There are two impressions at the front and back under the body to show you where to position the jack – see arrows in the illustration.

The front impression is located approximately 6 inches (15 cm) behind the front wheel house. The rear impression is located approximately 11 inches (27 cm) in front of the rear wheel house.

WARNING

■ Jacking at any other place may damage the vehicle or may result in personal injuries.

■ An unstable surface under the jack may cause the vehicle to slip off the jack. Always provide a firm base for the jack on the ground. If necessary, use a board under the jack.



– Turn the handle on the jack until the jack claw is just underneath the vehicle.

– The jack claw must cradle the vertical rib underneath the vehicle so that it cannot slip when the vehicle is lifted – see illustration above.

– Place a board under the jack if you are parked on soft ground.

WARNING

■ Do not raise the vehicle until you are sure the jack is securely engaged.

■ Passengers must not remain in the vehicle when it is jacked up.

■ Make sure that passengers wait in a safe place away from the vehicle and well away from the roadway and traffic.

– Adjust the jack and then continue to raise the jack.

■ **To raise** the vehicle, turn the handle clockwise. Only raise the vehicle as much as is needed to change a wheel.

■ Remove the wheel bolts using the handle of the screwdriver from the vehicle tools which has a hexagon shaped opening on the end. Place them on a clean surface (for example inside the hub cap, or on a piece of toweling) next to the jack and remove the wheel.

■ Mount the spare tire and remount the wheel bolts lightly using the screwdriver handle. The wheel bolts must be clean and easy to turn – **never lubricate or oil the wheel bolts!**

■ **Lower** the vehicle. Then go crosswise from one bolt to another tightening them firmly.

■ Place the flat tire in the spare tire well and secure it with the plastic nut.

Notes

■ Please read the information on pages 148 and 157 if you are going to be using the compact spare wheel or a spare tire which is different from the tires on your vehicle.

■ **After you change a tire:**

– Check the tire air pressure immediately.

– Have the wheel bolt tightening torque checked with a torque wrench as soon as possible by your authorized Volkswagen dealer or qualified service station. On steel and alloy wheel rims, the correctly tightened bolts should have a torque of 80 ft lb (110 Nm).

If you notice while changing a tire that the wheel bolts are corroded and difficult to turn, then they should be replaced before you check the tightening torque.

Until then, drive with extra care and at reduced speeds.

■ Have the flat tire repaired as quickly as possible and remounted on your vehicle. Remount the wheel cover.

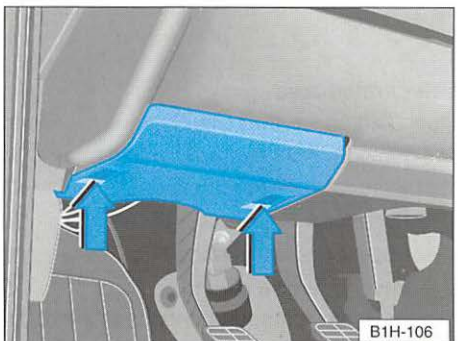
WARNING

■ If you are going to equip your vehicle with tires or rims which differ from those which were factory installed, then be sure to read the information on page 148.

■ Always store damaged wheel, wheel cover*, jack and tools securely in luggage compartment.

Remember that the compact spare wheel is for temporary use only!

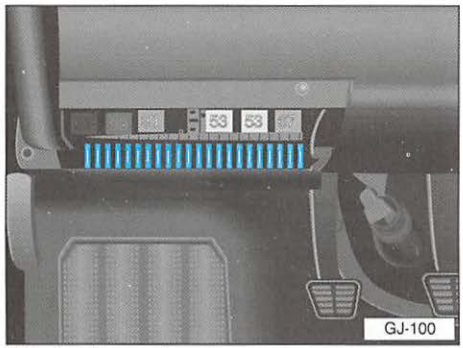
Fuses



A problem in the electrical system may be caused by a blown fuse.

Fuses are arranged in one centralized unit. The unit is located on the left side below the dashboard, just behind the storage bin.

It is a good idea to keep a supply of spare fuses on hand. They are available at your Volkswagen dealer.



Replacing a fuse

■ **To avoid damaging the electrical system, turn off all lights and accessories and remove the ignition key before replacing a fuse.**

■ Swing lid down.

■ Using the fuse table (see next page), determine which fuse to replace.

■ Some of the equipment listed is found on certain models only or may be options.

■ Replace the blown fuse.

■ Replace the blown fuse with a fuse of the **same** amperage. You can recognize the blown fuse by the burnt metal strip.

WARNING

Do not use a fuse with a higher amperage. This could damage the electrical part and fire could result.

Notes

■ **If a fuse blows repeatedly, do not keep on replacing it. The cause of the short circuit or overload must be found. On no account should fuses be patched up with tin foil or wire as this may cause serious damage elsewhere in the electrical circuit or cause fire.**

■ Reinstall the cover by swinging it upward until it latches into place.

Fuse arrangement
from left to right:

No.		Amp
1 -	Low beam, left	10
2 -	Low beam, right	10
3 -	License plate lights	10
4 -	Open	
5 -	Windshield wiper and washer	15
6 -	Fresh air fan	20
7 -	Tail and side marker, right	10
8 -	Tail and side marker, left	10
9 -	Rear window defroster and mirror heating	20
10 -	Fog lights	15
11 -	High beam, left	10
12 -	High beam, right	10

No.		Amp
13 -	Horn	10
14 -	Back-up lights	15
15 -	Engine electronics	10
16 -	Power sunroof, front map/ reading light	15
17 -	Emergency flashers	10
18 -	Fuel pump	20
19 -	Radiator fan, A/C	30
20 -	Brake lights	10
21 -	Dome and luggage compartment lights, cigarette lighter, clock	15
22 -	Radio, cigarette lighter, luggage compartment release	10

Separate fuses

(located above the relays)	Amp
– Fuse for ABS hydraulic pump relay	30
– Fuse for ABS main relay	30
– Fuse for A/C	30
– Fuse for power windows	20
– Fuse for cruise control	5

In the engine compartment above the brake booster:

– Glow plugs[1)]	50

Color codes:

light brown: ..... 5 ampere
red: ..... 10 ampere
blue: ..... 15 ampere
yellow: ..... 20 ampere
green: ..... 30 ampere

[1)] This fuse should be changed by your authorized Volkswagen dealer only.

Replacing bulbs

Before replacing a bulb, switch off the respective circuit.

Do not touch the glass part of the new bulb with bare fingers. Fingerprints left on the glass evaporate when the bulb gets hot, the vapor settles on the reflector surface and dulls it.

Always use the same type of bulb. The designation is marked on the bulb.

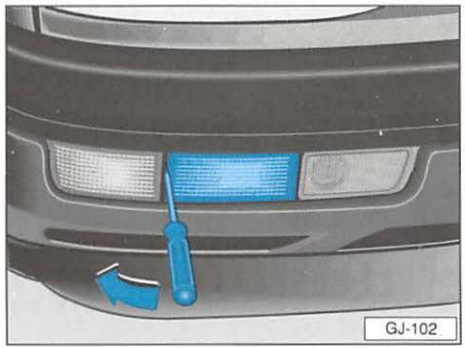
It is advisable to always carry a box of spare bulbs in the vehicle. Bulbs can be obtained from any Volkswagen dealer.

The box should contain, at least, the following bulbs which are important for traffic safety:

12 V 60 W (HB4) 12 V 60 W (HB4)	Dual headlights: Low beam High beam
12 V 21 W	Brake light bulb
12 V 2.1 W/1.5 cp	Center stop light:
12 V 21 W	Rear turn signal light
12 V 21/5 W	Front turn signal / front marker light
12 V 10 W	Taillight bulb
1.2 V 5 W	Licence plate bulb
12 V 5 W	Side marker lights

Dual headlights

The light bulbs for the dual headlights should be replaced by your authorized Volkswagen dealer or a qualified workshop because removing and installing the bulb requires special knowledge and tools.



Front turn signal / Front marker lights

■ Using the flat blade screwdriver, pry off the lens on the end facing towards the center of the vehicle and remove.

Always heed WARNINGS on page 126.

- Push in locking tab and pull turn signal housing from bumper.
- Disconnect connector and remove turn signal housing.
- Twist the bulb holder to the left and remove.
- Press the burned-out bulb in the socket, turn it to the left and remove.
- Install the new bulb and turn it all the way to the right.
- Reinstall the bulb holder and turn to the right all the way.
- Reconnect and install turn signal housing in reverse order of removal.

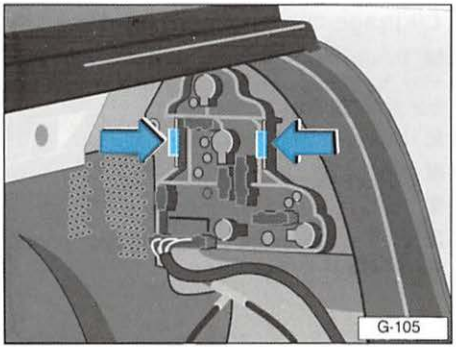
Fog lights*

- Using a screwdriver, carefully pry towing eye (lens) cover from turn signal housing retainer.
- Remove towing eye (lens) cover.
- Remove screws.
- Pull fog light housing from bumper and disconnect connector.
- Twist cover and remove
- Disconnect halogen bulb connector (inside of cover).
- Unclip spring clip and swing out.
- Remove bulb from housing.

Note

Do not touch the glass of halogen bulb with bare fingers. Skin oil will evaporate when bulb gets hot, dulling reflector and/or damaging bulb.

- Insert bulb so that recess in the bulb holder aligns with housing guide lug.
- Install in reverse order of removal.



Rear turn signal, stop/tail light/ back–up light bulbs

- Open rear lid.
- Depress both spring clips on the side of bulb holder and remove.
- Gently press bulb into holder, turn and remove.
- Replace bulb and reinstall holder. The retainers must engage.

License plate light bulbs

- Open rear lid and unscrew lens.
- Pull complete light with wiring connector out slightly.
- Separate bulb holder from lens by carefully lifting out both lugs in the lens glass.
- Remove defective bulb and install new bulb.

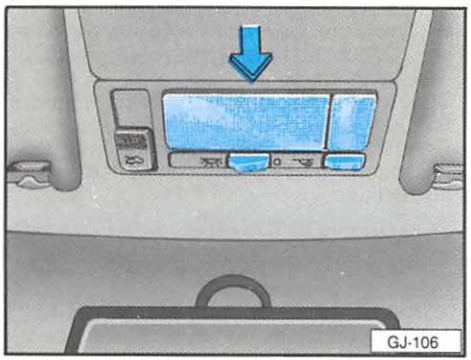
Note

Do not twist bulb when removing from holder.

- Put glass lens and bulb holder together and insert into opening in rear lid. For correct positioning of the light, see the other light. Make sure that the rubber washer is properly seated.
- Do not overwind the screws on lens.
- The licence plate is only properly illuminated if both bulbs light up.

Luggage compartment light*

- Insert the flat blade of the screwdriver into the recess on the side of the light and carefully pry the light out.
- Remove wire connector.
- Replace bulb.
- Install wire connector.
- Reinstall the light, inserting the connector side first.



Interior dome light with reading light*

Interior dome light (A)

- Insert a knife or something similar into the gap between the housing and the lens and carefully pry the lens off.
- Replace bulb.
- Press lens onto housing.

On the front light, the lug on the lens must fit into the recess on the left side of the housing.

Front reading light* (B)

- Carefully insert flat blade of the screwdriver (from vehicle tools) between the headliner and the light housing and pry off making sure not to damage the headliner.
- Turn the white bulb holder on the rear of the housing to the left and remove from holder.
- Remove defective bulb.
- Insert new bulb.
- Reinstall bulb holder into light housing and turn to the right until it stops.
- Press light housing into headliner until it securely fits into place.

Rear reading light*

- Insert a knife or something similar into the gap between the housing and the lens and carefully pry the lens off. Make sure not to damage the headliner.
- Replace bulb.
- Reinstall bulb holder into light housing and turn to the right until it stops.
- Press light housing into headliner until it securely fits into place.

Center stop light in rear window

- Press spring clips on both sides of stop light housing inwards and take housing off.
- Pull defective bulb out and replace.
- Reinstall housing.

Installing / replacing a radio

If you wish to install a radio or replace the factory installed radio*, please note the following:

- The factory installed connectors* are designed for Genuine Volkswagen Radios.

When installing a different radio, difficulties could arise such as:

- the radio may not fit into the space provided
- the electrical connections may not be compatible
- different connector terminals may be needed.

- Therefore, we recommend that you have your authorized Volkswagen dealer install or replace the radio.

They are the most familiar with the technical features of your vehicle. They also offer Genuine Volkswagen Radios with the necessary installation components and instructions.

WARNING

Improperly installing a radio could cause a short circuit.
This could result in an electrical fire.

Emergency starting

Starting by pushing or towing

Vehicles with automatic transmission cannot be started by pushing or towing.

Vehicles with manual transmission must not be started by pushing or towing. Damage to the catalytic converter and/or other parts of the vehicle may result.

Starting with jumper cables

WARNING

■ Always shield your eyes and avoid leaning over the battery whenever possible.

■ Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately.

■ Improper use of a booster battery to start a vehicle may cause an explosion.

■ Vehicle batteries generate explosive gases.
Keep sparks, flame and lighted cigarettes away from batteries.

■ Do not try to jump start any vehicle with a low acid level in the battery.

■ The voltage of the booster battery must also have a 12-volt rating.
The capacity (Ah) of the booster battery should not be lower than that of the discharged battery. Use of batteries of different voltage or substantially different Ah rating may cause an explosion and personal injury.

■ Do not charge a frozen battery; allow it to thaw out first. Gas trapped in the ice may cause an explosion.

■ Applying a higher voltage booster battery will additionally cause expensive damage to sensitive electronic components, such as glow plugs*, control units, relays, radio, etc.

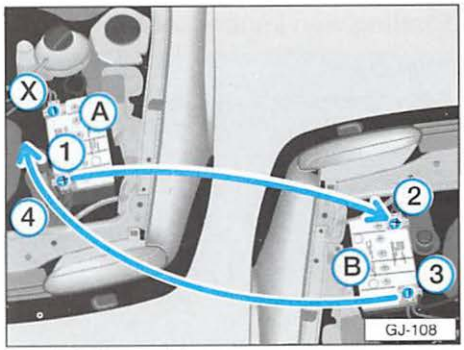
■ Vehicle with discharged battery:
Turn off lights and accessories, move lever of Automatic transmission to **N** (**Neutral**) or **P** (**Park**) or that of Manual transmission to **neutral** and set parking brake.

Always heed WARNINGS on page 126.

Use of jumper cables

WARNING

- **To avoid serious personal injury and damage to the vehicle, heed all warnings and instructions of the jumper cable manufacturer. If in doubt, call for road service.**
- **The jumper cables must be long enough so that the vehicles do not touch.**
- **When connecting jumper cables, make sure that they cannot get caught in any moving parts in the engine compartment.**



A – Discharged battery

B – Booster battery

X – To ground on engine block

Improper hook up of jumper cables can ruin the alternator.

Always connect POSITIVE (+) to POSITIVE (+), and NEGATIVE (–) to ground on engine block (x).

1 - Connect clamp of plus cable to positive (+) terminal (**1**) of discharged battery.

2 - Connect clamp on opposite end of cable to positive (+) terminal (**2**) of booster battery.

3 - Connect clamp of minus cable to negative (–) terminal (**3**) of booster battery.

4 - Connect clamp on opposite end of cable (**4**) to a bare metal part bolted directly to the engine block or to the engine block itself (**x**) of vehicle with discharged battery. Connect clamp as far away from battery as possible!

5 - Start the engine of the vehicle with the booster battery. Run the engine at a moderate speed.

6 - Start engine with discharged battery in the usual manner. If engine fails to start, do not continue to crank but contact nearest workshop.

7 - With engine running, remove jumper cables from both vehicles in exact reverse order: Steps 4 through 1.

Always heed all WARNINGS on page 126.

Emergency towing with commercial tow truck

The following information is to be used by commercial tow truck operators who know how to operate their equipment safely.

Detailed towing instructions can be found in a special towing instruction brochure at your Volkswagen dealer.

General hints

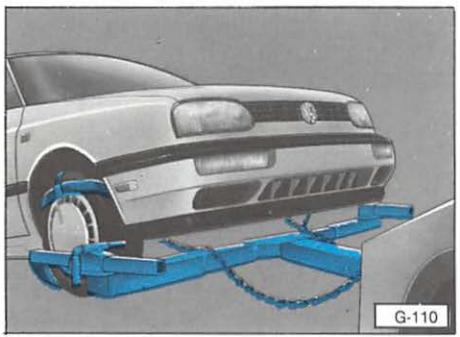
- Whenever possible, tow with front wheels off ground.
- Vehicle may be lifted in rear and moved to position for front hook-up.
- If a vehicle with manual transmission must be towed with the front wheels on the ground, make sure transmission oil has not leaked or been drained.

Note

Your Volkswagen **cannot** be towed with conventional sling-type equipment or non-self-loading wheel dollies. Towing with this type of equipment will cause bumper and body panel damage.

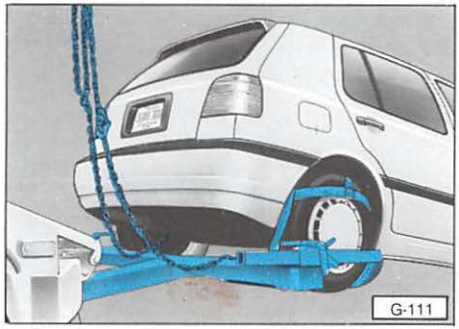
WARNING

Never allow passengers to ride in a towed vehicle for any reason.



Front hook-up

- Attach wheel lift equipment to wheels.
- Attach safety straps to wheels.
- Attach safety chains to lower control arms.
- Towing clearance:
6 – 12 inches (15 – 30 cm) between tires and ground.



Rear hook-up

- Attach wheel lift equipment to wheels.
- Attach safety straps to wheels.
- Attach safety chains to axle beam.
- Towing clearance:
6 – 12 inches (15 – 30 cm) between tires and ground.

Towing speed / distance:

Manual transmission:

50 mph / 50 miles – (80 km/h / 80 km)

Automatic transmission

If the vehicle cannot be towed with wheel lift equipment in combination with self-loading dollies, it must be transported on a flat bed to avoid damage to the transmission due to the lack of lubrication.

Further details see next page.

Lifting vehicle

Lifting with workshop hoist and with floor jack

The vehicle should never be lifted or jacked up from underneath the engine oil pan, the transmission housing, the front or rear axle or the body side members. This could lead to serious damage.

WARNING

■ To reduce the risk of serious personal injury and vehicle damage, lift vehicle only at the special workshop hoist and floor jack lift points illustrated. Failure to lift vehicle at these points could cause the vehicle to tilt or fall from a lift when, for example, heavy components such as the engine block or transmission are removed resulting in a change in vehicle weight and balance.

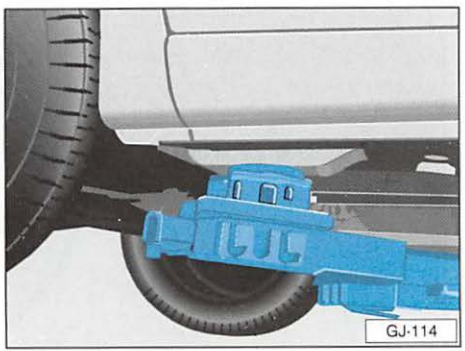
■ When removing such heavy components, anchor vehicle to hoist or add corresponding weights to maintain the center of gravity. Otherwise, the vehicle might tilt or slip off the hoist, causing serious damage or personal injury.

■ If you must lift your vehicle with a floor jack to work underneath, be sure the vehicle is safely supported on stands intended for this purpose.

Lifting points

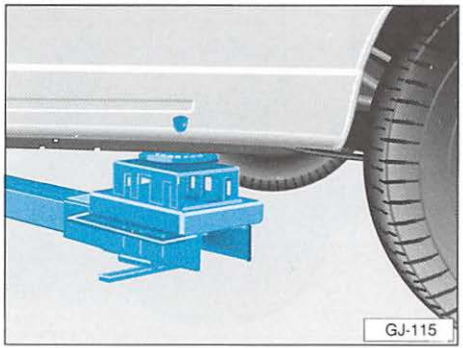
The same lifting points as illustrated for the hoist also apply when a floor jack is used. To avoid damage to the underbody or chassis frame, it is necessary to insert a rubber pad between the floor jack and the lift points.

Make sure there is sufficient clearance between pads and vehicle before driving vehicle on to hoist, especially if the vehicle has a large front panel or spoiler.



Lifting point front

Be sure to position the contact point of the hoist or floor jack so that the back edge of the point is in line with the center of the depression in the side member.



Lifting point rear

Be sure to position the contact point of the hoist or floor jack so that the back edge of the point is in line with the center of the depression in the side member.

Lifting with vehicle jack

Refer to "Changing a wheel" on page 159.

Engine data

	Gasoline engine		Diesel engine
Maximum output SAE net	**172 hp** at 5800 rpm	**115 hp** at 5400 rpm	**90 hp** at 4000 rpm
Maximum torque SAE net	173 ft lbs at 4200 rpm	122 ft lbs at 3200 rpm	149 ft lbs at 1900 rpm
No. of cylinders	6	4	4
Displacement	170 CID (2,792 cm^3)	121 CID (1,984 cm^3)	116 CID (1,896 cm^3)
Stroke	3.56 in. (90.3 mm)	3.65 in. (92.8 mm)	3.76 in. (95.5 mm)
Bore	3.19 in. (81.0 mm)	3.25 in. (82.5 mm)	3.13 in. (79.5 mm)
Compression ratio	10.0 : 1	10.0 : 1	19.5 : 1
Fuel[1)]	Premium[2)] or Regular unleaded	Regular unleaded	Diesel

1) For minimum octane rating and further details, see page 110.

2) For maximum engine performance, unleaded Premium is recommended.

Capacities

Capacities (approx.)		
Fuel tank	14.5 gal	(55 liters)
Reserve (of total capacity)	1.8 gal	(7 liters)
Windshield washer container	4.5 quarts	(4.2 liters)
Engine Oil		
115 hp gasoline engine with filter change	4.2 quarts	(4.0 liters)
172 hp engine with filter change	5.3 quarts	(5.0 liters)
90 hp Diesel engine with filter change	4.40 quarts	(4.5 liters)

All engines:
The oil level should be checked while topping up.
Do not overfill – see page 130.

Dimensions

Dimensions (approx.)		
Length[1)]	160.4 in	4075 mm
Width	66.7 in	1695 mm
Height (unladen)	56.2 in	1428 mm
Overhang, front Overhang, rear	33.7 in 42.0 in	856 mm 1073 mm
Front track Rear track	57.1 in 56.0 in	1450 mm 1434 mm
Ground clearance[2)] with gross vehicle weight	5.0 in	126 mm
Wheelbase	97.3 in	2471 mm

The specifications refer to the base model. Differences may occur depending on the model type and options ordered, for example, tire sizes.

1) without front license plate

2) when driving up steep ramps, on rough roads, over curbs, etc. it is important to remember that some parts of your vehicle, such as spoilers or exhaust system components, may be close to the ground. Be sure to avoid damage.

Weights

The Gross Vehicle Weight Rating (GVWR), and the Gross Axle Weight Rating (GAWR) for front and rear are listed on a sticker on the left door jamb.

The **Gross Vehicle Weight Rating** includes the weight of the basic vehicle plus full fuel tank, oil and coolant, plus maximum load, which combines passenger (150 lbs/68 kg per designated seating position) and luggage weight.

Luggage weight is not increased by the use of a roof rack, unless the passenger capacity is reduced accordingly.

The **Gross Axle Weight Rating** is the maximum load that can be applied at each axle of the vehicle.

WARNING

■ The actual Gross Axle Weight Rating at the front and rear axles should not exceed the permissible weights, and their combination must not exceed the Gross Vehicle Weight Rating.

■ Exceeding permissible weight ratings can result in vehicle damage, accidents and personal injury.

Note

The **vehicle capacity weight** figures apply when the load is distributed evenly in the vehicle (passengers and luggage). When transporting a heavy load in the luggage compartment, carry the load as near to the rear axle as possible so that the vehicle's handling is not impaired. Do not exceed the maximum permissible axle loads or the maximum gross vehicle weight. Always remember that the vehicle's handling will be affected by the extra load. Therefore, adjust your speed accordingly.

Roof weight

The maximum permissible roof weight is 165 lb (75 kg).

Only use the roof rack system specifically designed, tested and approved by Volkswagen.

Distribute the load evenly and do not exceed the permissible roof weight (including the weight of the roof rack system) or the gross vehicle weight.

For more details see page 93.

Vehicle identification



The Vehicle Identification Number (VIN)

is located on the instrument panel on the driver's side so that it is visible from the outside through the windshield.

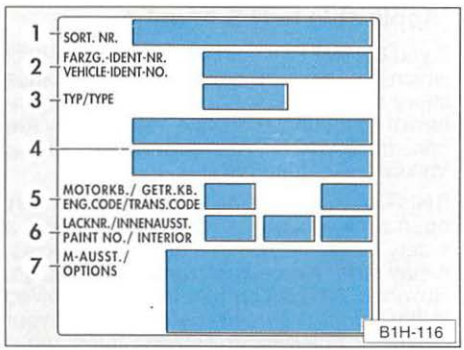
The safety compliance sticker

is your assurance that your new vehicle complies with all applicable 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. It shows the month and year of production and the vehicle identification number of your vehicle (perforation) as well as the Gross Vehicle Weight Rating (GVWR) and the Gross Axle Weight Rating (GAWR).

The engine number

is located on the front face of the engine block, just below the cylinder head.

On the 6 cylinder engine, the number is visible when you stand on the right side of the vehicle and look between the shock absorber housing and air cleaner.



The vehicle identification label

On the sedan it is on the left of the rear panel in the luggage compartment.

1 - Production control no.
2 - Vehicle identification no.
3 - Type code number
4 - Type designation/
Engine output in Kilowatts
5 - Engine and transmission code letter
6 - Paint no./Interior
7 - Optional equipment no.'s

Vehicle data 2 to 7 are also found in your Maintenance booklet.

Reporting safety defects

(Applicable to U.S.A. only)

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

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defects exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Volkswagen United States, Inc.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at:

1 (800) 424-9393
(or 366-0123 in Washington, D.C. area)

or write to:

NHTSA, U.S. Department of Transportation, Washington, D.C. 20590.

You can also obtain other information about motor vehicle safety from the Hotline.

Operating your vehicle outside the U.S.A. or Canada

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

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

- unleaded fuels for vehicles with catalytic converter may not be available;
- fuel may have a considerably lower octane rating. Improper fuel may cause engine damage;
- service may be inadequate due to lack of proper service facilities, tools or testing equipment;
- replacement parts may not be readily available.

Volkswagen cannot be responsible for mechanical damage that could result from inadequate fuel, service or parts availability.

Volkswagen Service Manuals

Note: Volkswagen service manuals are published as soon as possible after model introduction.
Please call Robert Bentley, Inc. toll free **1 (800) 423-4595** in the United States and Canada from 8:30 AM to 5:00 PM Eastern time for the most up to date model year coverage, pricing, and other information.
Prices are subject to change without notice.
Price quotations are in U.S. dollars.

Rabbit and Scirocco

1975 – 1979 models
Gasoline models
Service Manual by Robert Bentley, Inc.
Volkswagen Part No. LPV 997174
Volkswagen Canada Part No.
MAN 101171A

628 pages,
1000 illustrations/diagrams,
72 pages of electrical wiring diagrams,
$39.95

Rabbit, Jetta and Pickup

1977 – 1984 models
Diesel and Turbo Diesel models
Service Manual by Robert Bentley, Inc.
Volkswagen Part No. LPV 800122
Volkswagen Canada Part No.
MAN 101 171FDSL

624 pages,
973 illustrations/diagrams,
78 pages of electrical wiring diagrams,
$39.95

Rabbit, Scirocco, Jetta and Pickup

1980 – 1984 models
Gasoline models including
Convertible and GTI
Service Manual by Robert Bentley, Inc.
Volkswagen Part No. LPV 800104
Volkswagen Canada Part No.
MAN 101 171FGAS

715 pages,
1151 illustrations/diagrams,
100 pages of electrical wiring diagrams,
$39.95

GTI, Golf and Jetta

1985 – 1992 models
Gasoline, Diesel and Turbo Diesel
including Golf GTI, Jetta GLI and 16V
Service Manual by Robert Bentley, Inc.
Volkswagen Part No. LPV 800112
Volkswagen Canada Part No. MAN 101
1H0

822 pages,
695 illustrations/diagrams,
388 pages of electrical diagrams,
$44.95

Scirocco and Cabriolet

1985 – 1989 models including 16V
Service Manual by Robert Bentley, Inc.
Volkswagen Part No. LPV 800110
Volkswagen Canada Part No.
MAN 101 171H
440 pages,
528 illustrations/diagrams
52 pages of electrical diagrams
$49.95

Corrado

1990 – 1992 models
by Robert Bentley, Inc.
Volkswagen Part No. LPV 800 300
Available Summer 1993

Vanagon

1980 – 1991 models
Air-cooled Gasoline Engine and Water-cooled Gasoline and Diesel Engines, Syncro and Camper
Official Factory Repair Manual
by Volkswagen United States
Volkswagen Part No. LPV 800148
Volkswagen Canada Part No.
MAN 101 251F
1388 pages,
2295 illustrations/diagrams,
247 pages of electrical wiring diagrams,
$84.95

Dasher

1974 – 1981 models
including Diesel
Service Manual by Robert Bentley, Inc.
Volkswagen Part No. LPV 997 335
692 pages,
1125 illustrations/diagrams,
42 pages of electrical wiring diagrams,
$44.95

Quantum

1982 – 1988 models
Gasoline and Turbo Diesel including Wagon and Syncro
Official Factory Repair Manual
by Volkswagen United States
Volkswagen Part No. LPV 800 202
1344 pages,
2150 illustrations/diagrams,
166 pages of electrical wiring diagrams,
$89.95

Passat

1990 – 1992 including Wagon
by Robert Bentley
Volkswagen Part No. LPV 800204
Volkswagen Canada Part No.
MAN 101357
582 pages,
639 illustrations/diagrams,
247 pages electrical wiring diagrams,
$49.95

Volkswagen Service Manuals are available from Volkswagen dealers in the United States and Canada. Manuals can also be ordered directly from:

Volkswagen Service Manuals
Robert Bentley, Inc.
1033 Massachusetts Avenue
5th Floor
Cambridge, MA 02138
1 (800) 423–4595
(United States and Canada)

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Golf & GTI Models/North America 8.95
961.551.1H1.21

Warranty
1996 USA



Dear Owner,

This booklet contains the warranties applicable to your new Volkswagen vehicle. Please read these warranties carefully to determine your warranty rights and obligations.

Your Limited New Vehicle Warranty includes virtually bumper to bumper coverage for two years or 24,000 miles, whichever comes first, and powertrain coverage for ten years or 100,000 miles, whichever occurs first. **The limited powertrain warranty of 10 year/ 100,000 miles is provided to the original retail purchaser or long term lessor/lessee only and is not transferable except to an immediate family member.** Your vehicle is also warranted against corrosion perforations for a period of six years irrespective of mileage.

In addition, your vehicle is covered by emissions warranties mandated by Federal Law. If you are a resident of California and have purchased a California specification vehicle, you may also have rights under California emissions warranties. Please consult these warranties whenever a repair to your emission control system is required to determine whether it is covered by warranty. Your satisfaction in understanding the warranties that apply to your Volkswagen vehicle is important to us. Any questions concerning warranty coverage should be directed to:

Volkswagen of America, Inc.,
Customer Relations
3800 Hamlin Road
Auburn Hills, MI 48326

or call:

1 (800) 822–8987

If you have a concern or you are not satisfied with the service that you receive from your dealer, we suggest that you discuss it with the service manager at your dealership. If it is not resolved through your dealership, you may call or write Volkswagen Customer Relations.

Volkswagen of America, Inc., provides a mediation and arbitration service for the resolution of disputes arising under this Limited New Vehicle Warranty. This service is called BBB AUTO LINE and is conducted through local offices of the Better Business Bureau, If you wish to use this service, call the following toll-free number:

1 (800) 955-5100

or write:

Council of Better Business Bureaus, Inc.
4200 Wilson Boulevard
Arlington, VA 22203-1804

See pages 26 and 27 for further important information on BBB AUTO LINE.

Notice of Address Change
Notice of Used Car Purchase

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. If you change your address or buy a used Volkswagen, complete one of the postcards in the middle of this booklet. You need not use this card if you purchased your car through an authorized Volkswagen dealer.

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LIMITED NEW VEHICLE WARRANTY

What is Covered



Warranty Period

The new vehicle warranty period is 2 years or 24,000 miles, whichever occurs first.

Any implied warranty, including any implied warranty of merchantability or warranty of fitness for a particular purpose, is limited in duration to the period of this written warranty. Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.



Coverage

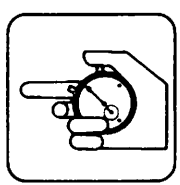
This warranty covers any repair to correct a defect in material or workmanship except wheel alignment, tire balance, and the repair or replacement of tires. The repair or replacement of wear and tear items, such as manual transmission clutch friction material and replacement of rubber wiper blade inserts, replaced for wear and tear, is covered up to one year or 12,000 miles, whichever occurs first.



Where to Go for Warranty Service

This warranty will be honored by any authorized Volkswagen dealer in the continental United States, Alaska, Hawaii or Canada.

If your Volkswagen is brought to an authorized Volkswagen dealer outside the continental United States Alaska, Hawaii or Canada, this warranty will not apply. Defects in material or workmanship will be corrected under the terms of the warranty for new Volkswagen vehicles in effect in that country.



When the Warranty Period Begins

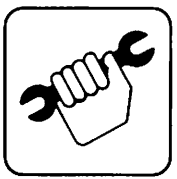
The warranty period begins on the date the vehicle is delivered to the original retail purchaser, or if the vehicle is first placed in service as a "demonstrator" or "company" car prior to delivery, on the date it is first placed in service.

This Limited New Vehicle warranty is automatically transferred without cost if the ownership of the vehicle changes within the Warranty period.



Free-of-Charge Repair

Repairs under this warranty are free of charge. Your authorized Volkswagen dealer will repair the defective part or replace it with a **new or remanufactured** genuine Volkswagen part.



Emergency Repairs

If an emergency repair was performed by a non-Volkswagen service facility, keep all receipts, repair orders, and parts removed from your Volkswagen.

You will be reimbursed if the repair work was needed and correctly performed and it was impossible or unreasonable under the circumstances to tow or drive your Volkswagen to the nearest authorized Volkswagen dealer.

A statement of the circumstances that prevented you from getting to an authorized Volkswagen dealer, together with the paid receipts, repair orders, and replaced parts is needed by your Volkswagen dealer in order to be considered for reimbursement.



BBB AUTO LINE Dispute Settlement Services

If you are not satisfied with the warranty service you receive, you may wish to follow the steps set forth on page 26.

Volkswagen of America, Inc., provides a **mediation** and **arbitration** service for the resolution of warranty and other product-related disputes. This service is called BBB AUTO LINE and is conducted through local offices of the Better Business Bureau. If you wish to use this service, you may call the following toll-free number:

1 (800) 955-5100

We encourage you to use BBB AUTO LINE before you decide to seek remedies in a court of law. **In some states you may be required to use BBB AUTO LINE before you can assert your rights in a court of law.** The BBB AUTO LINE service is free of charge and permits you to present your case without an attorney. Additional information on BBB AUTO LINE can be found on pages 26–27.



Tires

The tires are not covered by this warranty, but are separately warranted by the tire manufacturer. To assist you in obtaining related warranty information, a list of tire manufacturers and addresses is provided on page 31.



Maintenance Services and Mechanical Adjustments*

This warranty does not cover the cost of parts and labor involved in any scheduled maintenance service.

This warranty does not cover the replacement of filters, oil, lubricants or fluids unless their replacement is a necessary part of warranty service on a covered component.

Mechanical adjustments required as a result of outside influence not associated with a defect in material and workmanship, are not covered after the first year or 12,000 miles whichever occurs first. Some examples are: Headlight adjustment, replacement of rubber wiper blade inserts. This warranty does not cover wheel alignment or tire balancing.

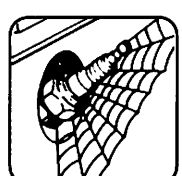
***Specific maintenance services are covered by Volkswagen Protection Plus.**

Please consult the Volkswagen Protection Plus Guidelines on pages 22–23.



Damage or Malfunction Due to Misuse, Negligence, Alteration, Accident or Fire

This warranty does not cover damage or malfunction which is the result of improper repair of the vehicle, improper installation of accessories such as alarm systems or communication equipment, intentional or unintentional misfueling, use of the vehicle in competitive events or damage caused by accident or fire.



Damage or Malfunctions Due to Lack of Maintenance

This warranty does not cover damage or malfunctions which are due to the failure to follow recommended maintenance requirements as set forth in the Volkswagen Owner's Manual and the Maintenance booklet.





Damage Caused by the Environment

This warranty does not cover damage caused by airborne industrial pollutants (e.g. acid rain), bird droppings, stones, floodwater, windstorms, or other similar occurrences.

Other Expenses

This warranty does not cover any incidental or consequential damage, including loss of value of the vehicle, lost profits or earnings, and out-of-pocket expenses for substitute transportation or lodging.*

Other Terms:

This warranty is issued by Volkswagen of America, Inc., (VWoA). This warranty does not apply to Volkswagen vehicles or parts and accessories not imported or distributed by VWoA.

This warranty, the Limited Warranty Against Corrosion Perforation, the Limited Powertrain Warranty and the Emissions Warranties are the only express warranties made in connection with the sale of this Volkswagen vehicle. Any implied warranty, including any warranty of merchantability or warranty of fitness for a particular purpose, is limited in duration to the stated period of these written warranties.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Neither VWoA nor the manufacturer assumes, or authorizes any person to assume, any other obligation or liability on its behalf.

*Some states do not allow the exclusion or limitation of incidental or consequential damage, so this limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

What is Covered



First Owner

Warranty Period

The coverage under this warranty lasts for 10 years or 100,000 miles, whichever occurs first, or until the original owner transfers ownership of the vehicle to someone other than an immediate family member.

A long term lease vehicle is covered for the warranty period or until the lease has expired, whichever occurs first. If the lessee or an immediate family member purchases the vehicle at the end of the lease with remaining coverage, the warranty remains in effect.

This warranty does not apply to vehicles used for commercial purposes such as taxi, limousine and rental vehicles.



Second and Subsequent Owners

The Limited Powertrain warranty period for subsequent owners is 5 years or 50,000 miles, whichever occurs first, from the date the vehicle was first placed in service.

Any implied warranty, including any implied warranty of merchantability or warranty of fitness for a particular purpose, is limited in duration to the period of this written warranty. Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.

Coverage

The Limited Powertrain Warranty covers any repair to correct a defect in material or workmanship for the following parts and components:

Engine: cylinder block and all internal parts, cylinder head and all internal parts, valve train, spur belt, flywheel, oil pump, water pump, manifolds, all related seals and gaskets.

Transmission: case and all internal parts, torque converter, all related seals and gaskets.

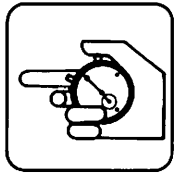
Drivetrain: differential and all internal parts, driveshafts and constant velocity (CV) joints.



Where to Go for Warranty Service

This warranty will be honored by any authorized Volkswagen dealer in the continental United States, Alaska, Hawaii or Canada.

If your Volkswagen is brought to an authorized Volkswagen dealer outside the continental United States, Alaska, Hawaii or Canada, this warranty will not apply. Defects in material or workmanship will be corrected only under the terms of the warranty for new Volkswagen vehicles in effect in that country.



When the Warranty Period Begins

The warranty period begins on the date the vehicle is delivered to the original retail purchaser, or if the vehicle is first placed in service as a "demonstrator" or "company" car prior to delivery, on the date it is first placed in service.



10/100 Powertrain Warranty Non-Transferable, Subsequent Owners Covered for 5/50 Miles Whichever Occurs First

The 10 year/100,000 miles warranty is issued to the original retail purchaser or long term lessor/lessee only and their immediate family, i.e. wife, husband, son or daughter. This warranty is **not** transferable to any subsequent owner. Proof of original ownership **must** be provided to the Volkswagen dealer's service department **before** the start of a covered repair.

Subsequent owners have the same component powertrain coverage for 5 years or 50,000 miles, whichever occurs first, from the date the vehicle was first placed in service.



Free-of-Charge Repair

Repairs under this warranty are made free of charge. Your authorized Volkswagen dealer will repair the defective part or replace it with a **new or remanufactured** genuine Volkswagen part.

LIMITED POWERTRAIN WARRANTY

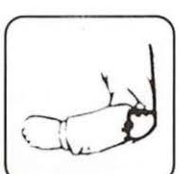
What is Not Covered



Maintenance Services

This warranty does not cover the cost of parts and labor involved in any scheduled maintenance service. Scheduled maintenance services are described in your Volkswagen Maintenance booklet. See also Volkswagen Protection Plus outlined in this booklet.

This warranty does not cover the replacement of filters, oil, lubricants or fluids unless their replacement is a necessary part of warranty service on a covered component.



Wear and Tear items

This warranty does not cover the replacement of any Powertrain components that wear as a result of normal use or deterioration.



Damage or Malfunction Due to Misuse, Negligence, Alternation, Accident or Fire

This warranty does not cover damage or malfunction which is the result of improper repair of the vehicle, improper installation of accessories, intentional or unintentional misfueling, use of the vehicle in competitive events or damage caused by accident or fire.



Damage or Malfunctions Due to Lack of Maintenance

This warranty does not cover damage or malfunctions which are due to failure to follow recommended maintenance requirements as set forth in the Volkswagen Owner's Manual and the Maintenance booklet



Damage Caused by the Environment

This warranty does not cover damage caused by natural causes such as floodwater, windstorms, or other similar occurrences.



Other Expenses

This warranty does not cover any incidental or consequential damage, including loss of value of the vehicle, lost profits or earnings, or out-of-pocket expenses for substitute transportation or lodging.*

*Some states do not allow the exclusion or limitation of incidental or consequential damage, so this limitation or exclusion may not apply to you.

The "Other Terms" Presented in The Limited New Vehicle Warranty Also Apply to This Warranty.



Warranty Period

The coverage under this warranty lasts for 6 years without mileage limitation.

Any implied warranty, including any implied warranty of merchantability, is limited in duration to the period of this written warranty. Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.



Coverage

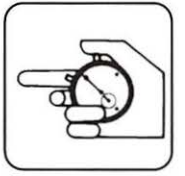
This warranty covers any repair or replacement of body sheet metal parts that have been perforated by rust.



Where to Go for Warranty Service

This warranty will be honored by any authorized Volkswagen dealer in the continental United States, Alaska, Hawaii or Canada.

If your Volkswagen is brought to an authorized Volkswagen dealer outside the continental United States, Alaska, Hawaii or Canada, this warranty will not apply. Defects in material or workmanship will be corrected under the terms of the warranty for new Volkswagen vehicles in effect in that country.



When the Warranty Period Begins

The warranty period begins on the date the vehicle is delivered to the original retail purchaser, or if the vehicle is first placed in service as a "demonstrator" or "company" car prior to delivery, on the date it is first placed in service. This limited warranty against corrosion perforation is automatically transferred without cost if the ownership of the vehicle changes within the Warranty period.



Free-of-Charge Repair

Repairs under this warranty are made free of charge. The authorized Volkswagen dealer will repair the defective part or replace it with a **new or remanufactured** genuine Volkswagen part.

Please Note: Your Volkswagen vehicle is corrosion-protected at the factory. You do not need to purchase rustproofing when you buy your Volkswagen in order to keep this warranty in effect

LIMITED WARRANTY AGAINST CORROSION PERFORATION

What is Not Covered



Surface Corrosion Without Perforation

Repairs are covered under this warranty only if there is rust through in the sheet metal.



Perforation of Sheet Metal Due to Accident, Lack of Care, or Failure to Repair

This warranty does not cover corrosion perforation resulting from the failure to promptly repair paint damage, damaged undercoating, or surface corrosion.

It does not cover damage due to failure to wash or otherwise regularly care for the vehicle as prescribed in the Volkswagen Owner's Manual.

This warranty does not cover corrosion perforation resulting from unrepaired collision damage or improper collision repair. It does not cover corrosion perforation resulting from the use of any inferior rust-proofing agent or method.



Corrosion Perforation Because of Failure to Rustproof When Collision Damage Repaired

Body parts that have been repaired or newly installed after a collision must be treated with a rustproofing agent that is compatible with Volkswagen's factory corrosion protection. If your vehicle has not been treated in this way after a collision, Volkswagen will not be responsible for the repair of any resulting rust-through.

The "Other Terms" Presented in the Limited New Vehicle Warranty Also Apply to this Warranty.

The Emissions Warranties set out on the following pages are warranties which the manufacturer is required by law to furnish to you at the time you take delivery of your new vehicle.

The warranties required by federal laws are applicable to all new Volkswagen vehicles imported and distributed by Volkswagen of America, Inc., ("Volkswagen") for sale in the United States, including California. The warranties required by California law are applicable to all new Volkswagen vehicles imported and distributed by Volkswagen for sale and registration in the State of California. The Commonwealth of Massachusetts has adopted warranty requirements that are identical to the California warranties. **The owner of a vehicle certified for sale and registered in California or Massachusetts may, therefore, have warranty rights under both Federal and California or Massachusetts emissions warranties.** The owner of a new Volkswagen vehicle imported and distributed by Volkswagen for sale in states other than California or Massachusetts, has only rights under the Federal Emissions Warranties.

Please read these warranties carefully. If you have any questions concerning the applicability of each warranty to your vehicle or want to know whether a particular repair will be performed free of charge pursuant to these warranties, please write to or telephone:

Customer Relations
Volkswagen of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Telephone: 1 (800) 822-8987

Emissions Control System Warranty

For 2 Years or 24,000 Miles

Volkswagen of America, Inc., ("Volkswagen"), the authorized United States importer of Volkswagen vehicles, warrants to the original retail purchaser and any subsequent purchaser that every 1996 model Volkswagen vehicle imported by Volkswagen:

- was designed, built and equipped so as to conform at the time of sale with all applicable regulations of the United States Environmental Protection Agency ("EPA"), and
- is free from defects in material and workmanship which causes the vehicle to fail to conform with EPA regulations for 2 years after the date of first use or delivery of the vehicle to the original retail customer or until the vehicle has been driven 24,000 miles, whichever comes first. The following parts listed on the next page, if defective, could cause the vehicle to fail to conform with EPA regulations:

EVAP Canister
Mass Air Flow Sensor Assembly
Three-Way Catalytic Converter
Engine Electronic Control Module and Power Supply Relay
Electronic Feedback Controls, Sensors, Switches and Valves
EVAP Valves
Exhaust Gas Recirculation System
Exhaust Manifold and Gaskets
Exhaust Pipe Up to Catalytic Three-Way Converter
Fuel Filler Neck Restrictor
Fuel Filler Cap and Gasket
Fuel Injectors, Fuel Injector Lines and Gaskets
Fuel Tank
Gravity Check Valve
Idle Air control Valve
Knock Sensor
Oxygen Sensor
PCV Valve
Turbocharger and Wastegate
Secondary Air Injection Pump and Associated Controls
Emission Related Hoses, Gaskets, Clamps and other Accessories Used on the Above Components

The obligation of Volkswagen under this warranty is limited, however, to the following: If within this period a defect in material or workmanship causes the vehicle to fail to conform with EPA regulations and the vehicle is brought to the workshop of any authorized Volkswagen dealer in the continental United States, Alaska, Hawaii or Canada, the dealer will make repairs as may be required by these regulations free of charge.

For 8 Years or 80,000 Miles

If the vehicle has been in use for more than 24 months or 24,000 miles but less than 8 years or 80,000 miles, whichever occurs first, your Volkswagen dealer will remedy free of charge only failures of the following major emission control components:

Catalytic Converter
Engine Electronic Control Module
On Board Emissions Diagnostic Device

For 2 Years or 24,000 Miles and 8 Years or 80,000 miles

Volkswagen of America, Inc., ("Volkswagen") warrants to the original retail purchaser of a 1996 Volkswagen vehicle and any subsequent purchaser of the vehicle that if all of the following conditions are met, any authorized Volkswagen dealer in the continental United States, Alaska, Hawaii or Canada will remedy any nonconformity, as determined below, free of charge under the following conditions:

- the vehicle fails to conform at any time during 24 months or 24,000 miles, whichever occurs first, to applicable emission inspection standards as determined by an EPA Approved State Inspection and Maintenance Test ("I/M Test"), and
- the vehicle fails an I/M test within 8 years or 80,000 miles, whichever occurs first, which is caused by a failure of the catalytic converter or engine electronic control module, On Board Diagnostic device and
- the failure requires the vehicle owner to bear any penalty or other sanction, including the denial of the right to use the vehicle under local, state or federal law, and
- the vehicle has been maintained and operated in accordance with Volkswagen's instructions for proper maintenance and use.

Instructions for Proper Maintenance and Use

Instructions for proper maintenance are contained in your Volkswagen Maintenance booklet. Time and mileage intervals at which maintenance is to be performed, may vary from model to model. Instructions for proper use of the vehicle are contained in your Volkswagen Owner's Manual.

Use of EPA Certified Replacement Parts

Volkswagen may deny an emission performance warranty claim on the basis that a non- EPA certified replacement part was used in the maintenance or repair of the vehicle if Volkswagen can prove that the non-certified part is either defective in materials or workmanship, or not equivalent from an emission standpoint to the original part, and you are not able to offer information that the part is either not defective or equivalent to the original part with respect to its emission performance.

Warranty Coverage for Parts not Scheduled for Replacement

Any part which is not required to be replaced at maintenance intervals specified in the Volkswagen Maintenance booklet is covered by this warranty for the full term of this warranty.

When to Claim

You may raise a claim under this warranty immediately after your vehicle has failed an I/M Test if, as a result of that failure, you are required by law to repair the vehicle to avoid imposition of a penalty or cancellation of your right to use the vehicle. You need not actually suffer the loss or lose the right to use your vehicle or pay for the repair before presenting your claim.

Acceptance or Denial of Claim within 30 Days

Claims may be presented only by bringing your vehicle to any authorized Volkswagen dealer in the continental United States, Alaska, Hawaii or Canada. The dealer will honor or deny your claim within a reasonable time, not to exceed thirty (30) days, from the time at which your vehicle is presented for repair or within anytime period specified by local, state or federal law, whichever is shorter, except when a delay is caused by events not attributable to Volkswagen or the dealer. If the dealer denies your claim, you will be notified in writing of the reasons for rejecting the claim. If you do not receive notice of denial of your claim within the above time period, Volkswagen is required by law to honor the claim.

Denial of Claim for Failure to Comply with Instructions for Scheduled Maintenance or Proper Use

Under certain circumstances, your claim may be denied because you have failed to comply with instructions for scheduled maintenance contained in your Volkswagen Maintenance booklet. In determining whether you have complied with the instructions for scheduled maintenance and proper use, Volkswagen may require you to furnish proof of compliance only with those maintenance instructions which Volkswagen has reason to believe were not performed and which could be the cause of the I/M Test failure.

Record of Scheduled Maintenance

Volkswagen recommends that you keep a record of scheduled maintenance by making sure that the Maintenance Record contained in your Volkswagen Maintenance booklet is validated at the approximate time or mileage intervals by the authorized Volkswagen dealer or other service facility which performed the maintenance, or by furnishing proof upon request that you have performed the maintenance yourself at the approximate time or mileage intervals, that you have used proper parts, and that you were able to perform the maintenance properly yourself.

Denial of Warranty Claim for Other Reasons

Volkswagen may deny a claim on the basis that:

- the vehicle was abused, or
- the vehicle was maintained or used in a manner which included the improper installation of a component or the adjustment or parameters substantially outside the manufacturer's specifications for proper maintenance, or
- unscheduled maintenance was performed on your vehicle and in the course of such maintenance, components affecting your vehicle's emissions were removed or rendered inoperative, or
- contaminated fuel or fuel not meeting the specifications set forth in your Owner's Manual was used

Volkswagen will not deny a claim relating to:

- warranty work or predelivery service performed by an authorized Volkswagen dealer, or
- work performed in an emergency to rectify an unsafe condition attributable to Volkswagen, provided you have taken steps in a timely manner to put the vehicle back into a conforming condition, or
- the use of an uncertified part or to noncompliance with the instructions for proper maintenance and use which is not related to the I/M Test failure.

NOTE:

Maintenance, Repair or Replacement of Emission Control Devices and Systems may be Performed by any Automotive Service and Repair Establishment or Qualified Individual Using any Part Certified by the Environment Protection Agency (EPA).

Any implied warranty, including any warranty of merchantability or warranty of fitness for a particular purpose, is limited in duration to the stated period of these written warranties.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

These warranties do not cover any incidental or consequential damages, including loss of resale value, lost profits or earnings, and out-of-pocket expenses for substitute transportation or lodging.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.

You may obtain further information referring to the Emissions Performance Warranty or report violation of the terms of the Emissions Performance Warranty by contacting the Director, Field Operations and Support Division (EN397F), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460.

CALIFORNIA EMISSIONS WARRANTIES

California Law Requires Us to Provide You with the Following Emissions Warranty Statement

CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT

Your Warranty Rights and Obligations:

The California Air Resources Board is pleased to explain the emission control system warranty on your 1996 vehicle. In California, new motor vehicles must be designed, built and equipped to meet the State's stringent anti-smog standards. Volkswagen must warrant the emission control system on your vehicle for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your vehicle.

Your emission control system may include parts such as the carburetor or fuel-injection system, the ignition system, catalytic converter, and engine computer. Also included may be hoses, belts, connectors and other emission-related assemblies.

Where a warrantable condition exits, Volkswagen will repair your vehicle at no cost to you including diagnosis, parts and labor.

Manufacturer's Warranty Coverage:

- **For 3 years or 50,000 miles, whichever first occurs.**

If your vehicle fails a Smog Check inspection, all necessary repairs and adjustments will be made by Volkswagen to ensure that your vehicle passes the inspection This is your emission control system PERFORMANCE WARRANTY.

If any emission-related part on your vehicle is defective, the part will be repaired or replaced by Volkswagen. This is your short-term emission control system DEFECTS WARRANTY:

- **For 7 years or 70,000 miles, whichever first occurs.**

If an emission-related part listed in this warranty booklet specially noted with coverage for 7 years or 70,000 miles is defective, the part will be repaired or replaced by Volkswagen This is your long-term emission control system DEFECTS WARRANTY.

Owner's Warranty Responsibilities:

As the vehicle owner, you are responsible for the performance of the required maintenance listed in your owner's Maintenance booklet. Volkswagen recommends that you retain all receipts covering maintenance on your vehicle, but Volkswagen cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

You are responsible for presenting your vehicle to a Volkswagen dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

As the vehicle owner, you should also be aware that Volkswagen may deny you warranty coverage if your vehicle or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

IF YOU HAVE ANY QUESTIONS REGARDING YOUR WARRANTY RIGHTS AND RESPONSIBILITIES, YOU SHOULD CONTACT VOLKSWAGEN OF AMERICA, INC., CUSTOMER RELATIONS AT 1 (800) 822-8987 OR THE CALIFORNIA AIR RESOURCES BOARD AT 9528 TELSTAR AVENUE, EL MONTE, CA 91731.

Emissions Control System Defects Warranty:

Warranty for 3 Years/50,000 Miles

Volkswagen of America, Inc., ("Volkswagen"), warrants to the original retail purchaser and any subsequent purchaser that every 1996 model Volkswagen vehicle imported by Volkswagen and certified for sale and registered in California:

- was designed, built and equipped so as to conform with all applicable requirements of the California Air Resources Board ("CARB"), and
- is free from defects in material and workmanship which cause the vehicle to fail to conform with CARB requirements, including any defect which would cause the vehicle's on-board malfunction indicator to illuminate, for 3 years or 50,000 miles, whichever comes first.

A warranted part is any part installed on a motor vehicle or motor vehicle engine by the vehicle or engine manufacturer, or installed in a warranty repair, which affects any regulated emission from a motor vehicle or engine which is subject to California emission standards.

Emissions System Defect Warranty Continued:
Warranty for 7 years/70,000 Miles Covering Certain Emission System Parts

The emissions control system parts marked with "yes" in the following table are covered for 7 years or 70,000 miles, whichever comes first. Emission control system parts marked with "no" are either not installed on your vehicle or are covered for 3 years or 50,000 miles, whichever comes first.

	Golf/Jetta 2.0L	Jetta GLX GTI VR6	Golf/Jetta 1.9L TDI	Passat 2.0L	Passat GLX 2.8L	Cabrio 2.0L
Mass Air Flow Sensor Assembly	yes	yes	yes	yes	yes	yes
Catalytic Converter	yes	yes	yes	yes	yes	yes
Exhaust Manifold	yes	yes	yes	yes	yes	yes
Exhaust Pipe (Engine to Catalyst)	no	yes	yes	no	yes	no
Engine Control Module (ECM)	yes	yes	yes	yes	yes	yes
Fuel Tank	no	no	no	yes	yes	no
Intake Manifold	yes	yes	no	yes	yes	yes
Secondary Air Injection Pump	yes	yes	no	yes	yes	no
Throttle Body	yes	yes	yes	yes	yes	yes
Anti Backfire Valve	no	yes	no	no	yes	no
Turbocharger	no	no	yes	no	no	no
Diesel Injection Pump	no	no	yes	no	no	no
Diesel Injection Nozzle	no	no	no	no	no	no
Diesel Injection Nozzle with Lift Sensor	no	no	yes	no	no	no

California maintains a mandatory emissions inspection and maintenance program (Smog Check) requiring motor vehicles to be smog tested at regular intervals. If your vehicle fails to pass a smog test performed by a Licensed Smog Check station pursuant to the California Inspection and Maintenance Program within 3 years or 50,000 miles, whichever comes first, any authorized Volkswagen dealer in the continental United States, Alaska, Hawaii or Canada, will perform free of charge any repairs necessary for the vehicle to pass the smog test. These repairs include diagnosis, replacement repair, and adjustments. After the 3 year/50,000 miles performance warranty has expired a Smog Check test failure due to a defect in a part which is warranted for 7 years/70,000 miles is covered.

Additional Information About the California Emissions Control System and the California Emissions Performance Warranties

When the Warranty Period Begins

The Warranty period begins on the date the vehicle is delivered to the original retail purchaser or, if the vehicle is first placed in service as a "demonstrator" or "company" car prior to delivery, on the date it is first placed in service.

Maintaining Your Vehicle

Volkswagen recommends that you use and maintain your vehicle in accordance with the instructions set forth in the Volkswagen Owner's Manual and Volkswagen Maintenance booklet and that you keep a record of your maintenance. Failure to maintain your vehicle according to the required maintenance schedule may cause the vehicle to exceed applicable emissions standards and could result in denial of warranty coverage. However, Volkswagen will not deny a warranty claim solely on the basis of your failure to maintain the vehicle in accordance with these instructions or your failure to keep a record of your maintenance of the vehicle. We also recommend that you provide your maintenance records to the new owner whenever you sell your vehicle.

Warranty Coverage for Diagnostic Services

Repair and diagnostic services related to any repair covered by this warranty will be performed free of charge if the vehicle is delivered to any authorized Volkswagen dealer in the continental United States, Alaska, Hawaii or Canada.

Use of Genuine Volkswagen Parts

Volkswagen recommends that genuine Volkswagen parts be used as replacement parts for the maintenance, repair or replacement of emission control systems. Use of replacement parts which are not equivalent to genuine Volkswagen parts in emission performance and durability may impair the effectiveness of emission control systems. Although use of parts other than genuine Volkswagen parts does not invalidate these warranties, Volkswagen assumes no liability under these warranties for failure of such parts and damage to other parts caused by such failure.

Warranty Coverage for Parts Not Scheduled for Inspection or Replacement

Any warranted part which is not scheduled for inspection or replacement is covered for the warranty period. Any such parts repaired or replaced under warranty are warranted for the remaining warranty period.

Warranty Coverage of Parts Scheduled for Replacement

A part which is installed in accordance with Volkswagen's instructions or required scheduled maintenance is warranted until the next scheduled replacement interval or until the vehicle has been driven 3 years or 50,000 miles, whichever occurs firs.

Warranty Coverage for Parts Scheduled for Inspection

A part which is scheduled only for inspection in accordance with Volkswagen's instructions for scheduled maintenance of the vehicle is covered for the duration of these warranties.

Maintenance and Repairs Performed by Independent Service Shops

Without invalidating these warranties, you may choose to have maintenance, repair or replacement of emission control components performed by any automotive service establishment or individual qualified to perform such services. However, the cost of such services is not covered by these warranties except in emergencies. If the independent service establishment finds a warrantable defect, you may deliver the vehicle to an authorized Volkswagen dealer and have the defect corrected free of charge. Volkswagen will not be liable for any expenses which you have incurred at the independent service establishment, except for emergency repairs.

Emergency Repairs

In an emergency when an authorized Volkswagen dealer is not reasonably available to perform a warranty repair, the repair may be performed at any available service establishment, or by the owner, using any replacement part. Volkswagen will reimburse the owner for expenses including diagnosis not to exceed Volkswagen's suggested retail price for the warranted part and a labor charge based upon Volkswagen's recommended time allowance for the warranty repair multiplied by the labor rate per hour appropriate for the area where the warranty repair was performed. In order to receive reimbursement of such expenses, you must keep all replaced parts and receipts and present them to any authorized Volkswagen dealer in support of your claim. These emergency warranty service procedures also apply in the event the servicing Volkswagen dealer does not have replacement parts available within a reasonable time not to exceed 30 days, in order to perform the warranty repair or, if the servicing Volkswagen dealer is unable to complete the repairs within 30 days from the time you present the vehicle for repairs.

Coverage of Non-Warranty

If failure of a warranted part causes damage to a part not covered by warranty, the non-warranted part will also be replaced free of charge.

Damage Caused by Tampering, Use of Improper Fuel, Abuse, Neglect and Improper Maintenance are Not Covered

These warranties do not cover any damage to the vehicle caused by tampering with emission controls, use of fuel containing lead, or fuel not meeting the specifications set forth in the Owner's Manual, and abuse, neglect or improper maintenance of the vehicle. Diagnosis and repair of such damage are at the expense of the owner.

Notice of Denial of Warranty Claim

If you are not notified within 30 days that a performance warranty claim is not valid, then Volkswagen is required to repair the vehicle free of charge.

Implied Warranties

Any implied warranty, including any warranty of merchantability or warranty of fitness for a particular purpose, is limited in duration to the stated period of these written warranties.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Incidental and Consequential Damages

These warranties do not cover any incidental or consequential damages, such as loss of resale value, lost profits or earnings, and out-of-pocket expenses for substitute transportation or lodging.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.

In the event you have not received the services promised in these warranties, please follow the procedures described in this brochure under the title "Customer Relations".

MASSACHUSETTS EMISSIONS WARRANTIES

California Law Requires Us to Provide You with the Following Emissions Warranty Statement

Emissions warranties applicable to California certified vehicles sold and registered in Massachusetts

The Commonwealth of Massachusetts has adopted California's Emissions Warranty Program applicable to California certified vehicles sold and registered in Massachusetts. In order for you to determine you emissions warranty rights as a purchaser of such a vehicle in Massachusetts, please consult the chapters of this Warranty booklet entitled California Emissions Warranties.

The obligation of Volkswagen under this warranty is limited, however, to the following. If within this period a defect in material or workmanship causes the vehicle to fail to conform with CARB regulations and the vehicle is brought to the workshop of any authorized Volkswagen dealer in the continental United States, Alaska, Hawaii or Canada, the dealer will make repairs as may be required by these regulations.



Coverage Period

Volkswagen Scheduled Maintenance Service is covered for 2 years or 24,000 miles, whichever occurs first.



Coverage

Volkswagen Scheduled Maintenance Service covers the manufacturer's scheduled maintenance services listed in the Volkswagen Vehicle Maintenance Booklet for the:

7,5000 mile service
15,000 mile service
and 22,500 mile service

Scheduled maintenance service should be performed at 7,500 miles or 6 month intervals, whichever occurs first.



The following additional vehicle maintenance and emission control maintenance is also covered by the Volkswagen Owner Protection Plus Program and must be performed **prior to the first 2 years of vehicle use regardless of mileage:**

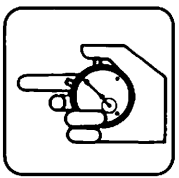
Maintenance
- Brake Fluid: Replace

Emission Control
- Air Cleaner: Replace filter element

Where to Go for Volkswagen Owner Protection Plus Program Service

Owner Protection Plus Program service can be honored by any authorized Volkswagen dealer in the continental United States, Alaska, Hawaii or Canada.

If your Volkswagen is brought to an authorized Volkswagen dealer outside the continental United States Alaska, Hawaii or Canada, this Owner Protection Plus Program will **not** apply.



When the Scheduled Maintenance Period Begins

The scheduled maintenance period begins on the date the vehicle is delivered to the original retail purchaser, or if the Vehicle is first placed in service as a "demonstrator" or "company" vehicle prior to delivery, on the date it is first placed in service. This Volkswagen Owner Protection Plus Program is automatically transferred without cost if the ownership of the vehicle changes within the coverage period.



Free-of-Charge Scheduled Maintenance

Scheduled maintenance services up to 24 months or 24,000 miles are free of charge. Your authorized Volkswagen dealer will perform the scheduled maintenance services using new or remanufactured genuine Volkswagen parts.

Dealer Assistance

If you have questions about the service you have received, we suggest that you first discuss them with the service personnel at your authorized Volkswagen dealer. You may want to speak to the Service Manager or directly to the owner of the dealership.

It is their business to be concerned about your satisfaction and goodwill. Since they are closest to the situation, they are in the best position to quickly resolve any concerns you may have.

When to Notify the Manufacturer

Your satisfaction with our product is very important to us, and we would like to make certain that we have had the opportunity to work with you and your dealer to resolve your concerns.

If your concerns are not resolved to your satisfaction by the dealer, please contact Volkswagen of America, Inc., immediately by calling our toll-free number.:

1 (800) 822-8987

and ask for Volkswagen Customer Relations.

If you prefer to write, please use the following address:

Customer Relations
Volkswagen of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

When you call or write, please provide the following information:

- **Your name, address and telephone number**
- **Vehicle Identification Number (VIN)**
- **Vehicle delivery date and mileage**
- **dealer's name and location**
- **Nature of your concern**
- **Copies of all repair orders or pertinent documents if you are writing to us**

A Customer Relations Representative will gather and carefully review all facts relating to your request for assistance. After this review is completed, the Customer Relations Representative will inform you of any assistance that we may be able to provide.

If you would like to receive any sales literature or the location of your nearest Volkswagen dealer, please call the following toll-free number:

1 (800) 444-8987

Please note that as part of our continuing effort to maintain the highest quality of service to our customers, supervisors will occasionally monitor the quality of telephone calls between our customers and representatives. We hope you understand our interest in providing the best possible service.

Repairs Not Covered by Warranty

In some circumstances, Volkswagen of America, Inc., may offer financial assistance toward repairs or expenses not covered by Volkswagen of America, Inc's., Limited New Vehicle Warranties.

In certain instances, Volkswagen of America, Inc., may pay for such repairs in accordance with the terms of service action campaigns it will conduct from time to time. In the event of a service action, Volkswagen of America, Inc., will notify you by mail and request you to bring your vehicle to your nearest dealer for repair free of charge. If you have not recently changed your address and Volkswagen of America, Inc., has your current address on file, you will receive notification automatically. If you are concerned that you may not have received notice concerning a particular service action, please check with your dealer to determine whether your vehicle is eligible for any repair free of charge.

In other instances Volkswagen of America, Inc., may offer assistance with a repair beyond warranty on a case-by-case basis. If you believe that your car needs a repair not covered by warranty which Volkswagen of America, Inc., should pay for in part or in whole, please discuss the request with your dealer. If you are not satisfied with your dealer's decision, please contact Volkswagen of America, Inc.'s, Customer Relations by telephone or in writing. Your request should provide the vehicle identification number of your car, the mileage, maintenance history and an explanation of why you believe that the repair should be performed free of charge. Your request should be accompanied by all available maintenance and repair records which you have retained. A Customer Relations Representative will review your request and advise you of our decision.

BBB AUTO LINE Dispute Settlement Services

If your dealer or Customer Relations Representative does not resolve your product concern to your satisfaction or if you do not wish to present your concern to either of them, you may take advantage of the mediation and arbitration services of the Better Business Bureau. This program is called BBB AUTO LINE and is available to you **free of charge** on a nationwide basis as long as your vehicle has been driven less than 36,000 miles and has not been in use for more than 3 years. Not every claim is eligible; there are some age and mileage limitations, so please check with your local Better Business Bureau ("BBB") regarding your claim.

The BBB AUTO LINE program has two parts. The first part is **mediation**. Mediation means that the BBB staff will facilitate negotiations between the parties in an effort to bring your claim to a mutually acceptable resolution. You do not have to participate in mediation if you would rather proceed immediately to **arbitration**. Arbitration is the other part of BBB AUTO LINE. Arbitration is a process by which an impartial person makes a decision on your claim. The arbitrators are not connected with the automobile industry and serve on a voluntary basis.

If you do not agree with the mediated resolution and/or have opted to arbitrate, an arbitration hearing will be scheduled. You may attend the hearing in person, be represented by an attorney, bring witnesses, and give supporting evidence. Instead of appearing personally, you may request a written or even a telephone arbitration hearing.

If you wish to use BBB AUTO LINE, please call the following toll-free number:

1 (800) 955-5100

When you call the local office of the BBB, its staff will need the following information.

- **Your name, address and telephone number**
- **Make, model and year of your vehicle**
- **Delivery date and current mileage**
- **Nature of complaint or problem**

The BBB will follow up on your complaint; if it cannot be mediated, they will arrange an arbitration hearing.

A decision will be made by the arbitrator within 10 days of the hearing (typically a decision is made 40 days from the date you filed your claim with BBB).

You then have the opportunity to accept or reject the decision. If you accept the decision, Volkswagen of America, Inc., will be bound by the decision and must fulfill its obligation within the time specified by the arbitrator.

If you reject the decision:

1. You are free to pursue other legal remedies available under state and federal law.
2. The manufacturer will not have to comply with any part of the decision.

California Residents

Additional information relating to your rights to arbitrate warranty claims under the BBB AUTO LINE Arbitration Program is provided in the Owner Information about Consumer Protection Laws booklet which is presented to you by your dealer when you take delivery of your new vehicle.

BBB AUTO LINE Program for Internal Engine Component Claims

Under a separate BBB AUTO LINE program, Volkswagen of America, Inc., offers mediation and arbitration of claims relating to failure, malfunction, repair or replacement of internal engine components. **Internal Engine Components** are engine parts, components and subassemblies included within the complete short block and cylinder head assemblies, including short blocks and cylinder heads, camshafts, valve train components, timing gears, flywheels, pistons, piston rings, crankshafts, connecting rods and bearings, oil pumps and associated fasteners, seals and gaskets.

To be eligible under this program, you must currently **own** or **lease** your Volkswagen. This program is **free of charge** and covers all Volkswagen vehicles regardless of model year. The program will **expire** on May 3, 1996.

If you wish to make use of this program, please contact **Volkswagen of America, Inc.,** by calling the toll-free number:

1 (800) 822-8987

Volkswagen will mail to you a brochure which explains how to file a claim.

If you wish to contact the Better Business Bureau directly, please call the toll-free number:

1 (800) 955-5100

When you call the local office of the BBB, its staff will need the following information.

- **Your name, address and telephone number**
- **Make, model and Vehicle Identification Number**
- **Delivery date and current mileage**
- **Nature of complaint or problem**

Several special **time deadlines** apply under this program. An arbitration hearing will be completed within 60 days after you provide the Better Business Bureau with information regarding your claim. From the date you accept either a settlement offer directly from Volkswagen, or an arbitration award from the BBB, you will receive a check within 45 days or a completed repair within 30 days.

Please note that the arbitration award is binding on Volkswagen, but is not binding on you, unless you elect to accept the award.

California Residents

Additional information relating to your rights to arbitrate warranty claims under the BBB AUTO LINE Arbitration Program is provided in the Owner Information about Consumer Protection Laws booklet which is presented to you by your dealer when you take delivery of your new vehicle.

Updated Service Information You Can Obtain

Volkswagen of America, Inc., monitors product performance in the field and regularly sends to dealers the latest service information about Volkswagen vehicles. Now you too, can get these bulletins.

Bulletins cover a wide variety of subjects: the proper use and care of your car; costly repairs; inexpensive repairs or adjustments which, if done early, may avoid costly future repairs. Some bulletins describe repairs about new or unexpected conditions. Others describe improved repair procedures or parts improvements. all of this information can also help a qualified mechanic better service your vehicle.

Most bulletins apply to conditions affecting a small number of vehicles. Your dealer or a qualified technician may have to determine if a specific bulletin applies to your vehicle.

You can order any or all of these bulletins direct from Volkswagen of America, Inc., or look at them at a Volkswagen dealer. You can purchase a subscription to the bulletins which applies to a particular model and receive them as they are issued or you can order an index which lists and identifies these bulletins and summarizes the most important ones. You also can order individual bulletins. However, the index is necessary to identify them.

How to Order an Index

Indexes are published quarterly and updated cumulatively. When you order an Index we will send you the most current. For the current model year you may want to wait for the last Index of the model year to know what was published. Some bulletins pertaining to a particular model and model year may be published in a later year's index. To order an Index, use the Volkswagen Product Service Publication Order Form in the middle of this brochure. The Index is free of charge. Additional order forms are available at your Volkswagen dealer.

Toll-free Telephone Number

You may also order the Index by calling us toll-free at 1 (800) 544-8021. Listen to the recording and leave your name, address, vehicle make and model year.

What You Will Find in the Index

- A list of Volkswagen bulletins for 1985 and later model years, covering all US specification Volkswagen models.
- Easy-to-understand highlights of bulletins which describe repairs and procedures designed to help prevent major repairs. These highlights may also contain owner use and care information.
- Ordering information on how to buy specific bulletins.
- Ordering information about subscriptions for bulletins.
- Ordering and price information for Repair Manuals.
- Ordering and price information for microfilmed Product Service Information available by subscription or individual microfiche sets.

How to Order Individual Service Bulletins

Instead of buying all bulletins issued by Volkswagen of America, Inc., you can buy bulletins for a particular model or model year. To do this you will first need the current Index. For individual bulletins there is a charge of $4.00 for the first bulletin requested in each order and $2.00 for each additional bulletin requested in that order.

How to Subscribe to Service Bulletins

You can subscribe to individual Volkswagen service bulletins published for all models and model years as they are published. There is no charge to you for a subscription. To order a subscription use the order form in the Index.

Caution

These bulletins are intended for qualified technicians. They are not meant for the CASUAL do-it-yourselfer. Qualified technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. Improperly performed repairs or maintenance can adversely affect the safety of your vehicle, possibly leading to accident or injury. They may also impair the economy, durability or reliability of your vehicle and may void the warranty of your car. If you are not sure that you can perform a job properly and safely, you should not risk trying to do so.

Volkswagen Service Information on Microfilm

Volkswagen offers for sale all service bulletins covering model years 1985 to present on standard microfiche. Also available on microfiche are repair manuals and wiring diagrams. Prices for individual microfiche sets are listed in the latest Index. When you order a one-year subscription for periodic updates to these microfiche, you will receive a starter library consisting of all microfilmed repair manuals, wiring diagrams and service bulletins from model year 1985 to present.

List of Tire Manufacturers for New Volkswagen Vehicles

The Magnuson-Moss Warranty Federal Trade Commission Improvement Act of 1975 and regulations issued pursuant to the act require that a tire warranty pamphlet be placed in every new vehicle prior to sale.

To assist you in obtaining the related warranty information, the following list of tire manufacturers and addresses is being provided.

Manufacturer and Address	Phone Number
Dunlop Tire Corp. P.O. Box 1109 Buffalo, NY 14240	1 (716) 879-8258
Bridgestone/Firestone Inc. 1200 Firestone Parkway Akron, OH 44317 Att: Customer Service	1 (800) 356-4644
Goodyear Tire & Rubber Co. 1144 E. Market Akron, OH 44316 Att: Product Service Dept.	1 (800) 321-2136
Michelin Tire Corp. P.O. Box 19001 Greenville, SC 29615	1 (803) 458-5000
Pirelli Armstrong Tire Corp. 500 Sargenti Drive P.O. Box 2001 New Haven, CT 06536-0201	1 (800) 327-2442
Uniroyal Goodrich Tire Co. 600 S. Main St. Akron, OH 44397-0001	1 (800) 521-9796

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Specifications subject to change without notice.
961.555.190.23

Printed in Mexico 7.95

1995 Volkswagen USA Warranty
961.555.190.23 Printed 7.95

Maintenance
1996



Contents

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Maintenance Record 10

Brake Fluid Service 13

Air Conditioner
Warranty Registration Certificate
(except factory installation)

Attach here
(for dealer use only)

Federal Law requires that a label be affixed to the left door frame when the replacement odometer does not indicate the actual vehicle mileage (kilometers) after repair or replacement.

Genuine Volkswagen replacement speedometers are supplied with the label.

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

Printed in Mexico June 1995

Warranty Voucher for the new Volkswagen automobile.

Present this voucher to an authorized dealer if warranty service is required.

Warranty begins on the month of first use of the vehicle or its delivery to the first retail purchaser, namely on:

2 - 6 - 96

Month Day Year

(to be filled in by authorized Volkswagen dealer)

408/113

Middletown Volkswagen

Stamp of authorized Volkswagen dealer

Speedometer Replacement

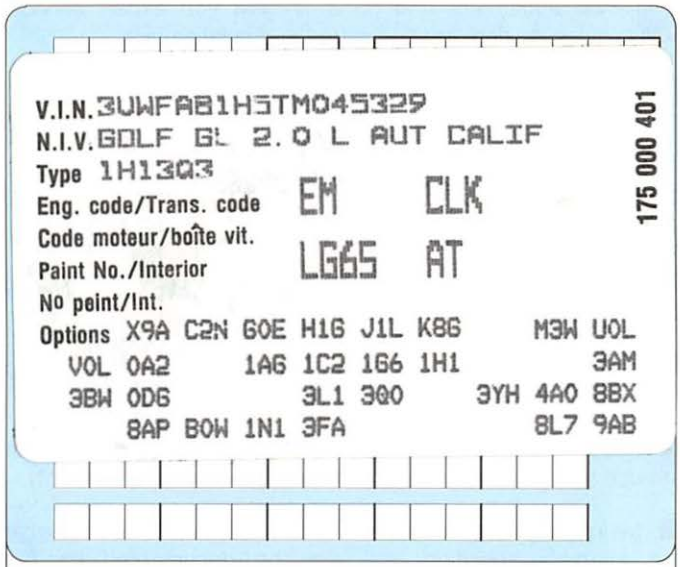
Month Day Year

(to be filled in by authorized Volkswagen dealer)

At Mileage/km

Stamp of authorized Volkswagen dealer

Warranty terms and conditions covering your Volkswagen are printed in the separate Warranty booklet.



Vehicle Identification Label:

1. Vehicle Identification No.
2. Type / Engine Output
3. Engine Code / Engine No. / Transmission Code
4. Paint No. / Interior
5. Optional Equipment

Dealer Service

There are nearly 800 authorized Volkswagen dealers in North America. They have Volkswagen trained technicians, proper workshop equipment and parts to give you expert service. Volkswagen dealers are committed to quality service.

■ Your Volkswagen dealer offers many services for your convenience, such as extended service hours, early bird service, body repairs, to name just a few. Ask about them.

■ Arrange your service with your dealer when it is convenient for you.

■ Ask your Service Advisor about the service you need and discuss the cost involved.

■ Leave word where you can be reached during the day and when you would like to pick your car up.

■ Keep all receipts of maintenance and repairs performed. Your service record is important when making use of your warranty.

■ Maintenance services performed by your authorized dealer at the intervals specified, will also be documented on the **Maintenance Record** pages included in this booklet.

Do It Yourself Service

Your Owner's Manual contains many helpful hints on what you can service yourself.

■ You can check tires for wear or damage and correct tire pressure, including the spare.

■ You can check the windshield washer container. Whenever necessary, refill or top up.

■ You can check your car's interior and exterior lighting system for correct functioning.

■ You can check the engine oil level with every fuel filling.

■ You can perform these simple checks once a week. They save time, trouble and expense later.

Your technician will not check the above mentioned items in each case during regular service and maintenance visits.

Emission Control Maintenance

1. A clean environment is of concern to all of us. Volkswagen has built into your vehicle an efficient emission control system, using genuine Volkswagen parts, in conformance with the Canadian Emission Standards and Federal Clean Air Act in the United States, respectively. To help keep our air clean, you can do your part by providing regular maintenance for the emission control system in your vehicle.

2. **Maintenance, repair or replacement of emission control components may be performed by any qualified automotive service and repair establishment or individual without affecting the Emission Control System Warranty, provided that such repairs are performed to manufacturer's specifications, and that replacement parts are at least equivalent to genuine Volkswagen parts in emission performance and durability. Warranty repairs and replacements, however, must be performed by an authorized Volkswagen dealer.**

3. If other than genuine Volkswagen replacement parts are used, the owner should make sure that such parts are warranted by their manufacturer and that they are at least equivalent to genuine Volkswagen replacement parts in emission performance and durability.

To be certain that the emission control system functions as designed, regular maintenance is necessary for all components of the vehicle which influence exhaust emissions. The individual service operations required for your vehicle's emission control system are listed under Emission Control Maintenance.

The chart on page 4 conveniently illustrates the intervals specified for all service and maintenance operations listed on the following pages.

Why Maintenance?

■ Today's cars are precision engineered machines. They are designed with people's safety in mind, and are equipped with emission control systems to keep our air clean.

■ An untuned engine wastes fuel.

■ An unserviced emission control system can increase pollution.

■ A minor adjustment now may prevent a repair later.

■ Follow the recommended maintenance schedule and make in-between checks. This way you help keep your car dependable and safe.

Volkswagen dealers are ready to serve you and are committed to quality service.

Maintenance Intervals for Gasoline and Diesel Engines	Oil Change	Maintenance Service	Oil Change	Maintenance Service	Oil Change	Maintenance Service	etc.
Miles	7,500[1]	15,000[2]	22,500[3]	30,000[4]	37,500[3]	45,000[4]	
Kilometers	12 000[1]	24 000[2]	36 000[3]	48 000[4]	60 000[3]	72 000[4]	

In addition, the brake fluid must be replaced every 2 years

[1] or 6 months after delivery whichever occurs first.
[2] or 12 months after delivery whichever occurs first.
[3] or 6 months after the last Maintenance Service whichever occurs first.
[4] or 12 months after the last Maintenance Service whichever occurs first.

The intervals shown in the table are based on vehicles operating under normal conditions. In the case of severe conditions, such as extremely low temperatures, excessive dust etc., it is necessary for certain operations to be carried out in between the given intervals. This applies particularly to engine oil changes and the cleaning or replacing of the air cleaner filter element.

Service every 7,500 miles/12 000 kilometers for Gasoline and Diesel Engines

— For required time intervals refer to the **Maintenance Record** or to the table on page 4 –

Emission Control Maintenance

— Engine: Change oil
— Oil filter: First replacement at 7,500 miles/12 000 km for **Gasoline and Diesel engines**

Vehicle Maintenance

— Automatic shift lock: Check operation including park/neutral safety switch (where applicable)
— Brake pads: Check thickness (EuroVan and Diesel)
— Wheels: Rotate front to rear

Service every 15,000 miles/24 000 km

— For required time intervals refer to the **Maintenance Record** or to the table on page 4.

Emission Control Maintenance

— Engine: Change oil
— Oil filter: Replace
— Cooling system: Check coolant level, add if necessary
— Exhaust system: Check for damage and leaks
— Engine: Check for leaks
— Engine idle speed: Check. (Gasoline engine)
— Engine: On-board diagnosis, check fault memory and purge if necessary (where applicable)

Vehicle Maintenance

— Wheels: Rotate front to rear
— Dust and pollen filter: Replace (where applicable)

See page 8 for additional Emission Control Maintenance to be performed every 30,000 miles/48 000 km.

Vehicle Maintenance

- Manual transmission: Check for leaks
- Battery: Check electrolyte level, add if necessary
- Automatic transmission: Check ATF[1)]
- Automatic transmission, final drive: Check level and add if necessary
- Automatic shift lock: Check operation including neutral safety switch (where applicable)
- Power steering: Check fluid level
- Brake system: Check for damage and leaks, thickness of pads and brake fluid level
- Drive shafts: Check boots
- Road test: Check braking, kickdown, steering, electrical, heating and ventilation systems, air conditioning and power accessories
- On-board diagnosis: Check fault memory and purge if necessary
- Tires and spare wheel: Check condition and pressure
- Water separator: Drain water (Diesel)

See page 8 for additional Vehicle Maintenance to be performed every 30,000 miles/48 000 km, every 60,000 miles/96 000 km and every 2 years regardless of miles (kilometers).

1)In the case of sever conditions, such as extremely high temperatures, continuous mountain driving, trailer-towing, predominantly stop-and-go traffic conditions, it is necessary to change the ATF every 30,000 miles/48 000 km. During this time the pan and strainer should be cleaned and the gasket replaced.

Additional Service

Additional Emission Control Maintenance every 30,000 miles/48 000 km

— Air cleaner: Replace filter element
— V-belts: Check tension and condition, adjust if necessary
— Fuel filter: Replace (Diesel engine)
— Spark plugs: Replace
— Engine idle speed: Check, adjust if necessary (Diesel engine)
— Timing belt: Check tension and condition, adjust if necessary (all Diesel engines)

Additional Emission Control Maintenance every 2 years

— Air cleaner: Replace filter element

Additional Vehicle Maintenance every 30,000 miles/48 000 km

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

Additional Vehicle Maintenance every 60,000 miles/96 000 km

— Ribbed V-belt: Check condition; on models with semi-automatic belt tensioner (without tension roller), adjust tension

Additional Vehicle Maintenance every 2 years regardless of miles (kilometers)

— Brake fluid: Replace

Maintenance Record

Delivery Inspection

Date

Miles/km

(dealer stamp)

Oil Change & First Oil Filter Replacement at 7,500 miles/ 12 000 km

or at the latest 6 months after delivery

Date

Miles/km

(dealer stamp)

Maintenance Service at 15,000 miles/24 000 km

or at the latest 12 months after delivery

- ☐ Emission Control Maintenance
- ☐ Vehicle Maintenance

Date

Miles/km

(dealer stamp)

Oil Change at 22,500 miles/ 36 000 km

or at the latest 6 months after the last Maintenance Service

Date

Miles/km

(dealer stamp)

Maintenance Service at 30,000 miles/48 000 km

or at the latest 12 months after the last Maintenance Service

- ☐ Emission Control Maintenance
- ☐ Vehicle Maintenance

Date

Miles/km

(dealer stamp)

Oil Change at 37,500 miles/ 60 000 km

or at the latest 6 months after the last Maintenance Service

Date

Miles/km

(dealer stamp)

ATTENTION: Note oil change intervals – see page 4.

Maintenance Service at 45,000 miles/72 000 km

or at the latest 12 months after the last Maintenance Service

- ☐ Emission Control Maintenance
- ☐ Vehicle Maintenance

Date

Miles/km

(dealer stamp)

Oil Change at 52,500 miles/ 84 000 km

or at the latest 6 months after the last Maintenance Service

Date

Miles/km

(dealer stamp)

Maintenance Service at 60,000 miles/96 000 km

or at the latest 12 months after the last Maintenance Service

- ☐ Emission Control Maintenance
- ☐ Vehicle Maintenance

Date

Miles/km

(dealer stamp)

Oil Change at 67,500 miles/ 108 000 km

or at the latest 6 months after the last Maintenance Service

Date

Miles/km

(dealer stamp)

Maintenance Service at 75,000 miles/120 000 km

or at the latest 12 months after the last Maintenance Service

- ☐ Emission Control Maintenance
- ☐ Vehicle Maintenance

Date

Miles/km

(dealer stamp)

Oil Change at 82,500 miles/ 132 000 km

or at the latest 6 months after the last Maintenance Service

Date

Miles/km

(dealer stamp)

ATTENTION: Note oil change intervals – see page 4.

Maintenance Service at 90,000 miles/144 000 km

or at the latest 12 months after the last Maintenance Service

- ☐ Emission Control Maintenance
- ☐ Vehicle Maintenance

Date

Miles/km

(dealer stamp)

Oil Change at 97,500 miles/ 156 000 km

or at the latest 6 months after the last Maintenance Service

Date

Miles/km

(dealer stamp)

Maintenance Service at 105,000 miles/168 000 km

or at the latest 12 months after the last Maintenance Service

- ☐ Emission Control Maintenance
- ☐ Vehicle Maintenance

Date

Miles/km

(dealer stamp)

Oil Change at 112,500 miles/ 180 000 km

or at the latest 6 months after the last Maintenance Service

Date

Miles/km

(dealer stamp)

Maintenance Service at 120,000 miles/192 000 km

or at the latest 12 months after the last Maintenance Service

- ☐ Emission Control Maintenance
- ☐ Vehicle Maintenance

Date

Miles/km

(dealer stamp)

ATTENTION: Note oil change intervals – see page 4.

Brake fluid Service

Brake fluid absorbs moisture which can be detrimental to the entire brake system. Therefore, the brake fluid must be replaced every 2 years. Your Volkswagen dealer will perform this service for you.

Your Volkswagen dealer will document the service with a stamp and, as a convenient reminder for you, the dealer will also enter the due date for the next service.

The first **brake fluid service** is due in

month_____ year_____

was performed

on

(dealer stamp)

The next **brake fluid service** is due in

month_____ year_____

was performed

on

(dealer stamp)

The next **brake fluid service** is due in

month_____ year_____

was performed

on

(dealer stamp)

The next **brake fluid service** is due in

month_____ year_____

was performed

on

(dealer stamp)

The next **brake fluid service** is due in

month_____ year_____

was performed

on

(dealer stamp)

Operating Instructions Sound System Premium

BRIEF OPERATING INSTRUCTIONS

page

① - **On/off switch** 3

Note: The radio features include anti-theft prevention code system, if the radio does not emit any sound when it is switched on and "SAFE" is displayed, it has been electronically locked up. See page 11 for instructions.

- **Volume control** 3
- **Station finder:** press knob 3
- **Cassette side change-over button.** .3
- **CD function switch** 3

② - **Bass control,** retractable. 3
- **Balance control** 3

③ - **Treble control,** retractable. 4
- **Fade control** 4

④ - **Mode button** to select AM/FM waveband, cassette mode and CD mode. 4
- **Cassette mode** 8
- **CD mode** 10

⑤ - **SCAN** button for automatic station scanning 5

page

- for automatic tape scanning. 5
- for automatic CD scanning. 5

⑥ - **Repeat button** for cassette and CD for title repeat function 5

⑦ - **Mix/DOLBY B NR button** 5

When playing cassettes recorded with DOLBY B NR, press this button.

⑧ - **Station buttons for 6 AM and 6 FM stations** 6
- **Direct CD select buttons** 6

⑨ - **Manual tuning buttons** 6
- **FF/FB buttons on CD** 6
- **TRACK SELECT buttons on CD** . . .6

⑩ - **AM/FM waveband indicator** 7

⑪ - **Cassette mode indicator** 7

⑫ - **Preset station indicator** 7
- **Cassette side indicator** 8
- **CD number indicator** 10

⑬ - **Frequency display** 7
- **Play time/track number indicator** 10

page

⑭ - **Stereo indicator.** 7

⑮ - **Metal-CrO2 tape type indicator** . . .7

⑯ - **DOLBY B NOISE REDUCTION indicator (DOLBY B NR)** 7

⑰ - **Repeat indicator** 8

⑱ - **Cassette Stop/Eject button** 8

⑲ - **Cassette slot** 8

⑳ - **Fast forward and rewind buttons** 8

㉑ - **Anti-theft indicator** 11

㉒ - **CD mode indicator.** 10

㉓ - **TRACK indicator for CD** 10

㉔ - **Play TIME indicator for CD** 10

㉕ - **MIX indicator for CD** 10

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double - D symbol ◻◻ are trademarks of Dolby Laboratories Licensing Corporation.

IMPORTANT!

The CD mode and another functions related with CD changer control operation only work with a connected CD changer. Please ask your retailer.

VWZ9Z7S
SERIAL NO. 3099869

VWZ9Z7S
SERIAL NO. 3099869

Contents

	page
Brief Operating Instructions	2
Operating Instructions	3
Operating Cassette Player	8
Operating CD Player	10
Anti - Theft Coding	11
Warranty, Precautions,Care of Antenna	12
Technical Description	13
Specifications	14
Error Codes Indications for radio/CD - Changer	15
Caution to use a new disc	16

Please detach the "Radio-Card" and keep it in a safe place away from your vehicle!

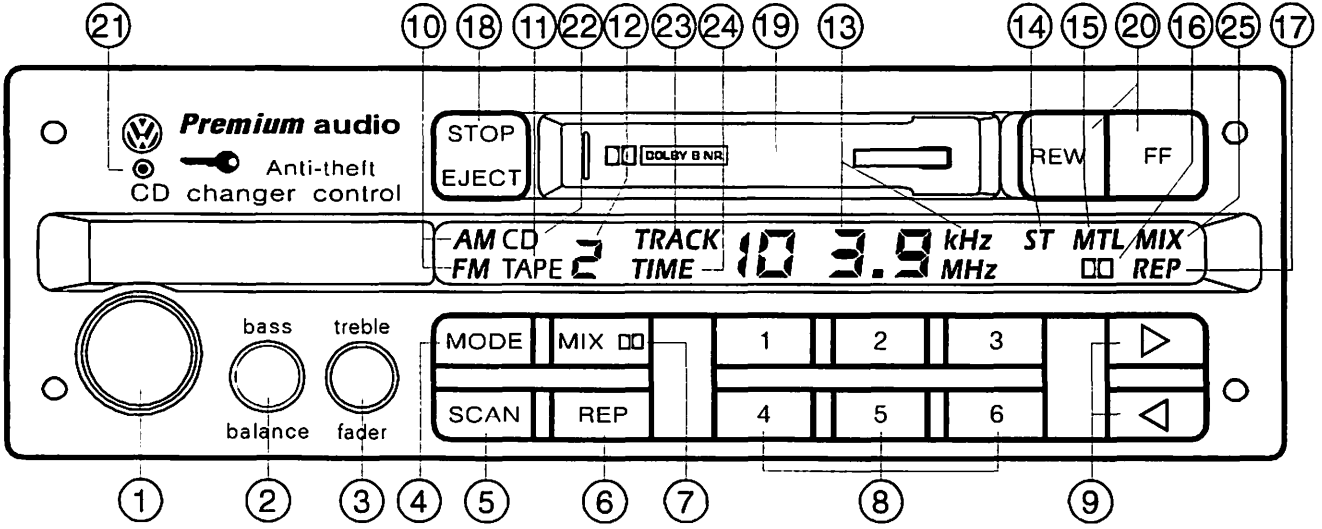
Radio Card

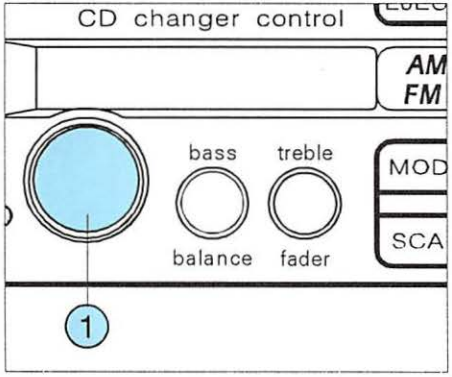
Model Name **Premium**

Serial No. SERIAL NO. VWZ9Z7S 3099869

Code No. CODE NO. 0577

Please attach serial and code numbers.


21
10
18
11
22
12
23
24
19
13
14
15
20
16
25
17
Premium audio
Anti-theft
CD changer control
STOP
EJECT
DOLBY B NR
REW
FF
AM CD
FM TAPE
2
TRACK
TIME
10
3.9
kHz
MHz
ST
MTL MIX
REP
bass
treble
balance
fader
MODE
MIX
SCAN
REP
1
2
3
4
5
6
1
2
3
4
5
6
7
8
9



(1) - ON/OFF Knob

Also acts as volume control and push button for starting station search, cassette side change-over and CD function switch.

■ To switch the unit on, put the ignition key in the steering lock and turn the knob (1) clockwise.
The "Soft On"-audio system will increase the volume slowly to the desired level.

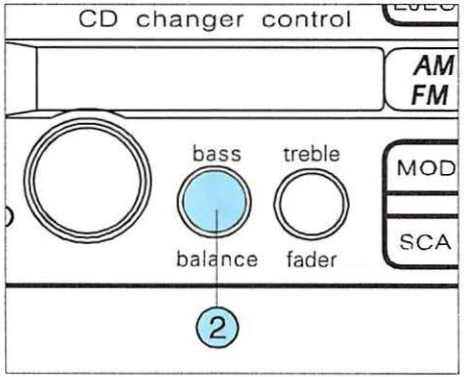
If the radio does not emit any sound when it is switched on and "SAFE" is displayed, it has been electronically locked up. See page 11 for instructions.

■ To turn the unit off, remove the ignition key from the steering lock or turn the knob (1) counter-clockwise until a click is heard.
When you switch off the radio and remove the key, a red diode (21) in the faceplate will start blinking. This means that the radio is anti-theft coded.

■ Press knob to begin station finder, which searches up-band and selects the first station with acceptable reception.

■ When a cassette is playing, the cassette program can be changed to play the other side of the tape by pressing the button (reverse function).

■ When a CD is playing, the play time for each track of disc is showed in the display (13) (minutes and seconds). "TIME" (24) appears in the display. If you press the knob once, indication in display (13) will change to track number. "TRACK" (23) is displayed. If you press again the button, play time will appear in the display, and will continue in the way.
During all time that CD is playing, "CD" mode (22) is displayed.



(2) - Bass Control

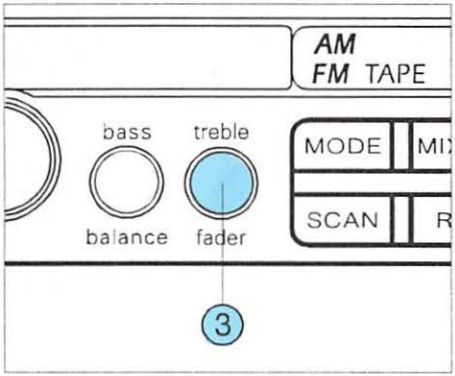
■ Release button by pressing briefly.
■ Turn to adjust to desired bass level
■ Finally, push button back in toprevent inadvertent adjustment.

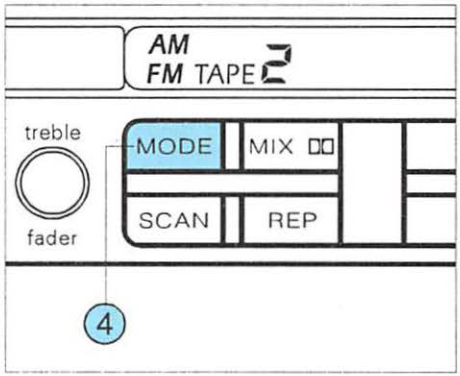
Balance Control

■ Release button by pressing briefly, and pull it out.

■ Turn to adjust to desired volume balance between left and right speakers.

■ Finally, push button back in to prevent inadvertent adjustment.





(3) - Treble control

- Release button by pressing briefly.
- Turn to adjust to desired treble level.
- Finally, push button back in to prevent inadvertent adjustment.

Fader control

- Release button by pressing briefly, and pull it out.
- Turn to adjust to desired volume balance between front and rear speakers.
- Finally, push button back in to prevent inadvertent adjustment.

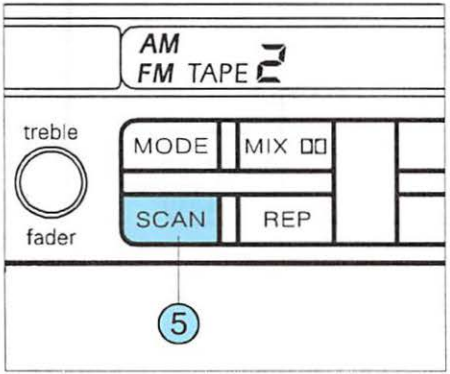
(4) - Mode - Button

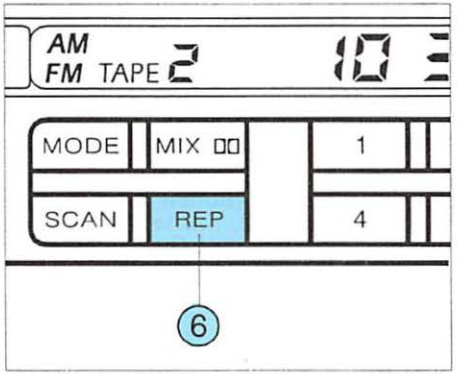
Use the Mode button to select radio waveband, cassette or CD operation [1].

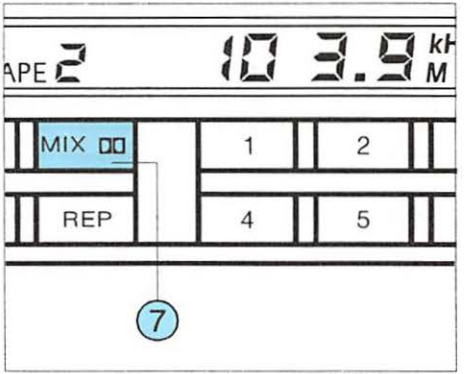
- The selecting occurs in sequence: AM-FM - Cassette [2] - CD [2].
- If you press the Mode button while the radio/cassette/CD is playing, the unit will switch to the next mode in line.
- If you select the CD-mode, the CD will begin playing first disc loaded in the magazine of CD - Changer, track one. If you played CD before, the CD will begin playing at the point where it has been stopped. "CD" (22) appears in the display.
- If you insert a cassette while the radio or CD are playing, the unit will automatically play the cassette.

1) CD operation works only with a connected CD-changer. Please ask your retailer.

2) Only with fully inserted cassette respectively with connected CD-Changer.







(5) - SCAN - Button

Radio Scan

For automatic station search, push the SCAN button. The waveband indicator (10) starts blinking. The unit will begin to search up-band from the currently displayed frequency. It will stop for about five seconds on each station with acceptable reception and then continue. Push the SCAN button again - the waveband indicator stops blinking - to discontinue the automatic search when the desired station has been located.

Cassette Scan

The cassette scan feature is described in the chapter entitled "Operating Cassette Player" on page 8.

CD Scan

The CD scan feature is described in the chapter entitled "Operating CD Player" on page 10.

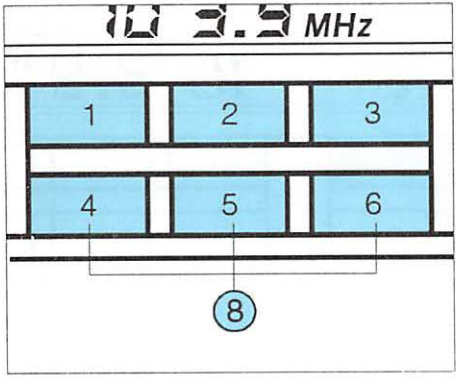
(6) - Repeat - Button

- Press the button to repeat the currently heard title on the cassette.
- Press this button to repeat the currently heard title (track) on the CD.
- The "REP" indicator (17) is displayed.
- Press this button again to discontinue repeat function.
- The repeat function will continue during all time until it be discontinued.

(7) - MIX[1]/Dolby B NR - Button

When playing cassettes recorded with Dolby B noise reduction, press this button.
The MIX feature is described in the chapter entitled "Operating CD Player" on page 10.

[1] The MIX function only works with a connected CD-changer. Please ask your



(8) - Station - Buttons

One AM and one FM stations can be preset on each of these six buttons.

■ Select desired waveband (see ④).

■ Tune in desired station (see ① , ⑤ and ⑨).

■ Press the button on which you want to store the station until the broadcast is muted. The station is now stored.
(The number of the station button appears in the display ⑫).
To tune a preset station, all you do is press the desired station button.

Note

Do not press button for longer than two seconds or the currently displayed frequency will be stored.

Direct CD select buttons

Press the button on which you want to hear desired disc. (Button 1 for Disc 1, Button 2 for Disc 2, ..., to button 6 for disc 6). The number of Disc selected ⑫ appears in the display.

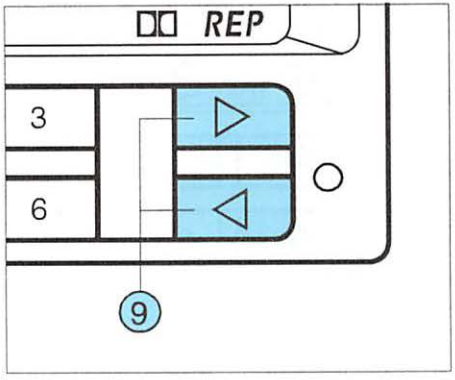
Note

You can use only the buttons in accordance to quantity of discs loaded in the magazine of CD-Changer and its location in the magazine of CD-Changer if there are less than 6 discs.

(9) - Manual Tuning Buttons

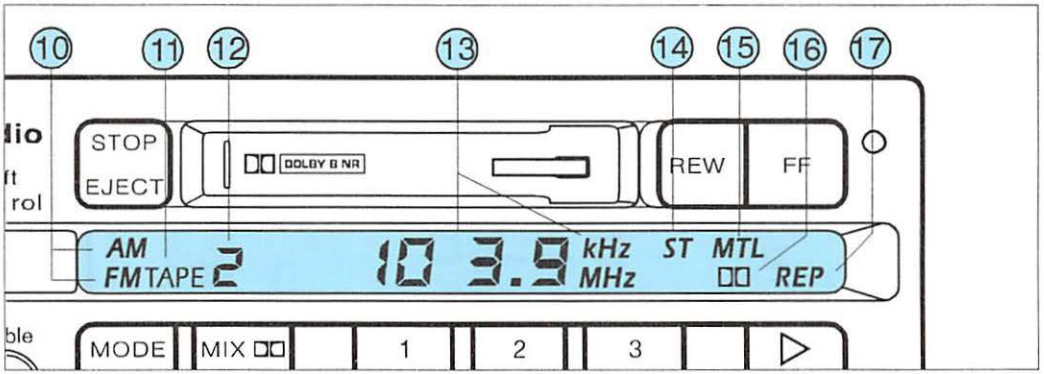
Use these buttons to tune to a station manually. This allows you to tune to weaker stations which would not be selected by the automatic station search function. In addition, you can preset stations on the station buttons that cannot currently be received, but which will be received later on during a trip.

■ Press button briefly-frequency setting changes incrementally, (increments of 10 kHz in AM, and increments of 200 kHz in FM).



■ Press button and hold down frequency setting changes rapidly. The radio is muted as long as the button is kept depressed.

FF/FB buttons and TRACK select button on CD are described in the chapter entitled "Operating CD Player" on page 10.



10 - Waveband Indicator (AM and FM)

11 - Cassette Mode Indicator

12 - Preset Station Indicator

- CD number indicator

13 - Frequency Display

This digital display shows frequency (AM in kHz, FM in MHz).

In CD mode, this digital display shows play time and track number of played disc.

14 - Stereo Indicator

If this symbol is displayed, a station is being received which can broadcast in stereo. This does not mean, however, that a stereo broadcast is currently being received.
The radio switches automatically between stereo and mono in accordance with reception conditions and the program broadcast by the station.

15 - Metal Tape Type Indicator

This unit features an automatic tape type selector and is suitable for use with FeO (ferric oxide), CrO_2 (chrome dioxide) and FeCr (ferro-chrome) tapes. Using a FeO or CrO_2 tape type, "MTL" will be indicated in the display.

16 - Dolby B NR Indicator

17 - Repeat Indicator

Operating Cassette Player

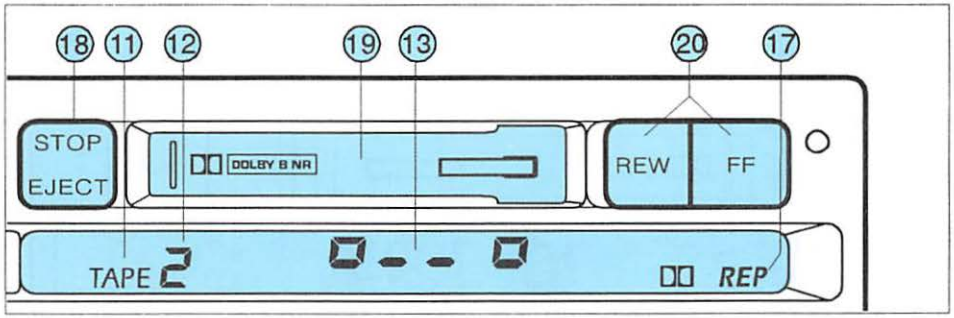
To play a cassette, the radio must first be switched on and a cassette then inserted into the cassette slot ⑲ with exposed side of tape facing to the right. When a cassette is playing, "TAPE" ⑪ appears in the display.
Press button ⑦ when playing tapes recorded using the Dolby B noise reduction system.

Cassette Side Change-Over

Press button ① to change over to other side of tape.
The indicator ⑫ and an acting symbol ⑬ in the display indicate which side is being played. If the cassette player suddenly begins playing the other side of the tape during a selection, it might be because the tape does not spool easily enough. This may remedied by completely winding the tape backwards and forwards a few times. If this does not help, change cassette.
This cassette player features auto-reverse.
When it reaches the end of the tape, it automatically switches to the other side and begins playback.

Fast Forward/Rewind

■ Push fast forward or rewind button ⑳ to lock in rapid winding.
The direction of winding is indicated in the display by an acting symbol ⑬.



■ End fast forward or rewind by pressing the STOP/EJECT button ⑱ .

When it reaches the end of the tape, the unit automatically begins playing the other side.

Eject

Press button ⑱ to eject a cassette when it is being played. This is done by a motor loading system.

Cassette SCAN

To locate the beginning of the next selection, push the SCAN button ⑤. Each selection is playing from the beginning for about ten seconds, and the tape is then advanced to the next selection, an so on. When the desired selection is reached, push the SCAN button again. Playback starts from that position. The "TAPE" indicator ⑪ will be flashing during scanning.

Repeat Button

The repeat system automatically searches the beginning of the just played selection after ending that selection and begins playing it once again (single repeat).

■ Press the button ⑥ to select the repeat system.
■ "REP" ⑰ appears in the display as long as the repeat system is activated.
■ Then the unit continues to playback the selection repeatedly until repeat system is turned off.
■ Press the button ⑥ again, to turn off repeat system.

Note

The intervals between selections must be at least 3 seconds long.

Tips for Operating of Cassette Player

This unit features an automatic tape type selector and is suitable for use with FeO (ferric oxide), CrO_2 (chrome dioxide), and FeCr (ferro-chrome) tapes. To ensure troublefree cassette play, use only cassettes made by well-known manufacturers.

If a pre-recorded cassette shown signs of defect, it is advisable to copy it onto a cassette made by a well-known manufacturer.

To prevent defects caused by the tapes themselves, it's recommended that the recording time of tapes used not exceed 90 minutes. Sixty minute cassettes (C60) are well suited for use.

Never leave cassettes in the vehicle for long periods when they are exposed to very low or very high temperatures. Remember that temperatures inside the vehicle can be considerable higher than outside temperatures.

Also prevent direct exposure to sunlight. The best place to store cassettes is in the hinged boxes they come in or a Genuine Volkswagen Storage Box with spool detent, which is available for most vehicles.

If after many hours of cassette play (about 100 hours depending on the type of tape used), the sound is distorted, it may be because the sound head is soiled with tape particles. These can be cleaned away with a wet cleaning cassette. Use only cleaning cassettes made by a well-known manufacturer, and follow the manufacturer's instruction for use.

Operating CD Player

IMPORTANT !
The CD mode and another functions related with CD Changer Control Operation only work with a connected CD Changer. Please ask your retailer.

■ To play a CD, the radio must be switched on, use the Mode button ④ to select CD operation. The CD will begin playing first disc loaded in the magazine of CD-Changer, track one. If you played CD before, the CD will begin playing at the point (disc and track) where it has been stopped.
"CD" ㉒ appears in the display.

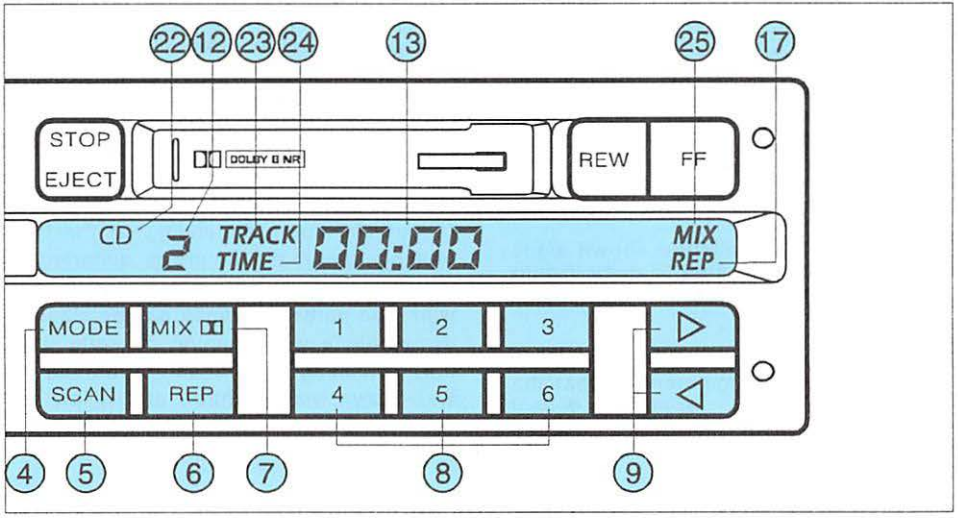
■ Press the button ⑧ which corresponds to the desired disc. (Button 1 for Disc 1, ..., to Button 6 for Disc 6). The number of the selected disc ⑫ appears in the display.

■ Press "▷" (or "◁") buttons ⑨ to select next track (or prior track). During play, press "◁ " button ⑨ once to set the beginning of the track.

■ Press "▷" (or "◁ ") buttons ⑨ continuosly, to select the track continuosly upward (or downward).

■ Press "▷" (or "◁ ") buttons ⑨ and hold it down for audible fast forward (or audible fast backward). (FF/FB feature).

■ When a CD is playing, the play time for each track of the disc is showed in the display ⑬ (minutes and seconds).
"TIME" ㉔ appears in the display. If you press the knob ① once, the indication in the display ⑬ will change to track number.



"TRACK" ㉓ appears in the display. If you press again the button ① , the play time will appear in the display and so on.

CD scan
Press Scan button ⑤ to play the first 10 seconds of each track on the disc. If there are more than one disc, scanning will follow playing the first 10 seconds of each track of next disc.
Press Scan button ⑤ again to cancel SCAN and resume normal play. The "CD" indicator ㉒ will be flashing during scanning.

CD MIX
Press MIX button ⑦ to play at random each track on the disc. If there are more than one disc, it will follow to play at random each track on the next disc.
"MIX" ㉕ appears in the display.
During play, press "▷" (or "◁") buttons to select next track at random.
Press MIX button ⑦ again to cancel MIX and resume normal play.

Anti - Theft Coding

When you switch off the radio and remove the key, a red diode (21) in the faceplate will start blinking. This means that the radio is anti-theft coded.
The Anti-theft Coding will electronically prevent unauthorized persons from operating the unit if it has been removed from the vehicle.

Whenever:
- the radio is disconnected from the vehicle current supply

- the battery is disconnected

- the electric fuse for the radio is blown

the word "SAFE" will appear in the frequency display when the radio is switched on. The unit will only work again if the **correct** code has been entered.

This code number and the radio serial number are on the "Radio Card" next to the table of contents in the front of this instruction booklet.

It is very important that you detach this card and keep it in a safe place never keep it in the vehicle. Only then is the radio useless to thieves!

Cancelling the electronic lock-up

If for any reason your radio has been electronically locked-up for example if the battery has been disconnected or the radio fuse has blown the word "SAFE" will appear in the frequency display when the radio is switched on.

To cancel the electronic lock-up, you must enter the **correct** code number.

It is essential that the following steps be carried out in the correct order.

■ Turn on the radio the word "SAFE" appears in the display.

Press the MODE and SCAN buttons **simultaneously** and hold them down until "1000" lights up in the display. **Release the buttons!** Do not, under any circumstances continue holding them down or press them once again. This would cause the radio to consider the number "1000" to be the input code number.

■ Use station buttons 1 to 4 to input the code number on your Radio Card. Use button 1 to input the first digit of the code number, button 2 to input the second digit, and so on.
For technical reasons the first digit can only be a 1 or left blank. The following three digits, may be any number from 0 to 9.

■ Once the code is shown on the display, press the MODE and SCAN buttons again simultaneously and hold them down until the word "SAFE" appears in the frequency display.

Release buttons! Soon afterward, a frequency will be displayed.
The radio can now be used again.

Incorrect Code Number

Should you inadvertently input the incorrect code number in attempting to release the electronic lock-up, the word "SAFE" will appear in the display first blinking and then continuous.

You can now repeat the entire cancelling procedure **once.** The number of attempts will be shown in the display.

If you input another incorrect number, your radio will be locked up for approximately one hour. The radio will not play. Leave the radio switched on. After an hour, the display with the number of attempts goes out and you can cancel the electronic lock-up as described above.

This cycle two attempts, one hour lock-up still applies.

Note:
Should you lose the Radio Card with the code number, please contact a Volkswagen retailer.

WARRANTY, PRECAUTIONS, CARE OF ANTENNA

Warranty

Our radio systems are covered by the same warranty conditions that apply to new vehicles.
If a warranty claim is made during the warranty period, the unit will be repaired free of charge by any Volkswagen retailer provided that the damage was not caused by improper treatment or attempts to repair it by non-qualified persons, and that the unit has not external damage.

Note:
When you place a warranty claim you must always present your Radio Card with the code and serial numbers to the retailer!

Precautions

■ This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to consuit the dealer or an experienced radio/TV technical for help.

■ Changes or modifications not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment.

Care of Antenna

A dirty telescopic antenna is difficult to push in and may even be bent in the process. When the vehicle is washed, dry off the antenna and clean it from time to time with ordinary chrome cleaner. This also applies to black-chromed antennas.

Automatic antennas must also be cleaned regularly and treated with a chrome cleaner to ensure smooth operation.

If the automatic antenna does not retract or extend properly, the telescopic sections must be cleaned. Never forcibly push in or pull out the antenna by hand.

No maintenance is required on antennas incorporated in the windshield or roof.

Other advantages of windshield antenas are that they are safe from damage and are subject to no wear whatsoever.

Frequency Ranges

AM,FM

Waveband Selection

Touch buttons

Station Selection

In radio mode, automatic selection of last station tuned in before radio switched off (last station memory). Six station buttons for AM and FM. Station finder. Buttons for manual tuning up-band and down-band.
Microcomputer-controlled stabilization of selected station frequency (PLL Quartz Tuning), automatic station scanning.

Cassette Player

Wear-resistant, high-performance sound head, automatic tape type recognition, fast forward and rewind, electrical motor for cassette ejection, autoreverse, repeat function, Dolby B noise reduction system.

Display

Waveband, stereo symbol, preset station button, frequency, scan function, Dolby B NR, repeat function, cassette player and CD-changer [1]functions.

Illumination

Anti-glare illumination of controls from inside (night design), brightness adjustable with instrument lighting.

Reproduction

Stereo (radio and cassette player), active tone control, fader integrated into radio, multi-speaker system.

Power Output: 4 x 20 W
Automatic distortion limiter (soft clipping)

Connection Options

Automatic antenna, active speakers.

CD-Changer

The unit is prepared to connect a CD-Changer. Please ask your Volkswagen retailer for this option.

[1] CD operation works only with a connected CD-changer. Please ask your retailer.

Anti-Theft Coding

Radio is electronically locked-up if current supply is interrupted. The unit can only be reused when the correct code number is input.

Interference Suppression

Specially tuned noise suppressors eliminate nearly all interference pulses emanating from the engine or other parts of the electrical system, such as heater fan, windshield wipers, radiator fan, etc.

SPECIFICATIONS

Power Supply: ..... 12VCD (11V ~ 16V)
Power Output: ..... 4 x 20W
(at 400 Hz with 4Ω load)

Tone action: ..... ±10 dB from 50 Hz to 10000 Hz
Current Consumption: ..... Less than 1.3 A (at 0.5W)
Speaker Impedance: ..... 4Ω (4Ω - 8Ω allowable)

AM radio
Frequency Range: ..... 520 KHz ~ 1710 KHz
Maximum Sensitivity: ..... (at 0.5W) 11 dB (μ V)

FM Radio
Frequency Range: ..... 87.5 MHz ~ 107.9 MHz
Usable Sensitivity: ..... (S/N 30 dB) 10 dB (μ V)

Tape Player
Reproduction System: ..... 4 Track, 2 Program Stereo
Tape Speed: .....2970 ~ 3120 Hz.
Fast Forward Time: .....Less than 130 sec. (C-60)
Rewind Time: .....Less than 130 sec. (C-60)
Frequency Response: ..... 40 Hz to 18 KHz ± 3 dB
Wow and Flutter: .....0.3% (WRMS)
Stereo Separation: .....More than 30 dB
Signal/Noise ratio: .....More than 50 dB

CD Player
Signal/Noise ratio: .....More than 65 dB
Stereo Separation: .....More than 50 dB
Frequency Response: .....17 Hz to 18 KHz ± 3 dB

ERROR CODES INDICATIONS FOR RADIO/CD CHANGER

When a CD Changer is connected to radio, some indications can appear in Radio's display, see the following list for meaning and problems resolution in its case.

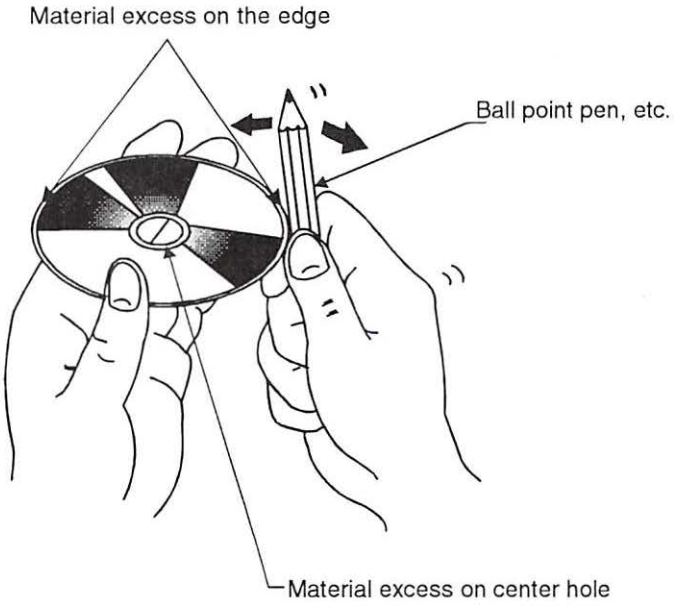
NOTE:
If an error code is displayed and it indicates to contact to your VW retailer, see WARRANTY section in page 12.

ERROR CODE	MEANING OF ERROR CODE	EXPLANATION
Er1	Memory error for CD Changer	This error code appears when the stored data of CD are deleted by an exhausted car battery. To reestablish normal operation, empty magazine should be inserted and ejected by CD changer.
Er2	Mechanism error for CD Changer (Eject/Loading)	This error code appears when the CD changer cannot finish eject operation or disc select operation in the specified time because there is abnormal mechanism condition. To reestablish normal operation, contact to your VW retailer.
Er3	Function error for CD Changer	This error appears when the CD changer can not reset focus error with scratched disc or electrical interference. CD changer will be in pause condition. To reestablish normal operation select next disc in manual form.
Er5	Data Disc error for CD Changer.	This error code appears when the data disc (ex. CD ROM) is inserted. Display shows this error code for 5 seconds and the next disc is selected automatically.

ERROR CODE	MEANING OF ERROR CODE	EXPLANATION
Er6	Disc error for CD Changer	This error code appears when the disc is inserted up side down or a single CD adaptor is inserted without the single disc. Display shows this error code for 5 seconds and the next disc is selected automatically.
HHH	High temperature error for CD Changer.	This error code appears when the temperature sensor of CD changer reaches high temperature. CD changer will be in pause condition. To reestablish normal condition turn off radio and wait until temperature decreases.
no Cd	No Disc for error CD Changer.	This error code appears when the empty magazine or no magazine is inserted in CD changer. Display shows this error code for 5 seconds and previous mode will be reestablish automatically. To reestablish normal operation, insert magazine with at least one disc inside of it.
Er8	Tape eject error	This error code appears in following conditions: The eject operation can not be implemented by inserted foreing material. The eject operation is retried 3 times without success. To restablish normal operation contact to your VW retailer.

CAUTION TO USE A NEW DISC

When use a new disc, sometimes material excess remains on edge and/or center hole (please refer to the right). When use this kind of disc, it can happen that the disc is not set at correct position and the unit cannot operate.
In that case, please use the disc after taking away material excess on disc edge and/or center hole by stick (such as ball point pen, etc).



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