

# Owner's Manual

## Multivan

## Caravelle

## Transporter

▷ TURBO



# Owner's Manual

## Multivan Caravelle Transporter

**All versions of the vehicle types Multivan, Caravelle and Transporter are detailed in this Owner's Manual. The Kombi, Van, Pick-up, Double Cab as well as chassis for body manufacturers are based on the Transporter.**



## You have chosen a Volkswagen – Thank you for your confidence.

### **Your vehicle and the environment**

You have chosen a car which is radical in every respect. Even concerning the environment. Your new vehicle has been developed to damage the environment as little as possible.

We believe that more can be done for the environment today if we forgo some things. In manufacturing your new vehicle, we have, wherever possible, forgone environmentally harmful materials, for example CFCs in plastic parts, cadmium and asbestos.

For the paintwork we are forgoing chemical solvents to an ever increasing degree and are using more water based paints.

Naturally, all engines fitted are low emission.

They are particularly quiet and low in fuel consumption. This is of course dependent on your driving style. Tips and advice on the subject can be found in this manual. Exactly where can be found in the alphabetical index under the heading "Environment".

Your new vehicle has been constructed in such a way that it can be disposed of in an environmentally friendly fashion.

The plastic parts have a special marking to simplify identification and reprocessing of materials at a later date.

Some of these plastic parts are made entirely from 100% recycled material.

### **Your vehicle and its safety aspects**

Your new vehicle sets the standards regarding safety. It offers an extraordinarily high degree of active and passive safety.

Active – from the running gear to the ergonomics of the interior. Passive – from the front end structure and the passenger cell, the steering, the steering wheel, the seats, through to the seat belt system with belt tensioners for driver and front seat passenger.

All this is the result of our safety philosophy.

For us, safety means protection for the vehicle occupants.

A few examples:

The construction of the safety shell is not only extremely stable, but also, in the event of an accident, systematically distributes the impact energy from the front end and rear end structures onto numerous body parts.

Reinforced members in the doors, special transverse reinforcement and sills are but a few examples of this stability.

**Your vehicle and the Service**

all in all passive safety tested in more than 30 different crash tests.

By our own standards, standards which are even higher than those laid down by law and which in many points go further than the strict US standards.

Even the seats in your new vehicle ensure effective protection for the occupants.

They have a robust base, a firm seat ramp and are designed in such a way to prevent you from slipping out from under a seat belt which has been put on incorrectly (submarining) in the event of a collision.

Your vehicle is equipped with a safety steering column whose increased deformation distance considerably reduces the risk of it penetrating the interior and thus increases passive safety.

The Volkswagen Airbag System is the optimal supplement to the fastened seat belt. Triggered by an electronic sensor, it protects the breast and head from possible impact with parts of the vehicle interior.

One of the largest and most efficient service organisations in the world is waiting to look after your vehicle:

In Europe alone there is a network of more than 9000 Volkswagen dealers, who work efficiently and according to works guidelines.

The Volkswagen dealers will also ensure that everything is OK on your vehicle. Besides the

■ 1 year unlimited mileage warranty against defects in manufacture  
a whole package of further guarantees and services is offered in most countries, for example:

■ 6 year warranty against rusting through of the bodywork – without payment of subsequent work.

■ The reliable Volkswagen emergency service in nearly all of West Europe.  
Assistance around the clock – a phone call is enough. For details please refer to the vehicle wallet.

■ The Volkswagen Service telephone.  
If you have any questions, suggestions or criticisms please call our service adviser free of charge on 0130/3102. This service is at present only available in Germany.

- 1 year warranty on workshop repairs.
  - 1 year warranty on all Genuine parts and on Volkswagen accessories approved by us.
  - The quick, low priced Express Service for smaller jobs.
  - A reasonably priced replacement car for the period that yours is being serviced or repaired – ask your dealer.
  - The Volkswagen Accessory Service.  
Tested, factory approved accessories and professional installation please read the notes on page 181.
- Volkswagen dealers will gladly supply details on the services mentioned above and possible deviations in various countries. See also notes in the Service Schedule.

We wish you safe, reliable and enjoyable motoring.

**Volkswagen AG.**

## VEHICLE LITERATURE

You have chosen a Volkswagen -

### **This owner's Manual**

should, together with any supplements, be read carefully as soon as possible so that you can get to know your vehicle quickly.

Besides regular care and maintenance, correct operation serves to maintain the value of the vehicle and is, in many cases, also one of the stipulations for upholding warranty claims.

**For safety reasons please note also the information on "Accessories, modifications and the renewal of parts" on page 181.**

### **One final request:**

When you sell your car please give the complete vehicle wallet to the new owner because the vehicle literature belongs to the vehicle.

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## You should note these points before reading this Owner's Manual

### Range of equipment

It describes the largest possible range of equipment envisaged at the time of going to press. Some of the equipment may not be available until later or will only be available certain markets.



Items of equipment marked with this symbol are only available on certain model versions or are only available as optional extras on certain models or are only available in certain markets.

### Notes



Texts following this symbol and printed in italics are important notes on environmental protection.

### Contents

On the next few pages you will find a contents list which lists all of the points detailed in this Owner's Manual in order.

### Alphabetical index

At the end of the manual there is a comprehensive, alphabetical index. You can find desired information quickly by looking for key words in the index.

### Notes on direction

All notes on direction (left, right, front, rear) in this manual always refer to the vehicle's direction of travel.

Exception: The direction is described differently in the text.

### Warning notes

All blocks of text which have bold print, this colour backing and the title "Attention" refer to potential accident or injury risks.

Texts in bold print warns against possible damage to the vehicle or notes particularly important information on how to treat your vehicle correctly.

## CONTENTS

### CONTROLS AND EQUIPMENT

Overview .....	8	Pedals .....	59	Refrigerator .....	119
Keys .....	10	Handbrake .....	59	Folding table .....	121
Central locking .....	11	Manual gearbox .....	60	Curtains .....	122
Tailgate .....	12	Automatic gearbox .....	61	Sun visors .....	122
Doors .....	12	Ignition lock .....	66	Stowage box .....	123
Wing doors .....	14	Starting the engine .....	67	Drink can holder .....	124
Electric windows .....	16	Stopping engine .....	69	Interior lights .....	125
Sliding window .....	18	Instruments .....	70	Ashtray .....	127
Vent wing .....	18	Warning lamps .....	76	Cigarette lighter/electric socket ..	127
Mirrors .....	19	Switches .....	82	Roof rack .....	128
Seat belts .....	21	Turn signal and dip lever .....	86	Dropside (Pick-up) .....	129
Airbag System .....	30	Cruise control system .....	87		
Safety for children .....	34	Windscreen wiper and washer system ..	88	<b>DRIVING TIPS</b>	
Head restraints .....	39	Heating and ventilation .....	90	The first 1500 km – and afterwards ..	130
Front seats .....	40	Air conditioner .....	94	Driving economically and ecologically ..	131
Seats in passenger compartment ..	43	Climatronic .....	100	Brakes .....	134
Single seats in passenger compartment ..	51	Auxiliary heater .....	108	Electronic Differential Lock (EDL) ..	137
Luggage compartment/load surface ..	56	Sliding/tilting roof in passenger compartment ..	113	Driving a four-wheel drive vehicle ..	138
Luggage compartment cover .....	58	Sliding roof in cab .....	114	Trailer towing .....	140
		Pop-up roof .....	115		
		Roof bed .....	118		

## GENERAL MAINTENANCE

Filling the tank .....	142
Fuel .....	143
Care of vehicle .....	146
Bonnet .....	153
Engine compartment .....	154
Engine oil .....	156
Cooling system .....	159
Air cleaner .....	161
Brake fluid .....	162
Battery .....	163
Spark plugs .....	168
V-belts .....	168
Windscreen washer system .....	169
Windscreen wiper blades .....	171
Dust and pollen filter .....	172
Wheels .....	173
Mobile telephones and two-way radios .....	179
Driving abroad .....	180
Accessories, modifications and renewal of parts .....	181

## DO-IT-YOURSELF

First aid kit, Warning triangle .....	182
--	-----

Vehicle tools, Spare wheel .....	182
Changing wheels .....	186
Fuses .....	189
Changing bulbs .....	193
Installing radio .....	199
Emergency starting .....	200
Tow starting/towing .....	202
Lifting vehicle .....	204

## TECHNICAL DATA

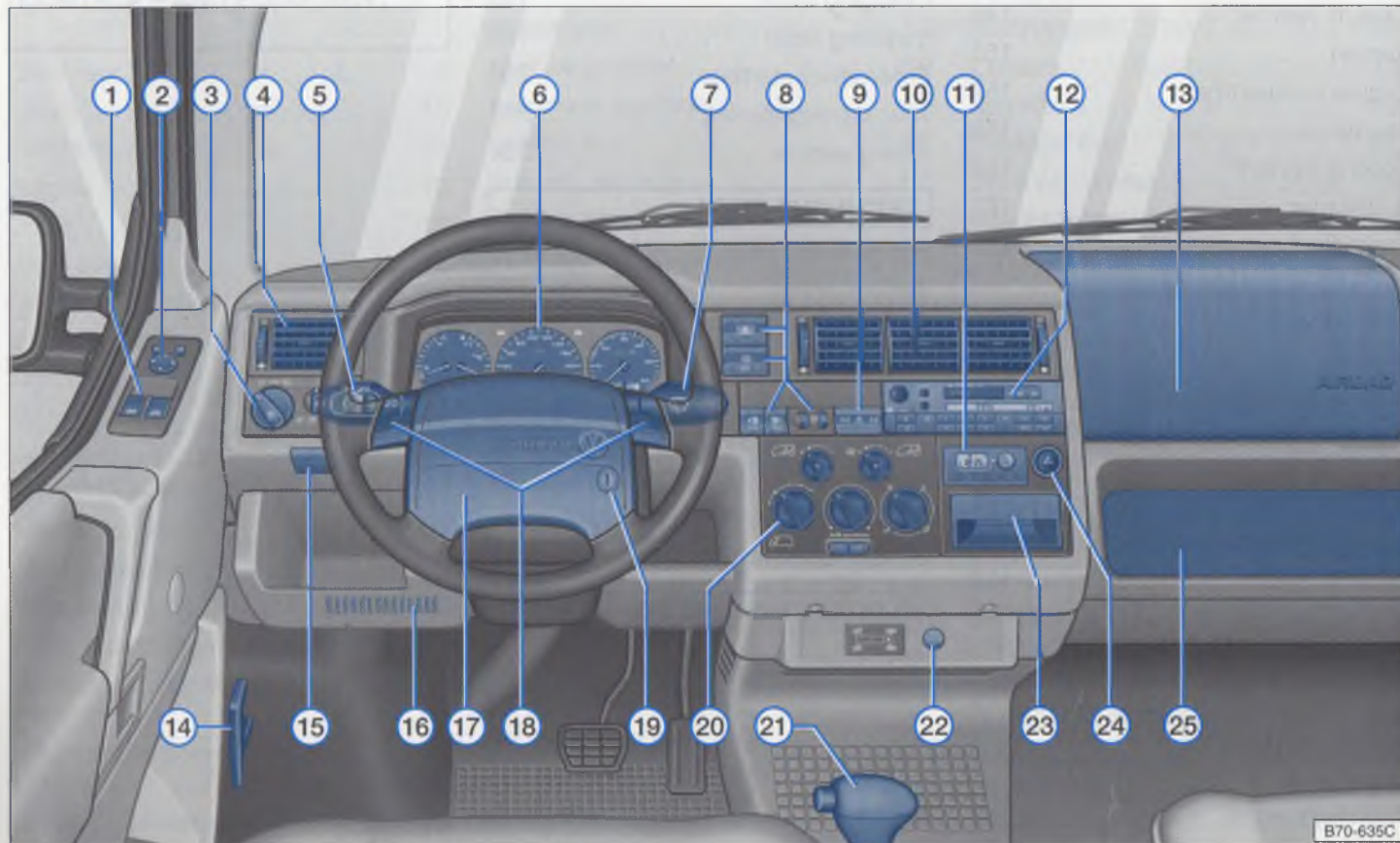
Engine data .....	206
Performance .....	208
Fuel consumption .....	209
Tyre pressures .....	212
Trailer weights .....	213
Weights .....	214
Dimensions .....	224
Auxiliary heater, Refrigerator .....	228
Vehicle identification data .....	228

## ALPHABETICAL INDEX

Index .....	230
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## Overview



B70-635C

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

## CONTROLS AND EQUIPMENT

	Page
1 Switch for electric windows	16
2 Remote controlled outside mirror	19
3 Light switches	82
4 Air vents	92, 97
5 Turn signal and headlight dip lever	86
Cruise control system	87
6 Combi-instrument: Instruments	70
Warning lamps	76
7 Windscreen wiper/washer lever	88
with switch for multi-function indicator	71
8 Switches	83
Knurled wheel for seat heating	84
9 Multi-pin lamps	80
10 Air vents	92, 97
11 Auxiliary heater controls	108
12 Radio <sup>1)</sup>	
13 Passenger-side airbag or glove box	30 123
14 Bonnet release handle	153
15 Cold starting aid (Diesel engines)	68

	Page
16 Fuse box behind shelf	189
17 Driver's Airbag	30
18 Horn (only functions with ignition switched on)	
19 Ignition lock	66
20 Controls and switches for heating/ventilation	90
... for air conditioner	94
... for Climatronic	100
21 Gear stick (manual gearbox)	60
Selector lever (automatic gearbox)	61
22 Differential lock knob console	85
... Filter saturation indicator	161
23 Ashtray	127
24 Cigarette lighter/electric socket	127
25 Glove box	123

■ Some of the items listed are only fitted on certain models or are optional extras.

■ On right-hand drive vehicles the arrangement of the switches and the location of some items can vary. The symbols on the switches are the same as for left-hand drive vehicles.

<sup>1)</sup> Vehicles with a factory fitted radio have a radio instruction leaflet supplied. When service installing a radio, note the instructions on page 199 in the "Do-It-Yourself" section.

## CONTROLS AND EQUIPMENT

### Keys

The vehicle is supplied with two keys<sup>1)</sup> which fit all locks. In addition a key tag with the key number is provided.

For some model versions with a lockable glove box on the front passenger's side an additional key is supplied which only fits the glove box.

#### Attention

■ **Always withdraw key from ignition whenever you leave the vehicle – even if only for a short time. This is particularly important if children are to remain in the vehicle. They could otherwise start the engine or electrics – e.g. electric windows.**

#### Risk of accident!

■ **Do not withdraw key from lock until vehicle is stationary! The steering lock could be unintentionally engaged.**

### Replacement keys

**For reasons of security, replacement keys are only available from Volkswagen dealers.**

#### Key tag

The key tag contain the key number, which is needed to obtain replacement keys. Volkswagen dealers can only order replacement keys if they have this number.

#### Note

**The key tag should be kept separately as keys can only be replaced using this numbers.**

If you sell the vehicle, you should also give the buyer this key tag.

### Electronic immobilizer

The immobilizer prevents unauthorized persons using your vehicle.

A micro-chip is located in the head of the key which automatically deactivates the immobilizer when the key is inserted in the ignition lock.

The system is automatically activated when the ignition is switched off.

#### Note

**The engine can thus only be started with a correctly coded Genuine Volkswagen key.**

**Trouble free operation of your vehicle can only be guaranteed when using genuine keys.**

<sup>1)</sup> In some countries, four keys are provided.

## Central locking\*

With the central locking all the doors, and – depending on the position of the tailgate lock – the tailgate can be locked and unlocked.

The system is operated from the **driver's door** or **front passenger door** – from outside with the key, from inside with the locking knob.

When locking, the locking knobs on all doors must move down. If the knob on one door does not move at any time, open the door concerned and close it properly.

**Blind door and tailgate or wing door** can be locked or unlocked separately with the key.

### Note

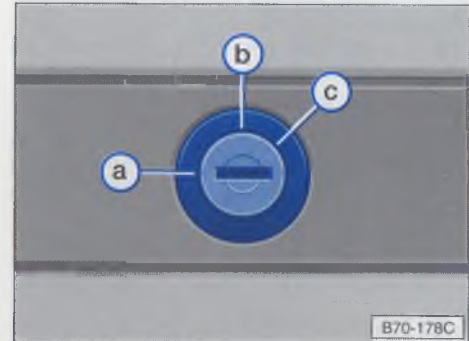
■ If the central locking should develop a fault, all the locks can be operated normally, see page 12.

### Attention

■ When the locking knobs in the driver's or front passenger doors are pressed down all other doors are locked automatically.

Since it would be difficult to render assistance from the outside in an emergency, when the doors are locked, children should never be left in the vehicle on their own.

Locking the doors can prevent them from bursting open in an extraordinary accident situation. Locked doors also prevent uninvited persons from entering the vehicle, e.g. at traffic lights. However, in an emergency they also make it more difficult for outside help to get into the vehicle.



### Tailgate

If the key is withdrawn in the horizontal position (a), the tailgate, once closed, again becomes controlled by the central locking system.

When the key is withdrawn in the vertical position (b), the tailgate will be permanently locked. It can then only be unlocked with the key.

To unlock the tailgate insert key and turn it to right to the stop (c). Hold in this position and operate door handle.

## CONTROLS AND EQUIPMENT

### Tailgate

**To open** the tailgate when key slot is horizontal, pull control behind finger strip on tailgate and lift tailgate.

#### To open from inside\*

On the inside of the tailgate there is, on some model versions, either an opening lever or an emergency lock release which can be reached through a hole in the trim. This makes it possible for vehicle occupants to leave the vehicle via the tailgate in an emergency.

#### Child-proof lock\*

Vehicles with an opening lever on the inside of the tailgate are fitted with a child proof lock.

When the child proof catch is engaged – lever on lock moved down – the inner lever is blocked. The tailgate can then only be opened from outside.

**To close tailgate** pull it down and slam it to gently.

To make the tailgate easier to pull down there is a loop on the inside.

The tailgate/boot lid is locked when the key slot is vertical (with central locking horizontal as well).

#### Attention

■ **After closing the tailgate 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 in lock.**

■ **The tailgate must always be fully closed when vehicle is moving, otherwise exhaust gas will be drawn into the vehicle interior!**

**Danger of asphyxiation**

#### Note

On some model versions, it is necessary to swing the spare wheel bracket to the right before opening the tailgate – see page 185.

### Doors

#### Cab doors

**From outside** the front doors can be locked or unlocked with the key.

When **unlocking**, the locking knobs move up.

When **locking**, the locking knobs move down.

The front passenger door can be locked from outside without using the key: Just press locking knob down and close door.

The driver's door cannot be locked when open by pressing the locking knob down and closing door. This prevents you from leaving the key in the car and forgetting it.

**From inside** all the doors can be locked by pressing down the locking knobs.

As long as the knobs are pressed down the doors cannot be opened from inside or outside.

## Attention

Locking the doors can prevent them from bursting open in an extraordinary accident situation.

Locked doors also prevent persons from entering the car forcibly e.g. at traffic lights. However, in an emergency they make it more difficult for outside help to open the doors.

## Sliding door

**From outside**, the sliding door can be locked and unlocked with the key.

The sliding door can also be locked from outside without using the key: Press locking knob down and close door.

**From inside**, the sliding door is locked by pushing down the locking knob.

As long as the knob is pressed down the door cannot be opened from inside or outside.

When the vehicle is moving, the door must always be properly closed, but when carrying passengers the locking knob should be left in the upper position so that the door can be opened from outside in an emergency.

## Note

In the fully opened position the sliding door is held open by a retainer.



## Child-proof lock on sliding door

When the child-proof catch is engaged – lever on door lock down – the inner lock release lever is inoperative. The door can only be opened from outside with the locking knob in the up position.

## Attention

If sliding door is opened inattentively or hastily with the wing doors fully open to 265°, there is a risk of injury or damage to vehicle.

### Wing doors\*



#### Right-hand wing door

On some model versions, it is necessary to swing the spare wheel bracket to the right before opening the tailgate – see page 185.

**From outside** the wing door can be locked and unlocked with the key. When unlocking the locking knob goes up, when locking it goes down.

#### Unlocking

Turn key to position 1 and operate door handle.

#### Locking

Turn key to position 2.



**From inside** the door is locked by pressing down the knob (A).

As long as the knob is pressed down the door cannot be opened from inside or out. To open the door lift the lever in the direction in direction of arrow.

In the fully open position (approx. 90°) the door is held by a check strap.

#### Attention

**The wing doors must always be fully closed when the vehicle is moving. Exhaust gas could otherwise be drawn into the vehicle interior!  
Danger of asphyxiation!**



#### Child-proof lock on wing door

When the child-proof lock is engaged – lever on door lock down – the inner lock release lever is inoperative. The door can only be opened from outside with the locking knob in the up position.



## Left-hand wing door

The left-hand door can be opened when the right-hand door is open. To open, pull release lever as far as stop in direction of arrow.

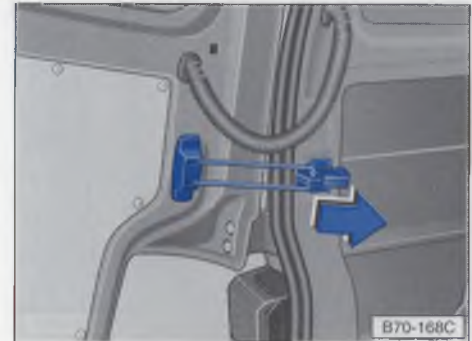
In the fully open position (approx. 90°) the door is held by a check strap.

**Attention**  
**The wing doors must always be fully closed when the vehicle is moving. Exhaust gas could otherwise be drawn into the vehicle interior!**  
**Danger of asphyxiation!**

■ When closing the wing doors always ensure that the left-side door is closed first.

## Unhooking door check strap

Both doors are held in the open position (approx. 90°) by check straps. To open the doors further the check straps can be unhooked



To unhook swing door inwards slightly, until check strap slides out of retainer and then pull check strap inwards.

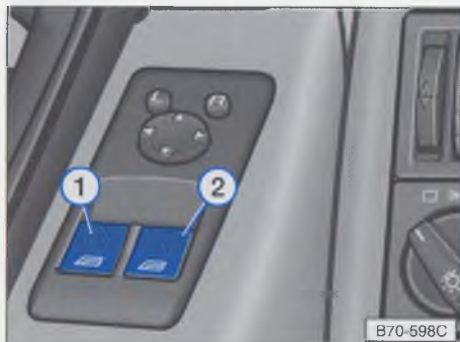
The doors are not held open in the fully open position (approx. 180°). When doors are closed the check straps engage again automatically.

### Note

In the fully open position, the 265° wing doors are held onto the side panel with magnets.



### Electric windows\*



The switches for both windows are located in the driver's door (see illustration). There is a separate switch for the passenger window in the passenger's door.

1 – Driver's door

2 – Front passenger door

Electric windows with an automatic closing function\* are equipped with a **power limiter**.

The window stops closing automatically should anything block it.

#### Attention

■ Always remove the ignition key when leaving the vehicle – even if only temporarily. Please ensure that children are never left unattended in the vehicle.

The window lifters are, however, only fully non-functional when the driver's or passenger door has been opened.

■ Be careful when closing the windows! Careless or uncontrolled closing of the windows can cause injuries.

■ No persons may remain in the vehicle when it is locked from the outside, as the windows cannot be opened in the case of an emergency.

#### Function of window lifters with ignition on

##### Opening

Press and briefly hold the front edge of the respective button and the window will open fully (automatic window opening).

If the switch is pressed again, the window will stop immediately.

##### Closing windows with automatic closing function\*

Lift and briefly hold the front edge of the respective button and window will close fully (automatic window closing).

If the switch is pressed again, the window will stop immediately.

##### Function of the power limitation

- 1 - If the window in the driver's or passenger door is hindered whilst closing through stiffness or by an obstacle (power limitation), the window will open again immediately.
- 2 - After the window has opened, you must lift the appropriate switch again within 5 seconds. If the window is still hindered whilst closing through stiffness or by an obstacle, the window will stop closing.

- After the window has stopped, you must lift the switch again within 5 seconds in order to close the window.

**The window will now close without power limitation.**

### Attention

**Careless or uncontrolled closing of the windows can cause serious injuries!**

### Note

If you wait for longer than 5 seconds between the individual steps, the window will open again.

### Closing the windows without automatic closing function

Lift the switch by the front edge of the window is completely closed.

**Please note that the window closes without power limitation**

### Attention

**Careless or uncontrolled closing of the windows can cause serious injuries!**

### Function of the window lifters with ignition switched off

After the ignition has been switched off, the windows can still be operated for about ten minutes so long as the driver's or passenger doors are not opened.

### Opening

Press and briefly hold the front edge of the respective button and the window will open fully (automatic window opening)

If the switch is pressed again, the window will stop immediately.

### Closing

Lift the switch by the front edge until the window is completely closed. There is no automatic closing function.

If the window in the driver's door is hindered whilst closing through stiffness or by an obstacle (power limitation), the window will open again immediately.

In this case you can only close the window again after the ignition has been switched on.

### Note

The automatic opening/closing function\* on the driver's and passenger door windows will not function after the vehicle battery has been disconnected/reconnected.

To reinstall this function after reconnecting the battery, please note the following points.

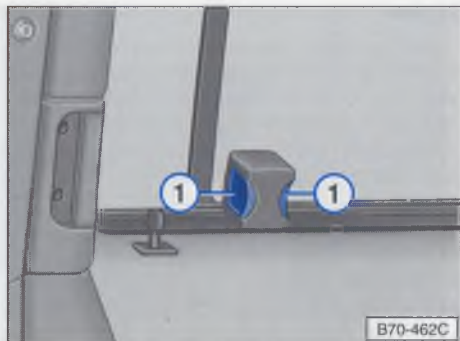
Switch on ignition and open the window in the driver's door fully using switch (1). Then release the switch.

Fully close the window by lifting the switch (1). The automatic closing and opening function in the driver's door has now been reinstalled.

Repeat this procedure for the window in the passenger door using switch (2).

## CONTROLS AND EQUIPMENT

### Sliding window\*



#### Opening

Press the two buttons (1) at the same time and slide window open.

The sliding window can be locked in several positions.

#### Closing

Press the two buttons (1) at the same time and slide window closed.

### Vent wing\*



#### Opening

Pull locking arm in direction of arrow and push outwards until the lever catches.

#### Closing

Pull locking arm forwards, then inwards until the lever catches.

## Mirrors

### Adjusting mirrors

The rear view mirrors should always be adjusted properly before moving off so that good vision to the rear is obtained.

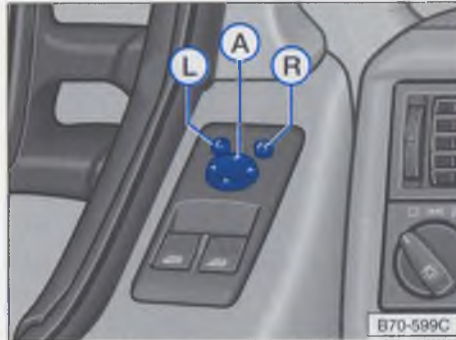
### Anti-dazzle inside mirror

The lever on the lower edge of the mirror should be pointing forwards when the basic setting is made.

To set the anti-dazzle position, pull lever to the rear.

**Normal outside mirrors** are adjusted by pressing the edge of the mirror surface.

**Outside mirrors with extended mirror arms** are adjusted by tilting the mirror surface.



**Electrically adjustable mirrors\*** are set by pressing the edge of the knob **A** in the driver's door trim.

By pressing the two upper buttons **L** or **R** switches to the left or right-hand mirror.

If the electrical control of the mirror fails at any time the mirrors can be adjusted manually by pressing on the edge of the mirror surface.

**Note for vehicles with convex or aspherical outside mirrors \***

**Convex** (curved outwards) mirrors enlarge the field of view but they make objects look smaller. **These mirrors are only of limited use in estimating how far away a following vehicle is.**

**Aspherical** outer mirrors have a mirror surface with different curvature. This wide-angle mirror increases the area of vision even more so than conventional convex mirrors. **Their usefulness is also limited when judging the distance to vehicles approaching from behind.**

### Mirror heating\*

**Electrically adjustable mirrors\*** are switched on when the ignition is switched on and the amount of heat is regulated automatically depending on the ambient temperature.

### Folding outside mirrors in

The outside mirrors can be folded in. To do this pull mirror housing towards vehicle until the retainer locates.

#### Notes

■ Before putting the vehicle through an automatic washing plant, the mirrors should be folded in to prevent them becoming damaged.

■ These remarks apply only to vehicles with normal outside mirrors. Mirrors on extended arms can also be folded in but they have no detent.



### Folding outside mirrors back

#### Attention

When folding mirror back out ensure that the fingers are not trapped between mirror and bracket - Danger of injury.

Press mirror in towards vehicle, press retainer in (arrow **A**) and fold mirror out.

## Seat belts

### Why have seat belts?

It has been proven that seat belts give good protection in accidents. In most countries, therefore, the wearing of seat belts is required by law.

#### Attention

■ The belts should be put on before every journey – even in town traffic. This also applies to the rear seats.

Pregnant women too should always wear a seat belt. This is the only way to guarantee protection to the unborn child! For more information on this point please see page 27.

■ The routing of the belt is of major importance to the protective effect of the belt. How the belt should be worn is described on the next pages.

How children can be carried safely in the vehicle is explained on page 34.



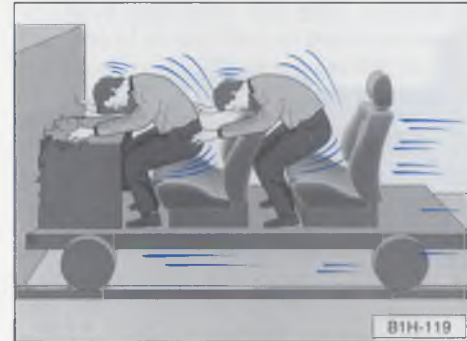
This illustration shows a car driving towards a wall. The vehicle occupants are not belted in.

The physical principle of a frontal crash is easy to explain:

As soon as the vehicle is moving, so-called "kinetic energy" is created by the movement of the vehicle in the vehicle itself as well as in the vehicle occupants.

The extent of the "kinetic energy" effect depends largely on the speed of the vehicle and on the weight of the vehicle and the vehicle occupants.

The higher the speed and the greater the weight of the vehicle, the more energy must be dispersed should an accident occur.



The speed of the vehicle is, however, the more important factor. If, for example, the speed increases from 25 km/h to 50 km/h, the kinetic energy increases fourfold!

As the vehicle occupants in our example are wearing no seat belts, their entire kinetic energy can only be dispersed through the crash into the wall, should a crash occur. The consequences would be severe or possibly even fatal injuries.

## CONTROLS AND EQUIPMENT



If you are driving at a speed of only 30 km/h to 50 km/h, forces which can easily exceed one tonne (1000 kg) are exerted on the body should an accident occur.

The forces exerted on your body will increase further at higher speeds, i.e. at twice the speed the forces increase fourfold!

Vehicle occupants not wearing their seat belts are thus not "linked" to their vehicle.

In a frontal crash, these people will continue to move forward at the same speed as the vehicle was travelling before the vehicle crashed!



In case of a frontal collision accident, occupants who are not belted up are thrown forwards and collide with parts of the vehicle interior, e.g. steering wheel, instrument panel or windscreen.

Vehicle occupants who are not belted in may even be thrown out of the vehicle. This could even lead to serious injuries.

The widespread opinion that you can protect your body with your hands in the event of a light accident is not correct. Even at low speeds of collision, forces which cannot be deflected act on the body.



It is also important that occupants sitting on the rear seat bench are belted in, as they can also be thrown through the vehicle in the event of an accident. Somebody sitting on the rear seat and not using a seat belt is endangering not only himself, but also the occupants of the front seats.



### Protecting seat belts

Seat belts which are worn properly keep vehicle occupants in the correct seating position. Belts reduce kinetic energy considerably.

They also prevent uncontrollable movements which can also be the cause of severe injuries.

Vehicle occupants who wear their seat belts correctly benefit greatly from the fact that kinetic energy is absorbed by the belt. The vehicle front structure and other passive safety measures, such as the Airbag-System, also guarantee a reduction in kinetic energy. The energy created is thus kept to a low level and the risk of injury reduced.

Our examples describe frontal crashes. These physical principles also apply, of course, to other types of accident and to vehicles with the Airbag-System.

That is why you **must** put on your seat belt before every journey, even if you are only going "just round the corner". Please also ensure that your passengers are correctly belted in.

You have seen how seat belts function in the case of an accident on previous pages.

Accident statistics have proven that the risk of injury is reduced and the chance of survival in a serious accident is increased if the seat belt is worn properly.

For this reason, the wearing of seat belts is a legal requirement in most countries.

The correct method of wearing the seat belt, and how the Airbag System functions, is described on the following pages.



## CONTROLS AND EQUIPMENT

### General notes

■ The belts should be put on before each journey – even in town traffic!. This also applies to the rear seats.

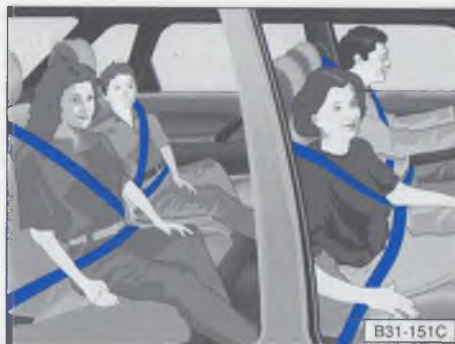
■ The maximum level of protection by the seat belts can only be attained if the belts are worn properly.

■ Please ensure that the belts are put on exactly as described in this chapter.

Putting the seat belt on underneath your arm, for example, would considerably increase the risk of injury in the case of an accident!

■ The belt must not be twisted or caught, nor should it be allowed to rub on any sharp edges.

■ Two people (including children) must never be secured with one belt. It is particularly dangerous to belt your child in when it is sitting on your lap.



■ The belt should not be worn over hard or breakable articles (glasses, ball pens etc.) because this can cause injury to the body.

■ Loose, bulky clothing (e.g. overcoats over jackets) affects the fit and function of the belts.

■ The belts give maximum protection only in the correct seat position – see page 40.

■ You must always keep your feet in the foot well during a journey – never on the dashboard or on the seats.

■ The belts must be kept clean as dirt may affect the proper functioning of the retractors (see also "Care of vehicle" chapter).

■ The slot for the belt tongue must not be blocked with paper or anything similar, as the tongue can otherwise not engage properly.

■ You should check your seat belts regularly. If you find any damage on the belt, belt connections, retractor or the locking pieces, the belt must be replaced by a Volkswagen dealer.

- The seat belts may not be removed from the vehicle or modified in any way. Do not attempt to repair the seat belts yourself.
- Belts which are stressed and thus stretched in an accident must be replaced by a Volkswagen dealer. The belt anchorages should also be checked.

### Notes

There are no seat belt fastening points in the load area of a van.

- In some export countries seat belts could be used on which the functions differ from those described on the next pages.

### How are seat belts put on properly?

#### Putting 3-point belt on

**Before putting the seat belt on adjust the front seat to your height – see page 40.**

The inertia reel belt gives complete freedom of movement when pulled slowly. Sudden braking however will cause the belt to lock.

The mechanism will also lock the belt when accelerating, driving down steep gradients or cornering.

#### Attention

**Seat belts can only give their maximum protection in an accident if the back rest is in an upright position and the belt is fitted closer to the body.**

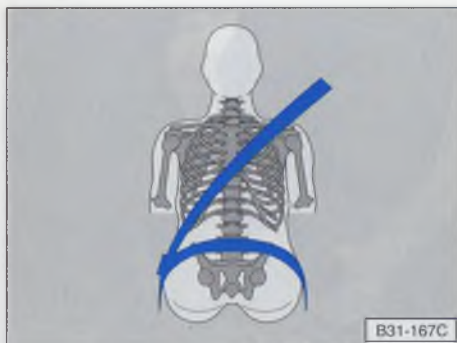


- Pull belt by the tongue slowly and smoothly across the chest and hips.
- Push the tongue into the locking part for the seat until it engages audibly (**pull to test!**).

#### Attention

**The tongue must be pressed into locking part designated for that seat and seat belt – the protective effect of the belt will otherwise be negatively affected and the risk of injury increases!**

## CONTROLS AND EQUIPMENT



### Attention

The shoulder part of the belt must run roughly across the centre of the shoulder as shown - on no account against the neck - and be firmly in contact with the body.

The lap part of the belt must fit tightly across the pelvis - not across the stomach. If necessary, pull the belt tight.

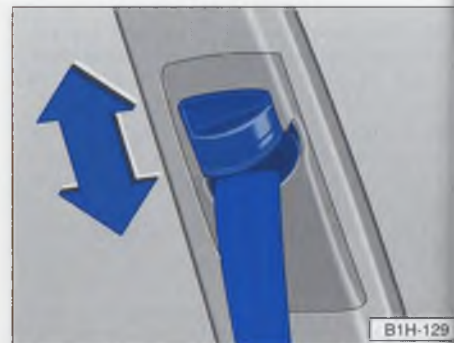


### Attention

■ Please ensure that the seat belt is fitted properly.

■ A seat belt which is worn incorrectly could also cause injury in an accident.

■ A seat belt which is worn too loosely could cause injury as your kinetic energy will throw your body further forward in an accident and it will be caught abruptly by the seat belt.



With the aid of the **belt height adjuster** the routing of the front seat shoulder belt can be set to fit the body properly.

■ To adjust, push button with relay fitting up or down so that the shoulder part of belt runs roughly across the centre of the shoulder as shown in the left-hand illustration - **on no account against the neck.**

■ After adjusting, pull the belt with a jerk to ensure that the relay fitting is properly engaged.



### Attention

**Pregnant women should always wear a sat belt too.**

**The lap part of the belt should be as low as possible across the pelvis so that no pressure is exerted on the abdomen.**



### Taking 3-point belt off

To release the belt, press the orange-coloured button in the lock. The tongue will then spring out.

Pass the tongue towards the door by hand so that the retractor can roll the belt up properly. A plastic knob in the belt holds the tongue in a convenient position.

### Seat belt retainer\*

#### Attention!

■ When taking off the rear three point seat belts the belts must be pushed underneath the loops provided on the side trim panels. This will prevent the belts from becoming damaged when the rear seat backrest is folded forwards.

■ Before removing the single seats, you should remove the seat belts from the retainer so that the belts are not damaged.

### Two-point inertia reel belts

The single seat with refrigerator and the single folding seats are equipped with two-point inertia reel belts.

The inertia reel belt gives complete freedom of movement when pulled slowly.

The mechanism will lock the belt when accelerating, driving in mountainous regions or cornering.

### Putting on two-point belt

Pull the tongue slowly and smoothly across the hips and push it into the lock part fitted on the seat until the tongue engages audibly (**pull to check**).

#### Attention

■ **The two-point belt must be fit tightly over the pelvis – not the stomach.**

■ **Pregnant women should always wear a seat belt too.**

**The lap part of the belt should be as low across the pelvis as possible so that no pressure is exerted on the abdomen.**

### Taking 2-point belt off

To release the belt, press the orange-coloured button in the lock. The tongue will then spring out.

Pass the tongue towards the door by hand so that the retractor can roll the belt up properly.



### Lap belt

The belt lock is used in the same way as on the three-point inertia reel belts.

For safety reasons a lap belt not being used should always be connected to the buckle

### Attention

■ The lap part of the belt must fit tightly across the pelvis – not across the stomach. If necessary pull the belt tight.

■ Pregnant women should always wear seat belts too.

The lap part of the belt should be as low as possible across the pelvis so that no pressure is exerted on the abdomen.



**To lengthen belt** hold the tongue at right angles to belt and pull belt through to the required length – see illustration.

The belt is easier to adjust if tongue and cap are pressed together.



**To shorten belt** it is only necessary to pull the free end of belt.

The surplus belt length is taken up by moving the plastic slide.

### Airbag System\*

**Vehicles with Airbag System** for the driver and passenger can be recognized by an inscription "AIRBAG" on the steering wheel padded plate and on the passenger-side end of the dash panel.

**Supplementing the three-point seat belts, the Airbag system offers** additional protection for the driver's and passenger's head and chest in a serious frontal collision.

Apart from its normal protective function, the seat belt also has the task of keeping the driver or passenger in such a position so that the Airbag can offer maximum protection in the case of a frontal collision.

#### Attention

**The seat belts and airbag system can only offer maximum protection when the seat is in the correct position – see page 40.**

**The Airbag System will not be triggered for:**

- Side collisions
- Rear collisions
- Rolling-over
- Minor frontal collisions

**The seat belts should therefore always be used not only for reasons of statutory regulations, but also for safety!**

**Please also refer to the notes on pages 21 to 29.**

**Essentially the system consists of**

- the electronic control and monitoring unit
- both airbags (air sack with gas generator) for:
  - driver (in steering wheel),
  - passenger (in dash panel)
- a warning lamp in the instrument panel – see page 80.

The **readiness** of the Airbag System is electronically monitored.

Each time the ignition is switched on the warning lamp lights for about 3 seconds (self diagnosis).

#### Note

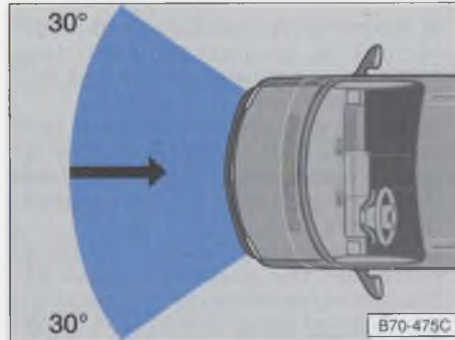
The Airbag system is maintenance-free for the entire service life of the vehicle.

## There is a fault in the system if

- when switching on the ignition the warning lamp does not light.
- after switching on the ignition the warning lamp does not extinguish after about 3 seconds
- the warning lamp goes out and come back on again after switching the ignition on
- the warning lamp comes on or flickers during the journey.

### Attention

When a fault is present the system should be checked by a Volkswagen dealer immediately. Otherwise there is the danger that the Airbag will not be activated in the case of a frontal crash.



### Function

The Airbag System is so designed that it will be triggered during a serious frontal collision.

The range in which the system will be triggered is shown in the left-hand illustration.

If the system is triggered, the air sacks fill with propellant gas and unfolds in front of the driver and passenger.

When plunging into the fully inflated air sack (see right-hand illustration) the forwards movement of the front seat occupants will be cushioned and the risk of injury to head and upper body reduced.



Special openings in the air sack allow a controlled exit of gas when under load from the occupants to cushion the head and upper torso. Therefore, after an accident, the Airbag will have emptied to the point that forward vision is again possible.

The Airbag inflates in a split second to be able to offer additional protection during an accident.

A fine dust will appear when the Airbag inflates. This is completely normal and does not mean that the vehicle is on fire.



## CONTROLS AND EQUIPMENT

### Airbag System

#### Warning Notes

■ It is therefore important to maintain a certain distance from the steering or instrument panel so that the front seat occupants have the best possible effective protection if the system is triggered. The front seats should also always be correctly adjusted according to the height of the occupant – see page 40.

■ If you are not wearing a seat belt or lean forward whilst driving or are sitting in the wrong position, you are open to a higher risk of injury in an accident when the Airbag system inflates.

■ Children must never be allowed to sit unsecured on the front seat whilst the vehicle is in motion. If the Airbag system is triggered during an accident, children could be seriously injured or killed. For further important points please refer to the chapter on "Safety for children", on page 34 onwards.

■ No persons, animals or objects should be located between the front-seat occupants and the effective range of the airbags

■ The protective function of the airbag system only lasts for a single accident! If the airbag has been triggered, the system must be exchanged.

■ The steering wheel padded plate and the padded surface of the airbag module on the passenger side of dash panel must not have stickers attached, nor should they be covered or reworked in any other way. These parts should only be cleaned with a dry cloth or a cloth moistened with water.

No other items such as, for example, telephone or cup holders should be attached to the Airbag module.

■ No modifications of any kind may be undertaken on the parts of the Airbag System.

■ All work on the Airbag System, including the removal and installation of system parts during other repair work (e.g. removing steering wheel), should only be carried out by Volkswagen dealers.

■ When the vehicle is sold, the complete vehicle wallet should be also passed on to the new owner. please note that this also applies to the documentation for the passenger Airbag, which might be deactivated.

#### Note

■ If the vehicle or individual parts of the Airbag System should be scrapped, always observe the relevant safety regulations. Volkswagen dealers are familiar with these regulations.

### Special feature to note if the passenger airbag is deactivated

It is technically possible to deactivate the passenger airbag on your vehicle, for example if a rearward-facing child seat is to be used on the front passenger seat.

**As soon as the child seat is no longer needed, the passenger-side Airbag should again be made operational.**

**If using a child seat, the section headed "Safety for Children" on page 34 should be read carefully.**

The **readiness** of the airbag system is electronically monitored, even when the passenger airbag is deactivated.

Each time the ignition is switched on the warning lamp lights up for about 3 seconds, then flashes for about 12 seconds (self diagnosis).

### There is a fault in the system if

- the warning lamp does not light up or flash when the ignition is switched on
- the warning lamp does not go out after the time given above has elapsed
- the warning lamp goes out and come back on again after switching the ignition on
- the warning lamp lights up, flickers or flashes while driving.

#### Attention

**When a fault is present the system should be checked by a Volkswagen dealer immediately. Otherwise there is the danger that the Airbag will not be activated in the case of a frontal crash.**

### Safety for children

Children under 12 years of age should normally travel on the rear seat<sup>1)</sup>. Depending upon their age, height and weight, they must be protected with either a child restraint system or the seat belt provided. For reasons of safety, the child restraint system should be fitted in the middle of the bench seat or behind the passenger seat.

The physical principles apparent in an accident, which are detailed on pages 21 to 23 naturally also apply to children.

As opposed to adults, the muscle and bone structures of children are not yet fully formed. As such, children are subject to a higher risk of injury.

In order to reduce this risk of injury, children may only be transported in special child restraint systems!

<sup>1)</sup> Observe any statutory regulations to the contrary.

#### Attention

■ All vehicle occupants, and particularly children, must be belted in during the journey.

■ You should never allow your child to stand or kneel whilst the vehicle is in. Should an accident occur, your child will be thrown through the vehicle and could be seriously injured.

■ If children lean whilst the vehicle is in motion or adopt an incorrect sitting position, they are subjected to an increased risk of injury. This applies in particular to children seated on the passenger seat when the Airbag system is triggered during an accident. This could cause serious or fatal injuries.

■ A suitable child restraint system can protect your child!

■ Do not leave your child unattended in the child seat.

■ Children under 1.50 m (5') tall must not use normal seat belts without the child restraint system. This could cause injury to the stomach and neck.

Only officially approved child restraint systems which are suitable for the child should be used.

The ECE-R<sup>2)</sup> standard 44 applies to child restraint systems. This categorizes restraint systems into four classes:

- Class 0: 0–10 kg
- Class 1: 9–18 kg
- Class 2: 15–25 kg
- Class 3: 22–36 kg

Child restraint systems tested according to ECE-R standard 44 are clearly marked with the ECE-R test mark 44 (capital E in a circle, with test number below).

## Class 0

For babies up to a weight of 10 kg. Most suitable are those which can be adjusted to the lying position (see left illustration).



### Attention

**A child seat in which the child sits with its back to the direction of travel may only be used if the passenger-side Airbag has been deactivated. Serious injuries could otherwise occur to the child.**

**Ask your Volkswagen dealer about the conversion.**

**As soon as the child seat is no longer needed, the passenger-side Airbag should again be made operational.**



## Class 1

For babies and small children weighing between 9–18 kg. Best suited are child seats with safety board – see illustration – or child seats in which the child faces backwards.

<sup>2)</sup> Regulation of the Economic Commission of Europe

## CONTROLS AND EQUIPMENT

### Safety for children

#### Attention

A child seat in which the child sits with its back to the direction of travel may only be used if the passenger-side Airbag has been deactivated. Serious injuries could otherwise occur to the child.

Ask your Volkswagen dealer about the conversion.

As soon as the child seat is no longer needed, the passenger-side Airbag should again be made operational.



#### Class 2

For children weighing between 15 – 25 kg. Best suited are child seats combined with 3-point safety belts.

#### Attention

The shoulder part of the belt must run roughly across the centre of the shoulder as shown – on no account against the neck – and be firmly in contact with the body.

The lap part of the belt must fit tightly across the pelvis – not across the stomach. If necessary, pull the belt tight.

Head restraints\*



**Attention**  
The shoulder part of the belt must run roughly across the centre of the shoulder as shown – on no account against the neck – and be firmly in contact with the body.  
The lap part of the belt must fit tightly across the pelvis – not across the stomach. If necessary, pull the belt tight.

Children more than 1.50 m/5' tall can use the seat belts fitted without seat cushions.



**Attention**  
On no account should children, even small babies, travel sitting on somebody's lap.

When using the belt the section "Seat belts" should also be noted.

**Class 3**

For children weighing between 22 – 36 kg and less than 1.50 m (5') tall. Best suited are seat cushions combined with the 3-point seat belt.

### Notes

■ We recommend that child restraint systems from the genuine accessory range of the Volkswagen dealers are used. Here, restraint systems for all age groups are offered under the name "Boby"<sup>1)</sup>. These systems fulfil all the requirements mentioned and over and above this, have been developed and tested by us for use in Volkswagen vehicles.

■ For the installation and use, attention must be paid to statutory regulations and the instructions of the restraint system manufacturer.

### Attention

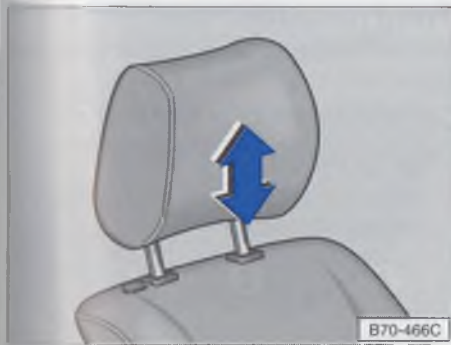
■ Particular care is required if child restraint systems are used, which are bolted on together with the belts fitted in the vehicle. The bolts must be screwed into the hole for the complete nominal length and tightened to 40 Nm.

■ The seat belts must be checked for correct routing. Furthermore, the belt must not be able to be damaged by sharply edged fittings.

■ Only one child may be belted in using a child restraint system.

<sup>1)</sup> Not in all export markets

## Head restraints\*



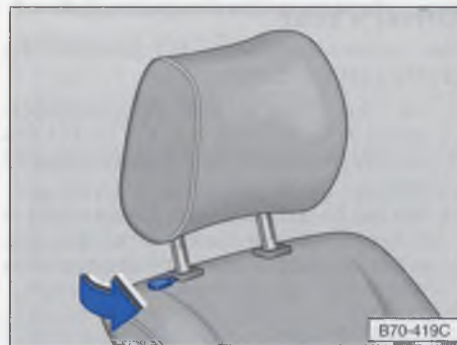
The head restraints are height adjustable and should be set to suit the size of the person in the seat. Correctly adjusted head restraints together with the seat belts offer effective protection.

### Adjusting height

- Grip sides of head restraint with both hands and pull up or push down.
- The best protection is obtained when the upper edge of restraint is roughly at eye level.

### Note

In vehicles with a high partition the head restraints are not adjustable.



### Removing and installing

To remove head restraints, pull restraints up to the stop, push lever in direction of arrow and at the same time take restraints out.

To install again, push the restraint rods into the guides until they are heard to engage.

### Note

On some models, head restraints are fitted which differ from the version illustrated and can be removed and installed as described below.

### Spring clip version

To remove the spring clips from the seat backrest guide rings, pull or push the clip out to one side with a small screwdriver.

When reinstalling, insert the head restraint first, and then push the spring clips in so that the straight leg is at the rear.

### Button version

To remove head restraints, pull restraints up to the stop, press button and at the same time pull restraints out.

To install again, push the restraint rods into the guides until they are heard to engage.



## CONTROLS AND EQUIPMENT

### Front seats

The correct adjustment of the seats is important for:

- reaching the controls safely and quickly
- relaxed low-fatigue body position
- **maximum protection from the seat belts and the Airbag System.**

#### Attention

■ **For this reason, the front seats should not be pushed too close to the steering wheel or the instrument panel.**

■ **Feet should remain in the footwell when the vehicle is moving - never resting on the instrument panel or seats.**

Please adjust your seat as detailed on the next two pages. Please also note the basic positions for the driver's and passenger seats on this page.

### Driver's seat

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

- Set the driver's seat forwards/backwards in such a way that the pedals can be fully depressed with a slightly angled leg.
- Set the backrest in such a way that it is fully against your back and that you can reach the upper point of the steering wheel with your arms at a slight angle.

#### Attention

**No items should be kept in the footwell, as these could block the pedals in the case of a sudden braking manoeuvre.**

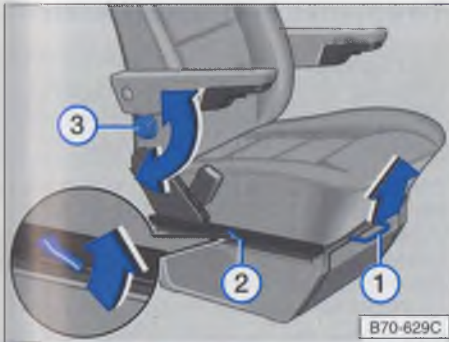
**You would no longer be able to brake, change gear or accelerate!**

### Front passenger seat

We recommend that you position the front passenger seat as follows:

- Backrest in an upright position.
- Place the feet in the footwell in a comfortable position.
- At the same time push the seat back as far as possible.

## Seats in passenger compartment



### Driver and front passenger seats

#### 1 - To move seat backwards and forwards (1)

#### (Range of adjustment for the seats in driving position)

Lift lever and move seat. Then release lever and move seat further so that the catch engages.

#### Attention

For safety reasons the driver's seat must only be moved backwards or forwards when vehicle is stationary.

#### 1 - Adjusting pivoting seats\*

Pull lever up and turn seat.

It might be necessary to push the seat forward slightly or open the doors before turning the seats.

#### Attention

■ Before rotating the driver's seat the handbrake must be fully applied or the vehicle must be prevented from rolling by some other method (e.g. gear engaged).

■ When the vehicle is moving the seats must be facing forward and properly secured.

#### 2 - Additional adjustments backwards and forwards\*

#### (for work on additional battery)

The additional battery\* is located under the left seat and can be reached through the following procedure.:

■ Push seat fully forward to the stop by lifting lever 1.

■ Then swing up lever (2) and hold in this position. Push seat – over the stop – further forward and release the lever.

The additional battery\* can now be reached.

#### Attention

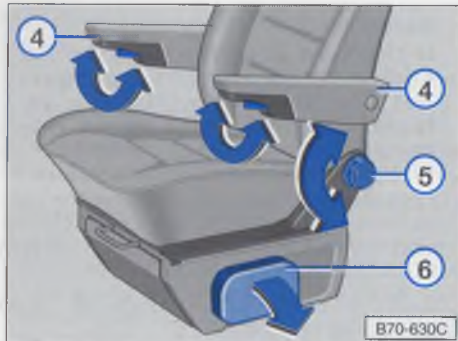
If the seat is in the position for additional adjustment, you must not use the seat whilst the vehicle is in motion for safety reasons.

To put the seat back into a driving position, you must push the seat back at least so far that it is in range of adjustment for seats in the driving position.

You do not need to lift the lever (2) when pushing the seat back.

#### 3 - Adjusting lumbar support\* (4)

By turning the hand-wheel the seat padding in the lumbar area of the spine can be made to arch forward slightly. This gives effective support to the natural curvature of the spine so that the sitting position is less fatiguing, particularly on long trips.



## 4 – Adjusting arm rests\*

The armrests on the front seats can be hinged up if they are not required.

The angle of the armrests can be adjusted as required with a knurled knob, underneath the armrest.

## 5 – Adjusting backrest

Take weight off backrest and turn knob.

### Attention

**Do not lower the backrest too far when on the move because the seat belts are then no longer fully effective.**

## 6 – Drinks/can holder\*

The procedure for opening the drinks holder is detailed on page 124.

## Two-seater passenger bench\*

### Attention

**For safety reasons the backrest must always be latched vertically when vehicle is in motion.**

To lower the backrest, press locking knob to the rear. When lowered, the backrest is locked. The locking knob must therefore be pressed again to lift backrest up.

Note when the backrest is lowered, the handbrake cannot be reached and the gear change lever is not easily reached. Therefore engaging of all gears is difficult or not possible at all.

## Seats in passenger compartment

### Warning notes

#### Attention

When the vehicle is in motion, nobody should be seated on the bench, unless it is in the driving position and the backrest is properly engaged so that all passengers can be properly belted in. Passengers sitting on the sleeping surface or in the luggage area can be hurled forwards in case of an accident or sudden braking - danger of injury!

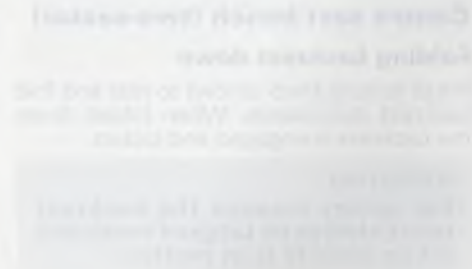
The sleeping surface or luggage area should therefore not be used to transport people!

Please ensure that you do not damage or dirty the following parts when removing and installing a seat bench:

For example the ...

- Safety belts,
- Side trims,
- Ash tray,
- Drinks/can holder\*,
- Loudspeaker grille\*,
- Luggage compartment cover\*.

For this reason, you should never remove or install a seat bank on your own.





### Centre seat bench (two-seater)

#### Folding backrest down

Press locking knob (arrow) to rear and fold backrest downwards. When folded down the backrest is engaged and locked.

#### Attention

**For safety reasons the backrest must always be latched vertically when vehicle is in motion.**

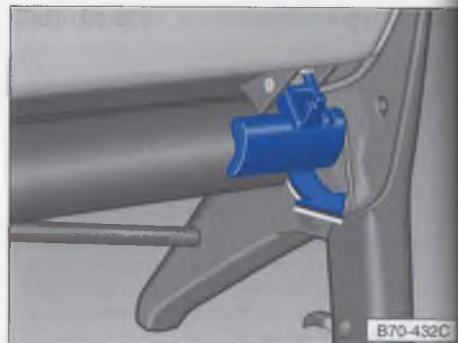
#### Folding backrest down

Press the folded down backrest down and hold in this position. Operate the locking knob and fold backrest up until it latches. The backrest is latched vertically in this position.

#### Driving position

**Please refer to the warning notes on page 43.**

The seat bench is in the driving position (see left illustration), when the bench is engaged fully in the mountings in the floor. The backrest must also be latched vertically.



#### Removing seat bench

**Please refer to the warning notes on page 43.**

- First bend upper end of belt retainer open slightly (it is located on the side of the seat bench) and guide belt strap out of retainer.
- Fold and latch backrest down.
- Whilst operating the right grip (see illustration) pull the right side of the seat bench back slightly at the same time. Repeat this procedure for the left side of the seat bench and then remove the bench.



**Installing seat bench**

- To install, place seat bench in front of the securing parts in floor as shown in illustration.
- Lift grips on left and right of seat bench frame and push forward until it engages firmly in the securing parts.
- Thread belt strap into retainer again.

**Attention**

When installing the bench seat the following points are important for the safety of the vehicle occupants:

- The seat bench must always be firmly engaged in the mountings so that it cannot become detached when braking or in an accident.
- The bench must always be installed in the correct direction and position so that the belts provided for each place can be worn properly.

### Rear seat bench (three-seater)

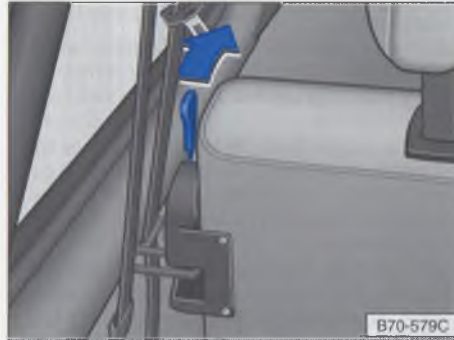
#### Attention!

When taking off the rear three point seat belts the belts must be pushed underneath the loops provided on the side trim panels. This will prevent the belts from becoming damaged when the rear seat backrest is folded forwards.

#### Driving position

Please refer to the warning notes on page 43.

The seat bench is in the driving position when the bench is folded back and engaged securely. The backrest must also be folded back and engaged securely.



#### Folding backrest forwards

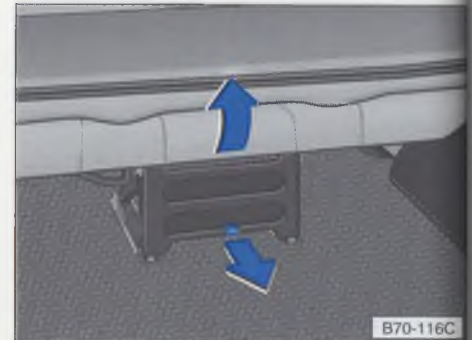
- Push lever next to the head of backrest forwards in direction of arrow.
- Fold backrest forwards.

#### Folding backrest down

- Fold back rear seat backrest until it engages. Ensure that the seat belts are not trapped and damaged when folding back.

#### Attention

The rear seat backrest must be properly engaged so that articles in the luggage area cannot slide forward if the brakes are applied suddenly.

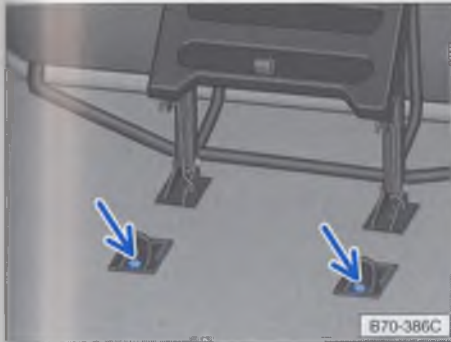


#### Tipping seat bench

- Fold backrest forwards.
- Swing luggage compartment cover\* forwards onto backrest.
- Pull loop on lower part of seat bench
- Tip bench forwards.

#### Tipping seat bench back

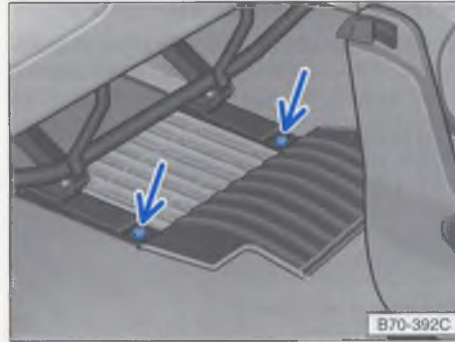
Tip the bench back carefully. Please ensure that no items are caught up or damaged when folding back.



## Removing rear seat bench

Please refer to the warning notes on page 43.

- Fold backrests of centre seat bench and folding seat\* forwards
- Pull seat frame trim\* off forwards
- Remove head restraints and fold backrest forward
- Tilt the luggage compartment cover\* forward onto the backrest and fold the bench forward
- Loosen and remove the two rear bolts using the vehicle tools (see left illustration)



- Carefully fold seat back
- Fold back carpet\* to attain access to the front bolts
- Loosen and remove front bolts (arrows in right-hand illustration) using the vehicle tools.
- Remove seat to rear
- Screw in and tighten all four bolts in the securing points.

## Fitting rear seat bench

Please refer to the warning notes on page 43.

- Fold backrests of centre seat bench and folding seat\* forwards
- Fold back carpet tabs\* and remove the four bolts.

- Fit seat into position and screw in front bolts hand tight (right illustration).

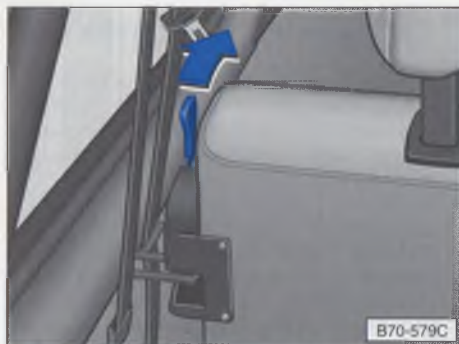
- Carefully fold seat forward
- Insert rear bolts (left illustration) and tighten all four bolts

### Attention

Ensure that that the rear seat bench securing bolts are tightened again, as the security of the seat belts and therefore the safety of the passengers depends upon it.

- Carefully fold seat back
- Fold back luggage compartment cover\*.
- Fold back rear seat backrest until it engages. Ensure that the seat belts are not trapped and damaged when folding back.





### Rear seat bench/sleeping surface (Multivan)

#### Folding backrest down

##### Attention

Before folding the backrest down, the three-point rear seat belt must be pushed under the loop on the side trim panel to prevent it being damaged.

- Push lever next to the head of the backrest forwards in direction of arrow and fold the backrest forwards.

#### Folding backrest down

- Fold back rear seat backrest until it engages. Ensure that the seat belts are not trapped and damaged when folding back.

##### Attention

The rear seat backrest must be properly engaged so that articles in the luggage area cannot slide forward if the brakes are applied suddenly.

#### Driving position

Please refer to the warning notes on page 43.

The seat bench is in driving position (normal sitting position), when you push the seat bench back fully along the runners, adjust the backrest to a vertical position and engage securely.

##### Attention

- For safety reasons, the seat bench must always be installed in the runners and properly secured when the vehicle is in motion.

#### Folding seat bench into sleeping surface

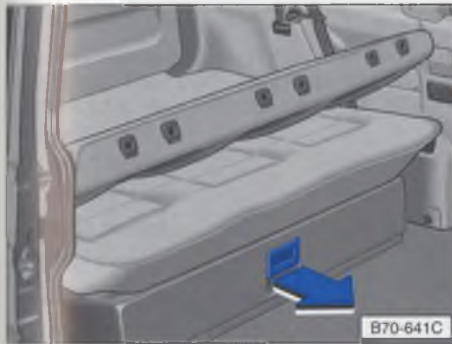
Please refer to the warning notes on page 43.

- Remove head restraints.
- Move seat belts out of way:
  - Push rear three-point belts under tab of side trim panel – see left-hand column
  - Push other parts of belt between seat cushion and backrest

##### Attention

When the bench has been folded into a sleeping surface, nobody, including small children, should be transported in the passenger compartment.

## Single seats in passenger compartment

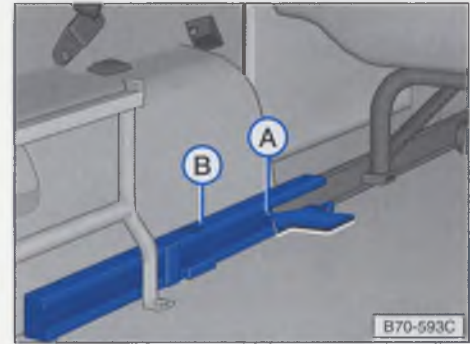


- Disengage backrest and fold down as shown in the illustration.
- Grip in the recess at front of seat and pull seat bench forwards to stop (see arrow). When doing this, hold the lever as shown in the illustration. In this way, the ashtray or drinks/can holder will not be damaged.
- Fold backrest back to horizontal position in the space created.

### Removing seat bench

Please refer to the warning notes on page 43.

- The single folding seat (see page 54) or the single seat with refrigerator (see page 52) must be removed before you remove the bench.
- Fold backrest forwards.
- Grip in the recess at the front of the seat, pull seat forward as far as it will go and then push it back slightly.
- Push release levers (A), located in the seat/bed guide rails (B), outwards in the direction of the arrow (illustration shows left-hand release lever).
- Pull seat bench from runners and remove.



### Installing seat bench

- Set seat/sleeping surface in guide rails (B), push back to the stop and latch securely.

#### Attention

**For safety reasons, when the vehicle is in motion the seat must always be installed in the runners and properly secured.**

- Reinstall folding seats or single seat with refrigerator.

### Rear seat bench (double cab)

The space under the seat cushion can be used for stowage purposes. Unlatch the cushion with the locking lever, fold up and hold in the open position.

When closing, ensure that the cushion engages securely in the retainers and that no articles in the stowage space are trapped under the seat.

#### Attention

■ For safety reasons, when the vehicle is in motion the seat must always be firmly secured.

■ Furthermore, when the vehicle is in motion, nobody, including small children, should be outside the seating areas. All passengers should be correctly belted in.

### Removing seat cushion

Please refer to the warning notes on page 43.

■ Unlatch seat cushion, fold it up and pull it forwards to the stop. Lift left-hand side of cushion so that the guide rod is beneath the seat frame. Lift out the opposite side of the cushion and pull the seat cushion out at an angle.

### Installing seat cushion

Install in the reverse sequence.

**Single seats in passenger compartment**

**General notes**

Please ensure that you do not damage the following parts when removing or installing the single seats:

For example the ...

- Safety belts,
- Side trims,
- Ash tray,
- Drinks/can holder\*,
- Loudspeaker grille\*.

Before removing the single seats you must remove the seat belts from the retainer, so that the belts are not damaged.

**Attention**

The following point is important for the safety of passengers and should be noted when fitting single seat with refrigerator:

Ensure that the securing bolts of single seat with refrigerator are tightened again, as the anchorage of the seat belts and therefore the safety of the passengers depends upon it.

**Attention**

The following points are important for the safety of vehicle occupants and should be noted when fitting single folding seats and single seats:

- The seats must always be properly engaged in the retainers to ensure that it cannot move if the brakes are applied or the vehicle is involved in an accident.
- The seats must always be reinstalled in the correct direction and position. This ensures that the seat belt provided can always be properly used.



### Single seat with refrigerator\*

#### Adjusting backrest angle (1)

The backrest angle of this seat can be adjusted to fixed positions:

- Pull lever (1) in direction of arrow
- Set backrest against spring loading
- Release lever and let backrest engage

#### Note

Depending on the setting, the upper edges of single seat and driver's seat backrests can touch one another. However to ensure that the driver's seat can be positioned properly, preference should be given to the setting of this seat. For this reason it is possible to reach quickly to the rear from the driver's seat and release the backrest of the unoccupied single seat so that this backrest

is outside the adjustment range of the driver's seat backrest.

#### Folding seat cushion up (2)

To release the cushion press lever 2 forwards or pull it to the rear. Then fold seat cushion up.

In the upper position the cushion engages.

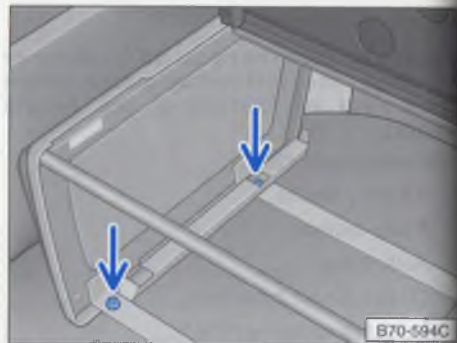
#### Attention

For safety reasons the cushion must always be hinged down and engaged when vehicle is in motion.

The refrigerator is held in position when the cushion is engaged in the seating position.

#### Folding seat cushion down

Press the cushion forwards. Then operate lever (2) and fold the cushion down.



#### Removing seat

Please refer to the general notes on page 51.

- Remove the refrigerator – see page 120
- Remove the four bolts and remove seat (arrows in diagram indicate the two left bolts).
- Screw in and tighten all four bolts in the securing points.

## Installing seat

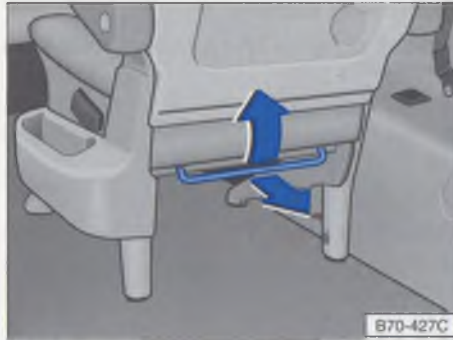
Please refer to the general notes on page 51.

- Place the seat over the securing points in such a way that all four bolts can be screwed into the securing points.
- Then tighten all four bolts.

### Attention

Ensure that that the securing bolts of single seat with refrigerator are tightened again, as the security of the seat belts and therefore the safety of the passengers depends on it.

- Push in refrigerator and connect to electricity if required.
- Fold down seat cushion

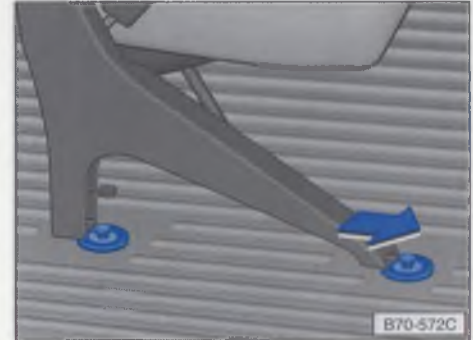


## Single seats\* (centre seat row)

Please refer to the general notes on page 51.

### Removing single seat

- First bend upper end of belt retainer open slightly (it is located on side of seat) and guide belt strap out retainer.
- Fold backrest down and secure. Press locking knob on the seat frame and fold backrest downwards until it engages.
- Pull up bar on seat frame. At the same time pull the seat slightly to the rear and then remove.



## Installing single seat

- To install, place seat in front of securing parts which are anchored to vehicle floor.
- Pull bar on seat frame up and push seat forward until it engages firmly in the securing parts.
- Fold backrest down. Press the folded down backrest down and hold in this position. Operate the locking knob and fold backrest up until it engages.
- Thread belt strap into retainer again.



### Single folding seat\*

#### Folding seat cushion up (2)

Pull lever (1) out in direction of arrow and fold seat cushion up until latch engages.

#### Folding seat cushion down

Pull lever (1) outwards and push seat down until latch engages.

### Removing seat

Please refer to the general notes on page 51.

- Pull plastic stowage box\* out upwards.
- Hold seat with one hand and push locking lever (2) down with the other.
- Twist seat slightly and remove.

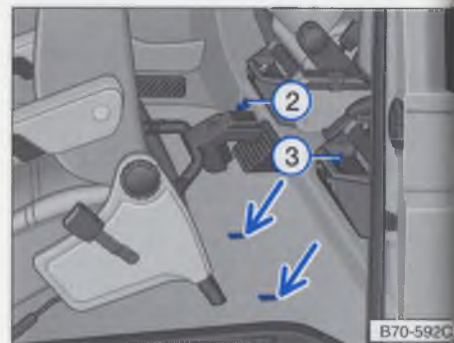
### Installing seat

- Place both seat legs in the grooves in the vehicle floor (arrows in right hand illustration).
- Tilt seat forwards until the latch is heard to engage at the bolt (3).

**A visual check and a pull will ensure that the latch is properly engaged.**

#### Important

**Never operate locking lever when seat is occupied. Risk of injury!**



### Notes

■ If the backrests of the front seats are tilted a long way back, they may hit the backrests of the folding seats. This can lead to the latch being unable to engage. The front seat backrests should thus be set upright prior to installation of folding seats.

■ The securing elements of the single seats are adapted to each individual chair. The seats should therefore, not become confused.



## Folding seat\* (centre row)

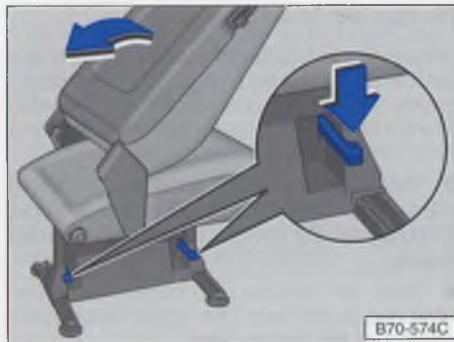
The backrest of the single seat next to the centre seat bench can be folded in such a manner to enable easy access to the rear seat bench.

### Folding backrest down

#### Attention

**For safety reasons the backrest must always be latched vertically when vehicle is in motion.**

- Unlatch backrest and fold forwards (left-hand illustration).



## Removing seat

Please refer to the general notes on page 51.

- Set seat into sitting position.
- Press both levers on base of seat downwards – see illustration above.
- Press seat towards left hand side in direction of seat bench and take out.

## Installing seat

Please refer to the general notes on page 51.

- To install the seat, place seat on left hand side of the securing elements on vehicle floor.
- Press the two levers on base of the seat down and pull the seat to the right until it engages firmly in the securing parts.



## CONTROLS AND EQUIPMENT

### Luggage compartment/load surface

#### To enlarge luggage space

##### Caravelle and Kombi

The luggage compartment can be enlarged by:

- Folding bench forwards – see page 46
- Removing seat bench – see page 47.

##### Multivan

- Remove mattress from behind seat bench/sleeping surface.
- Pull the left and right cover panel retainers to rear.
- Remove cover panel. The seat bench/sleeping surface can also be pushed forwards or removed to enlarge luggage space.

#### Notes on loading

In the interests of good handling ensure that the load (persons and luggage) is distributed evenly. Heavy items should always be carried as near to the rear axle as possible or better still, between the axles.

■ **You must ensure that the heating elements of the rear window are not destroyed by items rubbing against them.**

■ Stale air escapes through ventilation openings at the rear. Therefore these openings must not be covered.

In order to avoid damage to the vehicle floor or seat securing elements, please note the following points when loading heavy items:

■ **Before loading lay a large, stable underlay across the whole loading area. The weight of the item is thus spread evenly across the whole of the vehicle floor.**

■ **If the seats have been removed, you should place the underlay across the seat securing points.**

■ **You must not load the vehicle floor heavily in one area.**

■ **You should place the items to be transported horizontally in the luggage compartment or on the loading area. They should not be tilted.**

## Warning notes

### Attention

- The permissible payloads and GVW must not be exceeded – refer to tables as of page 214.
- It should be noted that when transporting heavy items the handling will change due to the displacement of the centre of gravity. Driving style and speed must be altered to suit.
- The load must be stowed in such a way that no items can fly forward if the brakes are applied suddenly – use the lashing eyes\* if necessary.

- When vehicle is in motion, no persons should be in the luggage compartment or load area. This includes children. Every passenger must be properly belted in – see page 21.
- Never drive with the tailgate or wing doors not properly closed. Exhaust gas could then be drawn into the vehicle interior.



### Lashing eyes\*

On vehicles with lashing eyes the load should always be secured to the eyes.

The lashing eyes comply with the German Standard DIN 75410.

## CONTROLS AND EQUIPMENT

### Luggage compartment cover\*

On vehicles with a rear seat bench, a luggage compartment cover can be installed. It is secured to the side trim with a retaining strap.

The cover can be used as a stowage area for articles of clothing.

#### Note

Please note that the field of vision of the rear view mirror can be obstructed by articles of clothing.

#### Attention

**When the vehicle is moving no persons, animals or heavy items of luggage are to be carried on the luggage compartment cover – they are a danger when brakes are applied suddenly or when vehicle is involved in an accident.**

Furthermore the heating elements of the rear windscreen could be damaged by articles rubbing against them.



The cover can be swung up and locked in this position to make loading easier.

To do this tip the luggage compartment cover up and lock in position using the retaining strap.

**The luggage compartment cover must be folded down whilst driving as the retaining strap fastening might otherwise be damaged. If the cover is in an upright position whilst driving, the retaining strap anchor and the cover could be damaged.**

## Pedals

### The movement of the pedals must not be restricted!

For this reason, do not put articles in the footwell which could roll or slide underneath the pedals.

Around the pedal area there should not be any foot mats or other additional floor covering materials:

- In the case of defects on the brake system, a greater pedal travel may be necessary.

- It should always be possible to depress the clutch and accelerator pedals fully.

- All pedals must be able to return, unhindered, to their rest positions.

For these reasons, the only foot mats which may be used are those which leave the pedal area completely free and which are prevented from slipping.

### Attention

**No items should be kept in the footwell as these could block the pedals in the case of a sudden braking manoeuvre or accident.**

**You would no longer be able to brake, change gear or accelerate!**

## Handbrake

To apply the handbrake pull lever up firmly. On hills the 1st gear or with automatic gearbox the parking lock should also be engaged. The handbrake should always be applied so firmly that it is not possible to drive inadvertently with the handbrake on.

When handbrake is applied with the ignition on, the brake warning lamp comes on.

To release handbrake, pull lever up slightly, press locking knob in and push lever right down.

### Attention

- To prevent the vehicle rolling away inadvertently, you should always apply the handbrake firmly after the vehicle has come to a complete stop.

You should also put the car into gear (manual gearbox) or the gear selector lever in position P (automatic gearbox).

- Please note that the handbrake must be released completely after application. If the handbrake is only partly released it could lead to overheating of the brakes and thus negatively affect the function of the brake system. This could also lead to premature rear brake lining wear.

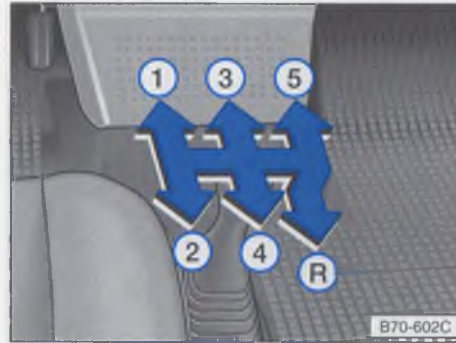
## Manual gearbox

Reverse gear may only be engaged when the vehicle is stationary. When engine is running, depress clutch fully and wait a few seconds before moving gear lever, to prevent grating noises.

When reverse gear is engaged with ignition on, the reversing lights come on.

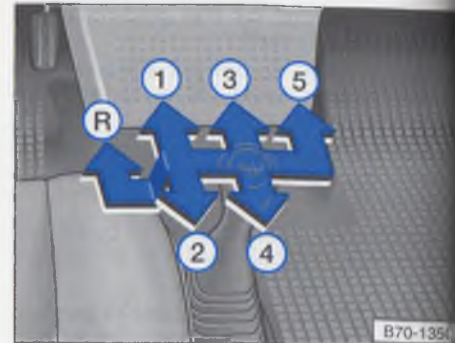
### Note

When driving you should not rest your hand on the gear lever. The pressure of your hand is transmitted to the selector forks in the gearbox and can cause premature wear on the forks.



### Gear change diagram

75 kW Diesel engine and  
103 kW petrol engine



### All other engines

## Automat

### Driving

The gearbox diverse dri the style situation, assumption, will be sel

## Automatic gearbox\*



### Driving programmes

The gearbox management is equipped with diverse driving programmes. Depending on the style of driving or on the momentary situation, an **economic**, that is a low-consumption, or a more **"sporty"** programme will be selected.

The programme is selected **automatically** depending on the movement of the accelerator pedal.

If the accelerator pedal is moved **slowly**, or at a **normal** rate, the gearbox will shift into a higher gear earlier, and down into a lower gear later to **reduce fuel consumption**.

A more **"sporty"** programme is selected when the accelerator pedal is moved **rapidly**. The pedal does **not** have to be depressed to the point of kick-down (see page 63). In this mode, the gearbox will shift up later to make full use of the engine's power reserves.

#### Note

Depending on road resistance, for example when trailer towing or on uphill stretches, a programme is automatically selected which provides more power by shifting into a lower gear. This prevents frequent gear changes.

### Selector lever lock

In positions **"P"** and **"N"** with the ignition switched on the selector lever is locked. To move the selector lever out of these positions the brake pedal must be depressed and the selector lever button pushed-in. This prevents a gear being engaged inadvertently and the vehicle unintentionally moving off.

A delay circuit prevents the selector lever from locking when it is moved quickly past the **"N"** position (for instance from **"R"** to **"D"**). This enables for example the vehicle to be "rocked" out of a "bogged down" position. The shift lock only locks the selector lever if it is left in the **"N"** position for more than about 1 second without the brake pedal being depressed.

At speeds above 5 km/h the selector lever lock is automatically switched-off in position **"N"**.

## CONTROLS AND EQUIPMENT

Manual gearbox



### Selector lever positions

In the combi-instrument there is a display<sup>1)</sup> that shows the currently selected selector position.

#### Attention

**Never shift selector lever to position "R" or "P" whilst the vehicle is in motion.**

**The gears could be damaged - risk of accident!**

<sup>1)</sup> Depending upon the model the display can also be fitted in the instrument panel.

### P - Parking lock

The driving wheels are locked mechanically. The parking lock may only be engaged when the vehicle is stationary. Before moving the lever in or out of the "P" position the lock button in the selector lever handle must be pressed. Before moving the selector lever out of the "P" position with the ignition switched on, the brake pedal must also be depressed.

### R - Reverse gear

The reverse gear should only be engaged when the vehicle is stationary and with the engine idling. Before engaging the position "R" from the positions "P" or "N" the brake pedal must be depressed and the lock button in the selector lever handle must also be pressed.

The reversing lights come on then the selector lever is in the "R" position with the ignition switched on.

### N - Neutral (idling position)

To move the lever out of neutral when stationary or at speeds below 5 km/h and with ignition switched on depress the brake pedal and press the lock button in the selector lever handle.

### D - Normal driving position

The four forward gears are shifted up and down automatically depending upon engine load and road speed.

Under certain driving conditions it is advantageous to engage one of the following described selector lever positions.

### 3 - Position for "hilly" regions

The 1st, 2nd and 3rd gears are shifted up and down automatically depending upon engine load, road speed and selected programme (E or S). The 4th gear is not engaged. This increases the engine braking effect when the accelerator pedal is released.

This selector position is recommended in situations where the gearbox alternates frequently between 3rd and 4th gears in the "D" position.

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## 2 - Position for steep hills

This selector lever position is suitable for long climbs and descents.

The 1st and 2nd gears are shifted up and down automatically depending on engine load and road speed. The 3rd and 4th gears are not engaged in order to avoid unnecessary gear changes. This further increases the engine braking effect on deceleration.

## 1 - Position for very steep hills

This selector lever position is recommended for very steep descents.

To engage this gear, the lock button in the selector lever handle must be pressed in. The vehicle only moves in 1st gear. The 2nd, 3rd and 4th gears are not engaged. Maximum possible engine braking effect is now available.

The cruise control \* cannot be used in position "1".

### Note

When changing down manually the selector lever can be moved into the lower gear position, but the gearbox will not change down until it is no longer possible to over-rev the engine.

## Kick-down device

The kick-down device gives maximum acceleration. When the accelerator pedal is pressed right down past the full throttle position, depending on road speed and engine speed, the box changes down into a lower gear. The shift into the next higher gear then takes place as soon as the maximum specified engine speed is reached.

### Attention

**Please note that the driven wheels could go into a spin if the kick-down device is applied on roads with black ice.**

**Risk of skidding!**



### Notes on driving

#### Starting<sup>1)</sup>

The engine can only be started when selector lever is at "N" or "P". See also "Starting engine" on page 67.

#### Selecting a driving range

When the vehicle is stationary and the engine is running always depress the foot brake when selecting a gear.

When the vehicle is stationary do not depress the accelerator when selecting a gear.

If the lever is moved accidentally into "N" when driving, release accelerator and let the engine speed drop to idling before selecting a forward gear again.

#### ■ Attention

■ When the engine is running it is necessary to hold the vehicle with the foot brake in all gears. Because with an automatic gearbox the transfer of power is not fully interrupted even at idling speed – and the vehicle tends to "creep".

When the vehicle is stationary and a gear is engaged, the throttle must not be opened inadvertently on any account (for instance by hand from the engine compartment). Otherwise the vehicle will move immediately – even if the handbrake has been fully applied.

Before working on the vehicle with the engine running, apply the handbrake and put the selector lever in "P".

#### Moving off

Select driving range (R, D, 3, 2, 1). Wait until the gearbox has shifted and the power flow is made to the driving wheels (light selection jerk perceptible). Then one can accelerate.

<sup>1)</sup> If the button in the selector lever is pressed and held before the ignition is switched on, the ignition key will not be able to be turned.

## Starting the engine

## Wool oiling

### Stopping

When the vehicle is stopped for a short period, for example at traffic lights, it is only necessary to apply the brakes. It is not necessary to move selector lever to "N". The engine should however only be running at idling speed.

### Parking

#### Attention

**To prevent the vehicle rolling away inadvertently, you should always apply the handbrake firmly when the vehicle has come to a complete stop. Also place the gear selector lever in position "P".**

On a gradient the handbrake should be applied firmly first and then the parking lock engaged. This will ensure that the locking mechanism is not too heavily loaded and makes the lock easier to disengage.

### Tow starting

On vehicles with automatic gearbox the engine cannot be started by towing or pushing the vehicle – see page 202.

When the battery is flat, the engine can be started from the battery of another vehicle by using jumper cables. See "Emergency starting" on page 200.

### Towing

If the vehicle has to be towed at any time, you must read the instructions in the section "Towing/tow starting" on page 202.

### Ignition lock

#### Attention

Do not withdraw key from lock until vehicle is stationary! The steering lock could be unintentionally engaged.

■ If the vehicle is left – even if only temporarily – always remove the ignition key. This is particularly important if children are to remain in the vehicle. They could otherwise start the engine or operate the electric equipment e.g. electric windows.

**Risk of accident!**

■ To prevent the vehicle rolling away inadvertently, you should always apply the handbrake firmly when the vehicle has come to a complete stop.



#### Petrol engines

7 – Ignition off/engine off

8 – Ignition on

9 – Starting engine

#### Diesel engines

1 – Fuel supply cut off/engine off

2 – Glow and drive position

To prevent draining the battery unnecessarily, large current consumers should not be switched on together with the glow plugs.

3 – Starting engine

#### For all vehicles:

##### Position 1:

To **lock the steering wheel** withdraw key and turn wheel until you hear the locking pin engage.

##### Note

If lights or turn signals are not switched off a buzzer\* will sound when the driver's door is open.

##### Position 2:

If the key is difficult to turn in the lock or cannot be turned to this position at all, the steering wheel must be rocked to and fro slightly to release the locking pin.

## Starting the engine

### Position 3:

In this position the headlights and other heavy current consumers are switched off.

Before the starter can be operated again the key must be turned back to position 1. The non-repeat mechanism in the ignition lock prevents the starter from being operated when engine is running, as this could damage the starter.

### Ignition key lock\*

On vehicles with an automatic gearbox\* after switching off the ignition the ignition key can only be withdrawn if the selector lever is in the "P" position. When the ignition key has been withdrawn the selector lever is locked in this position.


### General notes

#### Attention

**When running the engine in confined spaces there is a danger of poisoning.**

- Before starting, move gear lever to neutral (with automatic gearbox, selector lever in "P" or "N" position) and apply handbrake firmly.
- On vehicles with a manual gearbox depress the clutch pedal when operating starter so that starter only has to turn engine.
- As soon as engine starts, release the ignition key so that starter can disengage.
- After starting a cold engine it may sound noisy for a moment or two because the oil pressure has to build up in the hydraulic tappets first. This is normal and no cause for alarm.

## Stopping engine

 **Do not warm engine up by running it with vehicle stationary. Drive off straight away.**

- Do not overrev or use full throttle until the engine has reached the normal operating temperature.
- On vehicles with a catalytic converter the engine must not be started by towing the vehicle in excess of 50 m. Otherwise unburnt fuel can pass into the converter and lead to damage.
- Before trying to start the engine by towing, an attempt should be made, if possible, to use the battery of another vehicle – see page 200.

### Petrol engines

These engines are equipped with a petrol injection system that automatically supplies the correct fuel/air mixture at all ambient temperatures.

When engine is cold or at operating temperature do not accelerate before or during the starting procedure.

If the engine does not start at once, stop using the starter after 10 secs. wait about half a minute and then try again.

If the engine still does not start, the electric fuel pump fuse may have blown – see page 189.

When the engine is very hot it may be necessary to accelerate slightly after the engine has started.

### Diesel engines

#### Glow plug system

With the 75 kW Diesel engines, after switching to the driving position (ignition on), the required glow plug warm-up time is indicated by a lamp which is controlled by the coolant temperature – see page 79.

On the 50 kW Diesel engine the glow plug system is activated after opening and closing the driver's door. If the engine is not subsequently started, the glow plug system will not be activated by each further opening and closing of the driver's door.

#### Cold starting aid

To facilitate starting 50 and 57 kW engines from cold, there is a cold starting device (cold starting aid) in the injection pump.

The cold starting device is actuated when the knob on the left of the steering column is pulled out fully.

#### 50 and 57 kW engines

##### Starting a cold engine

At ambient temperatures down to  $-15^{\circ}\text{C}$ , pull the cold start knob out fully before operating the starter.

At lower temperatures, the knob should not be pulled out until engine is firing regularly – the engine will then start more readily.

Turn the key in the ignition lock to position 2 – see page 66 – the glow plug warning lamp comes on. It goes out when the ignition temperature is reached – see page 79.

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

When the warning lamp goes out, start the engine immediately.

Do not depress the accelerator while starting.

If the engine only fires irregularly, continue to operate the starter a few seconds longer (30 seconds at maximum) until the engine runs under its own power.

If the engine does not start, switch the glow plugs on again and try starting it again as described. If the engine still does not start the fuse for the glow plugs may have blown – see page 189.

Push the cold start aid knob in fully as soon as the engine has reached its normal operating temperature.

##### Starting a warm engine

The glow plug lamp does not come on – the engine can be started straight away. Do not pull the cold start aid knob and do not press the accelerator pedal.

### 75 kW Diesel engines

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### Stopping engine

#### 75 kW engine

##### Starting a cold engine

Ambient temperature above +5°C:

The engine can be started **without** pre-glow. Do not depress throttle during the starting procedure.

Ambient temperature below +5°C:

■ Turn the key in the ignition lock to position 2 – the glow plug warning lamp comes on. It goes out when the ignition temperature is reached.

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

■ When the warning lamp goes out, start the engine immediately.

Do not depress the accelerator while starting.

If the engine only fires irregularly, continue to operate the starter a few seconds longer (30 seconds at maximum) until the engine runs under its own power.

If the engine does not start, switch the glow plugs on again and try starting it again as described. If the engine still does not start the fuse for the Diesel glow plugs may have blown.

##### Starting a warm engine

The glow plug lamp does not come on – the engine can be started straight away.

##### Additional heater(75 kW engine only)

The coolant is warmed by an additional heater when the engine is running. The exhaust gases which are produced as a result are guided out through an exhaust pipe which is fitted in the area of the front left mud guard.

##### Starting with an empty tank

If the tank on vehicles with a diesel engine was empty, starting after filling with diesel fuel can take longer than normal – up to one minute. This is because the fuel system must first be freed of air before starting.

**When engine has been running fast for a long time, let it idle for about 2 minutes before switching off to prevent a build up of heat.**

##### Attention

**After the engine has been stopped the fan can continue running for a while (up to about 10 minutes) with the ignition switched off. It can also start to run again suddenly after a short time if**

- the coolant temperature increases due to heat build-up
- when engine is hot and the engine compartment is heated additionally by strong sunlight.

**Special care must therefore be taken when working in the engine compartment.**

# CONTROLS AND EQUIPMENT

## Instruments



The arrangement of the instruments depends on the model and the engine fitted.

	Page
1 - Speedometer	70
2 - Coolant temperature	70
3 - Digital clock* or multi-function indicator*	71
4 - Fuel gauge	74
5 - Rev counter* or analog clock	74
6 - Selector lever indicator*	62

### 1 - Speedometer

During the running-in period the instructions on page 130 should be noted.

#### Mileage recorder

The upper counter registers the total distance driven and the lower one the short trips.

The last figure of the lower counter indicates 100 m or  $\frac{1}{10}$  mile.

The lower counter (trip meter) can be zeroed by pressing the reset knob in the speedometer.

### 2 - Coolant temperature

The gauge starts to work when ignition is switched on, but it takes some time before the needle reaches its final position.

When the ignition is switched on the warning lamp (c) flashes for a few seconds as a functional check.

#### a - Cold

Avoid high engine speeds and do not work engine too hard yet.

#### b - Normal

When the vehicle is driven normally the needle should settle down in the central zone.

When engine is working hard and the ambient temperature is high, the needle may move a long way up.

**This is not serious as long as the warning lamp (c) does not flash.**

### c - Warning lamp

If the lamp flashes when driving, first check the coolant temperature.

If the needle is in the normal zone, top the coolant up at the next opportunity.

If the reading is in the upper zone, either the coolant level is too low or the coolant temperature is too high. **Stop, switch engine off** and try to find cause of trouble – see page 76.

### Attention

**Please take notice of the warning notes on page 76.**

### Note

■ **Additional lights in front of the cooling air intake interfere with the flow of cooling air. At high ambient temperatures and full throttle there is a danger that the engine will then overheat.**

### 3 - Digital clock\*

To set the time there are two buttons on lower left of instrument cluster. The hours are set with the upper button (h) and the minutes with the lower one (min):

- If pressed briefly, preferably with a ball pen, the time changes one hour or one minute.
- If pressed continuously the hours or minutes change continuously.

With the minute button the clock can be set exactly to the second:

- Press button until time is one minute before time to be set.
- Press 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.



### 3 - Multi-function indicator\*

In addition to the time display, the multi-function indicator (MFI) gives a whole range of additional information:

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





With the exception of the time, the symbol for the function switched on appears at the upper edge of the display (the average fuel consumption is shown in the illustration on the previous page).

By repeatedly pressing button **B** in the windscreen wiper lever with the ignition switched on, the additional information is displayed, starting with the time.

If the button **B** is pressed for longer than 1 sec., the function being displayed at that time will change over automatically to the time display.

### The memories

The system is equipped with two automatic memories:

**A single journey memory** collects the following data from the time the ignition is switched on to when it is switched off. Driving time, distance covered and fuel used. From this data the average driving speed and the average consumption is worked out.

If the journey is resumed within two hours of switching off the ignition, the new figures are automatically included in the calculation. If the journey is interrupted for more than two hours, the stored information is automatically erased.

**A total journey memory** stores the data from any number of individual journeys up to a total of 100 hours driving time, a distance of 10,000 km (6214 miles) and 1000 litres (220 gallons) of fuel consumed. This data is only used to work out the consumption and speed averages for all the individual journeys.

If one of the given figures is exceeded, the memory is erased and calculation starts from the beginning again. Contrary to the single journey memory, this memory is not erased after a journey pause of more than two hours.

To **call up** the data the memories are selected by means of the switch **A** in the wiper lever:

- 1 – Single journey memory
- 2 – Total journey memory

The following data can be obtained from the memories:

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

### Erasing the memories

With the ignition switched on, both memories can be erased separately in each switch position by pressing switch **A** passed the appropriate detent position to 0 position for longer than one second.

If the battery is disconnected for any reason, the stored information is automatically erased.

**The displays**

When the ignition is switched on "MFI 1" or "MFI 2" appears in the display according to which memory is switched on.

**No symbol - Time**

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

The time can be set with the buttons (h and min) on the lower left of instrument cluster - see "Digital Clock" on page 71.

**Driving time**



**In switch position 1** the driving time which has elapsed since ignition was switched on or the memory cancelled is indicated - see previous page also "Single journey memory".

**In switch position 2** the total driving time for all individual journeys is indicated - see "Total journey memory" on previous page.

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

**MPG (l/100 km) - Average fuel consumption**

The average consumption is indicated not the actual consumption at the time of reading.

The average fuel consumption is indicated, after switching on the ignition or erasing the memory being used, after a distance of about 100 metres. Up to this point a dash appears instead of a figure. When vehicle is moving 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 journeys - see "Total journey memory" on previous page.

**Note**

The amount of fuel used is not indicated.

**Miles (km) - Distance covered**

The remarks made under "Driving time" also apply in principle to "Distance covered". The maximum distance indicated is 9999 km or 6214 miles.

**MPH (km/h) - Average speed**

The remarks made under "Average fuel consumption" also apply here in principle.

**Engine oil temperature** °C

Oil temperatures (within a range of +50°C and +160°C) are shown. When no oil temperature indication is shown, the engine is still not warm, and it should not therefore be worked hard. The engine speed should be reduced if the oil temperature rises to +145°C.

### Ambient temperature<sup>1)</sup> ☀ °C

The measuring range is from - 40 degrees C to + 50 °C.

When the vehicle is stationary or only moving very slowly, the indicated temperature could be slightly higher than the actual ambient temperature due to heat radiation from the engine or use of the auxiliary heater.

After switching off the ignition the last indicated temperature is stored in memory for about 45 minutes. If the ignition is switched on after 45 minutes or the vehicle is moved at about 30 km/h within the 45 minute period, a new up-to-date temperature will be displayed.

#### Attention

**If the ambient temperature reading is used as an ice warning, remember that ice can form on the road at temperatures above 0°C.**

<sup>1)</sup> On vehicles with Climatronic the ambient temperature is shown in the Climatronic display and can be called up via the multi-function indicator



### 4 - Fuel gauge

This gauge works when ignition is switched on.

The tank holds about 80 litres.

When the needle reaches the start of the reserve zone (arrow) there is about 10 litres (2 gallons) of fuel left in the tank.

#### Note

The ignition must be switched off while filling the tank. Otherwise the contents of the tank will only be shown correctly after a lengthy period of time (up to 60 minutes).

### 5 - Analog clock

To set the time press the button on lower right in combi instrument:


- If pressed briefly, preferably with a ball pen, the time is advanced one minute.
- If pressed continuously the minute hand goes faster and at the same time the hours are set as well.

With the button the clock can be set exactly to the second:

- Press button until time is one minute before time to be set.
- Press 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.

**5 - Rev counter\***

The rev counter needle must not move into the red zone of the scale on any account.

 **Changing up in good time helps to save fuel and keeps the noise down.**

Change down to the next lower gear before the engine no longer runs smoothly.

The green shaded area on the scale shows the speed at which the engine is developing its most favourable torque and is working most economically. Drive as often as possible with needle in this area.

During the running-in period, high engine revs should be avoided.

**6 - Selector lever position\* display**

The selector lever position for automatic gearboxes is shown in the display - see page 62.

**Tachograph\***

In many European countries the installation and use of a tachograph is obligatory for the following vehicles:

- 1 - Vehicles used for the commercial transport of goods with a permissible total weight including trailer or articulated trailer of more than 3.5 tons. It is immaterial whether the vehicle and the trailer or only one of the two is used for commercial goods transport.
- 2 - Vehicles which according to their design and equipment are suitable for and intended to carry more than 9 persons including the driver.

Details of the regulations can be obtained from local vehicle licensing authorities.

The operation of the tachograph is described in a special leaflet from the tachograph manufacturers.



## CONTROLS AND EQUIPMENT

### Warning lamps



The layout of the warning lamps depends on the model and the engine fitted. The symbols shown here are also on the actual warning lamps.

	Page
1 - Coolant temperature/ coolant level	76
2 - Engine oil pressure	77
3 - Main beam	77
4 - Turn signals	77
5 - Alternator	78
6 - Brake system	77
7 - Glow plugs	79
8 - Rear fog light	79

#### 1 - Coolant temperature/ Coolant level<sup>1)</sup>



The warning lamp lights up for a few seconds as a functional check when ignition is switched on.

If the lamp does not go out afterwards or lights up or flashes when driving, either the coolant temperature is too high or the coolant level<sup>1)</sup> too low:

**Stop, switch engine off** and check level. Add coolant if necessary.

<sup>1)</sup> Only on vehicles with automatic coolant level monitor (see page 159).

### Warning notes

■ **Never open the bonnet if you can see steam or coolant coming from the engine compartment - Risk of scalding! Wait until no more steam or coolant can be seen.**

■ **Do not touch the fan. The fan can switch on suddenly - even when ignition is switched off.**

■ **Please note the following points to prevent scalding by hot coolant:**

- **Exercise caution when opening the coolant expansion tank! When the engine is hot the cooling system is under pressure - Danger of scalding! Therefore let engine cool down before unscrewing the cap!**
- **To protect the face, hands and arms you should cover the cap of the radiator with a large, thick cloth to protect against steam or hot fluid.**

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■ Ensure that the coolant liquid does not drop on the hot exhaust or any other hot engine components. The frost protection mixture contained in the coolant could ignite.

For further details see page 160.

If the coolant level is in order the trouble may be due to failure of the radiator fan. Check radiator fan fuse and renew if necessary – see page 189.

If the warning lamp does not go out although coolant level and fan fuse are in order, **do not drive on** – call in expert assistance.

If the trouble is only caused by the fan and assuming coolant level is in order and temperature warning lamp is out – one can drive on to the nearest Volkswagen dealer. In order to make good use of the air stream for cooling, do not let engine idle or drive very slowly.

## 2 – Engine oil pressure



The warning lamp comes on when the ignition is switched on and must go out when the engine is started.

If the warning lamp does not go out or flashes or comes on when driving – a buzzer\* also sounds at engine speeds above 2000 rpm – **stop, switch engine off**, check oil level and if necessary, add oil – see page 157.

If the lamp comes on although the oil level is in order, **do not drive on**. Do not even run the engine at idling speed – call in expert assistance.

If during the journey the engine is operated at a speed less than idling speed, it can happen that the oil warning lamp lights up. Increase engine speed by accelerating or changing down.

### Note

**The oil pressure warning lamp is not an oil level indicator. The oil level should therefore be checked at regular intervals, preferably every time the fuel tank is filled.**

## 3 – Main beam



The warning lamp comes on when main beam is on or when the headlight flasher is used.

## 4 – Turn signals



The right or left arrow will flash depending upon which direction has been selected. If a turn signal fails, the warning lamp flashes twice as fast. (Not when towing a trailer).

Further details are given on pages 80 and 86.

## Warning lamps



### 5 - Alternator



The warning lamp comes on when the ignition is switched on and must go out when the engine is started.

The alternator is driven by a long-life ribbed belt in 5 and 6 cylinder engines and by a V-belt in 4 cylinder engines.

If the warning lamp comes on when driving, **stop, switch engine off** and check the alternator V-belt or ribbed belt.

If the V-belt or ribbed belt is loose or broken, **do not drive on** – the coolant pump is no longer being driven. The V-belt or ribbed belt must be checked/renewed by the nearest Volkswagen dealer.

If the warning lamp comes on although the V-belt or ribbed belt is not broken or loose, one can normally drive on to the nearest Volkswagen dealer (all engine types). As the battery will continue to discharge, all electrical consumers which are not absolutely necessary should be switched off.

### 6 - Brake system



The warning lamp comes on when

- the handbrake is on
- the brake fluid level is too low

The ignition must be switched on.

On vehicles with ABS\*, the warning lamp will light up for a few seconds when the ignition is switched on or the engine started. If the ABS system\* fails it will also light up together with the ABS warning lamp.

**Attention**

If the lamp does not go out when handbrake is released or comes on when driving, the fluid level in the reservoir is too low. Immediately contact a Volkswagen dealer and have the brake system examined.

You can drive on carefully to the nearest Volkswagen dealer but allow for higher pedal pressures and longer braking distances and more free movement of the brake pedal.

If the brake system warning lamp lights up with the ABS warning lamp, the rear wheels may be subject to early locking. It is imperative that the vehicle be taken to a Volkswagen dealer.

**7 - Glow plugs**



(Diesel engines only)

When the engine is **cold** the warning lamp comes on when key is turned to Drive position (ignition on).

If the warning lamp does not come on, there is a defect in the glow plug system – call in expert assistance.

When the lamp goes out, start the engine immediately – see page 68.

As the 50 kW Diesel engine glow period begins automatically after closing the drivers' door, it can happen that after switching to the driving position (ignition on) with a cold engine, that the glow plug warning lamp does not light up. The engine can be started straight away.

When the engine is **warm** the glow plug lamp does **not** come on – the engine can be started straight away.

**Note**

If while driving a fault occurs in the engine management system of the 75 kW Diesel engine, this is indicated by a flashing warning lamp – the engine must be checked by a Volkswagen dealer as soon as possible.

**8 - Rear fog light\***

The warning lamp lights up when the rear fog light is switched on. For further details see page 82.

**Seat belt warning lamp\***



The warning lamp lights up (only for certain countries) for about 6 seconds after ignition as a reminder to fasten your safety belt.

If the seat belt is not fastened a buzzer\* will sound after switching on the ignition which will stop after 6 seconds or when the seat belt is fastened.

**Please refer to chapter "Seat belt" on page 21.**





The **warning lamp cluster** can contain various warning lamps. The lamps actually fitted can be recognized by the symbols:

### Trailer turn signals



The warning lamp\* flashes when turn signals are switched on when towing a trailer. If a turn signal fails on the trailer or vehicle, the warning lamp does not flash.

### Airbag system



The warning lamp lights for about 3 seconds when the ignition is switched on. On vehicles with the **passenger-side airbag deactivated** (see page 33), the warning lamp will then flash for a further 12 seconds.

If the warning lamp does not go out after the given period, or if it lights up, flashes or flickers during a journey, there is a fault in the airbag system. The system should immediately be checked by a Volkswagen dealer. Further notes can be found on pages 30 and 33.

### Anti-locking Brake System (ABS)\*



This warning lamp monitors the **ABS** and **EDL\*** systems.

### Anti-lock Brake System (ABS)\*

The warning lamp comes on for a few seconds when the ignition is switched on or the engine started. The lamp goes out after an automatic test sequence has been completed.

If the ABS warning lamp does not come on when the ignition is switched on, does not go out, or comes on when driving, the system is faulty.

A fault in the ABS system is indicated as follows:

■ **ABS warning lamp lights up** The vehicle can still be braked with normal braking system is without ABS. A Volkswagen dealer should however be consulted as soon as possible.

■ **ABS warning lamp lights up together with brake system warning lamp** Not only is the ABS system defective, change braking characteristics can also be expected.

**Attention**  
**When both warning lamps light up, the rear wheels could lock prematurely when braking. Immediately consult a Volkswagen dealer.**

Further details on ABS are given on page 135.

**Electronic Differential Lock (EDL)\***

The EDL system works in conjunction with the ABS. Failure of the EDL system is indicated by the ABS warning lamp lighting up. The vehicle should be taken to a Volkswagen dealer as soon as possible.

Further details on EDL are given on page 137.

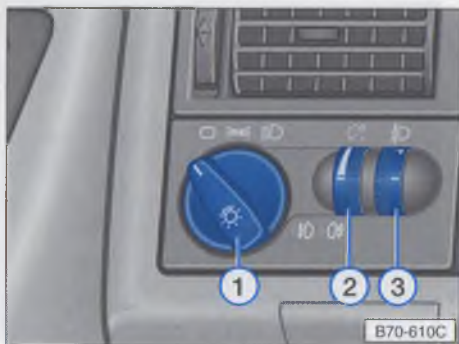


1. Hazard warning lights  
 2. Handbrake  
 3. ABS warning lamp  
 4. Brake system warning lamp  
 5. Parking brake indicator lamp  
 6. ABS indicator lamp  
 7. Electronic Differential Lock (EDL) indicator lamp  
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## Switches



### Notes

- On vehicles with right-hand drive the arrangement of the switches differs. The symbols on the switches are however the same as on vehicles with left-hand drive.
- The use of the lighting described here is subject to local regulations.

### 1 – Lighting switch



☐ – Switched off

☞☞ – Side lights<sup>1)</sup>

☞☞ – Dipped or main beam

The headlights only work when the ignition is on. When the engine is being started and after ignition has been switched off, the headlights are automatically switched to side lights.

Dipping and flashing the headlights – see page 86.

### Note

If lights are not switched off and the ignition key is removed, a buzzer\* will sound when the driver's door is open.

### Front fog lights\*



With lighting switch in side light or dipped/main beam position pull switch out to first detent.

<sup>1)</sup> In some countries, when the side lights are switched on with the ignition on, the dipped headlights also come on with reduced intensity.

### Rear foglight\*

#### Vehicles without fog lights

Turn lighting switch to dipped/main beam position and pull switch out to stop.

#### Vehicles with fog lights

With lighting switch in dipped/main beam position, pull switch out to 2nd detent.

### Note

■ A warning lamp in the combi instrument lights up when the rear fog light is switched on.

■ Due to the amount of dazzle it causes the rear fog light should only be switched on when the visibility is very poor.

The electrical system of the factory fitted tow bar\* is wired up so that when towing a trailer fitted with rear fog lights, the rear fog light on the towing vehicle are automatically switched off.

## 2 - Instrument lighting



When the lights are on, the level of the instrument lighting can be set to any intensity by turning the knurled wheel on the right of the switch.

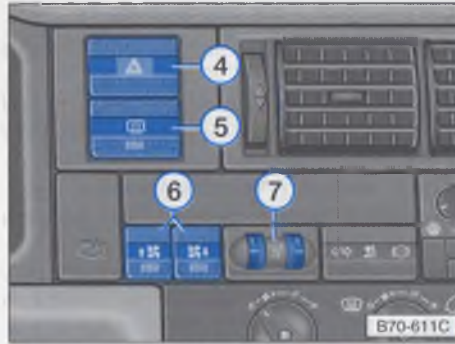
## 3 - Headlight range control\*



With the electrical range control the headlight settings can be matched exactly to the load condition of vehicle. This prevents oncoming traffic from being dazzled more than is unavoidable. At the same time the correct headlight beam setting provides the best possible visibility for the driver.

The headlights can only be regulated with the dipped headlights switched on.

To lower the beams, turn knurled disc from the basic position (-) downwards.



## 4 - Hazard warning lights



The system also works when the ignition is switched off.

Switch on the hazard warning lights if, for example:

- Your vehicle stops because of a technical defect,
- You have an emergency
- You reach the tail end of a traffic jam.

When the hazard warning lights are switched on, all four signal lights flash simultaneously. The warning lamps for the indicators and a warning lamp in the switch will also flash.

Note legal requirements when employing such safety measures.

## 5 - Heated rear window



The heating works only when ignition is on. When heater is on a lamp in the switch lights up.

**As soon as window is clear, switch element off. The reduced current consumption helps to reduce fuel consumption - see page 132.**

### Switches



#### 6 – Roof vent\*



The system also works when the ignition is switched off.

Please always ensure, therefore, that the roof vent is switched off when leaving the vehicle. This will prevent the battery from being drained unnecessarily if the vehicle is not used for some time.

#### Left switch – air extraction ↑

Air extraction is activated by pressing the switch. A lamp lights up in the switch.

The air extraction function can be turned off by pressing the switch again. The lamp goes out.

#### Right switch – ventilation ↓

Ventilation is activated by pressing the switch. A lamp lights up in the switch.

The ventilation function can be turned off by pressing the switch again. The lamp goes out.

#### 7 – Knurled wheel for seat heating\*



The cushion and backrest of the front seats can be heated electrically when the ignition is on.

The heating is switched on and regulated with the knurled wheel.

To switch heating off, turn knurled wheel to the basic position (-).

#### Differential lock knob\*

In curves, the wheels of a vehicle have to travel different distances. To compensate for this, a differential is installed in the drive axle. This also has the characteristic that one wheel spins on a slippery surface, while the other wheel is on firm ground, no forward drive is then available.

On the synchro, the differential lock rigidly connects the wheels of the rear axle and thus restores forward drive. However, in the differing travelling distances in curves, no longer compensated for, the handling characteristics are limited.

**The differential lock may only be used under certain conditions. You will find notes on when it may be used on the next page.**



## Engaging the differential lock

### Attention

The steering of the vehicle will be influenced once the differential lock has been engaged.

The pull knob (arrow) only preselects the on/off setting. The actual change may be delayed a few seconds.

With large differences in wheel speed it can occur that the lock does not switch on at all, or when there is a heavy load on the drive train, e.g. in tight curves, that it does not switch off. In such cases, reduce throttle or drive straight to enable the locks to switch on/off.

The warning lamp (1) shows whether the lock is on or off.

If the lock is preselected, the warning light flashes. As soon as the lock has engaged, the warning lamp lights permanently.

If the warning lamp does not light up after some distance, have the electrical system and the lock checked by a Volkswagen dealer.

On vehicles with ABS an acoustic warning signal sounds at speeds above 45 km/h when the differential lock is engaged. This warns of reduced braking stability when the lock is engaged.

## When must the differential lock not be engaged?

■ Whenever the vehicle is being driven on metalled roads

Locking the rear axle results in scrubbing the rear tyres when cornering due to the rigid wheel connection. This leads to increased wear on the tyres and to irregular steering characteristics. Thus the lock should only be used to aid pulling away.

■ When one wheel is spinning e.g. because the vehicle is stuck in snow.

This would lead to high wear on the tyres, to damage of the drive train and uncontrolled acceleration. Thus the spinning wheel must always be stopped before engaging the differential lock.

■ When the vehicle is being towed.

■ On a rolling test bed<sup>1)</sup>, e.g. for a brakes test.

<sup>1)</sup> Further notes on page 139.

### Turn signal and dip lever



The turn signals only work when the ignition is switched on.

Right turn signals – lever up (1)

Left turn signals – lever down (2)

When turn signals are working, the warning lamp flashes as well – see page 77.

The turn signals cancel automatically after completing a turn.

#### To signal a lane change

Move the lever up or down to the pressure point and hold in this position – the warning lamp should flash.

#### To dip headlights

Pull the lever past the pressure point towards the steering wheel (3) with dipped or main beam on. When main beam is on, the main beam warning lamp will light up.

#### Headlight flasher

Pull the lever towards the steering wheel to the pressure point – the main beam warning lamp will light up.

#### Parking lights

The parking lights only work when ignition is switched off.

Right parking lights – lever up (1)

Left parking lights – lever down (2)

If the ignition key has been removed, a buzzer\* will sound when the driver's door is open.

#### Note

The use of the signals and lighting described here is subject to local regulations.

## Cruise control system\*

To relieve the foot on the accelerator pedal this system can hold any speed above about 40 km/h (25 mph) constant, so far as this is permitted by engine output.

### Attention

**The cruise control system should not be used in dense traffic and poor road conditions (slippery surfaces, aquaplaning, gravel).**

**When system is switched on do not move into neutral without depressing the clutch pedal, otherwise the engine will race and can, under certain circumstances, become damaged.**

**Note** On vehicles with automatic gearbox, the Cruise Control System is only active when the gear selector is position **D**, **3** or **2**. If any other position (**P**, **N**, **R** or **1**) is selected while driving, the last speed to be stored is deleted and the system switched off.



**The system is operated** with the sliding switch **A** and the press button **B** on the turn signal lever.

**The system is switched on** by moving switch **A** to ON.

When the speed to be maintained has been reached the press button **B** (SET) must be pressed briefly. The foot can then be taken off the accelerator pedal.

The programmed speed can also be increased without pressing the accelerator pedal. The button **B** need only be pressed until the desired speed has been reached.

The speed can also be increased in the normal way with the accelerator pedal. When the pedal is then released the previously programmed speed is resumed.

The system is **temporarily switched off** when brake or clutch pedals are used or when speed is considerably below programmed speed i.e. when driving up a steep gradient in too high a gear.

To resume speed previously programmed when brake or clutch pedals are released or at end of gradient, push switch **A** to the left (RES).

### Attention

**The programmed speed must only be resumed when it is not too high for the existing traffic conditions.**

The system is **completely switched off** by moving the switch **A** to the right (OFF) or – when vehicle is stationary – by switching the ignition off.



### Windscreen wiper and washer system

#### Attention

The windscreen wipers must be in very good condition in order to ensure clear vision - see page 171.

Wipers and washers only work when ignition is switched on.

**When it is freezing, check that the wiper blades are not frozen to the glass before switching the wipers on for the first time.**

**The heated windscreen washer jets\*** are switched on when the ignition is switched on and the amount of heat is regulated automatically according to the ambient temperature

#### Note

- Topping up washer fluid - see page 169.
- Changing windscreen wiper blades - see page 171.



#### Windscreen

##### ■ Flick wipe

Lift lever to pressure point before position 1.

##### ■ Wiper slow

Lever at position 1.

##### ■ Wiper fast

Lever at position 2.

##### ■ Intermittent wipe

Lever at position 3.

The wipers work about every 6 seconds.

With an **infinitely variable intermittent wipe\*** the wipe delay can be programmed between about 1.5 and 22 seconds:

- Switch on intermittent wipe and wipe once.
- Switch off intermittent wipe and the switch on again after the desired delay.

The selected delay can be changed as often as required. After switching off the ignition the selected pause reverts back to a six second interval.

##### ■ Automatic wash/wipe facility

Pull lever towards steering wheel 4 wipers and washer work.

Release lever -

The washer stops and the wipers carry on for about 4 seconds.

**Headlight washer system\***

When the headlights are on, the lenses are washed every time the windscreen is washed **4**.

At regular intervals such as when filling the tank, caked-on dirt and insects should be removed.

**Rear window/  
wing door window\***

Press lever away from steering wheel and release **5** – the wiper works about every 6 seconds (intermittent wipe). Pressing and releasing lever again switches the wiper off.

**Automatic wash/wipe**

Press lever away from steering wheel **5**, and hold in this position – The wiper and washer work as long as the lever is held in this position.

Release lever – The washer stops and the wiper carries on for about 4 seconds.

## CONTROLS AND EQUIPMENT

### Heating and ventilation

#### Attention

■ Clear vision, which contributes to road safety, can only be guaranteed if all windows are free of ice, snow and mist.

You should, therefore, familiarise yourself with the correct operation of the heating and ventilation system as well as removing dampness and frost from the windows.

■ The highest possible level of heating and a quick defrosting of the windows can only be achieved when the engine has reached its operating temperature.



#### Controls

- A – Rotary switch – blower for passenger compartment ventilation\*
- B – Rotary switch – blower for additional heater\*
- C – Rotary switch – blower for heating and ventilation system
- D – Temperature control rotary regulator
- E – Air distribution rotary regulator
- F – Air recirculation button

#### Rotary switch A – blower for passenger compartment ventilation\*

The passenger compartment is ventilated (fresh air only) independently of the ventilation in the cab, using a blower fitted in the rear right side trim.

When in use, the fresh air drawn in is cleaned by a dust and pollen filter\* and guided into the passenger compartment vents in the roof.

At least one vent in the roof must be open when the blower is functioning as the blower will otherwise switch off due to overheating.

Air throughput can be adjusted in three stages.

#### Roof outlets

The roof outlets can be closed or opened separately. They can also be adjusted by repositioning the outlet grille.

#### Note

■ When air recirculation is in operation, the air flow in the passenger compartment can be adjusted independently of the air flow in the driver's cab.

■ The inlet for the blower is located in the rear right side window.

## Rotary switch B – blower for additional heater\*

With the additional heater the rear seating area can also be comfortably **heated**. However there is no fresh air input as the heat exchanger only works in recirculating operation.

Its blower can be switched on with a three stage rotary switch in the dash panel.

Temperature regulation is carried out together with the rotary temperature regulator **D** of the normal heater.

## Vent

On vehicles with passenger compartment seating the outlet is located under the centre row of seats. This outlet can be opened by pulling it out and closed by pushing it in.

On the Delivery van, Multivan and Campers the outlet is located on the step between the driver and the passenger compartment.

## Note

Please do not use the area around the vent as stowage space as the vent opening will be blocked and the blower will turn off due to overheating.

## Rotary switch C – Blower





Air throughput can be adjusted in four stages. When driving slowly the blower should always be running at a low speed.

On vehicles with a dust and pollen filter\* dust, pollen, soot etc. will be held back by the filter regardless of the position of blower switch **C**.

## Rotary regulator D – Temperature selector

Clockwise – increases heat output  
Anti-clockwise – decreases heat output

## Rotary regulator E – Air distribution

Regulator turned to symbol...	Increased air flow from vents...	Decreased air flow from vents...
	1, 2	3, 4
	5	1, 2, 3, 4
	3, 4, 5	1, 2
	3, 4	—

For vent layout, see next page.

## Button F – Air recirculation

Air recirculation is selected by pressing this button. A warning lamp lights up in the button.

After switching on the blowers for the driver and passenger compartments\* operate in the air recirculation mode.

Air recirculation is switched off by pressing the button again. The warning lamp then goes out.

The air recirculation function prevents strong outside smells entering the vehicle, for example when driving through a tunnel or standing in a traffic jam.

Air recirculation can also be selected if the vehicle is to be heated quickly. In this mode, air is drawn in from the vehicle interior and heated.

## Attention

**You should not use the air recirculation mode for an extended period of time, as no fresh air is drawn in from outside and the windows could mist up.**

## CONTROLS AND EQUIPMENT

### Heating and ventilation



#### Air vents

Depending on the position of the rotary regulator **D** heated or unheated fresh air flows from vents 1, 2, 4 and 5 when open.

Only unheated fresh air will flow from vents 3.

The air flow is switched to the appropriate vents using rotary regulator **E**.

The vents 3 and 4 can be opened and closed separately:

knurled disc upwards – vent opened  
knurled disc down – vent closed

By swinging the complete outlet grille of vents 3 and 4 the air flow can be moved vertically.

When the knurled disc in the grille is rotated to and fro the air flow direction is altered laterally.

The vents 2 serve to defrost the windscreen wiper blades.

#### Defrosting windscreen and side windows

- Rotary switch **C** to stage 3.
- Rotary regulators **D** and **E** turned fully to right.
- Vents 3 closed
- Adjust vents 4 so that additional warm air can be directed to the side windows.

#### Demisting windscreen and side windows

When the windows mist up due to high humidity, e.g. when it is raining, we recommend the following settings:

- Rotary switch **C** to stage 2 or 3.
- Rotary regulator **D**, if necessary, in heating range.
- Rotary regulator **E** to .....
- Vents 3 closed.
- Additional warm air can be directed to the side windows via vents 4.

#### Ventilation (fresh air operation)

With the following settings, unheated fresh air flows from vents 3 and 4:



- Rotary switch **A\*** and **C** to desired stage.
  - Rotary regulator **D** anti-clockwise to the stop.
  - Rotary regulator **E** to .....
  - When windscreen misted up set rotary regulator **E** to .....
  - Vents 3 and 4 open.
- If required, regulator **E** can be turned to another position.



## Heating interior quickly

- Rotary switch **A\*** to stage 0.
- Rotary switch **B\*** to stage 2 and rotary switch **C** to stage 3.
- Open the additional heater\* vent under the centre row of seats in those vehicles equipped with seats.
- Switch on air recirculation by pressing button **F**.




## Note information on recirculating air operation on page 91.

- Rotary regulator **D** fully to right.
- Rotary regulator **E** to  .....
- When windscreen misted up set rotary regulator **E** to  .....
- Vents 3 closed.


- Vents 3 and 4 set as required.

## Heating interior comfortably

When the windows are clear and the desired temperature has been reached we recommend the following settings:

- Rotary switch **A\*** to stage 0.
- Rotary switch **B\*** and **C** to desired stage.
- Open the additional heater\* vent under the centre row of seats in those vehicles equipped with seats.
- Rotary regulator **D** at the desired heat output.
- According to desired air direction set rotary regulator **E** to  .....
- or to  .....
- When windscreen misted up set rotary regulator **E** to  .....
- Switch off air recirculation by pressing button **F**.
- Vents 3 closed.
- Set vent 4 as required.

## General notes

- To ensure that the heating and ventilation can work properly, the air inlet in front of the windscreen should be kept free of ice, snow and leaves.
- Only controls **D** and **E** can be set to any intermediate position.
- In order to prevent the windows from misting up, you should always set rotary switch **C** to a low level when driving at low speeds and set rotary regulator **E** to the following position:  .....
- The heat output of the vehicle heating and the additional heater\* depends on the coolant temperature – the full heat output is therefore only available when the engine is warm.
- The stale air escapes through ventilation slots in the luggage compartment/loading area side panel trim. Therefore these slots should not be covered.
- On vehicles with a full-width partition and on the Pick-up and Double Cab models the stale air escapes through slots in the driver's and passenger doors.

## CONTROLS AND EQUIPMENT

### Air conditioner\*

#### Attention

■ Clear vision, which contributes to road safety, can only be guaranteed if all windows are free of ice, snow and mist.

You should, therefore, familiarise yourself with the correct operation of the heating and ventilation system, the removal of dampness and frost from the windows as well as the cooling system.

■ The highest possible level of heating and a quick defrosting of the windows can only be achieved when the engine has reached its operating temperature.

The air conditioner is a combined cooling and heating system which provides the maximum possible comfort all the year round.

The cooling system only works when the engine is running, the ambient temperature is above about + 5°C and the blower speed is between 1 and 4 on rotary switch **C**.

When the air conditioner is switched on it reduces not only the temperature inside the vehicle but also the air humidity. When the ambient air humidity is high, this not only makes the vehicle occupants feel more comfortable, even in winter, but also prevents the windows from steaming up.



#### Controls

- A – Rotary switch – blower for passenger compartment ventilation\*
- B – Rotary switch – blower for additional heater\*
- C – Rotary switch – blower for air conditioner in driver compartment
- D – Rotary regulator – temperature control
- E – Rotary regulator – air distribution
- F – Button – air conditioner on/off
- G – Button – air recirculation

## Rotary switch A – blower for passenger compartment ventilation\*

The passenger compartment is ventilated (**fresh air only**) independently of the ventilation in the cab, using a blower fitted in the rear right side trim.

When in use, the fresh air drawn in is cleaned by a dust and pollen filter\* and guided into the passenger compartment by vents in the roof.

At least one vent in the roof must be open when the blower is working, as the blower will otherwise switch off due to overheating.

Air throughput can be adjusted in three stages.

### Roof outlets

The roof outlets can be closed or opened separately.

### Note

■ When air recirculation is in operation, the air flow in the passenger compartment can be adjusted independently of the air flow in the driver's cab.

■ The inlet for the blower is located in the rear right side window.

## Additional heater\*

### Rotary switch B – Blower for additional heater\*

With the additional heater the passenger compartment can also be heated. There is no fresh air input or cooled air input as the additional heater only works in the air recirculation mode.

Its blower can be switched on with a three stage rotary switch in the dash panel.

Temperature regulation is carried out via rotary regulator **D** of the air conditioner system.

### Vent

On vehicles with passenger compartment seating the outlet is located under the centre row of seats. This outlet can be opened by pulling it out and closed by pushing it in.

On the Delivery van, Multivan and Campers the outlet is located on the step between the driver and the passenger compartment.

### Note

Please do not use the area around the vent as stowage space as the vent opening will be blocked and the blower will turn off due to overheating.

### Rotary switch C – Blower

Air throughput can be adjusted in four stages. When driving slowly the blower should always be running at a low speed.

On vehicles with a dust and pollen filter\* dust, pollen, soot etc. will be held back by the filter regardless of the position of blower switch **C**.

### Rotary regulator D – Temperature selector

Clockwise – increases heat output  
Anti-clockwise – decreases heat output

When the **air conditioner** is switched on, turning the switch anti-clockwise increases the cooling.



## CONTROLS AND EQUIPMENT

### Rotary regulator E – Air distribution

Regulator turned to symbol...	Vents... fully open	Vents... slightly open
	1, 2	3, 4
	5	1, 2, 3, 4
	3, 4, 5	1, 2
	3, 4	—

For vent layout, see next page 97.

### Button F – Air conditioner on/off

The system is switched on by pressing this button. A warning lamp lights up in the button pressed.

The system is switched off by pressing the button again. The warning lamp then goes out.



### Button G – Air recirculation

Air recirculation is selected by pressing this button. A warning lamp lights up in the button.

After switching on the blowers for the driver and passenger compartments\* operate in the air recirculation mode.

Air recirculation is switched off by pressing the button again. The warning lamp then goes out.

The air recirculation function prevents strong outside smells entering the vehicle, for example when driving through a tunnel or standing in a traffic jam.

Air recirculation can also be selected if the vehicle is to be heated or cooled quickly. In this mode, air is drawn in from the vehicle interior and heated or cooled.

### Attention

**You should not use the air recirculation mode for an extended period of time, as no fresh air is drawn in and the windows could mist up.**

Smoking should be avoided when air recirculation is selected, as the smoke drawn from the vehicle interior deposits on the evaporator of the air conditioner. This leads to permanent odours when the air conditioner is in operation. These can only be eliminated by exchanging the evaporator, which is time-consuming and expensive.

### Note

Buttons **F** and **G** can be used in combination.

### Air vent

Depending on **D** and **B** air/cold air open.

The vents later **E**.

The vents separately knurled di knurled di



**Air vents**

Depending on the position of rotary regulator **D** and button **F** heated or unheated fresh air/cold air flows from all vents which are open.

The vents are controlled by the rotary regulator **E**.

The vents 3 and 4 can be opened and closed separately:

- knurled disc upwards – vent opened
- knurled disc down – vent closed

By swinging the complete outlet grille of vents 3 and 4 the air flow can be moved vertically.

When the knurled disc in the grille is rotated to and fro the air flow direction is altered laterally.


The vents 2 serve to defrost the windscreen wiper blades.

**Defrosting windscreen and side windows**

- Rotary switch **C** to stage 3.
- Rotary regulators **D** and **E** turned fully to right.
- Vents 3 closed
- Adjust vents 4 so that additional warm air can be directed to the side windows.

**Demisting windscreen and side windows**



When the windows mist up due to high air humidity, e.g. when it is raining, we recommend the following settings:

- Rotary switch **C** to stage 2 or 3.
- Rotary regulator **D**, if necessary, into heating range.
- Switch on air conditioner by pressing button **F**
- Rotary regulator **E** to 
- Vents 3 closed.
- Additional warm air can be directed to the side windows via vents 4.



## Ventilation (fresh air operation)

With the following settings, unheated fresh air flows from vents 3 and 4:

- Turn air conditioner off by pressing button **F**
- Rotary switch **A\*** and **C** to desired stage.
- Rotary regulator **D** anti-clockwise to the stop
- Rotary regulator **E** to 
- When windscreen misted up set rotary regulator **E** to 

- Vents 3, 4 and roof vents open.
- If required, regulator **E** can be turned to another position.



## Heating interior as quickly as possible

- Rotary switch **A\*** to stage 0.
- Rotary switch **B\*** to stage 2 and rotary switch **C** to stage 3.
- Open the additional heater\* vent under the centre row of seats in those vehicles equipped with seats.
- Switch on air recirculation by pressing button **G**.

### Attention

**You should not use the air recirculation mode for an extended period, as no fresh air is drawn in and the windows could mist up.**


### Note information on recirculating air operation on page 96.

- Rotary regulator **D** fully to right.
- Rotary regulator **E** to 
- When windscreen misted up set rotary regulator **E** to 
- Vents 3 and 4 set as required.


## Heating interior comfortably

When the windows are clear and the desired temperature has been reached we

recommend the following settings:


- Rotary switch **A\*** to stage 0.
- Rotary switch **B\*** and **C** to desired stage.
- Open the additional heater\* vent under the centre row of seats in those vehicles equipped with seats.
- Rotary regulator **D** at the desired heat output.
- According to desired air direction set rotary regulator **E** to 

or to

- When windscreen misted up set rotary regulator **E** to 
- Switch on air recirculation by pressing button **G**.
- Vents 3 and 4 set as required.

**Normal cooling**

- Rotary switch **A\*** and **C** to desired stage.
- Rotary switch **B\*** to stage 0.
- Rotary regulator **D** to the desired air temperature (heating is also possible).
- Rotary regulator **E** to desired position.

When rotary regulator **E** is in this position, at least one vent in the dash panel must be open, as the cooling system will otherwise ice up. 

- Switch on air conditioner by pressing button **F**
- Vents 3 and 4 set as required.

**Maximum cooling**

- Set rotary switches **A\*** and **B\*** to stage 0.
- All windows and sliding/tilting roof\* closed.
- Switch on air recirculation by pressing button **G**.


**Attention**

**You should not use the air recirculation mode for an extended period of time as no fresh air is drawn in from outside.**

**Note information on recirculating air operation on page 96.**

- Rotary switch **C** to stage 4.
- Rotary regulator **D** anti-clockwise to the stop

■ Rotary regulator **E** to  
When rotary regulator **E** is in this position, at least one vent in the dash panel must be open, as the cooling system will otherwise ice up.

- When windscreen misted up set rotary regulator **E** to 
- Switch on air conditioner by pressing button **F**
- Vents 3 and 4 open.

At least one vent must always be open otherwise the A/C system will ice up.



**Using air conditioner economically**

In cooling operation the air conditioner compressor places demands on the engine and therefore influences the fuel consumption. To keep the period switched on as short as possible, the following points should be noted:

- If the inside temperature is very high after the car has been parked in the sun, it is recommended to open doors or windows briefly to enable the hot air to escape.
- The air conditioner should not be switched on during a journey if the windows or sliding/tilting roof\* are open.
- If the desired interior temperature can be attained without switching on the air conditioner, the fresh air operation should be selected.

### General notes

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

■ Only controls **D** and **E** can be set to any intermediate position.

■ In order to prevent the windows from misting up, you should always set rotary switch **C** to a low level when driving at low speeds and set rotary regulator **E** to the following position:



■ Odours caused by a build-up of natural deposits in the vaporiser can occur if the air conditioner has not been used for some time. The air conditioner should be turned on at full blast at least once a month – even during cold spells – to clear or to prevent the odours. Open a window for a short period whilst doing this.

■ The heat output depends on the coolant temperature – the full heat output is therefore available when the engine is warm.

■ To ensure that the heating, ventilation and air conditioner\* can work properly, the air inlet in front of the windscreen should be kept free of ice, snow and leaves.

■ The stale air escapes through openings in the luggage compartment side panels. Therefore when loading the luggage com-

partment ensure that the openings are not covered.

### Operating faults

■ Should the air conditioner not work at any time, either:

– the ambient temperature is below about +5°C,

– the fuse has blown.

Check fuse and if necessary renew it – see page 189. If the trouble is not due to a defective fuse, switch the system off and have it checked.

– the air conditioner has switched off due to coolant temperature being too high.

■ If the cooling output drops off, switch the A/C off and have the system checked.

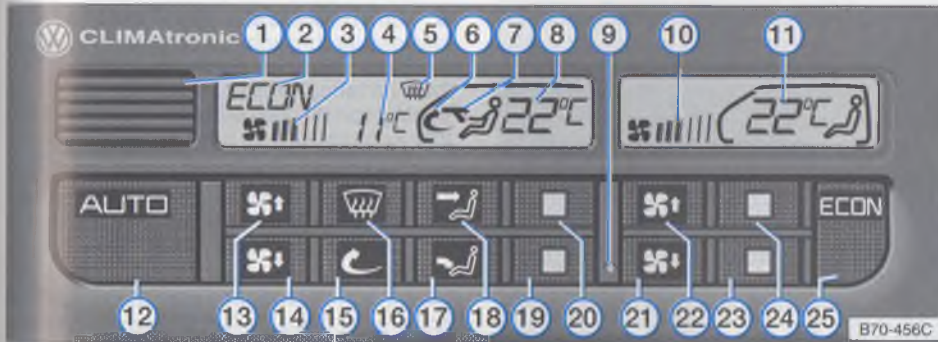
## Climatronic\*

### Attention

■ Clear vision, which contributes to road safety, can only be guaranteed if all windows are free of ice, snow and mist.

You should, therefore, familiarise yourself with the correct operation of the heating and ventilation system, the removal of dampness and frost from the windows as well as the cooling system.

■ The highest possible level of heating and a quick defrosting of the windows can only be achieved when the engine has reached its operating temperature.



## Controls

- 1 - Interior temperature sensor
- 2 - Display AUTO (automatic operation) or ECON (compressor off)
- 3 - Display for driver's cab blower speed
- 4 - Display for ambient temperature
- 5 - Display for defrosting windscreen
- 6 - Display for air recirculation
- 7 - Display for air flow direction
- 8 - Display for selected driver's cab temperature

- 9 - Button for Celsius or Fahrenheit reading (best operated with ball pen)
- 10 - Passenger compartment blower speed indicator
- 11 - Display for selected passenger compartment temperature
- 12 - Button for Automatic operation.
- 13 - Button for "Blower faster" in driver's cab
- 14 - Button for "Blower slower" in driver's cab and button for air conditioner "OFF"

- 15 - Button for air recirculation
- 16 - Button for defrosting windscreen
- 17 - Button for "Air flow to footwell"
- 18 - Button for "Air flow to upper part of body"
- 19 - Button for "Colder" in driver's cab
- 20 - Button for "Warmer" in driver's cab
- 21 - Button for "Blower slower" in passenger compartment
- 22 - Button for "Blower faster" in passenger compartment
- 23 - Button for "Colder" in passenger compartment
- 24 - Button for "Warmer" in passenger compartment
- 25 - ECON button (compressor off)

When the appropriate buttons are pressed the displays **2, 3, 8, 10** and **11** change or the displays **5, 6** and **7** appear.

**The automatic regulation of the system can be influenced by the buttons 13 - 18, 21 and 22.**

**The following standard setting is recommended for all times of the year:**

**Temperature about 22°C (72°F) and AUTO button.**

With this setting a pleasant climate in the vehicle is reached most quickly.

This setting should therefore only be altered when required for personal comfort.

Arrangement of vents – see page 105.

### Using the system

When ignition has been switched on the system normally works in the automatic mode. Displays **2**, **3**, **8**, **10** and **11** appear.

The Climatronic maintains the selected vehicle interior temperature fully automatically.

To do this temperature of the air flow as well as the blower speed (air volume) and air distribution are altered automatically.

The system also takes account of intense sunlight. This eliminates the need for a manual re-adjustment.

If Automatic operation is deviated from before the ignition is switched off the selected functions are stored.

### Notes on Automatic mode (AUTO)

■ The interior temperature can be freely selected with buttons **19** and **20** and is stored always until another temperature is selected.

The interior temperature can be set between +18°C (64°F) and + 29°C (86°F). In this range it is automatically regulated.

If temperatures below 18°C are selected "LO" appears in the display. With temperatures above 29°C (86°F), "HI" is displayed.

In these two end positions the system works continuously at maximum cooling or heating output. The temperature is not regulated.

### Climatronic®

■ Cooled air via the vents in the roof or warmed air through the vents in the floor of the passenger compartment (buttons **21** – **24**) can be controlled independently of the setting for the driver's cab (buttons **13** – **20**).

■ The interior temperature can be freely selected with buttons **23** and **24** and remains stored until another temperature is selected. Please note:

A difference of up to 3°C is possible between the temperature settings for the driver's cab (display No. **8**) and the passenger compartment (display No. **11**).

■ In certain operating conditions it may be found that the system temporarily carries out functions which are not quite as expected. This includes, for example, that for a few seconds after starting from cold, air is directed mainly into the footwell. This is intentional so that damp air in the system does not cause the windows to mist up.

## Deviation from Automatic mode

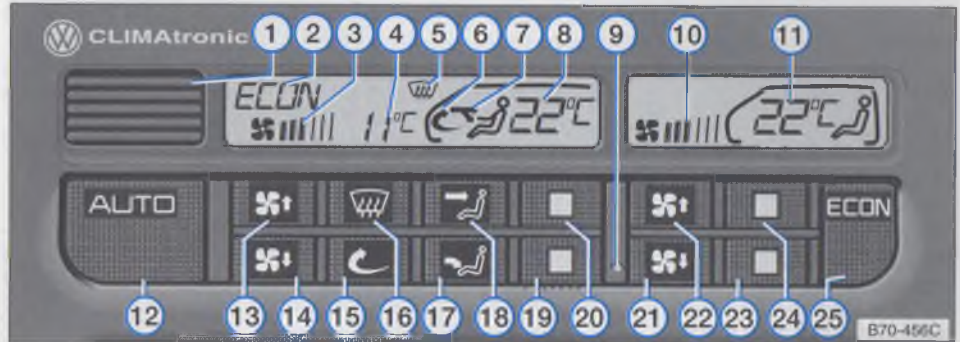
In nearly all cases the Automatic mode offers the best conditions for the comfort of the vehicle occupants all the year round.

In isolated cases however it can be necessary to move away from certain functions of the automatic mode by pressing various buttons. The Climatronic still works automatically:

■ The blower speed and thus the air volume can be increased or reduced with buttons **13**, **14** and **21**, **22**. This is shown by a change in the number of lines in display fields **3** and **10**.

■ By pressing button **16**

- the windscreen and side windows can be defrosted or kept free of misting (direct vents 4 onto side windows)
- the dehumidifying and defrosting effect for the windscreen can be increased if, for example persons with damp clothing are picked up shortly after moving off.



■ **Air recirculation** is selected by pressing button **15**. The symbol **6** appears in the display.

The air recirculation function prevents strong outside smells entering the vehicle, for example when driving through a tunnel or standing in a traffic jam.

Air recirculation can also be selected if the vehicle is to be heated or cooled quickly. In this mode, air is drawn in from the vehicle interior and heated or cooled.

### Attention

**The air recirculation mode should, however, not be used for an extended period as no fresh air is drawn in and the windows could mist up.**

Smoking should be avoided when air recirculation is selected, as the smoke drawn in from the vehicle interior deposits on the evaporator of the Climatronic. This leads to permanent odours when the Climatronic is in operation. These can only be eliminated by exchanging the evaporator, which is time-consuming and expensive.



## CONTROLS AND EQUIPMENT

■ With buttons **17** and **18** the air flow can be to the upper part of the body or into the footwell.

■ The combination of buttons **16** and **17** can be used to direct the air flow both to the windscreen and into the footwell.

The combination of buttons **17** and **18** can be used to direct the air flow both to the upper body and into the footwell.

■ Button **25** (ECON) only switches the **compressor off**. In this mode, the heating is automatically regulated (without air dehumidifying and cooling), with the desired interior temperature being attained as quickly as possible and maintained.

Please note that in ECON mode, the desired interior temperature cannot be lower than the ambient temperature.

The interior temperature can be set using buttons **19** and **20**.

The combination ECON mode with air recirculation is only possible if button **15** is pressed first and then the ECON button.

Pressing buttons **12**, **15** or **16** will switch off the ECON mode.

■ The entire system can be switched off with button **14** (OFF). Press and hold until the word "OFF" appears in display **8**. This function should only be used in isolated cases, e.g. if there is a fault in the system.

### Note

When the special functions are no longer required the automatic mode should be switched on again as soon as possible by pressing the button **12** (AUTO).

### General notes

■ Ensure that the sensor on the loud speaker grille in front of the driver and the air grille near the radio (pos. **1**) are not covered up.

■ To ensure that the Climatronic can work properly, the air inlet in front of the windscreen should be kept free of ice, snow and leaves.

■ The heat output depends on the coolant temperature – the full heat output is therefore available when the engine is warm.

■ Odours caused by a build-up of natural deposits in the vaporiser can occur if the AUTO system has not been used for some time.

The cooling system should be turned on at full blast at least once a month – even during cold spells – to clear or to prevent the odours.

■ The stale air escapes through openings in the luggage compartment side panels. Therefore when loading the luggage compartment ensure that the openings are not covered.

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

■ To prevent the windows from misting up the blower should be running slowly when driving at low speeds. To do this select ECON or AUTO.

### Air vents

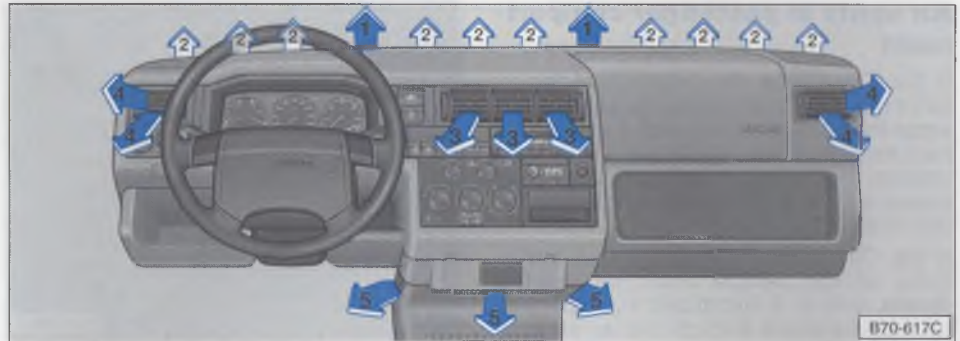
When the air is heated or cooled by the heater or cooler, the air vents are used to direct the air flow.

The outlets are numbered **16**, **17**, **18**.

### Air vents in driver's cab

When the appropriate buttons are pressed, heated or unheated fresh air (ECON mode) or cooled air (AUTO mode) flows from all vents.

The outlets are controlled by the buttons **16, 17, 18**.



The vents **3** and **4** can be opened and closed separately:

knurled disc upwards – vent opened  
knurled disc down – vent closed

By swinging the complete outlet grille of vents **3** and **4** the air flow can be moved vertically.

When the knurled disc in the grille is rotated to and fro the air flow direction is altered laterally.

The outlets **2** serve to defrost the windscreen wiper blades.

### Air vents in passenger compartment

If the Climatronic determines that the interior of the vehicle must be **heated**, it activates the additional heat exchanger. As the heat exchanger will only function in air recirculation mode, there is no intake of fresh or cooled air. The warm air comes up through the vents in the floor.

If the Climatronic determines that the interior of the vehicle must be **cooled down**, cold air is introduced to the passenger compartment through the air vents in the roof.



#### Vent in floor

On vehicles with passenger compartment seating the outlet for the additional heat exchanger is located under the centre row of seats. This outlet can be opened by pulling it out and closed by pushing it in.

On other models the outlet is located on the step between the driver and the passenger compartment.

#### Note

Please do not use the area around the vent as stowage space as the vent opening will be blocked and the blower of the additional heat exchanger will turn off due to overheating.



#### Vent in roof

The temperature and air flow from the vents in the roof (buttons 21 - 24) can be set independently of the setting for the driver's cab.

Please note that only cold air - no warm air - comes through the vents in the roof.

The roof outlets can be closed or opened separately and can also be adjusted by pivoting the outlet grilles.

■ When the Climatronic is switched on, at least one vent in the roof area must be open or the cooling system may ice up.

### Using Climatronic

In cooling mode the compressor pump therefore to keep it as possible, noted:

■ If the engine is started after the engine has been stopped, the compressor pump is recompressed briefly to

■ The compressor pump is not running during the engine start

■ ECON mode is not active without

## Using Climatronic economically

In cooling operation the Climatronic compressor places demands on the engine and therefore influences the fuel consumption. To keep the period switched on as short as possible, the following points should be noted:

- If the inside temperature is very high after the car has been parked in the sun, it is recommended to open doors or windows briefly to enable the hot air to escape.
- The compressor should not be switched on during a journey if the windows or sliding roof\* are open.
- ECON mode should be selected if the desired interior temperature can be attained without switching on the air conditioner.

## Operating faults

- If, after switching on the ignition, all symbols in the display area flash for about 15 seconds, there is a fault in the system – contact a Volkswagen dealer.
- Should the Climatronic not work at any time, either:
  - the ambient temperature is below about +5°C,
  - the Climatronic compressor has switched off due to coolant temperature being too high.
  - or the fuses have blown.

Check fuse and if necessary renew it – see page 189. If the trouble is not due to a defective fuse, have Climatronic checked.

- If the cooling output drops off, switch the A/C off and have the system checked.

## CONTROLS AND EQUIPMENT

### Auxiliary heater\*

The auxiliary heater works independently of the vehicle heating and ventilation system and can be used when on the move or stationary. It is supplied with fuel from the vehicle tank and electricity from an additional battery.

With the timer in the instrument panel up to three different switch-on times can be selected. It is thus possible to start the heater without actually being in the vehicle.

The heating period as programmed in the factory is 30 minutes. You can lengthen this period for anything up to two hours for either once or permanently.

If the battery is disconnected for any reason, the stored information is automatically erased.

On vehicles with a solid partition, only the load area is heated.

### Controls

- 1 - Display
- 2 - Rotary regulator for heating



- 3 - Button for ambient temperature<sup>1)</sup>, current time and day of week
- 4 - Button for setting time, day and for activating heater
- 5 - Push button for "On" or "Off"
- 6 - Button for setting time or preset time back, shortening heating time and calling up remaining running time
- 7 - Button for setting time or preset time forward, lengthening heating time and setting switch-on day.

<sup>1)</sup> As no temperature sensor is fitted in the factory, an incorrect temperature will appear in the display after pressing button 3.



### Display

- 8 - Display for pre-selected day
- 9 - Display for degrees Celsius<sup>1)</sup>
- 10 - Display for 3 possible preset times for the heating
- 11 - Display for
  - Time
  - Switch-on time
  - Fault in auxiliary heater system (Fault code display)
  - Ambient temperature display<sup>1)</sup>
- 12 - "On" or "Off" display for auxiliary heating

## Setting and displaying the correct time

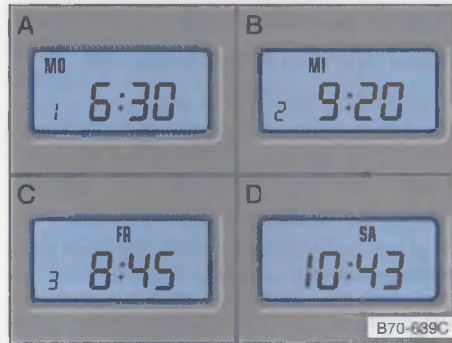
- Press and hold button **3**.
- Set correct time with buttons **6** or **7**.
- The current time is only displayed for a few seconds after button **3** is pressed – see field "D" in the illustration on the next page.

## Setting and displaying the correct day of the week

- Press and hold button **3**.
- Set correct day of week with button **4**.
- The correct day of the week is only displayed for a few seconds together with the time after button **3** is pressed – see field "D" in the illustration.

## Ambient temperature display\*

It is possible for the auxiliary heater to show the ambient temperature in the display. A temperature sensor must, however, be installed for this purpose. To display the ambient temperature once the sensor has been installed, press button **3** once with the ignition switched on, and twice quickly if the ignition is not switched on.



## Setting and changing preset day and switch-on time

Press button **4**. The following displays will appear in turn:

Field A – **1**. Switch-on time

Field B – **2**. Switch-on time

Field C – **3**. Switch-on time

Field D – no display. The current time and day will appear only after pressing button **3** – see illustration.

At the same time the day of week is displayed alongside the preset switch-on time each time the button is pressed.

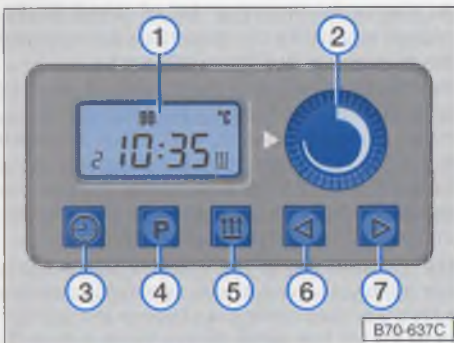
For the initial input and for each change to an old input, first call up one of the switch-on times listed under A – C. The required switch-on time can then be adjusted using buttons **6** or **7**. If a time is set before the actual time of day, the next day of the week appears in the display automatically.

If a different day of the week is desired, it is necessary to wait a few seconds until the week day display flashes before setting the new day of the week by pressing button **7**.

The inputs are stored in the memory if no further input is made within about 10 seconds of setting a time and day of the week. However, the numbers **1**, **2** or **3** (for the appropriate switch-on time) remain in the display to indicate that the heater is activated.

The preset time remains stored and can be called up again with button **4** so that the heater switches on again at that time.

### Auxiliary heater\*



#### Switching on heater (manually without timer)

■ Press button **5**. The symbol **12** appears in the display.

After heater has been switched on it takes a little time before heat can be felt.

#### Adjusting heat

The heat is infinitely adjustable with the rotary regulator **2**.

When the desired temperature has been reached it is then held fairly constant by the heater thermostatically.

#### Heater running time

##### When ignition is switched off

– switched on by timer

The auxiliary heater runs for **up to 2 hours** when the ignition is switched off after which it switches itself off.

– switched on manually

By pressing button **5** the heating **operates continuously** when the ignition is switched off. The heating, however, may not be controlled by the timer at the same time.

You can turn the heating **off** by pressing button **5** again. Symbol **12** goes out.

##### When ignition is switched on

The auxiliary heater can be switched on by pressing button **5** if the heater is not being controlled at the same time by the timer.

You can turn the heating off by pressing button **5** again. Symbol **12** goes out.

##### Lengthening running time once

Switch on heating by pressing button **5**. The running time can either be shortened by pressing button **6** or lengthened by pressing button **7**.

##### Lengthening running time permanently (changing pre-set)

Switch on heating by pressing button **5** and keep the button pressed. The running time can either be shortened by pressing button **6** or lengthened by pressing button **7**.

Release button **5** and then turn the heating on and then off again immediately using this button.

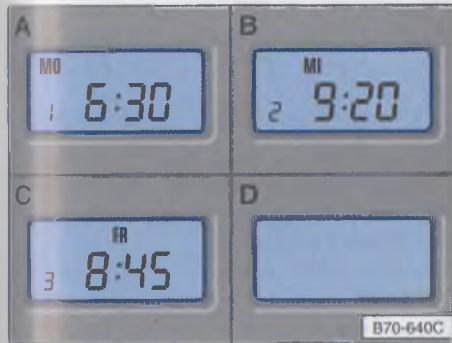
This time will be stored as the pre-set time according to your input.

##### Remaining heater running time

The remaining running time can be called up by briefly pressing button **6**. If the button is pressed longer than one second, the running time will be shortened.

The heater must be switched on in order to call up the remaining running time.

blowing/filling roof\* in passenger compartment



## Switching on heater (automatically using timer)

### Activating the heater

After setting the required switch-on time or pressing button **4**, the figure **1**, **2** or **3** will appear on the left-hand side of the display – see field "A", "B" or "C".

If the figure remains visible, the heater is activated and will start up at the preset time.

### Deactivating the heater

■ If the activation (**not the switch-on time!**) is to be cancelled, press button **4** until the number in the display disappears and no further display is visible – see field "D" in the illustration.

### Notes

■ If not activated, the heater will not start at the preset time!

■ Only one preset time can be activated, which in turn only runs once. However, the time can be repeated by activating again. When doing this the input remains stored in the memory.

## Daily programming

### An example:

The auxiliary heater was activated for Monday at 6.30 am. After this programmed time has passed, it can be reset for the following day (Tuesday) at the same time (6.30 am) by pressing button **4** once. The appropriate day and time appear in the display.

## Switching heater off

### Attention

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

■ When running the auxiliary heater in confined spaces there is a danger of poisoning!

### Heater was switched on by timer

The heater can only be switched off by shortening heater running time (by pressing button **6** – see page 110). Symbol **12** disappears. The blower will, however, continue to function for some time afterwards.

### Heater was switched on manually

The heater can be switched off by pressing button **5**. Symbol **12** disappears. The blower will, however, continue to function for some time afterwards.



### Notes

■ Every time the heater is switched off the blower continues to run for a while to cool the heater down quicker. When filling tank it is not necessary to wait to end of run-on.

■ When driving cross-country or through mud or deep snow the heater exhaust pipe can become blocked. Before switching the heater on in these conditions, check that the pipe is clear.

■ Displays **9** and **10** appear continuously after switching on the ignition. After switching off the ignition both displays will only appear if button **3** is pressed.

■ The switch-on time can be programmed up to one week in advance.

■ The following official regulation is applicable in Germany:

The heater of the heat exchanger can be used for 10 years. **After this period the heater must be replaced by a Genuine heat exchanger in a Volkswagen Dealership.** To enable this period of time to be monitored the year when the heater is taken into use is marked on the maker's plate on the heater (under vehicle floor).

The Volkswagen dealer enters the date of replacement on the plate on the heater.

### Operating faults

#### Fault display

Should you read on of the following fault codes in the display, you can amend the fault yourself with reference to the description.

With all other fault codes, please note the appropriate fault code, switch off the heating and visit a Volkswagen dealer.

**F13** – Turn off heating, ensure that air intake opening or vents are clear then turn on heating again.

**F52, F53, F54, F55 or F56** – Switch off heating and wait until the auxiliary heater blower has stopped. Then turn the heating on again. Do not repeat this procedure more than twice. If the heating still does not function, check the fuel level.

If these individual remedies do not meet with success, your Volkswagen dealer will be pleased to help.

### Vent

The vent is behind the driver's seat on the step between the driver and passenger compartment.

#### Attention

**Warm air coming from the vent can damage heat sensitive items.**

### Air intake opening

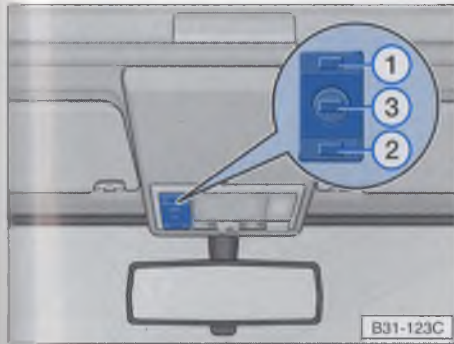
The air intake opening is in the lower left hand side of the side trim below the table.

**Please do not use the space between the air intake opening and vent for storage. The intake opening could be blocked and switch off auxiliary heater as a result.**

### Auxiliary heater does not function

- Have the battery charge condition checked.
- Check the fuses, replace if necessary.
- Adjust the switch-on time to the correct time.

## Sliding/tilting roof\* in passenger compartment



With ignition switched on, the roof can be opened and closed with the switch.

### Attention

**Care should be taken when closing the roof! Careless or uncontrolled closing of the roof could cause injuries. Therefore, when leaving the vehicle always take the ignition key with you.**

### To open

Press switch **1**.

### To close

Press switch **2**.

### To tilt

Press button **3**.

### To lower

Press switch **2**.

### Notes

■ If the roof is open and should be tilted, press button **3** and hold until the function is complete.

If the roof should be opened directly from the tilted position, press button **1** and hold until the function is complete.

■ When tilting the glass roof, the screen to prevent intensive sunlight shining in will also open automatically with the roof. If required it can be closed by hand when the roof is closed.

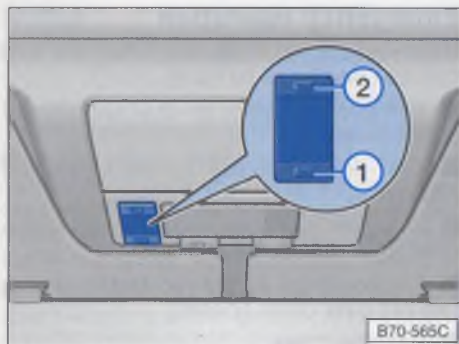
■ If the sliding roof is open wide and there is a high level of wind noise at high speed, the roof should be closed so far that the noise is eliminated.

### Emergency operation

If the system should develop a fault the roof can also be closed by hand.

- Remove the plastic cover at rear using a screwdriver.
- Turn protective cap of crank opening clockwise.
- Pull crank out of retainer, insert it in the opening and close sliding roof.
- Replace crank in retainer, and fit protective cap over crank opening.
- Replace cover.

### Sliding roof\* in cab



With ignition switched on, the roof can be opened and closed with the switch.

#### Attention

**Care should be taken when closing the roof! Careless or uncontrolled closing of the roof could cause injuries. Therefore, when leaving the vehicle always take the ignition key with you.**

#### To open

Press front of switch **2**.

#### To close

Press rear of switch **1**.

#### Sun screen

The sun screen to prevent intensive sun rays shining in can be slid open or closed by hand with roof open or closed.

#### To open

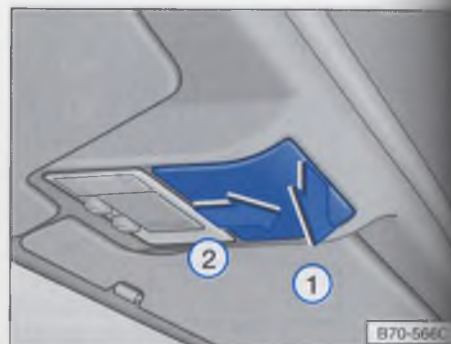
Press the sun screen upwards at front on grip and slide screen fully to rear.

#### To close

Slide screen forwards against spring pressure, until the retaining lugs engage.

#### Emergency operation

If the system should develop a fault the roof can also be closed by hand.



■ Pull cover down at rear until it disengages (arrow **1**) and take out to rear (arrow **2**).

■ Remove crank from retainer in cover and insert it in the opening. Close sliding roof by turning the crank.

■ Remove crank from the opening and replace in retainer.

■ Fit cover as follows:

Slide cap onto the frame with retaining lugs at front and then press up at rear until it latches.

Pop-up roof\*

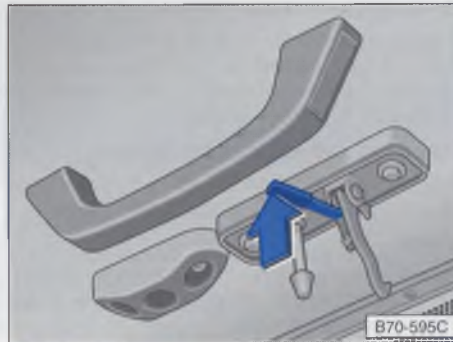


B70-589C

Lifting the roof and engaging the front bed panel (see page 118) gives more headroom inside. After lowering the bed panel the bed in the roof compartment is then accessible.

**Attention**

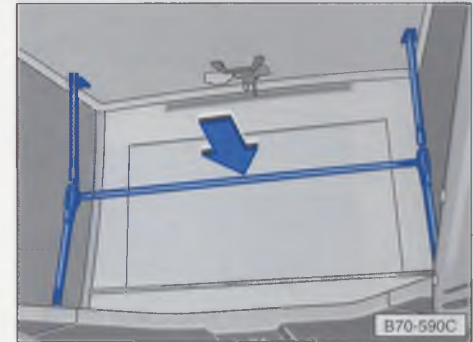
**For safety reasons the vehicle may only be driven with the roof completely closed and secured. The roof may not be opened if the vehicle is in motion**



B70-595C

**Raising roof**

- Move the release lever in the roof above the windscreen to the right (see left illustration).
- Lift roof slightly until the securing hook (see centre illustration) is visible.
- Press lever on securing hook upwards and **lift the roof slightly** until the Velcro strip in the lock area can be released (see page 117).
- Lift the roof as far as possible.



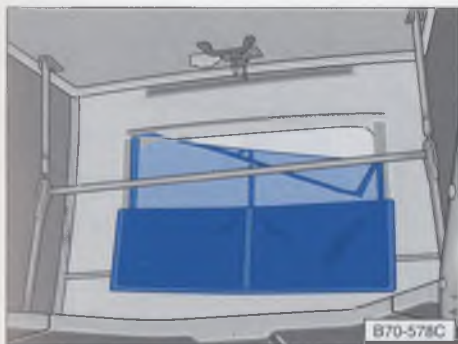
B70-590C

- Then press the cross bar between the struts to the front as far as the stop (see right illustration).

**Notes**

- As the vacuum created when lifting the roof makes it hard to open it is advisable to open a vehicle window or door.
- The roof load must not exceed 15 kg when the roof is open.

Sliding roof\* in cab



### Window in front canvas

The window located in the front section of the canvas after lifting the roof is screened with gauze for protection against insects.

### Opening window

Pull zipper to the right and pull canvas from Velcro strip retainer. In this position the vehicle can be ventilated without letting insects get into the vehicle.

### Opening insect gauze screen

Pull second zipper to the left and pull insect gauze screen from Velcro strip retainer.

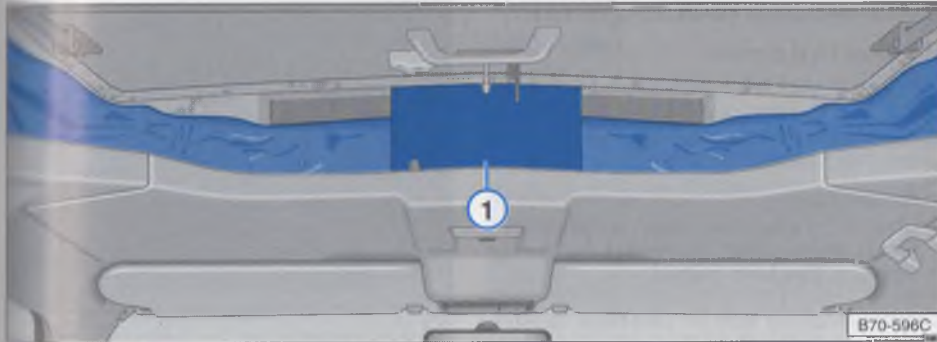
### Note

When closing the roof, the window and insect gauze screen must be closed to avoid damaging the canvas.

### Closing

Before panel m  
otherwise  
or could

■ Pull cre  
rear and le  
Do not a



## Closing roof

**Before closing the roof the bed panel must always be folded down otherwise the roof cannot be closed or could be damaged.**

- Pull cross bar between the struts to the rear and lower roof slowly. **Do not allow the roof to fall to.**

- Fold the canvas together as shown in the illustration and press evenly into the corners until it is taut.

- Press the Velcro strip (1) into position above the ventilation gauze by the lock, as shown in the illustration, to prevent damaging the canvas when closing.

- **To prevent damage when closing roof, the canvas must not get jammed in the catch at front or at the sides between vehicle roof or linkage.**

## Note

As the pressure created when closing the roof blows the canvas up and it can get jammed, a vehicle window or door should be opened.

- Grasp the handle with both hands and pull roof down with a strong jerk until the lock is heard to engage.

## Attention

**For safety reasons the vehicle may only be driven with the roof completely closed and secured.**

In order to prevent the formation of damp stains in the roof canvas the roof should only be closed when dry. If at some time closing the roof when wet cannot be avoided, it should be opened again as soon as possible and allowed to dry.

When the roof is not used for a long time it should be opened from time to time to air it.

### Roof bed\*

The roof bed offers space for two persons. If small children are to sleep in the roof bed, a safety net which is available from your Volkswagen dealer must be attached.

#### Attention

■ **For safety reasons, the vehicle may not be driven with a raised roof. The roof must be completely closed and secured.**

■ **No passengers should be in the roof bed whilst the vehicle is in motion.**

■ **If a safety net is not available for the roof bed, small children must not use the bed.**

### Bed in pop-up roof

#### Raising bed panel

When the roof has been raised the front section of the bed panel can be swung up and secured on the pop-up roof. This provides more headroom in the living area.

#### Attention

■ **Check whether the retaining strap is secured properly by pulling on the bed panel.**

Move unlocking button (left-hand illustration) to the right to fold the bed panel down.

#### Note

■ **The bed panel must always be swung down before closing the roof otherwise the roof cannot be closed or could be damaged.**

#### Removing bed panel

The bed panel can be removed if it is not needed by lifting it out toward the front in folded up state.



The panel can then be pushed onto the rear bed section, whereby in this case the roof must never be closed.

#### Installing bed panel

Lift front end of bed panel and insert with sheet metal tabs in both openings in the bottom of the rear bed section (see illustration). Then lay cushion on bed panel so that the roof can be properly closed.

## Refrigerator\*

The refrigerator under the single seat in the passenger compartment can only be operated on 12 Volts from the additional battery. The refrigerator works almost completely independent of its location and independent of engine and ignition.

The desired temperature is set with a rotary knob which is either inside the housing or outside at the rear, depending on version:

- On the version with the regulator inside, the temperature is infinitely variable.
- On the version with the external regulator the temperature can be set in two stages ("Economy" and "MAX").

With the maximum setting in both versions a temperature of about 25 degrees C lower than the ambient temperature can be reached in the box.

The lowest temperature which can be reached is, however, approx. + 2° C (+ 8° C on the version with the external regulator set to "Economy").

The connecting cable is stowed in a compartment at the rear of the box. The socket for the 12-Volt circuit is in the base of the driver's seat.

### Notes and tips when using refrigerator

- The lid of the box should always be kept firmly closed when unit is working:
    - the unit then does not work unnecessarily
    - the articles in the box are cooled as desired.
  - When the refrigerator is not working:
    - Switch it off (regulator to "Off" or pull plug out) to avoid draining the battery.
    - Open lid to prevent mildew and damp stains.
  - The refrigerator should be run cold before placing food and drinks in it. Furthermore the items to be placed in the refrigerator should be taken out of the home refrigerator only shortly before the journey. When purchasing items while travelling, it is recommended to buy items from refrigerators in supermarkets and to place them in the vehicle refrigerator without delay.
- Never place hot food or drinks in a cold refrigerator!**

■ Food and drinks should only be placed in the refrigerator in tightly sealed containers whenever possible. Advantages:

- Food will not dry out.
- Drinks cannot evaporate or be splashed out while driving.
- There is no transmission of odours..

■ The containers should also be as small as possible, as it is easier to stow many small containers than a few large ones.

■ The refrigerator should also not be packed too full in order not to impair the circulation of cooling air.

■ Rattling noise from the refrigerator can be avoided by placing slightly crumpled paper between bottles and other containers.

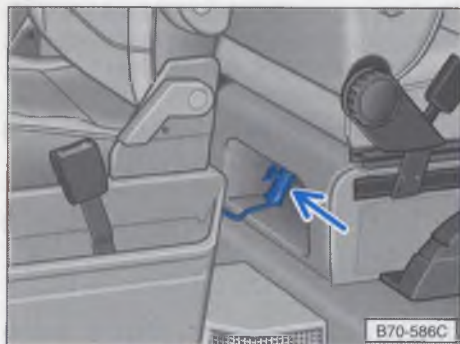
### Note

If the refrigerator should not cool properly please refer to the "Fault table" on page 121.



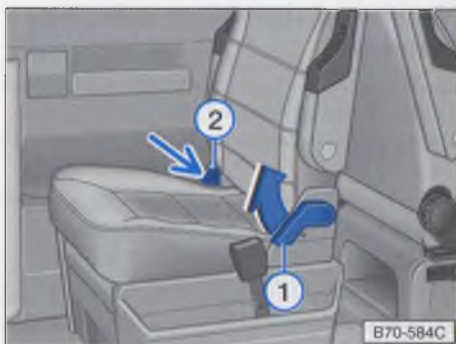
## CONTROLS AND EQUIPMENT

Roof bed\*



### Removing refrigerator

- Disconnect cable – see arrow in illustration above.



- Disengage seat cushion and lift up. To release, press lever **2** forwards or pull it to the rear.

In the upper position the cushion engages. Before it can be hinged down the lever **2** must be operated again.

#### Attention

**For safety reasons the cushion must always be hinged down and engaged when vehicle is in motion because the refrigerator is held in position when the cushion is engaged in the seating position.**



- Lift box slightly at the rear and pull it out to the rear.

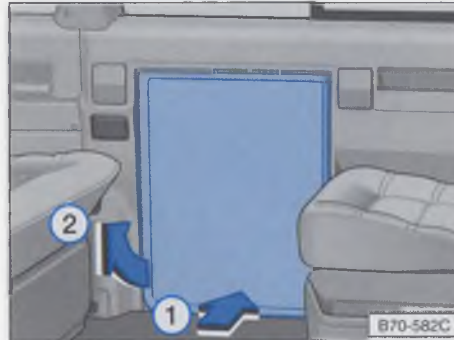
## Folding table\*

### Operating faults

If the refrigerator should not cool properly please refer to the following help measures:

- Have the battery charge condition checked, if necessary charge the battery by running the engine (the refrigerator does not have to be switched on again). The refrigerator will start automatically once the charge has reached 13 Volts.
- Check the fuses, change if necessary.
- Check if the connecting cable for the refrigerator is connected correctly to the 12 Volt plug behind the driver's seat.

If these individual remedies do not meet with success, your Volkswagen dealer will be pleased to help.



### Attention

**The folding table should not be erected when the vehicle is in motion as it could cause injuries in case of an accident or sudden braking!**

**For this reason, the table must be folded down and properly secured when the vehicle is on the road.**

The table can be swung up out of the retainer:

- Press table against side panel at bottom (arrow 1) – the latch is then released. The table can then be swung up (arrow 2) until the support strut is heard to engage.



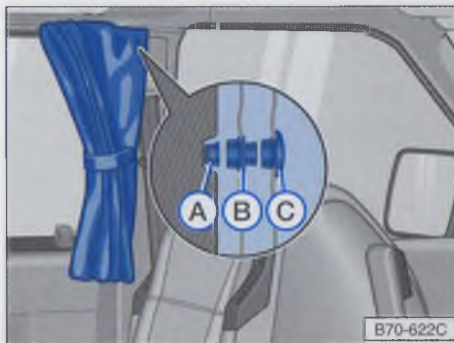
- To lower table lift it slightly until the knob (arrow) on side of table support strut can be pushed in.
- Swing table down until it engages in the retainer.

## CONTROLS AND EQUIPMENT

### Curtains\*

Curtains are available for all windows in the Multivan and are stored in the bag provided. The curtain set consists of four parts, which are buttoned on from inside with press buttons:

- A short curtain for the rear window
- Two of the same length for the rear side windows
- A long one for the windscreen and the two cab side windows. This curtain can be additionally secured over the windscreen by swinging down the two sun visors.



The illustration shows how the curtains are secured to the inner trim using the press stud.

The press stud base (A) is attached to the inner trim. The closed stud (C) is pressed on to this base.

If the studs of two curtains are to be attached to one base (A), first attach the curtain with an open curtain stud (B). Then attach the curtain with a closed stud (C).

### Sun visors

The sun visors can be pulled out of the side mountings and swung towards the doors. The make-up mirror can also have a sliding cover or cover flap.

On the mirror with light\* the light can, depending on the vehicle model, be turned on. Either by

- Moving the sliding cover, or
- By raising or lowering the sun visor, or
- Lifting the cover flap.

**Storage box\***

According to vehicle and scope of equipment, one of the following storage boxes can be installed.

**Attention**

**For safety reasons all storage box lids should always be closed when vehicle is moving.**

**Notes**

This storage box is intended for the vehicle wallet.

Between the two drinks/can holders in the storage box there is a holder for coins for parking metres.

Storage box B70-623C



Lift the catch to open passenger side lockable\* lid.

Storage box B70-644C

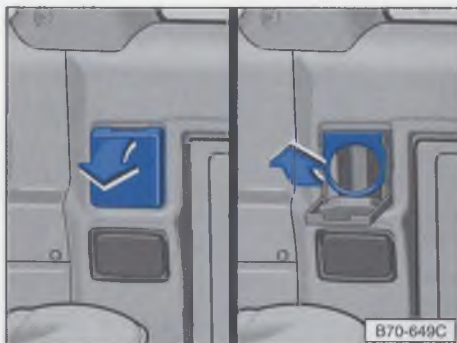


To open the passenger side lockable\* lid, press both buttons together in direction of arrows.

### Drink can holder\*

#### Attention

Do not put any hot drinks, e.g. hot coffee or tea, in the drinks/can holder whilst the vehicle is in motion. The hot drink could spill in the case of an accident or sudden braking manoeuvre and this could cause scalding.



#### In the passenger compartment\*

**To open** - Fold the base of the drink holder downwards – see left half of illustration. Then fold ring upwards – see right half of illustration.

**To close** - First press the drink holder ring downwards and then the base upwards until it engages.

#### Note

Please close the holder if you are moving or removing the rear seat bench.



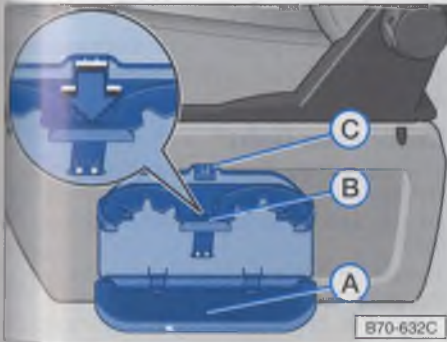
#### In the storage box flap

The illustration shows the drink can holder on the inside of the storage box flap in the opened position.

#### Attention

**For safety reasons all storage box lids should always be closed when vehicle is moving.**

Cigarette lighter/  
Interior lights

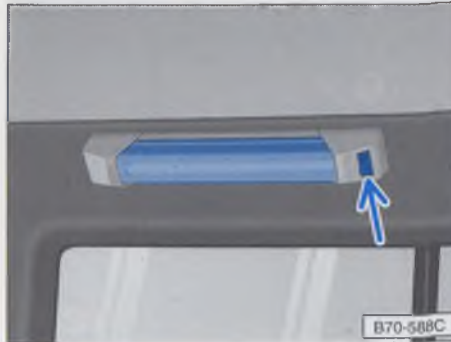


Next to passenger seat\*

**To open** - Fold the base **A** of the drink holder downwards. Then fold the rings upwards.

**To close** - Press the drink holder rings **B** down in direction of arrow until it engages. Then fold the base **A** up.

If the rings **B** are pressed in direction of arrow, the drink holder can also be used to hold larger or square containers. The rings fold up automatically when the button **C** is operated.

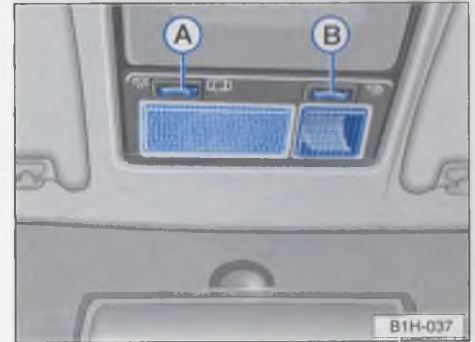


Transistor light\*

The transistor light is switched on and off with the switch (arrow).

**Note**

The transistor light has a very low current consumption. Despite this, always ensure that the light is switched off when leaving the vehicle or when changing light tubes. This will prevent the additional battery from being drained unnecessarily if the vehicle is not used for some time.



Front interior light (A)

- Switch pressed on left – light permanently on
- Switch in centre position – light off
- Switch pressed on right – controlled by door contacts

Interior lights with delayed switch off\* remain on for about 6 seconds after doors are closed.

Front reading light\* (B)

- Switch pressed on left – Light off
- Switch in centre position – light off
- Switch pressed on right – light permanently on

## CONTROLS AND EQUIPMENT

Drink can holder\*



B70-140C

### Front/rear interior lights

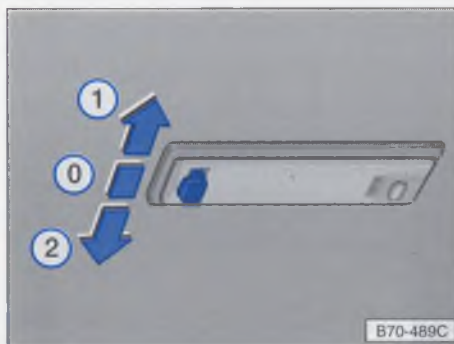
Switch positions:

Front: Light on continuously

Centre: Off

Rear: Door contact switch

Interior light



B70-489C

### Rear interior light

Switch positions:

1: Light on continuously

0: Off

2: Door contact switch

### Glove box light\*

The light in the glove box on the passenger side only comes on when the ignition is on and the lid is open.

### Entry area light\*

The entry area light of the sliding door is turned on and off by the door contact switch, as long as you do not switch off the light.

To turn off the light press the upper part of the glass.

Ashtray

Front

Removing  
Pull ashtray  
the under  
ashtray or  
Replacing  
insert ash  
in.

Rear

Removin  
Open as  
Replacin  
insert as  
fully in.

After  
Neve  
conta

Ashtray (Pick-up)

Front

Removing:

Pull ashtray fully to rear, press the button on the underside to disengage and take the ashtray out.

Replacing:

insert ashtray in guides and then push fully in.

Rear

Removing:

Open ashtray, press down and take out.

Replacing:

insert ashtray in from above and then push fully in.

**Attention**  
Never use the ashtrays as paper containers. Danger of fire!

Cigarette lighter/  
electric socket

The **cigarette lighter** is switched on by pushing in the element. When the heating element glows, the lighter springs out automatically – pull it out immediately and use it.

**Attention**  
■ Exercise caution when using the cigarette lighter!  
Careless or uncontrolled use of the cigarette lighter can cause burns.  
The cigarette lighter and the socket also work when the ignition is switched off and the key removed.  
For this reason children should never be left in the vehicle on their own.

The **12-Volt socket** of the lighter can be used for other electrical accessories with a capacity of up to 120 Watts. When the engine is not running this will however discharge the battery. For further information see "Accessories" on page 181.



## CONTROLS AND EQUIPMENT

### Roof rack

When loads are to be carried on the roof, the following should be noted:

■ As the rain channels are moulded into the roof for streamlining reasons, the normal type of roof rack cannot be used. To avoid risks we advise that only the cross bars provided by the factory are used.

■ These cross bars are the basis for a complete roof load carrying system. For safety reasons when carrying luggage, bicycles, surf boards, skis and boats, the appropriate special adapters are required.

All the components of this system are available from Volkswagen dealers.

■ **Any damage which may occur to the vehicle as a result of using other roof load carrying systems or by incorrect fitting will not be covered by the Warranty.**

■ **The roof load carrying system must be secured exactly as described in the instructions supplied.**

■ Distribute the load evenly. Each cross bar may carry 50 kg if loaded uniformly over the full length. The permissible roof load (including the carrier system) of 100 kg and the permissible gross vehicle weight must not be exceeded – see page 214 .

■ When carrying heavy or large objects on the roof, bear in mind that the vehicle handling changes due to the displacement of the centre of gravity and the increased area exposed to the wind. Driving style and speed must be adapted to allow for this.

Dropside (Pick-up)



To lower the dropsides pull locking handle outwards until the pin is clear of retaining hole then swing handle down.

**On vehicles with support cables for the tailboard do not place more than 150 kg on tailboard when it is down.**

**Attention**

The tail lights are not visible when the tailboard is lowered. Therefore, if lights are required, other safety measures should be employed, e.g. warning lights.

Note legal requirements when employing such safety measures.

### The first 1500 km – and afterwards

#### Running-in

During the first few operating hours the engine internal friction is higher than later on when all the moving parts have bedded down. How well this running-in process is done depends to a considerable extent on the way the vehicle is driven during the first 1500 km.

#### Up to 1000 kilometres

the following general rules apply:

- **Do not use full throttle**
- **Do not drive faster than 3/4 of top speed**
- **Avoid high engine speeds**
- **Trailer towing should if possible be avoided.**

#### Attention

■ **New tyres must also be "run in" because they do not have maximum adhesion at the start. This must be taken into account by driving carefully during the first 100 km.**

■ **New brake linings must also be run in and do not have the optimum friction properties during the first 200 km. The slightly reduced braking effect can be compensated for by more pressure on the brake pedal. This also applies when new linings have been fitted.**

#### From 1000 – 1500 km

The speed can be gradually increased to the road or engine maximum.

#### During and after the running-in period the following applies:

- **Do not overrev the engine when cold – either in neutral or in the gears.**
- All speeds and revs given are only valid when engine is **properly warm**.

✿ **Do not drive with the engine speed unnecessarily high – changing up early helps to save fuel, reduces noise and protects the environment – see also page 131.**

- **Do not let engine labour – change down when engine no longer runs smoothly.**

#### After the running-in period

- **On vehicles with a rev counter\* the maximum permissible engine speed is shown by the beginning of the red zone on the rev counter scale. The needle of the counter must not move into this zone.**
- Extremely high engine revs will be automatically governed.

## Driving

Various assumptions and the tyres.

The per Determining cal aspect opment:

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✿ **Avoid**

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✿ **Do not high soon as when smooth**

## Driving economically and ecologically

Various factors determine the fuel consumption, the burden on the environment and the wear on the engine, brakes and tyres.

### The personal style of driving

Determines to a great extent the economical aspect and the exhaust and noise development:

**Do not warm up the engine with the vehicle stationary.**

At idling speed it takes a very long time until the engine becomes operationally warm. However, in the warm-up phase, wear and the discharge of pollutants is particularly high. For this reason, drive off immediately the engine has started and avoid high engine speeds.

**Avoid full throttle acceleration.**

Not only is the fuel consumption reduced considerably if one accelerates with feeling, but the disturbance to the environment and the wear are also reduced.

**Do not drive with unnecessarily high engine revs – change up as soon as possible, only change down when the engine no longer runs smoothly.**

*The fuel consumption is for example more than twice as high in 2nd gear than it is in top gear. At the same time, the reduced engine speed means a reduction in engine noise.*

**Try not to drive at maximum speed.**

*The fuel consumption, exhaust pollution and noise increase disproportionately at high speeds. If approximately only 3 quarters of top speed is utilised, the fuel consumption will be reduced by about half. Experience has shown that the loss in time is only marginal.*

**Drive as smoothly as possible and look well ahead.**

Unnecessary acceleration and braking must be paid for with higher fuel consumption and more disturbance to the environment.

**Switch the engine off during traffic hold-ups.**

### The individual operating conditions

Naturally also affect fuel consumption.

The following factors for instance are not favourable to good fuel consumption:

■ High traffic density, particularly large towns with numerous traffic lights.

■ Frequent stop/start driving, always restarting and warming up the engine.

■ Driving in heavy, slow moving traffic in low gear so that the engine speed is relatively high in relation to the distance covered.

**One should, therefore, plan trips in advance and try to avoid local traffic and overcrowded motorways.**

Obviously the fuel consumption is also affected by factors over which the driver has no control. It is for example normal for the consumption to increase in the winter or in arduous conditions (bad roads, trailer towing etc.).

### The technical prerequisites

for a low fuel consumption and efficiency were "built in" at the factory. Particular importance was placed on the lowest possible disturbance to the environment. To retain and make the best possible use of these characteristics attention should be paid to the following points:

✿ **Even those vehicles which do not have a catalytic converter should be driven on unleaded petrol for the sake of the environment.**

✿ **The prescribed maintenance operations should be carried out exactly as specified in the Service Schedule.**

Having your vehicle regularly serviced by a Volkswagen dealer not only ensures that it is always operationally fit, but it also ensures economy, lowest possible burden on the environment and a long service life.

✿ **Check the tyre pressures every 4 weeks.**

Low tyre pressures increase the rolling resistance. This not only increases the fuel consumption and tyre wear, but the handling is also impaired.

✿ **Do not carry unnecessary ballast in the luggage boot**

Particularly in town traffic when one has to accelerate often, weight has a great influence on the fuel consumption.

✿ **Remove roof rack immediately after use**

Particularly at high speeds the increased air resistance makes itself felt considerably.

✿ **Electrical consumers should only be switched on when they are actually required**

Heated rear windows, additional driving lights and heater blower consume a considerable amount of current. The higher alternator load also increases the fuel consumption. For instance, over a period of 10 hours, the heated rear window will increase the fuel consumption by approximately 1 litre.

✿ **Check the fuel consumption regularly**

The fuel consumption should be checked each time the tank is filled up. By doing this inconsistencies on the vehicle which lead to an increased fuel consumption can be discovered sooner.

■ **Check the engine oil level each time the tank is filled up**

The oil consumption depends to a great extent on the engine load and speed. Depending on the style of driving the consumption can be as much as 1.0 litres/1000 km.

It is normal for the oil consumption of a new engine to reach its lowest level after a certain mileage has been covered. The consumption cannot be properly assessed until the vehicle has run approx. 5000 km.

This also applies to the fuel consumption and the engine output.

**Trouble-free functioning of the exhaust emission control system** is decisive for the environment-friendly operation of the vehicle.

The following points should therefore be noted:

- Vehicles fitted with a catalytic converter may only be driven on unleaded petrol – see page 143.

- Never drive until the fuel tank is completely empty on vehicles with a catalyst. The irregular fuel supply can cause misfiring. This allows unburnt fuel into the exhaust system. This can cause overheating and damage to the catalyst.

- If whilst driving, the engine misfires, loses power and runs unevenly, this could be due to a fault in the ignition system. In a case like this, unburnt fuel can enter the exhaust system and then escape to atmosphere. Furthermore, the catalytic converter could become damaged due to overheating. The vehicle speed must be reduced immediately and the defect should be eliminated at the nearest Volkswagen dealer.

- Do not overfill engine oil – see page 158.

- Do not tow start vehicle for more than 50 m – see page 202.

#### Attention

- Due to high temperatures which can occur in the catalytic converter in very unfavourable conditions, the vehicle should not be parked so that the catalytic converter can come into contact with inflammable materials.

- Never use additional under floor protection or anti-corrosion agents for the exhaust silencer, exhaust pipe, catalysis or heat shields. This substances could ignite whilst the vehicle is in motion.

#### Note

Even in the case of a perfectly working exhaust emission control system there can, under certain engine operating conditions, be a sulphurous exhaust smell.

This depends upon the sulphur content in the fuel being used.

Quite often this can be remedied by selecting another brand of fuel or, filling up with unleaded premium petrol.

### Brakes

#### General notes

■ Brake lining wear depends to a large extent on the operating conditions and style of driving. On vehicles which are used mainly in town traffic and stop/start conditions or are driven hard it may be necessary to have the thickness of the brake linings checked by a Volkswagen dealer in between the intervals given in the Service Schedule.

■ Change down in good time when driving downhill, in order to make use of the engine braking effect. This relieves strain on the brake system. When the brakes are applied do not keep them on continuously, apply and release alternately.

#### What can have a negative effect on the brakes?

##### Wetness or grit

###### Attention

■ Under certain conditions e.g. after driving through water, heavy rain falls or after the vehicle has been washed, the brakes could set in later than normal due to damp, or in winter-frozen, brake discs and linings – the brakes must first be dried through careful braking.

■ Full braking power might also set in later than normal even when driving on gritted roads if you have not braked for some time – the layer of salt on the brake discs and brake linings must first be worn down whilst braking.

#### Overheating of the brakes

##### Attention

■ Never let the brakes “grind”, by pressing the pedal too lightly when you do not really need to brake. This causes the brakes to overheat, leads to longer braking distances and to a higher level of wear.

■ Before starting on a long stretch of road in a very hilly area, please reduce your speed, change to a lower gear (manual gearbox) or choose a lower position (automatic gearbox). In this way you will use the braking power of the engine and relieve pressure on the brakes.

■ If a front spoiler, full size wheel trims etc., is retrofitted, it is necessary to ensure that the flow of air to the front brakes is not restricted – otherwise the brakes can overheat.

## Electronic Differential Lock (EDL)\*

**Brake servo****Attention**

The servo is operated by vacuum which is only generated when engine is running. For this reason the vehicle should not be allowed to roll with the engine switched off.

When the brake servo is not working because, for example, the vehicle is being towed or because a defect has occurred on the brake servo itself, the brake pedal must be pressed considerably harder to compensate for the absence of servo assistance.

**Brake pressure regulator**

The vehicle is fitted with a pressure/load sensitive brake pressure regulator (brake pressure reducer) which limits the brake pressure on the rear axle to the set value. See also sticker on the side of the seat frame of the driver's seat. The regulator is set at the factory so that normally even after fitting a body, the brakes should work perfectly.

Only in special cases when it is found during a road test that the braking effect on the rear axle is too low or too high, must the regulator be reset by a Volkswagen dealer.

**Anti-locking brake system\***

The ABS plays a major part in increasing the active safety of the vehicle. The big advantage when compared with a conventional brake system is that even when braking hard on a slippery road surface the best possible steerability is retained for the road condition because the wheels do not lock.

However, one must not expect the ABS system to shorten the braking distance under all conditions. When driving on gravel or on fresh snow covering a slippery surface, i.e. when one should be driving very slowly and carefully, the stopping distance may even be slightly longer.

**How the ABS system works**

An automatic check is made when a speed of approx. 7 km/h is reached. When this happens a pumping noise can be heard.



### Brakes

When the turning speed of a wheel reaches a level which is too low for the vehicle speed and it tends to lock, the brake pressure to this wheel is reduced. On the front axle the brake pressure is regulated for each wheel individually, whereas on the rear axle, the pressure is regulated for both wheels at the same time. As a result the braking effect is the same for both rear wheels and the driving stability is retained as far as possible. **This regulating process makes itself known by movement of the brake pedal and is accompanied by noises.** This is done deliberately as a warning to the driver that a wheel or the wheels are in the locking range. So that the ABS can regulate effectively in this range the brake pedal must remain depressed – on no account should it be pumped!

#### Attention

**However the ABS system cannot overcome the physical limits. This must be borne in mind particularly on slippery or wet roads. When the ABS comes into the control range the speed must immediately be adapted to the road and traffic conditions. The increased amount of safety available must not tempt one into taking risks.**

If a defect occurs on the ABS it is indicated by a warning lamp – see page 80.

## Electronic Differential Lock (EDL)\*

Vehicles with anti-lock brakes (ABS)\* can also be equipped with an electronic differential lock.

The EDL makes it much easier, or even possible, to pull away, accelerate and climb steep gradients under unfavourable conditions.

The EDL works fully automatically – the driver does not need to do anything at all.

It uses the ABS sensors to monitor the speed of the drive wheels. Up to a speed of about 40 km/h (25 mph), a difference in speed of the drive wheels caused by a slippery road surface on one side is balanced out by slowing the wheel which is slipping down and thereby applying more driving force to the other drive wheel through the differential.

**This control procedure can be noticed through the sound it makes.**

**In order to obtain the best possible effect from the EDL, always use the clutch and accelerator pedals according to the road conditions.**

### Attention

**When accelerating on a slippery road surface, e.g. on ice or snow, use the accelerator pedal carefully. The wheels can spin, even with EDL, and thus impair driving stability.**

To ensure that the brake disc of the braked wheel does not overheat, the EDL will automatically switch itself off if excessive demands are placed on it. The vehicle remains operational and has the same characteristics as a vehicle without EDL. For this reason, the switching off of the EDL is not indicated.

As soon as the brakes have cooled off, the EDL will switch itself back on again.

If the ABS warning lamp lights up (see page 80), there may be a fault present in the EDL. Take the vehicle to a Volkswagen dealer as soon as possible!

## DRIVING TIPS

### Driving a four-wheel drive vehicle\*

#### The drive concept

The syncro is equipped with a four-wheel drive which automatically distributes the drive force to the front and rear wheels by means of a viscous coupling.

The distribution of the drive is so regulated that in normal driving conditions the front wheels always receive slightly more drive than the rear wheels.

However, on very slippery surfaces when the grip at the front wheels is not adequate to transfer the drive to the road, the viscous coupling automatically diverts more drive to the rear wheels.

The four-wheel drive remains in operation in reverse gear.

#### Attention

**The style of driving must always be adapted to suit road surface and traffic conditions. The increased safety offered by this type of vehicle must not encourage one to take unnecessary risks.**

**In particular, one must always remember that the braking ability is limited by the adhesion of the tyres on the road surface and no different from a two-wheel drive vehicle.**

**For this reason, one should never be tempted by the good acceleration capabilities, even on slippery road surfaces, into driving too fast.**

**It should be noted that the front wheels can aquaplane when driving at high speeds on wet road. When this happens – contrary to vehicles with front wheel drive only – the start of the aquaplaning is not indicated by a sudden revving up of the engine. For this reason, do not drive too fast, always adapt the speed to the existing road conditions.**

#### What else should be noted?

##### Using winter tyres

With the four-wheel drive the vehicle has good traction in winter road conditions even with the standard tyres. However, the use of winter/all-weather tyres **on all four wheels** is recommended to further improve handling and braking.

##### Using snow chains

Snow chains must also be used on vehicles with four wheel drive when snow chains are obligatory. Further details about using snow chains are given on page 179.

##### Renewing wheels/tyres

**On the syncro 4 wheels must always have the same rolling circumference.**

For further notes see page 176.

### Output testing

If any time an output test is to be carried out on a single axle test stand the propshaft must be detached at the front.

### Brake testing

#### Vehicles without ABS

For brake testing on a brake test bed the propshaft must be detached.

**The differential lock\* must not be engaged.**

#### Vehicles with ABS\*

On the rear wheels the brake test is carried out in the same way as on two-wheel drive vehicle.

When testing the front wheel brakes however there are some special points to be noted:

■ **The differential lock\* must not be engaged.**

■ The vehicle must be reversed onto the test stand so that the test stand rollers drive the front wheels backwards.

■ Then the gear lever must be moved into 1st gear with the ignition on and then back into neutral again. This disengages the free-wheel lock in the back axle.

### Note

On no account must the reverse gear be selected when the rollers are running otherwise the freewheel lock would be engaged again. This would cause the rear wheels to be driven suddenly.

### Trailer towing *wheel drive vehicle\**

The vehicle is intended mainly for the transportation of persons and luggage but it can, with the appropriate technical equipment, also be used to tow a trailer.

#### Technical requirements

■ If the vehicle is supplied with a factory-fitted towing bracket, all that is technically and legally necessary for trailer towing will have been taken into account.

■ If the trailer to be towed has a 7-pin plug, an adapter cable can be used which is obtained from a Volkswagen dealer.

■ Volkswagen dealers have all the necessary information on the installation of towing brackets and the fitting of a heavy-duty cooling system. The installation should therefore be done by them.

#### Operations instructions

■ Pitching movements between towing vehicle and trailer can be reduced by heavy-duty springs and shock absorbers on the rear axle. If these springs and shock absorbers have not already been fitted at the factory, they can, in many cases, be service-installed by a Volkswagen dealer.

■ The permissible trailer weight<sup>1)</sup> and the permissible combined weight (see page 213) must not be exceeded on any account.

■ If the combined weight is below the permissible maximum a correspondingly steeper gradient can be climbed.

■ The given trailer weights are only applicable for altitudes up to 1000 m above sea level. As the engine output and thus the climbing ability drops due to the decreasing air density, the weight of vehicle and trailer must also be reduced by 10 % for each further 1000 m or part thereof.

■ Where possible make full use of the maximum permissible drawbar weight on ball of the towing bracket – see page 213 – but do not exceed it.

■ While observing the permissible trailer and drawbar weight, distribute the load in

<sup>2)</sup> The combined weight consists of the total weight of towing vehicle plus the total weight of trailer. If the permissible trailer load is to be fully utilized it may be necessary to reduce the weight of the towing vehicle appropriately.

the trailer so that heavy objects are as near as possible to the axle. The objects must also be secured so that they cannot slip about.

■ Check the tyre pressures on the towing vehicle, and adjust for full load conditions, and also check the pressures on the trailer.

■ The headlight settings, should be checked with trailer attached before moving off and adjusted as necessary.

On vehicles with headlight beam control it is only necessary to turn the knurled disc in dash in the appropriate direction.

#### Driving

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### Driving tips

To obtain the best possible handling of vehicle and trailer, the following should be noted:

- Try to avoid driving with an unladen vehicle and a loaded trailer. If this cannot be avoided, only drive slowly to allow for the unfavourable weight distribution.

- As driving stability of vehicle and trailer decreases when the speed increases do not drive at the maximum permissible top speed in unfavourable road, weather or wind conditions – particularly when going downhill.

in any case the speed must be reduced immediately the trailer shows the slightest sign of snaking. On no account try to stop the snaking by accelerating.

- For safety reasons one should not drive faster than 80 km/h (50 mph). This also applies in countries where higher speeds are permitted.

- Always brake in good time. If the trailer has an overrun brake, apply the brakes gently at first then firmly. This will avoid the jerking caused by the trailer wheels locking. Change down before going down a steep hill so that the engine can act as a brake.

- When a long climb in a low gear with extremely high engine revs must be negotiated at exceptionally high ambient temperatures the coolant temperature gauge must be observed. When the gauge needle moves to the upper end of the scale, the road speed must be reduced immediately. If nevertheless the warning lamp flashes, stop immediately and allow the engine to cool off at idling speed for several minutes.

- The cooling effect of the radiator fan cannot be increased by changing down, because the speed of the fan is not dependent on the engine speed. One should therefore not change down even when towing a trailer as long as the engine can cope without the vehicle speed dropping too much.

### General notes

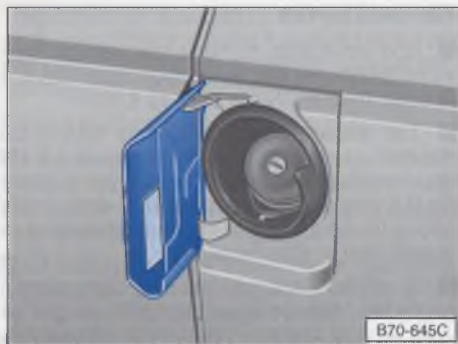
- It is advisable to have the vehicle serviced between the inspection intervals if it is used frequently for towing a trailer.

- The trailer and drawbar load figures on the data plate of the towing bracket are for test certification only. The correct figures for the vehicle, which may be lower than the above figures, are given in the vehicle documents and in this manual.

- If, when towing a trailer for commercial purposes, the permissible total weight of vehicle and trailer – also with passenger cars – exceeds 3500 kg, it is necessary to install and use a tachograph in most European countries.

## GENERAL MAINTENANCE

### Filling the tank



The filler neck is on the left-hand side of the vehicle.

You can reach the lockable\* cap after having opened the tank flap (see illustration).

The tank holds about 80 litres.

***As soon as the correctly operated automatic nozzle switches off for the first time, the tank is full. Do not try then to put more fuel in because the expansion space in tank will be filled – the fuel can then overflow when it becomes warm.***

After filling tank, screw cap on tightly and lock it.

#### Note

Any fuel spillages should be wiped off the paint finish immediately, as the paint could otherwise be damaged. This applies in particular to RME fuel (diester).

■ On vehicles with a catalytic converter, never drive until the fuel tank is completely empty. The irregular fuel supply can cause misfiring. This allows unburnt fuel into the exhaust system, which can cause overheating and damage to the catalyst.

#### Attention

Any statutory regulations must be observed when carrying a reserve canister of fuel. For safety reasons it is recommended that a reserve canister not be carried. In the event of an accident, the canister could be damaged and fuel spillage could occur.

## Fuel

## Petrol engines

## Vehicles with catalytic converter

62 kW engine  
Unleaded petrol  
RON<sup>1)</sup> not lower than 91

81 kW and 103 kW engines  
Unleaded premium petrol  
RON<sup>1)</sup> 95

or regular unleaded petrol, not lower than 91 RON<sup>1)</sup>

The use of **unleaded** regular petrol, with a minimum of 91 RON leads to a slight loss of power.

## Vehicles without catalytic converter

62 kW engine  
Regular unleaded petrol or leaded  
RON<sup>1)</sup> not lower than 91

81 kW engine  
Unleaded premium petrol or leaded  
RON<sup>1)</sup> 95.

or unleaded or leaded regular petrol with a minimum of 91 RON<sup>1)</sup>. However, using regular petrol leads to a slight loss of power.

## Notes

■ Unleaded petrol must comply with DIN EN 228 and leaded petrol with DIN 51 600.

■ If in an emergency the octane rating of the available petrol is lower than that required by the engine, only drive with medium engine speeds and low engine loading. **High engine loading with full throttle or high revs can cause engine damage.** Fill tank with petrol of the correct rating as soon as possible.

■ Fuel with a higher octane rating than that required by the engine can be used without limitation. There are however no advantages regarding output and consumption.

✿ *On vehicles with catalytic converter only unleaded petrol may be used.*

✿ *Even one tankful of leaded petrol will detract from the efficiency of the catalytic converter.*

✿ *In the interests of our environment unleaded petrol should be used whenever possible, even on vehicles without a catalytic converter.*

<sup>1)</sup> Research Octane Number, indicates anti-knock properties of the petrol



### Filling the tank

#### Petrol additives

The quality of the fuel has a decisive influence upon the running behaviour, performance and service life of the engine. The additives which are mixed into the petrol are of particular significance. It is therefore advisable only to use **good quality petrol containing additives**.

If such fuel is not available, or if engine troubles such as starting difficulties, stalling during idling, vibration and loss of power occur, the appropriate additives should be mixed with the petrol when filling the tank. At temperatures between about 0 and 15 degrees C, these additives prevent possible icing up of the carburettor, have an anti-corrosion effect, clean the fuel system and prevent deposits building up in the engine.

Not at all petrol additives available in accessory outlets have shown themselves to be effective. Therefore tested additives sold under the name "Volkswagen/Audi original petrol additives for petrol engines" are available from Volkswagen dealers in Germany and in many export countries. The Volkswagen dealers are also informed with regard to the use of additives, and they know what to do in cases where deposits have already built up.

Other petrol additives should not be mixed with the petrol.

#### Diesel engines

##### Diesel fuel

corresponding to DIN EN<sup>2)</sup> 590.

**CN<sup>3)</sup> not lower than 49.**

##### RME fuel (diester)

corresponding to DIN 51 606<sup>4)</sup>.

Vehicles with diesel engines can also run on **RME fuel (Rapeseed Methyl Ester)**.

Please ask your Volkswagen dealer or an automobile club where diester is available.

##### Properties of RME

■ RME is chemically produced from vegetable oil (predominantly rapeseed oil) in a process whereby the oil is mixed with methanol and converted, via a catalyst, into RME.

- 2) Euro-Norm
- 3) Cetane Number - Measurement of diesel fuel ignitability.
- 4) DIN preliminary Norm

■ RME is almost totally sulphur-free. The combustion of RME thus emits practically no sulphur dioxide (SO<sub>2</sub>).

■ The exhaust gas also contains less

- carbon monoxide,
- hydrocarbons
- particles (e.g. soot)

than with conventional Diesel fuel.

All emissions values are lower than legal requirements.

■ RME fuel is biodegradable.

■ RME can be used in winter to temperatures down to approx. -15°C.

■ RME can be mixed in any ratio with Diesel fuel.

■ Performance figures may be slightly lower.

■ Fuel consumption may be slightly higher.

### Driving in winter

When using summer Diesel trouble may be experienced at temperatures below 0°C because the fuel thickens due to wax separation.

For this reason, winter Diesel which is more resistant to cold is sold during the winter in Germany, and this works satisfactorily down to between -15°C and -22°C, depending on the type of fuel used.

In countries with different climatic conditions the Diesel fuels offered have a different temperature characteristic. Check with Volkswagen dealers or filling stations in the country concerned regarding the characteristics of Diesel fuels.

### Filter preheating

The vehicle is fitted with a filter preheater. This will ensure, that the fuel system remains operational down to about -25°C provided that winter Diesel which is cold resistant down to -15°C is used. Diluting with petrol is then no longer necessary under these conditions.

If, at temperatures below -25°C the fuel is waxed to such an extent that the engine will not start it is sufficient to place the vehicle in a warm room for a while.

**Fuel additives** (anti-waxing agents and similar fluids) must **not** be mixed with the Diesel fuel.

### Care of vehicle


Regular and expert care helps to maintain the value of the vehicle.

Furthermore it can be one of the stipulations for the upholding of warranty claims should corrosion damage and paint defects occur.

Every Volkswagen dealer carries stocks of suitable car care materials. The instructions for use on the container should be followed.

#### Attention

- If misused, car care materials can be injurious to health.
- Car care materials must always be stored in a safe place where they are out of the reach of children.

 *When buying car care materials one should select products which do not damage the environment. Empty containers which these materials were in do not belong with household waste.*

### Washing

#### Attention

**Dampness and ice in the brake system can have a negative effect on the braking power.**

The best protection against environmental influences is frequent washing and waxing. How often this treatment is required depends, amongst other things on how much the vehicle is used, how it is parked (garage, in open under trees etc.), the seasons, weather conditions and environmental influences.

The longer bird droppings, insects, tree resin, road and industrial grime, tar spots, soot, road salt and other aggressive 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.

In certain circumstances weekly washing can be necessary, in other conditions monthly washing with appropriate waxing may be fully adequate.

After the period when salt is put on the roads the underside of the vehicle should always be washed thoroughly.

#### Automatic car washes

The vehicle paint is so durable that the vehicle can normally be washed without problems in an automatic car wash. However the influence on the paint depends to a large extent on the design of the car wash, the filtering of the wash water, the type of wash and care material, etc. If the paint has a matt appearance after going through the wash or is even scratched this should be brought to the notice of the car wash operator immediately. If necessary a different car wash should be used.


#### Note

■ Before going through the car wash apart from the usual precautions (closing windows and sliding roof) there is nothing further to note.

However, to prevent damage the door mirrors should be folded in.

■ If there are special fittings on the vehicle – e.g. spoilers, roof rack, two-way radio aerial – it is best to speak to the car wash operator.

### Washing the vehicle by hand

 ***In the interests of environmental protection the vehicle should only be washed in specially provided wash bays. In some districts, washing cars elsewhere may even be forbidden.***

First soften the dirt with plenty of water and rinse off as well as possible.

Then clean the car with a soft sponge, glove or brush starting on the roof and going from top to bottom using only slight pressure. Paint shampoo should only be used for very persistent dirt.

Rinse the sponge or glove out thoroughly at short intervals.

Wheels and sill panels should be cleaned last, using a different sponge if possible.

After cleaning the vehicle, rinse thoroughly with water and leather it off.

### Note

- The vehicle should not be washed in strong sunshine.
- If the vehicle is rinsed with a hose, note the following:
  - Switch off passenger compartment ventilation blower\*.
  - Do not direct the water jet directly at the air intake of the passenger compartment ventilation as this could cause damage to the system.
- Do not direct the jet of water at the lock cylinders – they can freeze up in the winter.

### Attention

- **Never wash the vehicle whilst the engine is running.**
- **Protect your hands from possible cuts on sharp metal edges when cleaning the underbody, the underside of the mudguard (wheel house) or the wheel covers.**

### Washing vehicle with high pressure cleaner

- The operating instructions for the high pressure cleaner must be followed closely – particularly with regard to pressure and working distance.
- Do not use a concentrated jet.
- The water temperature must not be above 60°C.

### Attention

**Tyres must never be cleaned with a concentrated jet! Even at a relatively large working distance and a very short spraying time, damage can occur.**

### Note

Switch off passenger compartment ventilation blower\*. Furthermore do not direct the water jet directly at the air intake of the passenger compartment ventilation as this could cause damage to the system.

## GENERAL MAINTENANCE

### Care of vehicle

#### Waxing

A good coat of wax protects the vehicle paintwork and pop-up roof\* to a large extent against the environmental influences listed under "Washing" on the previous page and even against light mechanical damage.

At the latest when water on the clean paint does not form small drops and roll off, the vehicle should be protected by applying a coat of good hard wax. Even when a wax solution is used regularly in the washing water it is advisable to protect the paint and pop-up roof with a coat of hard wax at least twice a year.

#### Polishing

Should only be done if paint has lost its shine and gloss cannot be brought back with wax. If the polish used does not contain preservative compounds, the paint must be waxed afterwards.

#### Note

**Matt painted and plastic parts** should not be treated with polish or hard wax.

#### Paint damage

Small marks in the paint such as scratches or stone damage should be touched up immediately with paint (Volkswagen touch-up stick or spray can) before the metal starts to rust.

However, should rust be found at any time it must be removed thoroughly and then the area treated first with an anti-corrosion primer and then the correct paint applied. You can of course have this work done by a Volkswagen dealer.

The number of the original vehicle paint is given on the data sticker – see page 229.

#### Steel wheels

The wheels and the wheel trims should be cleaned thoroughly at regular intervals when the vehicle is being washed. This will prevent brake dust, dirt and road salt from accumulating on the wheel. Persistent ingrained brake dust can be removed with an industrial grime remover. Paint damage should be repaired before rust can form.

#### Attention

**Please note when cleaning the wheels that dampness, ice and grit can have a negative effect on the braking power.**

## Alloy wheels\*

In order to maintain the smart appearance of alloy wheels for a long period, regular care is necessary. In particular, salt and brake pad dust must be washed off thoroughly at least every two weeks otherwise the surface of the alloy will be damaged. After being washed, the wheels should be treated with an acid-free cleaner for alloy wheels. About every three months it is necessary to give wheels a good rubbing with hard wax. Paint polish or other abrasive solutions must not be used. If the protective paint coat has been damaged, e.g. by stone impact, the damaged spots should be dealt with as soon as possible.

### Attention

**Please note when cleaning the wheels that dampness, ice and grit can have a negative effect on the braking power.**

## Cleaning and anti-corrosion treatment of engine compartment

### Attention

**Before doing any work in the engine compartment it is essential to read the notes on page 154!**


The engine compartment and the outside surface of the power unit are given anti-corrosion treatment at the factory.

In the winter when the vehicle is being driven frequently on salted roads, good anti-corrosion treatment is very important. For this reason the entire engine compartment should be thoroughly cleaned before and after the salting period and then preserved so that the salt cannot have a damaging effect.

**The ignition must be switched off before washing the engine.**

**To prevent damage to the system the jet from the cleaning appliance must not be directed into the intake openings for the heating and ventilation. The openings are located above the air cleaner.**

If the engine compartment is cleaned at any time with grease removing solutions<sup>1)</sup> or if one has the engine washed, the anti-corrosion compound is nearly always removed as well. It is therefore essential to ask for durable preservation of all surfaces, seams, joints and components in the engine compartment to be carried out. This applies also when corrosion protected parts are renewed.

 **Because when washing the engine petrol, grease and oil deposits are washed off, the dirty water must be cleaned by an oil separator. For this reason engine washing should only be carried out in a workshop or filling station.**

Volkswagen dealers have stocks of the cleaning and preservation materials recommended by the factory and have the equipment necessary to apply them.

<sup>1)</sup> Only the correct cleaning solutions should be used – on no account petrol or Diesel.

### Undercoating

The underside of the vehicle is coated with a special compound to protect it from corrosion and damage.

However, as this protective layer becomes damaged when the vehicle is in use, the protective coating under the body and on the running gear should be examined at defined intervals – preferably before and after the winter season – and any damage made good.

Volkswagen dealers have stocks of the correct compound, have the necessary equipment and are familiar with the application procedure. We advise you therefore to have the patching up or additional coating done by a Volkswagen dealer.

#### Attention

**Never use additional under floor protection or anti-corrosion agents for the exhaust silencer, exhaust pipe, catalysts or heat shields. These substances could ignite whilst the vehicle is in motion.**


### Note for vehicles with a catalytic converter

Due to the high temperatures which occur in the afterburning process, additional heat shields are fitted over the catalytic converter. Underbody sealant must not be applied to these shields, the catalytic converter or the exhaust pipes. Removal of the heat shields is also not permissible.

### Cavity preservation

All cavities on the vehicle which could be susceptible to corrosion are given permanent protection at the factory.

This coating does not need checking or any subsequent treatment. Should a small amount of wax run out of the cavities at high ambient temperatures it can be removed with a plastic scraper and some white spirit.

 ***If the wax which has run out is removed with clean petrol, heed the environmental protection regulations.***

### Pop-up roof

To prevent condensation and damp stains the roof should be aired regularly and not closed when damp. If the roof has to be closed when wet, at some time or another it must be opened again as soon as possible and thoroughly dried out.

If the pop-up roof is not used for a long period, e.g. in winter, the bed padding should be taken out or the roof opened from time to time.

### Guide rails for the sliding door

The guide rails for the sliding door should be thoroughly cleaned with water at regular intervals.

## Windows

Remove snow and ice from windows and mirrors with a plastic scraper only. To avoid scratches due to dirt on the glass, the scraper should only be pushed in one direction and not moved to and fro.

Traces of rubber, oil, wax, grease or silicone can be removed with a window cleaning solution or a silicone remover.

The windows should also be cleaned on the inside at regular intervals.

Do not dry the windows with the leather used for the paintwork because traces of paint cleaner will cause streaks to appear on the glass.

To avoid damaging the **heating element wires** in the rear window do not put stickers over the wires on the inside.

## Note on cleaning interior

**Dirt and water must not be allowed to enter the vents\* and the air intake openings\* in the vehicle floor. Water must not be allowed to soak in between the floor covering and the vehicle floor as this could lead to damage through corrosion.**

## Refrigerator\*

Before the refrigerator is used for the first time it should be cleaned inside with warm water to which a mild cleaning solution has been added.

To prevent mould and damp stains forming when the refrigerator is not used for long periods the lid should be propped open slightly by inserting a towel or cloth which has been folded several times.

## Curtains\*

The curtains should only be dry-cleaned so that the fire resistant properties are not washed out. The curtains can, however, be washed according to the instructions on the label which is sewn on to the material.

Please note that the fire resistant properties of the curtains will be washed out if you do so.

## Plastic parts and leatherette

Exterior plastic parts are cleaned with normal washing and interior parts with a damp cloth. If this is not sufficient, these parts and leatherette may only be cleaned with **special solvent-free** plastic cleaners.



### Upholstery cloth and textile trim

Upholstery cloth and textile trim on door panels, luggage compartment covers, headlining etc. must be cleaned with special cleaners or dry foam and a soft brush.

### Door, boot and window seals

The weatherstrips will remain flexible and last longer if they are rubbed lightly with a rubber protective compound from time to time. This will also stop the weatherstrips from freezing on in the winter.

### Cleaning seat belts

**Keep belts clean!** They may not retract properly if very dirty.

Dirty belts can be cleaned by washing with a mild soap solution without taking the belts out of the vehicle.

#### Note

Inertia reel belts should be completely dry before they are allowed to roll up.

#### Attention

■ **The seat belts must not be removed for cleaning.**

■ **Do not have the belts cleaned chemically because the cleaning compounds damage the webbing material. Ensure that the belts do not come into contact with corrosive fluids.**

■ **You should check the condition of your seat belts regularly. If you find any damage of the belt webbing, belt connections, the belt retractor or the locking parts, the belt in question must be replaced by a Volkswagen dealer.**

## Bonnet



**To release** lock, pull lever on left under instrument panel – the bonnet springs up out of its lock.

### Note

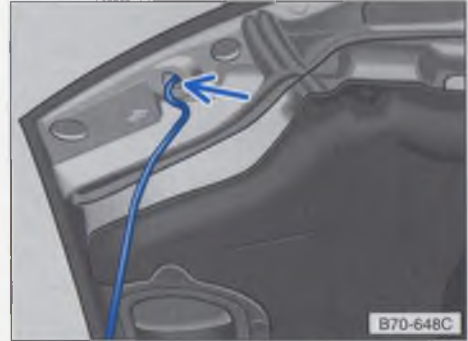
Before opening the bonnet ensure that the wiper arms are not lifted off the windscreen. Otherwise damage can occur to the paintwork.



**To open** the bonnet press the safety catch in the direction of the arrow.

Lift bonnet, take rod out of clip and put end of rod in hole provided (see right-hand illustration).

**To close**, lift bonnet slightly and unhook rod. Press rod into retaining clip on front cross panel. Let bonnet fall into the lock from a height of about 30 cm – do not press it down.



### Attention

■ For safety reasons the bonnet must always be properly closed when vehicle is moving. Always check therefore after closing the bonnet that the lock is engaged. This is the case when the bonnet is flush with the adjacent body panels.

■ If you should notice that the lock is not engaged, stop the vehicle immediately and close the bonnet.

### Engine compartment

#### Attention

Particular care should be taken when working in the engine compartment!

- Switch off engine, remove ignition key.
- Pull handbrake on firmly.
- Move gear lever into neutral or "P" position.
- Allow engine to cool off.
- As long as the engine is at operating temperature:
  - Do not put your hand into the radiator fan, it could switch on suddenly.
  - Do not open the radiator cap because the cooling system is under pressure.
- Never spill any liquids over the hot engine. These liquids could ignite.
- Avoid causing short circuits in the electrical system - particularly at the battery.

■ If tests have to be carried out with the engine running, there is an additional danger present from rotating parts - e.g. V-belts, generator, radiator fan etc. - and from the high voltage ignition system.

■ If work on the fuel or electrics system is necessary:

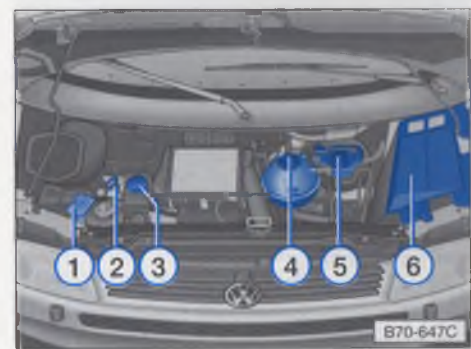
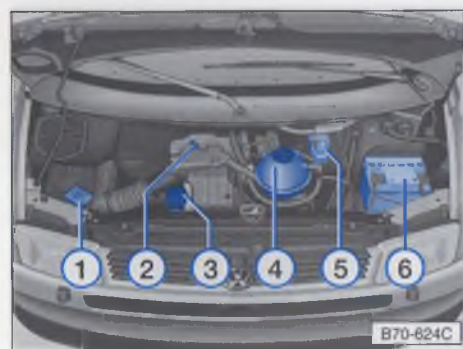
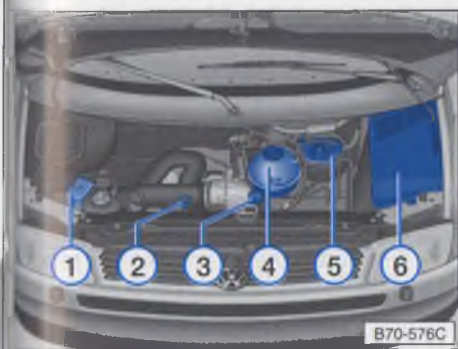
- Disconnect the battery from the vehicle electrics
- Do not smoke
- Never work near naked flames
- Always keep a fire extinguisher in the vicinity.

■ Attention must be paid to the warnings given in this Manual and to the generally applicable safety regulations.

When topping up fluids one should ensure that they are not mistaken one for the other, under any circumstances, otherwise serious functional defects will result.

✿ *So that leaks are quickly detected the ground underneath the vehicle should be checked regularly. If spots as caused by oil or other operating fluids can be seen, the vehicle should be taken to the workshop for checking.*

to align



**103 kW petrol engine**

	Page
1 - Windscreen washer container ...	169
2 - Engine oil dipstick .....	157
3 - Engine oil filler opening .....	157
4 - Coolant expansion tank .....	159
5 - Brake fluid reservoir .....	162
6 - Vehicle battery .....	163
Air filter .....	161

**81 kW petrol engine**

	Page
1 - Windscreen washer container ...	169
2 - Engine oil dipstick .....	157
3 - Engine oil filler opening .....	157
4 - Coolant expansion tank .....	159
5 - Brake fluid reservoir .....	162
6 - Vehicle battery .....	163
Air filter .....	161

**75 kW Diesel engine**

	Page
1 - Windscreen washer container ...	169
2 - Engine oil dipstick .....	157
3 - Engine oil filler opening .....	157
4 - Coolant expansion tank .....	159
5 - Brake fluid reservoir .....	162
6 - Vehicle battery .....	163
Air filter .....	161

## Engine oil

### Viscosity and specification

A special, high quality multigrade oil is put in the engine at the factory and this can be used all the year round – except in very cold climates.

The specifications shown on this page must be marked either separately or **together** with other specifications, on the containers.

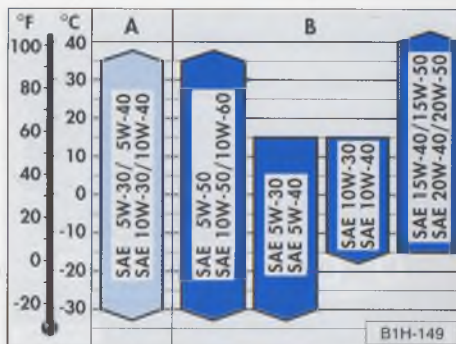
When topping-up, the oils can be mixed with one another.

The **viscosity class** of the oil must be selected in accordance with the illustration. If the ambient temperature exceeds the given range briefly, the oil does not need to be changed.

#### Important note

Quite naturally engine oils are also being continually developed. For this reason the statements in this Manual are only in line with the current state at the time of going to press.

Volkswagen dealers are kept up-to-date by the factory regarding changes. For this reason the oil change should preferably be done by a Volkswagen dealer.



### Petrol engines

A – Multigrade high lubricity engine oils, specification VW 500 00<sup>1)</sup>

B – Multigrade oils, specification VW 501 01

– Multigrade oils, specification API-SF<sup>2)</sup> or SG<sup>2)</sup>

<sup>1)</sup> This VW norm is followed by a date. This should not be earlier than 10.91.

<sup>2)</sup> These oils should only be used if no other approved oil is available.

### Diesel engines

A – Multigrade high lubricity oils, specification VW 500 00<sup>1)</sup> (for turbo-diesel engines only in conjunction with specification VW 505 00)

B – Multigrade engine oils, specification VW 505 00<sup>1)</sup> (suitable for **all** diesel engines)

– Multigrade oils, specification API-CD (For Turbo Diesel engines for topping up in an emergency only)

– Multigrade oils, specification VW 501 01<sup>1)</sup> (for turbo-diesel engines only in conjunction with specification VW 505 00)

### Oil properties

**Multigrade oils to VW Standard 501 01 and 505 00** are reasonably priced oils with the following properties:

- All year round use in temperate climate areas.
- Excellent cleaning capability.
- Efficient lubrication at all engine temperatures and load conditions.
- High resistance to ageing.

The multigrade high lubricity oils as per VW Specification 500 00 have in addition the following advantages:

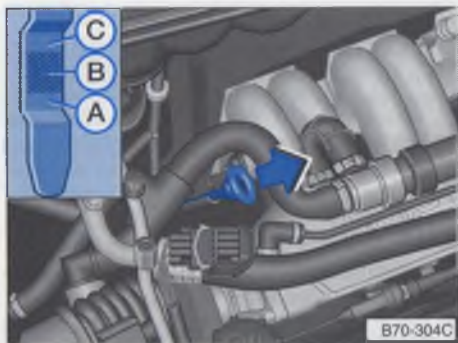
- All year round use at practically all temperatures.
- Low frictional losses in the engine.
- Best possible starting even at very low temperatures.

### Note

■ **Single grade oils.** Due to their limited viscosity ranges these oils are not generally acceptable for all year round use.

Therefore these oils should only be used in extreme climatic zones.

■ When using SAE 5 W-30 multigrade oil, continuous high engine speeds and engine loading should be avoided. This restriction does not apply to multigrade high lubricity oils.



B70-304C

### Checking oil level

Every engine uses a certain amount of oil. The **oil consumption** can be up to 1.0 litres per 1000 km – see page 132. The engine oil level must therefore be checked at regular intervals, preferably when filling the tank and before a long journey.

The location of the dipstick can also be seen in the illustration on page 154.

The vehicle must be on a level surface when checking the oil level. After stopping engine wait a few minutes for the oil to drain back to the sump.

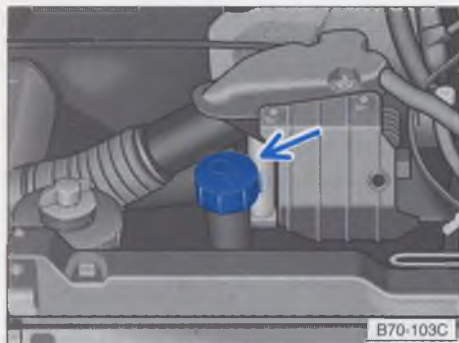
Then pull the dipstick out, wipe it with a clean cloth and insert again.

Then pull dipstick out again and check the oil level:

- A** – Oil **must** be topped up. It then suffices that the oil level is somewhere in area **(B)**.
- B** – Oil can be topped up. It can then happen that the oil level is in area **(C)**.
- C** – Oil **must not** be topped up.

When the engine is working hard such as in sustained high-speed motorway cruising in summer, when towing a trailer or when climbing mountain passes, the oil level should be kept at area **(C)** – **not above**.

### Engine oil



#### Topping up engine oil

The location of the engine oil filler opening can also be seen in the illustration on page 154.

Unscrew the cap from oil filler opening and pour oil in 0.5 litres at a time. Then check level with the dipstick.

**On no account must the oil level be above area C.** Otherwise oil can be drawn into the engine via the crankcase breather and escape into the atmosphere via the exhaust system. On vehicles fitted with a catalytic converter, the oil could burn inside the converter causing it to become damaged.

#### Attention

**When topping up the oil, do not spill it onto hot engine components – danger of fire.**

Carefully close the filler cap and push the oil dipstick in as far as possible, this will prevent oil spill when the engine is running.

#### Changing engine oil

The engine oil must be changed at the intervals given in the service schedule.

#### Attention


**if you want to change the engine oil yourself, you must note the following points:**

- **Allow the engine to cool down first to avoid the danger of being scalded by hot engine oil.**
- **Use an appropriate container to drain off the oil. It should be big enough to hold the quantity of oil in your engine.**
- **Wear protective glasses for your eyes.**

■ **When removing the oil drain plug with your fingers, keep your arm horizontal so that the oil being drained cannot run down your arm.**

■ **If your hands come into contact with engine oil you must wash them thoroughly afterwards.**

■ **Old oil must be stored out of reach of children until it is disposed of in the correct manner.**

 ***On no account should oil be poured down drains or into the earth.***

***Because of the disposal problems, the necessary special tools and specialist knowledge required the engine oil and filter changing should preferably be done by a Volkswagen dealer.***

#### Engine oil additives

**No additives should be mixed with the engine oil.**

**Any damage caused by the use of such additives will not be covered by the warranty.**

## Cooling system

The cooling system is filled at the factory with a permanent coolant which is not changed.

The coolant consists of water and a 40 % concentration of our coolant additive G 11 A8C (glycol-based anti-freeze with anti-corrosion additives). This mixture not only gives the necessary frost protection down to  $-25^{\circ}\text{C}$  but also protects the alloy parts in the cooling system against corrosion. In addition it prevents scaling and significantly raises the boiling point of the coolant.

The concentration of the coolant therefore must not be reduced in the summer or in warm countries, by topping up with plain water. **The coolant additive proportion must be at least 40 %.**

If greater protection against frost is required, the proportion of G 11 A8C additive can be increased, but only up to 60 % (frost protection to approx.  $-40^{\circ}\text{C}$ ), otherwise the anti-freeze protection is reduced and furthermore the cooling effect is impaired.

Vehicles for export to cold countries (e.g. Sweden, Norway, Finland) usually have frost protection down to  $-35^{\circ}\text{C}$ .

Only our **G11 A8C** or an additive with the **specification TL-VW 774 C** (marked on container) should be added to the coolant. The additives can be obtained from Volkswagen dealers.

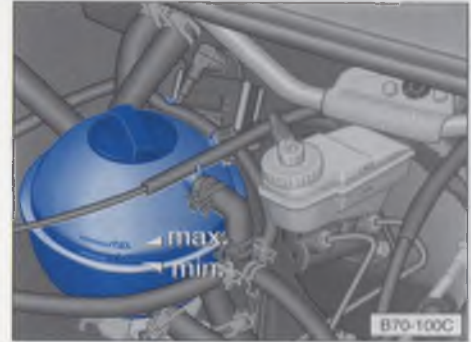
**Other additives can be very detrimental to the anti-corrosion effect in particular.**

**The subsequent corrosion damage can lead to coolant loss resulting in major engine damage.**

### Checking coolant level

#### Attention

**Never open the bonnet if you can see steam or coolant leaving the engine compartment - Risk of scalding! Wait until no more steam or coolant can be seen.**



The expansion tank is in the engine compartment on the bulkhead – see Fig.

The level can only be checked properly when engine is not running.

The coolant level must be between the **max** and **min** marks on the expansion tank when engine is cold and can be slightly above the **max** mark when it is warm.

### Coolant losses

Coolant loss normally indicates leaks in the system. In this case the cooling system should be checked by a Volkswagen dealer without delay. 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, and coolant is forced out of the system.



### Topping up coolant

Switch engine off and let it cool down. Then cover expansion tank cap with a cloth and turn cap carefully anti-clockwise and remove.

#### Attention

**Do not remove expansion tank cap when engine is hot – danger of scalding:  
System is under pressure.**

No other coolant may be used if G 11 A8C is not available. In this case only water can be used and the correct mixture concentration must be restored with the specified coolant additive (see previous page) as soon as possible.

If a lot of coolant has been lost, only add cold coolant after the engine has cooled down. This will prevent engine damage.


### Do not fill above the max mark.

The excess coolant will be forced out through the pressure relief valve in the cap when engine becomes hot.

### Screw cap on again tightly.

#### Attention

**The coolant additive and the coolant are a danger to health. The additive must therefore only be stored in the original container well out of reach of children. If the coolant has to be drained at any time it must be caught and also stored in a safe place.**

 **Drained coolant should not normally be reused, it must be disposed of, bearing in mind environmental protection regulations.**

### Fan

The radiator fan is driven electrically and controlled by a thermostatic switch from the coolant temperature (also from the engine compartment temperature on some models).

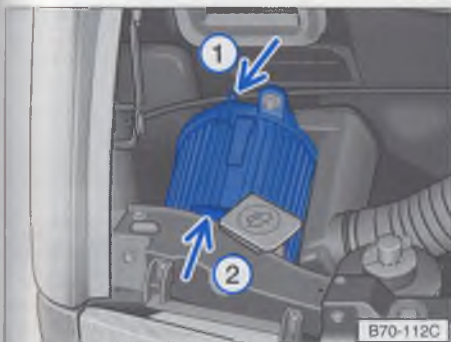
#### Attention

**After the engine has been stopped the fan can continue running for a while – even with the engine switched off – (up to about 10 minutes). It can also start to run again suddenly after a short time if**

- the coolant temperature increases due to heat build-up
- when engine is hot and the engine compartment is heated additionally by strong sunlight.

**Special care must therefore be taken when working in the engine compartment.**

## Air cleaner



The paper filter element in the air cleaner is normally renewed as detailed in the Service Schedule. In very dusty conditions the element must be cleaned or renewed at shorter intervals.

**Note**

On some models, the dust and pollen filter must first be removed before changing the paper filter for the air cleaner.

**To clean or renew element**

- Release clip (1)
- Press locking handle (2) down and unhook it.
- Take filter housing out upwards.
- Take filter element out.
- Clean element with compressed air or renew it.

**The filter element must not be washed with petrol or moistened with oil.**

**Installing**

- Insert filter housing. Ensure that the plastic lug on the rear end of the element fits in the recess in the mounting.
- Secure clip (1).
- Pull locking handle (2) up until it engages.

**Air cleaner with saturation indicator\***

The instrument, located in the instrument panel in a console below the ashtray, shows how much dirt has accumulated in the filter element.

If the red area in the display field reaches the 75% mark (see illustration), the filter should be cleaned or renewed.

After cleaning or renewing the filter, the indicator must be reset to the basic setting. To do this, turn knob (A) anti-clockwise. Once reset, no portion of the red area should be visible in the display field (B).

### Brake fluid



The brake fluid reservoir is on the left hand side of the engine compartment.

#### Note

On vehicles with right-hand drive the reservoir is on the other side of the engine compartment.

#### Checking fluid level

The fluid level must always be between the "MAX" and "MIN" marks.

The level of fluid tends to sink slightly when the vehicle is used due to the automatic adjustment of brake linings. This is quite normal.

However, if the level sinks noticeably in a short time or drops below the "MIN" mark the system may be leaking. A low fluid level in the reservoir is indicated by the brake warning lamp lighting up (see page 78).

When this happens take car to a Volkswagen dealer immediately and have the brake system checked.

#### Renewing brake fluid

Brake fluid absorbs moisture. In the course of time it takes in water from the ambient air. Too high a content of water in the brake fluid can in time cause corrosion damage in the system. Furthermore the boiling point of the brake fluid is reduced considerably. **For this reason the brake fluid must be renewed every two years.**

#### Attention

**When the brake fluid becomes too old vapour bubbles can form in the brake system when the brakes are used hard. The efficiency of the brakes and thus the vehicle safety is then seriously affected.**

Only use our Genuine brake fluid (specification to US standard FMVSS 116 DOT 4). The fluid must be new.

#### Attention

**Brake fluid is poisonous! It must therefore only be stored in the closed original container out of reach of children.**

**Remember also that brake fluid will attack the paintwork.**

*Because of the disposal problems, the special tools necessary and the specialist knowledge required, the brake fluid changing should preferably be done by a Volkswagen dealer.*

It is advisable to have the fluid change carried out during an Inspection Service.

## Battery

### Warning notes

#### Attention

The following warnings and safety precautions must be noted when working on the battery.



Wear eye protection. Do not allow particles containing acid or lead to come into contact with the eyes, skin or cloths.



Battery acid is highly caustic. Always wear protective gloves and glasses. Do not tip battery – acid can spill out of the vents. Should acid contact the eyes, rinse for several minutes using clean running water. Seek medical assistance immediately. Should acid contact skin or clothes, neutralize immediately using an alkaline soap solution and rinse thoroughly. Should acid inadvertently be drunk, seek medical attention immediately.



Keep acid and battery out of the reach of children.



When battery is being charged, a highly explosive mixture of gases is produced.



Keep well clear of naked flame and sparks. Do not smoke. Avoid generating sparks when handling cables and electrical components. Avoid short circuits. Never short battery terminals – danger of injury from high-energy sparks.

■ Disconnect negative terminal of battery before doing any work on the electrical system. When changing bulbs it is sufficient to switch off lamp.

■ When disconnecting the battery from the vehicle electrical system first disconnect the negative cable and then the positive cable.

The battery must not be disconnected with the engine running, as this will damage the electrical system (electronic components).

■ When reconnecting battery, first connect the positive cable, then the negative. On no account may the cables be interchanged – Risk of cables burning!

Do not disconnect the vehicle battery or additional battery when the ignition is on or when the engine is running, as the electrical system (electronic components) could otherwise be damaged.

In order to protect the casing from UV radiation, do not expose vehicle battery or additional battery to direct sunlight.

## GENERAL MAINTENANCE

### Location

#### Vehicle battery

The battery is in the engine compartment on the left looking forward.

On batteries with a cover, the cover must first be removed to gain access to the vehicle battery. To do this, turn the quick release catches and lift the cover off.

Starting by connecting an additional battery is described in the Do-It-Yourself section.

#### Additional battery\*

The **additional battery\*** is located under the front left seat.

The procedure for reaching the additional battery is described on page 41.

The following appliances are supplied from the additional battery:

- Socket\* under the driver's seat for the refrigerator,
- Transistor light above table and
- Auxiliary heater\*

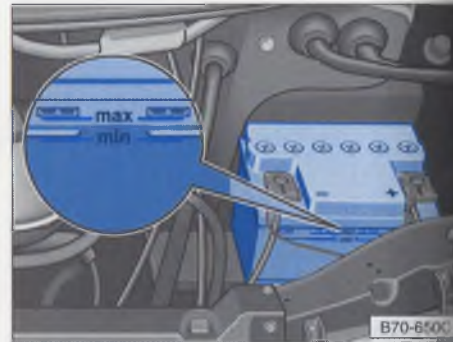
The additional battery is connected to the starter battery via a separating relay:

- When the engine is not running the appliances listed above are supplied only by the additional battery.
- When engine is running the additional battery is also charged.

### Winter driving

Winter weather is particularly hard on the battery. Furthermore at low temperatures it has only a part of the starting power it has at normal temperatures. We recommend therefore that the battery and the additional battery\* should be checked preferably by a Volkswagen dealer before the onset of cold weather and charged if necessary.

**If the vehicle is not driven for several weeks when temperatures are very low, the battery and additional battery should be taken out and stored in a frost-free room, so that it cannot freeze up and become damaged.**



### Checking acid level

In normal operating conditions the battery requires hardly any maintenance. At high ambient temperatures, however, it is advisable to check the acid level at regular intervals. The acid level should also be checked after every charging. It should always be between the min. and max. marks on the side of the battery.

At the latest when the acid level drops to the **min** mark, the affected cells must be topped up to the **max** mark with distilled water.

**Do not overfill the battery cells, as the battery acid will otherwise leak out through the vent opening. This could damage the paint finish and also lead to corrosive damage to the vehicle.**

After filling, you must tightly close the battery cells which have been opened.

It is recommended that the acid level is checked and corrected by a Volkswagen dealer.

## Charging battery

### Battery and additional battery

Before charging, switch off the ignition and all electrical consumers.

When charging with a low current (e.g. with a small charger) the battery cables need not normally be taken off. The instructions from the charger manufacturer must, however, be noted.

Before **Quick charging**, that is charging with a high current, both battery cables must be disconnected.

### Please note the following points

#### Attention

- **Keep children at a distance from the battery and battery acid and from the battery charger.**
- **Only charge the battery in well ventilated rooms. Do not smoke and allow no naked flames or electric sparks near the battery, as a highly explosive gas is produced whilst the vehicle is being charged.**

- **Protect your eyes and face. Do not bend over the battery.**

- **Should acid come into contact with the eyes or skin, rinse for several minutes using clear water. You should then seek medical assistance immediately.**

- **Fast charging a battery is dangerous and should only be carried out by a Volkswagen dealer, as special equipment and knowledge is necessary.**

- **Never charge a battery which is frozen – risk of explosion! A discharged battery can freeze at temperatures of below 0°C. A frozen battery must be thawed before charging.**

We recommend that batteries should no longer be used after thawing, as the battery housing could have split on the inside because of the ice formation.

■ When charging the battery do not remove caps.

■ The mains cable of the charger should not be connected until the clips of the charger have been properly secured to the battery terminals:

Red = plus (or positive)

Black = minus (or negative)

red ..... = plus (or positive)

black or brown ... = minus (or negative).

■ After charging the battery, first switch off the charger and disconnect the mains cable. Then disconnect the clips of the charger from the battery.

### What happens when the battery is disconnected and then reconnected ...

If you **disconnect** the battery, please note the following points:

For example

- all data in the auxiliary heater memory are deleted,
- all data in the multi-function indicator are deleted,
- the analog clock stops and the digital clock disappears,
- the radio fitted in the factory is blocked and
- the automatic function of the electric windows is disengaged.

After **reconnecting** the battery to the on-board electrics, you should reset the auxiliary heater, analog and digital clock.

You should also reset the automatic function of the electric windows.

The radio fitted in the factory can only be reset by inputting the correct code – see radio operating instructions.

### Removing battery

#### Battery and additional battery

Before removing the battery, turn off the ignition and all electrical consumers.

To take battery out, first disconnect the negative cable (normally black or brown) and then the positive cable. Then unscrew the battery retainer and remove the battery.

#### Attention

**After removing the additional battery\* you must insulate the disconnected cables.**

**If the battery is installed and the ignition switched on, current is running through these cables!**

## Renewing battery

### Battery and additional battery

Our batteries have been developed to suit their fitting location. If the battery has to be renewed, the new battery must have the same voltage (12 Volts), shape and safety features such as a central degassing and the plugs must be sealed with an O-ring.

Current capacity and capacity should be the same as the old battery. Volkswagen dealers have a range of suitable batteries.

When installing the battery, ensure that the ignition and all electrical consumers are switched off.

***Because of the problem of disposing of the old battery the renewal of a battery should preferably be done by a Volkswagen dealer. Batteries contain, amongst other things, sulphuric acid and lead and must on no account be put with normal household waste.***

## Installing battery

### Battery and additional battery

Before connecting the battery turn off ignition and all electrical consumers.

Place the battery in the designated position and secure the battery with the battery retainer.

To connect the battery, first connect the positive cable (normally red) and then the negative cable (normally black or brown).



## GENERAL MAINTENANCE

### Spark plugs

The spark plugs are renewed during the Volkswagen Inspection Service

If the spark plugs have to be renewed between the Inspection Services, the following should be noted:

■ Spark plugs and ignition system are matched to the engine and as such contribute to reducing the levels of exhaust pollutants. To avoid faulty operation, engine damage and even the withdrawal of the type approval due to excessive emissions values or non-suppressed spark plugs, only the Genuine Volkswagen spark plugs for the engine concerned should be used. Important, among other things, are the number of electrodes, the heat value and if necessary the radio suppression.

■ The plugs may be, for technical reasons, changed at short notice. It is therefore advisable to obtain plugs only from Volkswagen dealers – they have the latest information

### V-belts

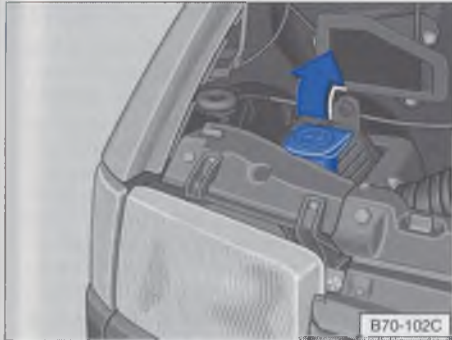
■ The V-belts are among the most severely stressed parts of a vehicle. The belts must therefore be subjected to very high quality requirements.

■ When renewing a belt it is not sufficient to use just any belt of the same size. For safety reasons only the special Genuine Volkswagen belt for the vehicle concerned should be used.

■ The V-belts may be, for technical reasons, changed at short notice. It is therefore advisable to obtain V-belts only from Volkswagen dealers and to have them changed there – they have the latest information.

■ On some engines durable **ribbed belts** are used, which are checked and if necessary tensioned during an Inspection Service (every 60,000 km/40,000 miles).

## Windscreen washer system



The fluid container is on the right of the engine compartment. The container holds about 5 litres, on vehicles with headlight washer system\* about 7 litres.

The rear window washer is supplied with fluid from the container in the engine compartment.

### Removable filler neck\*

The filler neck of the window wash container can be removed on some models, so that access to the headlight is made easier for changing bulbs. To remove filler neck leave cap fitted and turn an eighth of a turn. Then remove filler neck upwards.

When fitting ensure that the filler neck is inserted in the position as removed. Place filler neck on offset by one eighth of a turn and turn it until it locates firmly. The cap now faces forwards.

### Filling the container

It is advisable to add a window cleaning solution with a wax remover (with anti-freeze additive in winter) to the water because plain water is not usually sufficient to clean the glass and headlight lenses quickly and thoroughly. The mixing ratios on the window cleaner packaging must be adhered to.

Even when **heated windscreen washer jets\*** are fitted, a window cleaning solution containing anti-freeze should be added to the water in the winter.

### Note

If at any time no window cleaning solution with anti-freeze additive is available, methylated spirits can be used (do not use a solution with more than 15% meths). Note that at this concentration, anti-freeze protection is only given to around  $-5^{\circ}\text{C}$ . Do not, under any circumstances, add engine cooling system fluid or other additives.



## Windscreen wiper blades

### Attention

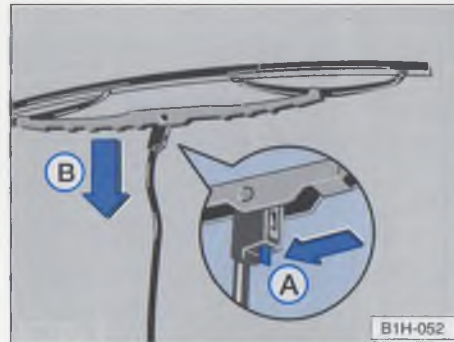
■ For clear vision, it is imperative that the windscreen wiper blades are in good condition.

■ In order to prevent streaks on the windscreen, you should clean the windscreen wiper blades regularly with a window cleaner. If the windows are particularly dirty, e. g. insect remains, a sponge or cloth should be used to clean the blades.

■ For reasons of safety, you should change the wiper blades once or twice a year. Windscreen wiper blades can be purchased at Volkswagen dealers.

**When it is freezing, check that the wiper blades are not frozen to the glass before switching the wipers on for the first time.**

If the wiper blades judder, it may be caused by various things:



■ If the vehicle has been washed in an automatic car wash, residual wax may be left on the windscreen.

Filling the windscreen washer container with a window cleaner containing a wax remover can cure the problem.

■ Damaged wiper blades can also lead to judder. In this case the blades should be renewed.

■ The blades are set at an incorrect angle. Have the angle checked and, if necessary, adjusted by a Volkswagen dealer.

## Changing wiper blades

### Taking the wiper blade off

■ Hinge the wiper arm up and position the blade perpendicular to the wiper arm.

■ Press the retaining spring in the direction of arrow **A**.

■ Detach the wiper blade in the direction of arrow **B** and then remove from the arm in the opposite direction.

### Securing the wiper blade

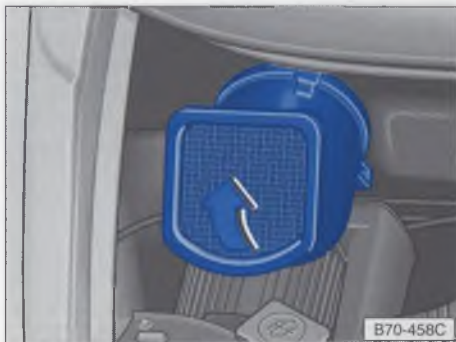
The retaining spring must engage audibly in the wiper arm.

When fitting wiper blades with moulded wind deflectors one should ensure that the deflector is pointing downwards.

## GENERAL MAINTENANCE

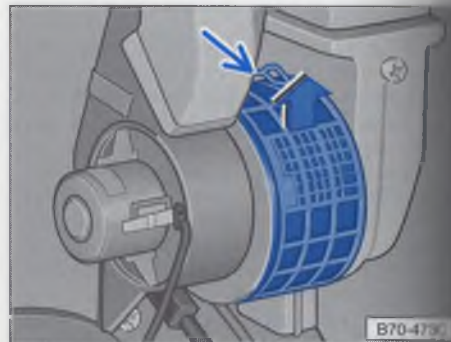
### Dust and pollen filter\*

The dust and pollen filters for the heating and ventilation system can be found on the right of the **engine compartment** and at the rear right in the **passenger compartment**. The filter should be changed in accordance with the details given in the Service Schedule. If the air throughput reduces considerably, the filter should be changed earlier.



#### Dust and pollen filter ... in engine compartment:

- Loosen the three spring clips and remove top of filter housing.
- Remove filter element.
- Separate filter from sealing ring by loosening the catches.
- When installing sealing ring, ensure that the outer rubber lip is pressed onto the shoulder of the top of the filter housing.



#### ... in passenger compartment:

- Remove cover.
- Loosen upper spring clips and swing flap down.  
– Move dust and pollen filter\* to the right by pressing the two clips together, and remove inwards.

**The blower may only run with the filter installed. Otherwise the system could be damaged.**

## Wheels

### General notes

- New tyres do not give maximum grip straight away and should therefore be run in at moderate speeds and a careful style of driving for about the first 100 km. This will help to make the tyres last longer.
- The tread depth of new tyres can vary due to construction and design features, and depending on version and manufacturer.
- Check tyres for damage from time to time (cuts, splits, cracks and lumps) and remove any foreign bodies embedded in the treads.
- To avoid damage to tyres and wheels drive over curbs and similar obstacles very slowly and as nearly at right angles as possible.

Damage to wheels and tyres is not always easy to see. Unusual vibrations or a pulling to one side could indicate tyre damage. **If you suspect damage to a tyre, you should immediately reduce speed.** Check all tyres visually for damage (bulges, tears etc.). If no external damage can be seen, drive carefully to the nearest Volkswagen dealer and have the vehicle checked over.

- Keep grease, oil and fuel off the tyres.
- Replace missing dust caps as soon as possible.
- Mark wheels before taking them off so that they rotate in the same direction when put back on again.

- When taken off, the tyres should be stored in a cool, dry and preferably dark place.

Tyres which are not on wheels should be stored in a vertical position.

### Note for tyres where the direction of rotation is stipulated

It is imperative that the designated direction of rotation for tyre treads (which can be determined from the arrow on the side of the tyre) be kept to. The best tyre performance i.e. in aquaplaning, road adhesion, noise and wear are then guaranteed.

## GENERAL MAINTENANCE

### Tyre life

Tyre life depends to a considerable extent on the following factors:

#### Inflation pressure

The inflation pressures are to be found on page 212 and on a sticker on the driver's door lock pillar.

The inflation pressure is very important particularly at high speeds. Therefore, the pressures should be checked at least once a month and before every long journey.

At this opportunity do not forget the spare wheel:

- The spare wheel should always be inflated to the highest pressure required on the vehicle.


- Always check the pressures when the tyres are cold. **When warm, the pressure is higher but do not reduce.** If the load changes a great deal the pressure must be altered to suit.

On vehicles with wheel hub caps, valve extensions are fitted. It is not necessary to remove the valve extension piece in order to test and correct the inflation pressure.

Pressures which are too high or too low shorten tyre life – quite apart from the detrimental influence on vehicle handling.

#### Attention

**At continuous high speeds a tyre in which the pressure is too low flexes more and heats up excessively. This can cause tread separation and tyre blow out.**

 **A pressure which is too low increases the fuel consumption and this burdens the environment unnecessarily.**

### Mode of driving

Fast cornering, hard acceleration and violent braking also increase tyre wear.

### Balancing wheels

The wheels on new vehicles are balanced. However when the vehicle is running various influences can cause the wheels to become unbalanced and this causes steering vibration.

As imbalance also increases steering, suspension and tyre wear the wheels should be balanced again. Furthermore a wheel should always be rebalanced when the tyre has been repaired or when a new tyre has been fitted.

### Incorrect wheel alignment

Incorrect wheel alignment not only causes excessive, usually uneven tyre wear but can also impair the car's safe handling. If unusual tyre wear is noticed, contact a Volkswagen dealer.



### Wear indicators

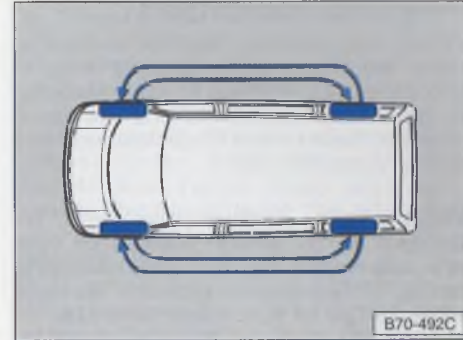
At the bottom of the tread of the original tyres there are 1.6 mm high "wear indicators" running across the tread – see fig. There are 6 – 8 of these indicators – according to make – evenly spaced around the tyre circumference. Marks on the walls of the tyre (for example the letters "TWI" or triangles) show the locations of the wear indicators.

### Attention

- At the latest when the tyres are worn down to the wear indicators they must be renewed without delay.
- Worn tyres are detrimental to roadholding particularly at high speeds on wet roads. Furthermore the vehicle tends to aquaplane sooner.

### Note

When tread depth is down to 1.6 mm measured in the tread groove next to the wear indicator bar – the official permissible minimum tread depth has been reached (in export countries this figure may differ).



### Changing the wheels round

If the front tyres are worn more than the rear it is advisable to change the wheels round as shown. All tyres will then have approximately the same length of service life.

With certain types of tread wear it can be an advantage to change the wheels diagonally. Volkswagen dealers have the necessary information.




### Renewing wheels/tyres

Wheels and tyres are important design features. The wheels and tyres approved by us should be used. They are specially matched to the model concerned and contribute largely to the excellent roadholding and safe driving characteristics.

**Volkswagen dealers are fully informed as to which makes of tyre are approved by us. Furthermore, many Volkswagen dealers keep a wide range of tyres and wheels.**

■ Fitting and repairing tyres requires expert knowledge and special tools. This work may only be carried out by specialist personnel.

 ***Because of the problem of disposing of the old tyres, the special tools necessary and the specialist knowledge required, tyre changing should preferably be done by a Volkswagen dealer.***

■ For safety reasons the tyres should be renewed in pairs and not singly. The tyres with the deepest tread should always be on the front wheels.

■ **You should only combine radial tyres of the same construction, size (rolling circumference) and, as far as possible, the same tread profile on all four wheels.**

**On syncro type vehicles, the tyres fitted must be from the same manufacturer.**

**The viscous coupling would otherwise unnecessarily increase the rear wheel drive as a result of the difference in revolutions between the two axles. This could lead to damage.**

Different tread depths front to rear tyres, e.g. due to wear is insignificant. It is though recommended that tyres with the most tread are fitted on the front: If the front tyres are noticeably more worn than the rear they have a smaller rolling radius and therefore rotate quicker. This will cause wind-up in the transmission resulting in more rapid tyre wear. However increased wear to the four wheel drive system need not be feared.

■ If the spare wheel differs from the version fitted on the vehicle (e.g. winter tyres or wide tyres) the spare may only be used briefly to replace a flat tyre and with an appropriately careful style of driving. It must be replaced with the normal wheel as soon as possible.

■ Never fit used tyres where their previous history is not known.

Mobile telephones and  
two-way radios?

■ Knowing the **tyre lettering** and its meaning makes the selection of the correct tyres easier. Radial ply tyres have the following lettering on the sidewall:

e.g.: **195 / 70 R 15 97 S reinforced**

<b>195</b>	= Tyre width in mm
<b>70</b>	= Height/width ratio in %
<b>R</b>	= Radial construction code letter = Radial
<b>15</b>	= Wheel diameter in inches
<b>97</b>	= Carrying capability code
<b>S</b>	= Speed code letter
<b>rein</b>	= Reinforced version

The **manufacturing date** is also to be seen on the tyre wall (possibly only on inner side of wheel):

DOT ... 186 ... means that the tyre was produced in the 18th calendar week of 1996.

### Attention

**Tyres which are more than 6 years old should only be used in an emergency and then with a particularly careful style of driving.**

**If you wish to fit your car with non-standard wheels or tyres please note:**

### Attention

■ **For technical reasons it is not normally possible to use wheels from other vehicles - in certain circumstances not even wheels from the same vehicle model!**

■ **Using types of wheel and/or tyres which have not been approved by us for your vehicle model can be detrimental to the safety of the vehicle. It can also affect the vehicle under the Construction and Use regulations.**

■ **Wheels and wheel bolts are matched to each other.**

**Therefore, whenever wheels are changed to a different version (e.g. alloy wheels or wheels with winter tyres), the corresponding wheel bolts with the correct length and taper, must also be used. The security of the wheels and the functioning of the brake system depend on this!**

■ **If wheel trim discs are subsequently installed it is essential to ensure that the air flow remains adequate to cool the brakes.**

Volkswagen dealers have all the necessary information about the possible conversion of wheels, tyres and wheel trims.

### Winter tyres

#### Attention

**In winter conditions, winter tyres will significantly improve the vehicle's handling – even for four-wheel drive vehicles.**

**Because of their construction (width, rubber mixture, tread formation, etc.), summer tyres provide less traction on ice and snow.**

When fitting winter tyres note the following:

- Only radial ply winter tyres may be fitted. The factory recommended winter tyre sizes are given on page 212.
- To obtain the best possible handling characteristics, winter tyres must be fitted on all four wheels.

- The pressures is the same as the summer tyres.

The inflation pressures are to be found on page 212 and on a sticker on the driver's door lock pillar.

- Winter tyres are no longer fully effective when the tread has worn down to a depth of 4 mm.

The following speed limits are valid for winter tyres:

Code letter Q max. 160 km/h  
Code letter T max. 190 km/h  
Code letter H max. 210 km/h

#### Attention

**The highest permissible speed for your winter tyres must not be exceeded. This could damage the wheel and lead to a serious accident.**

In Germany, vehicles which can exceed this speed must have an appropriate sticker in the driver's field of view. Suitable stickers are available from Volkswagen dealers.


Please note regulations to this effect in your country.

- All-weather tyres can also be used instead of winter tyres.

■ When winter tyres are specified, this applies also to vehicles with four wheel drive.

- If you have a flat tyre the remarks on using the spare wheel on page 176 should be noted.

■ Do not leave winter tyres fitted for an unnecessary long period because when the roads are free of snow and ice the handling with summer tyres is better.

 **For environmental reasons summer tyres should be fitted again as soon as possible because normally they are quieter in running, tyre wear is reduced and the fuel consumption is lower.**

## Mobile telephones and two-way radios\*

### Snow chains

**Snow chains may only be fitted on the front wheels.**

**Snow chains can be fitted on both the front and rear wheels on the synchro.**

Snow chains **must not** be fitted on 215/65 R 15 tyres. If necessary you should equip the vehicle with smaller tyres.

Only use **thin** chains which do not stand clear more than 15 mm (including tensioner).

When using snow chains wheel trim plates and trim rings must be taken off. For safety reasons the wheel bolts must then be fitted with caps which are available from Volkswagen dealers.

When driving over roads which are free of snow you must remove the chains. On such roads they are detrimental to vehicle handling, damage the tyres and wear out quickly.

In Germany, the maximum permissible speed with snow chains is 50 km/h.

The installation of mobile telephones and two-way radios is normally subject to authorisation and should be carried out by a specialist workshop, e.g your Volkswagen dealer.

Volkswagen has authorised the use of mobile telephones and two-way radios for your vehicle with correctly installed external aerial and maximum broadcast power of 10 Watts.

### Notes

**When using mobile telephones or two-way, faults in the vehicle electrics could occur under the following conditions:**

- **no external aerial**
- **external aerial incorrectly installed**
- **broadcast power higher than 10 Watts.**

**Mobile telephones or two-way radios must not, therefore, be operated inside the vehicle without a separate external aerial or with an aerial which has been incorrectly installed.**

### Attention

**Mobile telephones and two-way radios operated inside the vehicle without a separate external aerial or with an incorrectly installed external aerial can be injurious to health due to the extremely high electromagnetic fields generated!**

Furthermore, optimal range is only achieved with an external aerial.

### Note

**The operating instructions of the mobile telephone or two-way radio must be adhered to!**

If you want to use a mobile telephone or two-way radio with a broadcast power of higher than 10 Watt, please ask your Volkswagen dealer. He is aware of the technical possibilities for retro-fitting mobile telephones and two-way radios.

### Driving abroad

If the vehicle is to be taken abroad, the following must also be borne in mind:

■ If the vehicle has a petrol engine and catalytic converter, one must ensure that unleaded petrol will be available during the journey – see page 143. The automobile clubs offer information about the unleaded filling station network.

■ Although there are more than 10,000 Volkswagen dealers all over the world to service Volkswagen vehicles there are countries in which only a limited amount of service is available or none at all.

■ In certain countries it is also possible that your vehicle model is not sold so that certain spare parts will not be available or that the Volkswagen personnel are not familiar with the repair procedure should anything go wrong.

The Volkswagen Distribution Centres in Germany or the Importer concerned will be only too pleased to give advice on the necessary technical preparation of the vehicle, on the maintenance required and on the repair possibilities.

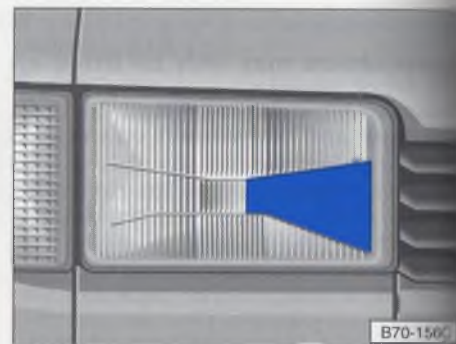
The addresses are given in the vehicle wallet.



#### Masking headlights

According to the vehicle model, one of the two types of headlights will be installed.

When the vehicle is used in a country which drives on the opposite side of the road to the home country, the asymmetric dipped headlights will dazzle oncoming traffic.



To prevent this, the wedge-shaped sector on the headlight lenses must be covered up with an opaque adhesive strip.

The illustration shows the strip installed for the change from right-hand to left-hand traffic.

## Accessories, modifications and renewal of parts

Your vehicle is built in accordance with the most modern principles of safety technology and offers therefore a high degree of active and passive safety. To ensure that this remains so the vehicle as supplied by the factory may not be modified without careful thought. The following points must be noted if the vehicle is to be subsequently fitted with accessories, technically modified or have parts renewed later on:

■ Always consult a Volkswagen dealer **before** purchasing accessories and **before** any modifications are carried out because through close cooperation with us the Volkswagen Organisation is particularly competent in such matters.

### Attention

■ **In your own interests we recommend that only expressly approved Volkswagen accessories<sup>1)</sup> and Genuine Volkswagen parts be used on your vehicle. The reliability, safety and suitability of those parts and accessories have been specially established for your vehicle.**

■ **Despite continuous market observation we cannot assess or accept responsibility for other products, even in cases where an officially recognized permit has been issued.**

<sup>1)</sup> Not available in all countries.

■ Approved Volkswagen accessories and Genuine Volkswagen Parts can be obtained from Volkswagen dealers who will of course carry out the fitting correctly.

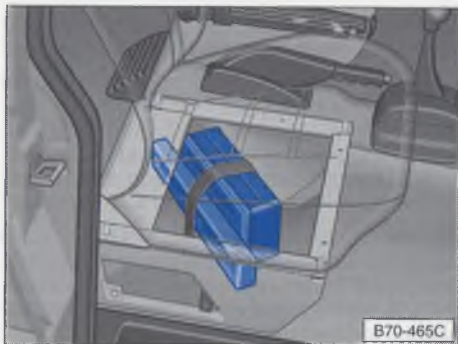
■ Additionally connected electric consumers e.g. refrigerators, horns, fans etc. which are not directly linked to the control of the vehicle must carry the **CE** symbol.

■ Appliances which have been retro-fitted and have a direct influence on the driver's control of the vehicle e.g. cruise control system or electronically controlled shock absorber systems must have the **e** symbol and be authorised for that vehicle.

■ If technical modifications are to be made, our guidelines must be observed. This is to ensure that no damage occurs to the vehicle, the traffic and operating safety is retained and that the modifications are permissible. Volkswagen dealers will also carry out this work correctly or will recommend a specialist workshop.

## DO-IT-YOURSELF

### First aid kit, Warning triangle



The First Aid Kit and warning triangle can be secured under the front passenger's seat (not on vehicles with swivelling seats) – see illustration.

#### Note

- The first aid kit and warning triangle are **not** included in the scope of delivery for the vehicle!
- **The first aid kit and warning triangle must correspond to legal stipulations.**
- **You should also note the use-by date of the contents of the first aid kit.**

### Vehicle tools, Spare wheel



#### Stowage of vehicle tools

##### Attention

**Ensure that the vehicle tools are stowed securely, so that they cannot injure the vehicle occupants should you brake suddenly or be involved in an accident.**

The vehicle tools and the jack are to be found at the following places:

#### Multivan, Caravelle, Kombi and Delivery van

at rear left of luggage compartment – see illustration

On vehicles with side trim panels the tools are stored behind a removable cover.

#### Double Cab

under rear seat

#### Pick-up

behind the driver's seat

#### Stowage of spare wheel

##### Attention

**Ensure that the spare wheel is stowed securely so that the vehicle occupants are not injured should you have to brake suddenly or be involved in an accident.**

Depending on model version, the spare wheel is stored horizontally or vertically at the rear of the passenger compartment, on an exterior bracket mounted at the rear of the vehicle or underneath the vehicle in a special folding bracket.

## Vehicle tools

### Attention

■ The jack supplied by the factory is only designed for your vehicle model. On no account should heavier vehicles or other loads be lifted!

■ With the vehicle lifted, never start the engine – danger of accident.

■ If work has to be done underneath the vehicle, ensure that it is supported on suitable stands.

### Vehicles may also have:

- Tool box \*
- Wheel bolt spanner
- Wire hook\* for wheel trims
- Open jaw spanner 10 x 13
- Screwdriver  
The screwdriver blade is reversible.
- Adapter\* for hexagon head bolts.  
The adapter fits in the hexagon head opening of the wheel spanner.
- Jack  
Before the jack is placed back into the tool box, the claw must be fully wound back. The crank is then tensioned against the side of the jack.
- Removing tool\* for radiator grille.

### Note

The removing tool should only be used by an expert and is, for some models, an aid for removing the radiator grille.



## DO-IT-YOURSELF

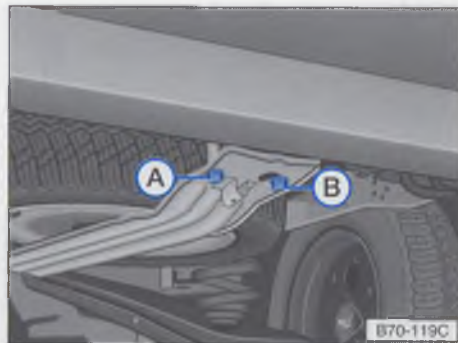
First aid kit,  
Warning triangle

Vehicle tools, Spare wheel

### Spare wheel under the vehicle

#### Lowering spare wheel bracket

When loosening bolts observe following sequence:



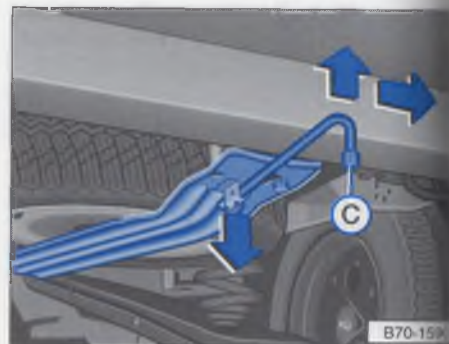
■ Loosen safety screw (B) until it turns freely.

The safety screw (B) is held at the end with a clip so that it cannot be screwed out completely.

■ Remove securing screw (A) completely. The spare wheel carrier then rests on the safety screw (B).

#### Attention

If the screws are loosened in the opposite sequence, the carrier can fall off screw B.



■ Then insert the wheel spanner (C) in the carrier to the stop as shown in the illustration.

■ Grip wheel spanner firmly with both hands, lift slightly and swing to the right until the spare wheel bracket with the large hole can be swung over the safety screw and down.

■ Take spare wheel out.

The spare wheel carrier is held in place by a safety screw (B).

The safety screw (B) is held at the end with a clip so that it cannot be screwed out completely.

Remove the securing screw (A) completely.

The spare wheel carrier then rests on the safety screw (B).

The first aid kit and warning triangle must be removed by legal regulations.

You should also note the use-by date of the contents of the first aid kit.

### Lifting

■ Insert carrier.

■ Place access hook it.

■ Screw safety.

■ The

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### Note

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### Lifting spare wheel carrier

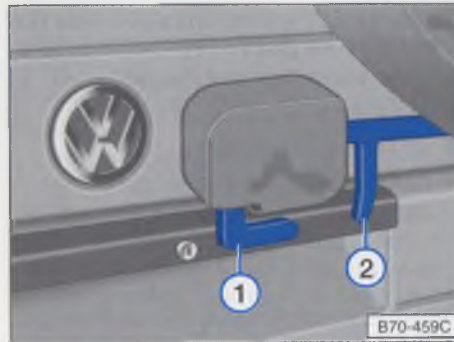
- Insert wheel spanner in spare wheel carrier.
- Place spare wheel on carrier with wheel recess uppermost, swing carrier up and hook it on safety screw (B).
- Screw in securing screw (A) first, then safety screw (B).
- Then tighten both screws fully.

#### Attention

For safety reasons the spare wheel carrier must always be firmly secured with screws A and B so that the spare wheel cannot fall down accidentally.

#### Note

The mounting of the spare wheel carrier can be adjusted in height to cater for tyres of different widths.



### Spare wheel bracket at rear

The locking lever (1) must be pulled to the rear to swing the spare wheel bracket to the right with the handle (2).

#### Attention

After swinging the spare wheel bracket back, always check that the lock has engaged securely by pulling on the bracket.

### Removing spare wheel

- Remove spare wheel cover\*.
- Loosen wheel nuts and take down spare wheel.
- After changing wheels, push defective wheel onto bracket, retighten wheel nuts and replace cover\*.

#### Note

The spare wheel must only be removed or secured when the bracket is securely locked.

### Spare wheel standing or lying in passenger compartment

Unscrew the large plastic screw to remove spare wheel.

After changing a wheel it must once again be secured.

### Changing wheels

#### Attention

■ In case of a flat tyre or puncture, park the vehicle as far as possible away from the traffic flow. If necessary, switch hazard warning lights on and place the warning triangle in position - note any statutory requirements.

■ All vehicle occupants should leave the vehicle and move to a safe area (e.g. behind safety barrier).

■ Apply handbrake firmly and chock the opposite wheel with a stone or similar.

■ Carry out wheel change on as flat a surface as possible.

■ Take the tools out of the vehicle.

■ Take spare wheel out of bracket.

■ To remove wheel trim:

- Remove wheel bolt caps.

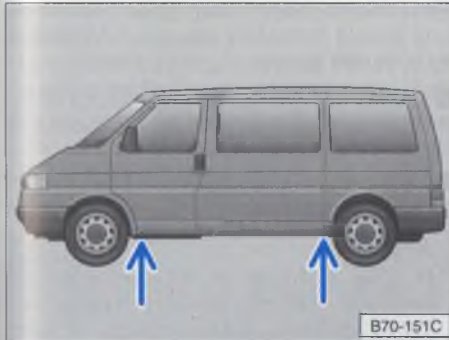
- Remove hub cap or wheel trim with the wheel spanner and the wire hook.



■ Push the wheel spanner as far as possible onto the wheel bolt as shown and turn the spanner anti-clockwise. When doing this, grip the spanner as far as possible towards the lever end.

If the bolts cannot be loosened, one can in an emergency, carefully push the spanner down with a foot on the end of the lever. One should ensure that one has a firm stance and a good grip on the vehicle.

Loosen wheel bolts about one turn.



■ Depressions under vehicle for jack:

#### Attention

**If the jack is not fitted at the points marked or described, damage could be caused to the vehicle. There is also a risk of injury!**

#### Multivan, Caravelle, Kombi and Delivery van

– Depressions in the side member at front and rear indicate the points at which the jack must be fitted – see arrows in illustration.

**On the sliding door side ensure that the claw of the jack does not fit under the sliding door.**

#### Double Cab, Pick-up and chassis with permissible GVW of 2890 kg.

- Depressions in the side member indicate the points at which the jack must be fitted.
- The jack is placed under the mounting of the trailing arm (triangular mark) at the rear.

#### Note

Depending on the model, there is a possibility that the jack delivered by Volkswagen with the vehicle cannot be placed under the mounting of the trailing arm at the rear.

In this case the coach builder must supply a jack suited to the front and rear depressions. The carrying load of the jack must be at least 1150 kg.

The lifting points for the jack supplied by the coach builder are detailed on page 204 – see "Lifting points for workshop hoist".

#### Chassis with permissible GVW greater than 2890 kg

The jack delivered by Volkswagen must not be used on this chassis.

#### Attention

**There is a risk of injury if the jack delivered from the factory is used!**

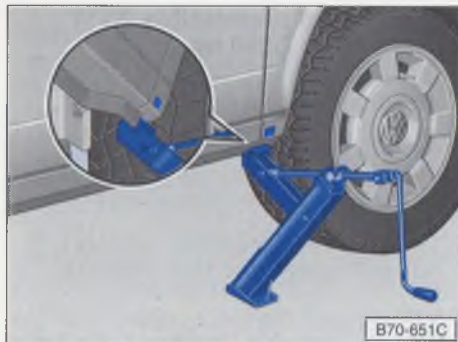
**The carrying load for this jack is not sufficient for this chassis.**

For this reason, the coach builder must supply a jack suited to the body, the lifting points and the permissible GVW of the vehicle.

The lifting points for the jack supplied by the coach builder are detailed on page 204 – see "Lifting points for workshop hoist".

## DO-IT-YOURSELF

### Changing wheels



- Place jack under vehicle:

#### Attention

**If the ground under the jack is too soft, the vehicle could slip off the jack.**

**Ensure, therefore, that the jack is on a solid surface. If necessary, use a large, stable underlay to place under the jack.**

- Wind jack arm up by turning the crank in the spindle until the jack just goes under the vehicle.
- The claw of the jack must fit round the vertical rib on the side member so that the jack cannot slip when vehicle is lifted – see illustration.

– Align jack and at same time wind claw up further until it contacts the vertical rib on side member.

- Lift vehicle until the wheel is just clear of the ground.
- Remove wheel bolts and place them on a clean surface (hub cap, cloth, paper) next to the jack and take the wheel off.
- Fit spare wheel and lightly tighten all bolts. The wheel bolts must be clean and easy to turn – do not under any circumstances use grease or oil!
- Lower vehicle and fully tighten bolts in diagonal sequence.
- Refit the wheel trim.
- Place and secure defective wheel in spare wheel bracket.

#### Notes

■ Pay attention to the following after changing a wheel:

- Check the tyre pressure immediately on the spare wheel which has been fitted.
- Have the tightening torque of the wheel bolts checked with a torque wrench as soon as possible. The torque for steel and alloy wheels is 160 Nm.

If it has been established when changing the wheel that wheel bolts are corroded and hard to screw in, they must be renewed before checking the tightening torque.

Until these checks have been carried out one should, for safety reasons, only drive at a moderate speed.

- When using a spare wheel which differs from those on the vehicle, the points on page 176 must be noted!
- The defective wheel should be repaired as soon as possible.

#### Attention

**If the vehicle is to be subsequently fitted with wheels or tyres which differ from those fitted by the factory, it is essential to read the remarks on page 177.**

## Fuses

The individual current circuits are protected by fuses.

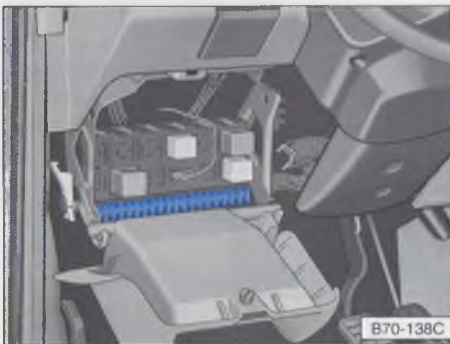
The central electrics with the relays is on the left in the footwell behind a hinged shelf. It is advisable to always carry a few spare fuses on the vehicle. These can be obtained from any Volkswagen dealer.

### Notes

#### Attention

**Never, under any circumstances "repair" the fuses or replace them with more powerful ones, as damage in another part of the electrical system could result. This could even lead to a fire.**

- If the newly inserted fuse blows again after a short time, the electrical system must be checked by a Volkswagen dealer as soon as possible.
- Some of the components listed are only found on certain models or are optional extras.



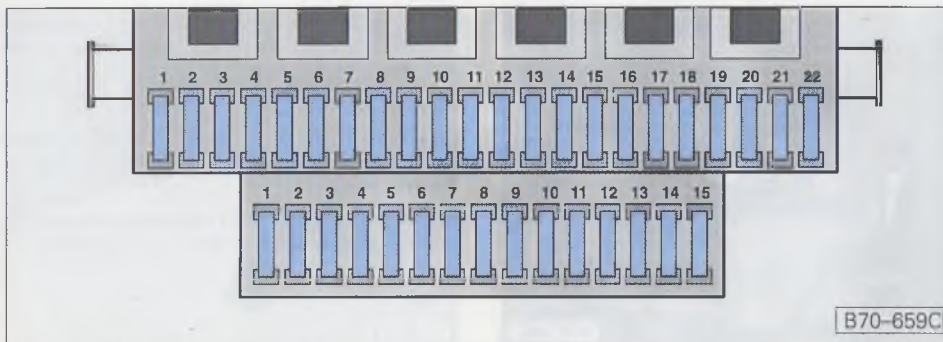
### Changing a fuse

#### Fuses behind storage box

- Switch off the ignition and the component concerned.
- Take box off by turning knob to the left, swing box down and pull out of the retainers at the bottom.

- With the aid of the list of fuses (see next pages), determine which fuse belongs to the component that has failed.
- Pull out the fuse concerned.
- Replace blown fuse – can be recognised by the burnt metal strip – with a fuse of **same** amperage.
- Insert box. Place in retainers at bottom, swing up and tighten the knob by hand.

## DO-IT-YOURSELF



### Layout of upper row of fuses (Fuses 1 - 22)

(from left to right)

No.	Component	Amp
1 -	Dipped beam left, headlight range control left	10
2 -	Dipped beam right, headlight range control right	10
3 -	Instrument and number plate lighting	10
4 -	Rear wiper	15
5 -	Windscreen wiper and washer, heated washer jets	15

No.	Component	Amp
6 -	Blower, air conditioner	30
7 -	Tail and side light right,	10
8 -	Tail and side light, left	10
9 -	Not used	
10 -	Fog lights, rear fog light	15
11 -	Main beam, left	10
12 -	Main beam, right	10
13 -	Horn, radiator fan (run-on)	10

No.	Component	Amp
14 -	Reversing lights, electric outside mirrors, sliding/tilting roof, shift pattern, automatic gearbox, cruise control system	10
15 -	Engine electronics	10
16 -	Warning lamps	10
17 -	Turn signals	10
18 -	Fuel pump	20
19 -	Radiator fan, air conditioner	20
20 -	Brake lights	10
21 -	Interior and luggage compartment lights, make-up mirror light, radio, clock, central locking	10
22 -	Cigarette lighter	10

### Layout of lower row of fuses (Fuses 1- 15)

(from left to right)

No.	Component	Amp
1	not used	
2	Trailer- permanent positive	15
3	Sliding/tilting roof	20
4	Additional heater diesel engine	10
5	Fuse for ABS control unit	10
6	Roof symbol	10
7	Beacon	15
8	Roof ventilator	10
9	Siren	25
10	Central locking	15
11	Seat heating	15
12	Rear window heating	15
13	Climatronic	30
14	Blower for passenger compartment ventilation	30
15	Additional heat exchanger	30

### Additional fuses in engine compartment

#### No. Component A<sup>1)</sup>

(in separate holders)

■ in the engine compartment on the bulk-head above the brake servo:

Glow plugs<sup>2)</sup> ..... 50

■ in engine compartment on left-hand side, above battery:

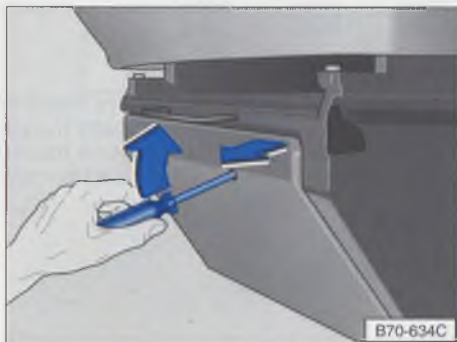
Radiator fan<sup>2)</sup> ..... 50

<sup>2)</sup> This fuse should only be renewed by a Volkswagen dealer.

### Automatic fuse

All electric windows are protected together via an automatic fuse which breaks the circuit when overloaded (e.g. windows frozen) and then resets the circuit after a few seconds.





## Fuses underneath the driver's seat

■ Insert the screwdriver from the vehicle tools into one of the two openings in the plastic cover under the driver's seat.

■ Pull the screwdriver lightly upwards to disengage the retaining lug. At the same time pull the cover forward slightly by the top corner and hold.

■ Insert the screwdriver into the other opening, pull it up slightly and fold the cover open. The fuses are now accessible.

## Additional fuses under driver's seat

**No. Component A<sup>1)</sup>**  
(in separate holders)

Transistor light .....	5
Timer for auxiliary heater .....	5
Fuse for auxiliary heater <sup>3)</sup> .....	25
12 V socket for refrigerator .....	30

## Fuse colour code:

Beige: .....	5 Amp
Red: .....	10 Amp
Blue: .....	15 Amp
Yellow: .....	20 Amp
White: .....	25 Amp
Green: .....	30 Amp

<sup>3)</sup> On vehicles with swivelling seats this fuse can be found in the side trim behind the driver's seat.

## Changing bulbs

Before starting to replace a bulb, you must first always switch off the consumer concerned.

Do not touch the glass part of the new bulb with bare fingers because the finger marks left on the glass evaporate when the bulb becomes hot, the vapour settles on the reflector and dims it.

Always use the same type of bulb. The designation is marked on the base of the bulb or on the glass.

It is advisable to always carry a box of spare bulbs in the vehicle. These can be obtained from Volkswagen dealers. It should contain at least the following bulbs which are essential for traffic safety:

12 V 60/55 W	Double headlight (H4)
12 V 21W	Turn signal
12 V 21W	Brake light
12 V 5W	Tail light

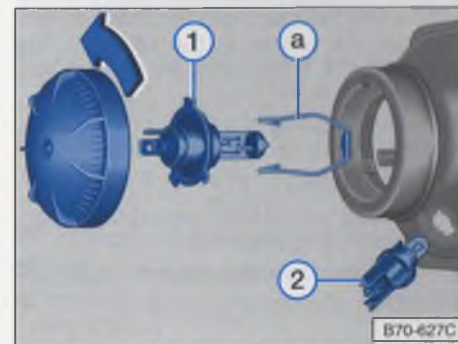
12 V 4W	Side light
12 V 5W Glass base	Number plate light, additional brake light

### Note

On some models the following points should be noted before changing the main headlight bulbs and the front turn signal bulbs:

The battery cover must first be removed to gain access to the front left turn signal and the left headlight bulb.

The removable filler neck of the windscreen wash fluid container should be removed to enable easier access to the front right turn signal and to the right headlight bulb.

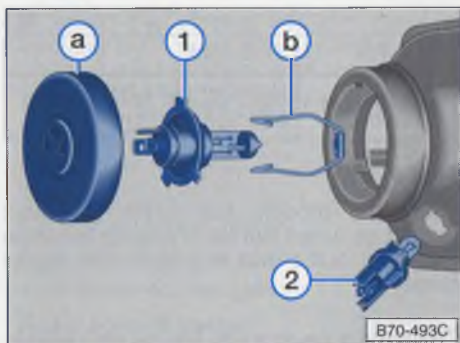


### Main headlight bulb (1)

This description is only applicable to vehicles with a twist type cap on the headlight housing.

- Open bonnet.
- Twist cap on the headlight housing in direction of arrow and take it off.
- Pull connector off headlight bulb.
- Squeeze bulb holder spring clip (a) together and pull down.

- Take the bulb (1) out and insert the new bulb so that the locating lug on the bulb plate engages the recess in the reflector. The centre of the three terminals on the bulb base is then at the top.
- Fold the spring clip (a) over bulb base. Fold spring clip up and engage.
- Connect plug.
- Start cap so that after turning to the right the word TOP is at the top.
- Have the headlight beam alignment checked.



### Main headlight bulb (1)

This description is only applicable to vehicles with a pull-off cap on the headlight housing.

- Pull off the connector.
- Pull cap off (a).
- Squeeze the spring clip (b) of the bulb holder together and pull down.
- Take the bulb (1) out and insert the new bulb so that the locating lug on the bulb plate engages the recess in the reflector. The centre of the three terminals on the bulb base is then at the top.

- Fold the spring clip (b) over bulb base. Squeeze the clip together and engage it in the retaining lugs.
- Press the cap back on.
- Connect plug.
- Have the headlight beam alignment checked.

### Side light bulb (2)

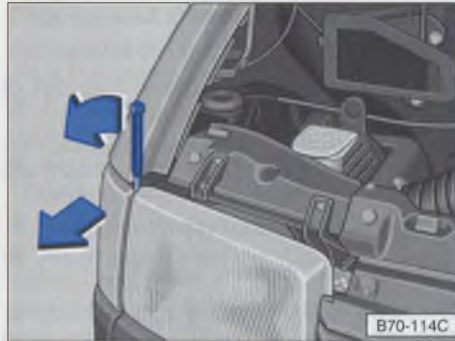
The side light bulbs are located in the headlight reflectors.

- Open bonnet.
- Turn the bulb holder fully to the left and take it out of the reflector.
- Press defective bulb (2) into holder, turn it to the left and take it out.
- Insert new bulb.
- Insert the bulb holder in the reflector and turn the holder fully to the right.

## Front turn signals

This description is only applicable to vehicles with a wire loop on the turn signal housing.

- Open bonnet.
  - Pull wire loop attached to turn signal housing back against spring pressure until it unhooks.
  - Turn bulb holder out to the left.
  - Turn bulb out and renew.
  - Slide bulb holder into the turn signal guides and turn until the holder latches into place.
  - Insert turn signal housing and push fully to rear. Ensure that the retaining lugs attached to the turn signal housing locate in the guides of the headlight and the mud wing.
  - Pull the wire loop back against spring pressure and allow it to engage in the centre of notch in retainer.
- This is the only way a secure fastening of the turn signal can be guaranteed.



## Front turn signals

This description is only applicable to vehicles with a wire loop on the turn signal housing.

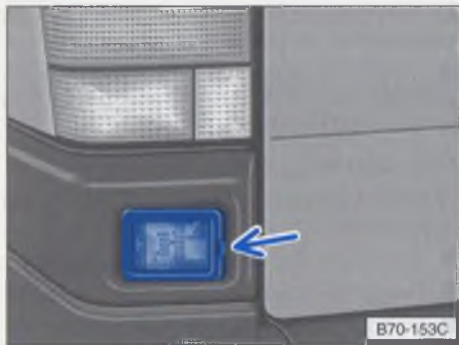
- With bonnet open, insert flat blade of screwdriver into groove on turn signal housing. This presses the securing tab which hold the turn signal housing to the side.
- Lever screwdriver outwards, as shown in illustration, so that the turn signal housing is pressed out forwards.
- Turn bulb holder out to the left.

- Turn bulb out and renew, then place in bulb holder.
- Insert turn signal housing in the grooves provided (top and bottom) and press it in until the securing tabs engage.

## Fog lights\*

The light bulb can only be changed from the underside of the vehicle.

- Turn cap of fog light to the left to remove.
- Pull cable from bulb out of connector.
- Unhook spring clip of bulb holder and swing it away.
- Take bulb out.
- Insert new bulb so that the semi-circular recess is uppermost on the reflector.
- Swing spring clip over bulb plate and engage.
- Fit cap again.
- Have beam alignment checked.



## Rear fog light

- Renewal of the bulbs for the rear lights is done from the luggage compartment through the rear panel trim.
- Take housing out.
- Turn bulb holder out to the left.
- Take bulb out and renew.
- Turn bulb holder back in.
- Insert left side of housing in the recess first and press in firmly until the tabs engage.

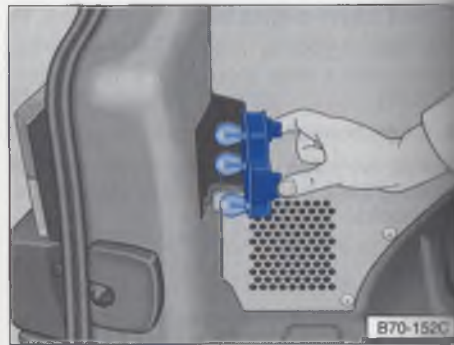
## Number plate light

- Open tailgate/lid and remove lens.
- Pull defective glass based bulb out of holder and insert the new bulb.
- Insert lens in the tailgate opening, ensure that the rubber seal and the light are correctly positioned (see adjacent light).
- Do not overtighten the lens screws.

## Additional brake light\*

Changing additional brake light bulbs is carried out from the outside with the wing doors open or from the inside on vehicles with a tailgate.

- Press both spring retainers towards centre of bulb holder and take out holder.
- Renew bulb.
- Insert bulb holder into housing – the spring retainers must engage.



## Rear lights

### Multivan, Caravelle, Kombi and Delivery van

Renewal of the bulbs for the rear lights is done from the luggage compartment through the rear panel trim.

- Loosen rear panel trim cover.

## installing radio

- Reach into the hole in the rear panel trim with one hand and squeeze the two retaining tabs of bulb carrier together.
- Remove bulb carrier (illustration).
- Press defective bulb into holder, turn it to the left and take it out.
- Insert new bulb and turn fully to the right
- Insert bulb carrier.

**Note**

To ease access to the rear right bulb carrier on vehicles fitted with Climatronic\*, first pull the transparent hose from air conditioner downwards.

After changing bulbs, always ensure that the hose is correctly reconnected. Excessive moisture could otherwise enter the vehicle interior.

**Pick-up and Double cab**

Renewal of the bulbs for the rear lights is done from the outside.

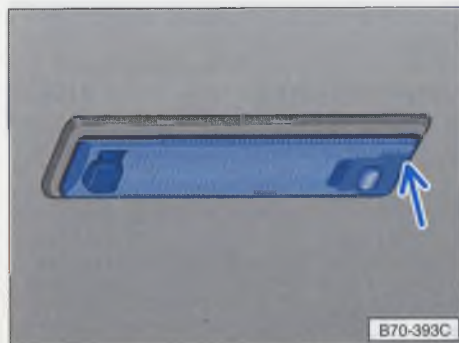
- Remove lens glass by loosening the screws.
- Press defective bulb into holder, turn it to the left and take it out.
- Insert new bulb and turn fully to the right
- Insert lens, ensure that the rubber seal and the light are correctly positioned.
- Do not overtighten the lens screws.

**Transistor light\***

- Carefully lever out the plastic housing on the switch side with the flat blade of the screwdriver.
- Turn neon tube and remove.
- Insert new neon tube and turn.
- First insert plastic housing on the left-hand side and then on the switch side.

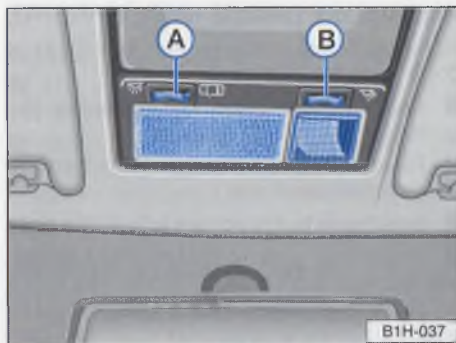
**Interior light without reading light****Large version**

- Take complete interior light off by inserting flat screwdriver blade between light and headlining and turning screwdriver.
- Pivot reflector on rear of light out by inserting a screwdriver on the right-hand side, between the reflector and housing, and by twisting the screwdriver, pivot the reflector out.
- Change the bulb.
- Swing the reflector back into position, ensuring that it engages properly.
- Press the interior light back into the opening in the roof trim.



## Small version

- Press retaining lug on opposite side to switch with flat blade of screwdriver towards centre of light and remove light – see illustration.
- Change bulb.
- Insert switch side of light first and press in until the retaining lug locates.



## Front interior and reading light

### Interior light (A)

- Insert a knife blade or something similar into gap between housing and lens and carefully lever lens off.
- Change bulb.
- Press lens into housing again.

### Reading light (B)

- Remove complete light carrier (interior and reading lights). To do this, insert the flat blade of the screwdriver between the light and the roof trim and twist.
- Turn white bulb holder on back of light to the left and take it out.
- Pull defective glass based bulb out of holder.
- Insert new bulb.
- Install holder in housing again and turn fully to the right.
- First insert light carrier on the left-hand side and then press into the opening in the roof trim.

## Installing radio

When service installing a radio or replacing a set installed by the factory the following points should be noted:

■ The connection\* in the vehicle is for Genuine Volkswagen radios<sup>1)</sup> from Model Year 1994.

■ Radios with other connections must be connected with an adapter cable which can also be obtained from a Volkswagen dealer.

### Attention

**On no account cut wires off and leave them without insulation. If necessary use a proper adapter. Otherwise the wiring can be overloaded or short circuits can occur - danger of fire!**

<sup>1)</sup> Not available in all countries

**Apart from this important electronic components can be damaged or the functioning impaired. If for example the speed signal is disturbed this can lead to faulty management of engine, automatic gear-box, ABS etc. Even connecting the speed signal to radio sets with speed dependent volume control from other manufacturers can cause such faults.**

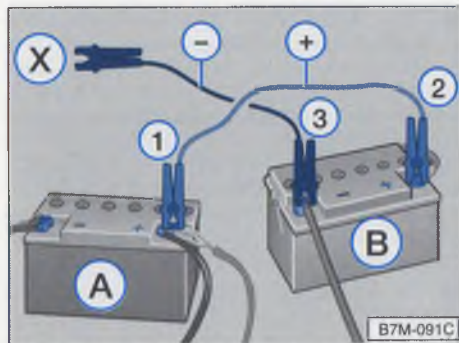
■ It is advisable therefore to have the installation of the radio system done by a Volkswagen dealer. They are fully informed about the technical features of the vehicle, have the Genuine radios<sup>1)</sup>, the necessary fitting parts from the Genuine Volkswagen Accessory Programme<sup>1)</sup> and work in accordance with the guidelines developed by the factory.

■ The radios from the Genuine Volkswagen Accessory Programme<sup>1)</sup> are similar to those used in the factory and ensure trouble-free installation. These sets are in keeping with the advanced technology and well-planned easy-to-operate design. In Germany there is also an Exchange Service for these radios so that even after years of use a set requiring repair can be exchanged cheaply for a completely reconditioned, good-as-new set by a Volkswagen dealer.

■ Loudspeakers, fitting parts, aerials and suppression kits should also be taken from the Genuine Volkswagen Accessory Programme<sup>1)</sup>. These parts have all been specially developed for each vehicle model.



## Emergency starting



A – Flat battery  
B – Boosting battery

The battery is in the engine compartment on the left looking forward.

If the engine will not start because the battery is flat, **jump leads** can be connected to the battery of another vehicle to start the engine. The following points should be noted:

- Both batteries must be of the 12 Volt variety and the capacity (Ah) of the booster battery must be approximately the same as that of the flat battery.
- The jumper cables must be heavy enough to carry the load. Note cable manufacturer's data.

- Only use jumper cables with insulated clips.

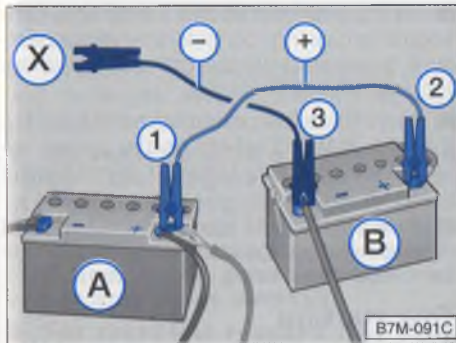
- A flat battery can freeze at temperatures of less than 0 C. If a battery is frozen it must be thawed out before connecting jumper cables, otherwise it could explode.

- There must be no contact between the vehicles, otherwise current can flow as soon as the plus terminals are connected.

- The flat battery must be properly connected to the electrical system.

- The engine of the boosting vehicle must be running.

- Ensure that the insulated clips have enough contact to metal. This is particularly applicable to clips which are attached to the engine block.



■ The jumper cables must only be connected as follows:

1. One end of (+) cable (usually red) to the (+) terminal of the flat battery **A**.
2. Other end of the red cable to the (+) terminal of boosting battery **B**.
3. One end of (-) cable (usually black) to the (-) terminal of boosting battery **B**.
4. Other end of black cable (**X**) to a solid metal part bolted to the block or to cylinder block itself.

Do not connect the cable to the flat battery minus terminal. The sparks could ignite the explosive gas flowing out of the battery.

#### Attention

■ **The non-insulated parts of the cable clips must not touch one another on any account. Furthermore the jumper cable attached to the battery positive terminal must not come into contact with electrically conductive vehicle parts – danger of short circuit!**

■ **Route the jumper cables so that they cannot come into contact with rotating parts in the engine compartment.**

■ **Do not stand with your face over the battery – danger of acid burns!**

■ **Keep sources of ignition (naked flames, burning cigarettes etc.) well away from the battery – danger of explosion!**

■ Start the engine as described in the "Starting engine" section.

■ If the engine does not start at once, stop using starter after 10 seconds, wait about half a minute and then try again.

■ With engine running, disconnect cables in reverse sequence.

### Tow starting/towing

#### General notes

■ Check whether there are any local traffic regulations concerning the towing of vehicles.

■ Towing eyes are provided on the right under front and rear bumpers.

Tow-ropes or bars should be attached at these points only.

On vehicles with a factory fitted towing bracket a towing eye is not fitted. On those vehicles the towing bracket can be used for towing.

■ The tow-rope should be slightly elastic to reduce the risk of damage to both vehicles. It is advisable to use synthetic fibre ropes, or ropes of similar elastic material. **It is however safer to use a towing bar!**

Avoid excessive towing effort and do not jerk. During towing operations on other than surfaced roads there is always the danger that the attachment points will be overloaded and damaged.

■ **Before trying to tow start, an attempt should be made to start using the battery of another vehicle – see previous page.**

■ Both drivers must be familiar with towing procedures. Inexperienced drivers should not attempt to tow start or tow.

■ When using a tow-rope the driver of the towing vehicle must engage the clutch very gently when moving off and changing gear.

■ The driver of the vehicle being towed must ensure that the tow-rope is always taut.

■ The emergency lights must be switched on on both vehicles – unless local regulations differ.

■ Turn ignition key to "Drive" position so that the steering wheel is free and the turn signals, horn, and, if necessary, the windscreen wiper and washer can be used.

■ As the brake servo only works when the engine is running, considerably more pressure is required on the brake pedal when the engine is not running.

■ More force than usual will be required to turn the steering wheel as the power assisted steering does not work when engine is not running.

■ When there is no lubricant in the manual or automatic gearbox, the vehicle may only be towed with driving wheels lifted.

#### Tow starting

**The following points must be noted – even on the syncro – by the driver of the vehicle being towed:**

■ **Before** moving off, engage **2nd** or **3rd** gear, depress and hold clutch.

■ On the syncro the differential lock\* must **not** be engaged.

■ Switch ignition on.

■ Once both vehicles are moving, release the clutch.

■ As soon as engine starts, depress clutch and move gear lever into neutral to avoid running into the towing vehicle.

■ **On vehicles with a catalytic converter the engine must not be started by towing the vehicle in excess of 50 m when the catalytic converter is at operating temperature<sup>1)</sup>. Fuel could then pass into the converter and cause damage.**

■ **For technical reasons tow starting a vehicle with an automatic gearbox is not possible.**

<sup>1)</sup> Does not apply to 55 kW Diesel engine with catalytic converter

## Towing

**When towing vehicles with an automatic gearbox**, the following points must be noted in addition to the details on the previous page:

■ Selector lever at "N".

■ Do not have the vehicle towed faster than 30 mph (50 km/h).

■ To not tow further than 30 miles (50 kilometres).

If the vehicle has to be towed long distances it must be lifted at the front.

Reason: When the engine is not running, the gearbox oil pump is not working and the gearbox is not adequately lubricated for high speeds or long distances.

■ With a breakdown vehicle the vehicle may only be suspended at the front.

Reason: If given a rear suspended tow, the drive shafts turn backwards. The planetary gears in the automatic gearbox then turn at such high speeds that the gearbox will be severely damaged in a short time.

## Note for the syncro:

### Vehicles without ABS

If the vehicle needs to be towed with raise front or rear wheels, ensure that the raised wheels can still turn freely.

### Vehicles with ABS\*

■ With a recovery vehicle the car can be towed with front or rear wheels suspended.

If the vehicle has to be towed with the rear wheels lifted and the rear wheels cannot turn freely, one must ensure that the free-wheel in the rear axle has not been bridged beforehand by driving vehicle in reverse. To reintroduce the freewheel action the gear lever must be moved briefly into 1st gear with ignition on and then back into neutral.

### Lifting vehicle

#### Trolley jack

To prevent damage to the underside of the vehicle it is essential to use a suitable rubber pad.

**On no account should the vehicle be lifted under the engine, gearbox, rear axle or front axle as this can cause serious damage.**

#### Attention

■ **With the vehicle lifted never start the engine – danger of accident!**

■ **If work has to be done underneath the vehicle, the vehicle must be supported on suitable stands.**

#### Vehicle hoist

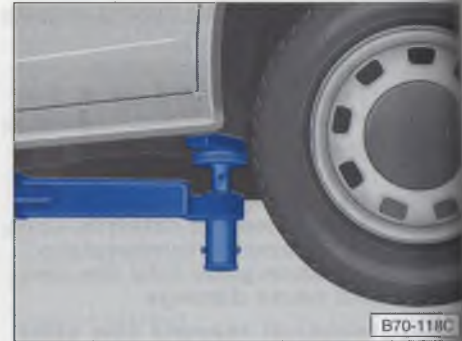
**Before driving over the vehicle lift, ensure that there is adequate clearance between lift superstructure and low parts on underside of vehicle.**

To lift the vehicle only twin column/pillar hoists with sufficiently long support arms should be used.

Only as an exception – for short wheel base vehicles in unladen condition – can a single column hoist be used.

The lifting point is then at the side member at reinforcement plate.

**Hoists with fluid cushions (Repair reception hoists) must not be used to lift this vehicle.**

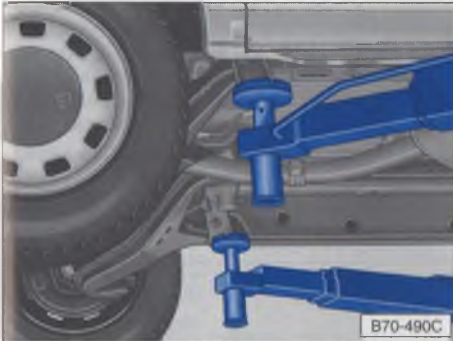


#### Lifting points for workshop hoist and trolley jack

The vehicle may only be lifted at the points shown here.

#### Front

At the front cross member (illustration)



### Vehicle jack

Lifting with the vehicle jack is described on page 188.

### Rear

At mounting for the rear trailing arm (left illustration)

Part No.	Part Name	QTY	Part No.	Part Name	QTY	Part No.	Part Name	QTY
8C	...	1	...	...	1	...	...	1
...	...	1	...	...	1	...	...	1
...	...	1	...	...	1	...	...	1

## TECHNICAL DATA

### General information

Where not otherwise indicated or listed separately, all the following technical data is for standard vehicles in Germany.

For special vehicles and vehicles for other countries these figures may be different.

Please note that the details in the official vehicle documents can be taken as the correct figures.

Which engine is fitted in your vehicle can be found in the vehicle data in the Service Schedule or in the official vehicle paperwork.

### Engine data

Output <sup>1)</sup> kW (bhp) / rpm	Maximum torque Nm / rpm	Cylinders	Capacity cm <sup>3</sup>	Stroke mm	Cylinder bore mm	Compression	Fuel <sup>2)</sup>
<b>Petrol engines</b>							
<b>62</b> (84) / 4300	159 / 2200	4	1968	95.5	81.0	8.5	91 RON unleaded
<b>81</b> (110) / 4500	195 / 2200	5	2461	95.5	81.0	10.0	95 RON unleaded or 91 RON unleaded <sup>3)</sup>
<b>103</b> (140) / 4750	240 / 3200	6	2792	90.3	81.0	10.0	95 RON unleaded or 91 RON unleaded <sup>3)</sup>

<sup>1)</sup> According to EC or DIN regulations.  
Due to different methods of measuring, slight deviations are possible.

<sup>2)</sup> Engines without catalyst – also leaded.  
For further details – see page 143.

<sup>3)</sup> With slight reduction of output

Output <sup>1)</sup> kW (bhp) / rpm	Maximum torque Nm / rpm	Cylinders	Capacity cm <sup>3</sup>	Stroke mm	Cylinder bore mm	Compression	Fuel <sup>2)</sup>
<b>Diesel engines</b>							
<b>50<sup>3)</sup></b> (68) / 3700	140 / 2000-3000	4	1896	95.5	79.5	22.5	Diesel or diester
<b>57</b> (78) / 3700	164 / 1800-2500	5	2370	95.5	79.5	22.5	Diesel or diester
<b>75<sup>3)</sup></b> (102) / 3500 Turbo direct injection (TDI)	250 / 2200	5	2459	95.5	81.0	19.5	Diesel or diester

1) According to EC or DIN regulations.  
Due to different methods of measuring, slight deviations are possible.

2) For further information see page 144.

3) With catalyst



## TECHNICAL DATA

### Performance

The performance figures were measured without the vehicle being fitted with any equipment such as air conditioner, mud

flaps, very wide tyres etc. which affect the performance.

Maximum speed in km/h		Multivan, Caravelle, Kombi, Van	Pick-up	High-roof Kombi, High roof van	Double cab
<b>Petrol engines</b>					
62 kW	MG	144	128	137	132
81 kW	MG	161 (159)	145 (143)	154 (152)	149 (147)
	AG	157	141	150	145
103 kW	MG	174	—	167	—
	AG	170	—	163	—
<b>Diesel engines</b>					
50 kW	MG	132	119	126	121
57 kW	MG	137 (135)	124 (122)	131 (129)	126 (124)
	AG	133	120	127	122
75 kW	MG	157	140	150	145

Figures in brackets apply to syncro vehicles.

MG = Manual gearbox

AG = Automatic gearbox

## Fuel consumption

### Passenger vehicle models

The consumption figures are determined according to EC guideline 80/1268 EEC. Three different conditions are used for the test:

Measurements for **90 km/h** and

■ The measurements for **90 km/h (56 mph)** and

■ **120 km/h (75 mph)** are carried out at a constant test speed.

■ For the **urban** measurement normal town traffic driving is simulated.

Depending on driving style, road and traffic conditions, environmental influences and vehicle condition, the figures obtained in actual practice may differ from those given.

All figures were measured with standard tyres. On vehicles with other tyres the figures will vary accordingly.

litres per 100 km	Caravelle, Kombi, Multivan			High-roof Kombi			
	90 km/h	120 km/h	Urban	90 km/h	120 km/h	Urban	
<b>Petrol engines</b>							
62 kW MG	8.7	11.4	13.3	9.4	13.2	13.6	
81 kW MG	8.9 (9.3)	11.8 (12.3)	14.3 (14.5)	9.7 (10.1)	13.6 (14.1)	14.4 (14.6)	
	AG	9.7	12.7	14.7	10.4	14.8	
103 kW MG	8.5	11.7	14.5	9.3	13.6	14.6	
	AG	9.5	12.6	15.2	10.4	15.3	

Figures in brackets apply to syncro vehicles.

MG = Manual gearbox

AG = Automatic gearbox

1) Only applies to vehicles which have a top speed in excess of 130 km/h (81 mph).

## TECHNICAL DATA

### Passenger vehicle models

litres per 100 km	Caravelle, Kombi, Multivan			High-roof Kombi			
	90 km/h	120 km/h	Urban	90 km/h	120 km/h <sup>1)</sup>	Urban	
<b>Diesel engines</b>							
50 kW	MG	6.9	9.9	9.0	7.5	—	9.2
57 kW	MG	7.2 (8.3)	10.3 (11.2)	10.1 (13.4)	8.1 (8.9)	12.1 (—)	10.4 (13.6)
	AG	8.6	12.7	11.5	9.6	—	11.5
75 kW	MG	6.6	9.2	8.1	7.1	10.5	8.1

Figures in brackets apply to synchro vehicles.

MG = Manual gearbox

AG = Automatic gearbox

<sup>1)</sup> Only applies to vehicles which have a top speed in excess of 130 km/h (81 mph).

**Commercial vehicle models**

These consumption figures were determined in accordance with DIN 70030 Part 2 (July 1978 Edition) with half payload at a constant 3/4 of top speed (but not more than 80 km/h) plus 10 %.

Depending on driving style, road and traffic conditions, environmental influences and vehicle condition, the figures obtained in actual practice may differ from those given.

All figures were measured with standard tyres. On vehicles with other tyres the figures will vary accordingly.

litres per 100 km		Van	High-roof van	Pick-up	Double cab
<b>Petrol engines</b>					
62 kW	Man. gearbox	13.5	13.2	13.5	13.8
81 kW	Man. gearbox	13.5 (13.6)	13.3 (14.3)	13.9 (14.3)	14.1 (14.1)
	Automatic	14.6	14.5	15.4	15.5
<b>Diesel engines</b>					
50 kW	Man. gearbox	8.4	8.7	10.1	9.4
57 kW	Man. gearbox	9.4 (9.9)	10.4 (10.9)	10.7 (12.2)	10.7 (12.1)
	Automatic	10.8	11.9	12.3	12.3
75 kW	Man. gearbox	10.1	9.9	11.1	11.3

Figures in brackets apply to synchro vehicles.

## TECHNICAL DATA

### Tyre pressures

Tyre size <sup>1)</sup>	half payload (for Caravelle and Multivan)		payload (for all vehicles)		Recommended sizes for winter tyres
	front	rear	front	rear	
195/70 R 15 97 S reinforced <sup>2)</sup>	2.6	2.4	3.0	3.4	195/70 R 15 97 S reinforced <sup>2)</sup>
195/70 R 15 C 104/102 R Axle load <b>up to</b> 1600 kg	—	—	3.8	4.0	195/70 R 15 C 104/102 R M+S
Axle load <b>over</b> 1600 kg	—	—	3.8	4.5	
205/65 R 15 99 S reinforced <sup>2)</sup>	2.6	2.4	3.0	3.4	205/65 R 15 99 S reinforced <sup>2)</sup>
205/65 R 15 C 100 T <sup>3)</sup>	2.8	2.5	3.5	3.2	205/65 R 15 C 100 T <sup>3)</sup> M+S

#### Attention

The tyre pressures must be checked at least once a month. They are very important particularly at high speeds – see page 174.

1) For all factory-fitted tyre sizes.

2) reinforced

3) The designation of the tyre can change according to the tyre manufacturer. The tyre must, however, comply with at least the minimum carrying loads and speed code letters given above.

These pressures are valid for cold tyres – when tyres are warm the pressure is higher

but do not reduce it – as well as for the winter tyres recommended in the wheels table.

The inflation pressures are given on a sticker on the inside of the driver's door lock pillar.

As the pressures may be altered at short notice for technical reasons there may be differences between sticker and Owner's Manual. If this should be the case, ask your Volkswagen dealer for the correct pressures.

Please maintain the maximum tyre pressure designated for the vehicle in the **spare wheel**.

**Trailer weights**

Values in kg	Permissible trailer weights max.		Permissible combined weight <sup>1)</sup>	
	Trailer without brakes	Trailer with brakes	Gradients up to 10 %	Gradients up to 12 %
<b>Petrol engines</b>				
62 kW	700	2000	—	4500
81 kW and 81 kW-syncro	700	2000	—	4500
103 kW	700	2000	—	4500
<b>Diesel engines</b>				
50 kW	700	2000	4500	4000
57 kW and 57 kW syncro	700	2000	—	4500
75 kW	700	2000	—	4500

**Note**

The weights given apply to vehicles sold in Germany. In other countries, differing equipment may result in deviations. The figures given in the official vehicle documents take priority.

<sup>1)</sup> The combined weight is made up of the gross vehicle weight of the towing vehicle and the gross weight of the trailer. When the permissible trailer payload is fully utilized, in some cases the weight of the towing vehicle must be correspondingly reduced.

**Drawbar weights**

■ The **maximum** permissible weight of the trailer drawbar on the ball of the towing hitch must not exceed **100 kg**.

The minimum required drawbar weight must be 4 % of actual trailer weight but need not be more than 25 kg. It is advisable to make use of the maximum permissible drawbar weight.

## TECHNICAL DATA

### Weights

Normal payload	Wheelbase	Permissible GWW			Unladen weight <sup>1)</sup> without driver			Payload <sup>1)</sup>
		50 and 62 kW	57 and 81 kW	75 and 103 kW	50 and 62 kW	57 and 81 kW	75 and 103 kW	
<b>Values in kg</b>	in mm							All engines
Caravelle	<b>2920</b>	2575	2650	2680	1625	1700	1730	950
	<b>3320</b>	2625	2700	2730	1725	1800	1830	900
... lowered suspension	<b>2920</b>	2525	2600	2630	1625	1700	1730	900
Multivan	<b>2920</b>	2575	2650	2680	1765	1840	1870	810
	... lowered suspension	<b>2920</b>	2575	2650	2680	1765	1840	1870
Kombi	<b>2920</b>	2575	2650	2680	1580	1655	1685	995
	<b>3320</b>	2625	2700	2730	1630	1705	1735	995
	... lowered suspension	<b>2920</b>	2525	2600	2630	1580	1655	1685
High-roof Kombi	<b>3320</b>	2625	2700	2730	1680	1755	1785	945

#### Notes - see page 223

- <sup>1)</sup> The unladen weight is increased on vehicles  
 ... with four-wheel drive by 100 kg,  
 ... with automatic gearbox by 30 kg,  
 ... with pop-up roof by 60 kg  
 and reduces the payload accordingly.

# TECHNICAL DATA

Normal Payload	Wheelbase	Permissible front axle load			Permissible rear axle load	Permissible roof load
		Values in kg	in mm	50 and 62 kW		
Caravelle	<b>2920</b>	1400	1480	1510	1330	100
	<b>3320</b>	1480	1570	1600	1330	100
... lowered suspension	<b>2920</b>	1330	1400	1430	1230	100
Multivan	<b>2920</b>	1400	1480	1510	1330	100 <sup>1)</sup>
... lowered suspension	<b>2920</b>	1400	1480	1510	1230	100 <sup>1)</sup>
Kombi	<b>2920</b>	1400	1480	1510	1330	100
	<b>3320</b>	1480	1570	1600	1330	100
... lowered suspension	<b>2920</b>	1330	1400	1430	1230	100
High-roof Kombi	<b>3320</b>	1480	1570	1600	1330	100

Notes - see page 223

- <sup>1)</sup> Roof load for vehicles with pop-up roof:  
 - with roof closed, 50 kg max.  
 - with roof open, 15 kg max.



## TECHNICAL DATA

### Weights

Normal payload <small>(Values in kg)</small>	Wheel-base	Permissible GVW			Unladen weight <sup>1)</sup> with driver			Payload <sup>1)</sup>
		50 and 62 kW	57 and 81 kW	75 and 103 kW	50 and 62 kW	57 and 81 kW	75 and 103 kW	
Van	2920	2575	2650	2680	1580	1655	1685	995
	3320	2625	2700	2730	1630	1705	1735	995
High-roof van	3320	2625	2700	2730	1680	1755	1785	945
Pick-up	2920	2525	2600	2630	1530	1605	1635	995
	3320	2575	2650	2680	1580	1655	1685	995
Low loader	3320	2575	2650	2680	1580	1655	1685	995
Double cab	3320	2575	2650	2680	1650	1725	1755	925
Chassis with double cab	3320	2575	2650	2680	1520	1595	1625	1055
Chassis with cab	2920	2525	2600	2630	1375	1450	1480	1150
	3320	2575	2650	2680	1400	1475	1505	1175

Notes - see page 223

<sup>1)</sup> The unladen weight increases on vehicles  
 ... with four-wheel drive by 100 kg,  
 ... with automatic gearbox by 30 kg  
 and reduces the payload accordingly.

Normal payload	Wheelbase	Permissible front axle load			Permissible rear axle load	Permissible roof load
		Values in kg	in mm	50 and 62 kW		
Van	<b>2920</b>	1330	1400	1430	1410	100
	<b>3320</b>	1400	1480	1510	1410	100
High-roof van	<b>3320</b>	1400	1480	1510	1410	100
Pick-up	<b>2920</b>	1250	1330	1360	1410	50
	<b>3320</b>	1330	1400	1430	1410	50
Low loader	<b>3320</b>	1330	1400	1430	1410	50
Double cab	<b>3320</b>	1400	1480	1510	1490	75
Chassis with double cab	<b>3320</b>	1400	1480	1510	1490	75
Chassis with cab	<b>2920</b>	1250	1330	1360	1410	50
	<b>3320</b>	1330	1400	1430	1410	50

**Notes – see page 223**

## TECHNICAL DATA

Increased payload	Wheelbase	Permissible GVW			Unladen weight <sup>1)</sup> with driver			Payload <sup>1)</sup>		
		Values in kg	in mm	50 and 62 kW	57 and 81 kW	75 and 103 kW	50 and 62 kW	57 and 81 kW	75 and 103 kW	50 and 62 kW
Caravelle	<b>2920</b>	2785	2800	2800	1625	1700	1730	1160	1100	1070
	<b>3320</b>	2800	2800	—	1725	1800	—	1075	1000	—
Kombi	<b>2920</b>	2785	2800	2800	1580	1655	1685	1205	1145	1115
	<b>3320</b>	2800	2800	—	1630	1705	—	1170	1095	—
High-roof Kombi	<b>3320</b>	2800	2800	—	1680	1755	—	1120	1045	—
Van	<b>2920</b>	2785	2800	2800	1580	1655	1685	1205	1145	1115
	<b>3320</b>	2800	2800	—	1630	1705	—	1170	1095	—
High-roof van	<b>3320</b>	2800	2800	—	1680	1755	—	1120	1045	—

Notes – see page 223

<sup>1)</sup> The unladen weight increases on vehicles  
 ... with four-wheel drive by 100 kg,  
 ... with automatic gearbox by 30 kg  
 and reduces the payload accordingly.

## TECHNICAL DATA

Increased payload	Wheelbase	Permissible front axle load			Permissible rear axle load	Permissible roof load
		50 and 62 kW	57 and 81 kW	75 and 103 kW		
<b>Values in kg</b>	in mm				All engines	All engines
Caravelle	<b>2920</b>	1400	1480	1510	1490	100
	<b>3320</b>	1480	1570	—	1490	100
Kombi	<b>2920</b>	1400	1480	1510	1490	100
	<b>3320</b>	1480	1570	—	1490	100
High-roof Kombi	<b>3320</b>	1480	1570	—	1490	100
Van	<b>2920</b>	1400	1480	1510	1490	100
	<b>3320</b>	1480	1480	—	1490	100
High-roof van	<b>3320</b>	1480	1480	—	1490	100

**Notes – see page 223**

## TECHNICAL DATA

Increased payload	Wheel-base	Permissible GVW			Unladen weight <sup>1)</sup> with driver			Payload <sup>1)</sup>		
		50 and 62 kW	57 and 81 kW	75 and 103 kW	50 and 62 kW	57 and 81 kW	75 and 103 kW	50 and 62 kW	57 and 81 kW	75 and 103 kW
Values in kg	in mm									
Pick-up	<b>2920</b>	2785	2800	2800	1530	1605	1635	1255	1195	1165
	<b>3320</b>	2785	2800	2800	1580	1655	1685	1205	1145	1115
Low loader	<b>3320</b>	2785	2800	2800	1580	1655	1685	1205	1145	1115
Double cab	<b>3320</b>	2785	2800	2800	1650	1725	1755	1135	1075	1045
Chassis with double cab	<b>3320</b>	2785	2800	2800	1520	1595	1625	1265	1205	1175
Chassis with cab	<b>2920</b>	2785	2800	2800	1375	1450	1480	1410	1350	1320
	<b>3320</b>	2785	2800	2800	1400	1475	1505	1385	1325	1295
	<b>2920</b>	3255	3300	3300	1375	1450	1480	1880	1850	1820
	<b>3320</b>	3255	3300	3300	1400	1475	1505	1855	1825	1795

Notes – see page 223

<sup>1)</sup> The unladen weight increases on vehicles  
 ... with four-wheel drive by 100 kg,  
 ... with automatic gearbox by 30 kg  
 and reduces the payload accordingly.

## TECHNICAL DATA

Increased payload	Wheelbase	Permissible front axle load			Permissible rear axle load	Permissible roof load
Values in kg	in mm	50 and 62 kW	57 and 81 kW	75 and 103 kW	All engines	All engines
Pick-up	<b>2920</b>	1330	1400	1430	1490	50
	<b>3320</b>	1400	1480	1510	1490	50
Low loader	<b>3320</b>	1400	1480	1510	1490	50
Double cab	<b>3320</b>	1400	1480	1510	1490	75
Chassis with double cab	<b>3320</b>	1400	1480	1510	1490	75
Chassis with cab	<b>2920</b>	1330	1400	1430	1490	50
	<b>3320</b>	1400	1480	1510	1490	50
	<b>2920</b>	1480	1570	1600	1800	50
	<b>3320</b>	1480	1570	1600	1800	50

Notes – see page 223

## TECHNICAL DATA

Reduced payload	Wheelbase	Permissible GVW			Unladen weight <sup>2)</sup> with driver			Payload <sup>2)</sup>
<b>Values in kg</b>	in mm	50 and 62 kW	57 and 81 kW	75 and 103 kW	50 and 62 kW	57 and 81 kW	75 and 103 kW	All engines
Van	<b>2920</b>	2380	2455	2485	1580	1655	1685	800
Kombi	<b>2920</b>	2380	2455	2485	1580 <sup>1)</sup>	1655 <sup>1)</sup>	1685 <sup>1)</sup>	800

Reduced payload	Wheelbase	Permissible front axle load			Permissible rear axle load	Permissible roof load
<b>Values in kg</b>	in mm	50 and 62 kW	57 and 81 kW	75 and 103 kW	All engines	All engines
Van	<b>2920</b>	1250	1330	1360	1230	100
Kombi	<b>2920</b>	1330	1400	1430	1230	100

Notes – see next page

<sup>2)</sup> Without driver

<sup>3)</sup> The unladen weight increases on vehicles  
... with four-wheel drive by 100 kg,  
... with automatic gearbox by 30 kg  
and reduces the payload accordingly.

**Note**  
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**Notes**

The weights given apply to vehicles sold in Germany. In other countries, differing equipment may result in deviations. The figures given in the official vehicle documents take priority.

■ Other model versions and optional extras – e.g. air conditioner, sliding roof, towing bracket etc. and service installation of accessories increases the unladen weight and the payload has to be reduced by this amount.

**Attention**

■ The permissible payloads and GVW must not be exceeded – refer to tables as of page 214.

■ It should be noted that when transporting heavy items the handling will change due to the displacement of the centre of gravity. Driving style and speed must be altered to suit.

■ The load must be stowed in such a way that no items can fly forward if the brakes are applied suddenly – use the lashing eyes\* if necessary.



## TECHNICAL DATA

### Dimensions

Values in mm <sup>1)</sup>	Wheelbase	Length <sup>2)</sup>	Width	Width above mirrors approx.	Height	Ground clearance <sup>3)</sup>
Caravelle	<b>2920</b>	4789	1840	2175	1940	180
	<b>3320</b>	5189	1840	2175	1940	180
with lowered suspension	<b>2920</b>	4789	1840	2175	1920	160
Multivan	<b>2920</b>	4789	1840	2175	1940	180
	<b>2920</b>	4789	1840	2175	1920	160
Multivan with pop-up roof	<b>2920</b>	4789	1840	2175	1985 <sup>4)</sup>	180
... and lowered suspension	<b>2920</b>	4789	1840	2175	1965 <sup>4)</sup>	160
Kombi	<b>2920</b>	4705	1840	2175	1940	180
	<b>3320</b>	5105	1840	2175	1940	180

1) The details given refer to the basic model (also applies to syncro models). Special model versions and optional extras – e.g. different wheel sizes – can result in deviations.

2) This value increases by approx. 230 mm on vehicles with a spare wheel carrier at the rear.

3) When loaded to permissible GVW. When negotiating steep ramps, driving over poor surfaces, curbs etc., particularly with vehicles with a spoiler and heater mounted underneath the floor, care must be taken not to "bottom" and thus cause damage to these fittings.

4) This value increases by approx. 815 mm with raised roof.

Values in mm <sup>1)</sup>	Wheelbase	Overhang		Track <sup>2)</sup>		Turning circle in m	Fording depth
		front	rear	front	rear		
Caravelle	<b>2920</b>	968	901	1589	1554	11.7	350
	<b>3320</b>	968	901	1589	1554	12.9	350
with lowered suspension	<b>2920</b>	968	901	1589	1554	11.7	330
Multivan	<b>2920</b>	968	901	1589	1554	11.7	350
with lowered suspension	<b>2920</b>	968	901	1589	1554	11.7	330
Multivan with pop-up roof	<b>2920</b>	968	901	1589	1554	11.7	350
... and lowered suspension	<b>2920</b>	968	901	1589	1554	11.7	330
Kombi	<b>2920</b>	886	901	1589	1554	11.7	350
	<b>3320</b>	886	901	1589	1554	12.9	350

<sup>1)</sup> The details given refer to the basic model (also applies to syncro models). Special model versions and optional extras – e.g. different wheel sizes – can result in deviations.

<sup>2)</sup> Measured on vehicles with wheel offset of 55 mm. Depending upon model and wheels slight deviations are possible

## TECHNICAL DATA

### Dimensions

Values in mm <sup>1)</sup>	Wheelbase	Length	Width	Width above mirrors approx.	Height	Ground clearance <sup>3)</sup>
High-roof Kombi	<b>3320</b>	5105 <sup>2)</sup>	1840	2175	2430	180
Van	<b>2920</b>	4707 <sup>2)</sup>	1840	2175	1940	180
	<b>3320</b>	5107 <sup>2)</sup>	1840	2175	1940	180
High-roof Kombi	<b>3320</b>	5107 <sup>2)</sup>	1840	2175	2430	180
Pick-up	<b>2920</b>	4871	1970	2320	1910 <sup>4)</sup>	180
	<b>3320</b>	5271	1970	2320	1910 <sup>4)</sup>	180
Low loader	<b>3320</b>	5271	1970	2320	1910 <sup>4)</sup>	180
Double cab	<b>3320</b>	5271	1970	2320	1920 <sup>4)</sup>	180

1) The details given refer to the basic model (also applies to syncro models). Special model versions and optional extras – e.g. different wheel sizes – can result in deviations.

2) This value increases by approx. 230 mm on vehicles with a spare wheel carrier at the rear.

3) When loaded to permissible GVW. When negotiating steep ramps, driving over poor surfaces, curbs etc., particularly with vehicles with a spoiler and heater mounted underneath the floor, care must be taken not to "bottom" and thus cause damage to these fittings.

4) Figure increases by some 615 mm on vehicles with canopy hoops and canopy.

## TECHNICAL DATA

Values in mm <sup>1)</sup>	Wheelbase	Overhang		Track <sup>2)</sup>		Turning circle in m	Fording depth
		front	rear	front	rear		
High-roof Kombi	<b>3320</b>	886	901	1589	1554	12.9	350
Van	<b>2920</b>	886	901	1589	1554	11.7	350
	<b>3320</b>	886	901	1589	1554	12.9	350
High-roof van	<b>3320</b>	886	901	1589	1554	12.9	350
Pick-up	<b>2920</b>	886	1065	1589	1554	11.7	350
	<b>3320</b>	886	1065	1589	1554	12.9	350
Low loader	<b>3320</b>	886	1065	1589	1554	12.9	350
Double cab	<b>3320</b>	886	1065	1589	1554	12.9	350

<sup>1)</sup> The details given refer to the basic model (also applies to syncro models). Special model versions and optional extras – e.g. different wheel sizes – can result in deviations.

<sup>2)</sup> Measured on vehicles with wheel offset of 55 mm. Depending upon model and wheels slight deviations are possible

## TECHNICAL DATA

### Auxiliary heater, Refrigerator

#### Auxiliary heater\*

##### Fuel consumption

– Petrol ..... approx. 0.34 litres/hr

– Diesel ..... approx. 0.30 litres/hr

Voltage ..... 12 Volt

Power draw ..... approx. 20 Watt

Power output ..... max. 2500 Watt

#### Refrigerator\*

Voltage ..... 12 Volt

Current consumption ..... max. 72 Watts

Refrigerator capacity ..... approx. 20 litres

Regulated cooling temperature

### Vehicle identification data



#### The type plate

is secured to the front passenger's door lock pillar.

Vehicles for certain export countries have no type plate.



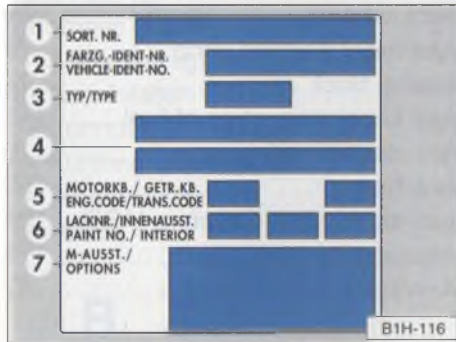
#### The vehicle identification number

(Chassis number)

is stamped on the outside on the right below the windscreen – see illustration.

#### The engine number

is stamped in the block below the cylinder head or is on a sticker on the toothed belt guard.



**The vehicle data sticker**

is stuck underneath the instrument panel near the central electrics.

The sticker contains the following data:

- 1 - Production control number
- 2 - Vehicle identification number
- 3 - Model code number
- 4 - Model explanation/engine output
- 5 - Engine and gearbox code letters
- 6 - Paint number/interior trim code
- 7 - Optional extra number

The vehicle data 2 – 7 is also given in the Service Schedule.

## ALPHABETICAL INDEX

Auxiliary heater,  
Ref. **A**

Acceleration figures	208
Accessories	181
Additional battery	164
Additional brake light	196
Additional heat exchanger	
– Climatronic	106
Additional heater	69, 95
– Air conditioner	95
– Heating and ventilation	91
Additional seat adjustment	41
Adjusting brake pressure regulator	135
Adjusting washer jets	170
Air cleaner	161
– With saturation indicator	161

Vehicle identification

Air conditioner	94
– Air recirculation switch	96
– Climatronic	100
– Controls	94
– Fresh air operation	98
– Temperature control	95
Air extraction	84
Air recirculation switch	
– Air conditioner	96
– Climatronic	103
– Heating and ventilation	91
Air vents	
– Additional heat exchanger	91, 95, 106
– Air conditioner	97
– Climatronic	105, 106
– Heating and ventilation	92

Airbag	30
– deactivated passenger Airbag	33
Alloy wheels	149
Alternator warning lamp	78
Analog clock	74
Anti knock properties of fuel	143
Anti-dazzle inside mirror	19
Anti-freeze	159
Anti-locking brake system (ABS)	135
Aquaplaning	175
Arm rests	42

30  
33  
149  
78  
74  
143  
19  
159  
135  
175  
42

Ashtray .....	127
Automatic car washes .....	146
Automatic gearbox .....	61
- Reversing lights .....	62
Auxiliary heater .....	108
- Controls .....	108
- Running time .....	110
- Technical data .....	228
Axle loads .....	214

## B

Battery .....	163
- Charging .....	165
- installing .....	167
- Removing .....	166
- Renewing .....	167
- Winter operation .....	164

Bed .....	118
- Pop-up roof .....	118
Bed panel .....	
- Raising .....	118
- Removing and installing .....	118
Belt height adjustment .....	26
Belt retainer .....	
- Rear seat bench .....	46
- Seat bench .....	44
- Single seat .....	53
Blower .....	91, 95, 100
- Heating and ventilation .....	90
- Passenger compartment ventilation .....	90, 95
Bonnet .....	153

Brake fluid .....	162
Brake servo .....	135
Brake system .....	162
Brake warning lamp .....	78
Brakes .....	134
Buzzer .....	66, 82



## ALPHABETICAL INDEX

### C

Capacity .....	206
Car phones .....	179
Care of vehicle .....	146
- Alloy wheels .....	149
- Curtains .....	151
- Refrigerator .....	151
- Seat belts .....	152
Cavity preservation .....	150
Central locking .....	11
Centre seat bench .....	
- Installing .....	45
- Removing .....	44
Cetane number .....	144
Changing bulbs .....	193
Changing wheels .....	186
Chassis number .....	228
Child safety .....	34
Child seats .....	34

Child-proof lock .....	
- sliding door .....	13
- Tailgate .....	12
- wing door .....	14
Cigarette lighter .....	127
Cleaning and anti-corrosion treatment of engine compartment .....	149
Cleaning the vehicle .....	146
Climatronic .....	100
- Air recirculation switch .....	103
- Controls .....	101
Clock .....	74
Cockpit .....	8
Code number .....	228
Cold starting aid .....	68
Combined weight .....	213
Compression ratio .....	206
Consumption figures .....	209

Controls .....	
- Air conditioner .....	94
- Auxiliary heater .....	108
- Climatronic .....	101
- Heating and Ventilation .....	90
Coolant .....	
- Temperature gauge .....	70
Coolant level .....	76, 159
Cooling additive .....	159
Cooling system .....	159
Cruise control system .....	87
Curtains .....	122
- Cleaning .....	151
<b>D</b> .....	
Dash panel .....	8
Dash panel lighting .....	83
Data sticker .....	229
Deactivated passenger Airbag .....	33

Defrosting windows ..... 92, 101  
 – Air conditioner ..... 97  
 Diesel engines ..... 207  
 – additional heater ..... 69  
 – empty tank ..... 69  
 Diesel fuel ..... 144  
 Diester ..... 144  
 Differential lock ..... 85, 137  
 Dimensions ..... 224  
 Dip lever ..... 86  
 Display for selector lever  
 position ..... 62  
 Do-it-yourself ..... 182  
 Door locks ..... 12  
 Doors ..... 12  
 Drawbar weight ..... 213  
 Drink can holder ..... 124  
 Driver's seat ..... 40  
 Driving abroad ..... 180  
 Driving in winter  
 – Diesel fuel ..... 145  
 Driving tips ..... 130

Driving with four-wheel drive ... 138  
 Droptside ..... 129  
 Drying roof ..... 117  
 Dust and pollen filter ..... 172

## E

electric socket ..... 127  
 Electric windows ..... 16  
 Electronic differential lock ..... 137  
 Electronic immobilizer ..... 10  
 Emergency starting ..... 200  
 Engine  
 – Code letters ..... 229  
 – Compartment ..... 154  
 – Data ..... 206  
 – Number ..... 228  
 – Oil ..... 156  
 – Oil pressure ..... 77  
 – Oil change intervals ..... 158

– Oil consumption ..... 157  
 – Oil level ..... 157  
 – Starting/stopping ..... 67  
 – stopping ..... 69

### Engine data

– Diesel engines ..... 207  
 – Petrol engines ..... 206

Engine number ..... 228

Enlarging luggage space ..... 46

– Multivan ..... 48

Entry area light ..... 126

### Environment

– Battery ..... 167

– Brake fluid ..... 162

– Care of car ..... 146

– Coolant ..... 160

– Driving environment  
 consciously ..... 131

## ALPHABETICAL INDEX

- *Driving with low emissions/ noise* ..... 131
  - *Engine oil* ..... 158
  - *Exhaust gas system* ..... 133
  - *Filling the tank* ..... 142
  - *Fuel* ..... 143
  - *Old oil* ..... 158
  - *Old tyres* ..... 176
  - *Tyre pressure* ..... 174
  - *Tyres* ..... 176
  - *Unleaded fuel* ..... 143
  - *Washing the vehicle* ..... 147
- Exhaust
- Gases ..... 131
  - System ..... 133
- External aerial ..... 179
- F**
- Fan ..... 160
- Filling the tank ..... 142
- Filter preheating ..... 145
- First aid kit ..... 182
- Foglights ..... 82
- Folding outside mirrors in ..... 20
- Folding outside mirrors out ..... 20
- Folding seat ..... 55
- Folding table ..... 121
- Foot mats ..... 59
- Fording depth ..... 225, 227
- Four-wheel drive ..... 138
- Fresh air filter ..... 172
- Front axle load ..... 215, 219, 222
- Front seats ..... 40
- Fuel** ..... 143
- Additives ..... 144, 145
  - Consumption ..... 131, 209
  - Diesel engines ..... 144
  - Filter preheating ..... 145
  - Gauge ..... 74
  - Petrol engines ..... 143
  - Saving ..... 131
- Fuses ..... 189
- in engine compartment ..... 191
  - underneath the driver's seat ..... 192
- G**
- Gear change diagram ..... 60
- Gear stick ..... 60
- Glove box ..... 123
- Glove box light ..... 126
- Glow plug warning lamp ..... 79
- Glow plugs ..... 68
- Ground clearance ..... 224

## H

Hand-held phone .....	179
Handbrake .....	59
Hazard warning lights .....	83
Head restraints .....	39
Headlight flasher .....	86
Headlight range control .....	83
Headlight washer system .....	89
Heated mirrors .....	19
Heated rear window .....	83
Heating .....	90, 94
Heating and Ventilation, – Controls .....	90
Heating and ventilation	
– Air recirculation switch .....	91
– Fresh air operation .....	92
– Temperature control .....	91
Height .....	224
Rear seat bench	
– Driving position .....	46
Holder for coins for parking metres .....	123
Horn .....	8

## I

Identification data .....	228
Ignition lock .....	66
Immobilizer .....	10
Increased payload .....	218
Indicators .....	77, 86
Inertia reel belt .....	25
Insect gauze screen .....	116
Inside mirror .....	19
Inspection intervals .....	158
Installing seat	
– Folding seat in Multivan .....	54
– Single seat with refrigerator ..	53
Instrument lighting .....	83
Instruments .....	70
Interior lights .....	125

## J

Jack .....	183, 188
Jacking points .....	188
Jump leads .....	200

## K

Keys .....	10
Kick-down .....	63

## L

Lap belt .....	28
Lashing eyes .....	57
Layout of this manual .....	5
Lifting vehicle .....	204
Lighting switch .....	82
Lights .....	82
Lubricants .....	156
Luggage compartment .....	56
Luggage compartment cover .....	58
Lumbar support .....	41

## ALPHABETICAL INDEX

### M

Main beam	77
Make-up mirror	122
Manual gearbox	60
– Reversing lights	60
Masking headlights	180
Maximum speed	208
Middle seat bench	
– driving position	44
Mileage recorder	70
Mirrors	19
Mobile telephone	179
Modifications	181
Multi-function indicator	71
Multivan	
– bed	118
– Canvas window	116
– Curtains	122
– Dimensions	224
– Drink can holder	124
– Folding bench down	48
– Folding table	121
– Installing seat bench	49

– Pop-up roof	115
– refrigerator	119
– Removing seat bench	49
– Roof bed	118
– Seats in passenger compartment	51
– Single folding seats	54
– Single seat with refrigerator	52
– Sleeping surface	48
– Transistor light	125

### N

Normal payload	214
Notes on the use of this manual	5
Number plate light	196

### O

Octane rating	143
Oil	156
– Pressure	77
– Specifications	156
Oil additives	158
Oil change intervals	158
Oil consumption	157

Oil dipstick	
– Engine	157
On-board computer	71
Opening	
– Doors	11, 12
– Sliding door	13
– Tailgate	11, 12
– Wing doors	14
Orthopaedic backrest	41
Output	206
Outside mirror	19

### P

Paint care	148
Paint number	229
Parking	133
Parking lights	86
Parking lock	62

Passenger airbag .....	33
Passenger Airbag deactivated .....	33
Passenger compartment ventilation .....	90, 95
Payload .....	214
– increased .....	218
– normal .....	214
– reduced .....	222
Pedals .....	59
Performance figures .....	208
Permissible GVW .....	214, 218, 222
Petrol .....	
– Additives .....	144
– Consumption .....	209
– Quality .....	143
Petrol engines .....	206
Pick-up, – Dropside .....	129
Pivoting seats .....	41
Pollen filter .....	172
Pop-up roof .....	150
– Bed .....	118
– Closing .....	117
– opening .....	115
– Waxing .....	148
Pop-up roof ventilation .....	150
Pop-up roof .....	115

## R

Radio .....	199
Raised brake light .....	196
Reading light .....	125
Rear axle load .....	215, 219, 222
Rear fog light .....	196
Rear seat bench .....	46, 50
– Fitting .....	47
– Removing .....	47
– Tipping .....	46
Rear window wash/wipe .....	89
Reduced payload .....	222
Refrigerator, – removing .....	120
Refrigerator .....	119
– Cleaning .....	151
– Technical data .....	228
– Tips for use .....	119
Removing seat .....	
– Folding seat in centre seat row .....	55
– Folding seat in Multivan .....	54
– Single seat in centre seat row .....	53
– Single seat with refrigerator .....	52
Removing seat bench .....	
– Centre seat bench .....	44
– Multivan .....	49
– Rear seat bench .....	47

Renewal of parts .....	181
Replacement keys .....	10
Replacement parts .....	181
Restraint systems .....	34
Rev counter .....	75
Reverse gear .....	62
Reversing lights .....	60
– Automatic gearbox .....	62
RME diester .....	144
Roof .....	
– Airing .....	117
– Closing .....	117
– Lifting .....	115
Roof bed .....	118
Roof load ... ..	128, 214, 215, 219, 222
Roof load carrying system .....	128
Roof rack .....	128
Roof vents .....	84
Running-in .....	130

## S

Safety for children .....	34
Saving energy .....	131
Seat belt retainer .....	27
Seat belt warning lamp .....	79

## ALPHABETICAL INDEX

Seat belts .....	21	Side lights .....	82	Speedometer .....	70
– three point inertia reel belt ...	25	Single folding seats .....	54	Speeds .....	130
Seat bench		Single seat		Starting the engine .....	67
– Installing .....	49	– Installing .....	53	– with empty tank .....	69
– Sleeping surface .....	48	– Removing .....	53	Steering/starter lock .....	66
Seat cushion		Single seat with refrigerator .....	52	Stopping engine .....	69
– Installing .....	50	Seat/sleeping surface		Stowage box .....	123
– Removing .....	50	– Driving position .....	48	Sun screen .....	114
Seat heating .....	84	Sleeping surface .....	48	Sun visors .....	122
Seat position		Sliding door .....	13	Switches .....	82
– driver's seat .....	40	Sliding roof .....	114	Syncro	
– passenger seat .....	40	Sliding window .....	18	– Brake testing .....	139
Seat stop .....	41	Sliding/tilting roof .....	113	– Differential lock .....	85
Seats .....	40	Snow chains .....	179	– Driving with four-wheel drive	138
– Adjusting .....	40	Socket .....	127, 140	– Output testing .....	139
– Folding .....	54	Spare wheel .....	184	– Snow chains .....	138
Seats in passenger		– At rear .....	185	– Renew tyres .....	176
compartment .....	43	– In passenger compartment ..	185	– Tow starting .....	202
– Seat/sleeping surface .....	48	– Under the vehicle .....	184	– Towing .....	203
Selector lever .....	62	Spark plugs .....	168		

## T

Tachograph .....	75
Tail lights .....	196
Tailgate .....	12
Technical Data .....	206
Technical data .....	
- Auxiliary heater .....	228
- Refrigerator .....	228
Technical modifications .....	181
Telephone .....	179
Temperature control .....	
- Auxiliary heater .....	110
Temperature selector .....	
- Heating and ventilation ..	91, 95
The first 1500 km .....	130
Tilting roof .....	113
Timer .....	108
Tools .....	182, 183
Total weight .....	214
Tow starting .....	202
Towing .....	203
Track .....	224
Trailer towing .....	140
Trailer turn signals .....	80
Trailer weights .....	213
Transistor light .....	125, 197
Tread depth .....	175

Trip meter .....	70
Trolley jack .....	204
Turn signals .....	77, 86, 195, 196
Turning circle .....	224
Two-seater passenger bench ....	42
Two-way radios .....	179
Type plate .....	228
Tyre pressures .....	212
Tyres .....	173
- Condition .....	175
- Inflation pressure .....	174
- Pressure .....	212
- Valve extensions .....	174

## U

Unbalanced wheels .....	174
Undercoating .....	150
Unladen weight .....	214, 218, 222
Unlatching door .....	12
Unleaded fuel .....	143
Unlocking door .....	11

## V

V-belts .....	168
Valve extensions .....	174

Vehicle battery .....	164
Vehicle identification data .....	228
Vehicle identification number ...	228
Vehicle jack .....	205
Vehicle lift .....	204
Vehicle tools .....	182, 183
Vent wing .....	18
Ventilation 84, 90, 92, 93, 94, 95, 100, 104 .....	
- Air conditioner .....	98

## W

Warning lamp cluster .....	
- Airbag system .....	80
- Anti-locking brake system ....	80
- Trailer turn signals .....	80
Warning lamps .....	76
Warning triangle .....	182
Washing .....	146
Weights .....	214
Wheelbase .....	214, 218, 222, 224
Wheels .....	173
Width .....	224
Window in front canvas .....	116
Windows .....	16
- Defrosting .....	92, 97, 101



# ALPHABETICAL INDEX

- De-icing ..... 151
- Windscreen washer system .... 169
- Windscreen wiper ..... 88
- Windscreen wiper blades ..... 171
- Wing door window/wash wipe ... 89
- Wing doors ..... 14
  - Open ..... 14
- Winter operation
  - Battery ..... 164
  - Care of vehicle ..... 146
  - Cooling system ..... 159
  - De-icing windows ..... 151
  - Engine oil ..... 156
  - Snow chains ..... 179
  - Tyres ..... 178
  - Windscreen washer system . 169
- Winter tyres ..... 178
- Wiper blades ..... 171
- Wiper/washer system ..... 88

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You can enter the most important data for **your** vehicle here.  
If you have any questions, any Volkswagen Dealer will be pleased to help.

**Vehicle identification number<sup>1)</sup>** .....

**Model** .....

**Engine output<sup>1)</sup> kW** ..... **Engine code letters<sup>1)</sup>** .....

**Mixture preparation<sup>2)</sup>**

Injection  Diesel

With Catalyst

**Fuel<sup>2)</sup>**

Unleaded<sup>3)</sup> 91 RON

Unleaded 95 RON

Diesel

Diester

<sup>1)</sup> This data can be found in the Service Schedule.

<sup>2)</sup> Mark with cross

<sup>3)</sup> Leaded also for engines without catalyst

<sup>4)</sup> Factory fitted tyres.

**Engine oil specifications<sup>2)</sup>**

To Volkswagen Standard 501 01

To Volkswagen Standard 500 00

To Volkswagen Standard 505 00

**Viscosity: SAE** .....

**Tyre size<sup>4)</sup>** .....

**Tyre pressures<sup>4)</sup>**

(in bar)	front	rear
With half load		
With full load		

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