Commercial Vehicles

Owner's manual

Multivan, Business, California

Edition 04.2015

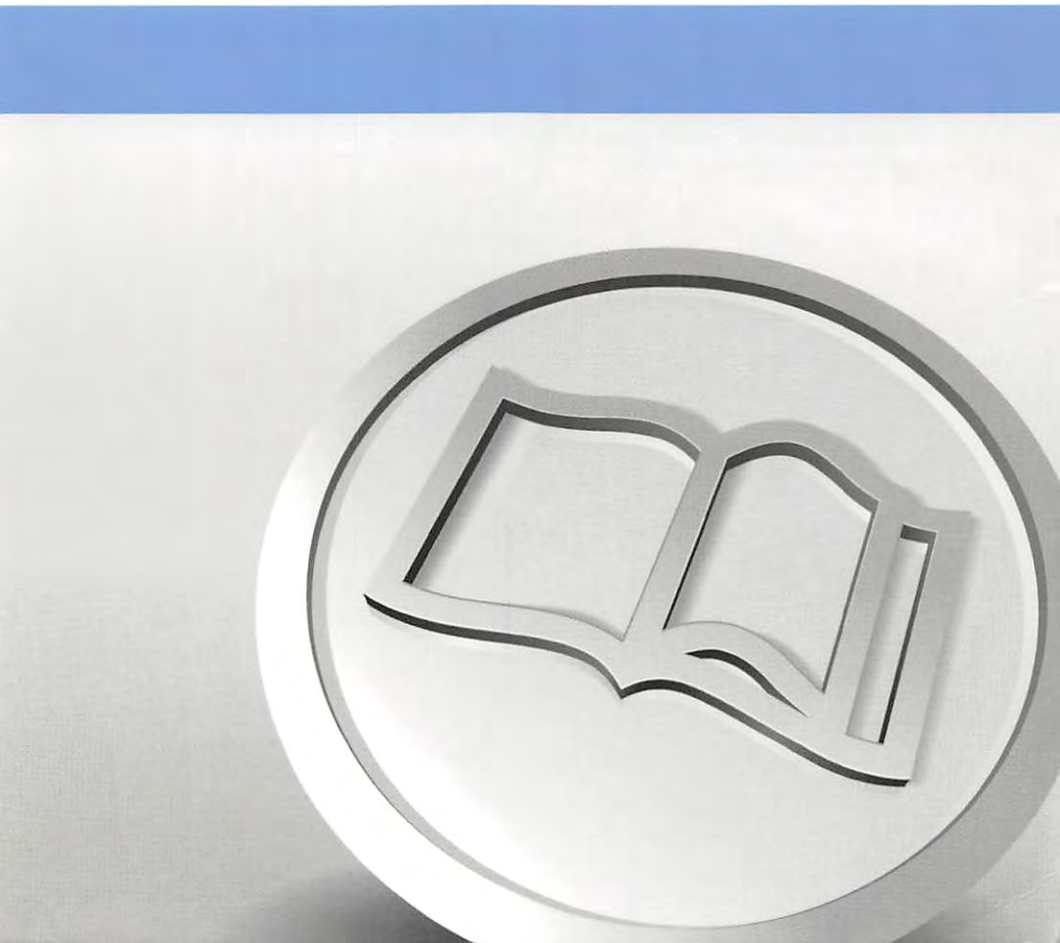


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Technical data

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About this owner's manual

- An alphabetical index is included at the end of this manual.
- A list of abbreviations at the end of the manual explains the abbreviations used.
- Directions and positions such as left, right, front and rear are normally relative to the vehicle's direction of travel, unless otherwise indicated.
- Illustrations are intended to help you find your way around the app/website. They show typical content.
- This owner's manual was written for left-hand drive vehicles. In right-hand drive vehicles the controls may sometimes be different to those displayed in illustrations or described in the text ⇒ page 10.
- Any technical changes made to the vehicle after publication of this booklet are contained in a supplement that is included with the vehicle wallet.

All equipment and models are described without indicating whether the equipment is optional or specific to the model type. This means that your vehicle may not have some of the equipment described, or it may only be available in certain markets. The scope of equipment fitted in your vehicle can be found in the sales documentation and you can contact your Volkswagen Commercial Vehicles dealership for further information.

All data in this owner's manual correspond to the information available at the time of going to print. Because the vehicle is constantly being developed and further improved, there may be differences between your vehicle and the data in this owner's manual. No discrepancy in data, illustrations or descriptions shall form the basis for any legal claim.

Please ensure that the complete vehicle wallet is always in the vehicle if you lend or sell the vehicle to someone else.

Standard booklets in the vehicle wallet:

- Owner's manual
- Service schedule

Additional booklets in the vehicle wallet (optional):

- Supplements
- Radio
- Radio, provision for mobile telephone
- Infotainment system, navigation system
- Supplement on digital tachograph
- *Other supplements* ◁

Exterior views

Side view

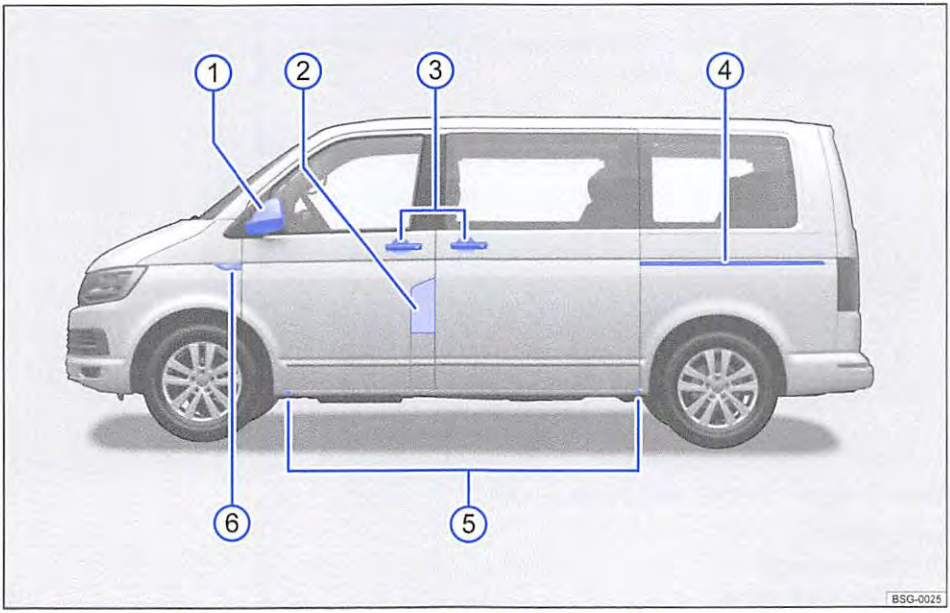


Fig. 1 Overview of the left vehicle side. The items ①, ③, ④, ⑤ and ⑥ are also at the same position on the right side of the vehicle (depending on the equipment).

Key to Fig. 1:

① Exterior mirrors 121
- Integrated aerial ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*
- Lane change assist system display (Side Assist) 312

② Tank flap 340, 346
③ Door release lever 45, 46
④ Side sliding door rail 46
⑤ Jacking points 420
⑥ Additional turn signal light ..... 106 ◁

Front view

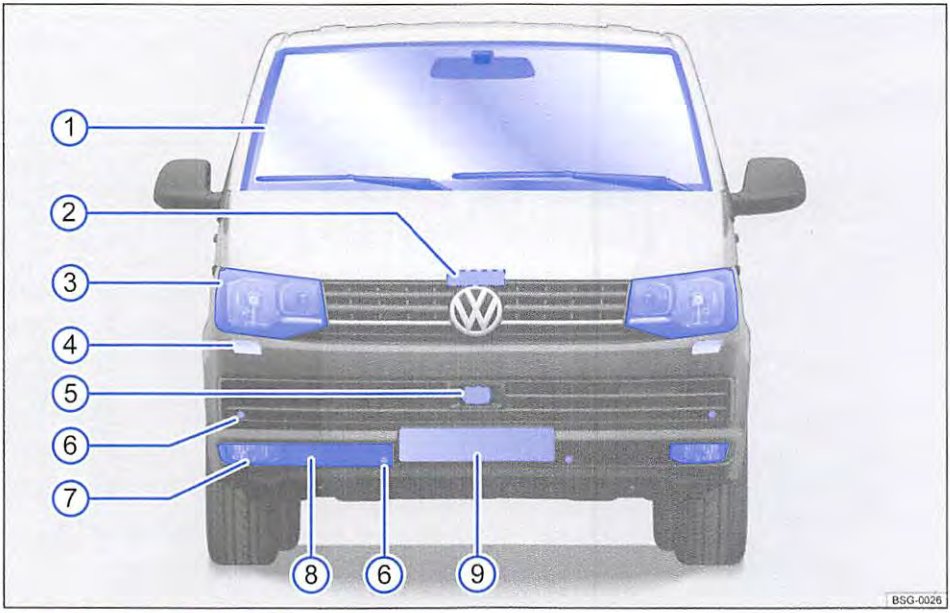


Fig. 2 Overview of the front of the vehicle.

Key to Fig. 2:

① Windscreen with:
- Windscreen wipers ... 116
- Rain/light sensor ... 116
- Windscreen heating ... 322
- Main beam assist sensor (Light Assist) ... 106
- Camera window for assist systems ... 282
- Vehicle identification number ... 451

② Bonnet release lever ... 350
③ Headlights ... 106, 432
④ Headlight washer system ... 116
⑤ Radar sensor for:
- Adaptive cruise control (ACC) ... 298
- Area monitoring system (Front Assist) ... 307

⑥ Front ParkPilot sensors ... 287
⑦ Fog lights ... 106, 432
⑧ Mounting for the front towing eye behind a cover ... 446
⑨ Front number plate holder

Items ③, ④, ⑥ and ⑦ are at the same position on the left and right sides of the vehicle. ◁

Rear view (vehicles with tailgate)

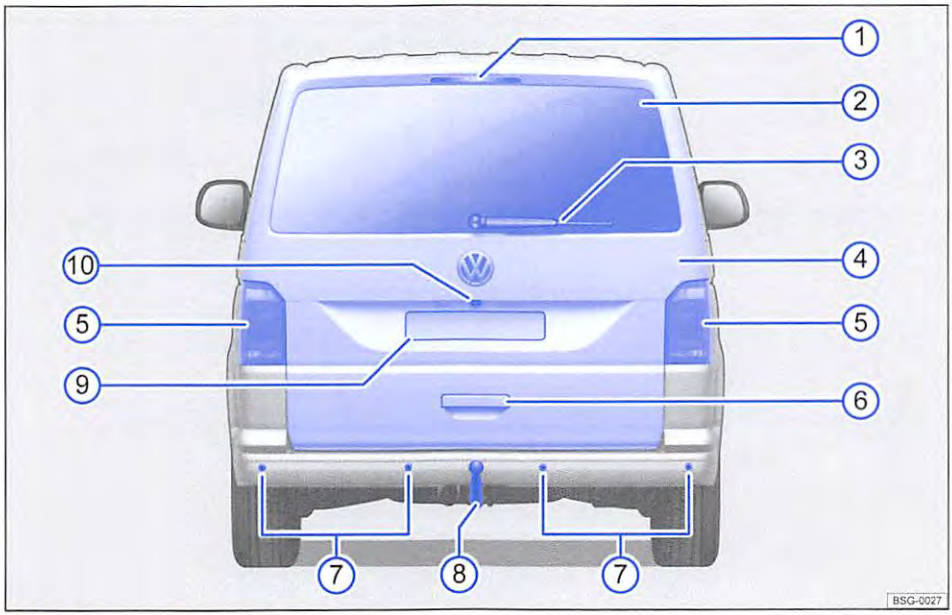


Fig. 3 Overview of rear with tailgate.

Key to Fig. 3:

① High-mounted brake light
② Rear window
– Rear window heating 322
③ Rear wiper 116
④ Tailgate 49
– Number plate lights 432
⑤ Tail light cluster 106, 432
⑥ Lever for opening the tailgate 49
⑦ Rear ParkPilot sensors 287
⑧ Towing bracket[1] 139
⑨ Rear number plate holder
⑩ Reversing camera (Rear Assist) ..... 291 ◁

[1] On vehicles without towing bracket, there is a fixed towing eye under the rear bumper cover on the right side.

Rear view (vehicles with wing doors)

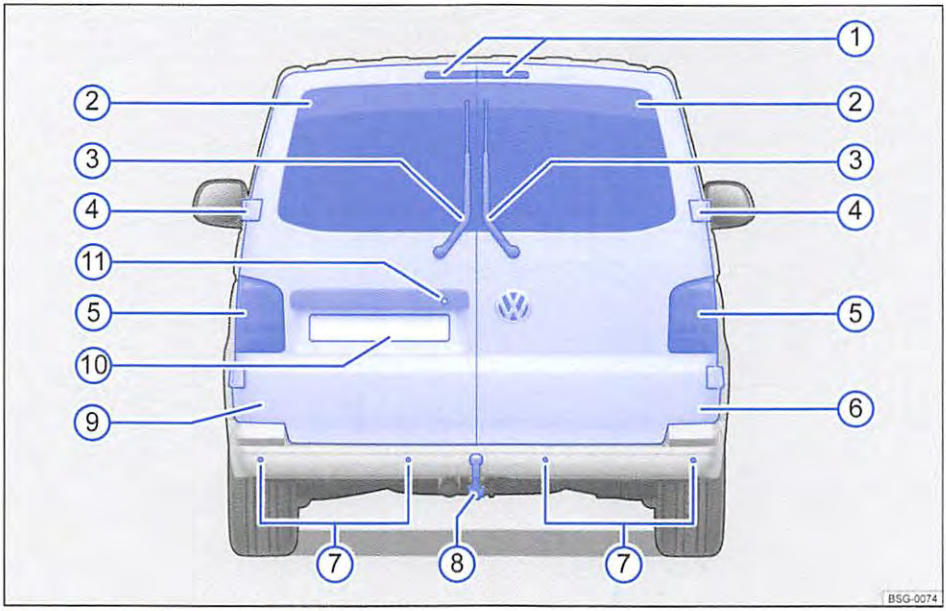


Fig. 4 Overview of rear with wing doors.

Key to Fig. 3:

① High-level brake lights
② Rear windows
– Rear window heating 322
③ Rear wiper 116
④ Door arresters of wing doors 52
⑤ Tail light cluster 106, 432
⑥ Right wing door 52
⑦ Rear ParkPilot sensors 287
⑧ Towing bracket[1] 139
⑨ Left wing door 52
⑩ Rear number plate holder
⑪ Lock and lever for opening the wing doors as well as number plate lighting ..... 52 ◁

[1] On vehicles without towing bracket, there is a fixed towing eye under the rear bumper cover on the right side.

Vehicle interior

Overview of the driver door

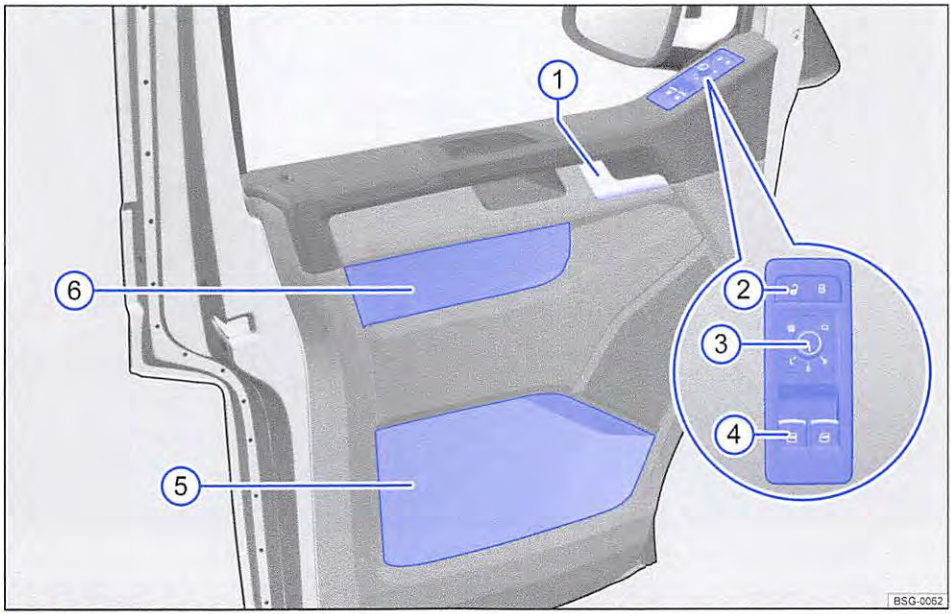


Fig. 5 Overview of the controls in the driver door (left-hand drive vehicles). The controls are mirrored in right-hand drive vehicles.

Key to Fig. 5:

① Door release lever 45
② Central locking button for locking and unlocking the vehicle – 39
③ Switch for adjusting the exterior mirrors 121
- Exterior mirror setting L – R
- Exterior mirror heating
- Folding in the exterior mirrors

④ Buttons for operating the electric windows 55
⑤ Stowage compartment with bottle holder 150, 153
⑥ Stowage compartment ..... 150 ◁

Overview of the driver side

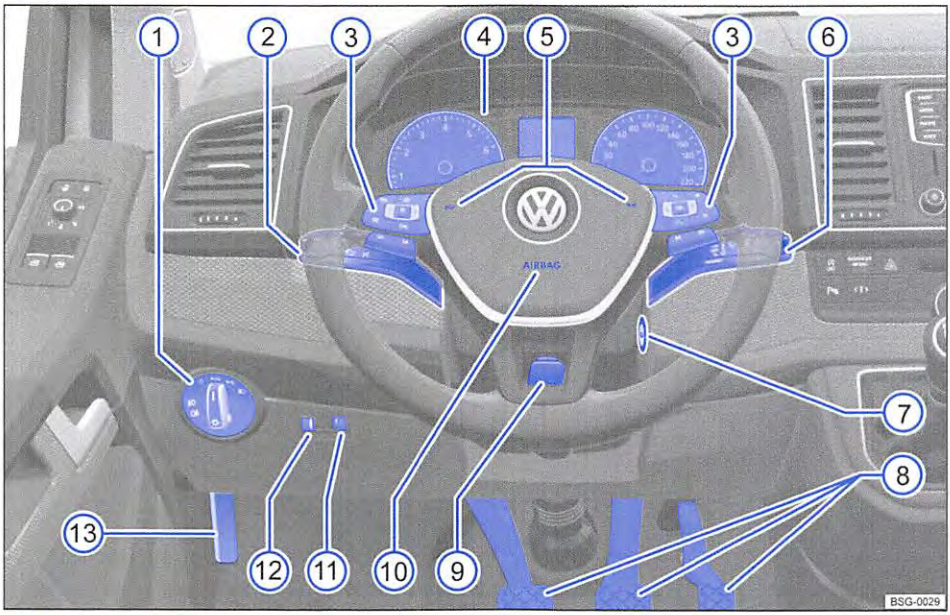


Fig. 6 Overview of the driver side (left-hand drive vehicles with comfort dash panel).

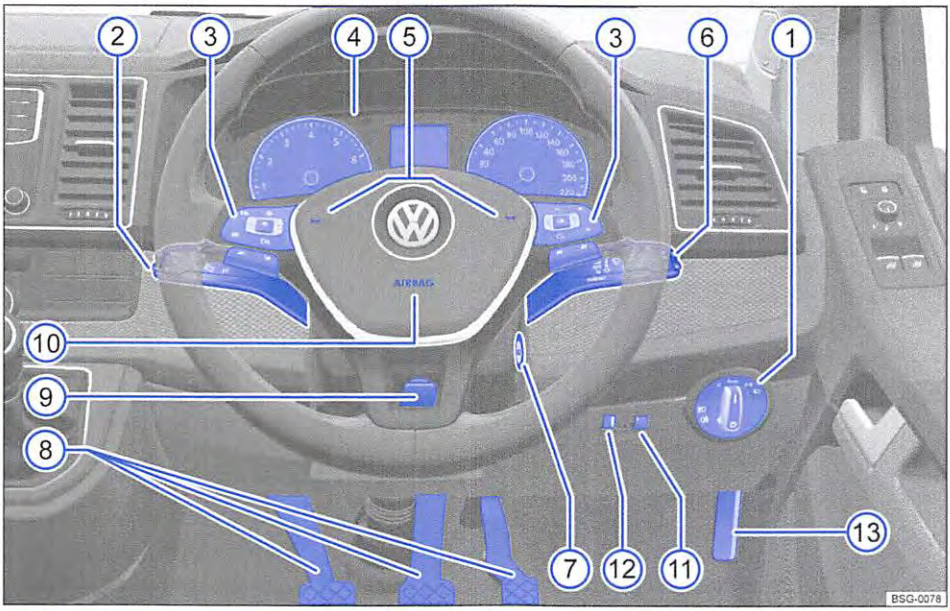


Fig. 7 Overview of the driver side (right-hand drive vehicles with comfort dash panel). ▶

Key to Fig. 6 and Fig. 7:

① Light switch ☼ 106
- Light switched off -0-
- Automatic headlight control -AUTO-
- Side light and dipped beam ≫ ≡D
- Fog lights ≡0 0≡

② Lever for: 106
- Main beam headlights ≡D
- Headlight flasher ≡D
- Turn signal ⇦⇨
- Parking light P≤
- Switch and rocker switch for the cruise control system (CCS) **ON** – **CANCEL** – **OFF** – **RES/+** – **SET/–** 295

③ Controls on the multifunction steering wheel 24
- Volume setting for the radio, navigation announcements or a telephone conversation ◅+ – ◅–
- Mute function for the radio or activating the voice control system ◅×
- Opening the main telephone menu or accepting a telephone call ✆
- Control buttons for the Volkswagen information system △–▷–◁–▽, OK, ⮌

④ Instrument cluster:
- Instruments 19
- Display 19
- Warning and indicator lamps 16

⑤ Horn (works only when the ignition is switched on)

⑥ Lever for wipers and washers 116
- Wipers **HIGH** – **LOW**
- Interval wipe for the windscreen ...
- "Flick wipe" 1x
- Windscreen wipers ▽
- Wash and wipe system for the windscreen ▽
- Rear wiper ▽
- Wash and wipe system for the rear window ▽
- Lever with buttons for operating the Volkswagen information system **TRIP**, **OK/RESET** 24

⑦ Ignition lock 257

⑧ Pedals 260

⑨ Lever for adjusting the steering column 61

⑩ Driver front airbag 87

⑪ Headlight range control ≡0 106

⑫ Brightness control for instrument and switch lighting ☼ 106

⑬ Handle for releasing the bonnet 350

- Button for interior monitoring next to the driver seat (not shown) ..... 39 ◁

Overview of the centre console

Centre console, standard version



Fig. 8 Overview of the centre console, standard version.

Key to Fig. 8:

① Button for:
- Adaptive chassis control (DCC) C S 317
- Front passenger airbag switch-off function 87
- Hill descent assist 285
- Roof ventilator 322
- Electric sliding doors 46
- Electronic stabilisation program (ESC) 269
- Windscreen heating 322
- Rear axle differential lock 282
- ParkPilot 287
- Tyre monitoring system 318
- Start/stop system 282
- Hazard warning lights 411
- Windscreens made of heat-insulating glass, heated 115

② Stowage compartment 150

③ Radio or navigation system (factory-fitted) ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

④ Controls for:
– Climatic 322
– Climatronic 322
⑤ Stowage compartment in the front centre console 150
– With 12-volt socket 163
– With ashtray and cigarette lighter 161
⑥ Drink holder 153
⑦ Lever for:
– Manual gearbox 260
– DSG® dual clutch gearbox ..... 260 ◁

Centre console, comfort version



Fig. 9 Overview of the centre console, comfort version.

Key to Fig. 9:

① Button for:
– Adaptive chassis control (DCC) C ⇕ S 317
– Front passenger airbag switch-off function 87
– Hill descent assist 285
– Roof ventilator 322
– Electric sliding doors 46
– Electronic stabilisation program (ESC) 269
– Rear axle differential lock 282
– ParkPilot P 287
– Tyre monitoring system ..... 318 ▶

- Start/stop system ... 282
- Hazard warning lights ... 411
- Windscreens made of heat-insulating glass, heated ... 115

(2) Stowage compartment ... 150

(3) Radio or navigation system (factory-fitted) ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

(4) Controls for:
- Heating and fresh air system ... 322
- Climatic ... 322
- Climatronic ... 322

(5) Stowage compartment ... 150
- Mobile telephone interface "comfort version" ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

(6) Stowage compartment with
- 12-volt socket ... 163
- Ashtray with cigarette lighter ... 161
- Drink holder ... 153

(7) Cooled bottle holder ... 155

(8) Gear lever for:
- Manual gearbox ... 260
- DSG® dual clutch gearbox ... 260 ◁

Overview of the front passenger side

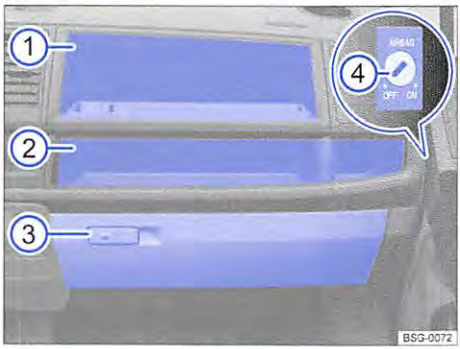


Fig. 10 Overview of the front passenger side (left-hand drive vehicles with standard dash panel). The controls are mirrored for right-hand drive vehicles.

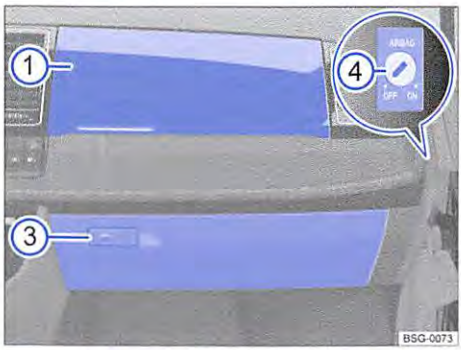


Fig. 11 Overview of the front passenger side (left-hand drive vehicles with comfort dash panel). The controls are mirrored for right-hand drive vehicles.

Key to Fig. 10 and Fig. 11:

(1) Stowage compartment ... 150
- with USB socket or AUX-IN socket ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

(2) Stowage compartment ... 150

(3) Opening lever with lock for the stowage compartment ... 151 ▶

④ Key-operated switch on the front of the dash panel for disabling the front passenger front airbag 87

- Front passenger airbag in the dash panel (not shown) ..... 87 ◁

Headliner

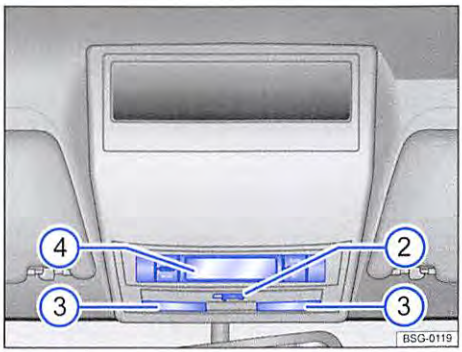


Fig. 12 Overview of the controls (standard version) in the headliner.

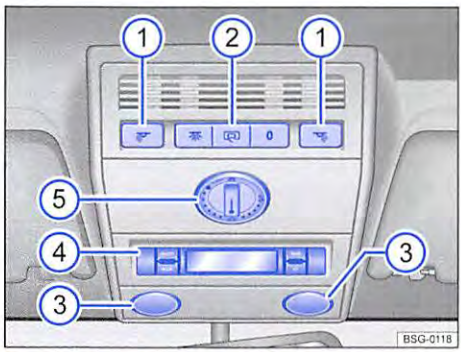


Fig. 13 Overview of the controls (comfort version) in the headliner.

Key for Fig. 12 / ⇒Fig. 13:

① Button for reading lights 106

② Interior light switch 106

③ Interior light and reading light 106

④ Controls for the supplementary heater 332

⑤ Rotary switch for sun roof ..... 58 ◁

Instrument cluster

Warning and indicator lamps

The warning and indicator lamps indicate various warnings ⇒ ⚠, faults ⇒ ⓘ or certain functions. Some warning and indicator lamps light up when the ignition is switched on and should go out once the engine is running or the vehicle is in motion.

Depending on the vehicle's equipment level, additional text messages could appear in the display on the instrument cluster to provide further information or to ask you to perform certain tasks ⇒ page 19, *Instruments*.

Depending on the vehicle equipment level, symbols may be displayed in the instrument cluster instead of warning lamps.

Signal tones are given when some warning or indicator lamps light up.

For details on indicator lamps which light up in the light switch see Chapter "Lighting" ⇒ page 106.

Symbol	Meaning ⇒ ⚠	See
	Do not drive on! Parking brake applied, brake fluid level too low or fault in the brake system.	⇒ page 269
	Lit up: **Do not drive on!** Coolant level too low, coolant temperature too high, or coolant system is faulty.	⇒ page 358
	Flashing: fault in engine coolant system.	⇒ page 358
	**Do not drive on!** Engine oil pressure too low.	⇒ page 353
	**The engine cannot be restarted!** AdBlue® level too low.	⇒ page 346
 with 	**The engine cannot be restarted!** Fault in the AdBlue® system.	⇒ page 346
	**Do not drive on!** At least one vehicle door is opened or not properly closed.	⇒ page 45
	**Do not drive on!** The tailgate or wing doors are open or not properly closed.	⇒ page 49 ⇒ page 52
	Driver seat belt is not fastened.	⇒ page 79
	Depress the brake pedal.	Changing gear ⇒ page 260 Brakes ⇒ page 269 Adaptive cruise control (ACC) ⇒ page 298
	Adaptive cruise control (ACC) not available.	⇒ page 298
	Fault in the alternator.	⇒ page 362
	DSG® dual clutch gearbox is too hot.	⇒ page 260

Symbol	Meaning ⇒⚠	See
	Front brake pads worn.	⇒page 269
	Lit up: ESC fault or switched off for system-related reasons. Flashing: ESC/TCS is taking corrective action.	
	TCS switched off manually.	
	ABS faulty or not functioning.	
	Rear fog light switched on.	⇒page 106
	Lit up: vehicle lighting not working partially or completely.	⇒page 432
	Lit up or flashing: catalytic converter fault.	⇒page 407
	Lit up: glow period for a diesel engine. Flashing: fault in engine management system.	
	Fault in engine management system.	
	Diesel particulate filter has become saturated with soot.	
	Only for specially equipped courier vehicles: diesel particulate filter is being regenerated.	
	Tyre pressure too low. Tyre monitoring system faulty.	⇒page 367
	Windscreen washer fluid level too low.	⇒page 116
	Fuel tank almost empty.	⇒page 340
	Flashing: engine oil system fault. Lit up: engine oil level too low.	⇒page 353
	Fault in airbag and belt tensioner system.	⇒page 87
	Front passenger front airbag switched off (PASSENGER AIR BAG OFF).	⇒page 87
	AdBlue® level is low.	⇒page 346
with	AdBlue® system faulty or not refilled using norm-standard AdBlue®.	⇒page 346
	Have the air filter replaced.	⇒Booklet *Service schedule*
	Electronic immobilizer active.	⇒page 257
	Lit up: rear axle differential lock switched on. Flashing: rear axle differential lock fault.	⇒page 282
	Adaptive cruise control (ACC) currently not available.	⇒page 298

Symbol	Meaning ⇒⚠	See
	Lane change assist system currently not available.	⇒page 312
	The fog light is switched on.	⇒page 106
	Turn signal, left or right.	⇒page 106
	Hazard warning lights switched on.	⇒page 411
	Trailer turn signals in operation.	⇒page 139
	Lit up: depress the brake pedal.	Changing gear ⇒page 260 Braking, stopping and parking ⇒page 269
	Flashing: the lock button in the selector lever is not engaged.	
	The cruise control system (CCS) is controlling the speed.	⇒page 295
	Adaptive cruise control (ACC) active. No vehicle has been detected ahead.	⇒page 298
	Lit up: Hill Descent Assist switched on.	⇒page 285
	Flashing: the lock button in the selector lever is not engaged.	
	Main beam is switched on or the headlight flasher is being operated.	⇒page 106
	*When displayed in white:* Adaptive cruise control (ACC) active. Vehicle detected ahead.	⇒page 298
	When displayed in grey: Adaptive cruise control (ACC) not active. System switched on, does not regulate.	
	Main beam assist (Light Assist) is activated.	⇒page 110
	Lit up: service interval display.	⇒page 22
	Flashes alternately with selector lever display, e.g. **D**: fault in dual clutch gearbox (DSG®.	⇒page 260
	The start/stop system is available, automatic engine stop is active.	⇒page 282
	The start/stop system is not available. **OR:** the start/stop system has switched off the engine automatically.	
	Black ice warning. The outside temperature is below +4°C (+39°F).	⇒page 19
	A mobile telephone is connected via Bluetooth to the factory-fitted provision for mobile telephone.	⇒Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*
	Mobile telephone battery charge level. Only for factory-fitted provision for mobile telephone.	

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**

⚠ WARNING (Continued)

- **Stop the vehicle as soon as possible and when safe to do so.**
- **Stop the vehicle at a safe distance away from moving traffic and ensure that no part of the exhaust system can come into contact with any inflammable material underneath the vehicle, e.g. dry grass or fuel.**

⚠ WARNING (Continued)

- **Any broken-down vehicle poses an increased accident risk both for you and for other road users. If the situation requires, switch on the hazard warning lights and set up the warning triangle as a warning to other road users.**
- **Before opening the bonnet, switch off the engine and allow it to cool down sufficiently.**

⚠ WARNING (Continued)

- **The engine compartment of any motor vehicle is a dangerous area. Serious injuries can be sustained here ⇒ page 350.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁

Instruments

Introduction

This chapter contains information on the following subjects:

Instrument overview 20
Displays 21
Service interval display 22

Additional information and warnings:

- Warning and indicator lamps ⇒ page 16
- Volkswagen information system ⇒ page 24
- Display of current gear (DSG® dual clutch gearbox) ⇒ page 260
- Information on service intervals ⇒ Booklet *Service schedule*

⚠ WARNING

Accidents and injuries can occur if the driver is distracted.

- **Never press the buttons on the instrument cluster while the vehicle is in motion.** ◁

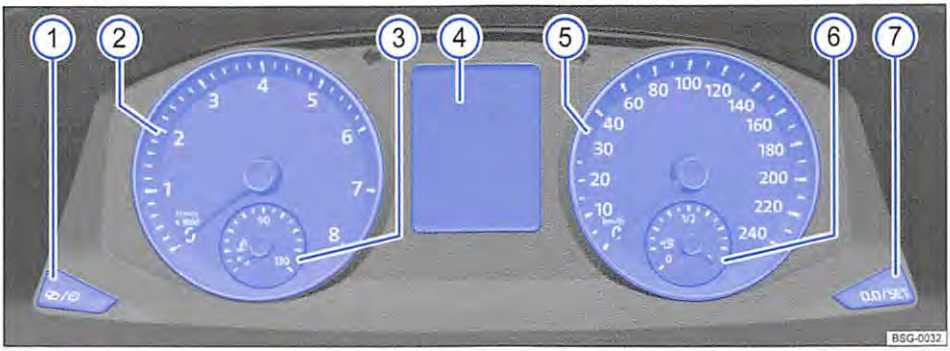


Fig. 14 Instrument cluster in the dash panel.

First read and observe the introductory information and safety warnings ⚠ on page 19.

Descriptions of the instruments ⇒Fig. 14:

① **Setting button for the clock**[1)]
- Press the [⇆ / ⏱] button to mark either the hours or minutes display.
- Press the [0.0 / SET] button to continue ⑦. Press and hold to scroll through quickly.
- Press the [⇆ / ⏱] button again to finish setting the clock.

② **Rev. counter** (running engine speed in revolutions x 1,000 per minute).

The start of the red zone on the dial indicates the maximum engine speed that may be used in each gear when the engine is warm and after it has been run in properly. You should change up a gear or move the selector lever to **D** (or lift your foot off the accelerator) before the needle reaches the red zone ⇒ⓘ.

③ **Coolant temperature display** ⇒page 358.

④ **Displays** ⇒page 21.

⑤ **Speedometer**

⑥ **Fuel gauge** ⇒page 340.

⑦ **Reset button** for the trip recorder display (**trip**).
- Press the [0.0 / SET] button to reset to zero.

ⓘ NOTICE

• When the engine is cold, avoid high engine speeds, driving at full throttle and overloading the engine.

ⓘ NOTICE (Continued)

• The needle on the rev counter should only briefly point into the red area, as engine damage may otherwise be incurred.

Changing up a gear early will help to save fuel and reduce engine noise.

The instruments and displays may vary depending on the equipment level of the vehicle. ◁

1) In some versions of the vehicle, it may be possible to adjust the clock settings using the **Settings** menu on the instrument cluster display ⇒page 30.

First read and observe the introductory information and safety warnings ⚠ on page 19.

The types of information displayed in the instrument cluster ⇒Fig. 14 ④ vary according to the vehicle's equipment level:

- Warning and information messages
- Mileage displays
- Time
- Outside temperature
- Compass display
- Selector lever positions ⇒page 260
- Gear-change indicator ⇒page 260
- Multifunction display (MFD) and menus for various settings ⇒page 24
- Service interval display ⇒page 22
- Second speed (**Settings** menu ⇒page 24)
- Fuel gauge ⇒page 340
- Start/stop system status display ⇒page 22

Warning and information messages

The system runs a check on certain components and functions in the vehicle when the ignition is switched on or while the vehicle is in motion. Functional faults are indicated by red and yellow symbols with warning and text messages in the instrument cluster display (warning and indicator lamps ⇒page 16). An acoustic warning is also given in certain cases. Different instrument cluster designs will have different displays.

Type of message	Symbol colour	Explanation
Priority 1 warning message.	Red	The symbol flashes or lights up (sometimes together with a signal tone). **Do not drive on!** Danger ⇒⚠! Check the fault and correct the cause. Seek expert assistance if necessary.
Priority 2 warning message.	Yellow	The symbol flashes or lights up (sometimes together with a signal tone). Your vehicle could be damaged or break down if there is a fault or if service fluids are running low ⇒ⓘ. Check the fault as soon as possible. Seek expert assistance if necessary.
Information message.	–	Information about various procedures within the vehicle.

Mileage displays

The *odometer* registers the total distance travelled by the car.

The *trip recorder* (**trip**) shows the distance travelled since the trip recorder was last reset. The last digit of the trip recorder indicates distances of 100 metres or tenths of a mile.

Outside temperature display

If the outside temperature falls below +4°C (+39°F), the temperature display also shows a "snowflake symbol" ❄. This symbol flashes and then remains constantly lit until the outside temperature rises above +6°C (+43°F) ⇒⚠.

If the vehicle is stationary, the supplementary heating system (⇒page 332) is on or the vehicle is travelling at very low speeds, the temperature displayed may be slightly higher than the actual outside temperature due to heat radiated from the engine.

The measuring range lies between -40°C (-40°F) and +50°C (+122°F).

Compass display

When the ignition and navigation system are switched on, the instrument cluster display shows the current direction of travel.

Selector lever position

The gear selected is displayed on the side of the selector lever and on the display in the instrument cluster. The display may also show which gear has been selected if the lever is in **D** or **S**, or in Tiptronic mode.

Gear-change indicator

While the vehicle is in motion, the instrument cluster may show which gear should be selected to reduce fuel consumption ⇒page 260. ▶

Second speed display (mph or km/h)

In addition to the tachometer display, the speed can also be displayed in another unit of measurement (mph or km/h) in the instrument cluster display while you are driving. To do this select the menu option `Alt. speed dis.` in the `Settings` menu ⇒ page 24.

Vehicles without menu display on the instrument cluster:

- Start the engine.
- Press the [⏱ / ⏲] button three times. The odometer in the instrument cluster display flashes.
- Press the button [0.0 / SET] once. The vehicle speed in "km/h" or "mph" is shown briefly in the display instead of the odometer.
- This activates the second speed display. It can be deactivated in the same manner.

It is not possible to switch off the second speedometer display in those countries where the law stipulates that the display cannot be deactivated.

Start/stop system status display

The instrument cluster display shows information about the current status ⇒ page 282.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**
- **Stop the vehicle as soon as possible and when safe to do so.**

⚠ WARNING (Continued)

- **Any broken-down vehicle poses an increased accident risk both for you and for other road users. If the situation requires, switch on the hazard warning lights and set up the warning triangle as a warning to other road users.**
- **Stop the vehicle at a safe distance away from moving traffic and ensure that no part of the exhaust system can come into contact with any inflammable material underneath the vehicle, e.g. dry grass or fuel.**

⚠ WARNING

Streets and bridges can also be iced over at outside temperatures above freezing.

- **The snowflake symbol indicates that there is a risk of black ice.**
- **There may be black ice on the roads even when outside temperatures are above +4°C (+39°F), even when no snowflake symbol is displayed.**
- **You should never rely solely on the outside temperature display!**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged.

Different instrument clusters are available, which means that the versions and displays may vary. In displays without warning or information texts, faults are indicated exclusively by the indicator lamps.

If several warning reports are detected, the symbols will appear for several seconds, one after another. The symbols will continue to appear until the faults are rectified. ◁

Service interval display

First read and observe the introductory information and safety warnings ⚠ on page 19.

The service display is shown on the instrument cluster ⇒ Fig. 14 ④.

Service schedules at Volkswagen Commercial Vehicles are divided into two categories, oil change service and inspections. The service interval display provides information on the next service which includes an oil change and on the next scheduled inspection. Scheduled services can also be found in the service schedule.

The service appointment currently displayed can be found at *Vehicles without text messages* on the top right of the instrument cluster display:

- **1**: inspection.
- **2**: oil change service. ▶

In vehicles with **fixed oil change service**, services take place at predefined intervals.

The service intervals are calculated on an individual basis in vehicles with **flexible oil change service**. Advances in technology have brought about a considerable reduction in servicing requirements. The flexible oil change is a new service offered by Volkswagen to ensure that the oil is only changed when necessary. The length between the oil change services (maximum of 2 years) is also determined by the conditions under which the vehicle is used and personal driving style. The service reminder is displayed 20 days before the service is due. The distance is rounded to the nearest 100 km; the remaining time is rounded to full days. The current service information cannot be opened until you have driven 500 km since the last service. Until this point the display only shows lines.

Service reminder

If the vehicle is due to be serviced, a **service reminder** will appear on the display when the ignition is switched on.

In *vehicles without text messages* a spanner symbol will appear on the instrument cluster along with a display in km and a clock symbol showing the time left before the next service appointment is due in days. The number of kilometres shown corresponds to the maximum number of kilometres that can still be driven until the service appointment is due. In addition, a symbol in the top right corner of the display specifies which service appointment the reminder is for (**1** for inspection, **2** for oil change service).

If the service reminder is displayed for both service appointments (**1** and **2** in the top right corner of the instrument cluster display), the distance and the display in days for the next service appointment applies in *vehicle without text messages*.

In *vehicles with text messages*, **`Oil change`** or **`Inspection`** in **`--- km`** or **`--- days`** appears in the instrument cluster display.

Service event

If a **service is due**, a signal will sound and the spanner symbol will appear for a few seconds when the ignition is switched on. In *vehicles with text messages*, **`Oil change now!`** or **`Inspection now!`** appears in the instrument cluster display.

Accessing a service message

You can access the current **service messages** whenever the ignition is switched on, the engine is not running and the vehicle is stationary.

- Press the [⏲/⏱] button in the instrument cluster as often as possible until the spanner symbol and **1** in the top right corner of the display appears. The values shown apply to the oil change service.
- Press the [⏲/⏱] button on the instrument cluster again. The spanner symbol will appear and the number **2** will appear on the top right hand corner of the display. The values shown apply to the inspection.
- **OR:** select the **`Settings`** menu.
- Select the menu option **`Info`** in the **`Service`** submenu.

If a **service is overdue**, this is indicated by a minus sign in front of the mileage or trip reading.

Resetting oil change service

If the oil change service was not performed by a Volkswagen Commercial Vehicles workshop, it can be reset as follows:

Vehicles with text messages:
Switch off the ignition.
Press and hold down the [0.0/SET] button in the instrument cluster.
Restart the ignition.
Release the [0.0/SET] button.
Confirm the selection on the instrument cluster by pressing the [OK/RESET] button on the wiper lever or the [OK] button on the multifunction steering wheel.

Vehicles without text messages:
Switch off the ignition.
Press and hold down the [0.0/SET] button in the instrument cluster.
Restart the ignition.
Release the [0.0/SET] button and press the [⏲/⏱] button within approximately 20 seconds.

Do **not** reset the display between service intervals. This can lead to incorrect information being displayed.

If you manually reset the service interval display while flexible oil change service is valid, "fixed oil change service" will be activated. The service interval will no longer be calculated on an individual basis ⇒ Booklet *Service schedule*.

Resetting inspection

If the inspection was not performed by a Volkswagen Commercial Vehicles workshop, it can be reset as follows: ▶

Vehicles with text messages:
Switch off the ignition.
Switch on the hazard warning lights.
Press and hold down the 0.0/SET button in the instrument cluster.
Restart the ignition.
Release the 0.0/SET button.
Confirm the selection on the instrument cluster by pressing the OK/RESET button on the wiper lever or the OK button on the multifunction steering wheel.
Switch off the hazard warning lights.

Vehicles without text messages:
Switch off the ignition.
Switch on the hazard warning lights.
Press and hold down the 0.0/SET button in the instrument cluster.
Restart the ignition.
Release the 0.0/SET button and press the ⇆/⏲ button within approximately 20 seconds.
Switch off the hazard warning lights.

The service message will disappear after a few seconds, when the engine is running, or when the OK/RESET button on the wiper lever or the OK button on the multifunction steering wheel is pressed.

If the vehicle battery is disconnected for long periods in a vehicle with flexible oil change service, the system will not be able to calculate the time when the next service is due. The service displays could then display incorrect information. If this is the case then please observe the maximum service intervals shown in ⇒ Booklet *Service schedule*. ◁

Volkswagen information system

Introduction

This chapter contains information on the following subjects:

Overview of the menu structure 25
Using the menus in the instrument cluster ... 27
Main menu 28
MFD (multifunction display) menu 28
Settings menu 30
Assist systems submenu 30
Convenience submenu 31
Lights & Vision submenu 31

The Volkswagen information system allows you to access various functions and information in the instrument cluster display when the ignition is switched on.

There are no buttons on the wiper lever in vehicles equipped with a multifunction steering wheel. The multifunction display is controlled using the buttons on the multifunction steering wheel only.

The scope and design of the menus in the instrument cluster display depends on the vehicle electronics and the scope of vehicle equipment.

Qualified workshops can programme and modify other functions depending on the vehicle equipment level. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Some menu options can only be opened when the vehicle is stationary.

If any priority 1 warning reports are being displayed, you will be unable to open any menus. Some warnings can be confirmed and switched off with the OK button.

Additional information and warnings:

- Driver assist systems ⇒ page 282
- Radio or navigation system ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*
- Provision mobile telephone ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system* ▶

⚠ WARNING

Accidents and injuries can occur if the driver is distracted.

- **Never open the menus on the instrument cluster display while the vehicle is in motion.**

After starting the engine with a discharged vehicle battery, or after the battery has been changed, system settings (time, date, personal convenience settings and programming) may have been changed or deleted. Check and correct the settings as necessary once the vehicle battery has been sufficiently charged. ◁

Overview of the menu structure

First read and observe the introductory information and safety warnings ⚠ on page 24.

The following menu structure shows how the Volkswagen information system menus on the instrument cluster display are structured. The size and layout of the Volkswagen information system menu depends on the vehicle electronics and the level of vehicle equipment.

MFD (multifunction display) ⇒ page 28

- Travel time
- Curr. consum. (current fuel consumption)
- Av. consum. (average consumption)
- Fuel range
- SCR range (AdBlue ® remaining range)
- Distance
- Av. speed (average speed)
- Digit. speed (digital speed display)
- Digital oil temp. (digital oil temperature display)
- Speed warning

ACC ⇒ page 298

Audio ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

Navigation ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

Telephone ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

Vehicle status ⇒ page 21, *Displays* and ⇒ page 22, *Service interval display*

Settings ⇒ page 30

- Assist systems
  - Side Assist
    - System on/off
    - Brightness
    - Back
  - Front Assist
    - System on/off
    - Acoustic warning/advance warning
    - Dist. warn. (distance warning)
    - Back
  - ACC
    - Basic sett. (basic settings)
    - Distance
    - Back
  - Back
- Language
- MFD data
  - Travel time on/off
  - Current consumption (current fuel consumption) on/off
  - Av. consum. (average consumption) on/off
  - Distance on/off
  - Av. speed (average speed) on/off
  - Digital speed (digital speed display) on/off
  - Digital oil temp. (digital oil temperature display) on/off
  - Speed warn. (speed warning) on/off
  - Back
- Convenience
  - ATA confirm on/off
  - Central locking (central locking system)
    - Auto lock (automatic locking) on/off
    - Auto unlock (automatic unlocking) on/off ▶

Unlock doors (door unlocking)
Back
- Window op. (window operation)
Off
All
Driver
Back
- Factory setting (factory setting)
- Back

■ Lights & Vision
- Coming Home
System on/off
+ 10 Sec.
- 10 Sec.
Back
- Leaving Home
System on/off
+ 10 Sec.
- 10 Sec.
Back
- Backgrnd light.
System on/off
+ 5%
- 5%
Back
- Footwell light
System on/off
+ 5%
- 5%
Back
- Lane change flash on/off
- Travel mode on/off
- Factory setting (factory setting)
- Back

■ Coasting on/off
■ Time
- Hours
- Minutes
- 24 hr mode on/off
- Summer on/off
- Back

■ Winter tyres
- System on/off
- + 10 km/h (6 mph)
- - 10 km/h (6 mph)
- Back

■ Units
- Temperature
°C
°F
Back
- Consump./dist.
l/100km, km
km/l, km
MPG(GB), mi
MPG(US), mi
Back
- Air pressure
bar
psi
kPa
Back
- Back

■ Tyre pressure
- Save
- Back

■ Alt. speed dis. (secondary speed display) on/off
■ Service
- Information
- Back

■ Factory settings ◁



Fig. 15 In wiper lever: control buttons for menus in the instrument cluster (vehicles without multifunction steering wheel).



Fig. 16 Right-hand side of the multifunction steering wheel: controls for the menus in the instrument cluster.

First read and observe the introductory information and safety warnings ⚠ on page 24.

The buttons in the wiper lever ⇒Fig. 16 are not fitted in vehicles with a multifunction steering wheel ⇒Fig. 15. The Volkswagen Information system is controlled using the buttons on the multifunction steering wheel only.

If any priority 1 ⇒page 19 warning reports are being displayed, you will be unable to open any menus. A few warning messages can be confirmed and hidden by pressing the Ⓐ button on the wiper lever or the [OK] button on the multifunction steering wheel ⇒Fig. 16.

Opening the main menu

- Switch on the ignition.
- If a message or the vehicle pictogram is displayed, press button ⇒Fig. 15 Ⓐ on the wiper lever or the [OK] button on the multifunction steering wheel ⇒Fig. 16.
- *When the wiper lever is used to operate the information system:* press and hold the rocker switch ⇒Fig. 15 Ⓑ to display the main menu ⇒page 28 or to return to the main menu from another menu.
- *When operated using the multifunction steering wheel:* the main menu is not listed. To navigate through the individual menu options, press the [⌂] or [⌂] button several times ⇒Fig. 16.

Opening a submenu

- Press the rocker switch ⇒Fig. 15 Ⓑ on the wiper lever up or down, or press the arrow buttons [△] or [▽] on the multifunction steering wheel ⇒Fig. 16, until the required menu option is selected.
- The selected menu option is located between the two horizontal lines. There is also a triangle on the right-hand side: ◀.
- To open the submenu, press ⇒Fig. 15 Ⓐ on the wiper lever, or press the [OK] button on the multifunction steering wheel ⇒Fig. 16.

Making settings in the menu

- Make any desired changes using the rocker switch on the wiper lever or the arrow buttons on the multifunction steering wheel. If necessary, press and hold the controls to increase or decrease the values quickly.
- Mark and confirm your selection by pressing ⇒Fig. 15 Ⓐ on the wiper lever, or by pressing the [OK] button on the multifunction steering wheel.

Returning to the main menu

- *Within the menu:* in the submenu, select the **Back** menu option to leave the submenu.
- *When the wiper lever is used to operate the information system:* press and hold down the rocker switch Ⓑ.
- *When operated using the multifunction steering wheel:* press the [⮌] button ⇒Fig. 16. ◁

Main menu

First read and observe the introductory information and safety warnings ⚠ on page 24.

Menu	Function	See
MFD	Information and settings for the multifunction display (MFD).	⇒page 28
ACC	Adaptive cruise control (ACC) display.	⇒page 298, *Adaptive cruise control (ACC)*
Audio	Station display in radio mode. Track display in CD mode. Track display in media mode.	⇒Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*
Navigation	Information displays from active navigation system: Turning arrows and proximity bars are displayed if you use active route guidance. The display is similar to the symbols used in the navigation system. The direction of travel (compass function) and the name of the road being used are displayed if the route guidance option is not active.	
Telephone	Information and settings for the provision for mobile telephone.	
Veh. status	Current warning or information texts. The menu option only appears if warning and information texts are available. The number of announcements will be shown in the display. Example: 1/1 or 2/2.	⇒page 21, *Displays* and ⇒page 22, *Service interval display*
Settings	Various settings for convenience, light & vision, time, speed warning for winter tyres, language and units.	⇒page 30

MFD (multifunction display) menu

First read and observe the introductory information and safety warnings ⚠ on page 24.

The multifunction display (MFD) is equipped with two automatic memories: **1 - Trip memory** and **2 - Total journey memory**. The number of the current memory on display will be shown in the upper right-hand corner of the display.

When the ignition is switched on and memory 1 or 2 is shown on the display, press the OK button to switch between the two memories.

1	Trip memory	The memory collects travel and consumption data from the moment the ignition is switched on until it is switched off. The memory is automatically deleted whenever the journey is interrupted for more than 2 hours. If the journey is continued within two hours of the ignition being switched off, the new values will be added to the existing trip recorder.
2	Total journey memory	The memory collects journey data for any number of individual journeys up to a total of 19 hours and 59 minutes or 99 hours and 59 minutes journey time or 1,999.9 km (miles) or 9,999 km (miles) distance travelled. If one of these maximum limits[a)] is exceeded, the memory is automatically deleted and reset to 0.

a) Changes depending on the instrument cluster version.

Possible displays

Menu	Function
Travel time	Driving time in hours (h) and minutes (min) that has elapsed since the ignition was switched on.
Curr. consum.	While the vehicle is motion, current consumption is displayed in l/100 km (mpg). When the engine is running and the vehicle is stationary it is measured in litres/hour (gallons/hour).
Av. consum.	The average fuel consumption will be shown in l/100 km (mpg) after a distance of approximately 100 metres has been travelled. The display will show dashes until this point. The displayed values will be updated approximately every 5 seconds.
Fuel range	Approximate calculation of the distance in km (miles) that can still be travelled with the current fuel level under the current driving conditions. One factor used for calculating this figure is the current level of fuel consumption.
SCR range	Approximate distance (in km) that can be travelled with the remaining quantity of AdBlue® under current driving conditions. This information is shown only when the remaining range is less than 2,400 km. The AdBlue® remaining range cannot be deselected in the **Settings** submenu.
Distance	The distance travelled in km (miles) since the ignition was switched on.
Av. speed	The average speed will be shown after a distance of approximately 100 metres has been travelled. The display will show dashes until this point. The displayed values will be updated approximately every 5 seconds.
Digital speed	Current vehicle speed displayed digitally.
Digital oil temp.	Current temperature of the engine oil displayed digitally.
Speed warn.	If the saved speed (within the range of 30 km/h (18 mph) and 250 km/h (155 mph)) is exceeded, an acoustic and, if necessary, visible warning will be emitted.

Switching between displays

- *Vehicles without a multifunction steering wheel:* press the rocker switch on the wiper lever.
- *Vehicles with a multifunction steering wheel:* press button △ or ▽.

Saving a speed for the speed warning

- Select the **Speed warn.** display.
- Press the OK button to save the current speed and activate the warning system.
- If necessary, use the rocker switch on the wiper lever or the △ or ▽ buttons on the multifunction steering wheel within approximately 5 seconds to set the required speed. Then press OK again or wait a few seconds. The speed is now saved and the warning is activated.
- *To deactivate*, press OK. The stored speed will be deleted.

Deleting memory 1 or 2 manually

- Select the memory that you wish to delete.
- Press and hold the OK button for approximately 2 seconds.

Personal selection of displays

In the **Settings** menu, you can specify which of the MFD displays should be shown in the instrument cluster display. You can also change the units of measurement for the display ⇒ page 30. ◁

Settings menu

First read and observe the introductory information and safety warnings ⚠ on page 24.

Settings menu	Function
Assist systems	Settings for the various driver assist systems ⇒page 30, **Assist systems** *submenu*.
Language	Setting the language for the display texts and messages in the navigation system.
MFD data	Settings for which MFD display items should appear in the instrument cluster display. A "tick" indicates that a display item is activated.
Convenience	Settings for the vehicle's convenience functions ⇒page 31, **Convenience** *submenu*.
Lights & Vision	Settings for the vehicle lighting ⇒page 31, **Lights & Vision** *submenu*.
Coasting	Switching coasting for 7-speed dual clutch gearbox DSG® on or off ⇒page 260.
Time	Setting the hours and minutes for the clock in the instrument cluster and in the navigation system. The time can be shown in a 12 and 24 hour display. An **S** may be shown in the upper part of the display to indicate that summer time is selected.
Winter tyres	Setting the visual and acoustic speed warning. Use this function only when winter tyres are fitted which are not designed for the vehicle's top speed.
Units	Setting the units for temperature, consumption values and distances.
Tyre pressure	Store the tyre pressures of all tyres in the tyre monitoring system again.
Alt. speed dis.	Switching the second speed display on or off. A "tick" indicates that a display item is activated. It is not possible to switch off the second speedometer display in those countries where the law stipulates that the display cannot be deactivated.
Service	Calling up service messages or resetting service interval displays.
Factory setting	The functions in the **Settings** menu are reset to the factory settings.
Back	The display returns to the main menu. ◁

Assist systems submenu

First read and observe the introductory information and safety warnings ⚠ on page 24.

Assist systems submenu	Function
Side Assist	Switches the lane change assist system on or off and adjusts the base brightness of the warning ⇒page 312.
Front Assist	Switches the Front Assist system and related warnings on or off ⇒page 307.
ACC	Activation or deactivation of the last selected distance. The following functions can be set: – Gearbox programme, – Active distance setting (time interval to the vehicle ahead) when the adaptive cruise control (ACC) is switched on ⇒page 298.
Driver alert	Switching the Driver Alert System (recommendation for rest breaks) on and off ⇒page 315.
Back	The display returns to the **Settings** menu. ◁

Convenience submenu

First read and observe the introductory information and safety warnings ⚠ on page 24.

Convenience submenu	Function	
Alarm conf.	Switching the acoustic re-confirmation function for activating the anti-theft alarm on or off ⇒page 39.	
Central locking ⇒page 39	Auto Lock	(Auto Lock): automatically locks all the doors and the tailgate once a speed of approximately 15 km/h (9 mph) is reached. To unlock while the vehicle is stationary, press the central locking button, use the door lever or remove the key from the ignition when the function **Unlock** is active.
	Auto Unlock	(Auto Unlock): all doors and the tailgate are unlocked when the vehicle key is removed from the ignition.
	Door unlocking	Depending on the settings, the following doors will be unlocked when the vehicle is unlocked using the vehicle key: – **All doors**: all doors are unlocked. – **Single door**: only the driver door is unlocked when the vehicle key is used to unlock the vehicle. All the other doors and the tailgate will not be unlocked until the button 🔓 is pressed for a second time. – **Vehicle side**: the doors on the driver side are unlocked.
Window oper.	Settings for the electric windows: all the windows can be opened or closed when locking or unlocking the vehicle. This opening function can only be activated for the driver door ⇒page 55.	
Factory setting	The functions in the **Convenience** submenu are reset to the factory settings.	
Back	The display returns to the **Settings** menu.	

Lights & Vision submenu

First read and observe the introductory information and safety warnings ⚠ on page 24.

Lights & Vision submenu	Function
Coming Home	Settings for how long the vehicle should be lit once it is locked or unlocked, or for switching the function on or off ⇒page 112.
Leaving Home	
Footwell light	For setting the brightness of the footwell light or switching the function on or off.
Daytime running lights	Switches daytime running lights on and off.
Lane change flash	Switching the lane change flash (Lane ch. flash) on or off. When the lane change flash function is switched on, the turn signal will flash at least 3 times when the turn signal and main beam lever is gently tapped ⇒page 106.
Travel mode	Switching travel mode on and off. When the travel mode is switched on, the headlights of a left-hand drive vehicle will be adjusted for use on the left-hand side of the road and those in a right-hand drive vehicle for use on the right-hand side of the road. Adjust the headlights in countries in which the traffic drives on the other side of the road. Travel mode may only be used for a short period of time and must be deactivated as soon as it is no longer required.

Lights & Vision submenu	Function
Factory setting	All the settings in the Lights & Vision submenu are reset to the factory settings.
Back	The display returns to the Settings menu. ◁

Before setting off

Driving tips

Introduction

This chapter contains information on the following subjects:

Preparing for a journey and driving safely ... 33
Driving abroad ... 34
Driving through water on roads ... 35

An engine and transmission guard may prove useful, depending on the conditions in which the vehicle is to be driven. An engine and transmission guard can reduce the risk of damage to the vehicle's underbody and engine oil sump, for example when driving over kerbs, driveways or unsurfaced roads. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Additional information and warnings:

- Sitting correctly and safely ⇒page 61
- Transporting ⇒page 125
- Starting the engine, changing gear and parking the vehicle ⇒page 257
- Driving with respect for the environment ⇒page 278
- Consumer information ⇒page 404

⚠ WARNING

Driving under the influence of alcohol, drugs, medication or narcotics can cause serious accidents and fatal injuries.

- **Alcohol, drugs, medication and narcotics can severely impair perception, reaction times and driving safety. This could cause you to lose control of the vehicle.**

◁

Preparing for a journey and driving safely

First read and observe the introductory information and safety warnings ⚠ on page 33.

Checklist

Observe the following information both before and during the journey to ensure your own safety and the safety of passengers and other road users ⇒⚠:

✓ Check that all lights and turn signals are working properly.

✓ Check the tyre pressure ⇒page 367 and fuel level ⇒page 340.

✓ Ensure that you have a good, clear view through all of the windows.

✓ Air intake to the engine must not be obstructed, and the engine must not be covered with any kind of insulating materials ⇒⚠ in *Introduction* on page 351.

✓ Secure any objects and luggage in the stowage compartments, the luggage compartment or on the roof ⇒page 125.

✓ Ensure that you are able to operate the pedals freely at all times.

✓ Secure any children travelling in the vehicle in a restraint system suitable for their weight and size ⇒page 96.

✓ Adjust the front seats, head restraints and mirrors properly in accordance with the size of the occupants ⇒page 61.

✓ Wear shoes that provide good grip for your feet when using the pedals.

✓ The floor mat in the footwell on the driver side must leave the pedal area free and must be securely fastened.

✓ Assume a correct sitting position before setting off and maintain this position while driving. This also applies to all passengers ⇒page 61.

▶

Checklist (Continued)

- ✓ Fasten your seat belt correctly before setting off and keep it properly fastened throughout the journey. This also applies to all passengers ⇒page 79.
- ✓ Each vehicle occupant must sit in a seat of their own and must have their own seat belt.
- ✓ Never drive if your driving ability is impaired, e.g. by medication, alcohol or drugs.
- ✓ Do not allow yourself to be distracted from the traffic, e.g. by passengers, telephone calls, opening menus and making adjustments to settings.
- ✓ Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions.
- ✓ Observe traffic regulations and speed limits.
- ✓ When travelling long distances, stop and take a break regularly – at least every 2 hours.
- ✓ Secure animals in the vehicle using a system that is suitable for their weight and size.

⚠ WARNING

Always observe current traffic regulations and speed limits, and think ahead when driving. Correct interpretation of a driving situation can make the difference between reaching your destination safely and having an accident with serious injuries.

Regular servicing of your vehicle not only maintains its value, it also ensures that your vehicle remains roadworthy and in perfect working order. Servicing work should therefore be carried out in accordance with the service schedule. Some work may have to be carried out before the due date of the next service if the vehicle is subjected to severe operating conditions. Severe operating conditions are, for example, regular stop and go driving, regular driving with a trailer and driving in areas with high levels of dust. Additional information is available from your Volkswagen Commercial Vehicles dealership or qualified workshop. ◁

Driving abroad

First read and observe the introductory information and safety warnings ⚠ on page 33.

Checklist

In some countries, special safety standards and emissions-related regulations apply that the vehicle may not comply with. Volkswagen Commercial Vehicles recommends that you visit your Volkswagen Commercial Vehicles dealer before travelling abroad to find out about any legal requirements and the following points concerning your destination:

- ✓ Does the vehicle need any technical modifications for driving abroad, e.g. masking or switching the headlights over?
- ✓ Are the necessary tools, diagnostic equipment and spare parts available for service and repair work?
- ✓ Are there any Volkswagen Commercial Vehicles dealerships in the country of destination?
- ✓ For petrol engines: is unleaded petrol with the correct octane number available?
- ✓ For diesel engines: is diesel with a low sulphur level available?
- ✓ Are the correct engine oil ⇒page 353 and other service fluids in accordance with the specifications of Volkswagen Commercial Vehicles available in the destination country?
- ✓ Will the factory-fitted navigation system work with the navigation data available in the destination country?
- ✓ Are special tyres necessary for travelling in the destination country?

NOTICE

Volkswagen Commercial Vehicles is not responsible for any vehicle damage which is caused by low-quality fuel, inadequate servicing work or lack of availability of Genuine Parts. ◁

Driving through water on roads

First read and observe the introductory information and safety warnings ⚠ on page 33.

Please follow these rules to help prevent damage to your vehicle when driving through water, for example if the road is flooded:

- Check the depth of the water before driving through it. The water level must be **no higher** than the lower edge of the vehicle body ⇒ⓘ.
- Do not drive faster than walking speed.
- Never stop the vehicle, reverse or switch off the engine while in water.
- Oncoming vehicles will create waves that could increase the water level for your vehicle to such an extent that it is not safe to drive through the water.
- Always switch off the start/stop system manually when driving through water.

⚠ WARNING

After driving through water, mud, slush etc., the brakes may react slowly and the braking distance will be increased as the brake discs and pads will be wet, or possibly iced up in winter.

- **You can "dry and de-ice" the brakes by performing careful braking manoeuvres. Make sure that you do not endanger any other road users or violate any legal regulations when doing so.**
- **Avoid abrupt and sudden braking manoeuvres directly after driving through water.**

ⓘ NOTICE

- **If you drive through water, parts of the vehicle, such as the engine, drive train, running gear and vehicle electrics, could sustain severe damage.**
- **Never drive through salt water as salt can cause corrosion. Rinse all components that have been exposed to salt water immediately with fresh water.** ◁

Opening and closing

Vehicle key set

Introduction

This chapter contains information on the following subjects:

Vehicle key 37
Indicator lamp in the remote control key 38
Replacing the battery 38
Synchronising the remote control key 39

Additional information and warnings:

- Settings in the Volkswagen information system ⇒ page 24
- Central locking system ⇒ page 39
- Starting and stopping the engine ⇒ page 257
- Consumer information ⇒ page 404
- Manual opening and closing ⇒ page 413

DANGER

Swallowing batteries with a diameter of 20 mm or other lithium batteries can result in severe or even fatal injuries within a very short period of time.

- **Always keep the vehicle key, key ring with batteries, spare batteries, round cells and other batteries that are larger than 20 mm out of the reach of children.**
- **Call for medical help immediately you suspect that someone has swallowed a battery.**

WARNING

Careless or unsupervised use of the vehicle key can lead to accidents or injuries.

- **Always take all vehicle keys with you every time you leave the vehicle. Children or third parties could lock the doors and tailgate, start the engine or switch on the ignition and thus operate electrical equipment, such as the electric windows.**
- **Never leave children or people requiring assistance alone in the vehicle. They could become trapped in the vehicle in an emergency and may not be able to get themselves to safety. For example, locked vehicles may be subjected to very high or very low temperatures, according to season. This can cause serious injuries and illness or fatalities, especially for small children.**

WARNING

Improper use of the vehicle key could lead to the engine being switched off and the steering lock engaging, which would render the vehicle unsteerable.

- **Never remove the vehicle key from the ignition lock when the vehicle is in motion.**
- **When folding out the key bit, ensure that it is folded out completely and engaged fully.**
- **Never attach heavy objects to the vehicle key. Attach only light objects, if at all, such as a key fob with up to five house keys.**

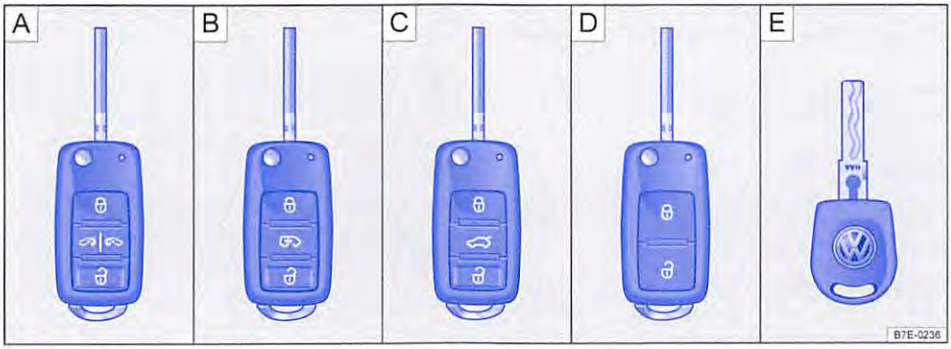


Fig. 17 Illustration of some different types of vehicle key

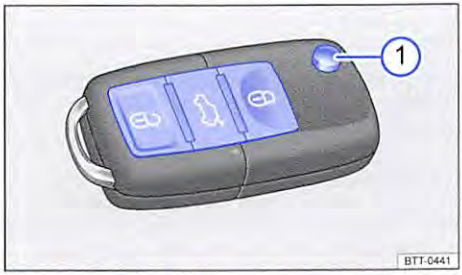


Fig. 18 Button for folding out the key bit.

First read and observe the introductory information and safety warnings ⚠ on page 36.

Types of key ⇒ Fig. 17:	
A	Remote control key with folding bit for vehicles with two electric sliding doors.
B	Remote control key with folding bit for vehicles with one electric sliding door.
C	Remote control key with folding bit for vehicles with tailgates that can be unlocked electrically[a].
D	Remote control key with folding bit for vehicles with central locking and tailgates that cannot be unlocked electrically.
E	Vehicle key with fixed key bit

a) In some types of keys, the button for unlocking the tailgate electrically is located on the side of the key.

Remote control key

The remote control key can be used to lock and unlock the car from a distance.

The remote control transmitter and the batteries are integrated in the key. The receiver is located in the vehicle interior. The remote control range is several metres around the vehicle when the batteries are fully charged.

If the vehicle cannot be opened and closed using the remote control, the remote control key will have to be re-synchronised ⇒page 39, or the battery replaced ⇒page 38.

Several remote control keys can be used.

Alarm button

An alarm button, if any, may be located on the side of the remote control key. Only press the alarm button in the event of an emergency! Once the button is pressed, the horn is sounded and the vehicle flashes. Press the button again to switch off the alarm.

Opening and closing the key bit

Press button ⇒Fig. 18 ① to release the key bit and open it.

To *fold in*, press button ① and simultaneously fold in the key bit until it clicks into place.

Replacement key

You will need to quote the vehicle chassis number when ordering a replacement key or additional remote control keys.

Every new key must contain a microchip and be encoded with the data for the vehicle's electronic immobilizer. A key will not work if it is not fitted with a microchip or if the microchip has not been encoded. The same goes for keys that have been cut to fit the vehicle. ▶

New keys or replacement keys are available from Volkswagen Commercial Vehicle dealerships or from qualified workshops and authorised key services which are qualified to manufacture these vehicle keys.

New and replacement keys need to be synchronised before use ⇒ page 39.

NOTICE

Every vehicle key contains electronic components. Protect the key from damage, moisture and excessive vibration.

Press the buttons on the remote control key only if the corresponding function is actually needed. Pressing a button when the function is not required could lead to the vehicle being unlocked unintentionally or the alarm going off. This also applies even when you are not within the effective range.

The function of the remote control key can be affected temporarily if there is more than one transmitter in the direct vicinity working on the same frequency (e.g. a two-way radio or mobile telephone).

Obstacles between the remote control and the vehicle, bad weather conditions and weak batteries can reduce the range of the remote control. ◁

Indicator lamp in the remote control key

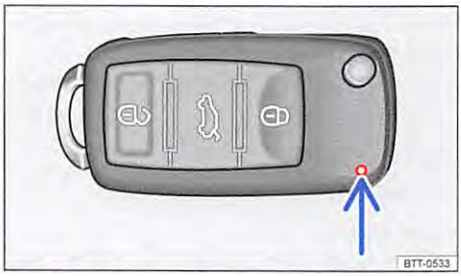


Fig. 19 Indicator lamp in remote control key

First read and observe the introductory information and safety warnings ⚠ on page 36.

If a button in the remote control key is pressed briefly, the indicator lamp ⇒ Fig. 19 (arrow) flashes once. The lamp will flash several times if the button is pressed and held, e.g. convenience opening.

If the indicator lamp in the remote control key does not light up when a button is pressed, the battery in the remote control key needs to be replaced ⇒ page 38. ◁

Replacing the battery

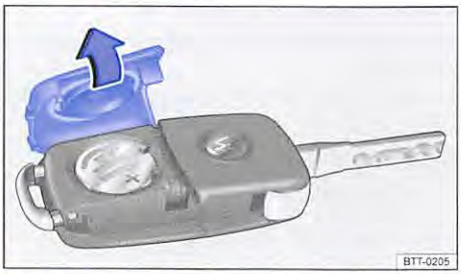


Fig. 20 Opening the battery case cover

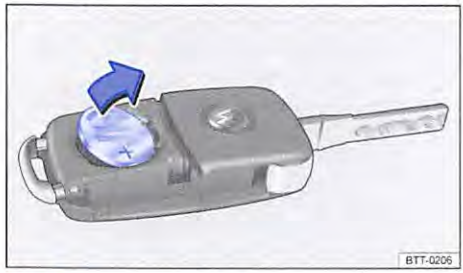


Fig. 21 Removing the battery

First read and observe the introductory information and safety warnings ⚠ on page 36.

Volkswagen Commercial Vehicles recommends having the batteries changed by a qualified workshop.

The battery is located on the rear side of the remote control key underneath a cover. ▶

Replacing the battery

- Fold out the key bit of the remote control key ⇒page 37.
- Pull up the cover on the rear side of the remote control key ⇒Fig. 20 in the direction of the arrow ⇒①.
- Using a suitable thin object, lever the battery out of the battery compartment ⇒Fig. 21.
- Insert the new battery as shown ⇒Fig. 21 and push it into the battery compartment against the direction of the arrow ⇒①.
- Fit the cover as shown ⇒Fig. 20 and push onto the remote control key housing in the opposite direction of the arrow until it engages.

NOTICE

- **The remote control key can be damaged if the battery is not changed properly.**
- **Unsuitable batteries can damage the remote control keys. Only replace discharged batteries with a new battery of the same voltage rating, size and specification.**
- **Ensure that the battery is fitted the right way round.**

Dispose of discharged batteries in accordance with regulations governing the protection of the environment.

The battery in the remote control key may contain perchlorate. Please comply with any legal requirements and regulations when handling and disposing of these batteries. ◁

Synchronising the remote control key

First read and observe the introductory information and safety warnings ⚠ on page 36.

The vehicle may no longer be able to be locked or unlocked with the remote control if you press the button repeatedly outside of the effective range of the remote control key. If this is the case, the remote control key has to be re-synchronised as follows:

- Fold out the key bit of the remote control key ⇒page 37.
- Press button in the remote control key. Remain standing close to the vehicle.
- Lock the vehicle with the key bit in the driver door lock.
- Switch on the ignition using the remote control key. The synchronisation process is complete. ◁

Central locking system

Introduction

This chapter contains information on the following subjects:

Description of the central locking system 40
Locking and unlocking the vehicle from outside 40
Locking and unlocking the vehicle from inside 42
SAFELOCK mechanism 42
Anti-theft alarm 43
Interior monitoring system and anti-tow alarm 44

The central locking system will only work correctly when all doors and the tailgate are properly closed. The vehicle *cannot* be locked with the remote control key if the driver door is open.

If the vehicle is unlocked and not used for a long time, e.g. in your own garage, the vehicle battery could discharge and the engine may not start.

Additional information and warnings:

- Exterior views ⇒page 5
- Vehicle key set ⇒page 36
- Doors ⇒page 45
- Sliding doors ⇒page 46
- Tailgate ⇒page 49
- Wing doors ⇒page 52
- Electric windows ⇒page 55
- Sliding/tilting roof ⇒page 58
- Towing a trailer ⇒page 139 ▶

- Cleaning and caring for the vehicle exterior ⇒page 380
- Manual opening and closing ⇒page 413

⚠ WARNING

Improper use of the central locking system could lead to serious injury.

- **The central locking system locks all doors. Locking the vehicle from the inside can prevent accidental opening of the doors and unauthorised persons from entering the vehicle. However, locked doors can delay assistance to passengers inside the vehicle in the event of an accident or emergency.**
- **Never leave children or people requiring assistance alone in the vehicle. All doors can be locked from the inside using the central locking button. This may mean that people lock themselves in the vehicle. People locked in the vehicle may be subjected to very high or very low temperatures.**
- **Temperatures inside a locked vehicle may reach extremes of heat or cold, according to season. This can cause serious injuries and illness or fatalities, especially to small children.**
- **Never leave anyone inside a locked vehicle. People in the vehicle could become trapped in an emergency and may not be able to get themselves to safety.**
- **Doors and the tailgate should therefore only be opened or closed when you are sure that nobody is in their path.**

Description of the central locking system

First read and observe the introductory information and safety warnings ⚠ on page 39.

The central locking system enables you to lock and unlock all the doors and the tailgate or wing doors from one point.

- From outside the vehicle with the remote control key.
- From inside the vehicle with the central locking button ⇒page 42.
- Mechanically with the key in the driver door lock cylinder.

The doors and the tailgate can be locked or unlocked manually if the remote control key or central locking system fails.

Locking and unlocking the vehicle from outside

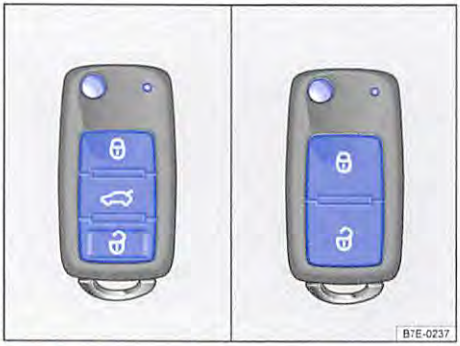


Fig. 22 Buttons in the remote control key



Fig. 23 Buttons in the remote control keys in vehicles with electric sliding doors

First read and observe the introductory information and safety warnings ⚠ on page 39.

Function	With remote control key	With mechanical vehicle key
Unlocking the vehicle	Press the button. Press and hold for convenience opening.	Insert the vehicle key into the driver door lock cylinder and turn it to the opening position. Turn and hold for convenience opening. The tailgate or the wing doors are also opened if the key slot of the tailgate or wing doors is in vertical position. Only the driver door will be unlocked in vehicles without central locking.
Locking the vehicle	Press the button. Press and hold for convenience closing.	Insert the vehicle key into the driver door lock cylinder and turn it to the closing position. Turn and hold for convenience closing.
Unlocking the tailgate only	Press the button. In some types of keys, the button is located on the side of the key.	Insert the vehicle key into the lock cylinder of the tailgate, and turn the key slot anti-clockwise as far as it will go.
Locking the tailgate only	–	Insert the vehicle key into the lock cylinder of the tailgate and turn the key slot clockwise to the horizontal position.
Unlocking the wing doors only.	–	Insert the vehicle key into the lock cylinder of the wing door, and turn the key slot anti-clockwise as far as it will go.
Unlocking the wing doors only.	–	Insert the vehicle key into the lock cylinder of the wing door and turn the key slot clockwise to the horizontal position.
Opening the electric sliding door	Unlocking the vehicle Press the or button.	–

Note: If the Volkswagen Commercial Vehicles dealer has programmed the single door unlocking function, all the doors and the tailgate will be unlocked only after you press the button twice or turn the mechanical vehicle key twice.

The remote control key will lock and unlock the vehicle only when the battery has enough power and the remote control key is located within a few metres of the vehicle. All the turn signals will flash as confirmation when the vehicle is locked.

The vehicle cannot be locked using the remote control key if the driver door is still open. The vehicle will be locked again if you do not open one of the doors or the tailgate within a few seconds automatically after unlocking the car. This function prevents the vehicle from remaining unlocked if the unlocking button is pressed by mistake.

Convenience opening and closing

- See electric windows – functions ⇒ page 55.
- See: Sliding/tilting roof – functions ⇒ page 58. ◁

Locking and unlocking the vehicle from inside



Fig. 24 In the driver door: central locking button.

First read and observe the introductory information and safety warnings ⚠ on page 39.

Press the ⇒Fig. 24 button:
Unlocking the vehicle
Locking the vehicle

The central locking button works when the ignition is switched on and when it is switched off.

The only time the central locking button does not work is when the SAFELOCK mechanism is active ⇒page 42.

Please note the following when using the central locking button to lock the vehicle:

- The SAFELOCK mechanism **will not** be activated ⇒page 42.
- The anti-theft alarm will **not** be activated.
- It is not possible to open the doors or tailgate from the *outside*, for instance when stopped at traffic lights.
- The doors can be unlocked and opened from the inside by pulling the door release handle. You may have to pull the door release lever more than once.
- If the driver door is open, it will not be locked. This prevents you from locking yourself out of the vehicle. ◁

SAFELOCK mechanism

First read and observe the introductory information and safety warnings ⚠ on page 39.

The SAFELOCK mechanism is only installed in conjunction with the anti-theft alarm system ⇒page 43 and the interior monitoring system ⇒page 44.

The SAFELOCK mechanism blocks the door opening levers and the central locking button when the vehicle is locked. This makes it more difficult to break into the vehicle. The doors can no longer be opened from the inside ⇒⚠.

Function	Action
Locking the vehicle and activating the SAFELOCK mechanism.	Press the 🔒 button on the remote control key *once*.
	Insert the vehicle key into the driver door lock cylinder and turn it to the closing position *once*.
Locking the vehicle without activating the SAFELOCK mechanism.	Press the 🔒 button on the remote control key *twice*.
	Press the central locking button 🔒 in the driver door once.
	Insert the vehicle key into the driver door lock cylinder and turn it to the closing position *twice*.

Depending on the vehicle equipment level, when the ignition is switched off, the instrument cluster display may inform you about the activated SAFELOCK mechanism (**SAFELOCK**).

The following applies when the SAFELOCK mechanism is deactivated:

- The vehicle can be unlocked and opened from the inside using the door release lever.
- The vehicle can be unlocked from the inside using the central locking button. ▷

- If the SAFELOCK mechanism has been activated using the remote control key: the anti-theft alarm is active.
- If the SAFELOCK mechanism has been activated using the remote control key in the driver door lock cylinder: the anti-theft alarm is *not* active.
- The interior monitoring system and anti-tow alarm are deactivated.

Indicator lamp in the driver door

After locking the vehicle:	Meaning
A red LED flashes for approximately 2 seconds, firstly at short intervals and then more slowly.	The SAFELOCK mechanism is activated.
A red LED flashes for approximately 2 seconds and then goes out. The LED light starts to flash again after approximately 30 seconds.	The SAFELOCK mechanism is deactivated.
A red LED lights up steadily for approximately 30 seconds.	Fault in the locking system. Go to a qualified workshop.

Notes for vehicles without SAFELOCK mechanism

Please note the following when the vehicle is locked with the remote control key or with the vehicle key in the driver door lock cylinder:

- The anti-theft alarm and the interior monitoring system are *immediately* activated. All turn signals flash briefly to confirm activation.

⚠ WARNING

Take care when using the SAFELOCK mechanism to avoid accidents or injuries.

- **Never leave anybody in the vehicle if the vehicle has been locked using the remote control key. The doors can no longer be opened from the inside once the SAFELOCK mechanism is activated.**
- **Locked doors make it more difficult for emergency service personnel to gain access to the vehicle and provide assistance when needed. In an emergency, people locked inside the vehicle would not be able to leave the vehicle by unlocking the doors.**

Anti-theft alarm

First read and observe the introductory information and safety warnings ⚠ on page 39.

The anti-theft alarm makes it more difficult to break into the vehicle or steal it.

The anti-theft alarm system is automatically activated when the vehicle is locked.

When does the system trigger an alarm?

The anti-theft alarm will sound an acoustic alarm for approximately 30 seconds and trigger a visible warning for up to 5 minutes if any of the following unauthorised actions are performed while the vehicle is locked:

- Mechanical unlocking of the vehicle with the vehicle key and failure to switch on the ignition within 15 seconds
- A door is opened.
- The bonnet is opened.
- The tailgate is opened.
- The ignition is switched on using an invalid key.
- Movement inside the vehicle (in vehicles with interior monitoring).
- The vehicle is towed (vehicles with anti-tow alarm).
- The vehicle is lifted (vehicles with anti-tow alarm).
- Transportation of the vehicle on a ferry or train.
- Disconnection of the vehicle battery (only an acoustic alarm)

Switching off the alarm

Unlock the vehicle using the release button on the remote control key or insert the ignition key into the ignition lock.

Due to the current legislation on the Israel market, the acoustic warning signals are deactivated there.

The alarm will be triggered again if a person gains access to the same or a different secured zone after the alarm has been switched off. For example, if the tailgate is opened after a door had been opened.

The anti-theft alarm will **not** be activated if the vehicle is locked from the inside using the central locking button [6].

If you unlock the driver door mechanically using the vehicle key, only the driver door is unlocked, and not the whole vehicle. The SAFELOCK mechanism on all doors is not deactivated and the central locking button is not activated until you switch on the ignition (however the doors will not be unlocked).

The anti-theft alarm will not function correctly if the vehicle battery is weak or discharged.

It is not possible to include the trailer in the anti-theft alarm system. ◁

Interior monitoring system and anti-tow alarm

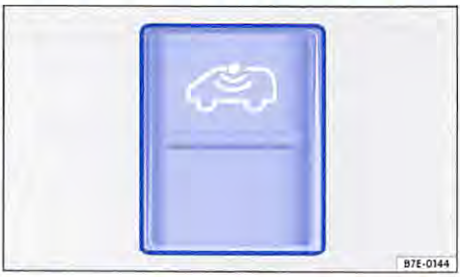


Fig. 25 Next to the driver seat: button for switching off the interior monitoring system and anti-tow alarm.

First read and observe the introductory information and safety warnings ⚠ on page 39.

The interior monitoring system will trigger an alarm if movement is detected inside the vehicle when the vehicle is locked.

The anti-tow alarm will be triggered if the vehicle is lifted.

Switching on the interior monitoring system and anti-tow alarm

Lock the vehicle using the remote control key. When the anti-theft alarm is switched on, the interior monitoring system and the anti-tow alarm are also active.

Switching off the interior monitoring system and anti-tow alarm

The orientation lighting in the ⇒Fig. 25 button must be lit up when switching the systems off. To switch the orientation lighting on, remove the key from the ignition or open one of the doors.

- Press the ⇒Fig. 25 button. A yellow indicator lamp will light up in the button until the vehicle is locked.
- Close all doors and the tailgate.
- Lock the vehicle using the remote control key.

The interior monitoring system and anti-towing alarm are switched off until the next time the vehicle is locked.

The interior monitoring system and anti-tow alarm should therefore be switched off before the vehicle is locked in any of the following, or similar, situations:

- If any people or animals are to remain inside the vehicle for a short period ⚠ ⇒page 39.
- If the vehicle is to be loaded onto another vehicle.
- If the vehicle is being transported (e.g. on a ferry).
- If the vehicle is going to be towed with one axle off the ground.
- If the vehicle is to be parked in a car wash.

Risk of false alarm

Interior monitoring can only work properly if the vehicle is completely closed. Comply with legal regulations. A false alarm can be triggered in any of the following circumstances:

- If one or more windows are fully or partly open.
- If the sliding/tilting roof is completely or partly open.
- If items such as loose pieces of paper and items attached to the interior mirror (e.g. air-fresheners) are left in the vehicle.
- If a mobile telephone that is left in the vehicle vibrates. ▶

- If the vehicle is being transported (e.g. on a ferry).
- If the vehicle is in a car wash.

If doors or the tailgate are still open when the anti-theft alarm is activated, only the anti-theft alarm is activated. Interior monitoring and the anti-tow alarm are not activated until all doors and the tailgate are closed. ◁

Doors

Introduction

This chapter contains information on the following subjects:

Warning lamp 45

Additional information and warnings:

- Exterior views ⇒ page 5
- Vehicle key set ⇒ page 36
- Central locking system ⇒ page 39
- Manual opening and closing ⇒ page 413

⚠ WARNING

Any door that is not properly closed could open suddenly while the vehicle is in motion. This could lead to severe injuries.

⚠ WARNING (Continued)

- **Stop as soon as possible and close the door.**
- **Make sure that the door is closed properly and that the lock has engaged. The closed door must be flush with the surrounding body panels.**
- **Doors should only be opened or closed when you are sure there is no-one in their path.**

⚠ WARNING

Any door being held open by the door arrester could close unexpectedly in strong winds or if the vehicle is on a slope. This could lead to injuries.

- **Always keep a good grip on the handle when opening and closing doors.** ◁

Warning lamp

First read and observe the introductory information and safety warnings ⚠ on page 45.

Lit up	Possible cause	Solution
	At least one vehicle door is opened or not properly closed.	**Do not drive on!** Open the relevant vehicle door and then close it again.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

A warning lamp appears in the instrument cluster display if a door is open or not properly closed.

Symbols may be displayed in the instrument cluster instead of warning lamps, depending on the vehicle's equipment level. These symbols are also visible when the ignition is switched off. The display will go out approximately 15 seconds after the vehicle has been locked.

The symbol can differ depending on the version of the instrument cluster. ◁

Sliding doors

Introduction

This chapter contains information on the following subjects:

Opening and closing a sliding door manually . 46
Opening and closing the sliding door electrically 47
Roll-back function on the electric sliding doors 48
Childproof lock in the sliding door 48

Additional information and warnings:

- Exterior views ⇒page 5
- Vehicle key set ⇒page 36
- Central locking system ⇒page 39
- Manual opening and closing ⇒page 413

⚠ WARNING

If the sliding door is not properly closed it could open suddenly while the vehicle is in motion. This could lead to severe injuries.

- **Stop as soon as possible and close the sliding door.**

⚠ WARNING (Continued)

- **Make sure that the sliding door is properly closed and that the lock has engaged. The closed sliding door must be flush with the surrounding body panels.**
- **Sliding doors should only be opened or closed when you are sure that nobody is in their operating area.**

⚠ WARNING

If the sliding door is not opened properly it could close suddenly. This could lead to severe injuries.

- **Always open the sliding doors fully.**

⚠ WARNING

Opening sliding doors while the vehicle is in motion is dangerous. The sliding door could be automatically pushed open or closed when the vehicle accelerates and brakes. Risk of severe injury.

- **Never open sliding doors while the vehicle is in motion.**

Opening and closing a sliding door manually

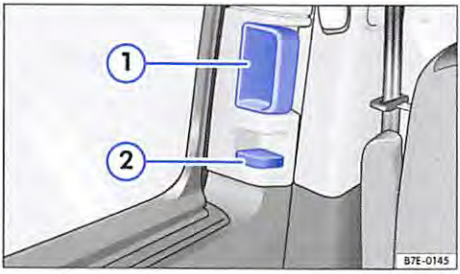


Fig. 26 On the sliding door: door handle and locking knob

First read and observe the introductory information and safety warnings ⚠ on page 46.

Function	Action
Locking and unlocking the sliding door from the outside	⇒page 39
Locking and unlocking the sliding door from the inside	*Locking:* close the sliding door and press the locking knob ⇒Fig. 26 ② down.
	Unlocking: pull the door handle ①. The locking knob moves upwards.

Function	Action
Opening the sliding door from the outside	Pull the outside handle of the unlocked sliding door and open the door fully.
Opening the sliding door from the inside	Pull the inside handle (1) of the unlocked sliding door and open the door fully.
Closing the sliding door	Pulling the inside or outside door handle and push the sliding door using a little force to close it. Make sure that the sliding door is properly closed.

Opening and closing the sliding door electrically

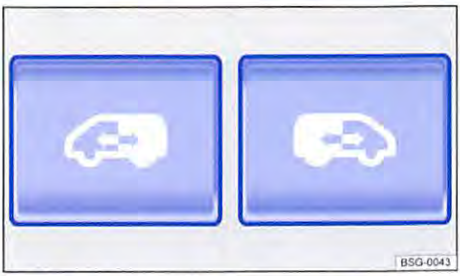


Fig. 27 On the dash panel and in the remote control key: button for opening and closing an electric sliding door

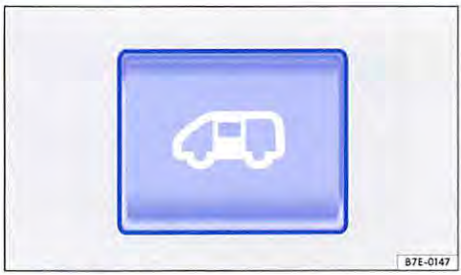


Fig. 28 On the dash panel: button for locking the electric sliding door(s)

First read and observe the introductory information and safety warnings ⚠ on page 46.

There is a button available for opening and closing each electric sliding door. Each electric sliding door can also be opened and closed manually, using more force than normal.

Function	Action
Opening the sliding door electrically.	If the vehicle is unlocked, press the ⇒ Fig. 27 button on the dash panel or in the remote control key. The sliding door continues to open with the rollback function until the button is pressed again.
	Pull the inside or outside door handle briefly. The sliding door opens automatically.
Closing the sliding door electrically.	If the vehicle is unlocked, press the ⇒ Fig. 27 button on the dash panel or in the remote control key. The sliding door continues to close with the rollback function until the button is pressed again. Acoustic warnings are given during closing.
	Pull the inside or outside door handle briefly. The sliding door closes with the roll-back function. Acoustic warnings are given during closing.
Locking the sliding door.	Press the ⇒ Fig. 28 button. A yellow indicator lamp in the button lights up. The sliding doors can only be opened and closed mechanically.
Unlocking the sliding door.	Press button ⇒ Fig. 28 again. The yellow indicator lamp in the button will go out.

NOTICE

The electric sliding doors must be locked before using a car wash. Otherwise the electric sliding doors could open unexpectedly and any water entering the vehicle could cause damage. ◁

Roll-back function on the electric sliding doors

First read and observe the introductory information and safety warnings ⚠ on page 46.

The roll-back function for the electric sliding doors can reduce the risk of injuries while opening and closing the sliding doors ⇒⚠.

If a sliding door is stuck or if it is obstructed in any way when *closing*, it is opened again immediately.

If a sliding door is stuck or if it is obstructed in any way when *opening*, the sliding door stops at this point.

- Check to see why the sliding door does not open or close.
- Try to open or close the sliding door again.

Closing the sliding door without the roll-back function

- **Press and hold the button ⇒Fig. 27. The sliding door closes with maximum force.**

⚠ WARNING

Closing the electric sliding doors without the roll-back function could lead to severe injuries.

- **Always take care when closing electric sliding doors.**
- **Ensure that nobody obstructs the path of the electric sliding doors, especially if the roll-back function is not active.**
- **The roll-back function does not prevent fingers or other body parts getting pinched against the door frame and becoming injured.** ◁

Childproof lock in the sliding door

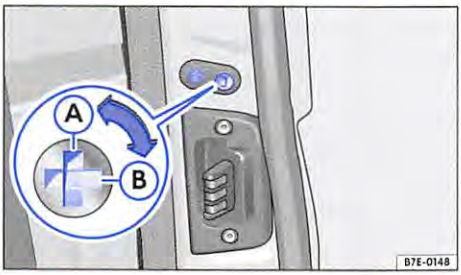


Fig. 29 In the left sliding door: childproof lock - Ⓐ switched off, Ⓑ switched on

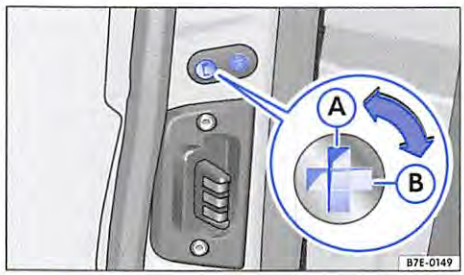


Fig. 30 In the right sliding door: childproof lock - Ⓐ switched off, Ⓑ switched on

First read and observe the introductory information and safety warnings ⚠ on page 46.

The childproof lock prevents the sliding doors from being opened from the inside, e.g. so that children cannot open the doors accidentally while the vehicle is in motion. When the childproof lock is activated the sliding door can be opened from the outside only. ▶

Switching the child lock on and off

- Unlock the vehicle and open the appropriate sliding door.
- Use the vehicle key to bring the slot to the desired position.

Slot position
⇒ Fig. 29 or ⇒ Fig. 30:

Ⓐ	Child lock is switched off.
Ⓑ	Child lock is switched on.

⚠ WARNING

When the child lock is activated, the door cannot be opened from the inside.

⚠ WARNING (Continued)

- **Never leave children or people requiring assistance alone in the vehicle when the doors are locked. This may mean that these people lock themselves in the vehicle. They could become trapped in the vehicle in an emergency and may not be able to get themselves to safety. People locked in the vehicle may be subjected to very high or very low temperatures.**
- **Temperatures inside a locked vehicle may reach extremes of heat or cold, according to season. This can cause serious injuries and illness or fatalities, especially to small children.**

◁

Tailgate

🕮 Introduction

This chapter contains information on the following subjects:

Warning lamp 50
Opening and closing the tailgate from the outside 50
Unlocking and locking the tailgate from the inside 51
Childproof lock in the tailgate 52

Additional information and warnings:

- Exterior views ⇒ page 5
- Central locking system ⇒ page 39
- Transporting ⇒ page 125
- Manual opening and closing ⇒ page 413

⚠ WARNING

Incorrect and unsupervised unlocking, opening or closing of the tailgate can cause accidents and serious injuries.

- **Therefore the tailgate should only be opened or closed when you are sure there is no-one in its path.**
- **Never close the tailgate by pushing it down with your hand on the window. The rear window could shatter and cause injuries.**
- **After closing the tailgate, check that it is closed and locked correctly so that it does not open while the vehicle is in motion. The closed tailgate must be flush with the surrounding body panels.**

⚠ WARNING (Continued)

- **Always keep the tailgate closed while the vehicle is in motion so that no toxic exhaust fumes can enter the vehicle interior.**
- **Never open the tailgate if a load is attached to it, e.g. a rack or luggage carrier. It may also not possible to open the tailgate if there are objects attached to it, e.g. bicycles. The additional load might cause the open tailgate to close by itself. Support the tailgate as necessary or remove the load from the surface.**
- **Close and lock the tailgate and all vehicle doors when the vehicle is not in use. Make sure there is no-one left in the vehicle.**
- **Never leave children playing unattended in or around the vehicle, especially when the tailgate is open. Children could climb into the luggage compartment and shut the tailgate, thereby trapping themselves inside. Temperatures inside a locked vehicle may reach extremes of heat or cold, according to season. This can cause serious injuries and illness or fatalities, especially to small children.**
- **Never leave children or people requiring assistance alone in the vehicle. They could use the vehicle key or central locking button to lock the vehicle and thereby trap themselves inside.**

▶

NOTICE

Before opening the tailgate, please check that there is enough space to open and close the tailgate, e.g. when towing a trailer or when in a garage.

NOTICE

Never use the gas-filled strut on the tailgate to fix or hold a load. This could lead to damage and make it impossible to close the tailgate. ◁

Warning lamp

First read and observe the introductory information and safety warnings ⚠ on page 49.

Lit up	Possible cause	Solution
	The tailgate is open or not properly closed.	**Do not drive on!** Open the tailgate and close it again.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

A warning lamp appears in the instrument cluster display if the tailgate is open or not properly closed.

Symbols may be displayed in the instrument cluster instead of warning lamps, depending on the vehicle's equipment level. These symbols are also visible when the ignition is switched off. The display will go out approximately 15 seconds after the vehicle has been locked.

WARNING

If the tailgate is not properly closed it could open suddenly while the vehicle is in motion. This could lead to severe injuries.

- **Stop as soon as possible and close the tailgate.**
- **After closing the tailgate, always check that it is properly secured.**

The symbol can differ depending on the version of the instrument cluster. ◁

Opening and closing the tailgate from the outside



Fig. 31 Opening the tailgate from the outside.

First read and observe the introductory information and safety warnings ⚠ on page 49.

Before opening the tailgate, always remove any items of luggage that are on the luggage carrier attached to the tailgate ⇒⚠.

Opening the tailgate

- Unlocking the vehicle or only the tailgate.
- Operate the handle ⇒Fig. 31 and pull up the tailgate.

Closing the tailgate manually

- Pull down the opened tailgate with force so that it engages in the lock.
- Please ensure that the tailgate is correctly engaged in the lock.

Closing the tailgate electrically (power closing)

- Pull down the open tailgate.
- Push the tailgate so that it engages in the tailgate lock. An electric motor pulls the tailgate into the lock.

WARNING

Serious injuries can occur if the tailgate is unlocked or opened incorrectly or without due care and attention. ▶

⚠ WARNING (Continued)

- **It may not always be apparent that the tailgate is unlocked, for example when a loaded luggage carrier is attached to it. If unlocked, the tailgate may open suddenly while the vehicle is in motion.**

⚠ WARNING

Serious injuries can occur if the tailgate is closed incorrectly or without due care and attention.

- **Never leave children playing unattended in or around the vehicle, especially when the tailgate is open. Children could climb into the luggage compartment and shut the tailgate, thereby trapping themselves inside. Temperatures inside a locked vehicle may reach extremes of heat or cold, according to season. This could cause serious injuries or illness, or even have fatal consequences.**

At outside temperatures of less than 0°C (+32°F), the gas-filled struts cannot always lift the opened tailgate automatically. The tailgate then has to be guided up by hand.

Before closing the tailgate, check that the remote control key is not in the luggage compartment. ◁

Unlocking and locking the tailgate from the inside

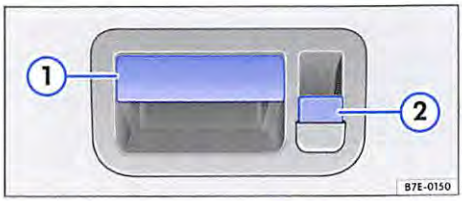


Fig. 32 Inside tailgate: lever ① and locking knob ②



Fig. 33 Inside tailgate: button in vehicles with central locking and electrical unlocking for the tailgate

First read and observe the introductory information and safety warnings ⚠ on page 49.

Locking the tailgate from the inside

- Press in the locking knob on the inside of the tailgate ⇒Fig. 32 ② and close the tailgate. The tailgate remains locked until either the vehicle is unlocked again, or until the key slot in the tailgate lock is turned anticlockwise.

Opening the tailgate from the inside

- Make sure that the childproof lock is not active and that the safety knob is in the upper position ②.
- Make sure that no people or items are in the path of the tailgate.
- Pull the lever ① to unlock the tailgate.
- Press the tailgate back to open it.

Opening the tailgate from the inside (vehicles with central locking and electrical unlocking for the tailgate)

- If vehicle is locked, press the ⇒Fig. 33 button to open the tailgate. ◁

Childproof lock in the tailgate

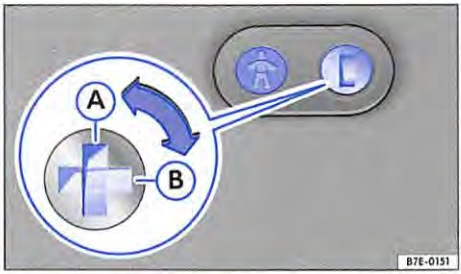


Fig. 34 On the front of the tailgate: childproof lock - Ⓐ switched off, Ⓑ switched on

First read and observe the introductory information and safety warnings ⚠ on page 49.

The childproof lock prevents the tailgate being opened from the inside. When the childproof lock is activated the tailgate can be opened from the outside only.

Switching the child lock on and off

- Open the tailgate.
- Use the vehicle key to bring the slot to the desired position.

Slot position
⇒Fig. 34:

Ⓐ	Child lock is switched off.
Ⓑ	Child lock is switched on.

⚠ WARNING

When the childproof lock is activated, the tailgate cannot be opened from the inside.

- **Never leave children or people requiring assistance alone in the vehicle when the doors are locked. This may mean that these people lock themselves in the vehicle. They could become trapped in the vehicle in an emergency and may not be able to get themselves to safety. People locked in the vehicle may be subjected to very high or very low temperatures.**
- **Temperatures inside a locked vehicle may reach extremes of heat or cold, according to season. This can cause serious injuries and illness or fatalities, especially to small children.**

Wing doors

Introduction

This chapter contains information on the following subjects:

Warning lamp 53
Opening the wing doors 53
Closing the wing doors 54
Unlocking and locking the wing doors from the inside 54
Childproof lock in the wing doors 55

Additional information and warnings:

- Exterior views ⇒page 5
- Central locking system ⇒page 39
- Transporting ⇒page 125
- Manual opening and closing ⇒page 413

⚠ WARNING

Incorrect and unsupervised unlocking, opening or closing of the wing doors can cause accidents and serious injuries.

- **Therefore wing doors should only be opened or closed when you are sure that nobody is in their path.**
- **Never close the wing door by pushing it down with your hand on the glass window. The glass window could shatter and cause injuries.**
- **After closing the wing doors, check to make sure that they are closed and locked correctly so that they do not open while the vehicle is in motion. The closed wing doors must be flush with the surrounding body panels.**

⚠ WARNING (Continued)

- **Always keep the wing doors closed while the vehicle is moving so that no poisonous exhaust fumes can enter the vehicle interior.**
- **Close and lock the wing doors and all vehicle doors when the vehicle is not in use. Make sure there is no-one left in the vehicle.**
- **Never leave children playing unattended in or around the vehicle, especially when the wing doors are open. Children could climb into the luggage compartment and shut the wing doors, thereby trapping themselves inside. Temperatures inside a locked vehicle may reach extremes of heat or cold, according to season. This can cause serious injuries and illness or fatalities, especially to small children.**
- **Never leave children or people requiring assistance alone in the vehicle when the doors are locked. This may mean that these people lock themselves in the vehicle. They could become trapped in the vehicle in an emergency and may not be able to get themselves to safety. People locked in the vehicle may be subjected to very high or very low temperatures.**

⚠ WARNING

A wing door which is being held open by the door arrester may close in strong winds or if the vehicle is on a slope. This could lead to injuries.

- **Always keep a good grip on the handle when opening and closing the wing doors.**

NOTICE

Before opening the wing doors, please check that there is enough space to open and close the wing doors, e.g. when towing a trailer or when in a garage. ◁

Warning lamp

First read and observe the introductory information and safety warnings ⚠ on page 52.

Lit up	Possible cause	Solution
	The wing doors are open or not properly closed.	**Do not drive on!** Open and then close the wing doors.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

A warning lamp appears in the instrument cluster display if the wing doors are open or not properly closed.

Symbols may be displayed in the instrument cluster instead of warning lamps, depending on the vehicle's equipment level. These symbols are also visible when the ignition is switched off. The display will go out approximately 15 seconds after the vehicle has been locked.

⚠ WARNING

Wing doors which are not closed properly could open suddenly while the vehicle is in motion. This could lead to severe injuries.

- **Stop as soon as possible and close the wing doors.**
- **After closing the wing doors, always check that it is properly secured.** ◁

Opening the wing doors

First read and observe the introductory information and safety warnings ⚠ on page 52.

The left-hand wing door must always be opened first. ▶

Opening the left-hand wing door from the outside

Open the wing door using the handle and swing it to the left to the position where it is held open by the door arrester.

Opening the right-hand wing door from the outside

- Open left-hand wing door.
- Pull the lever on the front end of the right-hand wing door and push the right-hand wing door to the right to the position where it is held open by the door arrester.

Disengaging the door arresters

- Open wing doors to the position where it is held open by the door arrester.
- Press the middle of the door arrester and open the wing door fully.
- Depending on the vehicle equipment level, the wing doors may be opened to approx. 180° or approx. 250°. Wing doors that open to a maximum of approx. 180° will not be held open. Wing doors which can be opened to a maximum of approx. 250° are held in place by magnets in the side panels of the vehicle.

Hooking in the door arresters

When the wing doors are closed, the door arresters engage automatically. ◁

Closing the wing doors

First read and observe the introductory information and safety warnings ⚠ on page 52.

The right-hand wing door must always be closed first.

Closing the wing doors

- Pull in the right-hand wing door with force so that it engages in the lock.
- Pull in the left-hand wing door with force so that it engages in the lock.
- Please ensure that both wing doors are securely engaged.

⚠ WARNING

Serious injuries could occur if the wing doors are closed incorrectly or without due care and attention.

- **Never leave children playing unattended in or around the vehicle, especially when the wing doors are open. Children could climb into the luggage compartment and shut the wing doors, thereby trapping themselves inside. Temperatures inside a locked vehicle may reach extremes of heat or cold, according to season. This could cause serious injuries or illness, or even have fatal consequences.**

◁

Unlocking and locking the wing doors from the inside

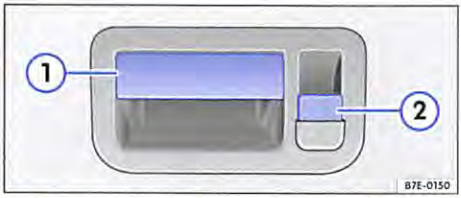


Fig. 35 Inside wing door: locking knob ① and lever ②

First read and observe the introductory information and safety warnings ⚠ on page 52.

Locking the wing door from inside

- Press in the locking knob on the inside and close the wing doors. The wing doors remain locked until either the vehicle is unlocked again, or until the key slot in the door lock is turned anti-clockwise. ▶

Opening the wing door from the inside

- Make sure that the childproof lock is not active and that the safety knob is in the upper position ⇒ Fig. 35 ①.
- Pull the lever ② to unlock the wing doors.
- Push the left-hand wing door back to open it. ◁

Childproof lock in the wing doors

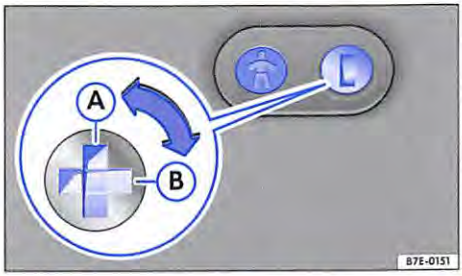


Fig. 36 In the left-hand wing door: childproof lock - Ⓐ switched off, Ⓑ switched on

First read and observe the introductory information and safety warnings ⚠ on page 52.

The childproof lock prevents the wing doors being opened from the inside. When the childproof lock is activated the wing doors can be opened from the outside only.

Switching the child lock on and off

- Open left-hand wing door.
- Use the vehicle key to bring the slot to the desired position.

Slot position
⇒ Fig. 36:

Ⓐ	Child lock is switched off.
Ⓑ	Child lock is switched on.

⚠ WARNING

When the childproof lock is activated, the wing doors cannot be opened from the inside.

- **Never leave children or people requiring assistance alone in the vehicle when the doors are locked. This may mean that these people lock themselves in the vehicle. They could become trapped in the vehicle in an emergency and may not be able to get themselves to safety. People locked in the vehicle may be subjected to very high or very low temperatures.**
- **Temperatures inside a locked vehicle may reach extremes of heat or cold, according to season. This can cause serious injuries and illness or fatalities, especially to small children.** ◁

Windows

Introduction

This chapter contains information on the following subjects:

Opening and closing the windows electrically 56
Electric windows – functions 56
Roll-back function for the electric windows . . . 57
Opening and closing sliding windows 58

Mechanical window winders

The windows in the driver door and front passenger door can be opened and closed by rotating the respective window winders.

Additional information and warnings:

- Volkswagen information system ⇒ page 24
- Central locking system ⇒ page 39 ▶

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⚠ WARNING

Always take care when using the mechanical or electric windows otherwise you could cause serious accidents or injuries.

- **Windows should only be opened or closed when you are sure that nobody is in their operating area.**
- **Never leave children or people requiring assistance alone in the vehicle when the vehicle is locked. Electric windows can no longer be opened in an emergency.**

⚠ WARNING (Continued)

- **Always take all vehicle keys with you every time you leave the vehicle. The electric windows can still be operated using the buttons several minutes after the ignition has been switched off, provided the driver door and the front passenger door are not opened.**

NOTICE

During sudden rain showers, water can enter the vehicle interior via open windows and cause damage to the vehicle. ◁

Opening and closing the windows electrically



Fig. 37 In the driver door: buttons for the electric windows

The windows can still be operated using the buttons several minutes after the ignition has been switched off, provided that the driver door and front passenger door are not opened. If the vehicle key is removed from the ignition lock and the driver door is opened, all electric windows can be opened or closed by operating and holding the corresponding window button in the driver door. After a few seconds, convenience opening/closing is started ⇒ page 57. ◁

First read and observe the introductory information and safety warnings ⚠ on page 55.

Opening and closing the windows

Function	Action
Opening	Press the ⊟ button.
Closing	Pull the ⊟ button.
Stopping the one-touch function	Press or pull the button for the appropriate window again.

Electric windows – functions

First read and observe the introductory information and safety warnings ⚠ on page 55.

One-touch opening and closing

One-touch opening and closing makes it possible to fully open and close the windows. The individual buttons do not have to be held down to do this.

For one-touch closing: pull the button for the appropriate window up briefly into the second position.

For one-touch opening: press the button for the appropriate window down briefly into the second position.

Stopping the one-touch function: press or pull the button for the appropriate window again.

Restoring one-touch opening and closing

One-touch opening and closing is deactivated if the vehicle battery has been disconnected or discharged while the windows were not fully closed. The function will have to be reset. ▶

- Close all windows and doors.
- Pull up the button for the window and hold it in this position for at least one second.
- Let go of the button then pull it up again and hold it in this position. One-touch opening and closing is now ready for operation.

The one-touch function can be restored for individual windows or for several windows at the same time.

Convenience opening and closing

There are three different ways of opening and closing all electric windows simultaneously when the ignition is switched off:

- Press and hold the locking or unlocking button in the remote control key.
- To interrupt this function, let go of the locking or unlocking button.
- **OR:** hold the vehicle key in the driver door lock cylinder in either the locking or the unlocking position until all windows are either opened or closed.
- To interrupt this function, turn the vehicle key in the opposite direction.
- **OR:** after switching the ignition off and opening the driver and front passenger doors, push or pull the button in the required direction for at least two seconds.

During convenience closing, first the windows and then the sliding/tilting roof will be closed.

⚠ WARNING

Careless or unsupervised use of the electric windows can cause serious injuries.

- **The electric windows should only be opened or closed when you are sure that nobody is in their operating area.**
- **Never leave children or people requiring assistance alone in the vehicle when the vehicle is locked. The windows can no longer be opened in an emergency.**
- **Always take all vehicle keys with you every time you leave the vehicle. The windows can still be operated using the buttons several minutes after the ignition has been switched off, provided that the driver door and front passenger door are not opened.**

One-touch opening and closing and the roll-back function will not work if there is a fault in the electric windows. Go to a qualified workshop. ◁

Roll-back function for the electric windows

First read and observe the introductory information and safety warnings ⚠ on page 55.

The roll-back function for the electric windows can reduce the risk of injuries when the windows are closing ⇒⚠. If the one-touch closing function for a window does not work because it is stiff or is being obstructed, the window will automatically open again.

- Check to see why the window has not closed.
- Try to close the window again.
- If the window is again prevented from closing within approximately 10 seconds of the first attempt because it is stiff or obstructed, the automatic closing function is switched off for approximately 10 seconds.
- If the window is still obstructed, the window stops at this point. To close the window without the **roll-back function**, press the button again within 10 seconds ⇒⚠.

Closing the window without the roll-back function

- Try to close the window again within approximately 10 seconds by holding the button. **The roll-back function will be deactivated for a small section of the path of the closing window.**
- If the closing procedure takes longer than approximately 10 seconds, the roll-back function will be reactivated. The window will then stop again if it is stiff or meets another obstacle.
- Please go to a qualified workshop if the window still cannot be closed.

⚠ WARNING

Closing the electric windows without the roll-back function could lead to severe injuries.

- **Always take care when closing electric windows.** ▶

⚠ WARNING (Continued)

- **Ensure that nobody obstructs the path of the electric windows, especially if the roll-back function is not active.**

⚠ WARNING (Continued)

- **The roll-back function does not prevent fingers or other body parts from being pressed against the window frame and sustaining injury.**

The roll-back function is also activated if the windows are closed using convenience closing ⇒page 57. ◁

Opening and closing sliding windows

First read and observe the introductory information and safety warnings ⚠ on page 55.

Opening the sliding window in the side panel

- Press the window handle and pull it towards the inside of the vehicle.
- Keep the window handle in this position and open the sliding window.
- Make sure that the sliding window is securely engaged in one of the available positions.

Closing the sliding window in the side panel

- Press the window handle and pull it towards the inside of the vehicle.
- Keep the window handle in this position and close the sliding window.
- Push the window frame below the window handle to the front to ensure that the sliding window locks properly.

Opening and closing the sliding window in the partition

- Pull the window handle and open or close the sliding window.

⚠ WARNING

In the event of a sudden braking manoeuvre or accident, a window not securely engaged could move forward and cause injuries.

- **Always make sure that the sliding window is securely engaged in one of the 3 positions.** ◁

Sliding/tilting roof

Introduction

This chapter contains information on the following subjects:

Opening and closing the sliding/tilting roof . . . 59
Sliding/tilting roof – functions 59
Roll-back function for the sliding/tilting roof . . 60

Additional information and warnings:

- Volkswagen information system ⇒page 24
- Central locking system ⇒page 39
- Manual pop-up roof, California ⇒page 218
- Electric pop-up roof, California ⇒page 221
- Manual opening and closing ⇒page 413

⚠ WARNING

Improper or unsupervised use of the sliding/tilting roof can cause serious injuries.

- **The sliding/tilting roof should therefore only be opened or closed when you are sure that nobody is in its operating area.**
- **Always take all vehicle keys with you every time you leave the vehicle.** ▶

⚠ WARNING (Continued)

- **Never leave children or people requiring assistance alone in the car, particularly if they have access to the vehicle key. Unsupervised use of the vehicle key can lock the vehicle, start the engine, switch on the ignition and operate the sliding/tilting roof.**
- **The sliding/tilting roof can be operated for a short period after the ignition has been switched off, provided that the driver door and front passenger door are not opened.**

NOTICE

- **In order to avoid damage in winter, remove ice and snow from the roof of the vehicle before opening or tilting the sliding/tilting roof.**

NOTICE (Continued)

- **The sliding/tilting roof should always be closed when you leave the vehicle or when it starts to rain. Any rain entering the vehicle when the sliding/tilting roof is open could cause considerable damage to the electrical system. This can result in further damage to the vehicle.**

Leaves and other loose items must be removed from the guide rails of the sliding/tilting roof at regular intervals, either by hand or using a vacuum cleaner.

If there is a fault in the sliding/tilting roof, the roll-back function will not work properly. Go to a qualified workshop. ◁

Opening and closing the sliding/tilting roof

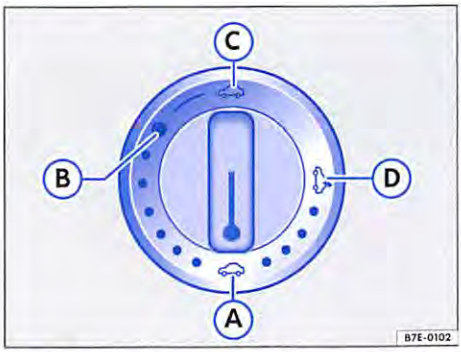


Fig. 38 In the roof: rotary switch for the sliding/tilting roof.

First read and observe the introductory information and safety warnings ⚠ on page 58.

Turn the rotary knob ⇒ Fig. 38 to the required position to select the following positions for the sliding/tilting roof:

Ⓐ Closed
Ⓑ Convenience position
Ⓒ Fully open
Ⓓ Tilted

The sliding/tilting roof will only work when the ignition is switched on. The sliding/tilting roof can be operated several minutes after the ignition has been switched off, provided the driver door and front passenger door are not opened.

Sliding headliner

The sliding headliner opens with the sliding/tilting roof and can be closed manually when the roof is closed. ◁

Sliding/tilting roof – functions

First read and observe the introductory information and safety warnings ⚠ on page 58.

Convenience closing

The sliding/tilting roof can also be closed from outside the vehicle using the driver door lock:

- Hold the vehicle key in the driver door lock in the closing position. The sliding/tilting roof closes.
- Turn the vehicle key to the opening position to interrupt this function.

During convenience closing, first the windows and then the sliding/tilting roof closes. ▶

The sliding/tilting roof rotary switch remains in the last position selected if the roof is closed from outside the vehicle using convenience closing. It will have to be re-positioned the next time you drive. ◁

Roll-back function for the sliding/tilting roof

First read and observe the introductory information and safety warnings ⚠ on page 58.

The roll-back function can reduce the risk of injury when closing the sliding/tilting roof ⇒ ⚠. If the sliding/tilting roof is unable to close because it is stuck or obstructed, it will open again automatically.

- Check to see why the sliding/tilting roof has not closed.
- Try to close the sliding/tilting roof again.
- If the sliding/tilting roof is still obstructed, the sliding/tilting roof stops at this point. The sliding/tilting roof then closes without the roll-back function.

Closing without the roll-back function

- Push the rotary knob at the front in position ⇒ Fig. 38 Ⓐ until the sliding/tilting roof is fully closed.
- **The sliding/tilting roof then closes without the roll-back function.**
- Please go to a qualified workshop if the sliding/tilting roof still cannot be closed.

⚠ WARNING

Closing the sliding/tilting roof without the roll-back function can lead to severe injuries.

- **Always close the sliding/tilting roof carefully.**
- **Ensure that nobody obstructs the operating area of the sliding/tilting roof, especially if the roll-back function is not active.**
- **The roll-back function does not prevent fingers or other body parts from being pressed against the roof frame and sustaining injury.**

The roll-back function is also activated if the windows and sliding/tilting roof are closed using the driver door lock for convenience closing ⇒ page 57. ◁

Sitting correctly and safely

Adjusting the seat position

Introduction

This chapter contains information on the following subjects:

The dangers of assuming an incorrect sitting position 62
Correct sitting position 63
Overview of seats 64
Mechanical controls on the front seats 65
Electrical controls on the front seats 66
Adjusting and removing head restraints 67
Adjusting the steering wheel position 68

Additional information and warnings:

- Seat functions, front ⇒ page 69
- Seat functions, passenger compartment ⇒ page 72
- Seat belts ⇒ page 79
- Airbag system ⇒ page 87
- Child seats (accessories) ⇒ page 96

⚠ WARNING

Assuming an incorrect sitting position in the vehicle can increase the risk of severe or fatal injuries during a sudden driving or braking manoeuvre, in the event of a collision or accident, or if the airbags are triggered.

- **All vehicle occupants must assume a correct sitting position before setting off and maintain this position throughout the trip. This also applies to the fastening of seat belts.**
- **The number of vehicle occupants must never exceed the number of seats with seat belts in the vehicle.**
- **Always secure children in the vehicle in an authorised restraint system which is suitable for their height and weight ⇒ page 96, ⇒ page 87.**
- **Always keep your feet in the footwell while the vehicle is in motion. Never place your feet on the seat or dash panel, for example, and never ride with your feet out the window. When you are sat like this, the airbag and seat belt cannot provide optimal protection and could actually increase the risk of injury during an accident.**

⚠ WARNING

Always adjust seats, seat belts and head restraints to their correct position before any journey and ensure that all passengers have fastened their seat belt.

- **Push the front passenger seat as far back as possible.**
- **Adjust the driver seat so that there is at least 25 cm between your breastbone and the hub of the steering wheel. If your build makes it impossible to fulfil this requirement then you must contact a qualified workshop so they can make any necessary modifications.**
- **Never travel with the backrest tilted far back. The further back the backrest is tilted, the greater the risk of injury caused by incorrect seat belt routing or an incorrect sitting position.**
- **Never travel with the backrest tilted far forwards. When a front airbag is triggered it could force the seat backrest backwards and injure vehicle occupants on the back seats.**
- **Adopt and maintain the greatest possible distance from the steering wheel and dash panel.**
- **You should always sit upright with your back against the seat backrest with the front seats properly adjusted. Do not position any body part too close where the airbags are fitted.**
- **The risk of serious injury is increased for passengers on the rear seat if they are not sitting upright because the seat belts are incorrectly positioned.**

⚠ WARNING

Incorrect adjustment of the seats can cause accidents and serious injuries.

- **The seats may only be adjusted when the vehicle is stationary, or else the seat could change position unexpectedly while the vehicle is in motion, leading to a loss of control of the vehicle. Furthermore, an incorrect seating position is adopted while adjusting the seat.** ▶

⚠ WARNING (Continued)

- **Only adjust the height and tilt of the seat or move it forwards and backwards when the area around the seat is clear.**
- **There should be no objects in the adjustment area of the front seats.**
- **Make sure that there is no dirt in the areas within which the front seats can be adjusted (and locked in place).**

⚠ WARNING

Cigarette lighters in the vehicle could be damaged or accidentally lit. This could lead to serious burns and other injuries.

- **Before adjusting the seats always make sure that there is no lighter on or near the moveable parts of the seat.**
- **Before closing stowage areas or compartments always ensure that there is no lighter in the way.**
- **Never stow lighters in stowage areas or compartments or on other surfaces in the vehicle. Cigarette lighters may self-ignite on high-temperature surfaces, especially in summer.**

◁

The dangers of assuming an incorrect sitting position

First read and observe the introductory information and safety warnings ⚠ on page 61.

If the seat belts are not worn or are worn incorrectly, the risk of severe or fatal injuries increases. Seat belts can only provide optimal protection if the seat belt routing is correct. Assuming an incorrect sitting position considerably impairs the level of protection provided by a seat belt. This could lead to severe or even fatal injuries. The risk of severe or fatal injuries is especially increased when a deploying airbag strikes a vehicle occupant who has assumed an incorrect sitting position. The driver is responsible for all occupants transported in the vehicle, especially children.

The following list contains examples of sitting positions that can be dangerous for all vehicle occupants.

Whenever the vehicle is in motion:

- Never stand in the vehicle.
- Never stand on the seats.
- Never kneel on the seats.
- Never tilt the backrest too far to the rear.
- Never lean against the dash panel.
- Never lie on the seats in the passenger compartment.
- Never sit on the front edge of a seat.
- Never sit sideways.
- Never lean out of a window.
- Never put your feet out of a window.
- Never put your feet on the dash panel.
- Never place your feet on the seat cushion or seat backrest.
- Never travel in a footwell.
- Never sit on the armrest.
- Never travel on a seat without wearing the seat belt.
- Never use the bed.
- Never travel in the luggage compartment or on the load surface.

⚠ WARNING

Every incorrect sitting position in the vehicle increases the risk of severe or fatal injuries in the event of an accident or sudden driving or braking manoeuvre.

- **All vehicle occupants must maintain a correct sitting position and wear their seat belt properly while the vehicle is in motion.**
- **Sitting in an incorrect position, not fastening the seat belt, or too short a distance to the airbag exposes the occupants to critical or fatal injuries, especially if the airbags deploy and strike an occupant who has assumed an incorrect sitting position.**

◁

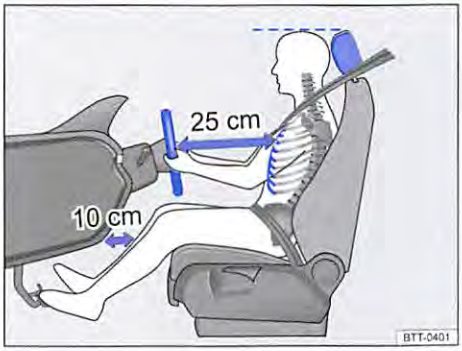


Fig. 39 There must be a distance of at least 25 cm between the driver and the steering wheel. The distance to the dash panel must be at least 10 cm in the knee area.

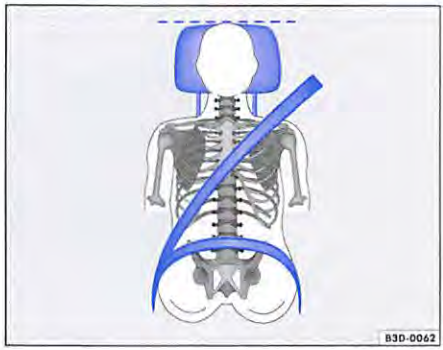


Fig. 40 Correct seat belt routing and head restraint adjustment.

First read and observe the introductory information and safety warnings ⚠ on page 61.

The following details the correct sitting positions for the driver and passengers.

If any vehicle occupants cannot assume a correct sitting position due to their physical build, they should contact a qualified workshop to find out about possible special modifications. The seat belts and airbags can only provide a maximum level of protection if a correct sitting position is assumed. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Volkswagen Commercial Vehicles recommends the following seating position for your own safety and to reduce the level of injury in the case of a sudden braking manoeuvre or an accident:

The following applies to all vehicle occupants:

- Adjust the head restraint so that its upper edge is at the same height as the top of the head, but not lower than eye level. Position the back of your head as close to the head restraint as possible ⇒Fig. 39 and ⇒Fig. 40.
- When adjusting for short people, push the head restraint all the way down, even if the head is then underneath the top edge of the head restraint.
- For taller people, push the head restraint up as far as it will go.
- Keep both feet in the footwell while the vehicle is in motion.
- Adjust and fasten seat belts properly ⇒page 79.

Additional points for the driver:

- Move the backrest into an upright position so that your back rests fully against it.
- Adjust the steering wheel so that the distance between the steering wheel and your breastbone is at least 25 cm ⇒Fig. 39 and the circumference of the steering wheel can be held at the sides with the arms slightly bent.
- The steering wheel must always point towards the breastbone and not towards the face.
- Adjust the driver seat by moving it forwards or backwards so that you are able to press the pedals to the floor with your knees still slightly angled and the distance to the dash panel in the knee area is at least 10 cm ⇒Fig. 39.
- Adjust the height so that you can reach the highest point of the steering wheel.
- Always leave both feet in the footwell, to help ensure you maintain control of the vehicle at all times.

Additional points for the front passenger:

- Move the backrest into an upright position so that your back rests fully against it.
- Push the front passenger seat as far back as possible so that the airbag can provide maximum protection if it is deployed. ◁

Overview of seats

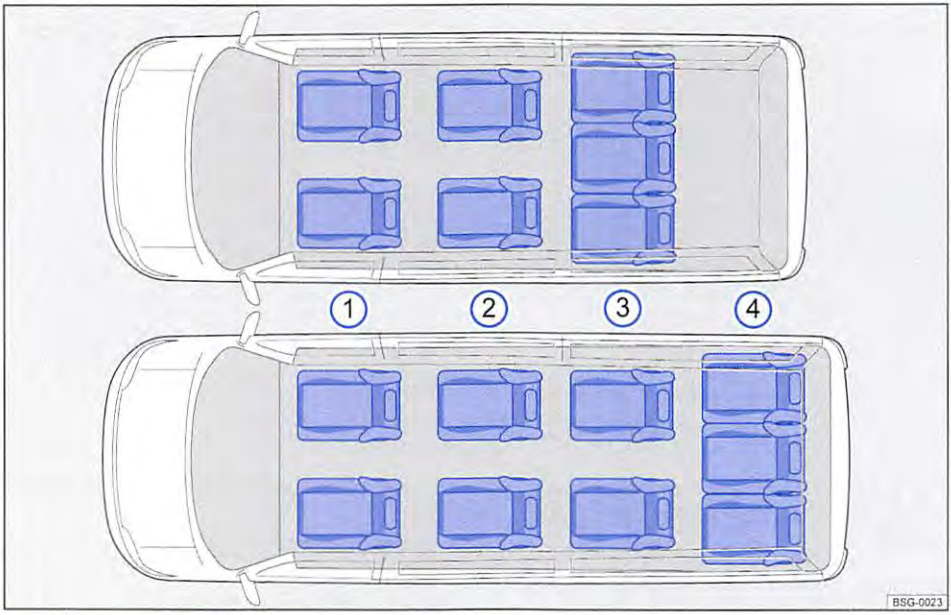


Fig. 41 Overview of seats: short wheelbase (top), long wheelbase (bottom).

First read and observe the introductory information and safety warnings ⚠ on page 61.

Overview of seats[1)]

Fig. 41	Short wheelbase (7 seats max.)	Long wheelbase (8 seats max.)
1st seat row ①	2 single seats facing in direction of travel	
2nd seat row ②	1 or 2 single seats facing in direction of travel or in opposite direction of travel	
3rd seat row ③	3-seat bench **OR** 2 single seats facing in direction of travel	1 or 2 single seats facing in direction of travel
4th seat row ④	—	3-seat bench **OR** 2 single seats facing in direction of travel

Number of seats

The vehicle has a total of 8 seats: 2 at the front and up to 6 at the rear. Each seat is equipped with a seat belt.

Retrofitting seats

Additional seats can be retrofitted, provided that the maximum number of seats quoted by the manufacturer is not exceeded. For this purpose, seat anchor points should be fitted to the vehicle floor by a specialist workshop in accordance with Volkswagen AG guidelines.

These additional seats must also have seat belt anchor points and suitable seat belts.

The Volkswagen Commercial Vehicles dealership can provide you with more information on retrofitting seats. ▶

1) Use of seats in accordance with type approval.

Additional information and warnings:

- Sitting correctly and safely ⇒page 61
- Child seats (accessories) ⇒page 96

⚠ WARNING

Assuming an incorrect sitting position in the vehicle can increase the risk of severe or fatal injuries during a sudden driving or braking manoeuvre, in the event of a collision or accident, or if the airbags are triggered.

- **The number of vehicle occupants must never exceed the number of seats with seat belts in the vehicle.**
- **All vehicle occupants must assume a correct sitting position before setting off and maintain this position throughout the trip. This also applies to the fastening of seat belts.**
- **Always secure children in the vehicle in an authorised restraint system which is suitable for their height and weight ⇒page 61.**
- **Always keep your feet in the footwell while the vehicle is in motion. Never place your feet on the seat or dash panel, for example, and never ride with your feet out the window. When you are sat like this, the airbag and seat belt cannot provide optimal protection and could actually increase the risk of injury during an accident.**

⚠ WARNING (Continued)

seat belt cannot provide optimal protection and could actually increase the risk of injury during an accident.

⚠ WARNING

Children who are not strapped in or who are not strapped in properly could sustain severe or fatal injuries while the vehicle is in motion.

- **Never use a rear-facing child seat on the front passenger seat.**
- **Always secure children in the vehicle in an authorised restraint system suitable for their height and weight.**
- **Always fasten children's seat belts correctly and ensure that they assume a correct sitting position.**
- **Adjust the seat backrest to an upright position if a child seat is to be used on this seat.**
- **Do not allow children to sit with their heads or any other body parts in the side airbag's deployment zone.**
- **Make sure that the seat belt is correctly routed.**
- **Never allow children or babies to be transported on someone's lap, or held in someone's arms.**
- **Only ever fasten one child into each child seat.**
- **Read and follow the instructions by the manufacturer of the child seat.**

◁

Mechanical controls on the front seats

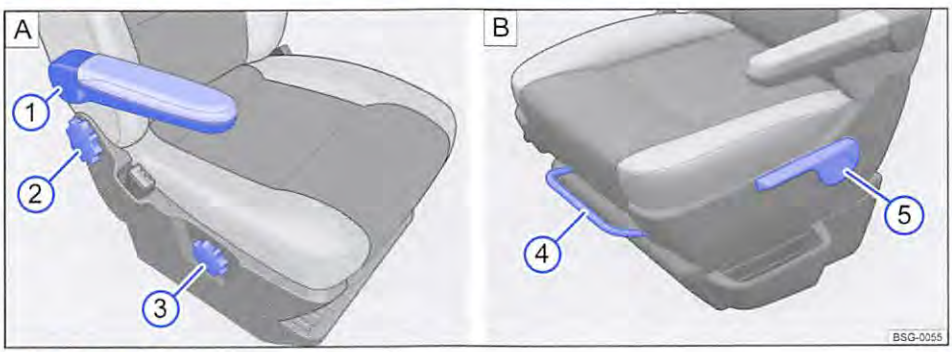


Fig. 42 Front left-hand seat controls.

▶

First read and observe the introductory information and safety warnings ⚠ on page 61.

The layout of the controls on the front right-hand seat is a mirror image of the layout of the controls on the front left-hand seat.

The seat may have a combination of mechanical and electrical controls.

Fig. 42	Function	Action
①	Adjusting the armrest	Turn the thumb wheel underneath the armrest.
②	Adjusting the backrest.	Turn handwheel.
③	Adjusting the lumbar support.	Turn handwheel.
④	Pushing the front seat forwards or backwards.	Lift the lever and move the front seat. The front seat must engage after the lever has been released.
⑤	Adjusting the seat height.	Move the lever up or down, several times if necessary.

The height of the rotating front seats cannot be adjusted. ◁

Electrical controls on the front seats

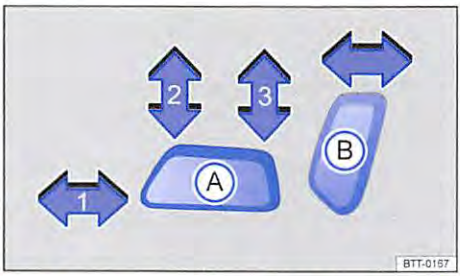


Fig. 43 On the outer side of the left front seat: adjusting the backrest and the seat cushion for height and tilt.

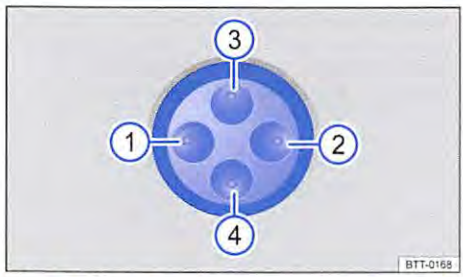


Fig. 44 On the outer side of the front seat: adjusting the lumbar support.

First read and observe the introductory information and safety warnings ⚠ on page 61.

The layout of the controls on the front right-hand seat is a mirror image of the layout of the controls on the front left-hand seat.

The seat may have a combination of mechanical and electrical controls.

Fig. 43 Pressing the switch in the direction of the arrow:

Ⓐ	①	Slides the seat forwards or backwards.
	②	Adjusts the angle of the seat cushion.
	③	Raises or lowers the seat.
Ⓑ	*Forwards or backwards*	Adjusts the angle of the backrest.

▶

Fig. 44 **Pressing the switch in the appropriate area:**

① *or* ②	Adjusts the curve of the lumbar support.
③ *or* ④	Adjusts the height of the lumbar support.

⚠ WARNING

Careless or unsupervised use of the electric front seats can result in severe injuries.

- **The electrical front seat adjustment also works when the ignition is switched off. Never leave children or people requiring assistance alone in the vehicle.**
- **In the event of an emergency, stop the electrical adjustment by pressing another switch.**

NOTICE

To avoid damaging the electrical components in the front seats, do not kneel on the seats or apply sharp pressure at a single point on the seat cushion and backrest.

It may not be possible to adjust the seat electrically if the battery charge level is too low.

Starting the engine will interrupt the seat adjustment procedure. ◁

Adjusting and removing head restraints

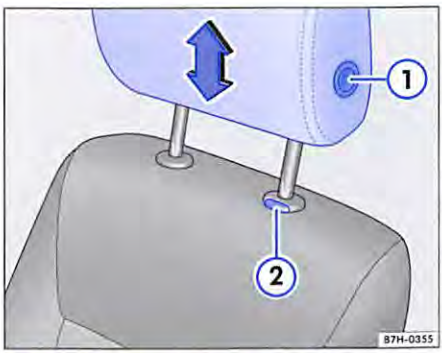


Fig. 45 Adjusting the head restraint

First read and observe the introductory information and safety warnings ⚠ on page 61.

Every seat is fitted with a head restraint. The centre rear head restraint is designed solely for use with the centre rear seat. It is therefore not permissible to install the centre rear head restraint in any other position.

Adjusting the height of the head restraint

The head restraints on the front seats can be adjusted for height.

- Push the head restraint upwards in the direction of the arrow, or push it downwards with the button ⇒ Fig. 45 ① or ② pressed (depending on the model) ⇒ ⚠.
- The head restraint must click securely into position.

Correct head restraint setting

Adjust the head restraint so that its upper edge is at the same height as the top of the head, but not lower than eye level. Position the back of your head as close to the head restraint as possible.

Head restraint setting for shorter people

Push the head restraint all the way down, even if the head is then underneath the top edge of the head restraint. There may be a small gap between the head restraint and backrest in the lowest position.

Head restraint setting for taller people

Push the head restraint up as far as it will go.

Removing the head restraint

- Push the head restraint all the way up ⇒ ⚠.
- Pull the head restraint out while pressing the button ① or ②.

Fitting the head restraint

- Insert the head restraints into the guides on the backrest.
- Press and hold the button ① or ② and push down the head restraint.
- Adjust the head restraint so a correct sitting position can be assumed. ▶

⚠ WARNING

Driving without head restraints or with incorrectly adjusted head restraints increases the risk of severe or fatal injuries in the event of an accident or sudden driving or braking manoeuvre.

- **If a seat is occupied, the head restraint for that seat must be fitted and adjusted correctly.**
- **Each vehicle occupant must adjust the head restraint to suit their body size, to help reduce the risk of neck injuries in an accident. As far as possible, the upper edge of**

⚠ WARNING (Continued)

the head restraint must be level with the top of the head, but not lower than eye level. Position the back of your head in the middle and as close to the head restraint as possible.

- **Never adjust, fit or remove the head restraint while the vehicle is in motion.**
- **Head restraints that have been removed should be fitted as soon as possible so that passengers have correct protection.**

NOTICE

When removing or fitting head restraints, make sure that they do not hit the roof, the front seat backrest or other parts of the vehicle. This will prevent damage from occurring. ◁

Adjusting the steering wheel position

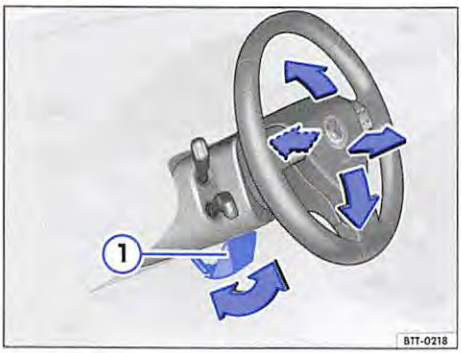


Fig. 46 Below the steering wheel: lever for mechanical adjustment in the steering column trim.

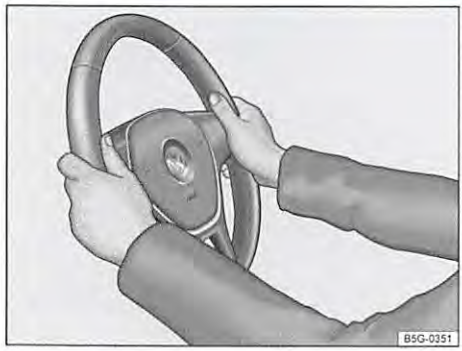


Fig. 47 On the steering wheel: 9 o'clock and 3 o'clock position.

First read and observe the introductory information and safety warnings ⚠ on page 61.

Adjust the steering wheel position before setting off and only when the vehicle is stationary.

- Push down the lever ⇒ Fig. 46 ①.
- Adjust the steering wheel so that you can hold it on the outside of the ring (at the 9 o'clock and 3 o'clock positions ⇒ Fig. 47) with both hands and slightly bent arms.
- Push the lever up firmly until it lines up with the steering column ⇒ ⚠.

⚠ WARNING

Incorrect use of the steering column position adjustment and incorrect adjustment of the steering wheel can cause serious or fatal injuries.

- **After adjusting the steering column, always move lever ⇒ Fig. 46 ① up so that it engages securely. This prevents the steering column from moving spontaneously while the vehicle is in motion.**
- **Never adjust the steering wheel when the vehicle is in motion. If you determine that a readjustment is necessary, stop the vehicle safely and adjust the steering wheel to the correct position.** ▶

⚠ WARNING (Continued)

- **The steering wheel must always point towards the chest and not towards the face. This ensures that the driver front airbag provides maximum protection in the event of an accident.**
- **While driving, always keep both hands on the outside of the steering wheel (at the 9 o'clock and 3 o'clock positions ⇒ Fig. 47). This reduces the risk of injury if the driver front airbag is triggered.**

⚠ WARNING (Continued)

- **Never hold the steering wheel at the 12 o'clock position, or in any other manner, e.g. on the hub of the steering wheel. If the driver front airbag is triggered, you could receive severe injuries to the arms, hands and head.** ◁

Seat functions, front

Introduction

This chapter contains information on the following subjects:

Seat heating 69
Memory seats 70
Rotating front seats 71

Additional information and warnings:

- Adjusting the seat position ⇒ page 61
- Seat belts ⇒ page 79
- Airbag system ⇒ page 87
- Child seats (accessories) ⇒ page 96
- Heating, ventilating, cooling ⇒ page 322

⚠ WARNING

Incorrect use of the seat functions can cause serious injuries.

- **Always assume a correct sitting position before you drive and maintain this position throughout the trip. This also applies to all passengers.**
- **The memory seat should only be adjusted when the vehicle is stationary.**
- **Keep hands, fingers, feet and other body parts away from the moving parts of the seats.** ◁

Seat heating

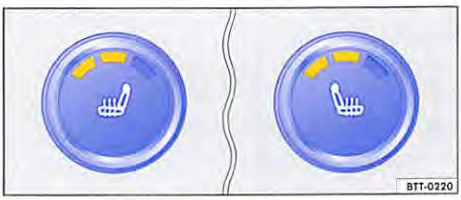


Fig. 48 In the centre console with Climatic: buttons for the front seat heating, set here to the second heating level.

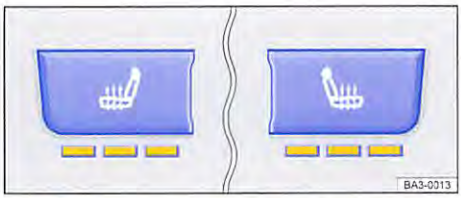


Fig. 49 In the centre console with Climatronic: buttons for the front seat heating, set here to the third heating level.

First read and observe the introductory information and safety warnings ⚠ on page 69.

The seat cushions can be heated electrically when the ignition is switched on. In some versions, the backrests may also be heated.

Do not switch on the seat heating if one of the following conditions applies:

- The seat is not in use.
- The seat is fitted with a protective cover.
- A child seat is installed on the seat. ▶

- The seat cushion is damp or wet.
- The interior or exterior temperature is above 25°C (77°F).

Function	Action ⇒ Fig. 49
Switching on	Press the ▭ or ▭ button. The seat heating is switched on at the highest setting. All indicator lamps light up.
Adjusting the heating output	Press the ▭ or ▭ button repeatedly until the required heat level is set.
Switching off	Press the button ▭ or ▭ until the indicator lamps in the button go out ⇒ Fig. 49.

⚠ WARNING

Anyone experiencing reduced sensitivity to pain or temperature due to medication, paralysis or chronic illness (e.g. diabetes) could sustain burns on the back, buttocks and legs when using the seat heating. These burns may take a long time to heal or may never heal fully. Please consult a doctor to determine your own level of health.

⚠ WARNING (Continued)

- **Anyone experiencing reduced sensitivity to pain or temperature should never use the seat heating.**

⚠ WARNING

Wet upholstery can cause a fault in the seat heating and increase the risk of burns.

- **Ensure that the seat cushion is dry before the seat heating is used.**
- **Do not sit on the seat when wearing damp or wet clothing.**
- **Do not set any damp or wet objects or items of clothing on the seat.**
- **Do not spill any liquids on the seat.**

NOTICE

- **To avoid damaging the heating elements, do not kneel on the seat or apply sharp pressure at a single point on the seat cushion and backrest.**
- **Liquids, sharp objects and insulating materials (such as a protective cover or child seat) on the seat could damage the seat heating.**
- **If the system starts to emit a smell, switch the seat heating off immediately and have it checked by a qualified workshop.**

The seat heating should be switched off as soon as it is no longer needed. Fuel is otherwise wasted. ◁

Memory seats

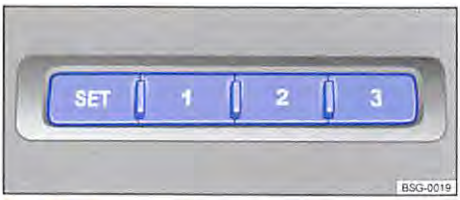


Fig. 50 Memory buttons on the outside of the driver seat.

First read and observe the introductory information and safety warnings ⚠ on page 69.

The memory buttons can be used to store and recall settings for the driver seat.

Memory buttons

Individual settings for the driver seat can be assigned to each of the three memory buttons.

Storing the driver seat settings

- Apply the handbrake firmly.
- Put the gearbox into neutral.
- Adjust the driver seat.
- Press the SET button for longer than one second ⇒ Fig. 50.
- Within approximately 10 seconds press the memory button you wish to use. A gong signal will sound to confirm that the settings have been saved. ▶

Calling up the driver seat settings

- Within 10 minutes after the vehicle has been unlocked, briefly press the respective memory button while the driver door is opened and the ignition is switched off.
- **OR:** with the driver door closed or ignition switched on, press and hold the corresponding memory button until the stored position has been attained.

Activating memory function of the vehicle key

- Unlock the driver door.
- Press the desired memory button ⇒Fig. 50 and keep it pressed until the end of the activation process.
- If required, keep the memory button pressed until the saved seat position is reached.
- Keeping the memory button pressed, simultaneously press the unlocking button in the vehicle key within 10 seconds. A gong will sound to confirm that the settings have been activated.

Deactivating memory function of the vehicle key

- Press the SET ⇒Fig. 50 button and then keep it pressed till the end of the deactivation process.
- Keeping the memory button pressed, simultaneously press the unlocking button in the vehicle key within 10 seconds. A gong will sound to confirm that the settings have been deactivated.

Assigning driver seat settings to a vehicle key

- Activate memory function of the vehicle key.
- Unlock the vehicle using the same vehicle key.
- Adjust the driver seat.
- Lock the vehicle using the button in the remote control key in order to save the settings.

After the settings have been stored, the driver seat always returns to the stored position automatically, as soon as the button in the vehicle key ⇒page 39 is used to unlock the vehicle and the driver door is opened. ◁

Rotating front seats

First read and observe the introductory information and safety warnings ⚠ on page 69.

Turning the front seats

- **Additional point to note for driver seat:** engage selector lever position **P** or a gear to ensure the vehicle cannot roll.
- **Additional point to note for driver seat:** release the handbrake and adjust the steering wheel so that it is as far up and as far forward as possible.
- Open driver door or front passenger door.
- Adjust the backrest to an upright position.
- Place the outer armrest in the horizontal position.
- Move the driver seat to the mid point of the fore-and-aft adjustment.
- Pull the small lever on the front of the seat base and, at the same time, turn the seat inwards.
- You may need to readjust the seat and armrest for turning.

⚠ WARNING

Incorrect handling of the rotating front seats can cause accidents and serious injuries.

- **Only ever adjust the front seats when the vehicle is stationary otherwise you could assume an incorrect sitting position.**
- **Rotating front seats must always be in the direction of travel and securely engaged in this position when the vehicle is in motion.**

NOTICE

If the seat is occupied when it is turned, it could be damaged.

- **Turn the front seats only when they are not occupied.** ◁

Seat functions, rear

Introduction

This chapter contains information on the following subjects:

Single seats 73
3-seat bench 74
Drawers in the 3-seat bench 76
Bed extension (multi-flex board) 77
Centre armrest 78

Additional information and warnings:

- Adjusting the seat position ⇒ page 61
- Seat belts ⇒ page 79
- Airbag system ⇒ page 87
- Child seats (accessories) ⇒ page 96
- Luggage compartment ⇒ page 130
- Guide rail system in rear vehicle floor ⇒ page 133
- Stowage ⇒ page 150
- Vehicle toolkit ⇒ page 416

⚠ WARNING

Incorrect use of the seat functions can cause serious injuries.

- **Always assume a correct sitting position before you drive and maintain this position throughout the trip. This also applies to all passengers.**

⚠ WARNING (Continued)

- **Keep hands, fingers, feet and other body parts away from the moving parts of the seats.**

⚠ WARNING

Incorrect adjustment or removing and fitting single seats and/or the bench seats can cause accidents and severe injuries.

- **All adjustments as well as removing/fitting should be carried out only when the vehicle is stationary; otherwise the single seats and/or the bench seats could move suddenly when the vehicle is in motion. Furthermore, an incorrect seating position is adopted while adjusting the seat.**
- **All single seats and the bench seats must always be fitted in their retainers and must be securely engaged.**
- **Never use the table while the vehicle is in motion. All backrests must be in the upright position and securely engaged in this position while the vehicle is in motion.**
- **Never fit single seats behind the 3-seat bench.**
- **Never fit two 3-seat benches in the vehicle.**
- **While fitting and removing the single seats and/or the bench seat, make sure that the seat feet are not soiled or damaged.**
- **Never use child seats in the groups 0 or 0+ on single seats that face the rear of the vehicle.**

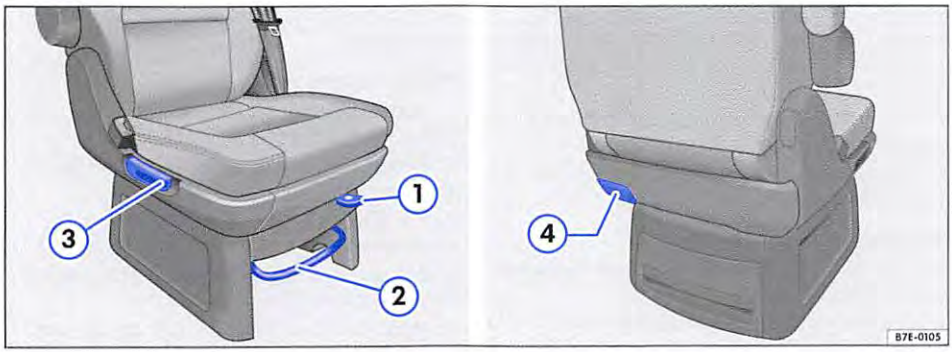


Fig. 51 In the passenger compartment: controls on the front left and the rear right of the single seat.

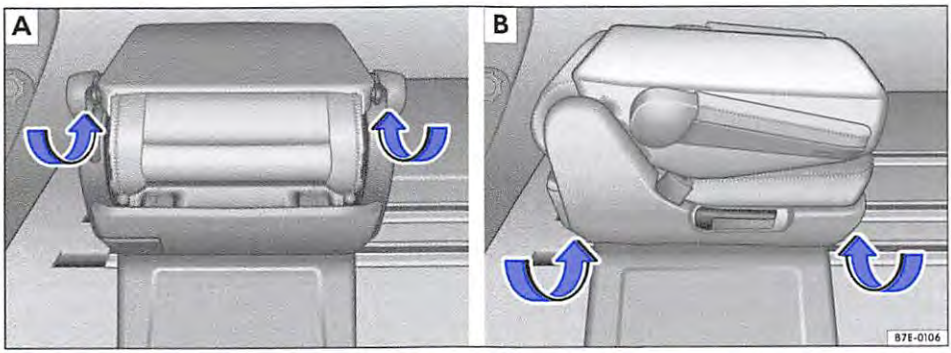


Fig. 52 Holding points for removal and installation on rotating single seat A and on non-rotating single seat B.

First read and observe the introductory information and safety warnings ⚠ on page 72.

Key to Fig. 51 and Fig. 52:

① Turning the single seat

② Pushing the single seat.

③ Adjusting the backrest from the front.

④ Adjusting the backrest from the rear.

Moving the single seat

Never move single seats when the vehicle is on a steep slope. A rotating single seat must be secured and facing either the front or rear of the vehicle.

- Stow the central table / fold the folding table into the side panel.
- Pull the lever ⇒Fig. 51 ② up. The single seat must engage in a position.

Adjusting the backrest

Hold the backrest and pull the lever ③ or ④ up ⇒⚠. The backrest must click into place.

Folding out the table

- Push the belt holder and latch plate all the way up.
- Push the armrests up as far as they will go.
- Hold the backrest and pull the lever ③ or ④ up ⇒⚠.
- Position the backrest as far forward as possible and release the lever.
- Pull the backrest to ensure that it is securely engaged in the horizontal position (table position).
- To *fit* the backrest: hold the backrest and pull the lever ③ or ④ up. The backrest must click into place. ▶

Turning the single seat

- To ensure enough room for turning: place the backrest in an upright position, move the central table and return it to its basic position. Secure the vehicle against rolling away and set the handbrake lever to the lowest position.
- Pull the lever (1) to the side and turn the seat slightly in the required direction.
- Release lever and turn the seat further. The single seat must engage in a position.

Removing a single seat

- Push the central table forwards / fold the folding table into the side panel.
- If necessary slide the front seats forwards.
- If necessary, move the backrest of the front seats to the upright position.
- Remove the protective covers from the seat rails ⇒page 133.
- Removing the head restraint
- Fold out the table.
- **For rotating single seat:** turn the single seat through 90° so that the backrest points in the direction of the open sliding door.
- Push the single seat forwards in the seat rails to the point where the seat feet can be lifted out of the slots.
- **For rotating single seat:** lift the seat at the armrests near the centre of rotation ⇒Fig. 52 A (arrows).
- **For non-rotating single seat:** lift the seat at the points shown B (arrows).
- Place the removed covers on the open slots in the seat rails.

Fitting a single seat

- Push the central table forwards / fold the folding table into the side panel.
- Remove the protective covers from the seat rails ⇒page 133.
- **For rotating single seat:** lift the seat at the armrests near the centre of rotation (1) (arrows).
- **For non-rotating single seat:** lift the seat at the points shown (2) (arrows).
- Place the feet of the single seat into the slots.
- Push the single seat back.
- Fit the head restraint.
- **For rotating single seat:** turn the single seat to the direction of travel.
- Place the removed covers on the open slots in the seat rails.

⚠ CAUTION

Improper backrest angle can cause injury.

- **Always hold the backrest while the angle is being adjusted. The backrest will be pushed forward by springs.**

◁

3-seat bench

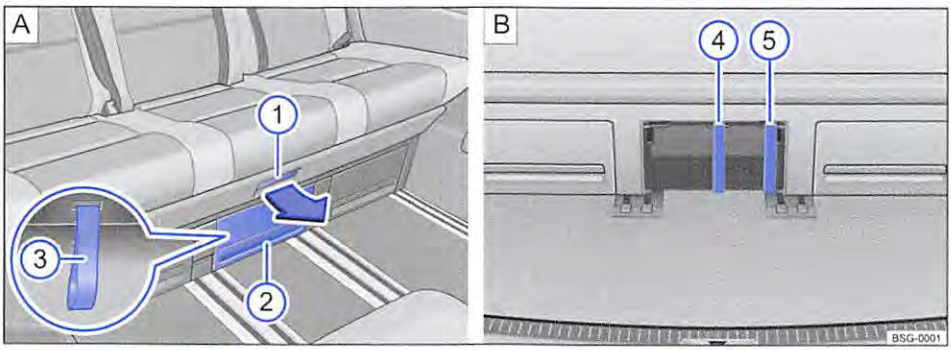


Fig. 53 In the passenger compartment: controls on the 3-seat bench at front A and rear B.

▶

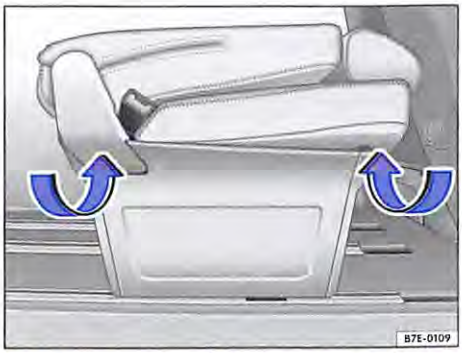


Fig. 54 Holding points for removal and installation on 3-seat bench.

First read and observe the introductory information and safety warnings ⚠ on page 72.

Moving 3-seat bench

The 3-seat bench can be moved from the front ⇒Fig. 53 A or from the rear B.

- Push the single seats forwards.
- Push the central table forwards / fold the folding table into the side panel.
- Adjust the head restraints to the lowest position.
- Unhook the luggage compartment cover and roll it up manually ⇒①.
- Open the centre cover ② A below the bench seat, pull the loop ③ under the seat cushion, and hold it in this position.
- Move the 3-seat bench, and release the loop. The 3-seat bench must engage in a position.
- Close the centre cover ② under the bench seat.

Folding out the table

- Fold the armrest back into the backrest.
- Remove the luggage compartment cover.
- Adjust the head restraints to the lowest position and remove the centre head restraint.
- Pull out the lever ① A completely, until the red marking is visible.
- **OR** Pull on loop ④ B, and hold it in this position.
- Fold the backrest forwards onto the seat cushion.
- Make sure that the lever has returned to its original position. The red marking should no longer be visible.
- Pull the backrest to ensure that it is securely engaged.

Setting up the bed

- Remove the luggage compartment cover.
- Move the 3-seat bench so that the head restraints on the folded backrest do not touch the tailgate.
- Push each belt holder and latch plate all the way up.
- Pull out the lever ① A completely, until the red marking is visible.
- Fold the backrest right back.
- Release the lever ① A. The backrest must click into place.
- Fit the elasticised cover to the bed.
- To *extend* the bed: convert the single seat on the left or right into a table and push the single seat towards the 3-seat bench.
- **OR:** Use the bed extension (multi-flex board) ⇒page 77.

Removing the 3-seat bench

The removal of the 3-seat bench should be carried out by two people ⇒⚠.

- Prevent the vehicle from rolling away: apply the handbrake, move the selector lever to **P** or engage a gear.
- Remove all protective covers from the seat rails ⇒page 133.
- Remove single seats and central table, fold the folding table into the side panel.
- Remove the luggage compartment cover.
- Adjust the head restraints to the lowest position and remove the centre head restraint.
- Fold the backrest forwards onto the seat cushion.
- Push the 3-seat bench forwards in the seat rails to the point where it can be lifted out of the slots.
- Lift the 3-seat bench at the points shown ⇒Fig. 54 (arrows).
- Place the removed covers on the open slots in the seat rails.

Fitting the 3-seat bench

The installation of the 3-seat bench should be carried out by two people ⇒⚠. ▶

- Remove all protective covers from the seat rails ⇒page 133.
- Lift the 3-seat bench at the points shown ⇒Fig. 54 (arrows).
- Place the feet of the 3-seat bench into the slots so that the backrest is facing the rear of the vehicle.
- Adjust the backrest to an upright position.
- Make sure that the lever or the loop has returned to its original position. The red marking should no longer be visible.
- Pull the backrest to ensure that it is securely engaged.
- Insert the single seats and the central table into the seat rails and push them back.
- Lock the single seats and the central table securely in the seat rails.
- Place the removed covers on the open slots in the seat rails.
- Fit the luggage compartment cover.
- Fit the centre head restraint.

⚠ WARNING

The 3-seat bench weighs approximately 90 kg and could cause serious injuries due to its weight.

- **Before removing and fitting it, please consider whether you can actually lift it.**

NOTICE

If you move or remove the 3-seat bench with the luggage compartment cover, the luggage compartment cover and its holders could be damaged

Additional force may have to be applied to move the 3-seat bench if it has not been moved for a long time. ◁

Drawers in the 3-seat bench

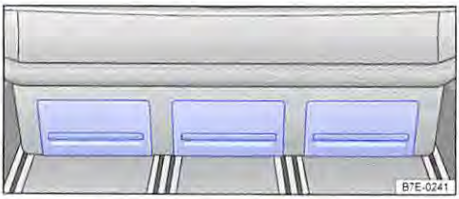


Fig. 55 In the 3-seat bench: drawers.

First read and observe the introductory information and safety warnings ⚠ on page 72.

There are three drawers ⇒Fig. 55 in the 3-seat bench (Multivan), which can be accessed from the front and from the rear.

All drawers can be removed fully. Drawers can be stacked and stored in a stowage compartment.

Opening and closing the drawer from the front

- To *open*, press and hold the handle in the handle recess and pull up the cover in the same way you would for a "garage door". You can now access the drawer.
- To *close*, push the drawer in and press the cover down.

Opening and closing the drawer from the rear

- To *open*, hold the handle in the handle recess and pull the cover back. You can now access the drawer.
- To *close*, place the cover on the top with the retaining lugs in the recess and press it down until it engages.

⚠ WARNING

If the drawer is left open it can hinder the correct operation of the pedals. This can result in accidents and severe injuries.

- **Always keep the drawer closed while the vehicle is in motion. Otherwise the drawer or other items could fall into the driver footwell and obstruct the pedals.** ◁

Bed extension (multi-flex board)

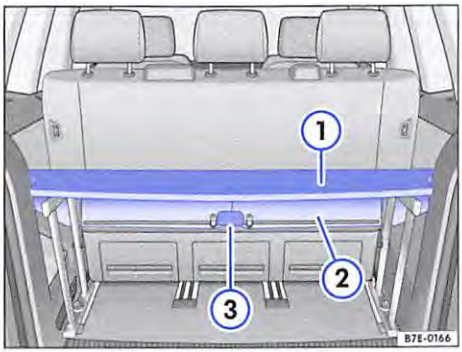


Fig. 56 In the luggage compartment: multi-flex board.



Fig. 57 In the luggage compartment: multi-flex board in right seat rail with handle ④ and thumb wheel ⑤

First read and observe the introductory information and safety warnings ⚠ on page 72.

Key to Fig. 56 and Fig. 57:

① Rear surface (can be folded up)
② Front surface (can be folded down)
③ Lever for folding the front surface down
④ Handles (one each for left and right)
⑤ Thumb wheel (one each for left and right)

The multi-flex board can be used to extend the bed surface of the 3-seat bench.

The multi-flex board consists of two folding surfaces. The front surface ⇒Fig. 56 ② can be folded down using lever ③. The rear surface ① can be folded up. When doing so, always hang the loop over a head restraint to prevent the surface falling down.

The multi-flex board can be fitted and removed more easily by two people than by one person.

Fitting the multi-flex board

- Move the 3-seat bench forward so that the multi-flex board can be fitted.
- Insert the multi-flex board into the outside seat rails. Make sure that the handles ⇒Fig. 57 ④ are **at right-angles** to the seat rails and that the T-shaped holding screws are **parallel** to the seat rails.
- Press both the handles ④ down and turn them through 90° so that they are **parallel** to the seat rails.
- Tighten both the thumb wheels ⑤ firmly.
- Make sure that the multi-flex board is locked securely in the seat rails and that both thumb wheels have been tightened firmly.

Moving the multi-flex board

- Loosen both the thumb wheels ⑤.
- Move the multi-flex board to the desired position.
- Tighten both the thumb wheels ⑤ firmly.

Removing the multi-flex board

- Loosen both the thumb wheels ⑤ completely.
- Turn both the handles ④ in the direction of the arrow through 90 degrees.
- Make sure that front surface ⇒Fig. 56 ② and rear surface ① are folded down and engaged securely.
- Remove the multi-flex board.
- Make sure that the T-shaped holders are not soiled or damaged.

Setting up the bed

- Push the multi-flex board backwards to the stop.
- Push the single seats forwards as far as they will go and turn them to face the rear of the vehicle.
- Stow the folding table or the central table.
- Remove the head restraints on the 3-seat bench.
- Pull the lever ⇒Fig. 53 ① out fully, until the red marking is visible. ▶

- Fold the backrest of the 3-seat bench completely forwards onto the seat cushion.
- Open the centre cover ⇒Fig. 53 (2) [A] below the bench seat, pull the loop (3) under the seat cushion, and hold it in this position.
- Push the 3-seat bench forward to the single seats, and release the loop. The 3-seat bench must contact the seat cushions of the single seats.
- Pull the lever ⇒Fig. 53 (1) out fully, until the red marking is visible.
- Fold the backrest of the 3-seat bench completely backwards.
- Make sure that the lever has returned to its original position. The red marking should no longer be visible.
- Fold up the front surface ⇒Fig. 56 (2) of the multi-flex board.
- Place the supplied mattress on the multi-flex board.
- Fit the elasticised cover to the bed.

⚠ WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident.

⚠ WARNING (Continued)

- **Never place any objects on the multi-flex board while the vehicle is in motion.**
- **The multi-flex board must always be fitted in the seat rails and must be securely engaged when the vehicle is in motion.**

⚠ WARNING

Improper use of the multi-flex board can cause serious injury.

- **The rear surface (1) must always be folded down when the vehicle is in motion.**
- **Never fit the multi-flex board in front of the 3-seat bench.**

NOTICE

This could damage the cool box if the bed extension is fitted (multi-flex board).

- **The front surface (2) of the bed extension (multi-flex board) should always be folded up and engaged securely.**

If the multi-flex board is fitted in the rear position, the fastening rings cannot be used. ◁

Centre armrest



Fig. 58 Centre armrest on the 3-seat bench

First read and observe the introductory information and safety warnings ⚠ on page 72.

Centre armrest

- To *fold the centre armrest down*, pull the loop ⇒Fig. 58 up until it engages.
- To *fold the centre armrest back*, press against the middle of the end face of the centre armrest when folded down and move it up fully. The surrounding upholstery must be flush with the centre armrest.

⚠ WARNING

Transporting a person or a child on the centre armrest can lead to accidents and severe or fatal injury.

- **Never transport an adult or child on the centre armrest.** ◁

Seat belts

Introduction

This chapter contains information on the following subjects:

Warning lamp 80
Frontal collisions and the laws of physics 81
What happens to vehicle occupants who have not fastened their seat belts 82
Seat belt protection 83
Using seat belts 83
Fastening and unfastening seat belts 84
Seat belt routing 85
Belt height adjuster 86
Automatic belt retractor and belt tensioner ... 86
Service and disposal of belt tensioners 87

Check the condition of all seat belts regularly. If the belt webbing, belt connections, belt retractor or seat belt buckle become damaged, the seat belt in question should be replaced immediately by a qualified workshop ⇒⚠. The qualified workshop must use correct spare parts that are compatible with the vehicle, equipment level and model year. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Additional information and warnings:

- Adjusting the seat position ⇒page 61
- Seat functions, rear ⇒page 72
- Airbag system ⇒page 87
- Child seats (accessories) ⇒page 96
- Integrated child seats ⇒page 102
- Stowage ⇒page 150
- Seat functions, rear, Business ⇒page 182
- Seat functions, rear, California ⇒page 193
- Cleaning and caring for the interior ⇒page 388
- Accessories, modifications, repairs and renewal of parts ⇒page 394

⚠ WARNING

Incorrectly fastened or unfastened seat belts increase the risk of severe or fatal injuries. Seat belts will only offer the optimum level of protection when they are fastened and used properly.

⚠ WARNING (Continued)

- **Seat belts are the most effective means of reducing the risk of serious and fatal injuries in the event of an accident. Seat belts must always be fastened properly when the vehicle is in motion to protect the driver and all vehicle occupants.**
- **Before every trip, each vehicle occupant must adopt the correct sitting position, correctly fasten the seat belt belonging to their seat and keep it fastened properly throughout the trip. This applies to all vehicle occupants and also in urban traffic.**
- **While the vehicle is in motion, secure all children travelling in the vehicle in a restraint system suitable for their weight and height. They must also wear correctly fastened seat belts ⇒page 96.**
- **Only start driving when all passengers have correctly fastened their seat belts.**
- **Only ever insert the latch plate into the buckle of the associated seat, and always ensure that it engages properly. Using a buckle that does not belong to the seat that you are occupying reduces the level of protection and can lead to severe injuries.**
- **Avoid allowing foreign bodies or liquids to enter the slot for the seat belt buckle. This could prevent the belt buckle and seat belt from working properly.**
- **Never unfasten the seat belt while the vehicle is in motion.**
- **Never allow more than one person to share the same seat belt.**
- **Never travel when children or babies are being carried on somebody's lap and fastened with the same belt.**
- **Never travel wearing loose, bulky clothing (such as an overcoat over a jacket). This could prevent the seat belts from fitting and functioning properly.**

⚠ WARNING

Damaged seat belts are very dangerous and can cause severe or fatal injuries.

- **Never damage the belt by trapping it in the door or in the seat mechanism.**

⚠ WARNING (Continued)

- **If the belt webbing or any other part of the seat belt becomes damaged, the seat belt may tear during an accident or sudden braking manoeuvre.**
- **Damaged seat belts must be replaced immediately with new seat belts approved by Volkswagen Commercial Vehicles for your vehicle type. Seat belts subjected to stress and stretched during an accident must be replaced by a qualified workshop. Renewal may be necessary even if there is no apparent damage. The belt anchorage should also be checked.**
- **Never try to repair, modify or remove the seat belts yourself. All repairs to the seat belts, belt retractors and buckles must be carried out by a qualified workshop.** ◁

Warning lamp



Fig. 59 Warning lamp in the instrument cluster.

First read and observe the introductory information and safety warnings ⚠ on page 79.

Lights up or flashes	Possible cause	Solution
	Driver seat belt is not fastened.	Fasten the seat belt.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

An acoustic signal will be emitted for a maximum of 90 seconds if the seat belt is not fastened as the car pulls off and reaches a speed of more than 25 km/h (15 mph), or if the seat belt is unfastened while the vehicle is in motion. The seat belt warning lamp will also flash.

The seat belt warning lamp does not go out until the driver fastens their seat belt while the ignition is switched on.

⚠ WARNING

Incorrectly fastened or unfastened seat belts increase the risk of severe or fatal injuries. Seat belts only offer the optimum level of protection when they are used properly. ◁

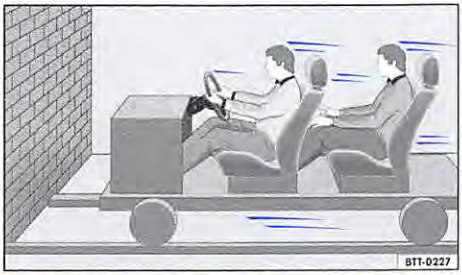


Fig. 60 Unbelted occupants in a vehicle heading for a brick wall.



Fig. 61 Unbelted occupants in a vehicle striking a brick wall.

First read and observe the introductory information and safety warnings ⚠ on page 79.

The physical principles involved in a frontal collision are relatively simple. Both the moving vehicle ⇒Fig. 60 and the passengers possess energy, which is known as "kinetic energy".

The higher the vehicle speed and the heavier the weight of the vehicle, the greater the amount of energy that will have to be released in the event of an accident.

However, the most significant factor is the speed of the vehicle. If the speed doubles from approximately 25 km/h (15 mph) to approximately 50 km/h (31 mph), for example, the kinetic energy increases by a factor of four.

The amount of kinetic energy depends on the speed of the vehicle and the weight of the vehicle and passengers. The higher the speed and the heavier the weight, the greater the amount of energy that will be released in the event of an accident.

Passengers not wearing seat belts are not connected to the vehicle. In the event of a frontal collision they will continue to move forwards at the same speed at which the vehicle was travelling before impact, until something stops them. Because the passengers in our example are not restrained by seat belts, the entire amount of kinetic energy will only be released at the point of impact against the wall ⇒Fig. 61.

Even at speeds of approximately 30 km/h (18 mph) to approximately 50 km/h (31 mph), the forces acting on bodies in a collision can easily exceed one tonne (1,000 kg). These forces are even greater at higher speeds.

This example applies not only to frontal collisions, but to all accidents and collisions. ◁

What happens to vehicle occupants who have not fastened their seat belts



Fig. 62 An unbelted driver is thrown forwards.



Fig. 63 The unbelted rear passenger is thrown forwards, hitting the belted driver.

First read and observe the introductory information and safety warnings ⚠ on page 79.

Many people believe that they can brace their weight with their hands in a minor collision. This is not true.

Even at low speeds, the forces acting on the body in a collision are so great that occupants cannot brace themselves with their arms and hands. In a frontal collision, vehicle occupants who have not fastened their seatbelts will be thrown forward and will make unchecked contact with parts of the vehicle interior, e.g. the steering wheel, dash panel, or windscreen ⇒Fig. 62.

The airbag system is not a substitute for the seat belts. When triggered, the airbags only provide additional protection. Airbags are not triggered in all kinds of accidents. Even if the vehicle is equipped with an airbag system, all vehicle occupants, including the driver, must fasten their seat belt and wear it correctly while the vehicle is in motion. This reduces the risk of severe or fatal injuries in the event of an accident – regardless of whether an airbag is fitted for the seat.

Each airbag can only be triggered once. To achieve best possible protection, seat belts must always be worn properly. This also ensures that protection is provided in accidents in which the airbag is not triggered. Any vehicle occupants not wearing a seat belt can be thrown out of the vehicle and sustain more severe or even fatal injuries as a result.

It is also important for the rear seat occupants to wear seat belts properly, as they could otherwise be thrown forwards violently in an accident. Rear passengers who are not wearing seat belts endanger not only themselves and the driver, but also other people in the vehicle ⇒Fig. 63. ◁

Seat belt protection



Fig. 64 Driver restrained by a properly positioned seat belt during a sudden braking manoeuvre.

First read and observe the introductory information and safety warnings ⚠ on page 79.

When fastened properly, seat belts hold the vehicle occupants in the correct sitting positions and considerably reduce the kinetic energy in the event of an accident. Seat belts also help to prevent uncontrolled movements which could lead to severe injuries. In addition, wearing seat belts properly reduces the risk of being thrown from the vehicle ⇒ Fig. 64.

Passengers wearing seat belts correctly benefit greatly from the ability of the belts to reduce the kinetic energy. The front crumple zones and other passive safety features (such as the airbag system) are also designed to reduce kinetic energy. The amount of energy generated will thus decrease, thereby reducing the risk of injury.

The examples describe frontal collisions. Of course, properly worn seat belts substantially reduce the risk of injury in all other types of accidents. This is why seat belts must be fastened before every trip – even if you are only planning to drive a very short distance. Ensure that all passengers also wear their seat belts properly.

Accident statistics have shown properly worn seat belts to be an effective means of substantially reducing the risk of injury and improving the chances of survival in a serious accident. Furthermore, properly worn seat belts improve the protection provided by airbags in the event of an accident. This is why wearing a seat belt is a legal requirement in most countries.

Although the vehicle is equipped with airbags, the seat belts must be fastened and worn. For example, the front airbags will only be triggered in certain types of frontal collision. The front airbags will not be triggered during minor frontal collisions, minor side collisions, rear collisions, rolls or accidents in which the airbag trigger threshold in the control unit is not exceeded.

Therefore, always wear your seat belt and ensure that your passengers have fastened their seat belts properly before you drive off. ◁

Using seat belts

First read and observe the introductory information and safety warnings ⚠ on page 79.

Checklist

Using seat belts ⇒⚠:

- ✓ Check the condition of all seat belts regularly.
- ✓ Keep the seat belts clean.
- ✓ Avoid allowing any foreign bodies or fluids to get on to the seat belt or latch plate or into the slot for the seat belt buckle.
- ✓ Do not trap or damage the seat belt and latch plate, for example when closing the door.
- ✓ Never remove, modify or repair the seat belt or any part of the belt fixture system.
- ✓ Always fasten the seat belt correctly before every journey and keep it fastened while the vehicle is in motion.

Twisted seat belt

If it is difficult to remove the seat belt from the belt guide, the seat belt may have become twisted if it was returned too quickly into the side trim panel:

- Take hold of the latch plate then slowly and carefully pull out the seat belt.
- Untwist the seat belt and guide it back slowly by hand. ▶

Fasten the seat belt even if you are unable to undo the twist. However, the twist should not be in part of the seat belt that comes into direct contact with the body. The twist should be corrected immediately by a qualified workshop.

⚠ WARNING

Using seat belts incorrectly increases the risk of severe or fatal injuries.

⚠ WARNING (Continued)

- **Regularly check to see if the seat belt and its related parts are in perfect condition.**
- **Always keep the seat belt clean.**
- **Do not allow the belt webbing to become jammed, damaged or to rub on any sharp edges.**
- **Always keep the latch plate and slot in the buckle free from foreign bodies and liquids.** ◁

Fastening and unfastening seat belts

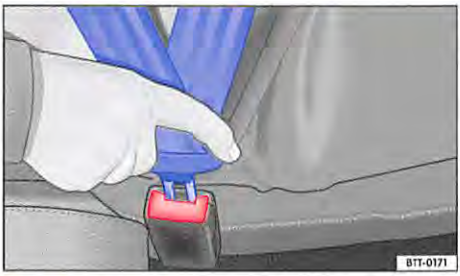


Fig. 65 Inserting the seat belt latch plate into the buckle.



Fig. 66 Removing the latch plate from the buckle.

First read and observe the introductory information and safety warnings ⚠ on page 79.

If worn properly, seat belts hold the vehicle occupants in the correct sitting position during an accident or braking manoeuvre, providing maximum protection ⇒⚠.

When the belt webbing has been *completely* retracted and a clicking sound can be heard as the seat belt is being rolled up, the vehicle is equipped with lockable seat belts. The seat belt locking function should be used only for fitting certain child restraint systems ⇒page 96, *Child seats (accessories)*. A locked seat belt must be released when a vehicle occupant uses the seat belt.

Fastening the seat belts

Fasten seat belts before every trip.

- Always adjust the front seat and head restraint correctly ⇒page 61.
- Engage the rear seat backrests in an upright position ⇒⚠.
- Take hold of the latch plate and pull it evenly across your chest and pelvis. Do **not** twist the belt in the process ⇒⚠.
- Insert the latch plate securely into the buckle belonging to the occupied seat ⇒Fig. 65.
- Pull on the seat belt to ensure that the latch plate is securely locked in the buckle.

Unfastening the seat belts

Unfasten seat belts only when the vehicle is stationary ⇒⚠.

- Press the red button in the buckle ⇒Fig. 66. The latch plate is released and springs out.
- Guide the belt back by hand so that it rolls up easily, without twisting the seat belt and without damaging the trim.

⚠ WARNING

Incorrect seat belt routing can cause severe or fatal injuries in the event of an accident.

- **The seat belts only offer best protection when the backrests are in an upright position and the seat belts have been fastened properly according to the occupant's height.**
- **Unfastening seat belts while the vehicle is in motion can lead to severe or fatal injuries in the event of an accident or sudden braking manoeuvre.** ◁

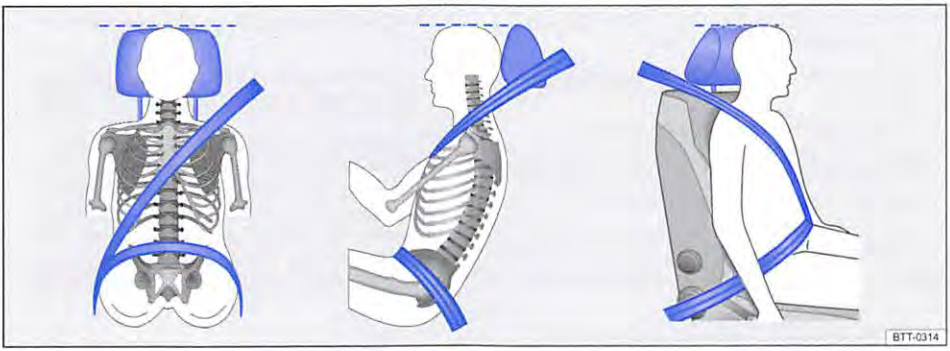


Fig. 67 Correct seat belt routing and head restraint adjustment.



Fig. 68 Correct seat belt routing during pregnancy.

First read and observe the introductory information and safety warnings ⚠ on page 79.

Seat belts only provide an optimum level of protection during an accident when they are routed correctly. Correct seat belt routing reduces the risk of severe or fatal injuries. Correct seat belt routing also holds the vehicle occupants in position so that an inflating airbag can offer the maximum level of protection. Therefore you must always fasten your seat belt and ensure that the seat belt routing is correct.

Assuming an incorrect sitting position can cause severe or fatal injuries ⇒ page 61, *Adjusting the seat position*.

Correct seat belt routing

- The shoulder part of the seat belt must always lie on the centre of the shoulder, never across the neck, over or under the arm or behind the back.
- The lap part of the seat belt must always lie across the pelvis, never across the stomach.
- The seat belt must always lie flat and snugly on the body. Tighten the belt if necessary.

For **pregnant women**, the seat belt must be positioned evenly over the chest and as low as possible over the pelvis. It must lie flat so that no pressure is exerted on the lower body – this applies for the entire course of the pregnancy ⇒ Fig. 68.

Correct seat belt routing according to height

The following equipment can be used to adjust the seat belt routing:

- Belt height adjuster for the front seats ⇒ page 86.
- Height-adjustable front seats ⇒ page 61.

⚠ WARNING

Incorrect seat belt routing can cause severe injuries in the event of an accident or a sudden braking or driving manoeuvre.

- **The seat belts only offer best protection when the backrests are in an upright position and the seat belts have been fastened properly.**
- **The seat belt itself or a loose seat belt can cause serious injuries if the seat belt shifts from harder body parts in the direction of softer body parts (e.g. stomach).**

⚠ WARNING (Continued)

- **The shoulder part of the seat belt must lie on the centre of the shoulder and never under the arm or across the neck.**
- **The seat belt must lie flat and snugly on the chest.**
- **The lap part of the seat belt must lie across the pelvis and never across the stomach. The seat belt must lie flat and snugly on the pelvis. Tighten the belt if necessary.**
- **For pregnant women, the lap part of the seat belt must be as low as possible over the pelvis and lie flat around the bulge of the belly.**
- **Do not twist the belt webbing while the seat belt is being worn.**
- **Never hold the seat belt away from the body by hand.**

⚠ WARNING (Continued)

- **The belt webbing should not lie over hard or fragile objects, such as glasses, pens or keys.**
- **Never use seat belt clips, retaining rings or similar items to alter the seat belt routing.**

If a person's physical build prevents them from routing the seat belt properly, contact a qualified workshop to find out about any special modifications so that the seat belts and airbags can provide the optimum level of protection. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose. ◁

Belt height adjuster

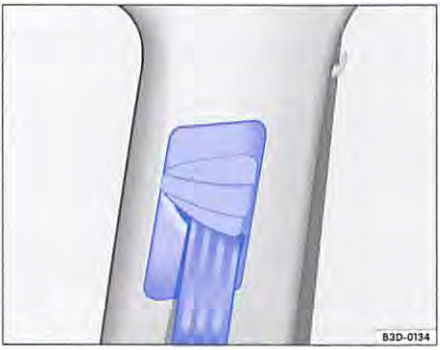


Fig. 69 Next to the front seats: belt height adjuster.

First read and observe the introductory information and safety warnings ⚠ on page 79.

The seat belt height adjusters for the front seats can be used to adjust the position of the seat belt on the shoulder so that it can be fastened properly:

- Push and hold the upper part of the shoulder belt guide ⇒Fig. 69.
- Push the shoulder belt guide up or down so that the seat belt lies over the middle of the shoulder ⇒page 85, *Seat belt routing*.
- Let go of the shoulder belt guide.
- Pull sharply on the seat belt to check whether the shoulder belt guide is engaged securely.

⚠ WARNING

Never adjust the seat belt height when the vehicle is in motion. ◁

Automatic belt retractor and belt tensioner

First read and observe the introductory information and safety warnings ⚠ on page 79.

The seat belts in the vehicle are part of the vehicle safety concept ⇒page 91 and include the following important functions:

Automatic belt retractor

Every seat belt is equipped with an automatic belt retractor on the shoulder part of the belt. Full freedom of movement is made possible when the shoulder belt is pulled slowly or when the vehicle is travelling at normal speeds. However, if the belt is ▶

pulled out quickly or during sudden braking, during travel in mountains or bends and during acceleration, the automatic belt retractor is locked.

Belt tensioners

The seat belts for the front seat occupants are equipped with belt tensioners.

The belt tensioners are activated by sensors during severe frontal, side and rear collisions. They tighten the seat belts against the direction in which they are pulled. Any slack in the seat belt is retracted, which can reduce the passenger's movement forwards or in the direction of the impact. The belt tensioner works together with the airbag system. The belt tensioner will not be activated if the vehicle rolls over if the combined curtain and side airbags are not activated.

A fine dust may be produced when the airbags are triggered. This is quite normal and does not mean that there is a fire in the vehicle.

All safety requirements must be observed when the vehicle or components of the system are scrapped. Qualified workshops are familiar with these requirements ⇒page 87. ◁

Service and disposal of belt tensioners

First read and observe the introductory information and safety warnings ⚠ on page 79.

Seat belts may become damaged during any work on the belt tensioners or while removing or refitting any vehicle parts in conjunction with any other repair work. This damage will not always be noticeable. The consequence may be that the belt tensioners could function incorrectly, or not function at all, in the event of an accident.

Regulations must be observed to ensure that the effectiveness of the belt tensioner is not reduced and that removed parts do not cause any injuries or environmental pollution. Qualified workshops are familiar with these requirements.

⚠ WARNING

The risk of severe or fatal injuries may be increased if the seat belts, automatic belt retractors and belt tensioners are not used correctly, or if they are repaired by a non-professional. As a result, the belt tensioners may not be triggered when they should, or they may be triggered unexpectedly.

- **Any repairs, adjustments or removal and refitting of parts in the belt tensioners or seat belts should always be carried out by a qualified workshop and never by yourself ⇒page 394.**
- **Belt tensioners and automatic belt retractors cannot be repaired. They must be replaced.**

The airbag modules and belt tensioners may contain perchlorate. Please comply with legislation regarding disposal. ◁

Airbag system

Introduction

This chapter contains information on the following subjects:

Types of front passenger airbag systems 89
Indicator lamp 89
Description and function of the airbags 90
Front airbags 92
Switching the front passenger front airbag on and off manually using the key-operated switch 93
Combined curtain and side airbags 94
Curtain airbags 95

The vehicle is equipped with a front airbag for the driver and front passenger. The front airbags can provide front seat occupants with additional chest and head protection if the seat, seat belts, head restraints and, in the case of the driver, steering wheel are adjusted and used correctly. Airbags are meant only for additional protection. The airbags ▶

are not a substitute for seat belts. Seat belts must always be worn, even when the front seats are equipped with front airbags.

Additional information and warnings:

- Driving tips ⇒page 33
- Central locking system ⇒page 39
- Correct sitting position ⇒page 61
- Seat belts ⇒page 79
- Child seats (accessories) ⇒page 96
- Cleaning and caring for the interior ⇒page 388
- Accessories, modifications, repairs and renewal of parts ⇒page 394
- Consumer information ⇒page 404

⚠ WARNING

Never rely solely on the airbag system for your protection.

- **Even if an airbag is triggered, it only offers auxiliary protection.**
- **The airbag system offers the best level of protection, and reduces the risk of injury, when seat belts are properly worn ⇒page 79, *Seat belts*.**
- **Before every trip, each vehicle occupant must adopt the correct sitting position, correctly fasten the seat belt belonging to their seat and keep it fastened properly throughout the trip. This applies to all vehicle occupants and also in urban traffic.**

⚠ WARNING

The risk of injury increases if there are any objects between the vehicle occupants and the deployment area of the airbag when it is triggered. This will alter the deployment zone of the airbag, or the objects will be flung against the body.

- **Never hold any objects in your hand or on your lap while the vehicle is in motion.**
- **Never transport any objects on the front passenger seat. The objects could enter the deployment zone of the airbag during sudden braking or driving manoeuvres and then be flung dangerously through the vehicle interior if the airbag is activated.**
- **Vehicle occupants sitting on the front seats and rear outer seats must never carry any people, pets or objects in the deployment zone between themselves and the airbags. Make sure that children and passengers also keep to this rule.**

⚠ WARNING

External devices in the vehicle that are not properly secured can be flung though the interior and cause injuries, if there is a sudden driving or braking manoeuvre, or in the event of an accident.

- **You should never position or attach an external device on a door, on the windscreen or above or near to the areas marked "AIRBAG" on the steering wheel, the dash panel and the seat backrests, or between these areas and the vehicle occupants. External devices can cause serious injury in an accident, especially when the airbags deploy.**

⚠ WARNING

The airbag system can only be triggered once. The system will have to be replaced if the airbags have been triggered.

- **Airbags that have deployed and any affected system parts must be immediately replaced with new parts that are approved by Volkswagen Commercial Vehicles for the respective vehicle.**
- **Repairs and modifications to your vehicle should only be carried out by a qualified workshop. Qualified workshops have the necessary tools, diagnostic equipment, repair information and qualified personnel.**
- **Never use recycled airbag components or components that have been taken from end-of-life vehicles in your vehicle.**
- **Never alter any components of the airbag system.**

⚠ WARNING

Fine dust particles or steam may be released when the airbags trigger. This is normal and does not mean that there is a fire in the vehicle.

- **The fine dust can cause irritation to the skin and eye membranes and cause breathing difficulties, particularly for people suffering from asthma or people who have (had) other respiratory problems. To help reduce breathing difficulties, get out of the vehicle or open the windows or doors for more fresh air.**
- **If you come into contact with the dust, you should wash your hands and face with a mild soap and water before eating.**
- **Do not let the dust get into your eyes or into open wounds.**

⚠ WARNING (Continued)

- **If dust has entered your eyes, rinse them with water.**

⚠ WARNING

Cleaning agents that contain solvents cause the surface of the airbag modules to become porous. In an accident that triggers the airbag, loose plastic parts can cause serious injury.

- **Never clean the dash panel or the airbag covers with cleansers that contain solvents.** ◁

Types of front passenger airbag systems

First read and observe the introductory information and safety warnings ⚠ on page 87.

Volkswagen offers two different front airbag systems for front passengers:

A	B
Features of the front passenger front airbag that can only be switched off by a qualified workshop.	**Features of the front passenger front airbag that can be switched off manually using the key-operated switch ⇒ page 93.**
– Indicator lamp in the instrument cluster. – Front passenger front airbag in the dash panel.	– Indicator lamp in the instrument cluster. – Indicator lamp PASSENGER AIR BAG OFF in the top area of the centre console. – Key-operated switch on the front of the dash panel on the front passenger side. – Front passenger front airbag in the dash panel.
Name: airbag system.	**Name: airbag system with front passenger front airbag deactivation.** ◁

Indicator lamp



Fig. 70 Indicator lamp in the dash panel for deactivated front passenger front airbag

First read and observe the introductory information and safety warnings ⚠ on page 87. ▶

Lit up	Location	Possible cause	Solution
	Instrument cluster.	Fault in airbag and belt tensioner system.	Go to a qualified workshop to have the system checked immediately.
OFF	Upper section of the centre console.	Fault in the airbag system.	Go to a qualified workshop to have the system checked immediately.
		Front passenger front airbag switched off.	Check whether the airbag should stay switched off.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

If the indicator lamp PASSENGER AIR BAG OFF is **not continuously** lit or if it lights up together with the indicator lamp in the instrument cluster when the front passenger front airbag is switched off, there may be a fault in the airbag system ⇒ ⚠.

⚠ WARNING

If there is a fault in the airbag system, the airbag may not trigger correctly, may not trigger at all or may trigger unexpectedly. This can cause severe or fatal injuries.

⚠ WARNING (Continued)

- **The airbag system should be checked by a qualified workshop as soon as possible.**
- **Never fit a child seat to the front passenger seat or remove a child seat that is already fitted. The front passenger front airbag may trigger during an accident in spite of the fault.**

NOTICE

To avoid damage to your vehicle, always observe the indicator lamps and associated warning texts. ◁

Description and function of the airbags

First read and observe the introductory information and safety warnings ⚠ on page 87.

The airbags can protect vehicle occupants during frontal and side collisions by reducing their movement in the direction of the collision.

When an airbag is triggered, it is inflated by a gas generator. This causes the airbag covers to break, and the airbags inflate forcefully to cover their deployment zones within milliseconds. Once a vehicle occupant wearing a seat belt starts to sink into the inflated airbag, the gas inside the airbag starts to escape to cushion the occupant and slow down their movement. This can reduce the risk of severe and fatal injuries. The triggering of the airbag will not always prevent other injuries such as swelling, bruising and grazing. The deployment of the airbag can also produce frictional heat.

Airbags provide no protection for the arms or lower body.

The most important factors for triggering the airbag are the type of accident, the angle of impact, the vehicle speed and the type of object with which the vehicle collides. Therefore, visible damage to the vehicle does not always mean that the airbag should have been triggered.

Whether or not the airbag triggers is determined by the vehicle deceleration rate caused by the collision and registered by the electronic control unit. If this rate is below the reference value programmed into the control unit, the airbags will not be triggered, even though the vehicle may be badly damaged as a result of the collision. Vehicle damage, repair costs or even the lack of vehicle damage in an accident do not necessarily give an indication of whether an airbag should inflate or not. It is not possible to define a range of vehicle speeds and reference values, since the circumstances will vary considerably between one collision and another. It is therefore impossible to cover every possible kind and angle of impact that would trigger the airbags. Important factors in the triggering of the airbag include the nature (hard or soft) of the object that the vehicle hits, the angle of impact, and the vehicle speed.

Airbags only serve as a supplement to the three-point seat belt in some accident situations when the vehicle braking is sufficient to trigger the airbags. Airbags can only be triggered once and only in certain situations. The seat belts are always there to provide protection in situations in which the airbags are not triggered or have already been triggered. For example, if the vehicle collides with a further vehicle following the initial collision, or is hit by another vehicle. ▶

The airbag system is part of the vehicle's overall passive safety concept. The airbag system can only work effectively when the occupants are wearing their seat belts correctly and have assumed a proper sitting position ⚠ ⇒page 61.

Components of the vehicle safety concept

The following vehicle safety equipment makes up the vehicle's safety concept to reduce the risk of severe and fatal injuries. Some of this equipment may not be fitted in your particular vehicle. It may not be available at all in some countries.

- Optimised seat belts for all seats.
- Belt tensioners for the driver and front passenger in conjunction with curtain and side airbags.
- Belt height adjuster for the front seats.
- Seat belt warning lamp.
- Front airbags for driver and front passenger.
- Combined curtain and side airbags for the driver and front passenger.
- Multivan: if fitted, curtain airbags on the rear outer seats of the second and third row of seats.
- Airbag indicator lamp.
- PASSENGER AIR BAG OFF indicator lamp.
- Control units and sensors.
- Height-adjustable head restraints optimised for rear impact.
- Adjustable steering column.
- If fitted, anchor points for child seats on the single seats in the passenger compartment and the outer seats of the bench seat.

Situations in which the front, the combined curtain and side airbag and the curtain airbag will not be triggered:

- If the ignition is switched off during a collision.
- If the level of deceleration measured by the control unit is too low during a collision at the front of the vehicle.
- During a minor side collision.
- During rear collisions.
- If the vehicle rolls over.
- If the impact speed in a collision is lower than the reference value specified in the control unit. ◁

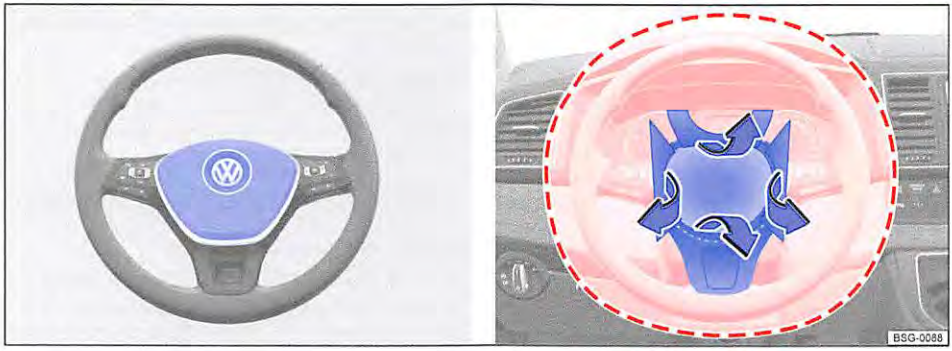


Fig. 71 Location and deployment zone of the driver front airbag.

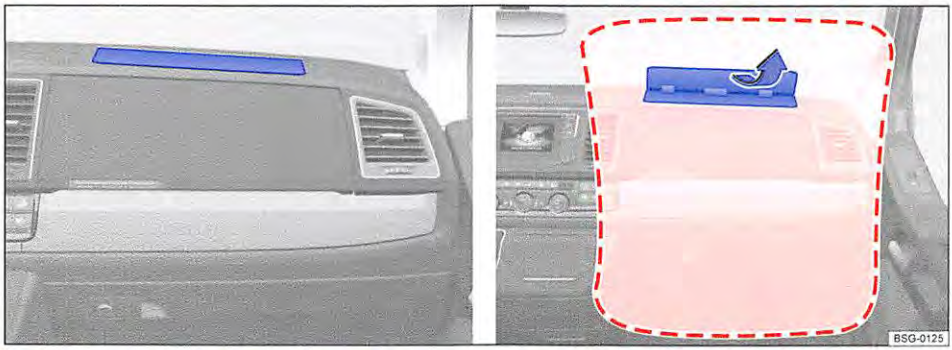


Fig. 72 Location and deployment zone of the front passenger front airbag.

First read and observe the introductory information and safety warnings ⚠ on page 87.

In conjunction with the seat belts, the front airbag system gives the front occupants additional protection for the head and chest in the event of a severe frontal collision. Always keep as far away from the front airbag as possible ⇒page 61. This allows the front airbags to inflate fully when triggered, thus providing maximum protection.

The front airbag for the driver is located in the steering wheel ⇒Fig. 71 and the front airbag for the front passenger is located in the dash panel ⇒Fig. 72. The airbag locations are identified by the text "AIRBAG".

The areas inside the red lines ⇒Fig. 71 and ⇒Fig. 72 are covered by the front airbags when triggered (deployment zone). You must never leave or attach any objects in these areas ⇒⚠. The factory-fitted accessories, such as the base plate for the mobile telephone holder, will not be struck when the driver and front passenger front airbags are triggered.

The airbag covers fold out of the steering wheel or dash panel when the driver and front passenger front airbags deploy. The airbag covers remain connected to the steering wheel or the dash panel.

⚠ DANGER

Once triggered, the airbag inflates at high speed.

- **Always leave the deployment zones of the front airbags clear.**
- **Never attach any objects, such as drink or telephone holders, to the covers of the airbags or anywhere in the airbag deployment zone.**

⚠ DANGER (Continued)

- **No other people, animals or objects may be carried between the occupants of the front seats and the airbag deployment zone. Make sure that children and passengers also keep to this rule.**
- **Do not attach any objects, e.g. mobile navigation devices, to the windscreen above the front airbag on the front passenger side.**
- **Do not cover or stick anything on the steering wheel hub or the soft plastic surface of the airbag unit in the dash panel on the front passenger side, and do not modify them in any way.**

⚠ WARNING

The front airbags are deployed in front of the steering wheel ⇒Fig. 71 and dash panel ⇒Fig. 72.

- **When driving, always hold the steering wheel with both hands on the outside of the ring at the 9 o'clock and 3 o'clock positions.**
- **Adjust the driver seat so that there is at least 25 cm between your breastbone and the hub of the steering wheel. Contact a qualified workshop if your physical build makes this impracticable.**
- **Adjust the front passenger seat so that the distance between the passenger and the dash panel is as large as possible.**

Switching the front passenger front airbag on and off manually using the key-operated switch



Fig. 73 On the front of the dash panel: key switch for disabling and enabling the front airbag on the front passenger side

First read and observe the introductory information and safety warnings ⚠ on page 87.

The front passenger front airbag must be switched off when securing a rear-facing child seat to the front passenger seat.

Disabling the front passenger front airbag

- Switch off the ignition.
- Open the front passenger door.
- Fold out the key bit of the vehicle key ⇒page 36.
- Use the vehicle key to turn the key switch on the front of the dash panel to the **OFF** position ⇒Fig. 73.
- Close the front passenger door.
- When the ignition is switched on, the indicator lamp PASSENGER AIR BAG OFF will light up steadily in the upper section of the centre console ⇒page 89.

Enabling the front passenger front airbag

- Switch off the ignition.
- Open the front passenger door.
- Use the remote control key to turn the key switch on the front of the dash panel to the **ON** position.
- Close the front passenger door.
- Check that the PASSENGER AIRBAG OFF indicator lamp in the upper section of the centre console does *not* light up when the ignition is switched on ⇒page 89.

Ensuring that the front passenger front airbag has been deactivated

The **only** sure sign that the front passenger front airbag has been deactivated is when the PASSENGER AIR BAG OFF indicator lamp is displayed in the upper section of the centre console (OFF lights up yellow steadily) ⇒page 89, *Indicator lamp*.

If the indicator lamp OFF in the upper section of the centre console is **not lit up steadily**, or if it lights up at the same time as indicator lamp in the instrument cluster, do not attach any child restraint system to the front passenger seat for safety reasons. The front passenger front airbag may trigger during an accident.

⚠ WARNING

The front passenger front airbag should only be switched off in exceptional circumstances.

- **To prevent damage to the airbag system, only switch the front passenger front airbag on and off when the ignition is switched off.**
- **It is the driver's responsibility to ensure that the key-operated switch is set to the correct position.**

⚠ WARNING (Continued)

- **Only switch the front passenger front airbag off if, in exceptional circumstances, a child seat has to be attached to the front passenger seat.**
- **Switch the front passenger front airbag back on again as soon as the child seat on the front passenger seat is no longer being used.**

Combined curtain and side airbags



Fig. 74 On the side of the front seat: location of the combined curtain and side airbag.

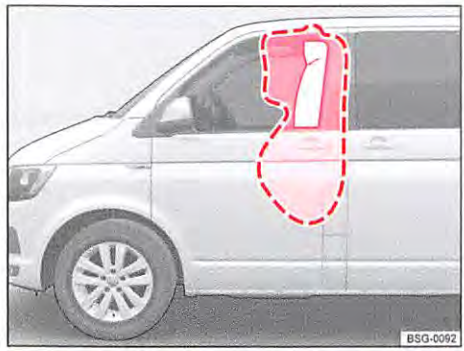


Fig. 75 Schematic diagram: deployment range of the combined curtain and side airbag on left side of vehicle

First read and observe the introductory information and safety warnings ⚠ on page 87.

The combined curtain and side airbags are located in the outer seat backrest cushions of the driver seat and front passenger seat ⇒ Fig. 74. The locations of the airbags are shown by labels with the word "AIRBAG". The area marked red ⇒ Fig. 75 defines the deployment zone of the combined curtain and side airbag.

During a side collision, the combined curtain and side airbags will be deployed on the vehicle's side of impact, reducing the risk of injury to the areas of the vehicle occupants' bodies facing the impact.

⚠ WARNING

Once triggered, the airbag inflates at high speed.

- **Always keep the deployment zones of the combined curtain and side airbags clear.**

⚠ WARNING (Continued)

- **No other people, animals or objects may be carried between the occupants of the front seats and the airbag deployment zone. Make sure that children and passengers also keep to this rule.**
- **The built-in coat hooks should only be used for lightweight clothing. Do not leave any heavy or sharp objects in the pockets.**
- **Do not fit any accessories to the doors.**
- **Do not fit seat covers or protective covers over the seats unless they have been expressly approved for use in the vehicle. Otherwise the combined curtain and side airbag may not be able to deploy if it has been triggered.**
- **Only push the sunblinds over to the side windows if there are no items attached to them, e.g. pens.**

⚠ WARNING

Incorrect use of the driver and front passenger seat could hinder the proper function of the combined curtain and side airbags and cause serious injury.

- **Never remove the front seats from the vehicle or alter any components of these seats.**

⚠ WARNING (Continued)

- **If too much pressure is applied to the backrest side bolster, the combined curtain and side airbags may not be triggered correctly, may not trigger at all or may trigger unexpectedly.**
- **Any damage to the original seat upholstery or around the seams of the combined curtain and side airbag units must be repaired immediately by a qualified workshop.** ◁

Curtain airbags

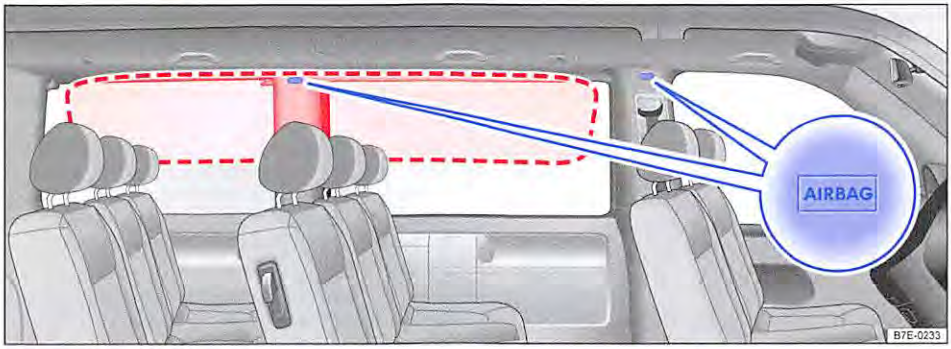


Fig. 76 Location and deployment zone of the curtain airbags on the left side of the vehicle.

First read and observe the introductory information and safety warnings ⚠ on page 87.

In the passenger compartment, there is a curtain airbag above each of the doors ⇒ Fig. 76. The airbag location is identified by the text "AIRBAG".

The area in the red frame ⇒ Fig. 76 is covered by the curtain airbag when triggered (deployment zone). For this reason, you must never leave or attach any items in this area ⇒ ⚠.

In a side collision the curtain airbag is triggered on the impact side of the vehicle. The airbag covers the side windows and door pillars.

In a side collision, the curtain airbags reduce the risk of injury to the areas of the body facing the impact for passengers in the outer seats of the second and third row of seats.

⚠ WARNING

Once triggered, the airbag inflates at high speed.

- **Always leave the deployment zones of the curtain airbags clear.**
- **Never secure any items to the cover or in the deployment zone of the curtain airbag.**
- **Vehicle occupants sitting on the front seats and rear outer seats must never carry any people, pets or objects in the deployment zone between themselves and the airbags. Make sure that children and passengers also keep to this rule.**
- **The built-in coat hooks should only be used for lightweight clothing. Do not leave any heavy or sharp objects in the pockets.**
- **Do not fit any accessories onto the sliding doors.**
- **Do not install any sunblinds onto the side windows unless they have been expressly approved for use in your vehicle.** ◁

Child seats (accessories)

Introduction

This chapter contains information on the following subjects:

Basic information on fitting and using child seats 97
Types of child seat 98
Securing systems 99
Securing a child seat with ISOFIX 100
Securing child seats with the upper strap (top tether) 101
Securing child seats with a seat belt 102

Using child seats can reduce the risk of injury to the child if there is an accident. Always use child seats when driving with children.

Note the following:

- Child seats are classified into groups depending on the size, age and weight of child for which they are designed.
- Various securing systems are used to secure child seats in the vehicle.

For safety reasons child seats should always be fitted to the rear seats. They should only be fitted to the front passenger seat in exceptional cases.

Volkswagen Commercial Vehicles recommends using child seats from Volkswagen's range of accessories. These child seats have been developed and approved for use in Volkswagen vehicles.

Additional information and warnings:

- Seat belts ⇒ page 79
- Airbag system ⇒ page 87
- Integrated child seats ⇒ page 102

⚠ WARNING

If children are not secured or are inadequately secured, they are at greater risk of serious or even fatal injury. Please note the following:

- **Children who are either under 12 years of age or less than 150 cm tall must not be carried in the vehicle if they are not secured in a suitable child seat while the vehicle is in motion. Regulations in some countries may differ, and must be complied with.**

⚠ WARNING (Continued)

- **Always secure children in the vehicle in a suitable child seat. The seat used must be appropriate to the child's height, weight and age.**
- **Never fasten more than one child into one child seat.**
- **Under no circumstances should children or babies be held in a passenger's or drivers lap while driving.**
- **Never leave a child unsupervised in a child seat.**
- **Never allow a child to be carried in a vehicle without being properly secured, and never allow a child to stand up or to kneel on a seat, or to sit incorrectly while the car is in motion. This is particularly important for children carried on the front passenger seat. In an accident, children may sustain serious injuries to themselves and others.**
- **The child seat can only provide maximum protection if the seat belt is routed correctly around it. Always ensure that the seat belt is routed as specified in the instructions provided by the child seat manufacturer. If the seat belt is routed incorrectly it may cause injuries even in a minor accident.**
- **After an accident, it is vital to replace any child seats that were in use during the accident, as they could have sustained non-visible damage.**

The standards and regulations governing the use of child seats and child seat securing mechanisms differ from country to country. Not all countries allow you to transport children on the front passenger seat. Legislation and legal requirements take precedence over the information given in this owner's manual.

If a child seat is used on a single seat with Easy Entry function, the seats located behind that seat are difficult to access. Therefore, a child seat should be used on another rear seat, if possible. ◁



Fig. 77 Airbag information sticker on the sun visor.

First read and observe the introductory information and safety warnings ⚠ on page 96.

Information on fitting a child seat

Observe the following general information when fitting a child seat. This information is relevant whatever child seat securing system is being used.

- Read and follow the instructions provided by the child seat manufacturer ⇒⚠.
- Whenever possible, fit child seats to one of the rear seats on the front passenger side so that children can exit the vehicle on the kerb side.
- Deactivate the front passenger front airbag if fitting a rear-facing child seat on the front passenger seat.
- If a child seat is fitted on the front passenger seat, move the backrest to the upright position, slide the seat back as far as it will go, and set the seat height adjustment and belt height adjuster to the highest position.
- When fitting a child seat on the vehicle's rear seats, leave as much unencumbered space as possible around the child seat. If necessary, adjust the position of the relevant front seat. When doing so, ensure that the driver or front passenger can still maintain a correct sitting position ⇒page 61.
- Adjust the seat backrest angle so that the child seat lies flush against the backrest.
- When using child seats with a backrest, remove the vehicle head restraints and stow them safely in the vehicle ⇒page 61. Reinstall the head restraint after the child seat has been removed.

Airbag sticker

The vehicle may be provided with stickers giving key information about the front passenger front airbag. The information on these stickers may vary from country to country. The stickers may be attached on the sun visor for the driver and/or front passenger ⇒Fig. 77.

It is essential to note the warning information shown on these stickers before installing a rear-facing child seat ⇒⚠.

Risks involved in carrying children on the front passenger seat

If you are using a **rear-facing child seat**, the front passenger front airbag can cause critical or potentially fatal injuries when it inflates ⇒⚠.

Rear-facing child seat may only be used on the front passenger seat if the front passenger front airbag has been deactivated. An indicator lamp in the centre console lights up steadily when the front passenger front airbag has been effectively deactivated. Deactivating the front passenger front airbag ⇒page 87.

If using a **front-facing child seat**, do not deactivate the front passenger front airbag.

When fitting a child seat, make sure that it is as far away as possible from the front passenger airbag. The front passenger front airbag can cause severe injuries when it inflates ⇒⚠.

Some child seats are not suitable for use on the front passenger seat. Any child seat fitted on the front passenger seat must be specially authorised by the manufacturer for this use in vehicles with front and side airbags. Volkswagen dealerships keep an up-to-date list of authorised child seats.

Risks presented by side airbags

Any child on the front passenger seat may be hit on the head and severely injured by the front side airbag inflating ⇒⚠.

⚠ DANGER

If you use a rear-facing child seat on the front passenger seat the child in it is at increased risk of sustaining critical or fatal injuries in the event of an accident.

- **Deactivate the front passenger front airbag. If the front passenger front airbag cannot be deactivated no rear-facing child seat may be used.**

⚠ DANGER (Continued)

- **Only use child seats that have been approved by the child seat manufacturer for use on a front passenger seat with front and side airbag.**

⚠ WARNING

Child seats present a risk of injury if incorrectly installed.

- **Always read and follow the installation instructions and warning information provided by the child seat manufacturer.**

⚠ WARNING

Using a front-facing child seat on the front passenger seat presents a risk of injury.

⚠ WARNING (Continued)

- **Move the front passenger seat as far back and as high as it can be set, to create the largest possible distance between the child seat and the front passenger front airbag.**
- **Move the backrest to the upright position.**
- **Only use child seats that have been approved by the child seat manufacturer for use on a front passenger seat with front and side airbag.**

⚠ WARNING

To help avoid injuries caused by inflation of a head airbag or side airbag:

- **Ensure that no children are seated within the airbag deployment zones.**
- **Do not place any objects in the side airbag deployment zones.** ◁

Types of child seat



Fig. 78 Some typical child seats.

First read and observe the introductory information and safety warnings ⚠ on page 96.

Only use child seats that have been officially approved and are suitable for the child.

Standards for child seats

The regulation ECE-R 44 applies to child seats in the EU. All child seats that have been shown to meet this standard will carry an orange ECE approval label. This ECE approval label may include the following information on the child seat:

- Weight class
- Size class
- Approval category (universal, semi-universal, vehicle-specific or i-Size)
- Approval number

On child seats that are approved under regulation ECE-R 44, the eight-digit approval number on the ECE approval label must begin with 03 or 04. This shows that the seat is admissible for use. Older child seats with an approval number beginning with 01 or 02 are not admissible.

Child seat weight classes

Class	Child's weight
Group 0	up to 10 kg
Group 0+	up to 13 kg
Group 1	9 to 18 kg
Group 2	15 to 25 kg
Group 3	22 to 36 kg

- **Weight class 0/0+**: group 0/0+ or 0/1 rear-facing infant carriers ⇒Fig. 78 are the best option for the period from birth to 18 months.
- **Weight class 1**: group 1 (up to about 4 years old) or group 1/2 (up to about 7 years old) with an integral belt system are the best for children over the relevant weight limit.
- **Weight classes 2/3**: groups 2 and 3 include child seats with a backrest, and booster seats with no backrest. Child seats with a backrest have integrated seat routing and side cushions, and so provide better protection than booster seats with no backrest. Volkswagen therefore recommends the use of child seats with a backrest. Group 2 child seats are for children up to the age of about 7, group 3 child seats for those older than 7. ▶

Not every child will fit in the child seat specified for their weight group. Likewise, not every seat will fit in every vehicle. Therefore it is vital to check that the child fits properly in their child seat and that the child seat can be securely fastened in the vehicle.

Child seat approval categories

Child seats can be classified as universal, semi-universal or vehicle-specific (all in accordance with regulation ECE-R 44), or as i-Size (in accordance with regulation ECE-R 129).

- **Universal**: child seats with universal approval are approved for use in all vehicles. No type list is required. ISOFIX child seats with universal approval must also be securing using a strap over the top of the vehicle seat (top tether).
- **Semi-universal**: semi-universal approval requires other safety devices for attaching the seat (that require additional testing) in addition to the standard requirements for universal approval. Child seats with semi-universal approval come with a type list. The seats should only be used in vehicles that are included on this list.
- **Vehicle-specific**: child seats with vehicle specific approval must have undergone dynamic testing in each model of vehicle for which it is approved. These child seats also come with a type list.
- **i-Size**: child seats classified as must conform to the installation and safety requirements prescribed in regulation ECE-R 129. Contact the child seat manufacturer to find out which child seats are approved for this vehicle in accordance with i-Size. ◁

Securing systems

First read and observe the introductory information and safety warnings ⚠ on page 96.

Different countries use different securing systems for safely fitting child seats in the vehicle.

Key terms for securing systems

- **ISOFIX**: ISOFIX is a standardised securing system for fitting child seats in the vehicle quickly and safely. The SOFIX attachment system creates a rigid connection between the child seat and the car body.

Any compatible child seat has two rigid attachment arms that click into ISOFIX attachment points at the bottom of the backrest. The ISOFIX securing system as described here is specific to the EU ⇒ page 100. An upper strap (top tether) and/or support leg may sometimes have to be used in addition to the ISOFIX anchor points described above.

- **Three-point automatic seat belt**. It is better to secure child seats using the ISOFIX system, if available, rather than with a three-point automatic seat belt ⇒ page 102.

Additional securing points:

- **Top tether**: this strap at the top of the child seat is routed over the vehicle seat backrest and hooked to an anchor ring on the seat backs ⇒ page 101.
- **Support leg**: some child seats are propped up with a support leg resting on the floor of the vehicle. This support leg helps to prevent the child seat from tipping forward in a crash ⇒ ⚠.

Recommended child seat securing systems

Volkswagen Commercial Vehicles recommends that child seats are secured as follows:

- **Infant carrier or rear-facing child seat**: ISOFIX *and* support leg.
- **Front-facing child seat**: ISOFIX *and* top tether and possibly support leg also.

⚠ WARNING

Incorrect use of the support leg can cause severe or fatal injuries.

- **Make sure that the support leg is always correctly and safely installed.** ◁

Securing a child seat with ISOFIX

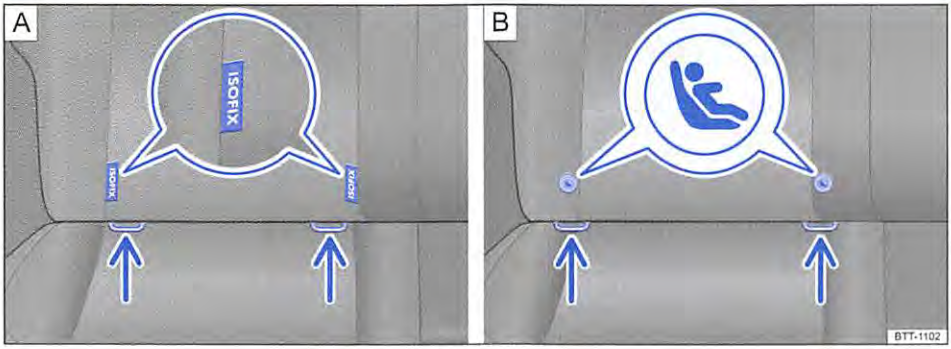


Fig. 79 On vehicle seat: different markings identifying the ISOFIX anchoring points for child seats.

First read and observe the introductory information and safety warnings ⚠ on page 96.

Quick guide to ISOFIX and i-Size installation

The table below shows the options for securing ISOFIX or i-Size child seats to ISOFIX anchor points at the various possible seats in the vehicle.

	Group 0: up to 10 kg	**Group 0+:** up to 13 kg	**Group 1:** 9 to 18 kg		**Group 2:** 15 to 25 kg	**Group 3:** 22 to 36 kg	**i-Size child restraint system**
Size class	E	E D C	D C	B1 B A	-	-	-
Front passenger seat	X	X	X	X	X	X	X
Multivan: **Rear single seats or 3-seat bench**	IL-SU	IL-SU	IL-SU	IUF IL-SU	IL-SU	IL-SU	X
Business: **Rear single seats**	IL-SU	IL-SU	IL-SU	IUF IL-SU	IL-SU	IL-SU	X
Business: **2-seat bench**	X	X	X	X	X	X	X
California: **Rear single seats, 2-seat bench**[a] or **3-seat bench**	IL-SU	IL-SU	IL-SU	IUF IL-SU	IL-SU	IL-SU	X

a) Installation with ISOFIX is only possible if the seat backrests are in the third position (25° angle). After engaging the ISOFIX bracket, reposition the backrests in the first position (15° angle).

Size class: the size class shown corresponds to the permissible weight range of the child using the seat. The size class is indicated on the ECE test certificate for child seats with universal or semi-universal approval. A size class indication is affixed to the child seat.

X: seat not suitable for securing an ISOFIX or i-Size child seat in this group.

IL-SU: seat suitable for installing an ISOFIX child seat with "semi-universal" approval. Refer to the vehicle list supplied by the child seat manufacturer.

IUF: seat suitable for installing an ISOFIX child seat with "universal" approval.

i-U: seat suitable for installing a front-facing or rear-facing i-Size child seat with "universal" approval.

i-UF: seat suitable for installing a front-facing i-Size child seat with "universal" approval. ▶

Installing child seats with ISOFIX ISOFIX/i-Size

The location of the ISOFIX anchor points is shown either by a symbol or by a label marked "ISOFIX" ⇒Fig. 79.

- Observe the warnings ⇒page 97, *Basic information on fitting and using child seats.*
- Push the attachment arms on the child seat into the ISOFIX anchor points ⇒Fig. 79 as shown by the arrows. The child seat must click and audibly securely into place.
- Pull on both sides of the child seat to check whether the seat has clicked properly into place.
- If the child seat is fitted with a support foot, the foot must sit firmly on the floor of the vehicle.

Using insert guides

If the child seat anchor points are not directly accessible, insert guides make fitting and removing the child seat easier. First attach the insert guides to the anchor points. Then secure the child seat as per the installation guide.

NOTICE

Avoid damage to the upholstery and seat cushions caused by the insert guides.

- **Always pull the insert guides off the anchor points before folding the rear seat forward, or when removing the child seat.** ◁

Securing child seats with the upper strap (top tether)

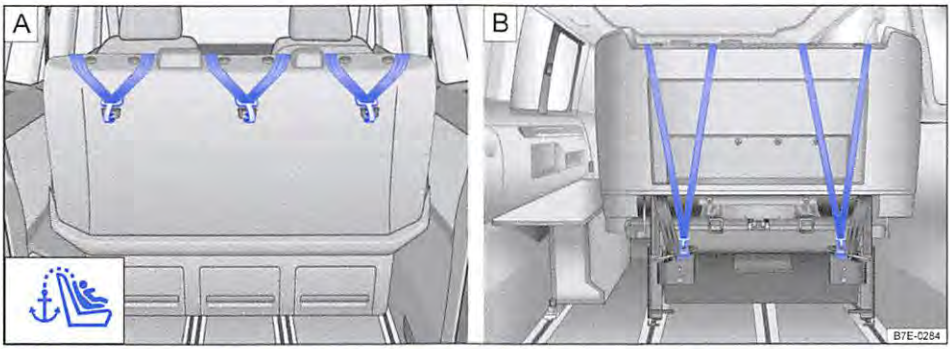


Fig. 80 Attached upper strap (top tether) on rear of backrest of 3-seat bench A or 2-seat bench B.



Fig. 81 Attached upper strap (top tether) on rear of backrest of single seat.

First read and observe the introductory information and safety warnings ⚠ on page 96.

Child seats with "universal" approval must be secured with an upper strap (top tether) in addition to the ISOFIX anchor points.

Only secure the strap to the top tether anchor rings.

- Observe the warnings ⇒page 97, *Basic information on fitting and using child seats.*
- Fold down the head restraint located behind the child seat, and stow it securely in the vehicle ⇒page 61.
- Guide the upper strap (top tether) of the child seat back behind the backrest. ▶

- Push the attachment arms on the child seat into the ISOFIX anchor points ⇒Fig. 79 as shown by the arrows. The child seat must click and audibly securely into place.
- Fasten the upper strap (top tether) into the corresponding retaining rings ⇒Fig. 80 or ⇒Fig. 81.
- Stretch the belt so that the child seat is positioned high on the rear seat backrest.
- After the child seat has been removed, fold up the head restraint or install it accordingly.

⚠ WARNING

Only secure the strap to the top tether anchor rings. Failure to do this could lead to severe injuries.

- **Each anchor ring can hold only *one* child seat restraining strap.**

◁

Securing child seats with a seat belt

First read and observe the introductory information and safety warnings ⚠ on page 96.

If you want to fit a child seat from the "universal" (u) approval category in your vehicle, you must first ensure that it is approved for the seat position in question. Important information is given on the orange ECE approval label on the child seat.

The following table lists where and how child seats can be fastened.

Group	Child's weight	Front passenger seat	Seats in the passenger compartment (all)
Group 0	up to 10 kg	u	u
Group 0+	up to 13 kg	u	u
Group 1	9 to 18 kg	u	u
Group 2	15 to 25 kg	u	u
Group 3	22 to 36 kg	u	u

Securing a child seat using the seat belt

- Observe the warnings ⇒page 97, *Basic information on fitting and using child seats.*
- The seat belt height adjuster must be at the highest setting.
- Fasten the seat belt or guide it through the child seat as described in the child seat manufacturer's instructions.
- Ensure that the seat belt is not twisted.
- Insert the latch plate into the buckle for the appropriate seat and push it down until it locks securely with a click.

◁

Integrated child seat

Introduction

This chapter contains information on the following subjects:

Folding integrated child seat up and down . . . 104
Seat belt routing for an integrated child seat . 105

The integrated child seat is suitable only for children belonging to group 2 (15-25 kg) and group 3 (22-36 kg), as specified in the standard ECE-R 44.

The following table lists how the integrated child seat can be used.

▶

Group	Child's weight	Single seat in passenger compartment[a)]
Group 0	up to 10 kg	-
Group 0+	up to 13 kg	-
Group 1	9 to 18 kg	-
Group 2	15 to 25 kg	**B**
Group 3	22 to 36 kg	**B**

a) The integrated child seat is fitted depending on equipment level.

B: integrated child seat approved for this weight class.

Volkswagen Commercial Vehicles recommends that the integrated child seat be used on the single seat facing against the direction of travel for children in **group 2**.

For safety reasons, if the integrated child seat is used on the single seat for children in **group 3**, it **must** face the direction of travel.

The supplied side head restraint must be used for children in group 2.

The side head restraint must **not** be used when group 3 children use the integrated child seat.

Additional information and warnings:

- Seat belts ⇒page 79

⚠ DANGER

Children who are not belted in and children who are not secured using a suitable restraint system could sustain fatal injuries if the airbags are triggered.

- **Always transport children up to the age of 12 on the rear seats.**
- **If exceptional circumstances require you to transport a child in a rear-facing child seat on the front passenger seat, the front passenger front airbag must always be switched off.**
- **Always secure children in the vehicle in a restraint system which is suitable for their height and weight.**
- **Always ensure that children are properly belted in.**

⚠ WARNING

When travelling, children must be secured in the vehicle in a child seat appropriate for weight and size.

- **Always secure children in the vehicle in a restraint system which is suitable for their height and weight.**
- **Always fasten children's seat belts correctly and ensure that they assume a correct sitting position.**
- **The shoulder part of the seat belt must lie approximately on the centre of the shoulder and never across the neck or upper arm.**
- **The shoulder belt must lie close to the chest.**
- **The lap part of the seat belt must lie across the pelvis, not across the stomach, and always fit closely.**
- **If necessary, tighten the belt so that it lies snugly over the body.**
- **Never allow children or babies to be transported on someone's lap, or held in someone's arms.**
- **Always secure children under 1.5 m tall in a child seat. Using a *normal* seat belt could lead to injuries to the abdominal and neck areas.**
- **Only ever fasten one child into a child seat.**
- **Read and observe the information and warnings from the child seat manufacturer.**
- **Never leave a child in a child seat unsupervised or alone in the vehicle.**
- **Any modifications to the integrated child seat must be made only by a qualified workshop.**
- **Have a child seat or parts of a child seat replaced if the child seat or any part of it becomes damaged or if it withstands the force of a collision during an accident.**

⚠ WARNING

Loose items could be flung through the vehicle interior in the event of a sudden braking manoeuvre or accident. This could cause injuries.

- **Do not leave any toys or hard objects loose in the child seat or on the seat.**

◁

Folding integrated child seat up and down

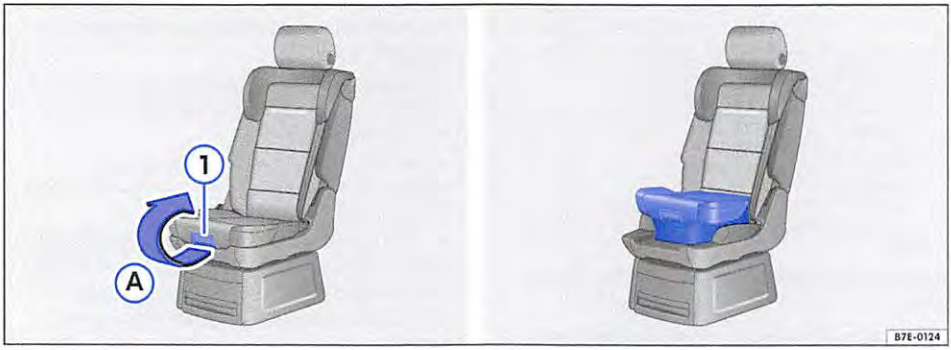


Fig. 82 Fold out the seat padding of the integrated child seat.

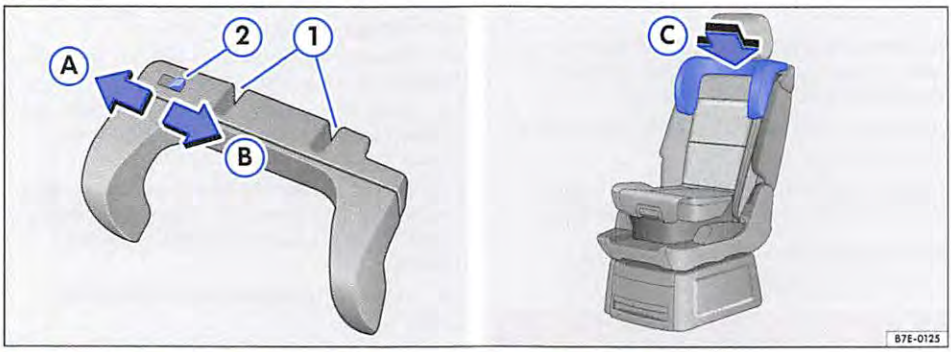


Fig. 83 Fit the lateral head restraint for the integrated child seat for goup 2 children.

First read and observe the introductory information and safety warnings ⚠ on page 102.

Folding out the seat cushion

- Use the release lever ⇒Fig. 82 ① to pull the seat cushion forwards.
- Push the seat cushion to the rear in the direction of the arrow Ⓐ until it engages in place.

Fitting the side head restraints

The supplied side head restraint must be used for children in group 2.

The side head restraint must **not** be used when group 3 children use the integrated child seat.

- Push the head restraint up.
- Hold the side head restraint in such a way that the angled part of the restraint is pointing down.
- Push the lever ⇒Fig. 83 ② in position Ⓐ.
- Push the slots on the side head restraint ① onto the rods of the head restraint in the direction of arrow Ⓒ.
- The side head restraints must click into place. The red marking should no longer be visible Ⓒ and the lever ② must be in position Ⓑ.
- Push the head restraint as far down as possible ⇒page 61.

Folding the seat cushion back

- Use the release lever ⇒Fig. 82 ① to pull the seat cushion against the direction of arrow Ⓐ.
- Place your hand on the *middle* of the seat cushion and push it down until it engages securely ⇒ⓘ.

Removing the side head restraints

- Push the head restraint up.
- Push the lever ⇒Fig. 83 ② to position Ⓐ to remove the side head restraint.
- Lower the head restraint. ▶

NOTICE

When folding up the integrated child seat, press only in the centre of the seat cushion ⇒ Fig. 82 ②. The seat cushion could otherwise become jammed and will not engage securely. ◁

Seat belt routing for an integrated child seat

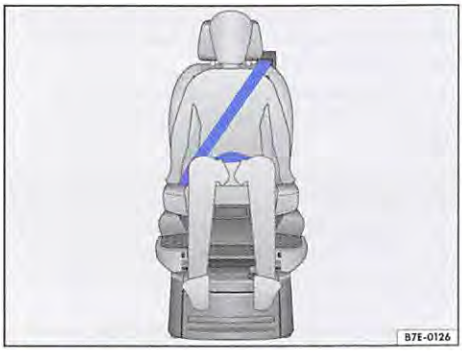


Fig. 84 Seat belt routing on the integrated child seat.

First read and observe the introductory information and safety warnings ⚠ on page 102.

Seat belt routing

- Take hold of the latch plate and pull it slowly across the chest and pelvis.
- Insert the latch plate into the buckle for the appropriate seat and push it down until it is securely locked with an audible click.
- Pull on the seat belt to ensure that the latch plate is securely locked in the buckle.

⚠ WARNING

The seat belt will offer the optimum level of protection from severe and fatal injuries only when the seat belt routing is correct.

- **Always fasten children's seat belts correctly and ensure that they assume a correct sitting position.**
- **Always position the shoulder part of the belt over the middle of the shoulder.**
- **The seat belt must always lie flat and snugly on the body.**
- **If necessary, tighten the belt so that it lies snugly over the body.**
- **Always wear the lap part of the seat belt over the pelvis and not across the abdomen.**
- **Only ever fasten one child into a child seat.** ◁

Lights and vision

Lights

Introduction

This chapter contains information on the following subjects:

Indicator lamps 106
Turn signal and main beam lever 107
Switching lights on and off 108
Lights and vision – functions 109
Main beam assist 110
Masking or switching over headlights for driving abroad 111
Coming Home and Leaving Home functions (orientation lighting) 112
Headlight range control, instrument and switch lighting 113
Interior and reading lights 114

Observe any country-specific regulations when using vehicle lighting.

The driver is responsible for the correct headlight position and the correct headlight setting.

Additional information and warnings:

- Exterior views ⇒page 5
- Volkswagen information system ⇒page 24
- Changing bulbs ⇒page 432

⚠ WARNING

Accidents and serious injuries can occur if roads are not sufficiently illuminated and other road users have difficulty seeing the vehicle, or cannot see it at all.

- **Always switch the dipped beam headlights on if it is dark, raining or visibility is poor.**

⚠ WARNING

Setting headlights too high, and the incorrect use of the main beam, could distract and dazzle other road users. This can lead to accidents and serious injuries.

- **Always ensure that the headlights are adjusted correctly.**
- **Never use the main beam or the headlight flasher if other road users could be dazzled.** ◁

Indicator lamps

First read and observe the introductory information and safety warnings ⚠ on page 106.

Indicator lamps in the instrument cluster

Lit up	Possible cause	Solution
	Vehicle lighting not working partially or completely.	Change the appropriate bulb ⇒page 432. If all of the bulbs are in working order, go to a qualified workshop.
	Rear fog light switched on.	⇒page 109.
	The fog light is switched on.	
	Turn signal, left or right. The indicator lamp will flash twice as fast if one of the turn signals on the vehicle or trailer is not working.	If necessary, check the vehicle lights and the trailer lights.
	Trailer turn signals in operation.	⇒page 139. ▶

Lit up	Possible cause	Solution
	Main beam is switched on or the headlight flasher is being operated.	⇒page 107.
	Main beam assist (Light Assist) is activated.	⇒page 110.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

Indicator lamps in light switch

Lit up	Possible cause
AUTO	The automatic headlight control and, if applicable, the daytime headlights or daytime running lights are switched on ⇒page 108.
	The fog light is switched on ⇒page 108.
	The side lights are switched on ⇒page 108.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**
- **Stop the vehicle as soon as possible and when safe to do so.**
- **Stop the vehicle at a safe distance away from moving traffic and so that no part of the exhaust system can come into contact with any inflammable material underneath the vehicle, e.g. dry grass, fuel, oil etc.**

⚠ WARNING (Continued)

- **Any broken-down vehicle poses an increased accident risk both for you and for other road users. If the situation requires, switch on the hazard warning lights and set up the warning triangle as a warning to other road users.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁

Turn signal and main beam lever

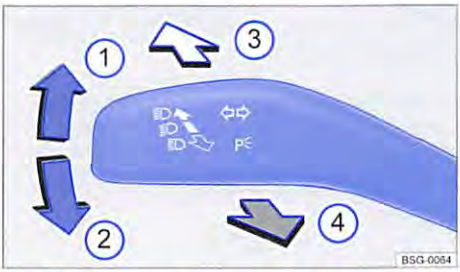


Fig. 85 Turn signal and main beam lever in the basic position.

First read and observe the introductory information and safety warnings ⚠ on page 106.

Move the lever into the required position:

① Right turn signal ⇒⚠. When the ignition is switched off, right parking light ⇒page 109.

② Left turn signal ⇒⚠. When the ignition is switched off, left parking light ⇒page 109.

Return the lever to the basic position to switch off the *turn signal* function. ▶

③ Main beam headlights switched on ⇒ ⚠. The indicator lamp ≡D in the instrument cluster lights up.

Pull the lever briefly in the direction of the arrow ④ to switch off the main beam headlights.

④ Operate headlight flasher. The *headlight flasher* comes on for as long as the lever is pulled. The indicator lamp ≡D lights up.

Lane change flash

To operate the lane change flash, push the lever up or down to the point where you incur resistance and then release the lever. The turn signal flashes three times.

This lane change flash function can be deactivated at a qualified workshop.

⚠ WARNING

Incorrect use of turn signals, a failure to use turn signals, or forgetting to switch off a turn signal can confuse other road users. This can lead to accidents and serious injuries.

⚠ WARNING (Continued)

- **Always activate the turn signal in good time when changing lanes and performing overtaking or turning manoeuvres.**
- **Always switch off the turn signal once the lane change or overtaking or turning manoeuvre has been completed.**

⚠ WARNING

Incorrect use of the main beam headlights can lead to accidents and serious injuries as the main beam headlights can distract and dazzle other road users.

The turn signal will only work when the ignition is switched on. The hazard warning lights also work when the ignition is switched off ⇒page 411.

If one turn signal fails on the vehicle or on the trailer, the indicator lamp will start flashing twice as fast.

The *main beam headlights* can only be switched on if the dipped beam headlights are already on. ◁

Switching lights on and off



Fig. 86 Next to the steering wheel: examples of the various light switches.

First read and observe the introductory information and safety warnings ⚠ on page 106.

Observe any country-specific regulations when using vehicle lighting.

In vehicles with a factory-fitted **towing bracket** ⇒page 139, the vehicle's rear fog lights are switched off automatically if a trailer with rear fog lights is electrically connected to the vehicle. ▶

Turn the light switch to the required position ⇒ Fig. 86:		
	When the ignition is switched off	**When the ignition is switched on**
0	The fog lights, dipped beam headlights and side lights are switched off.	Lights switched off or daytime headlights are switched on.
AUTO	The orientation lighting can be switched on.	The automatic headlight control and, if applicable, the daytime headlights are switched on.
	The side lights are switched on.	The side lights are switched on.
	Dipped beam headlights are switched off. While the vehicle key is in the ignition lock, the side lights will stay on.	The dipped beam headlights are switched on.

Fog lights

The indicator lamps or in the light switch or instrument cluster indicate that the fog lights are switched on.

- To switch the fog light on, pull the light switch out of the position or to the first stop.
- To switch the rear fog light on, pull the light switch out of position or as far as it will go.
- To switch the fog lights off, press the light switch or move it to position **0**.

Signal tones if lights are not switched off

If the key is removed from the ignition lock and the driver door is opened, a signal tone will sound in any of the following situations. This will remind you to switch off the lights as necessary.

- If the parking light is switched on ⇒page 107.
- If the light switch is in position .
- If the light switch is in position or ⇒page 112.

⚠ WARNING

The side lights or daytime running lights are not bright enough to illuminate the road ahead and to ensure that other road users are able to see you.

- **Always switch the dipped beam headlights on if it is dark, raining or visibility is poor.**

Lights and vision – functions

First read and observe the introductory information and safety warnings ⚠ on page 106.

Parking light

When the parking lights (left and right turn signals) are switched on, the headlight on the corresponding side of the vehicle lights up along with the tail light and parts of the tail light cluster. The parking light only lights up when the ignition is switched off and if the turn signal and main beam lever was in the central position before being operated.

Side lights

If the light switch is in position both headlights with side lights light up, along with parts of the rear light cluster, the number plate lighting, the instrument cluster lighting and the buttons in the centre console and the dash panel.

If the charge level of the battery is too low, the side lights will switch off automatically ⇒⚠. This prevents the vehicle battery from being discharged completely and thus allows for still starting the engine ⇒page 366, *Automatic switch-off for electrical consumers.*

Daytime running lights

There are separate lights in the headlights for the daytime running lights.

Only the separate lights light up when the daytime running lights are switched on ⇒⚠.

The daytime running lights are switched on when the ignition is switched on if the light switch is in position **0** or **AUTO**.

If the light switch is in position **AUTO**, a rain sensor will switch the dipped beam and the lighting in the instruments and switches on and off automatically.

The daytime running lights cannot be switched on or off manually.

Automatic headlight control AUTO

The automatic headlight control is merely an aid and will not always be able to detect all driving situations.

If the light switch is in position **AUTO**, the vehicle lights and the lighting in instruments and switches will switch on and off automatically in the following situations ⇒ ⚠:

Automatically switched on

- When the rain sensor detects *darkness*, e.g. when driving through tunnels.
- When the rain sensor detects that it is raining and switches the wipers on.

Automatically switched off

- When the rain sensor detects that there is enough light.
- When the wipers have not been used for a few minutes.

Static cornering light

When cornering slowly or travelling around very tight bends, a static cornering light is switched on automatically to illuminate the inside of the bend.

The static cornering light is integrated into the fog lights and only lights up at speeds below approximately 40 km/h (25 mph).

When reverse gear is engaged, the static cornering light on both sides of the vehicle may switch on to provide better illumination of the area when manoeuvring.

⚠ WARNING

Accidents can occur if roads are not sufficiently illuminated and other road users have difficulty seeing the vehicle, or cannot see it at all.

- **The automatic headlight control (AUTO) only switches on the dipped beam headlights when there is a change in the level of brightness and not, for example, if it is foggy.**
- **Never drive with daytime running lights if the street is not sufficiently lit due to weather and lighting conditions. The daytime running lights are not bright enough to illuminate the road ahead and to ensure that other road users are able to see you.**
- **The rear lights will not be switched on with the daytime running lights. If the rear lights are not switched on, the vehicle may not be visible to other road users if it is dark, raining, or if visibility is poor.**

In cool or damp weather, the interior of the headlights, rear lights and turn signals may mist up briefly. This is normal and does not affect the service life of the lighting system of your vehicle. ◁

Main beam assist

First read and observe the introductory information and safety warnings ⚠ on page 106.

Main beam assist can help to prevent other road users from being dazzled.

Main beam assist (Light Assist)

Within the limits of the system, the main beam assist automatically switches the main beam on at speeds of over approximately 60 km/h (37 mph), depending on environmental and traffic conditions, and switches it off again at speeds under approximately 30 km/h (18 mph) ⇒ ⚠. The function is controlled by a camera located near the interior mirror.

Main beam assist normally recognises illuminated areas such as towns and deactivates the main beam while driving through them. ▶

Switching main beam assist on and off manually

Function	Action
Switching on 	– Switch on the ignition and turn the light switch to position **AUTO**. – Push the turn signal and main beam lever forwards from its initial position ⇒page 107. When the main beam assist is switched on, the indicator lamp lights up in the instrument cluster display.
Switching off	– Switch off the ignition. – **OR:** turn the light switch to a position other than **AUTO** ⇒page 108. – **OR:** with the main beam switched on, pull the turn signal and main beam lever backwards. – **OR:** push the turn signal and main beam lever forwards to switch on the manual main beam. The main beam assist is then switched off.

Fault

It may not be possible to switch off the main beam quickly enough or at all using main beam assist due to the following:

- In poorly lit streets where there are highly-reflective signs.
- When encountering other road users with insufficient lighting, such as pedestrians or cyclists.
- In tight bends, brows of hills or depressions in the land or half-hidden oncoming traffic.
- With oncoming traffic on streets with a central barrier where the driver can see clearly over the central barrier e.g. truck drivers.
- If the camera is broken or the power supply is interrupted.
- In fog, snow or heavy rain.
- In dusty or sandy areas.
- Damage to the windscreen in the camera's vision field.
- If the viewing field of the camera is misted up, dirty, covered by a sticker, snow or ice.

⚠ WARNING

Do not let the extra convenience afforded by main beam control tempt you into taking any risks when driving – this can cause accidents. The system is not a substitute for the full concentration of the driver.

⚠ WARNING (Continued)

- **Always check the lights yourself and adjust them to the prevailing conditions for lights, vision and road traffic.**
- **The main beam control may not be able to recognise all driving situations correctly and may not work properly in certain situations.**
- **If the camera's field of view is dirty, covered or damaged, the function of the main beam assist may be impaired. This also applies if changes are made to the vehicle's lighting system, for example if additional headlights are fitted.**

NOTICE

Please observe the following points in order to avoid impairing the proper function of the system:

- **Regularly clean the camera's field of view, and keep it free from snow and ice.**
- **Do not cover the camera's field of view.**
- **Check the area of the windscreen that is in the camera's field of view for damage.**

The headlight flasher and the main beam can be switched on and off manually at any time with the turn signal and main beam lever ⇒page 107.

Light-emitting objects in the camera's field of operation, e.g. mobile navigation devices, could impair the functions of the main beam assist system (Light Assist). ◁

Masking or switching over headlights for driving abroad

First read and observe the introductory information and safety warnings ⚠ on page 106. ▶

If you have to drive a right-hand drive vehicle in a left-hand drive country, or vice versa, the asymmetric dipped beam halogen headlights may dazzle oncoming traffic. Therefore, the headlights must be masked over if you are driving abroad.

Therefore you must apply stickers to certain parts of the headlight lenses if you are driving abroad. A qualified workshop can provide you with further information. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

The use of the stickers on the headlights is only permissible if the period of use is limited. Please contact a qualified workshop for a permanent alteration. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose. ◁

Coming Home and Leaving Home functions (orientation lighting)

First read and observe the introductory information and safety warnings ⚠ on page 106.

The Coming Home function is switched on manually. However, the "Leaving Home" function is controlled automatically by a rain sensor.

"Coming Home"	Action
Switching on	– Switch off the ignition. – Activate the headlight flasher for approximately one second ⇒page 107. The Coming Home lighting is switched on when the driver door is opened. The *switch-off delay* starts when the last vehicle door or the tailgate has been closed.
Switching off	– Automatically after the set switch-off delay has elapsed. – Automatically if a door or the tailgate is opened approximately 30 seconds after switch on. – Turn light switch to position **0**. – Switch on the ignition.

"Leaving Home"	Action
Switching on	– Unlock vehicle when light switch is in position **AUTO** and rain sensor has detected that *it is dark*.
Switching off	– Automatically after the switch-off delay. – Lock the vehicle. – Turn light switch to position **0**. – Switch on the ignition.

When the Coming Home function is switched on, no signal tone will be given as a reminder that a light is still switched on when the driver door is opened. ◁

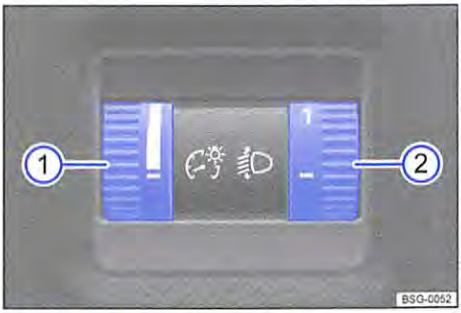


Fig. 87 Next to the steering wheel: control for instrument and switch lighting as well as headlight range control

First read and observe the introductory information and safety warnings ⚠ on page 106.

① Instrument and switch lighting

When the headlights are switched on, the brightness of the instruments and switch lighting can be regulated to suit your requirements by turning the control ⇒ Fig. 87 ①.

② Headlight range control

Depending on what level it is set to, the headlight range control ② adjusts the position of the light cones in the headlights according to the load that the vehicle is carrying. This gives the driver the best visibility possible and means that oncoming traffic will not be dazzled ⇒ ⚠.

The headlights can only be adjusted when the dipped beam headlights are switched on.

To adjust, turn the control ② to:

Setting	Vehicle load level[a)]
–	Front seats occupied and light luggage in the vehicle.
1	Several seats occupied and light luggage in the vehicle.
2	All seats occupied and luggage compartment fully loaded. Towing a trailer with a low drawbar load.
3	Front seats occupied and luggage compartment fully loaded. Towing a trailer with maximum drawbar load.

a) If you have different loads, you can select a position between the settings.

Dynamic headlight range control

There is no control ② for headlight range if the vehicle has dynamic headlight control. The headlight range is automatically adapted to suit the vehicle load level as soon as the headlights are switched on ⇒ ⚠.

⚠ WARNING

Heavy objects in the vehicle can cause the headlights to dazzle and distract other road users. This can lead to accidents and serious injuries.

- **The light cone should always be adjusted to the load level of the vehicle to ensure that other road users are not dazzled.**

⚠ WARNING

Failure or malfunction in the dynamic headlight range control can cause the headlights to dazzle or distract other road users. This can lead to accidents and serious injuries.

- **Go to a qualified workshop to have the headlight range control checked immediately.** ◁

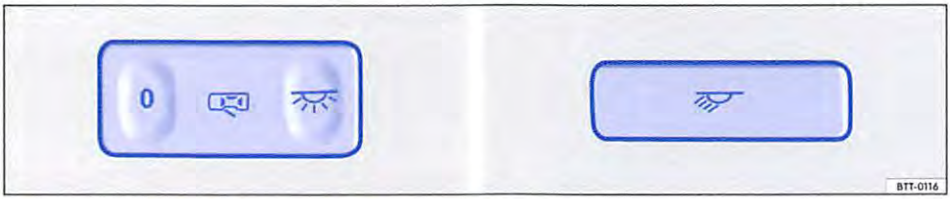


Fig. 88 In the headliner: switch for the interior or reading lights

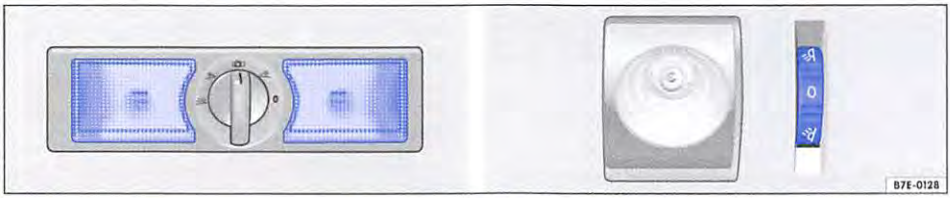


Fig. 89 In the passenger compartment: interior lights with rotary knob and reading lights in the roof

First read and observe the introductory information and safety warnings ⚠ on page 106.

Button/Position or switch position	Function
0	Switches interior lights or reading lights off.
	Switches on the interior lights.
	Switches on door contact switch (central position). The interior lights are switched on automatically when the vehicle is unlocked, a door is opened or the vehicle key is removed from the ignition lock. The light extinguishes a few seconds after all doors are closed, when the vehicle is locked or the ignition is switched on.
	Switches the reading lights on or off.

Lights in the stowage compartments and luggage compartment

A light will be switched on or off automatically when the stowage compartment on the front passenger side or the tailgate is opened or closed.

The reading lights go out when the vehicle is locked or after a delay of a few minutes when the vehicle key is removed from the ignition lock. This prevents the battery from discharging. ◁

Protection from the sun

Introduction

This chapter contains information on the following subjects:

Sun visors 115
Sunblind for the rear side windows 115
Windscreens made of heat-insulating glass .. 116

⚠ WARNING

Driving with the sun visors folded down and the sunblinds pulled out can reduce your view of the road.

- **Sun visors and sunblinds should always be replaced in their holder if they are not being used.** ◁

Sun visors

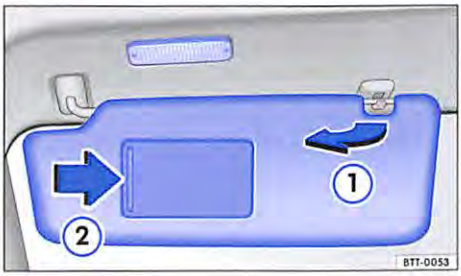


Fig. 90 Sun visor.

First read and observe the introductory information and safety warnings ⚠ on page 115.

Various positions for the driver and front passenger sun visors:

- Folded down over the windscreen.
- Pulled out of the bracket and swung over towards the door ⇒ Fig. 90 ①.

Illuminated vanity mirror

With the sun visor folded down, there may be a vanity mirror behind a cover. When you open the cover ②, a lamp lights up.

The lamp will go out when the vanity mirror cover is pushed back or the sun visor is folded back up. ◁

Sunblind for the rear side windows

First read and observe the introductory information and safety warnings ⚠ on page 115.

The sunblinds for the rear side windows are fitted in the side trim of the windows.

- Use the handle to pull up the sunblind.
- Hook both ends of the bar into the brackets. Make sure that the sunblind is secured firmly in both brackets.
- To close the sunblind, unhook it at the top and guide it down by hand ⇒ ⓘ.

ⓘ NOTICE

To prevent damage to the sunblind and interior trim, do not let the sunblind snap down quickly. ◁

Windscreens made of heat-insulating glass

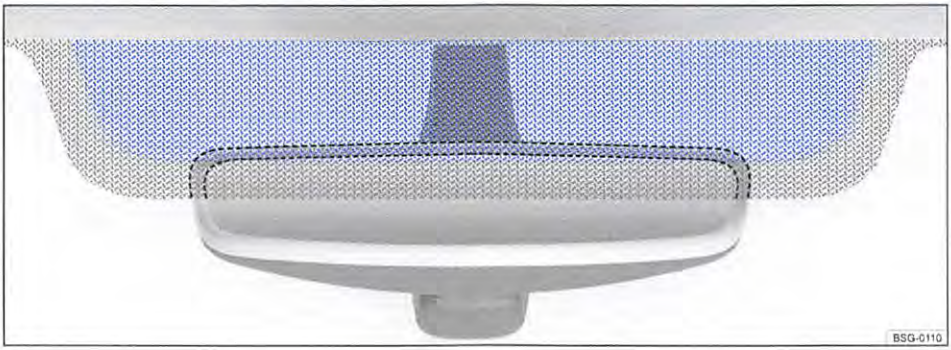


Fig. 91 Metal-coated windscreen for infrared reflection with communication window (blue area).

First read and observe the introductory information and safety warnings ⚠ on page 115.

Heat-insulating glass windscreens may have an infrared-reflecting coating and can be heated wirelessly with some equipment levels.

There is a non-coated area above the interior mirror (communication window) ⇒Fig. 91 which ensures that electronic accessories, for example remote controls, can function properly.

The uncoated area should not be covered either from the outside or the inside, nor should any stickers be applied to this area as this could cause a fault in the electronic components. ◁

Wipers and washer

Introduction

This chapter contains information on the following subjects:

Indicator lamp 117
Wiper lever 117
Wiper functions 118
Service position for the front wipers 119
Rain sensor 119
Checking and refilling the windscreen washer fluid level 120

Additional information and warnings:

- Exterior views ⇒page 5
- Air recirculation mode in the air conditioning system ⇒page 322
- Preparation for working in the engine compartment ⇒page 350
- Cleaning and caring for the vehicle exterior ⇒page 380

⚠ WARNING

Without adequate frost protection, the washer fluid can freeze on the windscreen and obscure your view of the road.

- **In winter temperatures, the windscreen washer system should only be used when adequate frost protection has been added.**
- **Never use the windscreen washer system at winter temperatures before the windscreen has been heated by the ventilation system. This could lead to the anti-freeze mixture freezing on the windscreen and restrict the driver's vision.** ▶

⚠ WARNING

Worn or dirty wiper blades reduce visibility and increase the risk of accidents and severe injuries.

- **Wiper blades should therefore always be changed if they are damaged or worn and no longer clean the windscreen properly.**

ⓘ NOTICE

In icy conditions, always check that the wiper blades are not frozen to the glass before using the wipers. When parking the vehicle in cold weather, it may be helpful to leave the front windscreen wipers in the service position ⇒page 119. ◁

Indicator lamp

First read and observe the introductory information and safety warnings ⚠ on page 116.

Lit up	Possible cause	Solution
	Windscreen washer fluid level too low.	Fill up the washer fluid reservoir as soon as possible ⇒page 120.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

ⓘ NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁

Wiper lever

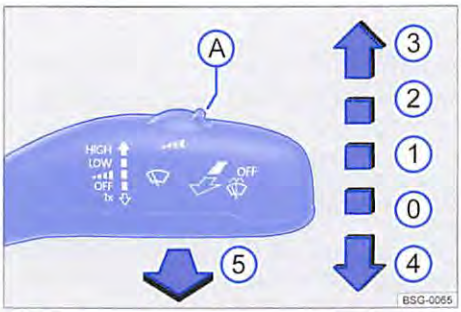


Fig. 92 Next to the steering wheel: wiper lever for operating the front wipers.

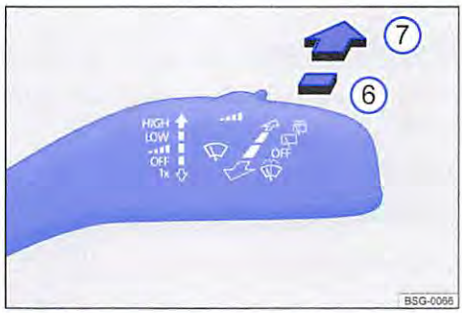


Fig. 93 Next to the steering wheel: wiper lever for operating the rear wiper.

First read and observe the introductory information and safety warnings ⚠ on page 116.

Move the lever into the required position ⇒ⓘ:

⓪	OFF	Switches off the wipers.
①	▪▪▮▮	Interval wipe for the windscreen. Set the interval lengths with the switch ⇒Fig. 92 Ⓐ (vehicles without rain sensor) or adjust the sensitivity of the rain sensor.
②	LOW	Slow wipe.
③	HIGH	Fast wipe. ▶

Move the lever into the required position ⇒ⓘ:

④	1x	Flick wipe – wipes briefly. Push and hold the lever down for longer to wipe more quickly.
⑤		Pulling the lever activates the wash and wipe system for cleaning the windscreen.
⑥		Interval wipe for the rear window. The wiper will wipe the window approximately every 6 seconds.
⑦		Pushing the lever activates the wash and wipe system for cleaning the rear window.

ⓘ NOTICE

If the ignition is switched off while the wipers are still switched on, the wipers will continue to wipe on the same setting when the ignition is switched on again. If there is frost, snow or other obstructions on the windscreen or rear window, the wipers and wiper motor could become damaged.

- **Remove any snow and ice from the wipers before setting off.**

ⓘ NOTICE (Continued)

- **Carefully detach wiper blades that have become frozen onto the windscreen. Volkswagen Commercial Vehicles recommends using a de-icer spray for this.**

ⓘ NOTICE

Do not switch on the wipers when the window is dry. Using the wipers when the windscreen is dry can damage the windscreen.

The wipers will only function when the ignition is switched on and the bonnet and tailgate are closed.

The rear window wiper is switched on automatically if the front wipers are switched on and reverse gear is engaged. ◁

Wiper functions



First read and observe the introductory information and safety warnings ⚠ on page 116.

Wiper response in various situations:

When the vehicle is stationary.	When switched on, the wipers will temporarily be switched to the next setting down.
While the wash and wipe system is running.	The Climatronic will switch to air recirculation mode for approximately 30 seconds to prevent the smell of the windscreen washer fluid from entering the vehicle interior.
When the interval wipe is switched on.	The wiper intervals vary according to the vehicle speed. The faster the vehicle is travelling, the shorter the interval.

Headlight washer system

The headlight washer system cleans the lenses on the headlights.

Once the ignition has been switched on, the headlights will be washed the first time the windscreen washer system is used, and every fifth time thereafter. To do this, pull the wiper lever towards the steering wheel when the dipped beam headlights or main beam are switched on. Clean off stubborn dirt (insects, etc.) from the headlights at regular intervals, for instance when filling the tank.

In winter, you should remove any snow from the headlight washer nozzles in the bumper to keep the headlight washer system in working order. Remove any ice with a de-icer spray.

The wipers will try to wipe away any obstacles that are on the windscreen. The wipers will stop moving if the obstacle blocks their path. Remove the obstacle and switch the wipers back on again. ◁

Service position for the front wipers

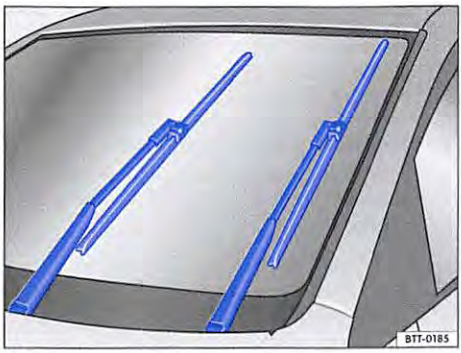


Fig. 94 Wiper blades in service position.

First read and observe the introductory information and safety warnings ⚠ on page 116.

The wiper arms can be lifted off the windscreen when in the service position ⇒ Fig. 94. Carry out the following steps to move the wipers to the service position:

- The bonnet must be closed ⇒page 350.
- Switch the ignition on and then off again.
- Briefly press down the wiper lever ⇒ Fig. 92 ④.

Place the wiper arms back onto the windscreen before driving away. Briefly press the wiper lever down to bring the wiper arms back to the original position.

Lifting the front wipers

- Move the wiper arms to the service position before lifting ⇒ ⓘ.
- When lifting the wiper arm hold it **only** by the wiper blade mounting.

ⓘ NOTICE

- **In order to prevent damage to the bonnet and the wiper arms, the wiper arms should only be lifted when in the service position.**
- **Always return the wiper arms to the windscreen before starting your journey.** ◁

Rain sensor

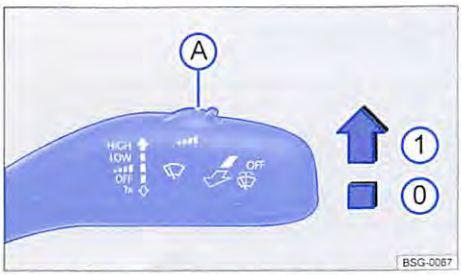


Fig. 95 Next to the steering wheel: adjusting rain sensor Ⓐ in wiper lever.

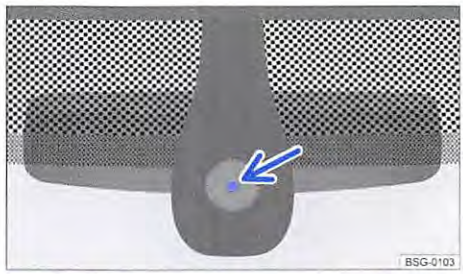


Fig. 96 On the inside of the windscreen above the interior mirror: sensitive surface of the rain sensor

First read and observe the introductory information and safety warnings ⚠ on page 116.

When the rain sensor is activated, it automatically controls the frequency of the wiper intervals, depending on the amount of rain ⇒ ⚠. The sensitivity of the rain sensor can be adjusted manually. Manual wipe ⇒page 117.

Push the lever to the desired position ⇒ Fig. 95:

Ⓞ Deactivates the rain sensor.

① Rain sensor is active – automatic wipe when necessary.

Ⓐ Adjusting the sensitivity of the rain sensor:
- Switch to the right – high sensitivity.
- Switch to the left – low sensitivity. ▶

The rain sensor will remain active after the ignition is switched off and back on again and will function again if the wiper lever is in position (1) and if the vehicle is travelling at speeds higher than approximately 16 km/h (10 mph).

Changes to the functioning of the rain sensor

Possible causes for faults and misinterpretations *concerning the sensitive surface* ⇒ Fig. 96 of the rain sensor include:

- Damaged wiper blades: a film of water or smears caused by damaged wiper blades can increase the time the wipers are switched on, can shorten the length of the intervals between wipes or cause the wipers to run continuously.
- Insects: insects hitting the surface can cause the wipers to be activated.
- Salt deposits: in winter, salt deposits can cause the wipers to continue to wipe the windscreen when it is almost dry.
- Soiling: dry dust, wax, windscreen coatings (lotus effect) or detergent deposits (automatic car wash) can cause the rain sensor to become less sensitive and react too slowly or even not at all.
- Crack in the windscreen: when the windscreen is impacted by a stone, a wash cycle is triggered if the rain sensor is on. The rain sensor will then register the reduction in sensitivity of the surface and adjust accordingly. The size of the crack could affect the way in which the sensor activates the wipers.

⚠ WARNING

The rain sensor will not always detect every rain shower and activate the wipers.

- **If necessary, switch on the wipers manually if the water on the windscreen restricts the field of vision.**

At regular intervals, clean the sensitive surface of the rain sensor and check the wiper blades for damage ⇒ Fig. 96 (arrow).

We recommend that you use an alcohol-based glass cleaner to remove wax and polish. ◁

Checking and refilling the windscreen washer fluid level



Fig. 97 In the engine compartment: cap of washer fluid reservoir.

First read and observe the introductory information and safety warnings ⚠ on page 116.

The windscreen washer fluid level should be checked regularly and topped up as necessary.

A filter can be found in the feed throat of the washer fluid reservoir. The filter keeps large dirt particles away from the washer jets when refilling. The filter should only be removed for cleaning. If the filter is damaged or cannot be found when refilling, these dirt particles will reach the system and will block the washer jets.

- Open the bonnet ⚠ ⇒ page 350.
- The washer fluid reservoir is identified by the symbol on the cap ⇒ Fig. 97.
- Check whether there is enough windscreen washer fluid in the reservoir.
- To top up, mix clean water (not distilled water) with a washer fluid recommended by Volkswagen Commercial Vehicles ⇒ (!). Observe the dilution instructions on the packaging.
- At low temperatures, add a special anti-freeze agent so that the fluid cannot freeze ⇒ ⚠. ▶

Recommended windscreen washer fluid

- For warm weather: summer windscreen wash G 052 184 A1. Dilution 1:100 (1 part concentrate, 100 parts water) in the washer fluid reservoir.
- All-year washer fluid G 052 164 A2. Dilution in winter to -18°C (0°F) approx. 1:2 (1 part concentrate, 2 parts water), otherwise dilute one part concentrate to four parts water (1:4) in the washer fluid reservoir.

Capacities

The capacity of the washer fluid reservoir is approximately 3.7 litres or approximately 5.0 litres in vehicles with a headlight washer system.

⚠ WARNING

Never mix coolant additive or other unsuitable additives into the windscreen washer fluid. An oily film may otherwise be left on the windscreen or rear window which will restrict the field of vision.

⚠ WARNING (Continued)

- **Use clean, clear water (not distilled water) with a washer fluid recommended by Volkswagen Commercial Vehicles.**
- **A suitable anti-freeze agent should be added to the windscreen washer fluid if necessary.**

NOTICE

- **Never mix other cleaning agents with the cleaning agents recommended by Volkswagen Commercial Vehicles. This can cause the ingredients to separate and block the windscreen washer jets.**
- **When refilling or changing service fluids, please ensure that the correct fluids are added through the correct openings. Incorrect service fluids can cause serious functional problems and engine damage.** ◁

Mirrors

Introduction

This chapter contains information on the following subjects:

Interior mirror 122
Exterior mirrors 123

For safety reasons it is important that the driver positions the exterior and interior mirrors correctly before starting a journey ⇒⚠.

You can use the exterior mirrors and the interior mirror to observe traffic behind you and adjust driving style accordingly. Looking in the exterior mirrors and the interior mirror does not allow the driver to see the entre side and rear area of the vehicle. The area that cannot be seen is known as the blind spot. There may be objects and other road users in the blind spot.

Additional information and warnings:

- Exterior views ⇒ page 5
- Changing gear ⇒ page 260
- Braking, stopping and parking ⇒ page 269

⚠ WARNING

Adjusting the exterior and interior mirrors while driving may cause the driver to become distracted. This can lead to accidents and serious injuries.

- **Exterior and interior mirrors should only be adjusted when the vehicle is stationary.**
- **When parking, changing lane, or performing an overtaking or turning manoeuvre, always pay careful attention to the area around the vehicle as objects and other road users may be located in the blind spot.**
- **Always ensure that the mirrors are positioned correctly and that the rear view is not restricted by ice, snow, condensation or any other objects.**

⚠ WARNING

Automatic anti-dazzle mirrors contain an electrolyte fluid which could leak if the mirror is broken.

- **The leaking electrolyte fluid can cause irritation to the skin, eyes and respiratory organs, especially in people who suffer from** ▶

⚠ WARNING (Continued)

asthma or similar illnesses. Immediately ensure that there is a sufficient supply of fresh air and get out of the vehicle. If this is not possible, open all of the windows and doors.

- **If the electrolyte fluid gets into the eyes or onto the skin, immediately wash the area with plenty of water for at least 15 minutes and consult a doctor.**
- **If the electrolyte fluid gets onto shoes or clothing, wash immediately with plenty of water for at least 15 minutes. Clean shoes and clothes thoroughly before wearing them again.**

⚠ WARNING (Continued)

- **If the electrolyte fluid is swallowed, immediately rinse the mouth with plenty of water for at least 15 minutes. Do not induce vomiting unless instructed to do so by a doctor. Seek medical assistance immediately.**

NOTICE

If the glass of an automatic anti-dazzle mirror is broken, electrolyte fluid can leak from the mirror. This fluid corrodes plastic surfaces. Remove the fluid as soon as possible, e.g. using a wet sponge. ◁

Interior mirror

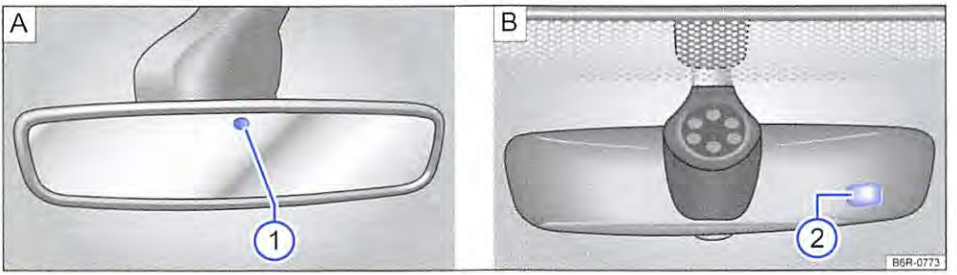


Fig. 98 On the windscreen: automatic anti-dazzle interior mirror.



Fig. 99 On the windscreen: manual anti-dazzle interior mirror.

First read and observe the introductory information and safety warnings ⚠ on page 121.

The driver must adjust the interior mirror so that they can see clearly through the rear window.

The driver's rear view may be restricted or completely obscured by objects such as a sunblind on the rear window, items of clothing stowed on the luggage compartment cover, or a rear window that is covered in ice, snow or dirt.

Automatic anti-dazzle interior mirror

When the ignition is switched on, the interior mirror will darken *automatically* according to the amount of light it receives.

Key to Fig. 98:

① Sensor for determining light incidence from the rear.

② Sensor for determining light incidence from the front.

If the light on the sensors is hindered or interrupted, e.g. by a sunblind, the automatic anti-dazzle interior mirror will not function or will not function correctly.

The automatic anti-dazzle function is deactivated when the reverse gear is selected. ▶

Do not attach external navigation devices to the windscreen or near interior automatic anti-dazzle mirrors ⇒⚠.

Manual anti-dazzle interior mirror

- Basic position: the lever on the lower part of the mirror is pointing towards the windscreen.
- Pull the lever to the back to select the anti-dazzle function ⇒ Fig. 99.

⚠ WARNING

The illuminated display from an external navigation device can lead to functional impairment of the interior automatic anti-dazzle mirror and cause accidents or serious injuries.

- **You may not be able to precisely determine the distance from vehicles travelling behind you or from other objects if the automatic anti-dazzle function is impaired.**

Exterior mirrors

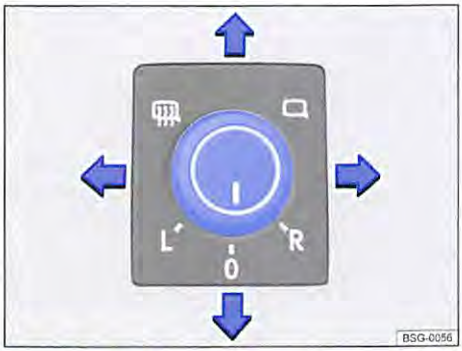


Fig. 100 In the driver door: rotary knob for the exterior mirrors.

First read and observe the introductory information and safety warnings ⚠ on page 121.

Electric exterior mirrors

Turn the rotary knob to the desired position:	
	Fold exterior mirrors into the body electrically ⇒⚠.
	Switch on the exterior mirror heating.
L	Tap and hold the rotary knob to set the left exterior mirror to the front, rear, right or left. In this position the exterior mirror heater is switched off.
R	Tap and hold the rotary knob up or down or left or right to set the right exterior mirror. In this position the exterior mirror heater is switched off.

Depending on the model, electrical control elements can be combined with mechanically adjustable exterior mirrors.

Mechanical exterior mirrors

- To *adjust*, press the edge of the mirror it until it reaches the desired position.
- To *fold in*, pull the mirror housing back until it engages.
- To *fold back*, carefully fold the mirror housing back.

⚠ WARNING

Injuries can be sustained if you do not take care when folding the exterior mirrors in and out.

- **Only fold the exterior mirrors in or out when there is nobody in the path of the mirror.**
- **Always ensure that no fingers are caught between the exterior mirror and the foot of the mirror when the exterior mirror is moved.**

⚠ WARNING

If you estimate the distance from traffic behind you incorrectly, you can cause accidents and serious injuries.

- **Curved mirrors (convex or aspheric) enlarge the field of vision and can make objects in the mirror seem smaller and further away than they actually are.**
- **Using curved mirrors to estimate the distance from other vehicles behind you when changing lanes can provide inaccurate results and can lead to accidents and severe injuries.**
- **Whenever possible, use the interior mirror to check the exact distance between your vehicle and following traffic or other objects.**
- **Ensure that you have a good view to the rear of the vehicle.**

NOTICE

- **Always fold in exterior mirrors before using an automatic car wash.**
- **Do not fold electrically folding exterior mirrors in or out manually as this can damage the electric motor.**

The exterior mirror heating should be switched off when it is no longer needed. Fuel is otherwise wasted.

In the event of a fault, the electric exterior mirrors can be adjusted by hand by pressing on the outer edge of the mirror.

The vehicle aerials are located in the exterior mirrors. If any metallic chrome plates, such as chrome mirror caps, are retrofitted to the exterior mirrors, you may experience problems with the radio, mobile telephone and navigation services or they may lose the ability to send and receive signals completely. ◁

Transporting items

Driving notes

Introduction

This chapter contains information on the following subjects:

Stowing items of luggage 126
Stowing cargo 127
Buckle straps 128
Ratchet straps 128
Driving with an open tailgate or open wing doors 129
Driving a loaded vehicle 130

Always secure the load transported in the luggage compartment or load compartment, on the roof carrier, on the load surface or trailer. Always use suitable securing straps with the fastening rings to secure heavy items. Never exceed the vehicle's maximum payload. Both the payload and the distribution of the load in the vehicle will have an effect on the driving response and braking distance ⇒ ⚠.

Using securing straps

- Follow the instructions for the securing straps.
- Observe specifications for maximum load rating.
- The securing straps must be long enough for the item you wish to secure.

Damaged securing straps

Never use the securing straps if:

- Damage to the warp and weft of the webbing (cuts or fraying) accounts for more than 10% of the webbing.
- The seams are damaged.
- The webbing is deformed by friction or heat.
- The securing straps are cracked, especially if cracked across the strap, or if the straps have notches.
- The securing straps have splits or corrosion damage.
- There is damage to the tightening device and connection elements.

Additional information and warnings:

- Tailgate ⇒page 49
- Wing doors ⇒page 52
- Lights ⇒page 106
- Luggage compartment ⇒page 130
- Roof carrier ⇒page 137
- Towing a trailer ⇒page 139
- Wheels and tyres ⇒page 367
- Vehicle weight and axle weight rating ⇒page 450

⚠ WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident. This applies particularly if objects are struck by the airbag when activated and then flung through the vehicle interior. To reduce the risk of accidents, please observe the following guidelines:

- **Always stow all objects in the vehicle securely.**
- **Always use suitable straps to prevent objects entering the deployment zones of the curtain airbag, the combined curtain and side airbag or the front airbag during a sudden driving or braking manoeuvre.**
- **Objects should be stowed in the vehicle interior in such a way that they can never enter the airbag deployment zones while the vehicle is in motion.**
- **Always keep stowage compartments closed while the vehicle is in motion.**
- **The front airbag must be switched off and the indicator lamp PASSENGER AIR BAG OFF must light up for as long as the front passenger seat backrest is folded forwards.**
- **Stowed objects must never cause passengers to assume an incorrect sitting position.**
- **If an item is being stowed on a seat, this seat must not be used by any passengers.**

⚠ WARNING

Transporting heavy objects changes the vehicle driving characteristics and increases the braking distance. Heavy loads which are not properly stowed or secured in the vehicle can lead to a loss of vehicle control and cause serious injury.

⚠ WARNING (Continued)

- Transporting heavy objects changes the vehicle's handling and the centre of gravity.
- The load should be distributed as evenly and low as possible in the vehicle.
- Always secure heavy objects in the luggage compartment as far in front of the rear axle as possible.

⚠ WARNING

The vehicle handling and braking effect may alter significantly if large or heavy objects are being transported.

- Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions.
- Accelerate carefully and gently.
- Avoid sudden braking and driving manoeuvres.
- Brake earlier than in normal driving.

⚠ WARNING

Unsuitable or damaged securing straps could rip in the event of a braking manoeuvre or accident. This could cause objects to be flung through the interior and lead to severe or fatal injuries.

- Always use suitable and undamaged securing straps.
- Attach securing straps securely to the fastening rings.
- Never load the securing straps in excess of the load rating.

⚠ WARNING

Securing straps, if used incorrectly, may get detached in the event of a sudden braking manoeuvre or accident. This could cause objects to be flung through the interior and lead to severe or fatal injuries.

⚠ WARNING (Continued)

- Never fix securing straps between the fastening rings in the side panel and the fastening rings in the vehicle floor.
- Never fix securing straps between opposite side walls.
- Observe the information on the side trim panels.

⚠ WARNING

Incorrect use of fastening rings can cause severe or fatal accidents.

- Always use suitable and undamaged securing straps.
- Attach securing straps securely to the fastening rings.
- Loose objects in the vehicle can suddenly slide and change the way the vehicle handles.
- Never exceed the maximum load rating of the fastening rings when securing objects.
- Small and light objects should also be secured.
- Never secure a child seat to the fastening rings.
- Rotating single seats must always be turned in the direction of travel if a load is secured behind this seat using fastening rings.
- Never use elastic straps or nets to tie down loads.
- Distribute the load on the fastening rings evenly.
- Ensure that the load retains its form and position once it has been secured. Use stable packaging and anti-slip floor surfacing for your load.

Suitable fastening belts and luggage stowage systems are available from a qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose. ◁

Stowing items of luggage

First read and observe the introductory information and safety warnings ⚠ on page 125. ▶

Always stow all items of luggage in the vehicle securely.

- Distribute items in the vehicle, on the roof and on the trailer as evenly as possible.
- Place heavy objects as far forward in the luggage compartment as possible. Position the rear seat backrests securely in the upright position.
- Secure luggage in the luggage compartment to the fastening rings with suitable straps ⇒page 130.
- Adjust the headlight range ⇒page 106.
- Adjust the tyre pressure according to the vehicle load. Adhere to the tyre pressure plate ⇒page 367.
- In vehicles with a tyre monitoring system, set the new vehicle load level as necessary ⇒page 318.

NOTICE

Hard objects on the shelf can chafe against the wires of the heating element in the rear window and cause damage.

- Observe any information concerning the loading of a trailer ⇒page 139 .
- Observe any information concerning the loading of a roof carrier ⇒page 137 . ◁

Stowing cargo

First read and observe the introductory information and safety warnings ⚠ on page 125.

Stow the load securely in the vehicle or on the load surface

- Before loading the vehicle, place a sturdy mat or similar cover flush with the vehicle floor. Where necessary, do not cover protruding parts of the vehicle floor.
- If necessary, remove the seats to increase the load area.
- The vehicle floor must be free of oil and dust, dry and fully clean in order to help prevent the load from sliding.
- Observe gross axle weight ratings and the gross vehicle weight rating.
- Distribute items in the vehicle, on the load surface, on the roof and on the trailer as evenly as possible.
- Stow heavy objects directly on the floor and above or in front of the rear axle and engage the rear seat backrests securely in an upright position.
- Avoid overloading small areas of the vehicle floor.
- Protect the seat rails or seat anchor points from damage.
- Secure luggage with suitable securing straps on the fastening rings ⇒page 130.
- Adjust the headlight range ⇒page 106.
- Adjust the tyre pressure according to the vehicle load. Adhere to the tyre pressure plate ⇒page 367.
- In vehicles with a tyre monitoring system, set the new vehicle load level as necessary ⇒page 318.

NOTICE

Hard objects on the shelf can chafe against the wires of the heating element in the rear window and cause damage.

- Observe any information concerning the loading of a trailer ⇒page 139 .
- Observe any information concerning the loading of a roof carrier ⇒page 137 . ◁

Buckle straps

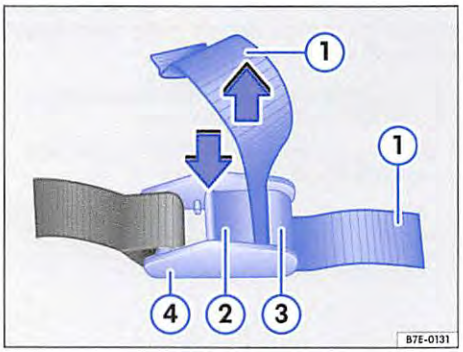


Fig. 101 Fastening the buckle strap

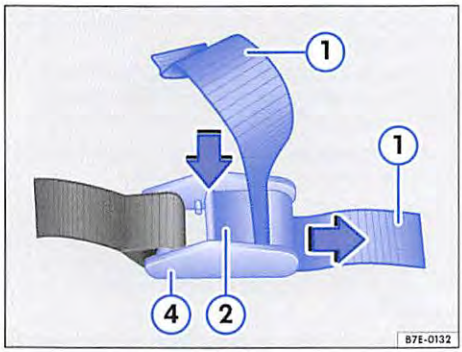


Fig. 102 Releasing the buckle strap

First read and observe the introductory information and safety warnings ⚠ on page 125.

Fastening the buckle strap

- Check before fastening: the lever ⇒ Fig. 101 (2) should not be in contact with the load, any edges or protruding objects.
- Press and hold lever (2) on the buckle (4).
- Thread the strap (1) from the back to the front between lever (2) and rib (3).
- Fasten the buckle strap (1) and release the lever (2).

Releasing the buckle strap

- Before releasing the buckle strap, make sure the load cannot fall over.
- Press lever ⇒ Fig. 102 (2) and pull the buckle strap (1) out of the buckle (4).
- Thread the strap (1) from the back to the front between lever (2) and rib (3).
- Fasten the buckle strap (1) and release the lever (2). ◁

Ratchet straps

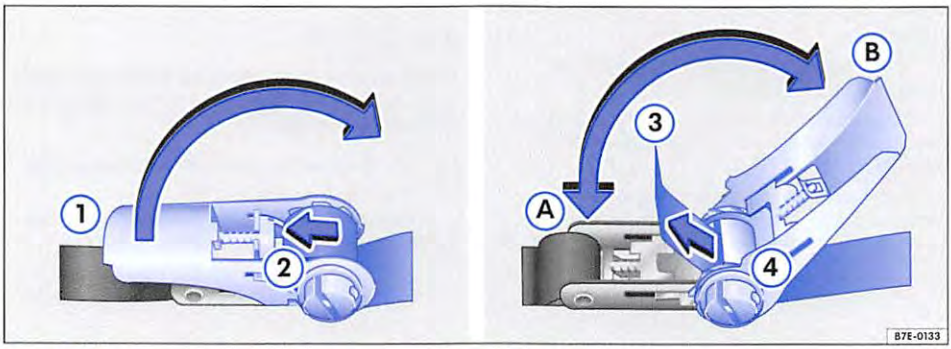


Fig. 103 Releasing and tightening the lever on the ratchet strap. ▶

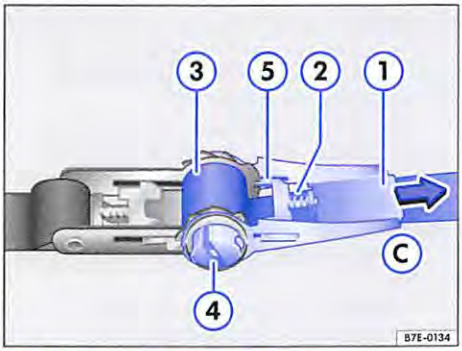


Fig. 104 Tightening the ratchet strap

First read and observe the introductory information and safety warnings ⚠ on page 125.

Tightening the ratchet strap

- Press the slider ⇒Fig. 103 ② outwards in the direction of the arrow.
- Pivot the lever ① to position Ⓑ.
- Pull the belt ③ from the rear through the slot in the spool ④ tight.
- Pivot the lever ① back and forth alternately between positions Ⓐ and Ⓑ until the belt strap has wound itself around the spool 2 - 3 times ⇒⚠.
- Press the slider ② outwards and pivot the lever ① to position Ⓐ. The ratchet is now closed and locked in position.

Releasing the ratchet strap

- Before releasing the ratchet strap, make sure the load cannot fall over.
- Press the slider ⇒Fig. 104 ② outwards.
- Pivot the lever ① to position Ⓒ, until the slider ② engages in the slot ⑤. The spool ④ now rotates freely.
- Pull the ratchet strap ③ out of the ratchet.

⚠ WARNING

Ratchet straps, if used incorrectly, may get detached in the event of a sudden braking manoeuvre or accident. This could cause objects to be flung through the interior and lead to severe or fatal injuries.

- **"Wind" the strap around the spool 2 - 3 times.**
- **Never use ratchet straps to secure loads to the side panels.** ◁

Driving with an open tailgate or open wing doors

First read and observe the introductory information and safety warnings ⚠ on page 125.

Driving with an open tailgate or open wing doors is particularly dangerous. All objects and the open tailgate or open wing doors must be secured properly. Take the appropriate measures to reduce the amount of poisonous exhaust fumes that could enter into the vehicle.

Make sure you observe any legal requirements when driving with an open tailgate or open wing doors.

⚠ WARNING

Driving with an unlocked or open tailgate or unlocked/open wing doors can cause serious injuries.

- **Always drive with the tailgate or wing doors closed.**
- **Always stow all items in the luggage compartment securely. Loose objects can fall out of the luggage compartment and injure other road users.**
- **Always drive carefully and ensure that you think ahead.**
- **Avoid any abrupt or sudden driving and braking manoeuvres as this could cause the open tailgate or open wing doors to move unpredictably.** ▶

⚠ WARNING (Continued)

- **Any objects protruding from the luggage compartment must be marked to ensure that they are visible to other road users. Comply with legal regulations.**
- **If items protrude out of the luggage compartment, never use the tailgate or wing doors to "hold them in position".**
- **If you drive with the tailgate or wing doors open, remove any racks and luggage from the tailgate or a wing door.**

⚠ WARNING

Poisonous exhaust fumes can get into the interior when the tailgate or wing doors are open. This can result in loss of consciousness, carbon monoxide poisoning, serious injury and accidents.

⚠ WARNING (Continued)

- **Always drive with the wing doors or tailgate closed to prevent poisonous exhaust fumes getting into the vehicle.**
- **If exceptional circumstances require you to drive with an open tailgate or open wing doors, do the following to reduce the amount of poisonous exhaust fumes that could enter into the vehicle:**
  - **Close all windows and the sliding/tilting roof.**
  - **Switch off air recirculation mode.**
  - **Open all vents in the dash panel.**
  - **Switch the blowers to the highest setting.**

ⓘ NOTICE

The vehicle length and height are different when the wing doors or tailgate are open. ◁

Driving a loaded vehicle

First read and observe the introductory information and safety warnings ⚠ on page 125.

For good vehicle handling when driving a loaded vehicle, please observe the following:

- Stow all items of luggage securely ⇒ page 127.
- Accelerate carefully and gently.
- Avoid sudden braking and driving manoeuvres.
- Brake earlier than in normal driving.
- If applicable, heed the information about driving with a trailer ⇒ page 139.
- If applicable, observe the information concerning the roof carrier ⇒ page 137.

⚠ WARNING

Moving loads can severely impair the vehicle's stability and driving safety which could cause accidents and severe injuries.

- **Secure objects properly to prevent them from sliding.**
- **Use suitable straps when securing heavy objects.**
- **Engage the rear seat backrests securely in an upright position.** ◁

Luggage compartment

Introduction

This chapter contains information on the following subjects:

Luggage compartment cover 132

Always use suitable securing straps with the fastening rings. Never exceed the vehicle's maximum payload. Both the payload and the distribution of the load in the vehicle will have an effect on the driving response and braking distance ⇒ ⚠. ▶

Additional information and warnings:

- Airbag system ⇒page 87
- Lights ⇒page 106
- Transporting ⇒page 125
- Towing a trailer ⇒page 139
- Luggage net, California ⇒page 192
- Wheels and tyres ⇒page 367

⚠ WARNING

When the vehicle is not in use or is not being supervised, always lock the doors and tailgate to reduce the risk of severe or fatal injuries.

- **Never leave children unattended, especially when the tailgate is open. Children could make their way into the luggage compartment, close the tailgate and be unable to get out. This can cause severe or fatal injuries.**
- **Never let children play in or around the vehicle.**
- **Do not travel with people in the luggage compartment.**

⚠ WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident. This applies particularly if objects are struck by the airbag when activated and then flung through the vehicle interior. To reduce the risk of accidents, please observe the following guidelines:

- **Always stow all objects in the vehicle securely. Always stow luggage and heavy objects in the luggage compartment.**
- **Always use suitable straps to prevent luggage from being thrown through the vehicle interior and entering the deployment zones of the curtain airbag, the combined curtain and side airbag or the front airbag in the event of a sudden driving or braking manoeuvre.**
- **Always keep stowage compartments closed while the vehicle is in motion.**
- **Do not stow any hard, heavy or sharp objects loose in any of the vehicle's open stowage areas, on the luggage compartment cover or on the dash panel.**
- **Remove any hard, heavy or sharp objects from items of clothing and bags inside the vehicle and stow them securely.**

⚠ WARNING (Continued)

⚠ WARNING

Transporting heavy objects changes the vehicle's handling and increases the braking distance. Heavy loads that are not properly stowed or secured in the vehicle can lead to a loss of vehicle control and can cause serious injury.

- **Transporting heavy objects changes the vehicle's handling and the centre of gravity.**
- **The payload should be distributed as evenly as possible in the vehicle.**
- **Always secure heavy objects in the luggage compartment as far in front of the rear axle as possible.**

NOTICE

Hard objects on the shelf can chafe against the wires of the heating element in the rear window and cause damage.

Always ensure that the ventilation openings between the rear window and the stowage area are uncovered to allow stale air to escape from the vehicle. ◁

Luggage compartment cover



Fig. 105 In the luggage compartment: luggage compartment cover.

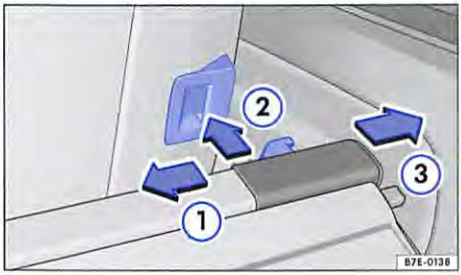


Fig. 106 In the luggage compartment: retainer for the luggage compartment cover

First read and observe the introductory information and safety warnings ⚠ on page 130.

The luggage compartment cover is attached to the 3-seat bench backrest.

Opening the luggage compartment cover

- Make sure the backrest of the 3-seat bench has engaged securely in the upright position.
- Using the handle, pull the luggage compartment cover evenly to the rear.
- Hook the luggage compartment cover in at the sides.

Retracting the luggage compartment cover

- Using the handle, pull the luggage compartment cover slightly to the rear.
- Hold the luggage compartment cover and lift it up out of the side retainers to remove it.
- Guide the luggage compartment cover forwards by hand. **Do not let it snap back.**

Removing the luggage compartment cover

- Roll up the luggage compartment cover, if necessary.
- Press one side of the luggage compartment cover against the spring pressure inwards and pivot it slightly to the back.
- Pull out the luggage compartment cover on the other side to the inside of the vehicle.

Fitting the luggage compartment cover

- Insert the hook on the luggage compartment cover into the retainer on one side.
- Press the other side of the luggage compartment cover against the spring pressure inwards ⇒ Fig. 106 (1) and hold it in this position.
- Press the luggage compartment cover hook into the appropriate retainer (2).
- Loosen the luggage compartment cover and press the hook to the outside, aided by spring pressure, into the retainer (3).
- Check that the luggage compartment cover is fitted properly.

⚠ WARNING

Objects that are not secured or are secured incorrectly, or animals on the luggage compartment cover, could cause serious injuries in any sudden driving or braking manoeuvre or accident.

- **Do not stow any hard, heavy or sharp items either loose or in bags on the luggage compartment cover.**
- **Never transport pets on the luggage compartment cover.**

NOTICE

To prevent damage to the luggage compartment cover, do not load it to such a height that the luggage compartment cover will press against the load when the rear lid is closed. ◁

Guide rail system in the rear vehicle floor

Introduction

This chapter contains information on the following subjects:

Opening and closing the rail system 133
Fastening rings in the rail system 134
T-shaped fastening ring 135
Net partition 136

There are four seat rails in the passenger compartment. Depending on the equipment level, the two middle seat rails can be configured either as twin rails or as single rails ⇒Fig. 107.

Equipment	Location
Single seats	In each of the two outer seat rails
3-seat bench	In both outer seat rails
Bed extension (multi-flex board)	In both outer seat rails
Central table	In the two middle seat rails, only in twin-track configurations
Net partition	In both outer seat rails
Cool box	On the adapter plate in the two middle seat rails

Other items of special equipment which can be fitted to the seat rails may be commercially available. An adapter may be needed for this purpose.

All seats and accessories which have feet which fit into the seat rails must be properly fitted with all feet in the seat rails and engaged securely.

Additional information and warnings:

- Seat functions, rear ⇒page 72
- Seat functions, rear, Business ⇒page 182
- Seat functions, rear, California ⇒page 193
- Luggage compartment ⇒page 130
- Accessories, modifications, repairs and renewal of parts ⇒page 394

⚠ WARNING

If the equipment on the rail system is removed, installed or moved improperly, accidents and severe injuries may result. ◁

Opening and closing the rail system

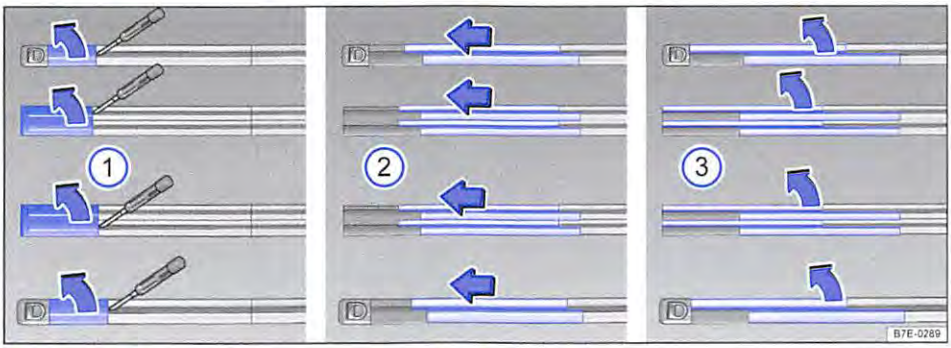


Fig. 107 In the passenger compartment: view of seat rails from above. ▶

First read and observe the introductory information and safety warnings ⚠ on page 133.

Removing plastic covers

The plastic covers ⇒ Fig. 107 must be removed from the seat rails, if seats or the central table are to be installed or removed.

- Take the screwdriver from the vehicle toolkit.
- Insert the flat blade of the screwdriver into the seat rail at an angle in front of the plastic cover you wish to remove ①.
- Press the cover lug approx. 3 mm to the front and, at the same time, lever it out.

Removing split cover rail

- Grasp with both hands into the rubber lip of the shorter part (approx. 30 cm) of the aluminium cover rail ②, and push it towards the front until both clips are released.
- Remove cover rail ③ upwards in a straight line.
- Now, also move the opposite part of the aluminium cover rail towards the front, and remove it upwards in a straight line.
- Repeat this procedure for all seat rails.

Installing split cover rail

- Fit the aluminium cover rail so that it is flush with the longer part of the cover rail.
- Push the aluminium cover rail from above into the clips of the seat rail until it engages.
- Repeat this procedure for all seat rails.

Installing plastic covers

- Insert the plastic cover ① with the recess at the front into the seat rail and press down at the back until the cover engages securely. The cover must be flush with the seat rails.
- Ensure that the plastic covers for the double seat rails are not confused with each other as the covers will otherwise not engage securely.

⚠ WARNING

If the equipment in the seat rails is removed, installed or moved improperly, accidents and severe injuries may result.

- **Proceed with care when removing and installing the aluminium cover rails: risk of injury caused by corners and edges.**
- **The aluminium cover rails and plastic covers must always be installed when the vehicle is in motion.**
- **Never remove the seat rails completely. Such jobs should only be carried out by a qualified workshop.**
- **If your seat rails are damaged, have them checked, and if necessary replaced, by a qualified workshop.**

NOTICE

If seats are moved when the seat rails are soiled, the seat rails and the seat feet could be damaged. ◁

Fastening rings in the rail system

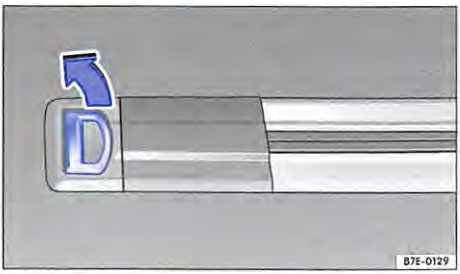


Fig. 108 Fastening ring in the seat rail.

First read and observe the introductory information and safety warnings ⚠ on page 133.

The fastening rings in the seat rails ⇒ Fig. 108 may be loaded with a maximum load rating of 250 daN[1] ⇒ ⚠.

⚠ WARNING

Incorrect use of fastening rings can cause severe or fatal accidents.

- **Always use suitable and undamaged securing straps.** ▶

[1] daN: Deka Newton. Unit for load carrying capacity.

⚠ WARNING (Continued)

- **Attach securing straps securely to the fastening rings.**
- **Loose objects in the vehicle can suddenly slide and change the way the vehicle handles.**
- **Never exceed the maximum load rating of the fastening rings when securing objects.**
- **Small and light objects should also be secured.**
- **Never secure a child seat to the fastening rings.**
- **Rotating single seats must always be turned in the direction of travel if a load is secured behind this seat using fastening rings.**

⚠ WARNING (Continued)

- **Never use elastic straps or nets to tie down loads.**
- **Distribute the load on the fastening rings evenly.**
- **Ensure that the load retains its form and position once it has been secured. Use stable packaging and anti-slip floor surfacing for your load.**

T-shaped fastening ring

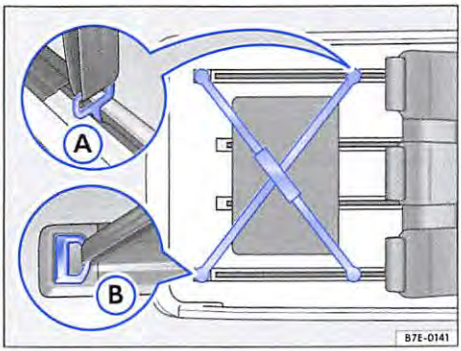


Fig. 109 Load secured correctly using 2 securing straps

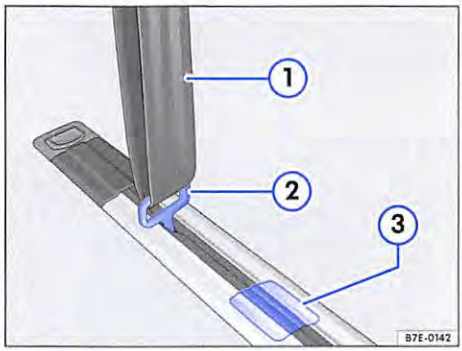


Fig. 110 T-shaped fastening ring fitted correctly in the seat rail

First read and observe the introductory information and safety warnings ⚠ on page 133.

Depending on the vehicle equipment level, the scope of delivery includes two T-shaped fastening rings which can be fitted in the seat rails.

The T-shaped fastening rings are used to secure loads in addition to the fitted fastening rings.

Conditions for installation of the T-shaped fastening ring

- A T-shaped fastening ring ⇒Fig. 109 Ⓐ may only be used together with one single fastening ring Ⓑ that is fitted in the vehicle.
- To secure the load use only buckle straps or ratchet straps with a maximum load rating of S_{TF} < or = 300 daN. Follow the instructions provided by the belt manufacturer.
- T-shaped fastening rings may **only** be fitted behind vehicle occupants.
- Turn the single seats so that they face the direction of travel.
- The seat backrests of single seats or of the 3-seat bench must be in an upright position.

Fitting the T-shaped fastening ring

- Fit the T-shaped fastening ring parallel to the seat rail in the seat rail.
- Turn the fastening ring through 90° so that it is positioned across the seat rails ⇒Fig. 110 ②.
- Pull the tensioning strap ① through the fastening ring, and tension it.

Removing the T-shaped fastening ring

- Loosen the tensioning strap.
- Turn the fastening ring through 90° so that it is positioned parallel to the seat rail.
- Remove the fastening ring from the seat rail.

⚠ WARNING

Incorrect use of T-shaped fastening rings can cause severe or fatal accidents.

- **Use the T-shaped fastening ring only together with a tensioning strap and remove it from the seat rail after use. The T-shaped fastening ring is secure only when it is tensioned together with a tensioning strap.**

⚠ WARNING (Continued)

- **The T-shaped fastening rings should never be inserted in the seat rails near the removable covers.**
- **Always secure the load with two securing straps to a total of four fastening rings ⇒Fig. 109. Use each tensioning strap with a maximum of one T- shaped fastening ring. The second fastening ring must always be a fastening ring that is fitted permanently in the vehicle.**
- **Fit T-shaped fastening rings only behind the vehicle occupants. Otherwise, in the event of an accident or sudden braking manoeuvre, vehicle occupants could hit the secured load with their heads or other body parts.**
- **No more than one T-shaped fastening ring may be in a seat rail at any one time.**
- **Never exceed the maximum load rating.** ◁

Net partition

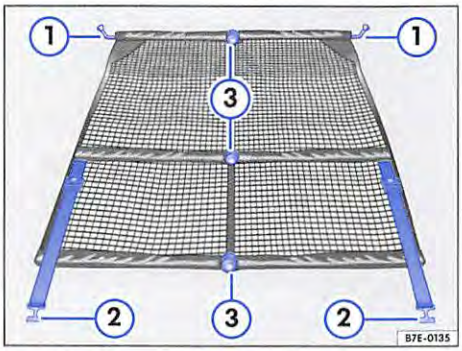


Fig. 111 Folding out the net partition

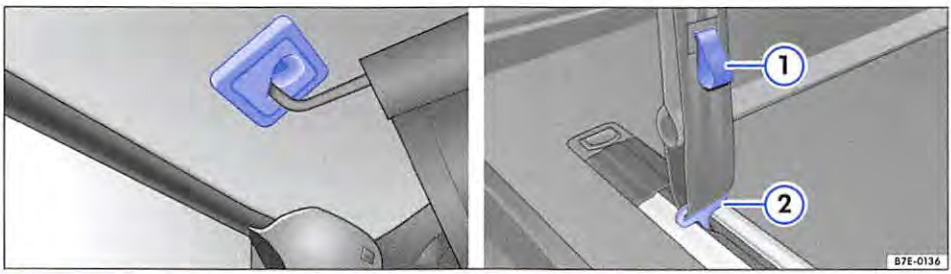


Fig. 112 Correctly fitted net partition in the headliner and in the seat rail ▶

First read and observe the introductory information and safety warnings ⚠ on page 133.

The net partition can prevent objects in the luggage compartment entering the passenger compartment.

The net partition can be fitted behind the front seats or behind the 3-seat bench.

Key to Fig. 111:

① Retainers with T-shaped ends which are inserted in retainers in the headliner

② Holder straps with T-shaped holders which are secured in the seat rails

③ Cross pieces with joints which lock into place

Preparing the net partition for fitting

- Take the net partition out of its plastic bag and unroll it fully.
- Fold out all the side rods fully, until you hear a "clicking" noise.

Fitting the net partition

- Make sure that the sewn-in instructions label is pointing to the rear.
- Hook the net partition up onto the left-hand side ⇒Fig. 112.
- Push the rod together to hook the net partition onto the right-hand side.
- Pull the net partition to check that it has engaged securely in the retainers in the headliner.
- On the left and right sides, pull the strap down on the loop ① until you can insert the T-shaped holder into the outer seat rails.
- Turn each of the T-shaped holders through 90° so that they are positioned across the seat rails ②.
- Make sure that the net partition is vertical and securely fitted in the seat rails.

Removing the net partition

- Slacken off the straps by pulling loop ① down.
- Turn the T-shaped holders through 90° and take them out of the seat rails.
- Push the net partition on one side slightly to the inside of the vehicle and lift it out of the upper retainer.
- Press the release button ⇒Fig. 111 ③ in the joint of each cross piece and fold the cross pieces together.
- Roll up the net partition and stow it in its plastic bag.
- Stow the plastic bag securely in the vehicle.

⚠ WARNING

Always use the net partition carefully, observing the instructions. Risk of injury.

- **The net partition is secured properly in the roof only if the T-shaped holders are securely fitted into the retainers.**
- **The net partition is fitted correctly in the seat rails only if the T-shaped retainers are at right-angles to the seat rails and correctly engaged.**
- **The T-shaped holders must never be fitted close to the removable covers on the seat rails.**
- **Heavy, pointed or sharp items which are not stowed securely can cause injury in the event of sudden braking manoeuvres or accidents. This may also happen when the net partition is fitted correctly.**
- **Vehicle occupants must not travel behind a fitted safety net.** ◁

Roof carrier

Introduction

This chapter contains information on the following subjects:

Attaching the mounts and roof carrier 138
Loading the roof carrier 139

When should the roof carrier be removed?

- When it is no longer being used.
- When the vehicle is driving through a car wash.
- When the vehicle height exceeds the required clearance height, e.g. in a garage. ▶

Additional information and warnings:

- Lights ⇒page 106
- Transporting ⇒page 125
- Driving with respect for the environment ⇒page 278
- Wheels and tyres ⇒page 367
- Accessories, modifications, repairs and renewal of parts ⇒page 394

⚠ WARNING

When transporting heavy or bulky objects in the roof carrier, the vehicle's handling will change due to a shift in the centre of gravity and an increased susceptibility to cross-winds.

- **Always secure loads properly using suitable and undamaged securing straps.**
- **Cargo that is large, heavy, bulky, long or flat will have a negative effect on the vehicle aerodynamics, centre of gravity and overall handling.**

⚠ WARNING (Continued)

- **Avoid abrupt and sudden driving and braking manoeuvres.**
- **Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions.**

NOTICE

- **Always remove the roof carrier before driving through an automatic car wash.**
- **The height of the vehicle is changed by the installation of a carrier system and the load secured to it. Check and compare the height of the vehicle with clearance heights, e.g. for underpasses and garage doors.**
- **The roof carrier system and its load must not obstruct you from opening and closing the sliding/tilting roof and tailgate. The roof aerial must also remain unaffected.**
- **When opening the tailgate, take care not to let it hit the roof load.**

Driving with a fitted roof carrier will increase air resistance and thus increase fuel consumption. ◁

Attaching the mounts and roof carrier

First read and observe the introductory information and safety warnings ⚠ on page 137.

Your vehicle has special roof rails on the right and left for fitting the mounts. Therefore, standard roof carriers cannot be used. Volkswagen Commercial Vehicles recommends using only mounts and roof carriers that have been approved by Volkswagen Commercial Vehicles.

The mounts are the basis of a complete roof carrier system. Special fixtures must then be added to transport luggage, bicycles, skis, surfboards or boats safely on the roof. All components of this system are available at a Volkswagen Commercial Vehicles dealership.

The roof carrier system must always be installed exactly according to instructions and should be kept with the vehicle wallet.

⚠ WARNING

Incorrectly attaching the mounts and roof carrier, and using them inappropriately, can cause the whole system to fall off the roof. This can cause accidents and injuries.

- **Always observe the manufacturer's instructions.**
- **Only use mounts and roof carriers when they are undamaged and fitted correctly.**
- **Fit mounts and roof carriers correctly.**
- **Check the bolts and anchorage points before starting your journey and adjust as necessary after driving a short distance. During a long trip, check all bolts and fasteners at each stop.**
- **Special fixtures for items such as bicycles, skis, surfboards, etc. should always be properly installed.**
- **Do not carry out any alterations or repairs to the mounts and roof carrier.**

Read and observe the instructions provided for the fitted roof carrier system and carry them in the vehicle at all times. ◁

Loading the roof carrier

First read and observe the introductory information and safety warnings ⚠ on page 137.

Loads can only be attached securely when the roof carrier system is fitted correctly ⇒⚠.

Maximum permissible roof load

The maximum permissible roof load for vehicles with a normal roof is **150 kg** and for vehicles with a pop-up roof it is **50 kg**. The roof load limit refers to the combined weight of the roof carrier and the load carried on the roof ⇒⚠.

Each mount can bear a maximum load of 50 kg if the weight of the load is evenly distributed over the entire length of the mount.

Ensure that you know the weight of the roof rack and the items to be transported on the roof, and weigh them if necessary. Never exceed the maximum permissible roof load.

However, you will not be able to carry the maximum roof load if you are using a roof carrier with a lower weight rating. In this instance, do not exceed the maximum weight limit for the roof carrier. This weight limit is listed in the fitting instructions.

Distributing the load

Distribute the load evenly and secure it correctly ⇒⚠.

Checking the fittings

After the mounts and roof carrier have been attached, check the bolted connections and fastenings once you have travelled a short distance and then at regular intervals.

⚠ WARNING

Accidents and vehicle damage can occur if the maximum permitted roof load is exceeded.

- **Never exceed the quoted roof load, the maximum permissible axle loads, and the permissible gross vehicle weight for the vehicle.**
- **Do not exceed the weight rating of the roof carrier, even if the maximum roof load has not been reached.**
- **Secure heavy objects as far forwards as possible and distribute the load evenly.**

⚠ WARNING

Loose and incorrectly secured loads can fall off the roof carrier and cause accidents and injuries.

- **Always use suitable and undamaged securing straps.**
- **Secure loads properly.**

NOTICE

Take care not to let the tailgate strike the roof load when open. Risk of damage to the vehicle. ◁

Towing a trailer

Introduction

This chapter contains information on the following subjects:

Technical requirements 141
Fitting the removable ball coupling 142
Removing the ball coupling 144
Hitching and connecting the trailer 144
Loading the trailer 146
Towing a trailer 146
Trailer stabilisation 147
Retrofitting a towing bracket 149

Observe any country-specific regulations when towing a trailer and using a towing bracket.

The additional load will affect the durability, fuel consumption and performance of the vehicle and, in certain circumstances, could shorten the service intervals.

Driving with a trailer not only places an extra load on the vehicle, but also requires increased concentration on the part of the driver. ▶

In low temperatures, fit winter tyres to both the vehicle **and** the trailer.

Drawbar load

The drawbar load is the weight that the towing bracket exerts on the ball coupling vertically from above. The *maximum* permitted weight exerted by the trailer drawbar on the ball coupling of the towing bracket must not exceed **100 kg**.

The figures for the draw bar weights that are given on the type plate of the towing bracket are for certification purposes only. The correct values for your specific model, which may be *lower* than these figures, are given in the vehicle registration documents. All data in the official vehicle documents take precedence over these data ⇒ ⚠.

In the interest of road safety, Volkswagen Commercial Vehicles recommends that you always transport the maximum **drawbar load**. The response of the trailer on the road will be poor if the drawbar load is too small.

The drawbar load increases the weight on the rear axle and reduces the maximum load level as a result.

Vehicles with start/stop system

- If a **factory-fitted** towing bracket or a towing bracket retro-fitted by Volkswagen Commercial Vehicles is used, the Start/Stop system remains active when towing a trailer ⇒ page 283.
- If towing brackets that were **not** retrofitted by Volkswagen Commercial Vehicles are used, the Start/Stop system must be switched off manually using the button in the dash panel **before** you start towing a trailer and must remain switched off as long as a trailer is being towed ⇒ ⚠.

Tachograph

For vehicles whose gross vehicle weight rating, including trailer exceeds 3,500 kg, and those used commercially to transport goods, use of a tachograph is required by law. This is irrespective of whether the vehicle or the trailer or both are used for commercial transportation of goods.

Additional information and warnings:

- Exterior views ⇒ page 5
- Lights ⇒ page 106
- Tachograph ⇒ page 172
- Braking, stopping and parking ⇒ page 269
- Driving with respect for the environment ⇒ page 278
- Wheels and tyres ⇒ page 367
- Accessories, modifications, repairs and renewal of parts ⇒ page 394
- Maximum permitted trailer weights ⇒ page 450
- Maximum permitted gross combination weight rating ⇒ page 450

⚠ WARNING

It is dangerous to transport people in a trailer and it may also be illegal.

⚠ WARNING

Improper use of the towing bracket can cause injury and accidents.

- **Only use the towing bracket if it is fitted properly and is not damaged.**
- **Do not carry out any alterations or repairs to the towing bracket.**
- **To reduce the risk of injury in rear-end collisions, and to pedestrians and cyclists when the vehicle is parked, always remove the ball coupling when a trailer is not being used.**
- **Never install a weight-distributing or load-balancing towing bracket to the vehicle. The vehicle is not constructed for these kinds of towing brackets. The towing bracket can fail, causing the trailer to tear loose from the vehicle.**

⚠ WARNING

Towing a trailer and transporting heavy or bulky items can change the way the vehicle's handling. This can lead to accidents.

- **Always secure loads properly using suitable and undamaged securing straps.**
- **Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions.**
- **Trailers with a high centre of gravity are more likely to tip over than trailers with a low centre of gravity.**
- **Avoid abrupt and sudden driving and braking manoeuvres.**
- **Take special care when overtaking.**
- **Reduce your speed immediately if the trailer shows even the slightest sign of snaking.**
- **Never drive faster than 80 km/h (50 mph) when towing a trailer or 100 km/h (62 mph) in exceptional cases. This also applies to countries where higher speeds are permitted. Always obey speed limits. In some areas speed limits for vehicles that are towing trailers are lower than for vehicles without trailers.**

⚠ WARNING (Continued)

- **Never try to stop a trailer from snaking by increasing your speed.**

⚠ WARNING

Accidents and severe injuries can occur if the maximum permitted draw bar weight is exceeded.

- **Never exceed the specified values.**

⚠ WARNING

The start/stop system must always be switched off manually when a trailer is to be towed with towing brackets that were not retrofitted by Volkswagen Commercial Vehicles. Otherwise faults can occur in the brake system, possibly resulting in accidents and serious injuries.

⚠ WARNING (Continued)

- **Always switch off the start/stop system manually if a trailer is attached to a towing bracket that was not retrofitted by Volkswagen Commercial Vehicles.**

Always switch off the anti-theft alarm when a trailer is being hitched or unhitched ⇒page 43. The tilt sensor could otherwise trigger an alarm unnecessarily.

In new vehicles, do not tow a trailer during the first 1,000 km ⇒page 394.

Volkswagen Commercial Vehicles recommends removing the ball coupling before driving without a trailer. The level of damage sustained during a rear-end collision could be greater for vehicles with a fitted ball coupling than for those without.

By law, the ball coupling must be removed if a trailer is not being towed if it obscures the number plate.

In some models, the towing bracket is required for towing vehicles. For this reason, the towing bracket ball coupling should be stored in the vehicle at all times. ◁

Technical requirements

First read and observe the introductory information and safety warnings ⚠ on page 139.

If the vehicle is supplied with a **factory-fitted** towing bracket it will already have the necessary technical modifications and meet the statutory requirements for towing a trailer.

Only use a towing bracket which is approved for the gross weight of the trailer you want to tow as a **retrofit solution**. The towing bracket must be suitable for the vehicle and trailer and be securely bolted to the vehicle's chassis. Only a towing bracket with a removable ball coupling should be used. Always check and follow the data provided by the towing bracket manufacturer. Never install a weight-distributing or load-balancing towing bracket on the vehicle.

Towing brackets fitted to the rear bumper

Never fit a towing bracket to the rear bumper or to its fastenings. The towing bracket must not prevent the rear bumper from functioning correctly. Do not carry out any alterations to the exhaust or brake systems. Check regularly to see if the towing bracket is fitted securely.

Engine cooling system

There is an increased load on the engine and the cooling system when towing a trailer. The cooling system must contain sufficient coolant and be able to cope with the extra load added by the trailer.

Trailer brake

If the trailer is equipped with its own brake system, comply with the relevant regulations. The trailer's brake system must never be connected to the vehicle brake system.

Emergency breakaway cable

Always use safety chains between your vehicle and the trailer ⇒page 144.

Trailer rear lights

The rear lights on the trailer must meet legal requirements ⇒page 144. ▶

Never connect the trailer lights directly to the electrical system of your vehicle. If you are uncertain whether the trailer has been connected correctly, please contact a qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Exterior mirrors

If you are unable to see the traffic behind the trailer in the vehicle's standard exterior mirrors, additional exterior mirrors should be fitted in accordance with any country-specific regulations. Before setting off, adjust the mirrors so that you have a sufficient view of the rear.

Maximum power consumption of the trailer

Electrical consumers	Maximum output
All brake lights	84 watts
Turn signal per side	42 watts
All side lights	100 watts
All tail lights	42 watts
Rear fog light	42 watts
Never exceed the specified values.	

⚠ WARNING

If the towing bracket is unsuitable or is incorrectly fitted, the trailer can become detached from the vehicle and cause serious injury.

NOTICE

- **The vehicle electronics may be damaged if the trailer lights are not connected properly.**
- **The vehicle electronics may be damaged if the trailer uses too much electricity.**
- **Never connect the trailer's electrical system directly to the electrical connections of the tail lights or to other sources of electricity. Only use suitable connectors to provide power to the trailer.**

NOTICE

If trailers with anti-snaking coupling are used, the electrical system can be damaged in certain circumstances. In order to avoid this, ensure equipotential bonding at the trailer. To do this, consult the manufacturer of the trailer or of the anti-snaking coupling.

Towing a trailer places additional demands on the vehicle. Volkswagen Commercial Vehicles recommends additional services between the normal inspection intervals if the vehicle is used frequently for towing a trailer.

In certain countries, an additional fire extinguisher must be carried if the gross weight of the trailer exceeds 2,500 kg. ◁

Fitting the removable ball coupling

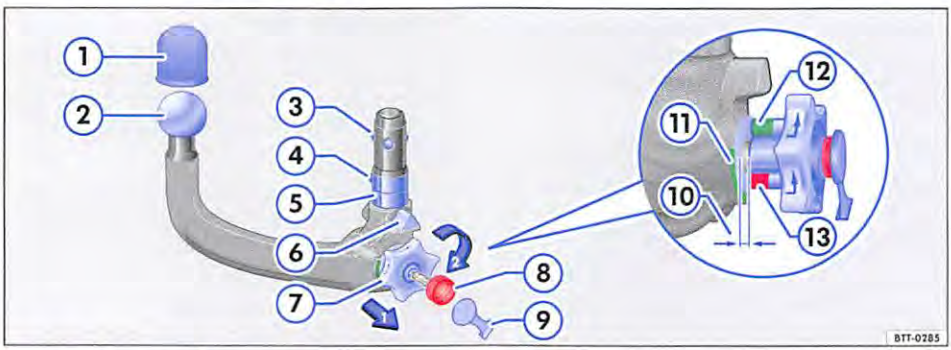


Fig. 113 Overview of removable ball head.

First read and observe the introductory information and safety warnings ⚠ on page 139.

The removable ball coupling is located in the vehicle tools ⇒ page 416. ▶

Key to Fig. 113:

① Cap
② Ball coupling
③ Retaining balls
④ Catch for locking mechanism
⑤ Shank
⑥ Centring device
⑦ Handwheel
⑧ Keys
⑨ Cover
⑩ Gap (pre-tensioned ball coupling)
⑪ Green marking on the ball coupling
⑫ Green marking on handwheel
⑬ Red marking on handwheel

Step 1: preparations

- Before using the ball coupling for the first time, make a note of the number stamped on the key. This can be used if you need to acquire a replacement key.
- Remove the cap from the mounting.
- Check to ensure that the mounting, handwheel ⑦, shank ⑤ and retaining balls ③ of the ball coupling are all clean and not damaged ⇒ ⓘ. Clean as necessary.

Step 2: setting the ball coupling to the "ready" position

The ball coupling cannot be fitted properly unless the spring mechanism inside the ball joint is in the ready position.

- Take the ball coupling in your left hand.
- Remove the cover ⑨ from the lock and insert the key ⑧ into the lock.
- Turn the key clockwise.
- Use your right hand to pull out the handwheel ⑦ in the direction of arrow 1 and keep it in this position ⇒ ⚠.
- Turn the handwheel ⑦ in the direction of arrow 2 until it engages. The ball coupling is now in the ready position. The red marking ⑬ on the handwheel must point towards the green marking ⑪ on the ball coupling. The handwheel is clearly visible in front of the ball coupling. The distance between the two is approximately 4 mm ⑩.
- Check to see whether all retaining balls ③ can be pressed fully into the ball coupling mount ⑤.

Step 3: attaching the pre-tensioned ball coupling to the vehicle

Do not touch the handwheel once the ball coupling has been pre-tensioned. When engaged, the handwheel will spring back to its original position and could cause injury ⇒ ⚠.

- Guide the pre-tensioned ball coupling into the mounting pipe from below.
- Push the ball coupling firmly upwards until it engages. Both of the centring devices ⑥ must engage in the insertion point on the vehicle.
- The handwheel has now returned to its original position. There is no longer a gap between the handwheel and the ball coupling.
- Turn the key ⑧ anticlockwise in the handwheel and remove it.
- If the setting is correct, you will not be able to turn the handwheel or pull it out.
- Put the cover ⑨ over the lock and place the key in the vehicle toolkit.

Step 4: safety check

Check to see whether the ball coupling is attached properly:

- The green marking ⑫ on the handwheel must point towards the green marking ⑪ on the ball coupling.
- The handwheel must rest on the ball coupling and there may be no gap between them.
- Shake the ball coupling or pull it down with some force. It must sit firmly in the mounting ⇒ ⚠.
- The lock must be locked and the key removed. The cover must be fitted over the lock in the handwheel.

⚠ WARNING

Improper fitting of the ball coupling can cause injuries and accidents.

- **Only use the ball coupling when it is fitted properly.**
- **If the smallest diameter on the ball coupling ② is smaller than 49 mm, do not use the towing bracket.**
- **The ball coupling is heavy. When checking whether it is secure, the ball coupling could fall off and cause injuries.**
- **Do not touch the handwheel once the ball coupling has been pre-tensioned. When the ball coupling is pressed into the mounting, the handwheel will spring back to its original position.**

⚠ WARNING (Continued)

- **If the ball coupling will not fit properly, the towing bracket should be checked by a qualified workshop.**
- **Do not use the towing bracket if the ball coupling does not engage properly or if you are unable to set it to the "ready" position.**
- **Do not use the towing bracket if you are unable to remove the key from the handwheel once the ball coupling has been mounted. This means that ball coupling is not locked properly.**

⚠ WARNING (Continued)

- **Always fasten the ball coupling securely in the luggage compartment once it has been removed.**

NOTICE

- **The mounting on the vehicle, handwheel, shank and ball coupling retaining balls must all be clean and undamaged. Otherwise you may not be able to lock the ball coupling securely.**
- **Do not aim a high-pressure hose or steam cleaner directly at the ball coupling mounting. This could wash the grease required for lubrication out of the mounting.** ◁

Removing the ball coupling

First read and observe the introductory information and safety warnings ⚠ on page 139.

- Unhitch the trailer ⇒⚠.
- Remove the cover ⇒Fig. 113 ⑨ from the lock on the handwheel.
- Insert the key ⑧ into the lock and turn it clockwise.
- Hold the ball coupling tightly in your left hand ⇒⚠.
- Use your right hand to pull out the handwheel ⑦ in the direction of arrow 1 and keep it in this position.
- Turn the handwheel ⑦ in the direction of arrow 2 until it engages.
- Keep the handwheel in this position and guide the ball coupling downwards out of the mounting. The ball coupling is now in the ready position.
- Pivot the trailer socket back fully from left to right to prevent soiling and damage to the mounting.
- Insert the cap in the mounting again.

⚠ WARNING

The removable ball coupling is heavy. The ball coupling could fall while it is being removed. This could cause injuries.

- **Only unlock the ball coupling once the trailer has been unhitched.** ◁

Hitching and connecting the trailer

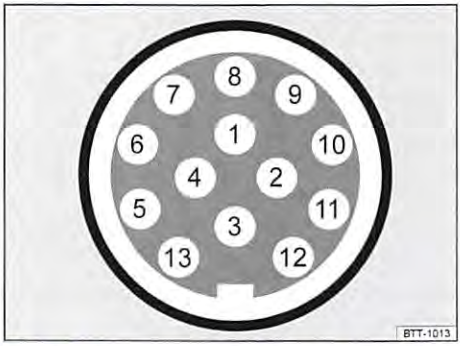


Fig. 114 Pin assignment for the trailer socket.

First read and observe the introductory information and safety warnings ⚠ on page 139.

Key to diagram Fig. 114:

Pin	Meaning
1	Left turn signal
2	Rear fog light
3	Earth for pins 1 – 8
4	Right turn signal
5	Rear light, right
6	Brake light
7	Rear light, left

Key to diagram Fig. 114:

Pin	Meaning
8	Reversing light
9	Permanent live
10	Charging cable plus
11	Earth pin 10, charging cable
12	Not assigned
13	Earth pin 9, permanent live

Trailer socket

A 13-pin trailer socket makes the electrical connection between the towing vehicle and the trailer. When the engine is running, electrical consumers in the trailer are supplied with voltage (charging cable) via the electrical connection (pin 10 of the trailer socket). If required, the charging cable charges the caravan's battery.

When a trailer is electrically detected, electrical consumers in the trailer are supplied with voltage (permanent live) via the electrical connection (pin 9). Permanent live supplies a trailer's interior lighting for example. Electrical consumers such as a caravan refrigerator are supplied with voltage **only** when the engine is running (pin 10).

To avoid overloading the electrical system, do not inter-connect the three earth wires (pins 3, 11 and 13).

If the trailer has a **7-pin plug** you will need to use a suitable adapter cable. Pin 10 (charging cable) is then without function.

Emergency breakaway cable

Always fasten the trailer's emergency breakaway cable properly to the towing vehicle. Leave enough slack in the emergency breakaway cable so that the vehicle can still drive around corners. However the emergency breakaway cable should not drag along the ground while you are driving.

Trailer rear lights

Ensure that the trailer lights work properly and meet legal requirements. Do not exceed the maximum power consumption for the trailer ⇒page 142.

Connection to the anti-theft alarm

The trailer is integrated in the anti-theft system if the following conditions are fulfilled:

- When the vehicle has a factory-fitted anti-theft alarm and a factory-fitted towing bracket.
- When the trailer is electrically connected to the towing vehicle via the trailer socket.
- When the vehicle and trailer electric systems are functional, fault-free and undamaged.
- When the vehicle is locked with the vehicle key and the anti-theft alarm is active.

When the vehicle is locked, the alarm will be triggered as soon as the electrical connection to the trailer is interrupted.

Always switch off the anti-theft alarm when a trailer is being hitched or unhitched. The tilt sensor could otherwise trigger an alarm unnecessarily.

Trailer with LED rear lights

For technical reasons, trailers with LED tail lights cannot be integrated into the anti-theft alarm system.

When the vehicle is locked, the alarm is not triggered as soon as the electrical connection to the trailer with LED rear lights is interrupted.

⚠ WARNING

Any electrical cables that are not connected properly could cause a power surge to the trailer. This could cause faults in the entire vehicle electronics system and also lead to accidents and serious injuries.

- **All work on the electric system should be carried out by a qualified workshop.**
- **Never connect the trailer's electrical system directly to the electrical connections of the tail lights or to other sources of electricity.**

NOTICE

If you park the trailer using the support wheel or other trailer supports, disconnect the trailer from the vehicle. The vehicle could rock up and down if the load changes or if there is damage to the tyres. If this happens, a great deal of force will be exerted on the towing bracket and trailer, which could lead to damage to the vehicle and trailer.

NOTICE

Maximum power consumption of the trailer should not be exceeded. Otherwise, the vehicle electrical system could be damaged.

If there is a fault in the vehicle or trailer electrical systems or in the anti-theft alarm, have the systems checked by a qualified workshop.

If the engine is not running and electrical equipment is switched on in the trailer via the trailer socket, the vehicle battery will discharge. ▶

If the vehicle battery charge level is low, the electrical connection to the trailer will be interrupted automatically.

When the engine is running, electrical consumers in the trailer are supplied with voltage via the electrical connection (pin 9 and pin 10 of the trailer socket). ◁

Loading the trailer

First read and observe the introductory information and safety warnings ⚠ on page 139.

Trailer weight and drawbar load

The trailer weight is the weight that the vehicle can pull ⇒⚠. The drawbar load is the weight that the towing bracket exerts on the ball coupling vertically from above.

The figures for trailer weights and draw bar weights that are given on the data plate of the towing bracket are for certification purposes only. The correct values for your specific model, which may be *lower* than these figures, are given in the vehicle registration documents. All data in the official vehicle documents take precedence over these data.

In the interest of road safety, Volkswagen Commercial Vehicles recommends that you always transport the maximum **drawbar load**. The response of the trailer on the road will be poor if the drawbar load is too small.

The drawbar load increases the weight on the rear axle and reduces the maximum load level as a result.

Gross combination weight rating

The combination weight is made up of the actual weight of the loaded vehicle and of the loaded trailer.

Loading the trailer

The weight of the load should be distributed evenly. The maximum permitted drawbar load should be utilised. Do not place the load only at the front or the rear of the trailer:

- Distribute the load in the trailer so that heavy objects are either over or as near to the axle as possible.
- Secure all loads on the trailer properly.

Tyre pressure

Follow the trailer manufacturer's recommendations concerning the tyre pressure for the trailer tyres.

When towing a trailer, inflate the wheels on the towing vehicle with the maximum permitted tyre pressure ⇒page 367.

⚠ WARNING

Accidents and serious injuries can occur if you exceed the vehicle's maximum permitted gross axle weight rating, drawbar load, gross vehicle weight rating or gross combination weight rating.

- **Never exceed the specified values.**
- **Never let the actual weights at the front and rear axles exceed the gross axle weight ratings. Never exceed the permissible gross vehicle weight for the vehicle with weight at the front and rear of the vehicle.**

⚠ WARNING

Loads that may slide can severely impair stability and driving safety, which can cause accidents and severe injuries.

- **Always load trailers correctly.**
- **Always secure loads using suitable and undamaged securing straps.**

◁

Towing a trailer

First read and observe the introductory information and safety warnings ⚠ on page 139.

Headlight adjustment

Towing a trailer can raise the front end of the vehicle enough for the dipped beam to blind other road users. Use the headlight range control to lower the light cone as required ⇒page 113. ▶

Things to note when driving with a trailer

- If the trailer has an **overrun brake**, apply the brakes *gently at first* and then firmly. This will prevent the jerking that can be caused by the trailer wheels locking.
- The combination weight causes the braking distance to increase.
- Select a low gear before driving down a slope. This enables you to use the engine braking effect to slow down the vehicle. The brake system could otherwise overheat and fail.
- The vehicle's centre of gravity and, in turn, the vehicle's handling, will change because of the trailer load and the increased combined towing weight of the vehicle and trailer.
- The weight distribution of a loaded trailer with an unladen towing vehicle is very unfavourable. When driving in this situation, drive particularly carefully and slowly.

Tachograph

In most European countries, a tachograph has to be installed in the vehicle and used if the gross combination weight rating of the vehicle and trailer is over 3,500 kg.

- Observe the legal requirements governing the use of tachographs.

Pulling off on slopes when towing a trailer

A vehicle towing a trailer is liable to roll back a short distance when moving off on a slope, depending on the angle of the slope and the total weight of the trailer and vehicle.

When towing a trailer, pull off on slopes as follows:

- Depress and hold the brake pedal.
- Manual gearbox: depress the clutch fully.
- Select first gear or **D** ⇒ page 260, *Changing gears.*
- Unlock hand brake and carefully release while holding down lock button. At the same time, gently depress the accelerator and, in a manual vehicle, release the clutch pedal, until you feel the vehicle moving forwards. If necessary, read the notes on the Hill Hold Assist function ⇒ page 282, *Pull-away assist systems.*
- Only let go of the handbrake lever when the engine has sufficient power to move off.
- Pull away slowly.

⚠ WARNING

Incorrect trailer towing can cause loss of vehicle control and serious personal injury.

- **Towing a trailer and transporting heavy or bulky items can change the way the vehicle handles and increase the braking distance.**
- **Always drive carefully and think ahead. Brake earlier than in normal driving.**
- **Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions. Reduce your speed, particularly when going downhill.**
- **Accelerate carefully and gently. Avoid abrupt and sudden driving and braking manoeuvres.**
- **Take special care when overtaking. Reduce your speed immediately if the trailer shows even the slightest sign of snaking.**
- **Never try to stop a trailer from snaking by increasing your speed.**
- **Always obey speed limits. In some areas speed limits for vehicles towing trailers are lower than for vehicles without trailers.**

Trailer stabilisation

First read and observe the introductory information and safety warnings ⚠ on page 139.

The trailer stabilisation function can detect if an attached trailer is starting to lurch from side to side and can provide countersteer.

The trailer stabilisation function is an extension to the electronic stabilisation program (ESC). It helps to reduce the risk of skidding when a trailer is being towed.

If, however, the effects of this snaking on the vehicle are detected via the ESC control unit, the vehicle is braked automatically by the ESC in order to stabilise the trailer. In this case the ABS indicator lamp flashes .

Requirements for trailer stabilisation

- The vehicle is a factory-fitted towing bracket or a compatible towing bracket is fitted.
- ESC is active. The indicator lamp in the instrument cluster is not lit up.
- The trailer is electrically connected to the towing vehicle via the trailer socket.
- The vehicle speed is higher than approximately 60 km/h (37 mph).
- The maximum drawbar load is being carried.
- The trailer must have a rigid drawbar.
- Trailers with brakes must have a mechanical overrun system.

⚠ WARNING

Do not let the extra safety afforded by the trailer stabilisation function tempt you into taking any risks when driving – this can cause accidents.

- **Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions.**

⚠ WARNING (Continued)

- **Accelerate carefully on slippery surfaces.**
- **Take your foot off the accelerator if one of the systems is active.**

⚠ WARNING

The trailer stabilisation function may not be able to detect all driving situations correctly.

- **Light trailers that are snaking will not be recognised by the trailer stabilisation function and stabilised accordingly in all cases.**
- **A trailer can still *jack-knife* on slippery roads with little grip, even if the towing vehicle is equipped with the trailer stabilisation system.**
- **Trailers with a high centre of gravity might tip over before snaking starts.**
- **Sudden braking procedures could occur automatically in extreme driving situations if the trailer socket is being used without a trailer (e.g. for a bicycle carrier with lighting).**

◁

Retrofitting a towing bracket

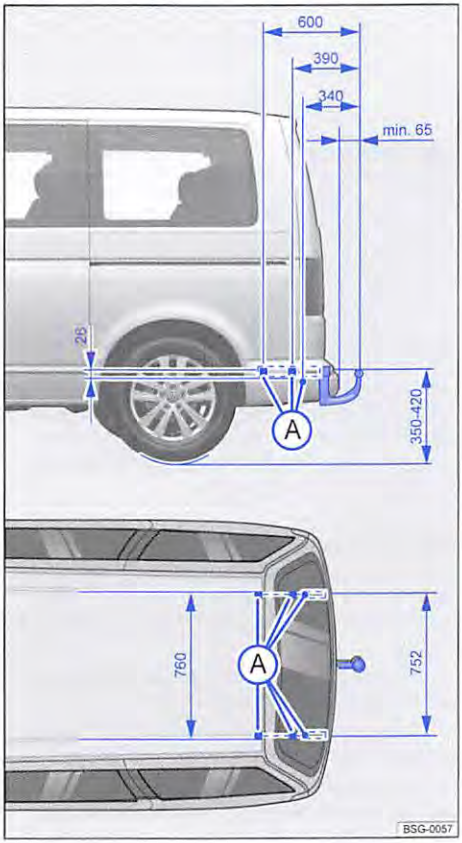


Fig. 115 Dimensions and attachment points for retrofitting a towing bracket.

First read and observe the introductory information and safety warnings ⚠ on page 139.

Volkswagen Commercial Vehicles recommends having the towing bracket retrofitted by a qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose. Electronic components also have to be retro-fitted and, for example, the cooling system may need to be modified or heat shields may need to be fitted. For this and other work, specialist knowledge and tools are required.

⇒ Fig. 115 shows the dimensions and attachment points which must be observed if you have a towing bracket retro-fitted. Always observe the minimum distance given from the middle of the ball coupling to the surface of the road. This also applies when the vehicle is fully laden, including maximum drawbar load.

The attachment points Ⓐ are underneath the vehicle.

The trailer stabilisation system can be activated if a towing bracket is retrofitted, provided compatible electronic components are fitted. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

⚠ WARNING

Electrical accessories that are not connected properly can cause faults in the entire vehicle electronics system and also cause accidents and serious injuries.

- **Never connect the trailer's electrical system directly to the electrical connections of the tail lights or to other unsuitable sources of electricity. Only a suitable connector may be used to connect the trailer.**
- **A towing bracket should be retrofitted to the vehicle by a qualified workshop.**

⚠ WARNING

The trailer can become detached from the towing vehicle if the towing bracket is unsuitable or incorrectly fitted. This can cause serious accidents and fatal injuries.

Only use towing brackets which have been approved by Volkswagen Commercial Vehicles for your vehicle type. ◁

Practical equipment

Stowage area

Introduction

This chapter contains information on the following subjects:

Stowage compartments on the dash panel .. 151
Stowage compartment on the front passenger side 151
Other stowage compartments 152

Only use stowage compartments to stow light or smaller objects.

A factory-fitted **AUX-IN socket** or the **USB sockets** may be located in the storage compartment on the front passenger side ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system.*

Additional information and warnings:

- Seat functions, front ⇒ page 69
- Seat functions, rear ⇒ page 72
- Stowage ⇒ page 150
- Drink holder ⇒ page 153
- Central table ⇒ page 155
- Seat functions, rear, Business ⇒ page 182
- Seat functions, rear, California ⇒ page 193
- Cleaning and caring for the interior ⇒ page 388

WARNING

Loose objects may be flung through the vehicle interior in the event of a sudden driving or braking manoeuvre. This can cause serious injury and can also lead to loss of control of the vehicle.

- **Do not stow any pets or any hard, heavy or sharp objects in the vehicle's open stowage areas, on the dash panel, on the shelf behind the rear seats, or in items of clothing and bags in the vehicle interior.**
- **Store any objects in open stowage compartments in such a way that they do not project over the edges of the stowage compartment.**
- **Always keep stowage compartments with a lid closed while the vehicle is in motion.**

WARNING

External devices in the vehicle that are not properly secured can be flung though the interior and cause injuries, if there is a sudden driving or braking manoeuvre, or in the event of an accident.

- **You should never position or attach an external device on a door, on the windscreen or above or near to the areas marked "AIRBAG" on the steering wheel, the dash panel and the seat backrests, or between these areas and the vehicle occupants. External devices can cause serious injury in an accident, especially when the airbags deploy.**

WARNING

Objects in the driver footwell can hinder pedal operation. This can lead to loss of control of the vehicle and increase the risk of serious injury.

- **Please ensure that all pedals can always be operated without any hindrance.**
- **The foot mats must always be properly secured in the footwell.**
- **No additional foot mats or other floor coverings should be placed over the fitted foot mat.**
- **Ensure that no objects can enter the driver footwell while the vehicle is in motion.**
- **If there are any objects in the footwell, remove them when the vehicle is parked.**

WARNING

Cigarette lighters in the vehicle could be damaged or accidentally lit. This could lead to serious burns and other injuries.

- **Before adjusting the seats always make sure that there is no lighter on or near the moveable parts of the seat.**
- **Before closing stowage areas or compartments always ensure that there is no lighter in the way.**

⚠ WARNING (Continued)

- **Never stow lighters in stowage areas or compartments or on other surfaces in the vehicle. Cigarette lighters may self-ignite on high-temperature surfaces, especially in summer.**

NOTICE

- **Hard objects on the shelf can chafe against the wires of the heating element in the rear window and cause damage.**

NOTICE (Continued)

- **Do not store any heat-sensitive objects, food or medicines inside the vehicle. Hot and cold temperatures could damage them or render them unusable.**
- **Objects stored in the vehicle that are made from transparent materials, such as glasses, magnifying glasses or transparent suction cups on the windows, can concentrate the sun's rays and thus cause damage to the vehicle.**

Always ensure that the ventilation openings between the rear window and the stowage area are uncovered to allow stale air to escape from the vehicle. ◁

Stowage compartments on the dash panel

First read and observe the introductory information and safety warnings ⚠ on page 150.

There is a stowage compartment in the centre console, which, depending on the vehicle equipment level, may have a cover flap.

To *open*, press the button on the cover flap. The stowage compartment opens automatically.

To *close*, press the cover down until it engages. Do not press the button while doing this.

Depending on the vehicle equipment level, there may be open stowage compartments under the vents on the dash panel. ◁

Stowage compartment on the front passenger side

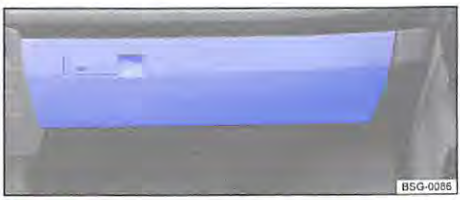


Fig. 116 Stowage compartment on the front passenger side.

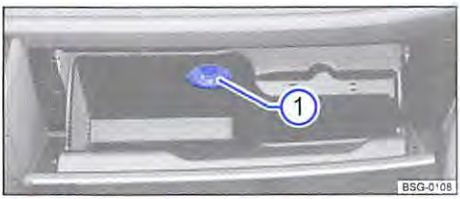


Fig. 117 Stowage compartment on the front passenger side.

First read and observe the introductory information and safety warnings ⚠ on page 150.

Opening and closing the stowage compartment

If necessary, unlock the stowage compartment. The stowage compartment is locked when the key slot is vertical.

- To *open*, pull the opening lever ⇒ Fig. 116, and fold down the lid.
- To *close*, push the lid upwards.

Vehicle wallet compartment

The stowage compartment on the front passenger side is intended for the vehicle wallet.

The vehicle wallet should always be kept in this compartment. ▶

Cooling the stowage compartment

There is a vent in the rear panel ⇒ Fig. 117 ①. If the air conditioning is switched on, cooled air can be directed into the compartment. Turn the vents to open and close them.

⚠ WARNING

If the stowage compartment on the front passenger side is left open, this can increase the risk of serious injury in the event of an accident or during sudden braking or driving manoeuvres.

⚠ WARNING (Continued)

- **Always keep the stowage compartment closed while the vehicle is in motion.**

NOTICE

In some vehicle models, the stowage compartment on the front passenger side contains apertures. Small objects could fall through the apertures and become trapped behind the trim. This could cause unusual noises and damage to the vehicle. Do not store small items in the stowage compartment. ◁

Other stowage compartments



Fig. 118 In the roof: coat hooks

First read and observe the introductory information and safety warnings ⚠ on page 150.

Other stowage areas:

- In the front door trims
- In the side trim panels in the living area.
- In the central table
- **Magazine pocket** on the dash panel on the front passenger side
- **Coat hooks** on the rear roof grab handles and those that can be folded out in the headliner ⇒ Fig. 118
- **Bag hooks** on the centre console in the front passenger footwell
- **Waste bin** in the stowage compartment in one of the front doors
- **Coin tray** in the drink holder in the front centre console ⇒ page 153
- **Luggage nets** on the wing doors
- **Glasses compartent** in the front roof console

⚠ WARNING

Hanging up items of clothing can restrict the driver's field of vision and cause accidents and serious injuries.

- **Always hang items of clothing in such a way that they do not restrict the driver's field of vision.**
- **The clothes hook in the vehicle should only be used for transporting light items of clothing. Never leave any heavy, hard or sharp objects in the pockets.** ◁

Torches

Small torch

A small torch may be located in the 12-volt socket in the dash panel depending on the equipment.

To charge, hold the small torch at the knurled wheel of the lens and insert it in the 12-V socket.

To switch on and off, turn the thumb wheel on the lens.

When travelling, always leave the torch in the 12-volt socket ⇒ ⚠. ▶

⚠ WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident. This applies particularly if objects are struck by the airbag when activated and then flung through the vehicle interior. To reduce the risk of accidents, please observe the following guidelines:

- **When travelling, always leave the torch in the 12-volt socket.** ◁

Torch behind front passenger seat

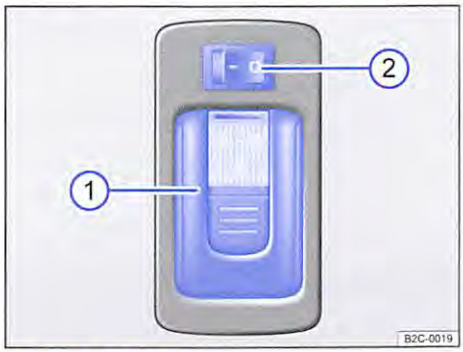


Fig. 119 On seat box behind front passenger seat: torch in holder

There is, depending on the scope of equipment in the vehicle, a torch in the vehicle.

The torch is secured in a holder on the seat box behind the front passenger seat ⇒Fig. 119. The torch illuminates the floor area near the sliding door. The holder is also a charge unit for the torch.

Switch position on the holder ②:	
I	Torch is on and is charging.
0	Torch is off and is charging.

- Remove the torch from the holder by lightly pressing it on one side.
- To switch on and off, use the button on the torch underneath the light surface ①.

Function	Using the torch once removed
Switching on	Press the button. Torch functions with high brightness level.
Adjusting brightness	Press button again. Torch functions with lower brightness level.
Switching off	Press the button until the torch is switched off. ◁

Drink holders

Introduction

This chapter contains information on the following subjects:

Drink holder 154
Bottle holders 155

Additional information and warnings:

- Stowage ⇒page 150
- Cleaning and caring for the interior ⇒page 388
- Central table ⇒page 155
- Fuses ⇒page 429

⚠ WARNING

Incorrect use of the drink holders can cause injury.

- **Do not place any hot drinks in a drink holder. Hot drinks in a drink holder could be spilled and cause scalding in any sudden braking manoeuvre or accident.** ▶

⚠ WARNING (Continued)

- **Ensure that drink bottles or any other objects do not enter the driver footwell and obstruct the pedals while the vehicle is in motion.**
- **Never place heavy cups, food or any other heavy items in the drink holder. These heavy objects could be flung through the vehicle interior during an accident and cause serious injuries.**

⚠ WARNING

Closed drink bottles can explode in the vehicle in extreme heat or crack in extremely cold temperatures.

- **Never leave closed drink bottles in an extremely hot or extremely cold vehicle for extended periods.**

NOTICE

Do not leave any open drinks in the drink holder while the vehicle is in motion. Drinks that are spilled, for example during braking, can damage the vehicle and the vehicle electric system.

The inserts for the drink holders can be removed for cleaning purposes. ◁

Drink holder

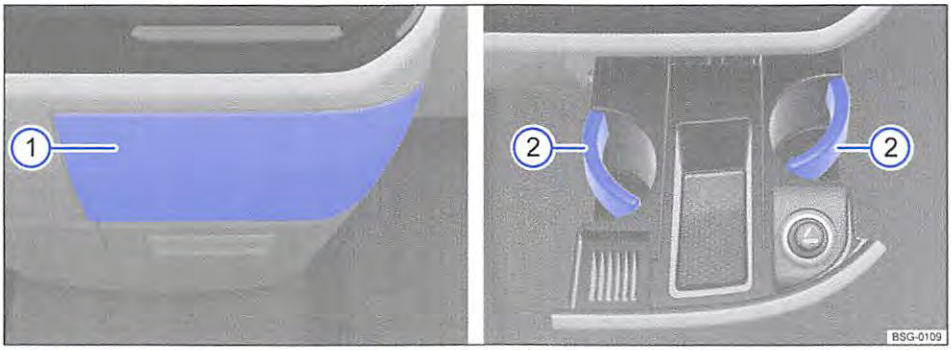


Fig. 120 In the front centre console: drink holders.

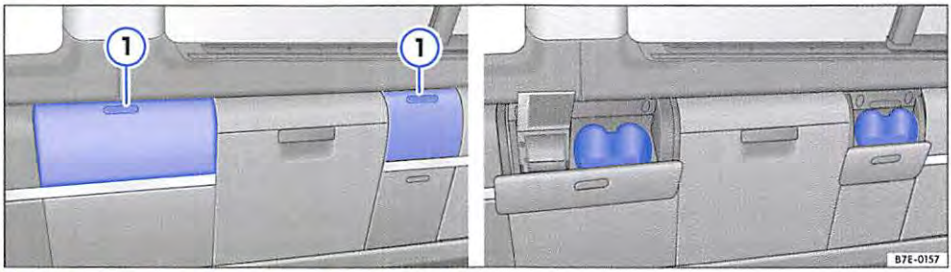


Fig. 121 In the rear side trim panel: drink holders

First read and observe the introductory information and safety warnings ⚠ on page 153.

There are various versions of the drink holder in the front centre console. ▶

Opening the drink holder in the centre console

- Press onto drink holder ⇒ Fig. 120 ①. The drink holder will then open automatically.
- Push the holder ② slightly to the side and place the bottle or can into the drink holder.

Opening and closing the drink holder in the rear side trim panel

- Press button ⇒ Fig. 121 ①. The drink holder will then open automatically.

Opening the drink holder in the central table

- Press the symbol on the cover of the drink holder and pull the drink holder out fully.

Closing the drink holder

- Remove the bottle or can.
- Push the drink holder in until it engages securely. ◁

Bottle holders

First read and observe the introductory information and safety warnings ⚠ on page 153.

Depending on the vehicle equipment level, the bottle holders may be found at the following locations:

- In the front door trims
- In the lower section of the centre console
- In the side trim panels in the living area.
- In the central table

Opening and closing the bottle holder in the centre console

- To *open*, pull the handle of the bottle holder. The bottle holder will then open automatically.
- To *close*, push the bottle holder until it clicks into place.

Bottle holder in the central table

The bottle holder in the central table can be accessed after the table module has been raised.

The bottle holder in the centre console must be removed to gain access to the fuses in Multivan with left-hand drive ⇒ page 429. ◁

Tables

Introduction

This chapter contains information on the following subjects:

Folding table in the side panel 156
Central table 156

Additional information and warnings:

- Stowage ⇒ page 150
- Drink holder ⇒ page 153

⚠ WARNING

Improper use of the tables could cause serious injury.

- **Never use the tables while the vehicle is in motion.**
- **All tables must be securely stowed while the vehicle is in motion.**
- **Never sit or stand on the tables.**

NOTICE

Never place hot objects, such as pots or pans, on the tables. Such objects could damage these surfaces. ◁

Folding table in the side panel

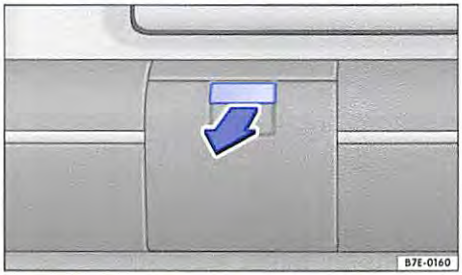


Fig. 122 In the rear side panel: folding table cover

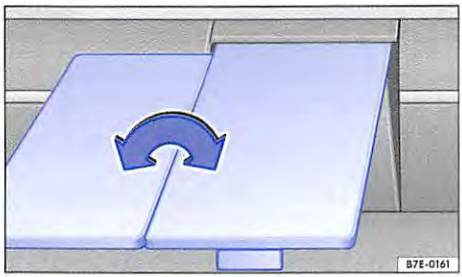


Fig. 123 Fully assembled folding table

First read and observe the introductory information and safety warnings ⚠ on page 155.

A folding table may be located in the side panel opposite the sliding door.

The folding table is **stowed** when it is in its retainer behind the side trim panel and the cover is securely engaged.

Assembling the folding table

- Lift the cover out by the handle ⇒Fig. 122 in the direction of the arrow.
- Use the handle to pull the folding table up and out and pull the table down until it stops in the horizontal position.
- To *extend the folding table*, fold the top section of the table back in the direction of the arrow ⇒Fig. 123.

Stowing the folding table

- Fold back the table extension, if in use.
- Use the handle to pull up the folding table and guide the table down into its retainer in the side panel.
- Press the cover in the opposite direction to the arrow ⇒Fig. 122 until it engages securely.

NOTICE

- **The opened folding table can carry a maximum of 20 kg. If this weight is exceeded, the table top, bracket and side trim panel could be damaged.**
- **Always guide the folding table down by hand and never let it drop to the horizontal position. The folding table could otherwise be damaged.** ◁

Central table

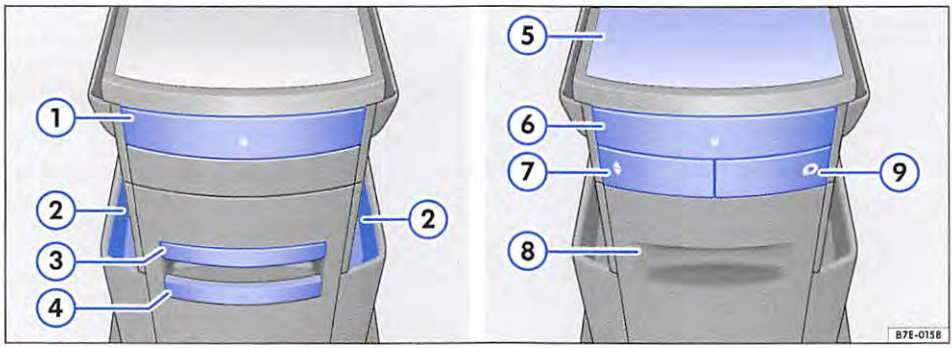


Fig. 124 Control elements at the central table ▶

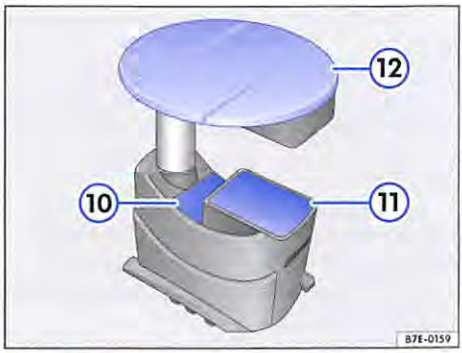


Fig. 125 Central table with raised table module, open table surface, bottle and stowage compartment

First read and observe the introductory information and safety warnings ⚠ on page 155.

Key to Fig. 124 and Fig. 125:

① Drink holder
② Magazine pocket
③ Grip for moving and carrying the removed central table
④ Drawer
⑤ Table surface in basic position
⑥ Drink holder
⑦ Button for raising the table module
⑧ Grip for moving and carrying the removed central table
⑨ Button for moving the open table module
⑩ Bottle holder
⑪ Stowage compartment
⑫ Open table surface

Base position of the central table

The central table is in the basic position if the following conditions are fulfilled at the same time:

- The side table surfaces are folded in.
- The table module is fully lowered and securely locked.
- The central table is **not** located between the single seats.
- The central table is securely locked in the seat rails.

Moving the central table

- Adjust the backrest of single seats to an upright position.
- Ensure that the side table surfaces are folded in and that the table module is fully lowered.
- Pull the handle ③ up and hold the central table with the handle and the handle recess ⑧.
- Move the central table in the seat rails.
- Fold the handle ③ back to engage the central table in the seat rails.
- Check that the central table is locked securely. It should now no longer be possible to move the central table.

Raising the table module

- Adjust the backrest of single seats to an upright position.
- Fold up the armrests of the single seats.
- Move the central table so that it is no longer located between the single seats.
- Ensure that the drink holder and the stowage compartments are closed.
- Press the button ⑦ to raise the table module.

Opening the table surfaces and moving the table module

The raised table module can be turned 360° when the table surface is open, or secured in position in the base position to the front or at 90° to the left or right.

- Raise the table module.
- Lift up both the side table surfaces and hold them in this position.
- Turn the table surface 90° until it engages.
- Keep the button ⑨ pressed and move the table module slightly to the left or to the right.
- Release the button ⑨ and move the table surface further until it engages.

Lowering the table module

- Fold both the side table surfaces down.
- Move the central table so that it is no longer located between the single seats.
- Ensure that the drink holder and the stowage compartments are closed.
- Keep the button ⑦ pressed and then press down from above on the table surface to lower the table module slightly.
- Release the button ⑦ and lower the table module fully until it is securely engaged. ▶

Removing the central table

The central table can be removed more easily by two people than by one person.

- Remove front protective covers from the central seat rails.
- Turn the single seats so that they face the direction of travel.
- Adjust the backrest of single seats to an upright position.
- Fold up the armrests of the single seats.
- Pull the handle (3) up and hold the central table with the handle and the handle recess (8).
- Push the central table forwards to the point where it can be lifted out of the slots in the seat rails.
- Lift the central table out.
- Put down the central table carefully so that the rollers and feet are not soiled or damaged.
- Place the removed covers on the open slots in the seat rails.

Fitting the central table

The central table can be installed more easily by two people than by one person.

- Remove front protective covers from the central seat rails.
- Turn the single seats so that they face the direction of travel.
- Adjust the backrest of single seats to an upright position.
- Fold up the armrests of the single seats.
- Pull the handle (3) up and hold the central table with the handle and the handle recess (8).
- Insert the central table guides into the recesses in the seat rails.
- Insert the central table into the seat rails and push them back, so that the removed covers can be placed on the open slots in the seat rails.
- Fold the handle (3) back to engage the central table in the seat rails.
- Check that the central table is locked securely. It should now no longer be possible to move the central table.

NOTICE

- **The opened central table can carry a maximum of 20 kg. If this weight is exceeded, the table top or the table module could be damaged.**
- **Do not raise the table module when the central table is located between the single seats. This could cause damage to the table.** ◁

Cool box

Introduction

This chapter contains information on the following subjects:

Fitting and removing the cool box 159
Switching the cool box on and off 161

The cool box may be used while the vehicle is in motion only if it is fitted to the adapter plate.

Power for the cool box can be supplied by any of the 12-volt sockets in the vehicle. The power consumption is approx. 33 watts. The cool box has a capacity of 32 litres.

Follow instructions provided for the installation and use of the cool box and keep it in the vehicle wallet.

As far as possible, keep food and drinks in the cool box in leak-proof containers. Do not overfill the cool box such that air circulation is impaired.

Battery monitor

The vehicle battery will be drained if the cool box is used when the engine is switched off. For this reason, the cool box is fitted with a battery monitor. The battery monitor will switch the cool box off if the vehicle battery has a low charge level. The battery monitor will switch the cool box on again as soon as the battery has reached a suitable charge level, for example, after a long journey.

Additional information and warnings:

- Seat functions, front ⇒page 69
- Seat functions, rear ⇒page 72
- Seat functions, rear, Business ⇒page 182
- Seat functions, rear, California ⇒page 193
- Electrical sockets ⇒page 163
- Battery ⇒page 350 ▶

- Cleaning and caring for the interior ⇒ page 380
- Accessories, modifications, repairs and renewal of parts ⇒ page 380

⚠ WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident.

- **The cool box may be transported only if it is fitted to the adapter plate.**
- **Make sure that the adapter plate is properly fitted in the seat rails.**
- **The cool box lid must always be closed and latched when the vehicle is in motion.**
- **Never use the cool box as a table or stowage compartment when the vehicle is in motion.**

⚠ WARNING

If the ambient temperature in the vehicle is too low, the temperature in the cool box could fall below +2°C (+35°F) degrees. This could cause the contents of the cool box to freeze and bottles and other containers to burst, potentially causing injuries.

- **Do not use the cool box when the ambient temperature is too low.**

NOTICE

This could damage the cool box if the bed extension is fitted (multi-flex board).

NOTICE (Continued)

- **The front surface of the bed extension (multi-flex board) should always be folded up and engaged securely.**

NOTICE

Handling the cool box incorrectly could damage it.

- **When adjusting seat positions, make sure there is sufficient clearance between the adapter plate or the cool box and the bench seat.**
- **Do not place any objects, blankets or items of clothing on the heater/cooler of the insulated box. These objects/items could cut off the air supply or ventilation and switch off the cool box.**
- **Do not place containers, food or other objects which are warmer than +50°C (+122°F) in the cool box.**
- **Do not place corrosive substances or solvents in the cool box.**
- **Never expose the cool box to rain or humidity.**
- **To prevent mould and mildew from forming in the cool box when it is not being used for long periods, place a folded dry towel between the box and its lid.**

- The cool box is not intended to cool or heat the vehicle interior. The cool box should only be used to keep food cool or warm and for transporting heat-sensitive objects on short journeys.
- When the bed extension (multi-flex board) is fitted, the lid of the cool box cannot be opened fully. Pull the lid out of the retainer to be able to access the contents of the cool box better. ◁

Fitting and removing the cool box



Fig. 126 Removing the cool box.

First read and observe the introductory information and safety warnings ⚠ on page 158.

The adapter plate can be fitted in the seat rails in the direction of travel or facing the rear of the vehicle.

Fitting the adapter plate

- Turn the adapter plate so that the T-shaped holding screws are lengthwise.
- Place both T-shaped holding screws of the adapter plate into the seat rails. ▶

- Push both handles down.
- Turn both handles through 90° so that the T-shaped holding screws are across the seat rails ⇒⚠.
- Tighten both the thumb wheels firmly.
- When fitting the adapter plate ensure sufficient clearance between the adapter plate or the cool box and the bench seat ⇒ⓘ.

Fitting the cool box

- Fit the adapter plate.
- Pull out the handle on the adapter plate.
- Place the cool box on the adapter plate.
- Make sure that all holding screws on the cool box are fully engaged in the corresponding holes on the adapter plate ⇒⚠.
- Pull the handle on the adapter plate right out.
- When fitting the cool box ensure sufficient clearance between the adapter plate or the cool box and the bench seat ⇒ⓘ.

Removing the cool box

- Pull out the handle on the adapter plate in the direction of the arrow ⇒ Fig. 126 to unlock the cool box.
- Lift up the cool box to remove it.
- Pull the handle on the adapter plate right out.

Removing the adapter plate

- Remove the cool box.
- Turn the adapter plate so that the T-shaped holding screws are lengthwise.
- Lift up the adapter plate to remove it.

⚠ WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident.

⚠ WARNING (Continued)

- **Make sure that the T-shaped holding screws in the seat rails are at right-angles (90°) to the adapter plate and correctly engaged.**
- **The T-shaped holding screws should never be inserted in the seat rails near the removable covers.**
- **Make sure that the cool box is properly fitted in on the adapter plate.**

ⓘ NOTICE

Handling the cool box incorrectly could damage it.

- **When adjusting seat positions, make sure there is sufficient clearance between the adapter plate or the cool box and the bench seat.**
- **Do not place any objects, blankets or items of clothing on the heater/cooler of the insulated box. These objects/items could cut off the air supply or ventilation and switch off the cool box.**
- **Do not place containers, food or other objects which are warmer than +50°C (+122°F) in the cool box.**
- **Do not place corrosive substances or solvents in the cool box.**
- **Never expose the cool box to rain or humidity.**
- **To prevent mould and mildew from forming in the cool box when it is not being used for long periods, place a folded dry towel between the box and its lid.** ◁

Switching the cool box on and off

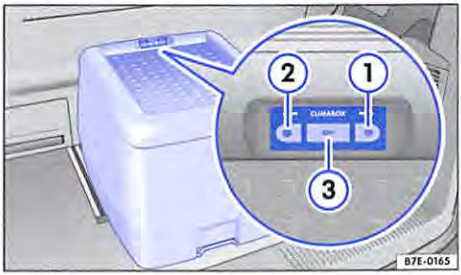


Fig. 127 Controls on the cool box

First read and observe the introductory information and safety warnings ⚠ on page 158.

The interior temperature of the cool box is dependent on the temperature in the vehicle. In cooling mode, the interior temperature can be max. 20°C (68°F) below the temperature in the vehicle. In heating mode it can be max. 35°C (95°F) degrees above the temperature in the vehicle. If you switch directly from cooling to heating (or vice versa) it will take a relatively long time for the interior to reach the desired temperature.

Switching the cool box on

- Connect the 12-volt power supply.
- Press the red button ● ⇒Fig. 127 ① to turn on the heating mode. An indicator lamp in the button lights up above the button which was pressed.
- **OR:** press the blue button ● ② to switch on the cooling mode. An indicator lamp in the button lights up above the button which was pressed.

Switching cooling and heating mode off

- Press the red button ● or the blue button ●. The corresponding warning lamp goes out.

Switching the cool box completely off

- Press the OFF button ③.
- **OR:** disconnect the 12-volt power supply.

Faults

If the cool box does not work, proceed as follows:

- Check whether the plug is securely in the socket.
- Check the connecting cable for damage.
- Check the 12-volt socket fuses.
- Run the engine to recharge the vehicle battery.

If these steps do not help, contact a qualified workshop. ◁

Ashtray and cigarette lighter

Introduction

This chapter contains information on the following subjects:

Ashtray 162
Removable ashtray in the drink holder 162
Cigarette lighter 163

Additional information and warnings:

- Drink holder ⇒page 153
- Electrical sockets ⇒page 163
- Accessories, modifications, repairs and renewal of parts ⇒page 394
- Consumer information ⇒page 404

⚠ WARNING

Improper use of the ashtray and cigarette lighter could cause fires, burns and other serious injuries.

- **Never put paper or any other combustible materials in the ashtray.** ◁

Ashtray

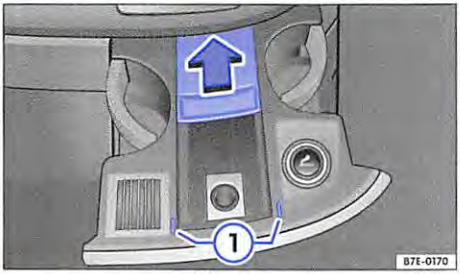


Fig. 128 Ashtray in the centre console.

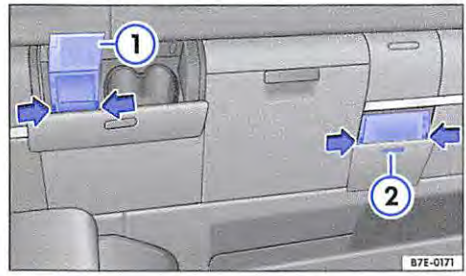


Fig. 129 ashtray in the side trim panel

First read and observe the introductory information and safety warnings ⚠ on page 161.

Ashtray

Ashtrays can be found in the following locations in the vehicle:

- In the drink holder of the instrument panel ⇒page 162, *Removable ashtray in the drink holder.*
- In the centre console ⇒Fig. 128.
- In the side trim ⇒Fig. 129.

Opening and closing the front ashtray

- To *open*, open the dash panel drink holder and push the ashtray cover fully in the direction of the arrow ⇒Fig. 128.
- To *close*, press the cover in the opposite direction to the arrow and close the drink holder.

Emptying the front ashtray

- Open the ashtray.
- Take hold of the sides of the ashtray insert ① and pull it up and out.
- After emptying, insert the ashtray from above.

Opening and closing the rear ashtray

- To *open*, open the drink holder, if closed. Press on the cover of the closed ashtray ⇒Fig. 129 ① or ②. The ashtray will then open.
- To *close*, push the cover closed until it clicks into place.

Emptying the rear ashtray

- Open the ashtray.
- Take hold of the sides of the ashtray insert ⇒Fig. 129 (arrow) and pull it up and out.
- After emptying, insert the ashtray from above. ◁

Removable ashtray in the drink holder

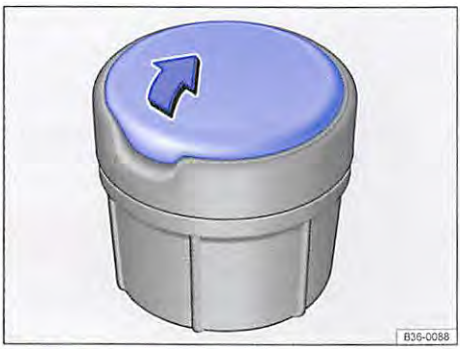


Fig. 130 Removable ashtray.

First read and observe the introductory information and safety warnings ⚠ on page 161.

Insert the mobile ashtray in one of the drink holders of the instrument panel for use ⇒page 154.

Opening and closing the ashtray

- To *open*, lift the ashtray cover in the direction of the arrow ⇒Fig. 130.
- To *close*, push the lid down against the direction of the arrow. ▶

Emptying the removable ashtray

- Lift the removable ashtray out of the drink holder.
- Open the removable ashtray and empty the cooled ashes into a suitable waste container.
- Once it has been emptied, place the removable ashtray back into the drink holder from above. ◁

Cigarette lighter

First read and observe the introductory information and safety warnings ⚠ on page 161.

Depending on the vehicle equipment, a cigarette lighter may be fitted in the drink holder or in the stowage compartment in the dash panel.

- With the ignition switched on, press in the knob on the cigarette lighter.
- Wait for the lighter to pop out.
- Pull out the cigarette lighter and light the tobacco product on the glowing spiral ⇒⚠.
- Insert the cigarette lighter back into the socket.

⚠ WARNING

Improper use of the cigarette lighter can cause fires, burns and other serious injuries.

- **Always use the cigarette lighter properly, and only use it to light tobacco products.**
- **Never leave children in the vehicle unattended. The cigarette lighter can be used when the ignition is switched on.**

The cigarette lighter can also be used as a 12-volt socket ⇒page 163. ◁

Electrical sockets

Introduction

This chapter contains information on the following subjects:

Sockets in the vehicle 164

Electrical equipment can be connected to the sockets in the vehicle.

The connected devices must be in good condition. Do not use faulty devices.

Additional information and warnings:

- Cigarette lighter ⇒page 161
- Accessories, modifications, repairs and renewal of parts ⇒page 394
- Consumer information ⇒page 404

⚠ WARNING

Improper use of the sockets and electrical accessories can cause fires and severe injuries.

⚠ WARNING (Continued)

- **Never leave children in the vehicle unattended. Sockets and the devices connected to them can be used when the ignition is switched on.**
- **If the electrical device gets too hot, switch off the device immediately and disconnect it from the socket.**

NOTICE

- **In order to prevent damage to the electrical system, never connect equipment that generates electricity, such as solar panels or battery chargers for charging the vehicle battery, to the 12-volt socket.**
- **Only use accessories that have been approved in accordance with current guidelines concerning electromagnetic compatibility.** ▶

NOTICE (Continued)

- **In order to avoid damage due to voltage fluctuation, always switch any electrical consumers connected to the 12-volt sockets off before switching the ignition or the engine on or off. When the start/stop system automatically switches off and restarts the engine, it is not necessary to switch off any connected electrical consumers.**
- **Never connect electrical devices requiring more electrical power to a 12-volt socket. The vehicle's electrical system can be damaged if the maximum power output is exceeded.**
- **Never feed electricity into the socket.**

Do not leave the engine running when the vehicle is stationary.

Using electrical appliances with the engine switched off and the ignition switched on will drain the battery.

Unshielded devices can cause interference with radio reception and vehicle electronics.

Functional problems may occur with some devices when they are connected to the 230-volt socket due to the lower power output (wattage).

Sockets in the vehicle

First read and observe the introductory information and safety warnings ⚠ on page 163.

There are two separate power circuits in the vehicle depending on the equipment:

- 12-volt DC circuit
- 230-volt AC circuit

Maximum power rating

Electrical socket	Maximum power rating
12-volt	120 watts
230-volt	2500 watts

Do not exceed the maximum power rating. This also applies to the total power consumption of all connected devices if you connect several devices at the same time ⇒ⓘ in *Introduction* on page 163. The power rating of each device is stated on its type plate.

12-volt socket

Electrical equipment can be connected to the 12-volt sockets in the vehicle.

Using electrical appliances with the engine switched off and the ignition switched on will drain the battery. Electrical consumers should therefore only be plugged into the sockets when the engine is running.

To prevent damage due to voltage fluctuation, switch off any connected devices before switching the ignition or engine on or off.

In the vehicle, there are 12-volt sockets in the following locations, among others:

- In the dash panel.
- In the stowage compartment on the dash panel under a small cover.
- In the stowage compartment in the dash panel.
- In the side trim panels in the passenger compartment
- In the luggage compartment.
- In the roof frame of the pop-up roof.

230-volt grounded safety socket

The 230-volt grounded safety socket is supplied via electrical feed from the external socket ⇒page 192.

The following electrical consumers are supplied from the 230-volt power supply via the external socket:

- Battery charger
- Depending on the vehicle equipment, the 230-volt grounded safety socket is located in the side trim panel behind the left front seat or on the side of the kitchen unit ⇒page 192.

230-volt Euro socket

The 230-volt Euro socket is supplied via additional batteries or via an inverter and is located in the side trim panel behind the left front seat ⇒page 192.

⚠ DANGER

High voltage in the electrical system!

- **Never pour any liquid over the socket.**
- **Do not insert any items which will conduct electricity, such as knitting needles, into the contacts of the 230-volt socket.**

⚠ DANGER (Continued)

- **230-volt socket with inverter switch:**
  - **Do not plug adapters or extension cables into the 230-volt socket. Otherwise the built-in child lock will disengage and power will be supplied to the socket.**

ⓘ NOTICE

- **Observe the operating instructions for any device that you plug into the socket.**
- **Never exceed the maximum power rating as this could damage the whole vehicle electrical system.**
- **Only use accessories that have been approved in accordance with valid guidelines concerning electromagnetic compatibility.**

ⓘ NOTICE (Continued)

- **Never feed electricity into the socket.**
- **Do not plug any heavy devices or connections, such as mains adapters, directly into the socket.**
- **Only connect devices to the socket with a voltage that matches the voltage of the socket.**
- **230-volt socket with inverter switch:**
  - **Do not connect any lights which use neon tubes.**
  - **With electrical devices that require a high level of current in the start phase, the built-in excess current switch will prevent the device from being switched on. If this happens, disconnect the device from the power supply and reconnect after waiting approximately 10 seconds.**

Unshielded devices can cause interference with radio reception and vehicle electronics. ◁

Rear Seat Entertainment (RSE) system

Introduction

This chapter contains information on the following subjects:

Components 166
Folding the LCD screen out and in 167
DVD player 167
Controls on the LCD screen 168
Remote control 169
Settings on the LCD screen 170
Settings on the DVD player 171

Care and protection

Use a suitable screen cleaner for cleaning the screen ⇒ⓘ. Be careful not to scratch the screen when cleaning it.

⚠ WARNING

Improper use of the rear seat entertainment system could cause short-circuits, fire and serious injuries.

- **Protect the rear seat entertainment system against moisture and damp.**

⚠ WARNING

Objects that are loosely placed in the vehicle or not properly secured could be flung through the interior and cause injuries during a sudden driving or braking manoeuvre, or in the event of an accident.

- **Always stow the remote control units and headsets securely in the stowage compartments.**

⚠ WARNING

Accidents and injuries can occur if the driver is distracted.

- **Never allow use of the rear seat entertainment system to distract you from what is happening on the road.**
- **Comply with legal regulations.**
- **Select volume settings that allow signals from outside the vehicle (such as emergency services sirens) to be easily heard at all times.** ▶

⚠ WARNING

LCD screens contain liquid crystal, which can escape if the screen is broken. The fluid could cause irritation to the skin, eyes and respiratory organs.

- **The escaping fluid could cause irritation to the skin, eyes and respiratory organs, especially in people who suffer from asthma or similar illnesses. Immediately ensure that there is a sufficient supply of fresh air and get out of the vehicle. If this is not possible, open all of the windows and doors.**
- **If fluid gets into your eyes or onto your skin, immediately wash the affected area with lots of water for at least 15 minutes and consult a doctor.**
- **If fluid gets onto shoes or clothing, wash immediately with lots of water for at least 15 minutes. Clean shoes and clothes thoroughly before wearing them again.**
- **If fluid is swallowed, immediately rinse the mouth out with lots of water for at least 15 minutes. Do not induce vomiting unless instructed to do so by a doctor. Seek medical assistance immediately.**

⚠ WARNING

Opening a DVD player's housing can lead to injuries from invisible laser radiation.

⚠ WARNING (Continued)

- **DVD players should only be repaired by a qualified workshop.**

NOTICE

The LCD screen can be damaged if it is not handled properly.

- **Always fold the LCD screen completely open or shut.**
- **The LCD screen is not a "touchscreen". Do not touch or press the surface of the LCD screen.**
- **Do not expose the LCD screen to direct sunlight or intensive ultraviolet light for long periods. This could damage the screen.**

NOTICE

Cleaning agents containing solvents can damage the LCD screen.

- **Use cleaning agents that do not contain solvents such as petrol or turpentine to clean the LCD screen.**

The LCD screen contains mercury. Dispose of the LCD screen in accordance with legal requirements.

The rear seat entertainment system only works if the temperature inside the vehicle is between -15°C (+5°F) and +60°C (+140°F). At temperatures outside this range, you will not be able to switch the rear seat entertainment system on. If switched on, it will switch off automatically. ◁

Components

First read and observe the introductory information and safety warnings ⚠ on page 165.

The rear seat entertainment system is made up of the following components:

- 10.2 inch LCD screen in the headliner with controls ⇒page 167 and integrated DVD player.
- Infrared remote control unit ⇒page 169.

Two sets of infrared headphones are delivered with the rear seat entertainment system. ◁

Folding the LCD screen out and in

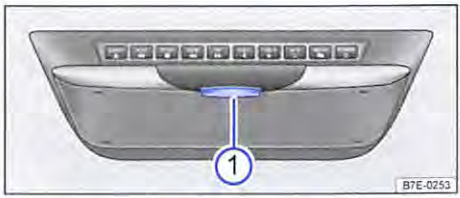


Fig. 131 In the headliner: folding the LCD screen out

First read and observe the introductory information and safety warnings ⚠ on page 165.

Folding the LCD screen out

- **Before** folding out, make sure that there is enough space to do so.
- Press the button ⇒Fig. 131 ① and carefully fold the LCD screen downwards by hand as far as the stop ⇒⚠ in *Introduction* on page 166.

Folding the LCD screen in

- Carefully fold the LCD screen upwards until it clicks into place ⇒⚠ in *Introduction* on page 166. ◁

DVD player

First read and observe the introductory information and safety warnings ⚠ on page 165.

Keep liquids away from the DVD player ⇒⚠ in *Introduction* on page 165. If you spill liquid on the DVD player, switch it off immediately and consult a Volkswagen Commercial Vehicles dealership.

High humidity can cause condensation in the DVD player and damage the reading head.

Do not place a DVD or CD in the DVD player if condensation has formed in it. Instead, switch the DVD player on and allow it to dry for around an hour.

To ensure excellent, high-quality CD or DVD reproduction, only use CDs or DVDs that are clean and undamaged.

Please do not stick any labels onto the DVDs or CDs.

Always stow unused DVDs or CDs securely in the vehicle.

Never expose DVDs or CDs to direct sunlight.

Inserting a CD or DVD

- Push the CD or DVD into the slot at the side with the printed side facing upwards until the disc is pulled in automatically ⇒ⓘ.

The DVD player is operated with the controls on the 10.2 inch LCD screen⇒ page 168 or with the remote control unit ⇒page 169.

NOTICE

Inserting or removing CDs or DVDs incorrectly can damage the DVD player.

- **Insert or remove the CD or DVD into or out of the slot at right angles to the side of the player, making sure that the CD or DVD does not become jammed in the slot.**
- **"Special shape CDs" may not be inserted. They can damage the player.**
- **Do not insert CDs or DVDs with adhesive labels on them into the DVD player. The label could become detached from the CD or DVD and damage the drive mechanism.**

The DVD player may be unable to play certain CDs, DVDs and file formats. For more information on compatible CDs, DVDs and file formats, contact a Volkswagen Commercial Vehicles dealership. ◁

Controls on the LCD screen

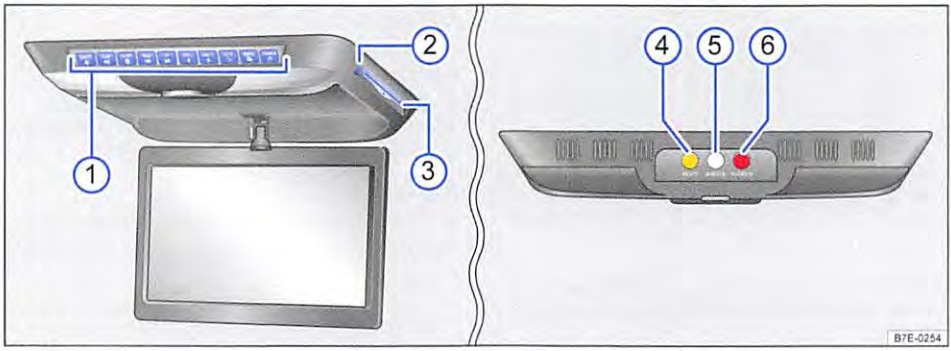


Fig. 132 In the headliner: controls on the LCD screen

First read and observe the introductory information and safety warnings ⚠ on page 165.

Key to Fig. 132:		
①	EJECT ⏏	Eject CD or DVD.
	PLAY ▶II	Start or interrupt playback of a CD or DVD.
	STOP ■	Stop playback.
	REW ▼	Fast reverse.
	FF ▲	Fast forward.
	VOL - ◀	Reduce volume.
	VOL + ▶	Increase volume.
	A/V	Change input source (DVD, AV, DVB-T).
	MENU	Call up the menu.
	POWER ⏻	Switch on and off.
②	Switch for LCD screen lighting.	
③	DVD or CD slot.	
④	Video input	
⑤	Audio L input	
⑥	Audio R input	

If the Ø symbol is displayed when you press a button, the button will not function when a CD or DVD is inserted in the slot. ◁

Remote control

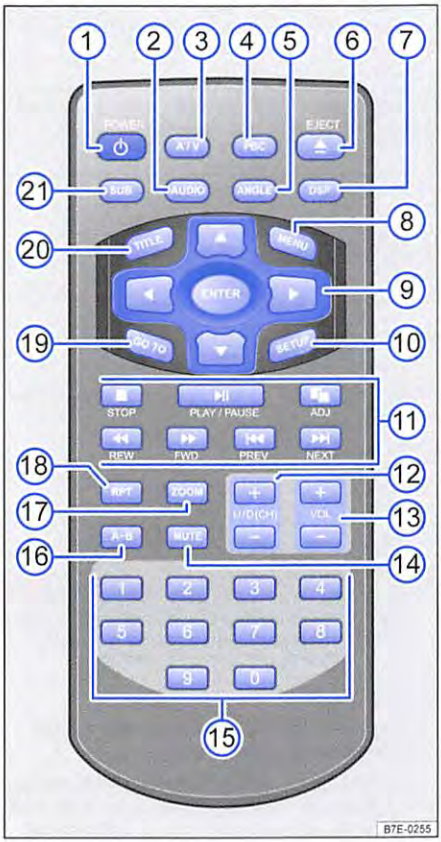


Fig. 133 Remote control.

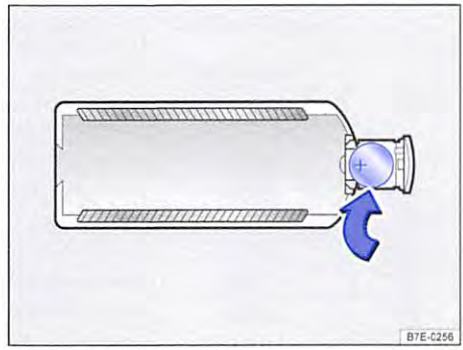


Fig. 134 Replacing the battery of the remote control.

First read and observe the introductory information and safety warnings ⚠ on page 165.

Key to Fig. 133:		
①	POWER ⏻	Switch on and off.
②	AUDIO	Select soundtrack of DVDs with multi-lingual audio function.
③	A/V	Change input source (DVD, AV, DVB-T).
④	PBC	Playback control.
⑤	ANGLE	Selection of camera perspective for DVDs with multi-angle function.
⑥	EJECT ⏏	Eject CD or DVD.
⑦	DSP	Press during playback in order to show or hide playback information.
⑧	MENU	Call up the main menu of the DVD.
⑨	▲◀▶▼	Arrow buttons for navigating within the menu.
	ENTER	Confirm menu settings and functions.
⑩	SETUP	Call up the setting functions of the DVD.

Key to Fig. 133:

⑪	◀◀ REW ▶▶ FWD	Fast forward or reverse during playback. Press the button repeatedly to increase forward or reverse speed. If the ▶II button is pressed beforehand, the slow-motion function has been activated.
	⏮ PREV ⏭ NEXT	Change to previous or next title/chapter.
	▶II PLAY/PAUSE	Press once to start or interrupt playback. Press twice during playback and then press the ◀◀ or ▶▶ button to jump from scene to scene.
	■ STOP	Stop playback.
	ADJ	Call up settings menu for the screen.
⑫	+ U/D(CH) -	no function
⑬	+ VOL -	Increase or lower the volume.
⑭	MUTE	Switch sound on and off.
⑮	1...8	Numerical buttons
⑯	A-B	Repeat the section selected between the first and second time the button was pressed.
⑰	ZOOM	Zoom into the current image. Press the button repeatedly to increase the zoom factor and finally to switch the zoom function off.
⑱	RPT	Switch repeat function on and off.
⑲	GO TO	Skip to a chapter or piece of music.
⑳	TITLE	Call up the TITLE menu of the DVD.
㉑	SUB	Select subtitles of DVDs with a multi-lingual subtitle function.

Replacing the battery

If the remote control unit no longer reacts when you press a button, the battery is empty and must be replaced.

- Slide open the cover on the rear of the remote control unit.
- Using a suitable thin object, lever the battery out of the battery compartment.
- Insert a new battery in the direction of the arrow ⇒Fig. 134 ⇒①.
- Close the cover.

⚠ DANGER

Swallowing batteries with a diameter of 20 mm or other lithium batteries can result in severe or even fatal injuries within a very short period of time.

- **Always keep the remote control unit, key ring with batteries, spare batteries, round cells and other batteries that are larger than 20 mm out of the reach of children.**

⚠ DANGER (Continued)

- **Call for medical help immediately you suspect that someone has swallowed a battery.**

NOTICE

- **The remote control can be damaged if the battery is not changed properly.**
- **Unsuitable batteries can damage the remote control. Replace discharged batteries only with new batteries of the same voltage rating, size and specification.**
- **Ensure that the battery is fitted the right way round.**

Dispose of discharged batteries in accordance with regulations governing the protection of the environment.

If the Ø symbol is displayed when you press a button, the button will not function when a CD or DVD is inserted in the slot. ◁

Settings on the LCD screen

First read and observe the introductory information and safety warnings ⚠ on page 165.

The main menu can be used to choose different settings. ▶

Calling up the main menu

- Press the SET button on the remote control unit or the MENU button on the screen.
- Use the arrow keys ▶ ◀ on the remote control unit or VOL + ▶ VOL - ◀ on the screen to choose the desired setting.
- Press the ENTER button on the remote control unit or the PLAY▶II button on the screen to confirm your selection.
- Press the SET button on the remote control unit or the MENU button on the screen to leave the main menu.

Changing image settings

In this menu, you can change the settings for contrast, brightness, sharpness, colour and tint.

- Open the main menu.
- Use the arrow keys ▶ ◀ on the remote control unit or VOL + ▶ VOL - ◀ on the screen to choose the desired **picture setting**.
- Use the arrow keys ▶ ◀ on the remote control unit or VOL + ▶ VOL - ◀ on the screen to choose the menu item whose settings are to be changed.
- Use the arrow keys ▶ ◀ on the remote control unit or VOL + ▶ VOL - ◀ on the screen to make the desired setting.
- Press the SET button on the remote control unit or the PLAY▶II button on the screen to save the setting.

Changing function settings

The following settings can be made in this menu:

Screen mode	Adjust picture ratio (16:9 or 4:3)
Mirror mode	Create a mirror image of the picture being shown.
V-Flip	Turn the picture being shown 180°.
Illumination	Set the screen brightness

- Open the main menu.
- Use the arrow keys ▶ ◀ on the remote control unit or VOL + ▶ VOL - ◀ on the screen to choose **Function settings**.
- Use the arrow keys ▶ ◀ on the remote control unit or VOL + ▶ VOL - ◀ on the screen to choose the menu item whose settings are to be changed.
- Use the arrow keys ▶ ◀ on the remote control unit or VOL + ▶ VOL - ◀ on the screen to make the desired setting.
- Press the SET button on the remote control unit or the PLAY▶II button on the screen to save the setting.

Changing the language

The language can be changed in this menu: German and English are the available languages.

- Open the main menu.
- Use the arrow keys ▶ ◀ on the remote control unit or VOL + ▶ VOL - ◀ on the screen to choose the **Language choice** setting.
- Use the arrow keys ▶ ◀ on the remote control unit or VOL + ▶ VOL - ◀ on the screen to select the desired language.
- Press the SET button on the remote control unit or the PLAY▶II button on the screen to save the setting. ◁

Settings on the DVD player

First read and observe the introductory information and safety warnings ⚠ on page 165.

Calling up the main menu

- Press the SETUP button on the remote control unit.
- Use the arrow buttons ▶ ◀ to choose the desired setting. ▶

- Press the ENTER button to confirm your selection.
- Press the SETUP button again to leave the main menu.

The following settings can be made in the submenus:

- Picture format.
- Camera perspective.
- Language.
- Subtitles.
- Screen saver.
- Saving the last item played.
- Various audio settings.
- Colour system.
- Playback control for video CDs
- Parental lock ⇒ page 172.
- Reset to default settings.
- Password protection.

Childproof locks

This function is only available in the case of DVDs with restricted access for young people and children. This menu is used to specify whether a DVD with access restrictions is to be played or whether a password has to be entered first. ◁

Tachograph

Introduction

This chapter contains information on the following subjects:

Notes on the tachograph 172

The function and operation of the factory-fitted tachograph can be found in an additional operating manual delivered with the vehicle.

If you retro-fit a tachograph to the vehicle, ensure it complies with relevant legislation.

Additional information and warnings:

- Towing a trailer ⇒ page 139
- Accessories, modifications, repairs and renewal of parts ⇒ page 394

Observe legal requirements for tachograph in the respective countries. The local authorities can provide details.

Manipulation of the tachograph and its signal, and misuse of the tachograph discs can result in prosecution. ◁

Notes on the tachograph

First read and observe the introductory information given on page 172.

Location

Depending on the model, the factory-fitted tachograph could be located in the middle of the dash panel or in a console on the dash panel.

Time

For the time settings, refer to the additional operating instructions for the tachograph.

Please note that in digital tachographs, the time must be displayed in local time. The time on the printouts is always given in UTC (Coordinated Universal Time).

Buffer battery

The digital tachograph has a buffer battery to prevent data loss. The buffer battery can supply power for approx. one year without an external power supply. This function is used if, for example, the digital tachograph is removed from the vehicle and stored or if left in a vehicle with a battery fault or a flat battery.

Legal requirements

By law, the tachograph must be used in: ▶

- Vehicles whose gross vehicle weight rating, including trailer exceeds 3,500 kg, if the vehicle is used commercially to transport goods. This is irrespective of whether the vehicle or the trailer or both are used for commercial transportation of goods.
- Vehicles which are built and fitted for the purpose of carrying more than 9 persons, including the driver.

Checking the tachograph

The tachograph must be checked by the manufacturer or an authorised workshop if any of the following occurs, either in isolation or as a combination:

- If the tachograph is repaired.
- If you are not able to correct a problem yourself.
- If you have changed a wheel.
- At least every 2 years. ◁

Digital voice enhancement

Introduction

This chapter contains information on the following subjects:

Using the digital voice enhancement 173

The digital voice enhancement (DVE) enables all vehicle occupants to hear each other clearly, even at high speeds. The driver can communicate with the occupants in the passenger compartment without having to turn around or speak loudly.

The voice signals from the driver are recorded via a microphone in the headliner. Then, the signals are amplified and mixed with the radio or media signals before being output through the rear loudspeakers of the radio/navigation system. Background noise is not transferred.

Additional information and warnings:

- ⇒Booklet *Radio, provision for mobile telephone, infotainment system, navigation system* ◁

Using the digital voice enhancement



Fig. 135 In the display of the radio or radio/navigation system: function button for calling up the digital voice enhancement.



Fig. 136 Slide control for switching on and off or for setting the volume. ▶

First read and observe the introductory information given on page 173.

Switching on and off

- Turn the volume control on the powered radio or radio/navigation system ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system.*
- *Tap* the function button with the digital voice enhancement icon ⇒ Fig. 135 ① in the top right corner of the screen to open the menu for "setting the volume" directly.
- To switch off the digital voice enhancement select the ICC menu item (In Car Communication) ⇒ Fig. 136, and set the volume slider to the leftmost position.
- To switch on the digital voice enhancement set the slide control from the leftmost position towards right to the desired volume.
- This setting is retained even after the ignition has been switched off and on.

Setting the volume

- Turn the volume control on the powered radio or radio/navigation system ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system.*
- *Tap* the function button with the digital voice enhancement icon ⇒ Fig. 135 ① in the top right corner of the screen to open the menu for "setting the volume" directly.
- Select the ICC menu item (In Car Communication) ⇒ Fig. 136, and set the slide control to the desired volume.
- This setting is retained even after the ignition has been switched off and on. ◁

Equipment, Multivan

Darkening the interior of the vehicle, Multivan

Introduction

This chapter contains information on the following subjects:

Components of the opaque shades kit 175
Assembling opaque shades for the windscreen and the rear window 176
Fitting opaque shades for the windscreen and the rear window 177
Fitting the opaque shades to the side windows 178
Removing and stowing the opaque shades .. 179

Darkening the interior of the vehicle

The opaque shades kit is supplied in a zippered storage bag, which can be securely stowed in a drawer underneath the 3-seat bench.

Additional information and warnings:

- Windows ⇒ page 36
- Seat functions, front ⇒ page 61
- Sun blind ⇒ page 106
- Stowage ⇒ page 150

⚠ WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident.

- **Store the shades in the storage bag provided, and keep this securely within the vehicle.**

⚠ WARNING

Obscured windows can impair visibility and driving safety.

- **Only drive when you have sufficient visibility through all windows.**
- **Remove all shades before driving.** ◁

Components of the opaque shades kit

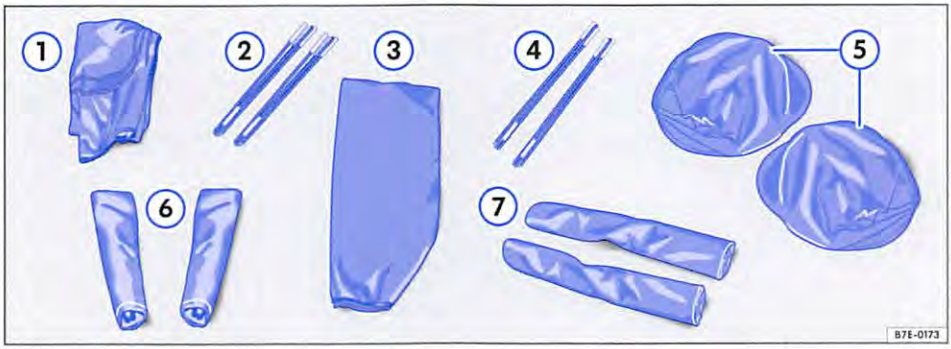


Fig. 137 Components of the opaque shades kit

First read and observe the introductory information and safety warnings ⚠ on page 175.

Key to Fig. 137:

1. Opaque shade for the windscreen (marked with a colour)
2. Rods for the opaque shade for the windscreen (colour coded)
3. Opaque shade for the rear window with three loops for attachment (colour coded)
4. Rods for the opaque shade for the rear window (colour coded) ▶

⑤ Shades for the driver and front passenger door windows (with flexible frames)
⑥ Opaque shades for the centre side windows with four-part fasteners
⑦ Opaque shades for the rear side windows with two-part fasteners

Opaque shade for rear window for Multivan Startline ⇒page 177. ◁

Assembling opaque shades for the windscreen and the rear window

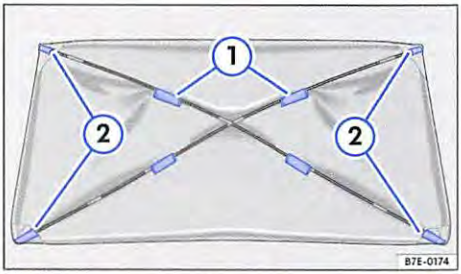


Fig. 138 Assembled opaque shade for the windscreen

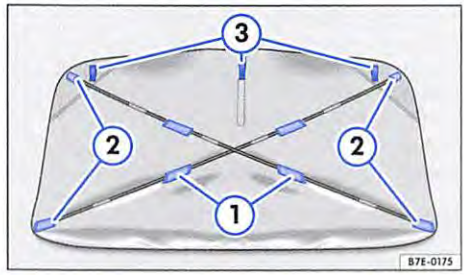


Fig. 139 Assembled opaque shade for the rear window

First read and observe the introductory information and safety warnings ⚠ on page 175.

- Remove the fabric shades ⇒Fig. 137 ① and ③ and rods ② and ④ from the storage bag.
- Connect the rods and unfold the fabric shades.
- Guide the rods one at a time diagonally through the loops ⇒Fig. 138 ① and ⇒Fig. 139 ① on the back of the corresponding fabric.
- Insert the ends of the rods into the corner pockets ⇒Fig. 138 ② and ⇒Fig. 139 ②. If necessary, carefully bend the rods a little. ◁

Fitting opaque shades for the windscreen and the rear window

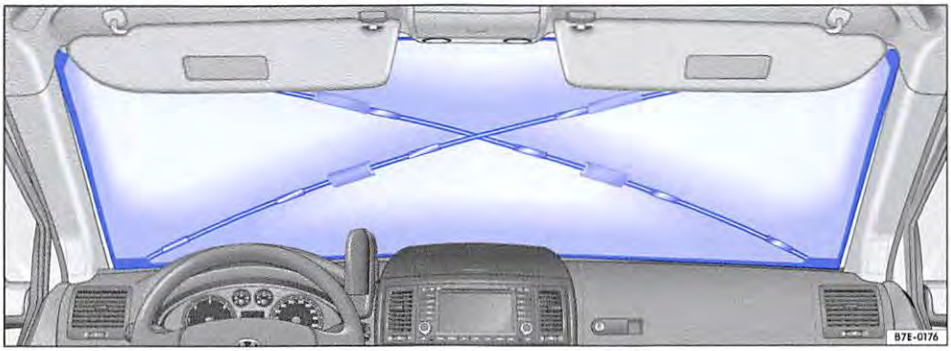


Fig. 140 Fitted opaque shade for the windscreen

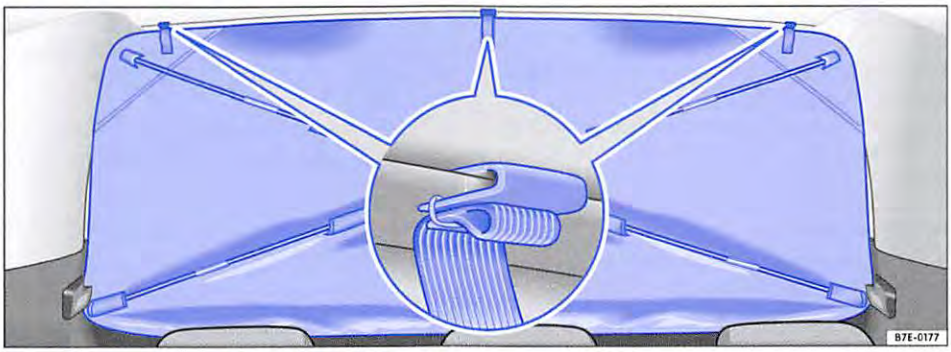


Fig. 141 Fitted opaque shade for the rear window

First read and observe the introductory information and safety warnings ⚠ on page 175.

Fitting the opaque shade for the windscreen

- Place the assembled opaque shade for the windscreen so that its underside rests on the dash panel.
- Slide first the left and then the right side of the shade in behind the windscreen. The opaque shade should lie flush against the window frame.
- Fold down the two sun visors to help hold the opaque shade in place.

Fitting the opaque shade for the rear window

- Setting up the bed
- Secure the middle loop ⇒Fig. 139 ③ to the rear trim strip in the headliner. To do so, push the L-shaped hook between the rear trim strip and the headliner ⇒Fig. 141. The rods of the opaque shade for the rear window should be visible from the inside.
- Secure the loops on the right and left in the same way.
- Push the opaque shade for the rear window down against the side brackets of the luggage compartment cover.

Fitting the magnetic opaque shade for the rear window

- Take the opaque shade for the rear window out of the storage bag and unfold it.
- Fit the opaque shade on the rear window. The opaque shade for the rear window is attached to the window frames using magnets. ◁

Fitting the opaque shades to the side windows



Fig. 142 Fitting the opaque shades to the side windows



Fig. 143 Side window fitted with the opaque shade

First read and observe the introductory information and safety warnings ⚠ on page 175.

Fitting the opaque shades for the driver and front passenger doors

- Take the opaque shades for the driver and front passenger doors ⇒Fig. 137 ⑤ out of their storage bag and carefully unfold them.
- Close the side windows in the driver and front passenger doors.
- Insert the opaque shade between the window seal and the lower portion of the window of the respective door.
- Press the top and sides of the shade's flexible frame between the window seals and the window.

Fitting the opaque shades to the central and rear side windows

- Take the opaque shade for the central side windows ⇒Fig. 137 ⑥ and rear side windows ⑦ out of the storage bag and unfold it.
- Using one hand, pull the sunblind half way out and hold it in this position.
- Use the other hand to place the fastener of the corresponding opaque shade for the side window onto the top of the sunblind bar.
- Make sure that the opaque shade is positioned between the sunblind and the side window ⇒Fig. 142.
- Hook both ends of the bar into the brackets.
- Make sure that the sunblind is secured firmly in both retainers ⇒Fig. 143. ◁

Removing and stowing the opaque shades



Fig. 144 Removing the opaque shade from the windscreen

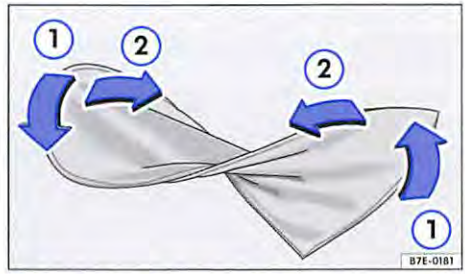


Fig. 145 Folding up the opaque shades for the driver door and front passenger door

First read and observe the introductory information and safety warnings ⚠ on page 175.

Removing the opaque shade from the windscreen

- Fold up the sun visors.
- Carefully and slightly bend the rods ⇒Fig. 144 ①.
- Pull back the right side of the windscreen shade about 15 cm and remove it ②.
- Disassemble the opaque shade for the windscreen in reverse order to the order given on ⇒page 176.
- Stow the opaque shade for the windscreen securely in its storage bag.

Removing the opaque shade from the rear window

- Unhook the hooks on the left and right.
- Keep the opaque shade in place by placing one hand on the middle of the shade.
- Unhook the middle hook and remove the opaque shade from the rear window.
- Disassemble the opaque shade for the rear window in reverse order to the order given on ⇒page 177.
- Stow the opaque shade for the rear window securely in its storage bag.

Removing the magnetic opaque shade from the rear window

- Take hold of the opaque shade on the rear window at the outer edge and pull it off carefully from the window frame.
- Fold the opaque shade for the rear window securely in its storage bag ⇒ⓘ.

Removing and folding up the opaque shades for the driver and front passenger doors

- Pull each opaque shade away from the driver and front passenger doors.
- Hold the individual opaque shade by the edges ⇒Fig. 145 ① and turn your hands in opposite directions.
- Bring your hands together towards the middle of the shade ②.
- Stow the opaque shades securely in the storage bag.

Removing the opaque shades from the central and rear side windows

- Take hold of the tab on the bar.
- Unhook both ends of the bar and roll it halfway down.
- Remove the opaque shade from the bar.
- Guide the sunblind down into the holder.
- Stow the opaque shades securely in the storage bag.

ⓘ NOTICE

Do not place any objects that are sensitive to magnetism, such as payment cards in the storage bag with the opaque shades. They could be permanently damaged. ◁

Equipment, Business

Vehicle overview, Business

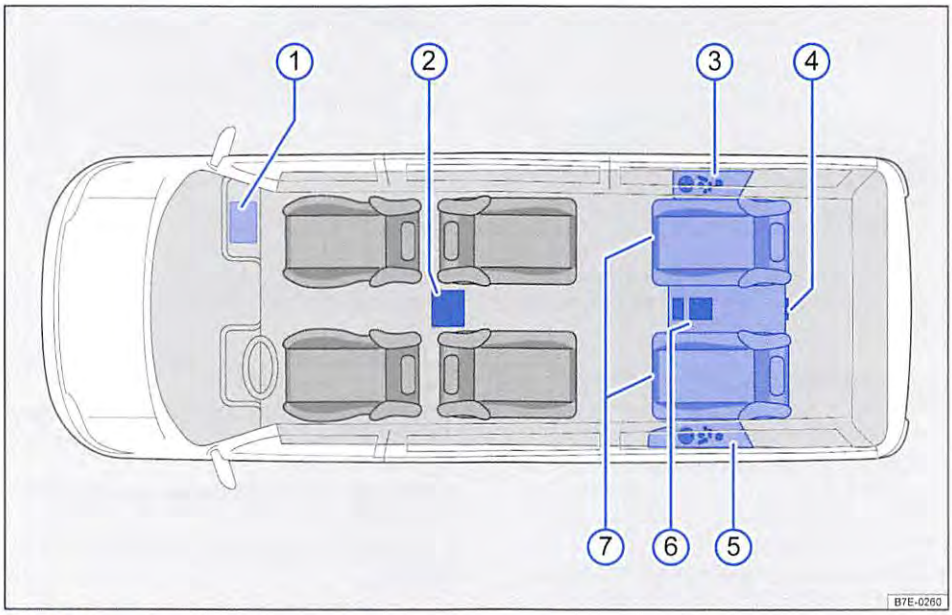


Fig. 146 View from above: overview of the interior equipment

Key to Fig. 146:

① Glove compartment

② LCD screen in the headliner 165

③ Console at the rear on the right, with drink holder and controls for the right-hand seat of the 2-seat arrangement 183

④ Release lever for moving the rear 2-seat arrangement 185

⑤ Console at the rear on the left, with drink holder and controls for the left-hand seat of the 2-seat arrangement 183

⑥ Centre console in the 2-seat arrangement with:
- Refrigerator box 186
- Headset sockets with volume control for the seats of the 2-seat arrangement.
- Ashtray with cigarette lighter
- Drink holder with two glasses

⑦ Electrically adjustable and heated seats of 2-seat arrangement with lumbar support, armrests and headset sockets with volume control 182

Number of seats

The vehicle has a total of 6 seats: 2 at the front and 4 at the rear. Each seat is equipped with a seat belt. The seats of the 2-seat arrangement are **not** suitable for the attachment of child seats ⇒ ⚠.

Retrofitting seats

Additional seats can be retrofitted, provided that the maximum number of seats quoted by the manufacturer is not exceeded. For this purpose, seat ▶

anchor points should be fitted to the vehicle floor by a specialist workshop in accordance with Volkswagen AG guidelines.

These additional seats must also have seat belt anchor points and suitable seat belts.

The Volkswagen Commercial Vehicles dealership can provide you with more information on retrofitting seats.

Additional information and warnings:

- Sitting correctly and safely ⇒page 61
- Child seats (accessories) ⇒page 96

⚠ WARNING

Assuming an incorrect sitting position in the vehicle can increase the risk of severe or fatal injuries during a sudden driving or braking manoeuvre, in the event of a collision or accident, or if the airbags are triggered.

- **The number of vehicle occupants must never exceed the number of seats with seat belts in the vehicle.**
- **All vehicle occupants must assume a correct sitting position before setting off and maintain this position throughout the trip. This also applies to the fastening of seat belts.**
- **Always secure children in the vehicle in an authorised restraint system which is suitable for their height and weight ⇒page 61.**
- **Always keep your feet in the footwell while the vehicle is in motion. Never place your feet on the seat or dash panel, for example, and never ride with your feet out the window. When you are sat like this, the airbag and seat belt cannot provide optimal protection and could actually increase the risk of injury during an accident.**

⚠ WARNING

The seats of the 2-seat arrangement are not suitable for the attachment of child seats of any kind.

- **Never use a child seat on the 2-seat arrangement.**

⚠ WARNING

Children who are not strapped in or who are not strapped in properly could sustain severe or fatal injuries while the vehicle is in motion.

- **Never use a rear-facing child seat on the front passenger seat.**
- **Children up to the age of 12 should always be transported on the single seats in the passenger compartment but not on the 2-seat arrangement.**
- **Always secure children in the vehicle in an authorised restraint system suitable for their height and weight.**
- **Always fasten children's seat belts correctly and ensure that they assume a correct sitting position.**
- **Adjust the seat backrest to an upright position if a child seat is to be used on this seat.**
- **Do not allow children to sit with their heads or any other body parts in the side airbag's deployment zone.**
- **Make sure that the seat belt is correctly routed.**
- **Never allow children or babies to be transported on someone's lap, or held in someone's arms.**
- **Only ever fasten one child into each child seat.**
- **Read and follow the instructions by the manufacturer of the child seat.**

◁

Seat functions, rear, Business

Introduction

This chapter contains information on the following subjects:

Controls of the 2-seat arrangement 183
Seat heater in the 2-seat arrangement 183
Armrests 184
Moving the 2-seat arrangement 185
Centre console of the 2-seat arrangement ... 185
Refrigerator box 186

The seats of the 2-seat arrangement are **not** suitable for the attachment of child seats ⇒ ⚠.

Features of the 2-seat arrangement

- Optimised seat belts for both seats.
- Head restraints and seat belts can be electrically adjusted for height.
- The height, forwards/backwards position and angle of the seat cushion can be adjusted electrically.
- The backrest angle can be adjusted electrically.
- Electrically adjustable lumbar support.
- seat heating.
- Armrests with stowage compartment.

Additional information and warnings:

- Sitting correctly and safely ⇒ page 61
- Seat functions, rear ⇒ page 72
- Seat belts ⇒ page 79
- Airbag system ⇒ page 87
- Child seats (accessories) ⇒ page 96
- Luggage compartment ⇒ page 130
- Stowage ⇒ page 150
- Central table ⇒ page 155

⚠ WARNING

Incorrect use of the seat functions can cause serious injuries.

- **Always assume a correct sitting position before you drive and maintain this position throughout the trip. This also applies to all passengers.**
- **Keep hands, fingers, feet and other body parts away from the moving parts of the seats.**

⚠ WARNING

The seats of the 2-seat arrangement are not suitable for the attachment of child seats of any kind.

- **Never use a child seat on the 2-seat arrangement.**

⚠ WARNING

Incorrect adjustment or removal and installation of single seats and/or the 2-seat arrangement can cause accidents and severe injuries.

- **All adjustments as well as removing/installing should be carried out only when the vehicle is stationary; otherwise the single seats and/or the 2-seat arrangement could move unexpectedly when the vehicle is in motion. Furthermore, an incorrect seating position is adopted while adjusting the seat.**
- **All single seats and the 2-seat arrangement must always be fitted in the seat rails and must be securely engaged.**
- **Never use the table while the vehicle is in motion. All backrests must be in the upright position and securely engaged in this position while the vehicle is in motion.**
- **While the vehicle is in motion the feet of a fitted single seat must not be positioned close to the removable covers in the seat rails.**
- **Never move single seats and/or the 2-seat arrangement when the vehicle is on a steep slope. The single seats and/or the 2-seat arrangement could move unexpectedly and cause injuries.**
- **The area for adjustment of the single seats and/or the 2-seat arrangement should not be restricted by any items.**
- **While fitting and removing the single seats and/or the 2-seat arrangement, make sure that the seat feet are not soiled or damaged.**
- **The rotating single seats in the passenger compartment can be engaged securely only when facing either the front or rear of the vehicle.**

⚠ WARNING (Continued)

- **Never use child seats in the groups 0 or 0+ on single seats that face the rear of the vehicle.**

◁

Controls of the 2-seat arrangement

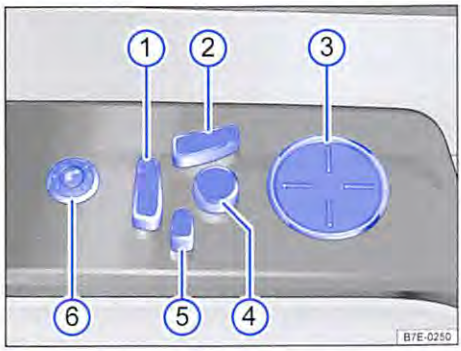


Fig. 147 On the 2-seat arrangement: controls on the rear left.

First read and observe the introductory information and safety warnings ⚠ on page 182.

Adjusting the seats of the 2-seat arrangement

The seats of the 2-seat arrangement can be adjusted when the ignition is switched on or if the ignition has been switched on briefly and then switched off. Leave the ignition key in the ignition lock.

Information on the correct seat position ⇒page 61.

Key to Fig. 147:

① Button for adjusting the height and forwards/backwards position of the seat cushion.

② Button for adjusting the angle of the backrest or the height of the head restraint and the seat belt.

③ Drink holder ⇒page 183.

④ Adjusting the lumbar support.

⑤ Button for adjusting the length of the seat cushion by lengthening or shortening the leg support.

⑥ Rotary switch for seat heater ⇒page 183.

Opening and closing the drink holder

- To *open*, push the floor of the drink holder ③ down until it clicks into place ⇒⚠.
- To *close*, press the release button inside the drink holder.

⚠ WARNING

Incorrect use of the drink holders can cause injury.

- **Do not place any hot drinks in a drink holder. Hot drinks in a drink holder could be spilled and cause scalding in any sudden braking manoeuvre or accident.**
- **Ensure that drink bottles or any other objects do not enter the driver footwell and obstruct the pedals while the vehicle is in motion.**
- **Never place heavy cups, food or any other heavy items in the drink holder. These heavy objects could be flung through the vehicle interior during an accident and cause serious injuries.**

◁

Seat heater in the 2-seat arrangement

First read and observe the introductory information and safety warnings ⚠ on page 182.

▶

Switching the seat heater in the 2-seat arrangement on and off

- Press rotary switch ⇒ Fig. 147 ⑥. The rotary switch pops out.
- To *switch on*, turn the rotary switch as often as necessary until the desired heating level is reached ⇒ ⚠. The red LEDs indicate the heating level. The greater the number of LEDs that light up, the higher is the heating level.
- To *switch off*, turn the rotary switch as often as necessary until all the LEDs go out.

⚠ WARNING

Anyone experiencing reduced sensitivity to pain or temperature due to medication, paralysis or chronic illness (e.g. diabetes) could sustain burns on the back, buttocks and legs when using the seat heating. These burns may take a long time to heal or may never heal fully. Please consult a doctor to determine your own level of health.

- **Anyone experiencing reduced sensitivity to pain or temperature should never use the seat heating.**

⚠ WARNING

Wet upholstery can cause a fault in the seat heating and increase the risk of burns.

- **Ensure that the seat cushion is dry before the seat heating is used.**
- **Do not sit on the seat when wearing damp or wet clothing.**
- **Do not set any damp or wet objects or items of clothing on the seat.**
- **Do not spill any liquids on the seat.**

NOTICE

- **To avoid damaging the heating elements, do not kneel on the seat or apply sharp pressure at a single point on the seat cushion and backrest.**
- **Liquids, sharp objects and insulating materials (such as a protective cover or child seat) on the seat could damage the seat heating.**
- **If the system starts to emit a smell, switch the seat heating off immediately and have it checked by a qualified workshop.**

The seat heating should be switched off as soon as it is no longer needed. Fuel is otherwise wasted. ◁

Armrests

First read and observe the introductory information and safety warnings ⚠ on page 182.

Adjusting the height of the armrest

- To *raise*, lift the armrest until it reaches the desired position.
- To *lower*, pull the armrest all the way up and then lower it downwards.

There is a storage compartment in each armrest.

Opening and closing the stowage compartment in the armrest

- To *open* the storage compartment, push the button and fold the lid upwards.
- To *close*, fold the lid down, making sure that it clicks securely into place. ◁

Moving the 2-seat arrangement

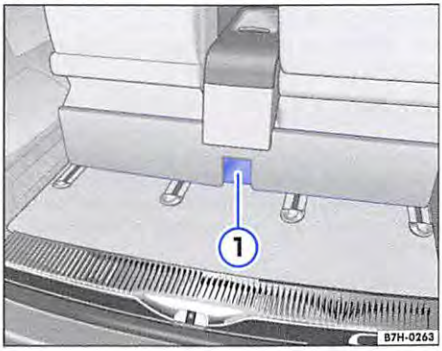


Fig. 148 In the luggage compartment: release lever of the 2-seat arrangement.

First read and observe the introductory information and safety warnings ⚠ on page 182.

You can move the 2-seat arrangement in order to enlarge the luggage compartment or passenger compartment ⇒ ⚠ in *Introduction* on page 182.

- Pull the release lever ⇒ Fig. 148 ① upwards as far as it will go.
- Hold the release lever in this position.
- Move the 2-seat arrangement.
- Let go of the release lever ①.
- Make sure that the 2-seat arrangement has engaged properly in the seat rails.

It may be necessary to push the 2-seat arrangement forwards to gain access to the vehicle toolkit. ◁

Centre console of the 2-seat arrangement

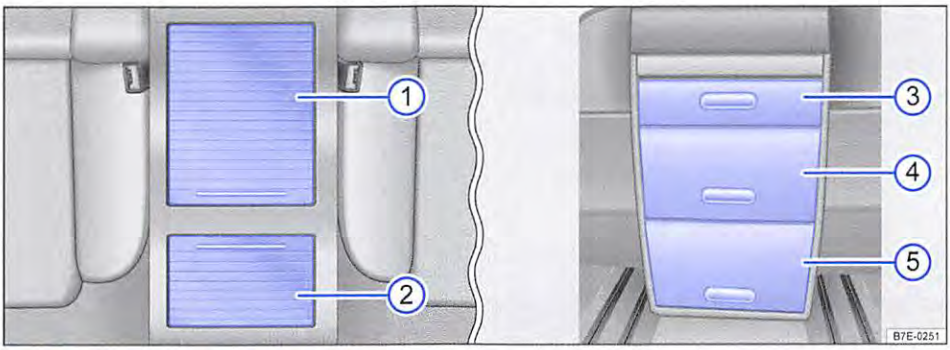


Fig. 149 Centre console of the 2-seat arrangement.

First read and observe the introductory information and safety warnings ⚠ on page 182.

Key to Fig. 149:

① Refrigerator box ⇒ page 186.
② Stowage compartment
③ Storage compartment with ashtray and cigarette lighter.
④ Stowage compartment, with DVD player (if fitted) ⇒ page 165.
⑤ Drink holder with two glasses. ▶

Opening and closing the stowage compartment on the centre console

- To *open* the storage compartment (2), slide the cover open.
- To *close*, push the cover shut, making sure that the storage compartment is closed completely ⇒ ⚠.

Ash tray

- Press the storage compartment (3) in until it opens automatically. The ashtray is now accessible ⇒ ⚠.
- To *empty* the ashtray, press the button ▶ in the storage compartment. The ashtray pops out of its holder. After emptying the ashtray, re-insert it.

Cigarette lighter

- Press the storage compartment (3) in until it opens automatically.
- With the ignition switched on, press in the knob on the cigarette lighter.
- Wait for the lighter to pop out.
- Pull out the cigarette lighter and light the tobacco product on the glowing spiral ⇒ ⚠.
- Insert the cigarette lighter back into the socket.

Opening and closing the stowage compartment at the front of the centre console

- To *open*, press the storage compartment (4) in until it opens automatically.
- To *close*, push the storage compartment shut, making sure that it closes completely ⇒ ⚠.

Opening and closing the drink holder

- To *open*, press the drink holder (5) in until it opens automatically.
- To *close*, push the drink holder shut, making sure that it closes completely ⇒ ⚠.

⚠ WARNING

Loose objects may be flung through the vehicle interior in the event of a sudden driving or braking manoeuvre. This can cause serious injury and can also lead to loss of control of the vehicle.

- **Always keep stowage compartments closed while the vehicle is in motion.**

⚠ WARNING

Improper use of the ashtray and cigarette lighter could cause fires, burns and other serious injuries.

- **Never put paper or any other combustible materials in the ashtray.**
- **Always use the cigarette lighter properly, and only use it to light tobacco products.**
- **Never leave children in the vehicle unattended. The cigarette lighter can be used when the ignition is switched on.** ◁

Refrigerator box



Fig. 150 In the centre console of the 2-seat arrangement: refrigerator box.

First read and observe the introductory information and safety warnings ⚠ on page 182.

The refrigerator box is located in the centre console of the 2-seat arrangement.

The refrigerator box works independently of the engine and the ignition. It is fed exclusively by the additional battery.

As far as possible, keep food and drinks in the refrigerator box in leak-proof containers. Do not overfill the refrigerator box such that air circulation is impaired. ▶

Switching on the refrigerator box

- Slide the cover open ⇒ Fig. 149 ①.
- Move switch ⇒ Fig. 150 ① to I position. When the refrigerator box is switched on, the lamp in the box lights up.
- Fill the refrigerator box and then close the lid ⇒ ⚠.

Switching off the refrigerator box

- Slide the cover open ⇒ Fig. 149 ①.
- Move switch ⇒ Fig. 150 ① to 0 position. The indicator lamp in the refrigerator box goes out.
- Close the cover.

Notes on cleaning and care

Clean the refrigerator box thoroughly before using it for the first time, if it is dirty or if it has not been used for a long time.

To avoid stains and mildew in the refrigerator box if it remains unused for a long time, leave the cover slightly open.

- Use water and normal household cleaning fluid to clean the refrigerator box.
- The refrigerator box should be defrosted regularly to prevent layers of ice forming. To do this, switch the refrigerator box off and leave the cover open. Do not use an additional heat source to defrost the refrigerator more quickly. This could damage the refrigerator ⇒ ⓘ. Remove the melted ice before the refrigerator is switched back on.

Battery monitor

If the refrigerator box is left on when the engine is not running, the additional battery runs down. The refrigerator box is therefore fitted with a battery monitor. The battery monitor will switch the refrigerated box off if the charge of the additional battery becomes too low. The battery monitor will switch the refrigerator box on again as soon as the additional battery has reached a suitable charge level, for example, after a long journey.

⚠ WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident.

- **The refrigerator box lid must always be kept closed and locked when the vehicle is in motion.**
- **Never use the refrigerator box as a table or stowage compartment when the vehicle is in motion.**

⚠ WARNING

If the ambient temperature in the vehicle is too low, the temperature in the refrigerator box could fall below +2 °C (+35 °F) degrees. This could cause the contents of the refrigerator box to freeze and bottles and other containers to burst, potentially causing injuries.

- **Do not use the refrigerator box when the ambient temperature is too low.**

ⓘ NOTICE

Handling the refrigerator box incorrectly could damage it.

- **Do not place containers, food or other objects which are warmer than +50 °C (+122 °F) in the refrigerator box.**
- **Do not place corrosive substances or solvents in the refrigerator box.**
- **Do not use an additional heat source to defrost the refrigerator box.**

The refrigerator box is not suitable for cooling the vehicle interior. The refrigerator box should only be used to keep food cool and for transporting heat-sensitive items on short journeys. ◁

Rear-seat telephony, Business

Introduction

This chapter contains information on the following subjects:

Components 189
Pairing a mobile telephone before using it for the first time 190
Functional description 190

General information

The rear-seat telephony system (hands-free system in the passenger compartment with Private Mode) works independently of other provision for mobile telephones fitted in the vehicle. Neither the ▶

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menus provided by way of the instrument cluster nor the factory-installed radio or navigation system can be used to make rear-seat telephony settings.

When pairing a mobile telephone with the rear-seat telephony system using the hands-free profile (HFP) and when the mobile telephone is not in the charging base, observe the information on use of a mobile telephone in the vehicle without connection to the external aerial ⇒ page 399.

Follow the operating manual for your mobile telephone and the instructions provided by the accessory manufacturer.

You may experience poor reception or may be cut off in areas where the signal is weak.

Most electronic devices are shielded against high-frequency signals. In rare cases, however, it is possible that electronic devices will not be shielded against high-frequency signals emitted by the rear-seat telephony system. This can cause interference.

Bluetooth

Bluetooth technology is used to connect a mobile telephone to the hands-free system fitted in a vehicle. Pairing needs to be carried out once only in order to use the rear-seat telephony system with a Bluetooth mobile telephone.

Use compatible Bluetooth devices only. Information on compatible Bluetooth products is available from your Volkswagen Commercial Vehicles dealer or on the internet.

Some Bluetooth mobile telephones are detected and connected automatically when the ignition is switched on. For this to happen, the mobile telephone and the Bluetooth function in the telephone must be switched on, and all active Bluetooth connections to other units must be disconnected.

The Bluetooth connection is free of charge.

Bluetooth® is a registered trademark of Bluetooth® SIG, Inc.

Declaration of conformity

BURY Sp. z o.o. herewith declares that this system complies with the basic requirements and the relevant stipulations of directive 1999/5/EG. This system has been classified as belonging to Device Class 1. A manufacturer's declaration of conformity for this system can be requested from the following e-mail address: *ce_conformance@bury.com*. Please formulate all enquiries either in English or German.

CE

Additional information and warnings:

- Digital voice enhancement ⇒ page 173
- Accessories, modifications, repairs and renewal of parts ⇒ page 394
- Radio or navigation system ⇒ Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

⚠ WARNING

Accidents and injuries can occur if the driver is distracted. Using the telephone or the rear-seat telephony system can distract you from what is happening on the road.

- **Select volume settings that allow signals from outside the vehicle (such as emergency services sirens) to be easily heard at all times. Comply with legal regulations.**
- **Your call may be cut off or you may be unable to make calls if you are in an area with no mobile telephone network coverage, an area where the network is very weak or, in some cases, in a tunnel, garage or underpass. This also means that no emergency calls can be made.**
- **In some countries, it is only possible to make an emergency call from the rear-seat telephony system if it is connected to a mobile telephone containing a SIM card that is "unlocked" and has sufficient credit.**

⚠ WARNING

Any mobile telephone that is not secured or is incorrectly secured in the vehicle could be flung though the interior during a sudden driving or braking manoeuvre, or in the event of an accident. This could cause injuries.

- **You should never position or attach a mobile telephone on a door, on the windscreen or above or near to the areas marked "AIRBAG" on the steering wheel, the dash panel and the seat backrests, or between these areas and the vehicle occupants. The mobile telephone could cause serious injury in an accident, especially when the airbags inflate.**

⚠ WARNING

Always switch off the mobile telephone when filling the tank and in areas with a risk of explosion. Electromagnetic radiation can generate sparks which can in turn start a fire.

- **The mobile telephone can automatically log itself into the mobile telephone network again if the Bluetooth connection to the rear-seat telephony system has been interrupted.**

⚠ WARNING

If a mobile telephone not connected to an external aerial is used in the vehicle, electromagnetic radiation in the interior could exceed limit values. This also applies to external aerials which have not been correctly installed.

- **Maintain a gap of approximately 20 centimetres between the aerials of the mobile telephone and the pacemaker, as mobile telephones may affect the functioning of pacemakers.**
- **Do not carry a mobile telephone in your breast pocket above your pacemaker when the telephone is switched on or in standby mode.**
- **If you suspect interference, switch off the mobile telephone immediately.**

ⓘ NOTICE

- **Your mobile telephone and the rear-seat telephony system must always be switched off in areas where special regulations apply and**

ⓘ NOTICE (Continued)

when the use of mobile telephones is forbidden. The radiation produced by the mobile telephone when switched on may interfere with sensitive technical and medical equipment, possibly resulting in malfunction or damage to the equipment.

- **If your vehicle is fitted with a bracket (base plate) for a charging base, only a suitable charging base (telephone holder) may be used. Use of other charging bases can cause damage to the rear-seat telephony system.**
- **High speeds, poor weather and poor road conditions as well as the network quality may impair telephone calls in the vehicle and lead to loss of connection.**

There may be restrictions on the use of Bluetooth devices in some countries. Information is available from the local authorities.

When connecting the rear-seat telephony system with a device by means of Bluetooth technology, read the device's operating manual for detailed safety information. Use compatible Bluetooth products only. ◁

Components

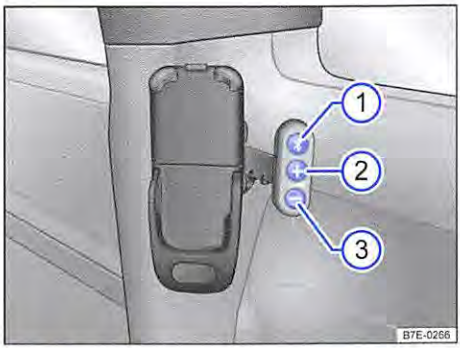


Fig. 151 In the passenger compartment: telephone holder for rear-seat telephony system.



Fig. 152 In the armrest of the 2-seat arrangement: telephone handset for the rear-seat telephony system.

First read and observe the introductory information and safety warnings ⚠ on page 187.

The rear-seat telephony system consists of the following components:

- Bracket (base plate) for a charging base.
- Charging base (telephone holder) for a mobile telephone with controls ⇒Fig. 151.
- Telephone handset in an armrest of the 2-seat arrangement ⇒Fig. 152. ▶

Key to Fig. 151:

① Make the rear-seat telephony system visible to Bluetooth devices.

② Increase call volume.

③ *Press briefly:* call volume is lowered. *Press and hold down for approx. 10 seconds:* the list of all devices is deleted from the rear-seat telephony system. ◁

Pairing a mobile telephone before using it for the first time

First read and observe the introductory information and safety warnings ⚠ on page 187.

Each mobile telephone must be paired with the rear-seat telephony system via Bluetooth once.

The pairing process takes a few minutes.

For pairing, you do *not* need to place the mobile telephone in the charging base (telephone holder).

Step 1: Preparations on the mobile telephone

- **Read the operating manual for the mobile telephone.**
- Switch on the mobile telephone.
- Deactivate the keypad lock.
- Switch off the screen saver.
- Deactivate the warning and service tones, e.g. key tones.
- Close all active Bluetooth connections on the mobile telephone.

Step 2: Making the rear-seat telephony system visible for Bluetooth

- With the ignition switched on, press the ⇒Fig. 151 ① button.

Step 3: Pairing the mobile telephone

- Activate the Bluetooth function on the mobile telephone.
- Start the Bluetooth device search on the mobile telephone. It will display a list of the devices found.
- Select **CC9045...** device.
- Confirm the selection on the mobile telephone to set up a Bluetooth connection.
- A message on the mobile telephone prompts you to enter a password for authorisation.
- Enter the password **1234**. If an incorrect password is entered, the pairing process will be aborted. Start again from step 2.
- If you would like this Bluetooth connection to be made in future without password entry, select **Yes** if offered this option by the mobile telephone.
- An acoustic signal will be emitted to confirm that the pairing process has been successful.

Up to six devices can be stored as *known* in the rear-seat telephony system. If an additional device is then paired with the rear-seat telephony system, the authentication for the device that has remained unused for the longest time will be deleted automatically.

Mobile telephones and other Bluetooth devices can be set in such a way that they automatically connect themselves to the rear-seat telephony system. Volkswagen Commercial Vehicles recommends that automatic pairing be deactivated, especially in case an additional provision for mobile telephone in the vehicle is used at another time. ◁

Functional description

First read and observe the introductory information and safety warnings ⚠ on page 187.

To use the rear-seat telephony system, the mobile telephone must be paired with it ⇒page 190. ▶

When the mobile telephone has been paired with the rear-seat telephony system via Bluetooth, the following applies:

- There is a connection between the mobile telephone and the microphone at the rear on the right in the passenger compartment headliner.
- Incoming calls are output over the vehicle loudspeaker in the rear right side trim panel.
- The digital voice enhancement (DVE) is switched off during a telephone call.

When a paired mobile telephone is in the charging base (telephone holder), the following applies:

- The mobile telephone is connected to the external aerial via the charging base.
- If the vehicle key is in the ignition lock, the battery in the mobile telephone will be charged, if necessary.

Using the telephone handset

Active telephone calls can also be conducted by means of the telephone handset ⇒ Fig. 152.

- Open the storage compartment in the armrest of the 2-seat arrangement.
- Pick up the handset during an active telephone call.

The microphone and the vehicle loudspeaker in the side trim panel will then be switched off. The telephone call will only be audible via the telephone handset ("Private Mode").

If the handset is replaced in its holder, the microphone and the vehicle loudspeaker in the side trim panel will be switched on again and the telephone call will *not* be ended.

- To end the telephone call, press the corresponding button on the mobile telephone.

Deleting the list of all devices from the rear-seat telephony system

- Close the existing Bluetooth connection on the mobile telephone.
- Press and hold button ⇒ Fig. 151 ③ for longer than 10 seconds.
- A signal will sound to confirm that the data has been deleted.

All other functions must be carried out directly from the mobile telephone. ◁

Equipment, California

Vehicle overview, California

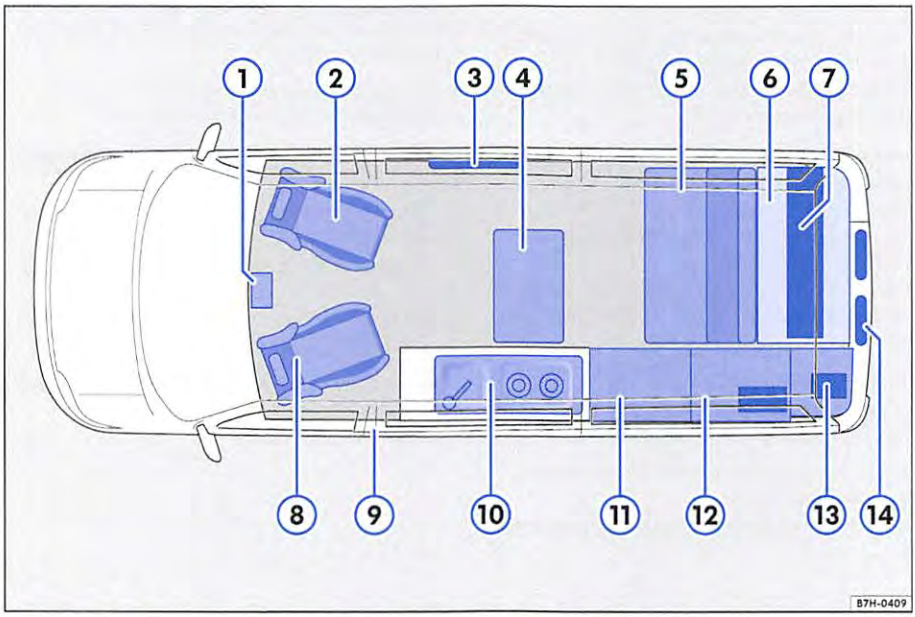


Fig. 153 View from above: overview of the interior equipment (left-hand drive)

The illustration shows optional equipment as well. Therefore, the equipment shown in the illustration may differ from the equipment which is fitted in the vehicle.

Key to Fig. 153:

① Central control panel in the headliner 204
② Rotating front passenger seat 69
③ Folding table in the sliding door 229
④ Work table 229
⑤ Bench seat/bed with: 195
- Holder for toolkit 416
- Breakdown set 425
- Drawer 212
- Crank for awning 226

⑥ Adjustable mattress, ... 197
⑦ Stowage compartment in the headliner with integrated loudspeakers 214
⑧ Rotating driver seat with: 69
- 12-volt fuses 249
- Additional battery 248

⑨ 230-volt Euro socket in the side trim panel behind the left front seat ..... 242 ▶

⑩ Kitchen unit with:
- Gas cooker ... 233
- 230-volt grounded safety socket ... 242
- 12-volt socket ... 242
- Cupboard with two sliding doors
- Drawer
- Waste water tank with drain lever and opening for cleaning ... 237
- First aid kit on the rear panel of the left stowage compartment in the cupboard

⑪ Refrigerator box ... 241

⑫ Wardrobe with:
- Cleaning opening for fresh water tank ... 237
- Second additional battery ... 248
- Lockable stowage compartment ... 214

⑬ Stowage area with:
- Residual current circuit breaker ... 247
- Gas bottle holder ... 233

⑭ Tailgate with room for stowing two camping chairs ... 229

Number of seats

The vehicle has a total of 4 seats: 2 at the front and 2 at the rear. Each seat is equipped with a seat belt.

Retrofitting seats

Additional seats can be retrofitted, provided that the maximum number of seats quoted by the manufacturer is not exceeded. For this purpose, seat anchor points should be fitted to the vehicle floor by a specialist workshop in accordance with Volkswagen AG guidelines.

These additional seats must also have seat belt anchor points and suitable seat belts.

The Volkswagen Commercial Vehicles dealership can provide you with more information on retrofitting seats.

Furniture Catches

The flaps and doors are fitted with furniture catches to prevent them from opening when the vehicle is in motion.

To open the doors in the kitchen unit, press and hold the catch. Slide the door open.

Equipment accessible only from the outside of the vehicle

- Opening for filling the fresh water tank on the rear left side of the vehicle (with lockable lid and separate key)
- 230-volt electrical feed on the rear left side of the vehicle (with flap cover)
- Fresh water tank drain opening under the vehicle.
- Waste water tank drain opening under the vehicle.
- Awning rails on the left and right side of the top of the vehicle on the roof frame.
- Awning adapter on left (if vehicle is fitted with an awning) and on right in the awning rail.
- Awning: attach to aluminium rail on right side over sliding door only. ◁

Seat functions, rear, California

Introduction

This chapter contains information on the following subjects:

Bench seat/bed ... 195
Bed (bench seat/bed) ... 196
Mattress, bench seat/bed ... 197
Components of the mattress, 3-seat bench ... 198
Mattress for a short bed, 3-seat bench ... 198
Mattress for a medium-length bed, 3-seat bench ... 199
Mattress for a long bed, 3-seat bench ... 201
Stowing the mattress, 3-seat bench ... 203 ▶

Additional information and warnings:

- Sitting correctly and safely ⇒page 61
- Seat functions, rear ⇒page 72
- Seat belts ⇒page 79
- Airbag system ⇒page 87
- Child seats (accessories) ⇒page 96
- Luggage compartment ⇒page 130
- Stowage ⇒page 150
- Central table ⇒page 155

⚠ WARNING

Incorrect use of the seat functions can cause serious injuries.

- **Always assume a correct sitting position before you drive and maintain this position throughout the trip. This also applies to all passengers.**
- **Keep hands, fingers, feet and other body parts away from the moving parts of the seats.**

⚠ WARNING

Incorrect adjustment or removing and fitting single seats and/or the bench seat can cause accidents and severe injuries.

- **All adjustments as well as removing/fitting should be carried out only when the vehicle is stationary; otherwise the single seats and/or the bench seat could move suddenly when the vehicle is in motion. Furthermore, an incorrect seating position is adopted while adjusting the seat.**
- **All single seats and the bench seat must always be fitted in their seat rails and must be securely engaged.**

⚠ WARNING (Continued)

- **Never use the table or the bed while the vehicle is in motion. All backrests must be in the upright position and securely engaged in this position while the vehicle is in motion.**
- **Never fit single seats behind the bench seat.**
- **Never fit two 3-seat benches in the vehicle.**
- **While the vehicle is in motion the feet of the fitted single seats and/or the bench seat must not be positioned close to the removable covers of the seat rails.**
- **Never move single seats and/or the bench seat when the vehicle is on a steep slope. The single seats and/or the bench seat could move automatically and cause injuries.**
- **The area for adjustment of the single seats and/or the bench seat should not be restricted by any items.**
- **While fitting and removing the single seats and/or the bench seat, make sure that the seat feet are not soiled or damaged.**
- **The rotating single seats in the passenger compartment can be engaged securely only when facing either the front or rear of the vehicle.**
- **Never use child seats in the groups 0 or 0+ on single seats that face the rear of the vehicle.**

⚠ CAUTION

Improper use of the bed can cause injury.

- **Never step in the area between the seat cushion and the backrest.** ◁

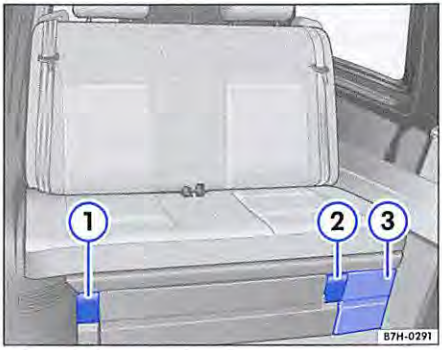


Fig. 154 In the living area: controls on the bench seat/bed.

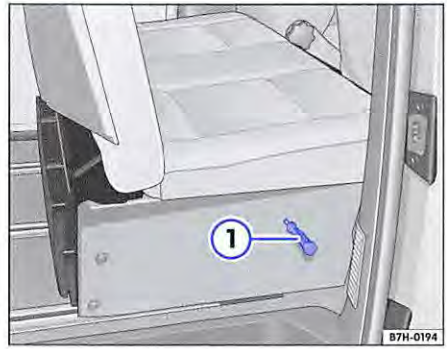


Fig. 155 Locking mechanism in the bench seat/bed blocked by a screwdriver ①.

First read and observe the introductory information and safety warnings ⚠ on page 193.

Moving bench seat/bed

Before moving it, please ensure that the folding table **is not** opened up in the vehicle and **is not** fitted in the guide rails on the side panel.

- Pull the lever ⇒Fig. 154 ① and hold it in this position.
- Move the bench seat/bed and release the lever. The bench seat/bed must be engaged in position.

Removing the bench seat/bed

The bench seat/bed can be removed more easily by two people than by one person.

Before removing it, please ensure that the folding table **is not** opened up in the vehicle and **is not** fitted in the guide rails on the side panel.

- Take the screwdriver from the vehicle toolkit.
- Prevent the vehicle from rolling away: apply the handbrake, move the selector lever to **P** or engage a gear.
- Push the driver seat and the front passenger seat as far forward as possible.
- Remove front and middle covers from the outer seat rails.
- Unscrew the stopper for the bench seat/bed with the screwdriver. The stopper is located in the third seat rail opposite the sliding door.
- Pull the lever ① and hold it in this position.
- Insert the screwdriver into the hole in the bench seat/bed ⇒Fig. 155 ① to block the locking mechanism in the bench seat/bed.
- Push the bench seat/bed forwards in the seat rails to the point where it can be lifted out of the slots.
- Lift the bench seat/bed out.
- Place the removed covers on the open slots in the seat rails.
- Pull the screwdriver out of the hole in the bench seat/bed.

Fitting the bench seat / bed

The bench seat/bed can be fitted more easily by two people than by one person.

Before fitting it, please ensure that the folding table **is not** opened up in the vehicle and **is not** fitted in the guide rails on the side panel.

- Remove front protective covers from the outer seat rails.
- Insert the screwdriver into the hole in the bench seat/bed ① to block the locking mechanism in the bench seat/bed.
- Place the feet of the bench seat/bed into the slots so that the backrest is facing the rear of the vehicle.
- Push the bench seat/bed back so that you can see the recesses in the seat guides.
- Pull the lever ⇒Fig. 154 ① and hold it in this position.
- Pull the screwdriver out of the hole in the bench seat/bed.
- Screw the stopper for the bench seat/bed in *to the original position* (in the third seat rail opposite the sliding door) completely. ▶

- Make sure that the backrest of the bench seat/bed is in the upright position and securely engaged.

- Make sure that the bench seat/bed has engaged securely.
- Place the removed covers on the open slots in the seat rails. ◁

Bed (bench seat/bed)

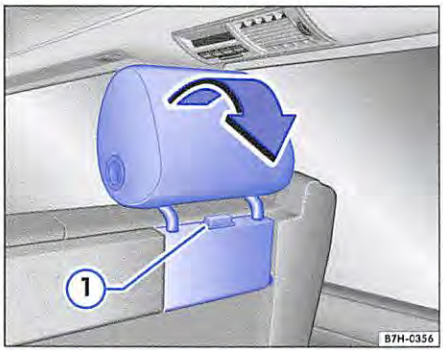


Fig. 156 Folding down the head restraint of the bench seat/bed.

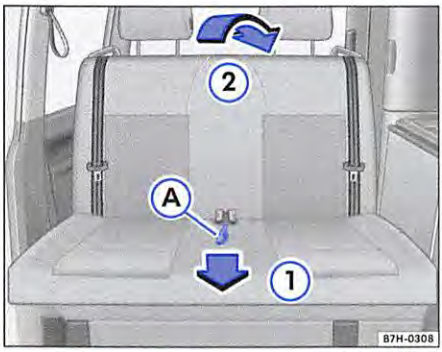


Fig. 157 Converting the bench seat/bed to a bed.

First read and observe the introductory information and safety warnings ⚠ on page 193.

Setting up the bed

- Remove rear single seats ⇒page 72.
- Push the bench seat/bed forward to the stopper.
- Lower the head restraint.
- Press the button ⇒Fig. 156 (1) and fold the head restraint backwards as indicated by the arrow.
- Pull the loop ⇒Fig. 157 (A) located between the seat belt buckles in the direction of arrow (1).
- Fold the backrest back until it engages.
- Place your hand into the slit between the backrest and the seat cushion and fold the bench seat/bed seat cushion forwards until the seat belt buckles move to the side.

Mattress

- Convert the bench seat/bed into a bed.
- Unfold the 3-section mattress and place it on the bed surface.

Removal is carried out in reverse order. ◁

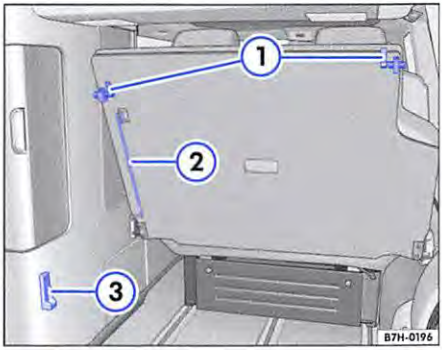


Fig. 158 In the luggage compartment: lever ①, support rod ② and retainer ③.

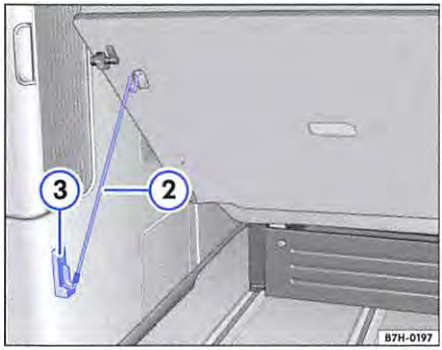


Fig. 159 In the luggage compartment: raised mattress

First read and observe the introductory information and safety warnings ⚠ on page 193.

The retainers on the left and right each have two recesses for supporting the mattress in the inclined position.

Adjusting angle of mattress

- To release the mattress, turn both levers ⇒Fig. 158 ① on the base of the mattress.
- Raise the mattress slightly and hold it in this position.
- Turn the levers back and lock the mattress in the retainers on the side.
- Make sure that the levers have engaged securely in the retainers and that the mattress has locked securely.

Raising the mattress

- To release the mattress, turn both levers ① on the base of the mattress.
- Raise the mattress.
- Hold the mattress in the raised position with one hand, and at the same time, disengage the support rod ② on the left.
- Guide the end of the support rod into the retainer ⇒Fig. 159 ③.
- Make sure that the support rod has engaged securely.

Removing the mattress

- To release the mattress, turn both levers ⇒Fig. 158 ① on the base of the mattress.
- Raise the mattress and take it out carefully to the back ⇒ⓘ.

⚠ WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident.

- **Never place any objects on the mattress while the vehicle is in motion.**
- **The mattress must be closed and securely locked while the vehicle is in motion.**

ⓘ NOTICE

When removing the mattress, be careful not to damage the seals on the tailgate or other items of equipment. ◁

Components of the mattress, 3-seat bench

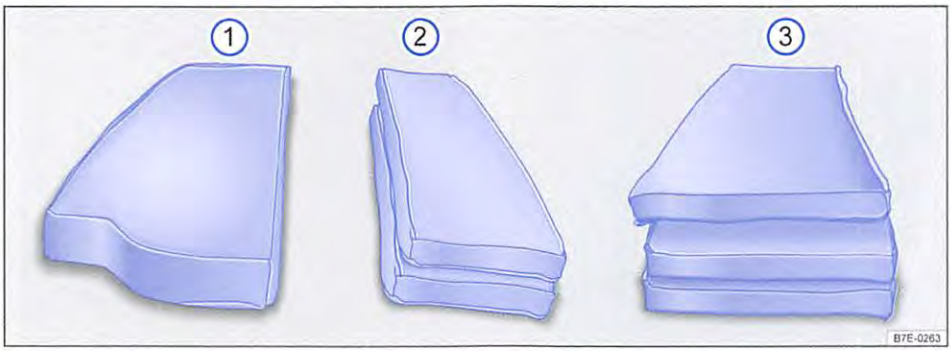


Fig. 160 Components of the mattress for the 3-seat bench.

First read and observe the introductory information and safety warnings ⚠ on page 193.

The mattress for the 3-seat bench consists of 3 parts ⇒Fig. 160. Parts ② and ③ can be folded out. All parts have zips and can be fastened to each other in different ways, depending on how and where they are placed. ◁

Mattress for a short bed, 3-seat bench

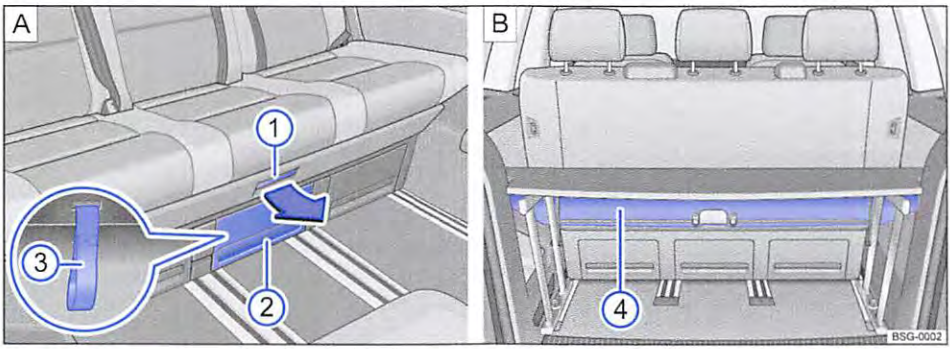


Fig. 161 In the living area and the luggage compartment: controls on the 3-seat bench at front A and on the multi-flex board B.

First read and observe the introductory information and safety warnings ⚠ on page 193.

The short bed is around 1.60 metres long. The bed can only be set up in vehicles with a 3-seat bench and with the single seats removed.

Setting up the short bed

- Push the multi-flex board backwards to the stop.
- Fold down the front area ⇒Fig. 161 ④ B of the multi-flex board.
- Remove single seats ⇒page 72.
- Pull out the lever ① A completely, until the red marking is visible.
- Fold the backrest of the 3-seat bench completely forwards onto the seat cushion. ▶

- Open the centre cover (2) [A] below the bench seat, pull the loop (3) under the seat cushion, and hold it in this position.
- Move the 3-seat bench, and release the loop. The front edge of the base of the 3-seat bench must be around 15 cm **away from** the rear end of the door aperture, and it must engage firmly.
- Close the centre cover (2) under the bench seat.
- Pull out the lever (1) [A] completely, until the red marking is visible.
- Fold the backrest of the 3-seat bench completely backwards.
- Make sure that the lever has returned to its original position. The red marking should no longer be visible.
- Move the bench seat/bed and release the lever. The bench seat/bed must be engaged in position.

Fitting the mattress

- Fasten parts ⇒ Fig. 160 (1) and (3) of the mattress to each other with the help of the zip. Part (2) is *not* needed for the short bed.
- Place the mattress on the multi-flex board and the 3-seat bench.

Removing the bed

- Remove the mattress and stow it securely in the vehicle ⇒ page 203.
- Fit the single seats.
- Move the single seats and the 3-seat bench into position for driving ⇒ page 72. ◁

Mattress for a medium-length bed, 3-seat bench

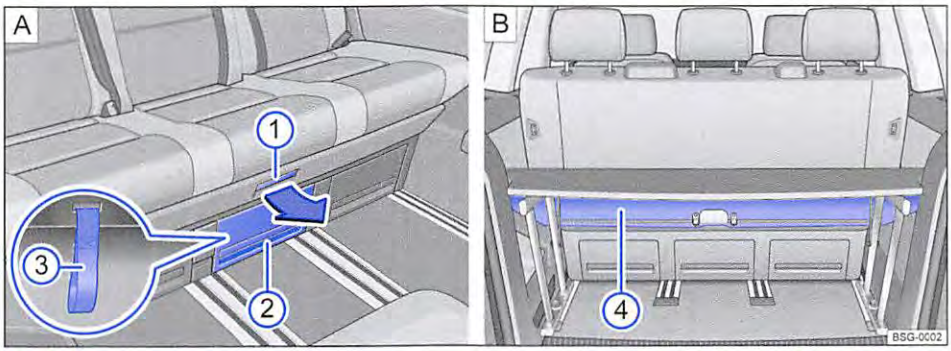


Fig. 162 In the living area and the luggage compartment: controls on the 3-seat bench at front [A] and on the multi-flex board [B].

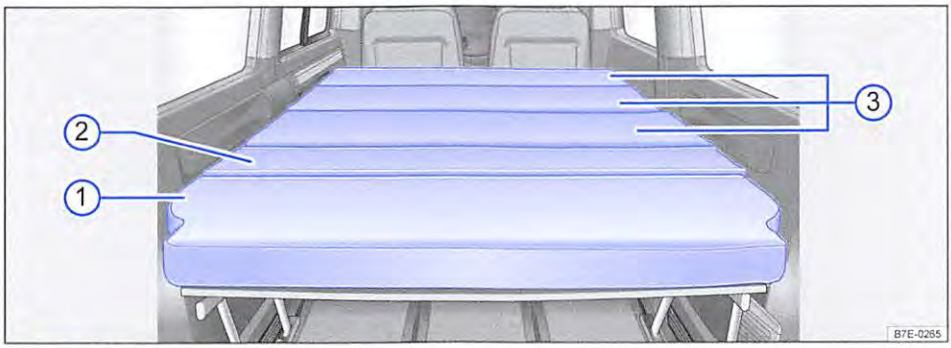


Fig. 163 Mattress for the medium-length bed. ▶

First read and observe the introductory information and safety warnings ⚠ on page 193.

The medium-length bed is around 1.80 metres long. The bed can only be set up in vehicles with a 3-seat bench and with the single seats removed.

Setting up the medium-length bed

- Push the multi-flex board backwards to the stop.
- Fold up the front area ⇒Fig. 162 ④ B of the multi-flex board.
- Remove single seats ⇒page 72.
- Pull out the lever ① A completely, until the red marking is visible.
- Fold the backrest of the 3-seat bench completely forwards onto the seat cushion.
- Open the centre cover ② A below the bench seat, pull the loop ③ under the seat cushion, and hold it in this position.
- Move the 3-seat bench, and release the loop. The front edge of the base of the 3-seat bench must be around 15 cm **away from** the rear end of the door aperture, and it must engage firmly.
- Close the centre cover ② under the bench seat.
- Pull out the lever ① A completely, until the red marking is visible.
- Fold the backrest of the 3-seat bench completely backwards.
- Make sure that the lever has returned to its original position. The red marking should no longer be visible.
- Move the bench seat/bed and release the lever. The bench seat/bed must be engaged in position.

Fitting the mattress

- Fasten parts ⇒Fig. 160 ① and ② of the mattress to each other with the help of the zip.
- Fold part ② together and fasten it to part ③ with the help of the zip.
- Place the mattress on the multi-flex board and the 3-seat bench ⇒Fig. 163.

Removing the bed

- Remove the mattress and stow it securely in the vehicle ⇒page 203.
- Fit the single seats.
- Move the single seats and the 3-seat bench into position for driving ⇒page 72. ◁

Mattress for a long bed, 3-seat bench

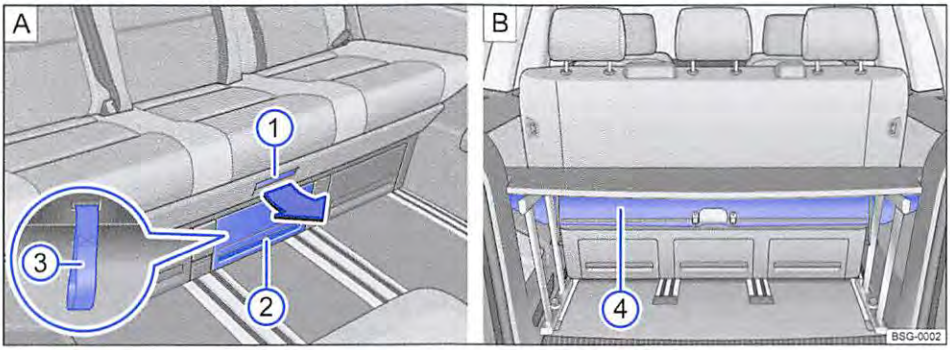


Fig. 164 In the living area and the luggage compartment: controls on the 3-seat bench at front A and on the multi-flex board B.

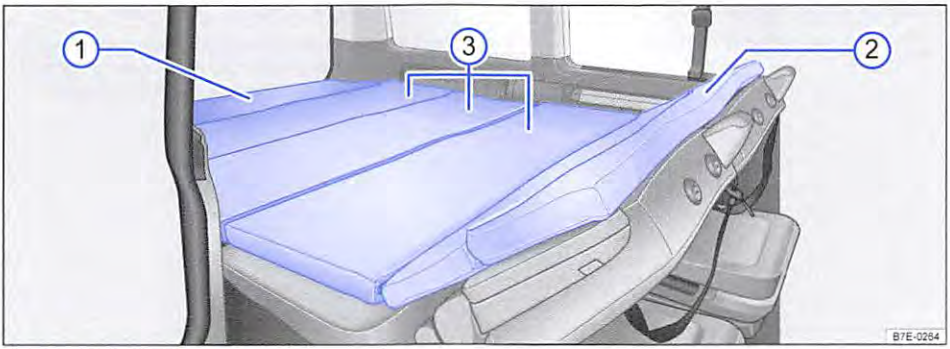


Fig. 165 Mattress for the long bed

First read and observe the introductory information and safety warnings ⚠ on page 193.

The long bed is around 2 metres long. The bed can only be set up in vehicles with single seats and a 3-seat bench.

Setting up the long bed

- Push the multi-flex board backwards to the stop.
- Fold down the front area ⇒Fig. 164 ④ B of the multi-flex board.
- Remove the head restraints of the 3-seat bench and the single seats ⇒page 61.
- Push the single seats forwards as far as they will go and turn them to face the front of the vehicle ⇒page 72.
- Pull out the lever ① A completely, until the red marking is visible.
- Fold the backrest of the 3-seat bench completely forwards onto the seat cushion.
- Open the centre cover ② A below the bench seat, pull the loop ③ under the seat cushion, and hold it in this position.
- Move the 3-seat bench, and release the loop. The front edge of the base of the 3-seat bench must be around 15 cm **away from** the rear end of the door aperture, and it must engage firmly.
- Close the centre cover ② under the bench seat.
- Pull out the lever ① A completely, until the red marking is visible.
- Fold the backrest of the 3-seat bench completely backwards.
- Make sure that the lever has returned to its original position. The red marking should no longer be visible.
- Move the bench seat/bed and release the lever. The bench seat/bed must be engaged in position. ▶

Fitting the mattress

- Fasten parts ⇒Fig. 160 ① and ③ of the mattress to each other with the help of the zip.
- Fasten part ② of the mattress to the other side of part ③ at the zip.
- Tilt the backrests of the single seats a little if necessary in order to have a slanting surface to lean against.
- If you wish, fit the head restraints of the single seats the wrong way round in order to have an additional surface to lean against ⇒⚠.
- Place the mattress on the multi-flex board, the 3-seat bench and the single seats ⇒Fig. 165.

Removing the bed

- Remove the mattress and stow it securely in the vehicle ⇒page 203.
- Move the single seats and the 3-seat bench into position for driving ⇒page 72.
- Fit the head restraints correctly ⇒⚠.

⚠ WARNING

Driving without head restraints or with incorrectly adjusted head restraints increases the risk of severe or fatal injuries in the event of an accident or sudden driving or braking manoeuvre.

- **If a seat is occupied, the head restraint for that seat must be fitted and adjusted correctly.**
- **Each vehicle occupant must adjust the head restraint to suit their body size, to help reduce the risk of neck injuries in an accident. As far as possible, the upper edge of the head restraint must be level with the top of the head, but not lower than eye level. Position the back of your head in the middle and as close to the head restraint as possible.**
- **Never adjust, fit or remove the head restraint while the vehicle is in motion.**
- **Head restraints that have been removed or fitted the wrong way round should be correctly fitted again immediately so that passengers are properly protected.**

◁

Stowing the mattress, 3-seat bench

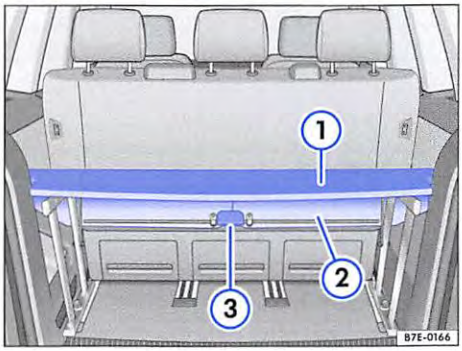


Fig. 166 In the luggage compartment: multi-flex board.

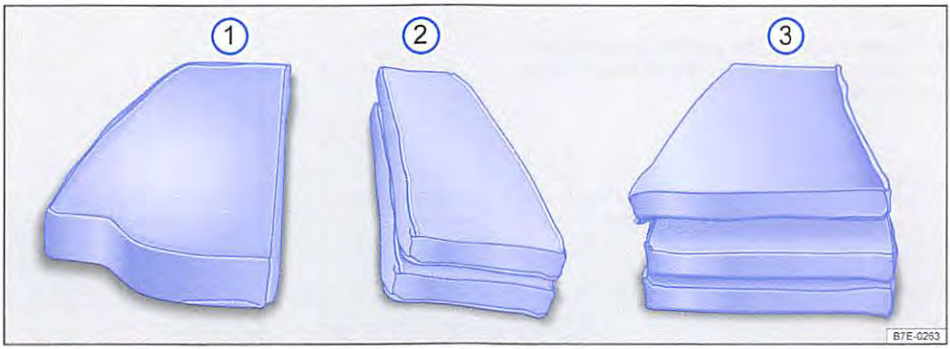


Fig. 167 Components of the mattress for the 3-seat bench.

First read and observe the introductory information and safety warnings ⚠ on page 193.

When the mattress is not being used, it can be stowed on the multi-flex board.

- Fold up the front area ⇒Fig. 166 (2) of the multi-flex board.
- Fasten parts ⇒Fig. 167 (1) and (2) of the mattress to each other with the help of the zip.
- Fold part (2) over and place the two parts next to each other traversely on the multi-flex board.
- Fold part (3) together and place it on top of parts (1) and (2). ◁

Central control panel, California

Introduction

This chapter contains information on the following subjects:

Controls 204
Display 205
Menu structure 206
Programming the wake up time 207
Programming the countdown timer 207

The central control panel is the "control and information centre" for the camping equipment. The central control panel can be used to open and control the following displays and functions:

- Opening and closing the electric pop-up roof ⇒page 221
- Displays showing the ambient temperature, clock and charging status of the additional batteries ⇒page 205
- Switching the refrigerator box on and off or setting the temperature ⇒page 241
- Status display and control of supplementary heater ⇒page 251
- Programming countdown timer ⇒page 207
- Programming the wake up time ⇒page 207
- Setting the clock

Additional information:

- Cleaning the central control panel ⇒page 254
- Rectifying faults on the camping equipment ⇒page 254 ◁

Controls



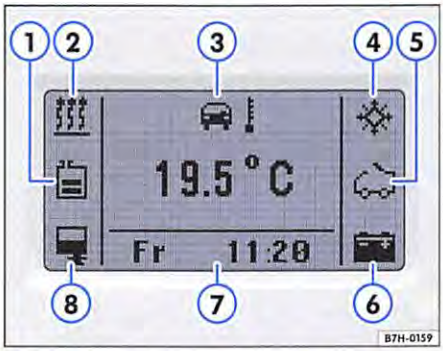
Fig. 168 In the headliner: central control panel with the initial screen

First read and observe the introductory information given on page 204.

Button, control	Additional information ⇒Fig. 168.
①	To switch the supplementary heating system on and off and to set the temperature
②	Display
③	To switch the refrigerator box on and off and to adjust its temperature
④	Rotary/push knob to select and confirm menu entries ▶

Button, control	Additional information ⇒ Fig. 168.
⑤	To return to initial screen or cancel a setting without saving it
⑥	To completely switch off all functions which were activated using the central control panel, e.g. supplementary heating system, refrigerator box, and wake-up time

Display



First read and observe the introductory information given on page 204.

Fig. 169 The central control panel display

⇒ Fig. 169	Meaning
①	Water level in the fresh water tank
②	**Lit up:** the supplementary heater is running. **Flashing:** the supplementary heater is malfunctioning.
③	– Outside temperature display (when the vehicle is stationary and the engine is switched off). – Battery charge level. – Wake-up time (if set). – Countdown timer (if in use).
④	**Lit up:** refrigerator box switched on. **Flashing:** the refrigerator box is malfunctioning.
⑤	Status of the pop-up roof: – Fully closed and locked. – In the process of opening or closing. – Fully open. **Flashing:** overheating protection on the pop-up roof hydraulic pump is activated. Wait a few minutes before attempting to open or close the pop-up roof again.
⑥	Battery capacity: Shown as a level within the symbol or by the symbol G when power is being supplied from the additional battery.
⑦	Weekday and time
⑧	Display for full or empty waste water tank.

Symbol	Meaning
	Switch-on time for the supplementary heating system has been set.
	Wake up time has been set.

Symbol	Meaning
A	Flow of electric current in amps
	Lit up: 230-volt mains connection has been made and the battery charger is working. **Flashing or displaying a number over 15 volts:** malfunction. Disconnect the 230-volt mains connection and have the electrical system checked by a qualified workshop. **Not lit up despite a 230-volt connection being made:** there is a power cut or malfunction in the battery charger.
G	The batteries are being charged by the alternator.

Warning messages

Under certain conditions, such as when the pop-up roof is open, warning messages appear on the display when the engine is started. These warn against possible vehicle or equipment damage.

- Switch off the ignition and correct the cause of the warning message.

Malfunction

If a symbol flashes, there is a fault in the indicated system.

- Press the button for five seconds to clear the fault. If this does not work or if other faults appear, please contact a qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

⚠ WARNING (Continued)

- **Never ignore any illuminated warning lamps or text messages.**
- **Stop the vehicle as soon as possible and when safe to do so.**
- **Stop the vehicle at a safe distance away from moving traffic and ensure that no part of the exhaust system can come into contact with any inflammable material underneath the vehicle, e.g. dry grass or fuel.**
- **Any broken-down vehicle poses an increased accident risk both for you and for other road users. If the situation requires, switch on the hazard warning lights and set up the warning triangle as a warning to other road users.**
- **Before opening the bonnet, switch off the engine and allow it to cool down sufficiently.**
- **The engine compartment of any motor vehicle is a dangerous area. Serious injuries can be sustained here ⇒ page 350.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁

Menu structure

First read and observe the introductory information given on page 204.

Using the menus

- Turn the rotary/push knob ⇒ Fig. 168 ④ to highlight a function or submenu or to change a setting.
- Press the rotary/push knob to select a function or submenu or to confirm a setting.

Main menu	Possible functions	Description of the submenu with examples
Pop-up roof	Opening	Open the pop-up roof ✓
	Closing	Close the pop-up roof ✓
Displays	Outside temperature	Current outside temperature (28.5° C)

Main menu	Possible functions	Description of the submenu with examples
	Battery status	Battery voltage and battery capacity (12.8V, 100%)
	Clock	Time
Refrigerator box	Switching on	Refrigerator box switched on ✓
	Switching off	Refrigerator box switched off ✓
	Temperature selection	Cooling temperature settings 1 to "Max." maximum cooling level
Supplementary heating system	Switching on	Switched on manually ✓
	Switching off	Switched off manually ✓
	Temperature selection	Temperature setting (01-10)
	Status	Supplementary heating system status (on / manual)
	Program	Program the supplementary heating system
Clock	Date / time	Day of week and time (10:09, Friday)
	Countdown timer	Program the countdown time (New)
	Wake-up time	Program the wake up time: a maximum of 7 wake up times can be stored.
	Settings	Change flashing figures by turning the knob. Press knob to confirm.
Back		Return to previous menu or initial screen without saving changes.

Programming the wake up time

First read and observe the introductory information given on page 204.

Setting a wake-up time

- Select the **Clock** menu.
- Select the **Wake up time** submenu.
- Select **New**.
- Change the flashing figures by turning the knob ⇒ Fig. 168 ④ and press the knob to confirm. The display will show this symbol 🔔.

Setting different wake-up times

Select **New** to set an additional wake up time. When you have entered seven wake-up times, the display shows the text **7 entries made**.

Deleting or changing a wake-up time

- Use the rotary/push knob to select the desired wake up time.
- Select **Change** or **Delete**. To delete a wake up time, select it and confirm with **Yes**.

Turning off the wake up alarm

- Press the ⮌ button.

All stored wake-up times are deleted if the central control panel is switched off.

Programming the countdown timer

First read and observe the introductory information given on page 204.

Setting the countdown timer

- Select the **Clock** menu.
- Select the **Countdown timer** submenu.

- Select New.
- Change the flashing figures by turning the knob ⇒Fig. 168 ④ and press the knob to confirm.

Deleting the countdown timer

- Use the rotary/push knob to select the countdown timer.
- Select **Delete** and confirm by selecting **Yes**.

Changing the countdown timer setting

- Select New.
- Change the flashing figures by turning the knob ⇒Fig. 168 ④ and press the knob to confirm. The old countdown timer setting is automatically overwritten.

Turning off the countdown timer

- Press the ⮌ button.

The stored countdown timer setting is deleted if the central control panel is switched off. <

Interior lights, California

Introduction

This chapter contains information on the following subjects:

Interior lights in the living area 209
Interior lights in the pop-up roof 210

Additional information:

- Electrical sockets ⇒page 163
- Battery ⇒page 350
- Cigarette lighter ⇒page 163
- Accessories, modifications, repairs and renewal of parts ⇒page 394
- Fuses ⇒page 429
- Consumer information ⇒page 404
- Rectifying faults on the camping equipment ⇒page 254 ◁

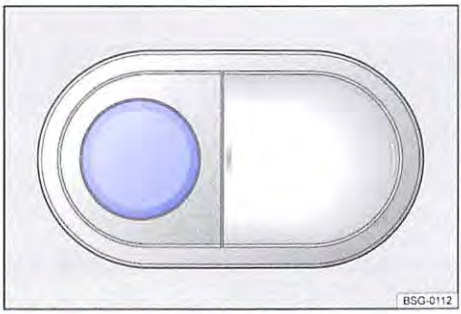


Fig. 170 Interior light in the living area.

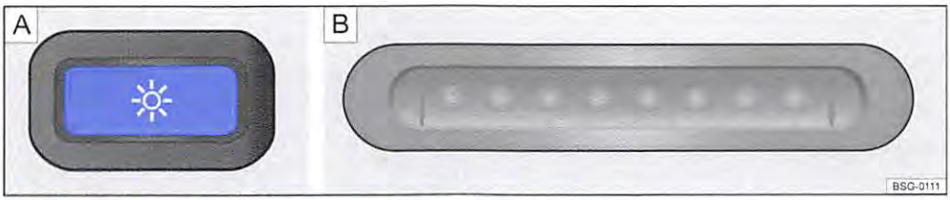


Fig. 171 A Button in the right D-pillar. B LED lights in the tailgate trim.

First read and observe the introductory information given on page 208.

Interior lights in the roof trim

Depending on the vehicle equipment, there are interior lights fitted in different locations in the roof trims of the living area which can be switched on and off independently from each other ⇒Fig. 170.

- To switch on the interior light *briefly press* the button on the interior light.
- To switch off the interior light *briefly press* the button on the interior light.

Switching the interior lights in the tailgate trim on and off or dimming the interior lights

There are two LED lights fitted in the tailgate trim ⇒Fig. 171 B.

- To switch the LED lights on and off *briefly press* the A button in the right D-pillar.
- To dim the LED lights *press and hold* the A button in the right D-pillar.

The LED lights in the tailgate trim are **not** switched off, when the ignition is switched on or the engine is started, i.e. they must be switched off manually. ◁

Interior lights in the pop-up roof

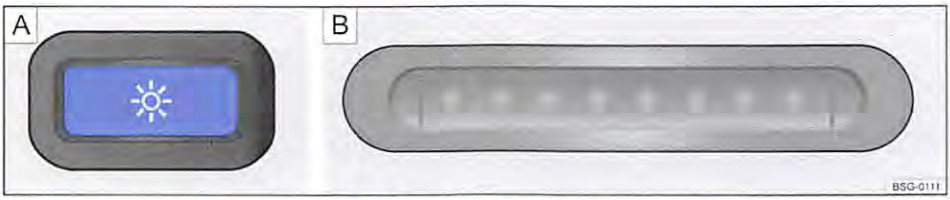


Fig. 172 A Button in the roof frame. B LED lights in the pop-up roof.

First read and observe the introductory information given on page 208.

There are two LED lights fitted at front of the pop-up roof trim, and one LED light is fitted at the rear ⇒Fig. 172 B.

The two LED lights at front can be switched on and off and dimmed separately using the separate buttons A on left and right of the front roof frame.

Switching the interior lights at front of the pop-up roof on and off or dimming the interior lights

- To switch the left or right LED light on and off *briefly press* the respective A button in the roof frame.
- To dim the left or right LED light *press and hold* the respective A button in the roof frame.

Switching the interior light at rear of the pop-up roof on and off

- Switch on one of the LED lights at front to switch on the rear LED light.
- Switch off the two LED lights at front to switch off the rear LED light.

The LED light at the rear of the pop-up roof is always dimmed. This setting cannot be changed.

All LED lights in the pop-up roof are switched off automatically as soon as the engine is started. ◁

Stowage areas, California

Introduction

This chapter contains information on the following subjects:

Drawer and load-through hatch in the bench seat/bed 212
Stowage box 213
Luggage net 213
Stowage compartment in the headliner 214
Lockable stowage compartment 214
Drink holder, California 215

Only use stowage compartments to stow light or smaller objects.

A factory-fitted **AUX-IN socket** or the **USB sockets** may be located in the storage compartment on the front passenger side ⇒Booklet *Radio, provision for mobile telephone, infotainment system, navigation system.*

Luggage net

A luggage net which can be filled from above is located in the headliner above the driver area.

- To *close* the luggage net move the horizontal rods together.
- To *open* the luggage net move the horizontal rods away from each other.

When the luggage net is not needed it can be pushed over the slatted blind.

Additional information and warnings:

- Seat functions, front ⇒page 69
- Seat functions, rear ⇒page 72
- Seat functions, rear, California ⇒page 193
- Drink holder ⇒page 153
- Central table ⇒page 155 ▶

- Stowage ⇒page 150
- Cleaning and caring for the interior ⇒page 388

⚠ WARNING

Loose objects may be flung through the vehicle interior in the event of a sudden driving or braking manoeuvre. This can cause serious injury and can also lead to loss of control of the vehicle.

- **Do not stow any pets or any hard, heavy or sharp objects in the vehicle's open stowage compartments, in the luggage net, on the dash panel, on the shelf behind the rear seats or in items of clothing and bags in the vehicle interior.**
- **Always keep stowage compartments closed while the vehicle is in motion.**

⚠ WARNING

Objects in the driver footwell can hinder pedal operation. This can lead to loss of control of the vehicle and increase the risk of serious injury.

- **Please ensure that all pedals can always be operated without any hindrance.**
- **The foot mats must always be properly secured in the footwell.**
- **No additional foot mats or other floor coverings should be placed over the fitted foot mat.**
- **Ensure that no objects can enter the driver footwell while the vehicle is in motion.**
- **If there are any objects in the footwell, remove them when the vehicle is parked.**

⚠ WARNING

Improper use of the stowage compartments can cause serious injury.

- **Never fill stowage compartments beyond their capacity.**

⚠ WARNING (Continued)

- **Always take care when closing stowage compartments that nobody is within their functional area.**

⚠ WARNING

Cigarette lighters in the vehicle could be damaged or accidentally lit. This could lead to serious burns and other injuries.

- **Before adjusting the seats always make sure that there is no lighter on or near the moveable parts of the seat.**
- **Before closing stowage areas or compartments always ensure that there is no lighter in the way.**
- **Never stow lighters in stowage areas or compartments or on other surfaces in the vehicle. Cigarette lighters may self-ignite on high-temperature surfaces, especially in summer.**

NOTICE

- **Hard objects on the shelf can chafe against the wires of the heating element in the rear window and cause damage.**
- **Do not store any heat-sensitive objects, food or medicines inside the vehicle. Hot and cold temperatures could damage them or render them unusable.**
- **Objects stored in the vehicle that are made from transparent materials, such as glasses, magnifying glasses or transparent suction cups on the windows, can concentrate the sun's rays and thus cause damage to the vehicle.**

Always ensure that the ventilation openings between the rear window and the stowage area are uncovered to allow stale air to escape from the vehicle. ◁

Drawer and load-through hatch in the bench seat/bed

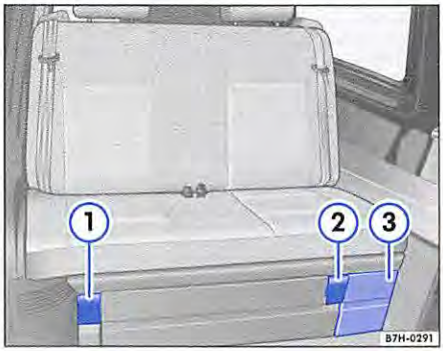


Fig. 173 In the living area: controls on the bench seat/bed.

First read and observe the introductory information and safety warnings ⚠ on page 210.

Drawer

- To *open*, pull the lever ⇒ Fig. 173 ② and hold it in this position.
- Pull out the drawer to the front and release the lever.
- To *close*, using some force, push the drawer back until it engages fully and is locked in position.
- Make sure that the lever ② has engaged securely.

Opening the load-through hatch

- Open the drawer.
- Take hold of the cover ③ with one hand on the side and with the other hand on the lower section of the cover.
- Pull on the side of the cover with one hand, and at the same time, press gently with the other hand so that the cover folds down.
- Carefully guide the cover out on its mountings and remove.
- Push the objects through the load-through hatch from the luggage compartment and secure them.

⚠ WARNING

Loose objects may be flung through the vehicle interior in the event of a sudden driving or braking manoeuvre. This can cause serious injury and can also lead to loss of control of the vehicle.

- **When the vehicle is in motion, the drawer must be fully closed and securely latched.**
- **Always secure items which have been loaded through the load-through hatch.**

Dirty items that have been loaded through the load-through hatch could dirty the interior of the vehicle.

- Wrap dirty items, for example, in a blanket, before loading them through the load-through hatch. ◁

Stowage box

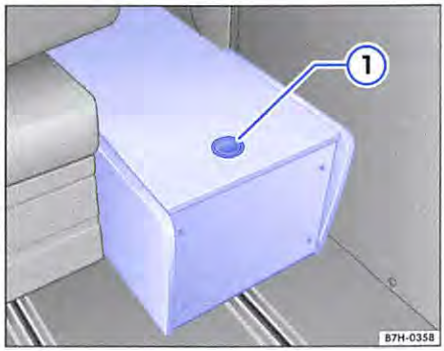


Fig. 174 In the living area: stowage box to the left of the bench seat/bed.

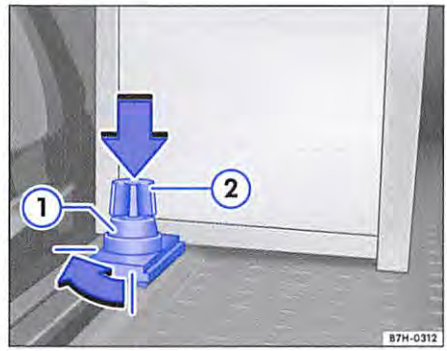


Fig. 175 In the luggage compartment: fixing the stowage box with handle (1) and thumb wheel (2)

First read and observe the introductory information and safety warnings ⚠ on page 210.

Depending on the vehicle equipment level, there is a stowage box to the left of the bench seat/bed which can be used to store food or other light objects.

At the same time, the surface on the stowage box is used as an extension for the bed.

Opening and closing the stowage box

- To *open*, press the ⇒Fig. 174 (1) button and wait until it comes up.
- Pull the cover up.
- To *close*, push the cover down and then press on the knob until it engages securely.

Removing and fitting the stowage box

- Loosen the thumb wheel ⇒Fig. 175 (2) behind the stowage box in the luggage compartment.
- Loosen the second thumb wheel inside the stowage box.
- Turn the handle (1) in the direction of the arrow through 90 degrees.
- Follow the same procedure for the handle inside the stowage box.
- Remove the protective covers from the seat rails.
- Move the stowage box forwards to remove it from the seat rail.

To fit it, follow the steps for removing in reverse order. Fit the stowage box only in the outer left-hand seat rail. Tighten the thumb wheel firmly and ensure that the stowage box is securely fastened in the seat rails.

⚠ WARNING

Loose objects may be flung through the vehicle interior in the event of a sudden driving or braking manoeuvre. This can cause serious injury and can also lead to loss of control of the vehicle.

- **The stowage compartment must be closed and securely locked in the seat rails while the vehicle is in motion.**

◁

Luggage net

First read and observe the introductory information and safety warnings ⚠ on page 210.

There is a luggage net located in the headliner of the luggage compartment for *light items* of luggage.

The interior of the luggage net can be closed using zips.

The luggage net is accessible via the tailgate and also from the living area. ▶

⚠ WARNING

Always use the luggage net carefully, observing the instructions. Risk of injury.

- **Heavy, pointed or sharp items which are not stowed securely can cause injury in the event of sudden braking manoeuvres or accidents.**

ⓘ NOTICE

If your vehicle has profile rails only above the side window, it should not be used for transporting luggage through the installation of fittings.

- **Store your luggage properly in the luggage compartment.** ◁

Stowage compartment in the headliner

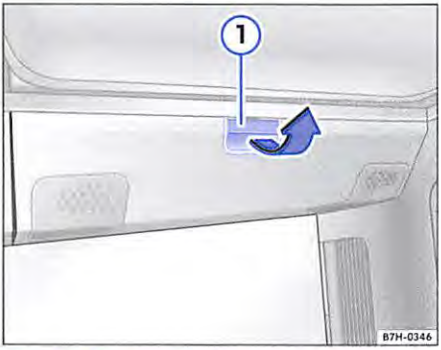


Fig. 176 Opening the stowage compartment in the headliner

First read and observe the introductory information and safety warnings ⚠ on page 210.

The stowage compartment in the headliner has a maximum capacity of 2.5 kg ⇒⚠ in *Introduction* on page 211.

- To *Open*, grasp the locking handle in the centre of the stowage compartment ⇒Fig. 176 ①.
- Pull up the locking handle and carefully allow the stowage compartment lid to swing downwards.
- To *Close*, follow the preceding steps in reverse order, taking care that the stowage compartment lid latches securely into place ⇒⚠ in *Introduction* on page 211. ◁

Lockable stowage compartment

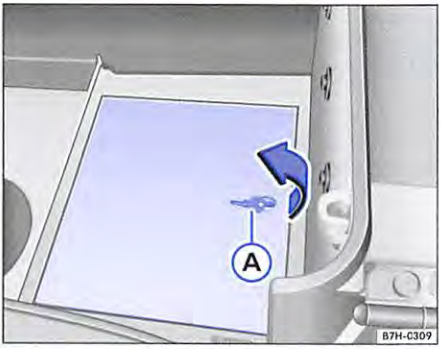


Fig. 177 In the wardrobe: lockable stowage compartment

First read and observe the introductory information and safety warnings ⚠ on page 210.

A lockable stowage compartment with two keys is located in the base of the wardrobe to the left of the kitchen unit ⇒Fig. 177 Ⓐ. ◁

Drink holder, California

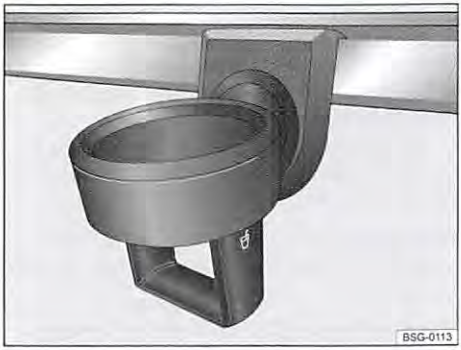


Fig. 178 In the living area: drink holder attached in aluminium rail.

First read and observe the introductory information and safety warnings ⚠ on page 210.

The drink holder for the living area can be attached to an aluminium rail and can be moved sideways.

- In the California Beach - aluminium rail in the left side trim panel.
- In the California Coast and Ocean - aluminium rail at the front edge of the kitchen unit.

Attaching and moving the drink holder in the aluminium rail

- To attach the drink holder, guide the two retaining lugs into the groove in the aluminium rail, and lower the drink holder.
- To move the drink holder lift it slightly, and move it sideways in the groove of the aluminium rail.
- To remove the drink holder lift it, and guide the locking lugs out of the groove of the aluminium rail. ◁

Darkening the interior of the vehicle, California

Introduction

This chapter contains information on the following subjects:

Opaque shades kit, removable 216
Opaque shades kit, integrated 217

Versions of the opaque shades

- Opaque shades kit, removable ⇒page 216.
- Opaque shades kit, integrated ⇒page 217.

Additional information and warnings:

- Windows ⇒page 36
- Seat functions, front ⇒page 69
- Seat functions, rear ⇒page 72
- Sun blind ⇒page 106
- Stowage ⇒page 150
- Seat functions, rear, California ⇒page 193

⚠ WARNING

The fibreglass rods and their connectors could be damaged or cause injury if they are bent too far.

- **Never allow children to play with the fibreglass rods.**

⚠ WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident.

- **Store the shades and fibreglass rods in the storage bag provided and keep this securely within the vehicle.**

⚠ WARNING

Obscured windows can impair visibility and driving safety.

- **Only drive when you have sufficient visibility through all windows.**
- **Remove all shades before driving.** ◁

Opaque shades kit, removable



Fig. 179 On the sun visor: attaching the removable opaque shades for the windscreen.

First read and observe the introductory information and safety warnings ⚠ on page 215.

The opaque shades kit is supplied in a zippered storage bag, which can be securely stowed in a drawer underneath the 3-seat bench or the bench seat/bed. It consists of six components:

- A fabric shade with two "hoods" for the windscreen ⇒Fig. 179.
- Two smaller fabric shades for the rear side windows.
- A fabric shade with a hole on the left side for the sliding door.
- A fabric shade with a hole on the lower side for the rear window.
- A fabric shade without a hole for the window opposite the sliding door.

Fitting the opaque shade for the windscreen

- Take the opaque shade for the windscreen out of the storage bag and unfold it.
- Pull the sun visors out of their retainers and swivel them towards the rear ⇒page 106.
- Pull the "hood" of the opaque shade for the windscreen over each sun visor, starting from each visor's outside edge ⇒Fig. 179.
- Fold sun visors forwards until they engage securely in their retainers.
- Wedge the lower end of the opaque shade for the windscreen into the gap between the dash panel and the windscreen.

Fitting opaque shades in the living area

Take the opaque shade out of the storage bag and unfold it.

Fit the opaque shade on the corresponding window. The opaque shades are attached to the window frames using magnets.

Removing the opaque shades

Removal of the opaque shade for the windscreen is carried out in reverse order.

Take hold of the opaque shades in the living area by their outer edge, and carefully pull them off the window frame.

Fold the opaque shade securely in its storage bag ⇒ⓘ.

ⓘ NOTICE

Do not place any objects that are sensitive to magnetism, such as payment cards in the storage bag with the opaque shades. They could be permanently damaged. ◁

Opaque shades kit, integrated

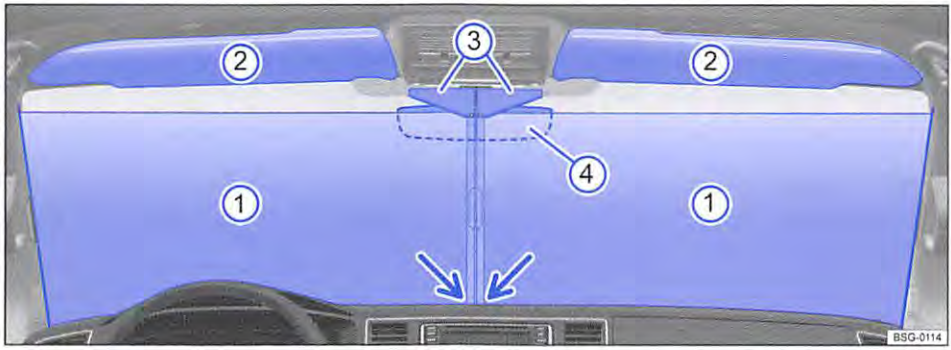


Fig. 180 On the windscreen: attaching the integrated opaque shade.

First read and observe the introductory information and safety warnings ⚠ on page 215.

Fitting the opaque shades for the windscreen

- Fold up the interior mirror ⇒Fig. 180 ④.
- Fold out the retainers ③.
- Pull the opaque shade ① out of the side trim on the windscreen using the handle in the centre.
- Fit the opaque shade first in the lower retainer in the dash panel (arrows) and then under the upper retainer ③ until the pin of the opaque shade engages in the hole in the retainer.
- Fold down the two sun visors ② to help hold the opaque shades in place.
- To open the opaque shades follow the preceding steps in reverse order, taking care to fit the opaque shades straight back into the side trims.

Fitting the opaque shade for the rear window

- Pull the opaque shade out and up by its central handle.
- Hang the shade securely on the holder located high in the tailgate trim.
- To open the opaque shade detach it from the retainer, taking care to fit the opaque shade straight back into the tailgate trim.

Fitting the opaque shades to the middle window, rear side window and sliding door

- Pull the opaque shade downward by its middle handle until the desired position has been attained.
- The opaque shades remain autonomously in the desired position.

Fitting the opaque shade to the rear side window on the left side

- There is a plastic trim located between the wardrobe and the side window. Slightly lift and push the plastic trim using the handle in the centre to release the plastic trim from its catch.
- Pull out the plastic trim completely, and engage it.
- To open the opaque shade slightly lift the plastic trim using the handle in the centre, push it back completely, and engage it. ◁

Manual pop-up roof, California

Introduction

This chapter contains information on the following subjects:

Opening the manual pop-up roof 219
Closing the manual pop-up roof 220

Roller shutter

Above the front seats there is a roller shutter, which must always be closed while the vehicle is in motion. This prevents the pop-up roof canvas from hanging down through the ceiling access and blocking the driver's view. Keeping the roller shutter closed also reduces wind noise while the vehicle is in motion.

⚠ WARNING

Incorrect handling of the manual pop-up roof can cause accidents and serious injuries.

- **Never drive the vehicle with the pop-up roof open. The pop-up roof must always be completely closed and securely locked while the vehicle is in motion.**
- **Never drive with people in the pop-up roof.**
- **Only open or close the pop-up roof while the vehicle is stationary.**
- **Only mount a luggage roof rack when the pop-up roof is completely closed and securely locked.**

⚠ WARNING

Careless or inattentive use of the manual pop-up roof could cause serious injuries.

- **The pop-up roof should only be opened or closed when you are sure that nobody is in its operating area.**
- **Never leave children or people requiring assistance alone in the vehicle.**
- **Always take all vehicle keys with you every time you leave the vehicle.**

NOTICE

Incorrect handling of the manual pop-up roof can cause damage to it or to other parts of the vehicle.

- **Make sure there is adequate space before opening the pop-up roof.**
- **When closing the pop-up roof, always open the roller shutter and one of the vehicle doors to allow the excess air pressure to escape.**
- **Only close the pop-up roof when it is dry to prevent the build up of mould or mildew.**
- **Open the pop-up roof occasionally to air it out when it is not being used for long periods of time.**
- **Clean the pop-up roof bellows with water only. Never use household cleaners or impregnating fabric treatment products.**
- **Close the pop-up roof during storms with driving rain and wind gusts. Otherwise the bellows could leak despite their specially treated fabric.** ◁

Opening the manual pop-up roof

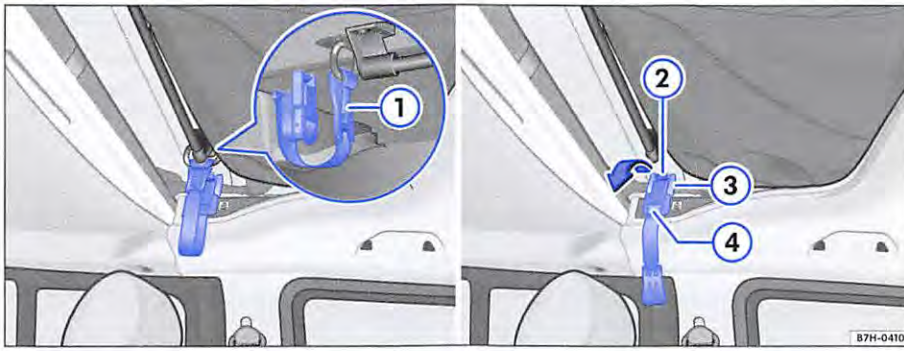


Fig. 181 In the headliner: detach the hook of the retaining strap (left) and release the catches of the roof shell (right).

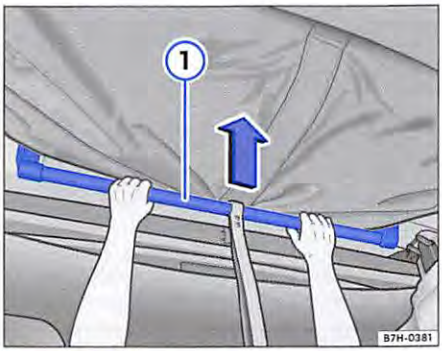


Fig. 182 Opening the pop-up roof.

First read and observe the introductory information and safety warnings ⚠ on page 218.

Opening the manual pop-up roof

- Open the roller shutter.
- Release the hooks ⇒ Fig. 181 ① of the retaining strap on both sides from the retaining ring.
- Pull the latches ④ towards front on both sides, and open the catches of the roof shell.
- Pull the cross web ③ on both sides over the arrester ② (arrow).
- Push the bar ⇒ Fig. 182 ① upwards, firmly and evenly with both hands.
- Push up the bed panel to increase standing room. The bed panel is held up in the open position by a gas-filled strut.

The pop-up roof is held up in the open position by gas-filled struts.

Opening and closing windows in the canvas

- To *Open*, unzip and fold down the canvas.
- To *Close*, fold the canvas back up and zip completely closed.

The insect screen is sewn into the canvas and cannot be opened.

Bed in pop-up roof

- Step carefully onto the seat cushion of the front seats and support yourself on the edge of the bed when climbing up to the pop-up roof bed ⇒⚠.

Fitting the safety net for the pop-up roof bed

Always fit the safety net when children sleep in or otherwise occupy the pop-up roof bed ⇒⚠.

- Fit the hooks on the safety net into the rings at the top right and top left of the pop-up roof.
- Lift the mattress on the roof bed and attach the bottom of the safety net to the now accessible press studs in the bed panel.
- Observe the safety instructions on the sticker on the front side of the bed panel

⚠ WARNING

Always take care when climbing into and out of the pop-up roof bed, otherwise you could cause serious injury to yourself or others.

- **Never step on or support yourself with the front seat armrests or head restraints.**
- **Never step on or support yourself with the closed roller shutter.**
- **Never jump off the pop-up roof bed. Always take care while climbing down.**

⚠ WARNING (Continued)

- **Help others, especially children, to climb up and down safely.**

⚠ WARNING

If the safety net is not fitted or not properly fitted, children could fall off the pop-up roof bed and seriously injure themselves.

⚠ WARNING (Continued)

- **Always fit the safety net when children sleep in or otherwise occupy the pop-up roof bed.**

Volkswagen Commercial Vehicles recommends that small children not be allowed to sleep in the pop-up roof bed. ◁

Closing the manual pop-up roof

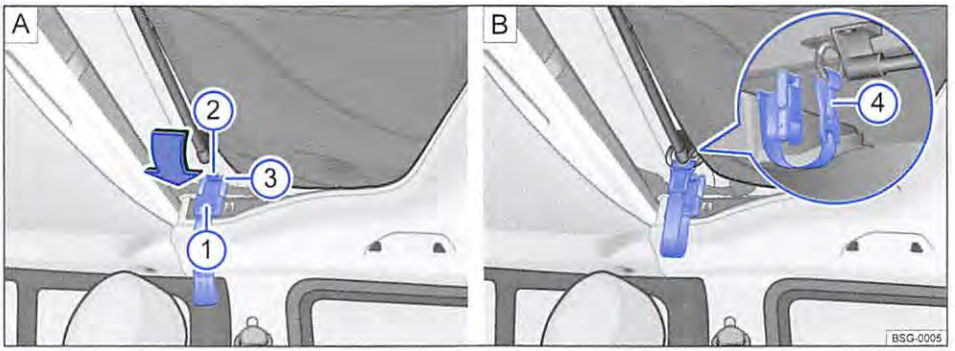


Fig. 183 Locking pop-up roof

First read and observe the introductory information and safety warnings ⚠ on page 218.

- Close all of the windows in the pop-up roof canvas.
- Remove the children's safety net.
- Lower the bed panel.
- Ensure that the roller shutter is and stays open.
- Make sure that no people or objects, such as blankets or pillows, are on the upper bed. Position both mattresses appropriately.
- Disconnect any connected devices from the 12-volt socket in the roof frame, and stow them in a safe place in the vehicle.
- Open a vehicle door or a window to allow for releasing any pressure which may be generated when the pop-up roof is closed.
- Pull the pop-up roof down firmly with the bar or with the attached loop. While doing this, make sure that the fabric does not hang out or is trapped in the lifting mechanism ⇒ ①.
- Fold the material inside itself and push it between the body and the roof shell.
- Pull the bar downwards firmly and evenly with both hands until the pop-up roof is closed completely. Make sure that the bellows material is not pinched.
- Lift the catches of the roof shell on both sides, and attach the cross web ⇒ Fig. 183 ③ to the arrester ②.
- Press down the catches ① until they engage audibly.
- Attach the hooks ④ of the retaining strap on both sides in the retaining ring.
- Close the roller shutter. Make sure that the canvas is not pinched.

NOTICE

When closing the pop-up roof, make sure that the bellows material is not trapped. This applies in particular for the catches and the rear lifting mechanism. ◁

Electric pop-up roof, California

Introduction

This chapter contains information on the following subjects:

Opening the electric pop-up roof 222
Closing the electric pop-up roof 223
Preliminary work for closing the electric pop-up roof manually 224
Closing the electric pop-up roof manually 225
Securing the pop-up roof manually from outside the vehicle 225

Roller shutter

Above the front seats there is a roller shutter, which must always be closed while the vehicle is in motion. This prevents the pop-up roof canvas from hanging down through the ceiling access and blocking the driver's view. Keeping the roller shutter closed also reduces wind noise while the vehicle is in motion.

Additional information:

- Central control panel ⇒page 204
- Rectifying faults on the camping equipment ⇒page 254
- Winter conditions ⇒page 253
- Vehicle toolkit ⇒page 416

⚠ WARNING

Incorrect handling of the pop-up roof can cause accidents and serious injuries.

- **Never drive the vehicle with the pop-up roof open. The pop-up roof must always be completely closed and securely locked while the vehicle is in motion.**
- **Never drive with people in the pop-up roof.**
- **Only open or close the pop-up roof while the vehicle is stationary.**
- **Only mount a luggage roof rack when the pop-up roof is completely closed and securely locked.**

⚠ WARNING

Careless or inattentive use of the pop-up roof could cause serious injuries.

- **The pop-up roof should only be opened or closed when you are sure that nobody is in its operating area.**

⚠ WARNING (Continued)

- **Never leave children or people requiring assistance alone in the vehicle.**
- **Always take all vehicle keys with you every time you leave the vehicle.**

⚠ WARNING

Driving at high vehicle speeds and with a strong headwind after closing the pop-up roof manually could cause the pop-up roof to lift up or open on its own and potentially cause serious injuries.

- **If you close the pop-up roof manually, do not drive faster than 60 km/h.**
- **Drive especially carefully and slowly in the presence of a strong headwind.**
- **The pop-up roof should be checked by a qualified workshop as soon as possible.**

NOTICE

Incorrect handling of the pop-up roof can cause damage to it or to other parts of the vehicle.

- **Make sure there is adequate space before opening the pop-up roof.**
- **When closing the pop-up roof, always open the roller shutter and one of the vehicle doors to allow the excess air pressure to escape.**
- **Only close the pop-up roof when it is dry to prevent the build up of mould or mildew.**
- **Open the pop-up roof occasionally to air it out when it is not being used for long periods of time.**
- **Clean the pop-up roof bellows with water only. Never use household cleaners or impregnating fabric treatment products.**
- **Close the pop-up roof during storms with driving rain and wind gusts. Otherwise the bellows could leak despite their specially treated fabric.**

Roof hydraulics: the pop-up height of the pop-up roof will be checked automatically and altered if necessary at regular intervals after the ignition has been switched off and the ignition key removed: first after 10 hours and then every five hours. ▶

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If the pop-up roof cannot be closed even when the ignition is switched on and the closing function is used, please check all possible causes. If the cause cannot be found or there are other malfunctions, please close the pop-up roof manually ⇒ page 224, and drive carefully and at reduced speed to the nearest qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose. ◁

Opening the electric pop-up roof

First read and observe the introductory information and safety warnings ⚠ on page 221.

Opening the pop-up roof

- Switch on the ignition.
- Switch on the central control panel.
- Open the roller shutter and release the reading lamp retaining strap.
- Select the menu option **Pop-up roof** in the central control panel.
- Select menu option **Open** (dark background).
- Press and hold the rotary/push knob until the hydraulic motor has switched off automatically and the pop-up roof has opened fully. The symbol for the open pop-up roof will be displayed. The hydraulic motor has a run-on time of approx. 5 seconds to bleed the hydraulic system.
- Switch off the ignition and remove the ignition key.
- Push up the bed panel to increase standing room.

Opening and closing the windows in the canvas

- To *Open*, unzip and fold down the canvas.
- To *Close*, fold the canvas back up and zip completely closed.

The insect screen is sewn into the canvas and cannot be opened.

Bed in pop-up roof

- Step carefully onto the seat cushion of the front seats and support yourself on the edge of the bed when climbing up to the pop-up roof bed ⇒ ⚠.

Fitting the safety net for the pop-up roof bed

Always fit the safety net when children sleep in or otherwise occupy the pop-up roof bed ⇒ ⚠.

- Fit the hooks on the safety net into the rings at the top right and top left of the pop-up roof.
- Lift the mattress on the roof bed and attach the bottom of the safety net to the now accessible press studs in the bed panel.
- Observe the safety instructions on the sticker on the front side of the bed panel

⚠ WARNING

Always take care when climbing into and out of the pop-up roof bed, otherwise you could cause serious injury to yourself or others.

- **Never step on or support yourself with the front seat armrests or head restraints.**
- **Never step on or support yourself with the closed roller shutter.**
- **Never jump off the pop-up roof bed. Always take care while climbing down.**
- **Help others, especially children, to climb up and down safely.**

⚠ WARNING

If the safety net is not fitted or not properly fitted, children could fall off the pop-up roof bed and seriously injure themselves.

- **Always fit the safety net when children sleep in or otherwise occupy the pop-up roof bed.**

Volkswagen Commercial Vehicles recommends that small children not be allowed to sleep in the pop-up roof bed. ◁

Closing the electric pop-up roof

First read and observe the introductory information and safety warnings ⚠ on page 221.

- Close all of the windows in the pop-up roof canvas.
- Remove the children's safety net.
- Lower the bed panel.
- Ensure that the roller shutter is and stays open.
- Make sure that no people or objects, such as blankets or pillows, are on the upper bed. Position the mattress correctly.
- Disconnect any connected devices from the 12-volt socket in the roof frame, and stow them in a safe place in the vehicle.
- Switch on the ignition.
- Open one of the vehicle doors to allow excess air pressure to escape.
- Switch on the central control panel.
- Select the menu option **Pop-up roof** in the central control panel.
- Select menu option **Close** (dark background).
- Press and hold the rotary/push knob for approximately four seconds. An acoustic signal is given and the display reads for approximately four seconds **Roof bed down? Shutter open? Window open?**. All control elements for the pop-up roof are blocked during this safety check.
- Press and hold the rotary/push knob again to continue closing. Make sure that the canvas is not pinched at the front or on the side between the vehicle and the roof or the rods.
- Press and hold the rotary/push knob until the hydraulic motor has switched off automatically and the pop-up roof has closed fully. This is shown by the ✓ symbol in the display. The hydraulic motor has a run-on time of approx. 5 seconds to bleed the hydraulic system.
- Close the roller shutter. Make sure that the canvas is not pinched.

The LED lights in the pop-up roof are switched off automatically as soon as the engine is started. ◁

Preliminary work for closing the electric pop-up roof manually

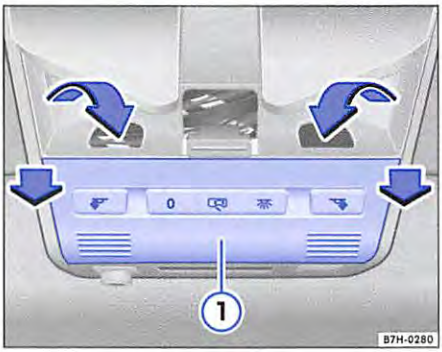


Fig. 184 Removing the cover on the interior lights control panel

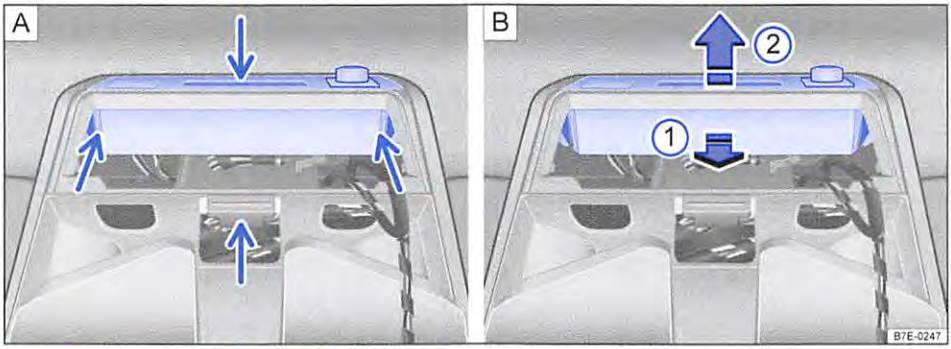


Fig. 185 Removing the central control panel

First read and observe the introductory information and safety warnings ⚠ on page 221.

- Take the screwdriver from the vehicle toolkit ⇒page 416.
- Close all of the windows in the pop-up roof canvas.
- Lower the bed panel.
- Ensure that the roller shutter is and stays open.
- Secure the reading light to the cushion with the retaining strap.
- Make sure that no people or objects, such as blankets or pillows, are on the upper bed. Position both mattresses correctly.
- Open one of the vehicle doors to allow excess air pressure to escape.
- Switch off the ignition.
- Open the glasses compartent in the roof console.
- Grasp the interior lights control panel cover from **behind** through the slots and carefully press the cover ⇒Fig. 184 ① out of its fitting.
- Carefully press in the four clips between the roof console and the central control panel ⇒Fig. 185 Ⓐ with the flat edge of a screwdriver.
- Pull the central control panel gently in the direction of arrow ① Ⓑ and then upwards out of its fitting in the direction of arrow ② Ⓑ.

NOTICE

Be careful when removing the central control panel and cover so as not to cause damage. ◁

Closing the electric pop-up roof manually

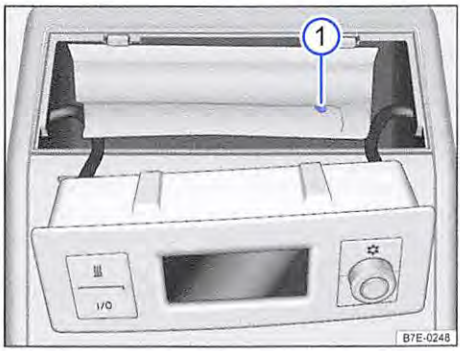


Fig. 186 Manual closing of the pop-up roof with the central control panel removed

First read and observe the introductory information and safety warnings ⚠ on page 221.

- Follow the preparatory steps ⇒page 224.
- Cut through the sealing material using the screwdriver at the marking shown ⇒Fig. 186 ①.
- Insert the flat edge of the screwdriver into the slotted screw behind the marking.
- Carefully, and little by little, partially unscrew the slotted screw in an anticlockwise direction. The pop-up roof starts to close. The closing speed depends on the roof load and the degree to which the slotted screw has been unscrewed.
- Make sure that the canvas is not pinched at the front or on the side between the vehicle and the roof or the rods.
- Continue closing the pop-up roof until it rests fully on the vehicle body.
- Screw the slotted screw completely back in using a clockwise movement.
- Place the central control panel back into its opening and allow it to snap securely into place. It should lie flush with the surrounding parts.
- Secure the pop-up roof manually from the outside ⇒page 225.
- Drive carefully and slowly to the nearest qualified workshop and have the pop-up roof checked ⇒⚠ in *Introduction* on page 221. ◁

Securing the pop-up roof manually from outside the vehicle

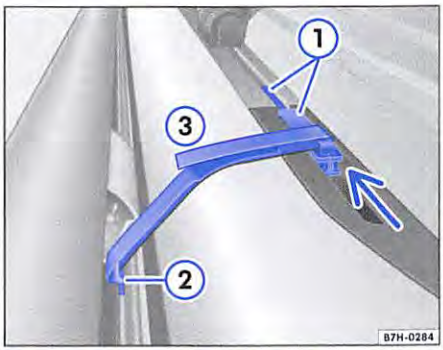


Fig. 187 On the pop-up roof: fully secured manually with Velcro straps (right side of vehicle).

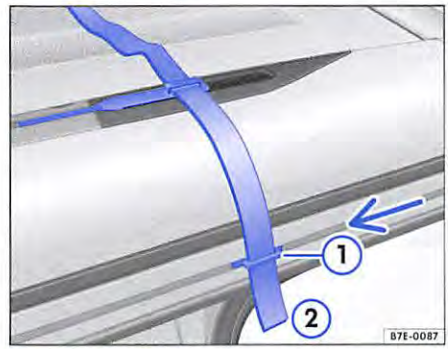


Fig. 188 On the pop-up roof: preparation to fully secure the pop-up roof manually from the outside (right side of vehicle).

First read and observe the introductory information and safety warnings ⚠ on page 221.

Depending on equipment options, there are two different sets for securing the pop-up roof after it has been closed manually. Your set is located in the kitchen unit cupboard.

Single closure Velcro set

This set consists of two long and two short plastic rails, as well as two Velcro straps. ▶

- Take one long and one short plastic rail, as well as one Velcro strap from the drawer.
- Place the long plastic rail in the upper aluminium rail on the roof frame on the right-hand side of the vehicle. The tapered end of the plastic rail should be pointing towards the rear of the vehicle ⇒Fig. 187 ①. Push it in as far as it will go.
- Pull the Velcro strap② through the narrow slot in the small plastic rail.
- Place a small plastic rail in the lower aluminium rail on the roof frame on the right-hand side of the vehicle ⇒Fig. 187 (arrow) and arrange it so that it is parallel to the long plastic rail. If an awning is fitted, slide the small plastic rail with the Velcro strap right up to the awning bracket.
- Pull the upper end of the Velcro strap through the slot in the long plastic rail.
- Bind both ends of the Velcro strap securely together③.
- Repeat the same procedure on the left-hand side of the vehicle as on the right-hand side.
- Drive carefully and slowly to the nearest qualified workshop and have the pop-up roof checked ⇒⚠ in *Introduction* on page 221.

Double closure Velcro set

This set consists of two short plastic rails and one long Velcro strap.

- Pull the Velcro tape over the whole roof.
- On the right side of the vehicle, pull the Velcro strap ⇒Fig. 188 ② through the narrow slot in the small plastic rail.
- Place the short plastic rail in the lower aluminium rail on the roof frame on the right-hand side of the vehicle ⇒Fig. 188 (arrow). If an awning is fitted, slide the small plastic rail with the Velcro strap right up to the awning bracket.
- Bring the Velcro strap around to bind the end of the strap with the long portion of the strap.
- Repeat the same procedure on the left-hand side of the vehicle as on the right-hand side.
- Drive carefully and slowly to the nearest qualified workshop and have the pop-up roof checked ⇒⚠ in *Introduction* on page 221. ◁

Awning, California

🕮 Introduction

This chapter contains information on the following subjects:

Opening and closing the awning 227
Removing and fitting the awning 228

Storing the folding crank for the awning

The folding crank for the awning is located in the drawer under the bench seat/bed.

Unclip the folding crank for the awning from the three clips to take it out of the drawer.

When placing it in the drawer, check whether the folding crank for the awning is securely connected to all three clips.

Additional information and warnings:

- Stowage ⇒page 150

The awning is a sun shade. It is not suitable to protect you from harsh weather.

- Close the awning if a storm is approaching and if it is snowing or raining heavily. ◁

Opening and closing the awning

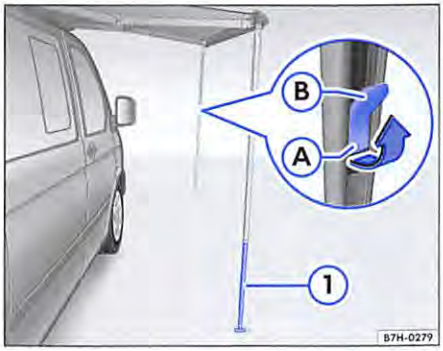


Fig. 189 Secure fitting of the open awning

First read and observe the introductory information given on page 226.

Opening and securing the awning

- Close vehicle doors.
- Insert the crank into the bayonet connection on the awning.
- Turn the crank and open the awning a maximum of 0.5 metres out of the retainer. Make sure that you hold the crank **down** at all times.
- Take one support foot out of the front trim. For this, gently push out the end of the foot (in the middle of the front trim). When doing so, hold the bottom of the support foot firmly to prevent it snapping out of the retainer.
- Take out the second support foot in the same way.
- Push out both support feet ⇒ Fig. 189 (1) to the desired length.
- Secure them in this position by moving the locking mechanism in the middle of the support foot from (A) to (B).
- Turn the crank to open out the awning until the canvas is tensioned.
- Place the support feet so that they are vertical and parallel to each other at the outer edge of the awning.
- Adjust one support foot considerably lower than the other one so that the water runs off the awning.
- To give more stability to the support feet, you may secure them with tent pegs.

Closing the awning

- Close the awning as above in reverse order.
- Always close the awning fully in order to avoid knocking noises while the vehicle is in motion.

NOTICE

Handling the awning incorrectly could damage the awning as well as other vehicle parts.

- **Close the vehicle doors before opening the awning to avoid damage to the vehicle paintwork.**
- **Make sure that you hold the crank down at all times. Otherwise the bayonet connection could be damaged.**
- **Never open the awning without using the support feet.**
- **Do not close the awning when it is damp. Open the damp awning, if closed, as soon as possible to allow it to dry in order to prevent mildew and mould.** ◁

Removing and fitting the awning

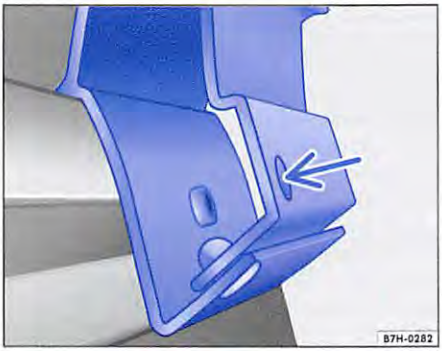


Fig. 190 Screw in the awning bracket



Fig. 191 Three bolts on top in the awning bracket.

First read and observe the introductory information given on page 226.

The awning can be fitted and removed more easily by two people than by one person.

Removing the awning

- Open the awning.
- Remove the two bolts that are located in the aluminium rail to the right of the open support arms of the awning.
- Carefully close the awning completely.
- Press up the awning on either end and lift the awning out of the bracket. A second person should support the other end of the awning and then lift this end out of the bracket.
- Remove the awning brackets ⇒ page 228.

Removing the awning brackets

A ladder would be needed to remove the awning brackets. Always ensure that the ladder is on flat firm ground and that it cannot topple over ⇒ ⚠.

- Unscrew the middle screw ⇒ Fig. 190 out of the bracket.
- Unscrew the upper three bolts from the first bracket ⇒ Fig. 191.
- Proceed with the second bracket in the same way.
- Insert screws that are 5 mm shorter in the aluminium rail in order to avoid damage to the roof.

Fitting the awning brackets

The original screws should be used when fitting the awning brackets.

- Close the awning as above in reverse order.

⚠ WARNING

An incorrectly fitted awning could fall down and cause accidents and serious injuries.

- **Make sure that the awning brackets are fitted securely.**

⚠ WARNING

An incorrectly positioned ladder could topple over and cause injuries.

- **Always ensure that the ladder is on even, firm surface and fixed firmly.**
- **Never step on the door sills or other objects that have not been secured.** ◁

Tables and camping chairs, California

Introduction

This chapter contains information on the following subjects:

Folding table in the sliding door 229
Folding the work table out and in 230
Moving the work table 231
Camping chairs 232
Flyscreen element for the sliding window 232

Additional information and warnings:

- Seat functions, front ⇒ page 69
- Seat functions, rear ⇒ page 72
- Stowage ⇒ page 150
- Stowage areas, California ⇒ page 210
- Drink holder ⇒ page 153
- Tailgate ⇒ page 36
- Awning ⇒ page 226
- Central table ⇒ page 155
- Seat functions, rear, California ⇒ page 193

⚠ WARNING

Improper use of the tables could cause serious injury.

- **Never use the tables while the vehicle is in motion.**
- **All tables must be securely stowed while the vehicle is in motion.**
- **Never sit or stand on the tables.**

NOTICE

Never place hot objects, such as pots or pans, on the tables. Such objects could damage these surfaces.

Folding table in the sliding door

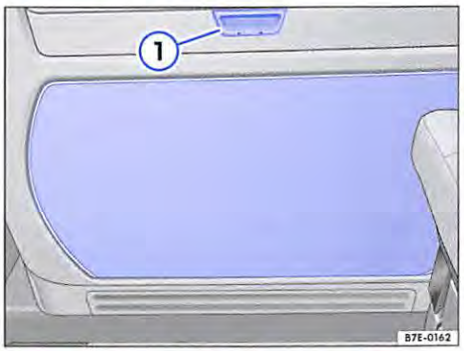


Fig. 192 In the sliding door: folding table

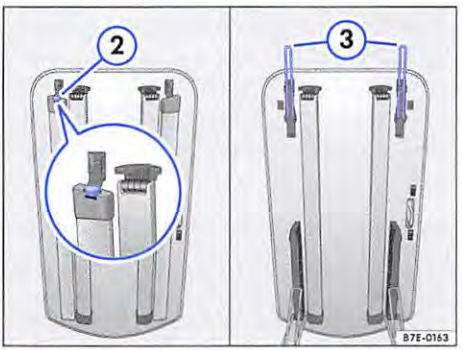


Fig. 193 Controls on the folding table

First read and observe the introductory information and safety warnings ⚠ on page 229.

The folding table can be assembled inside and outside the vehicle.

Assembling the folding table outside the vehicle

- Push the handle ⇒ Fig. 192 ① up to unlock the folding table.
- Lift the folding table out of its retainer.
- Unfold all four table legs until they engage securely.
- On uneven ground, correct the length of the table leg using the thumb wheel ⇒ Fig. 193 ②.
- To *stow* the folding table, follow the above instructions in reverse order. Reinsert the knurled screw fully in order to avoid "knocking noises" while the vehicle is in motion.

Assembling the folding table inside the vehicle

- Press handle ⇒Fig. 192 ① to unlock the folding table.
- Lift the folding table out of its retainer.
- Pull the table guides ⇒Fig. 193 ③ right out.
- Connect the table guides to the guide rails on the side wall opposite the sliding door. To do this, guide the table guide from above into the groove in the rail, holding the folding table horizontally.
- Unfold both the front table legs until they engage securely.
- To *stow* the folding table, follow the above instructions in reverse order. ◁

Folding the work table out and in

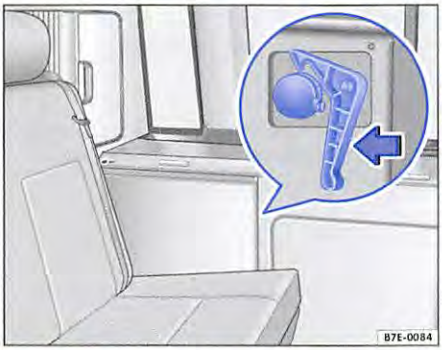


Fig. 194 In the living area: work table in stowed position and release lever (close-up).

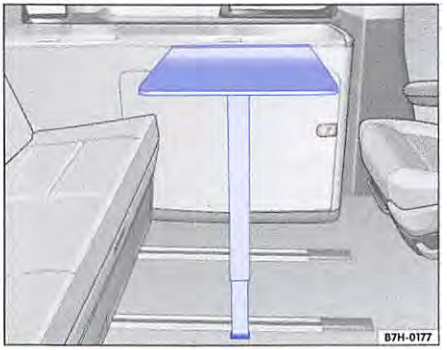


Fig. 195 Assembled work table

First read and observe the introductory information and safety warnings ⚠ on page 229.

The work table is in its **stowed** position when it is fully folded and tucked securely between the bench seat/bed and the refrigerator box. The work table must always be kept in its stowed position while the vehicle is in motion ⇒⚠ in *Introduction* on page 229.

Setting up the work table

- Press the release lever in the direction of the arrow ⇒Fig. 194.
- Move the work table until it is in front of the bench seat/bed.
- Lift up the work table to a horizontal position.
- Hold the work table in this position while fully unfolding the table leg until it locks securely into place.
- Press the red button on the table leg to unlock the lower portion of the leg.
- Extend the lower portion of the table leg out fully until it clicks securely into place.
- Position the table on the vehicle floor.

Moving the work table

- Lift up the work table slightly to free the table leg.
- Hold the work table in this position and move it as needed.

Folding up the work table

- Lift up the work table slightly to free the table leg.
- Press the red button on the table leg to unlock the lower portion of the leg.
- Retract the lower portion of the table leg fully until it clicks securely into place. ▶

- Hold the work table in this position and carefully apply pressure to the table leg, folding it fully inwards until it locks securely into place.
- Lower the work table and slide it between the refrigerator box and the bench seat/bed. Make sure that the lug on the work table runs in the retainer ball and engages securely on the locking lever. ◁

Moving the work table

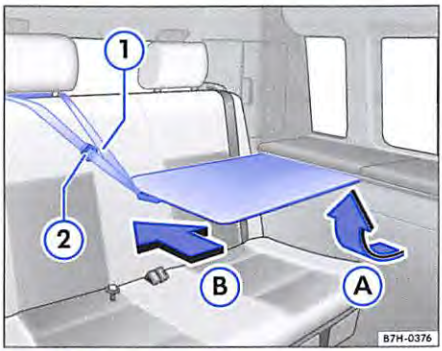


Fig. 196 Loop strap of the work table.

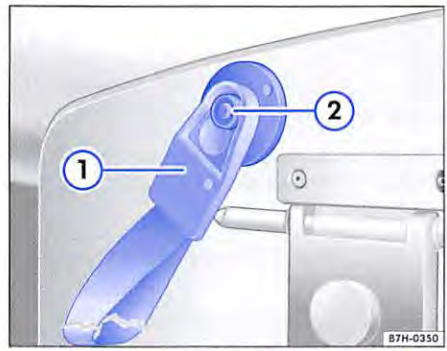


Fig. 197 Securing the work table to the head restraint.

First read and observe the introductory information and safety warnings ⚠ on page 229.

- Take the loop strap for the work table from the drawer in the kitchen unit.
- Fold up the work table ⇒ Fig. 196 (A) and hold it in position.
- Move the work table as far as possible towards the bench seat/bed (B).
- Secure the loop strap fastener ⇒ Fig. 197 (1) to the knob (2) under the work table, and tension it.
- Place the loop strap ⇒ Fig. 196 (1) around the head restraint closest to the sliding door.
- Use the strap adjuster (2) to create a horizontal table surface.

After using the work table, the loop straps must be removed and stored in the drawer of the kitchen unit. ◁

Camping chairs

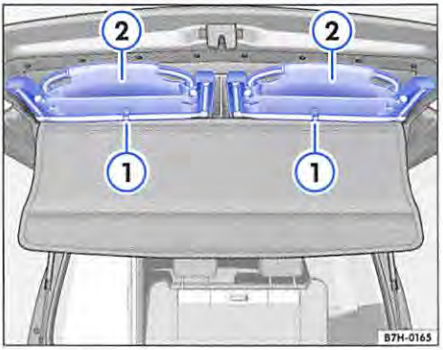


Fig. 198 Camping chairs in the tailgate

First read and observe the introductory information and safety warnings ⚠ on page 229.

The camping chairs are located in the tailgate behind the fabric trim.

Taking out the camping chairs

- Open the tailgate.
- Open the zipper at the rear of the tailgate completely ⇒ⓘ.
- Release the hooks one at a time ⇒Fig. 198 ①.
- Take out the camping chairs ②.
- Close up the zipper and tailgate⇒ⓘ.

Stowing the camping chairs

- Open the tailgate.
- Open the zipper at the rear of the tailgate completely ⇒ⓘ.
- Fold up the camping chairs.
- Fold down the hooks ①.
- Fit the camping chairs ② properly back in their holders.
- Secure the camping chairs with the hooks ①.
- Close up the zipper and tailgate⇒ⓘ.

ⓘ NOTICE

Take care not to scratch the paint on the tailgate when opening and closing the zipper. ◁

Flyscreen element for the sliding window

First read and observe the introductory information and safety warnings ⚠ on page 229.

Fitting the flyscreen element

- With the sliding window closed, insert the flyscreen element starting at the bottom and working toward the top of the rear window frame.
- Opening the sliding window ⇒page 36.
- Push the flyscreen element carefully forward between the fixed and the movable pane of the sliding window.
- Insert the tongues of the flyscreen element behind the front trim so that the flyscreen element completely covers the window space.

The sliding window cannot be closed fully when the flyscreen element has been inserted.

Do not insert the flyscreen element in the sliding window while the vehicle is in motion.

Removing the flyscreen element

- To remove the flyscreen, follow the steps for fitting it in reverse order. ◁

Gas system, California

Introduction

This chapter contains information on the following subjects:

Connecting the gas bottle 235
Changing the gas bottle 235
Turning the gas cooker on and off 236

Only butane gas bottles, type 907, manufactured by the company GAZ may be used. The gas bottle must be used in conjunction with a bottle safety valve.

The gas bottle has a sticker on it stating that it is not suitable for use in caravans and camping vehicles. This warning means that this gas bottle **must not be used unless it is housed in a special gas bottle compartment**.

Notes for vehicles sold in Norway

The gas bottle holder and the gas bottle are designed for a 2.0 kg propane gas system. The pressure regulator and the propane gas bottle are not connected as shown herein since these parts are retro-fitted by the Volkswagen Commercial Vehicles dealership or importer.

Using the gas cooker

- When using the gas cooker for the first time, you may smell gas briefly.
- Open all gas shut-off valves before cooking.
- The pan supports on the gas cooker are merely lodged tightly into place and can be easily removed for cleaning.
- Make sure oven mitts and pot holders are dry when handling pots and pans ⇒⚠.

Energy-efficient usage

For maximum energy efficiency when using the cooker, please follow these suggestions:

- Use pots and pans with a diameter between 16 – 20 cm.
- Use pots and pans with flat (not convex) bottoms.
- Centre pots and pans over the flame.
- The gas flame should not extend around the edge of the pot or pan.

Additional information:

- Tailgate ⇒page 36

⚠ DANGER

Leaking gas can cause an explosion.

- **If you smell gas when the cooker is off, take the following actions:**
  - **Ensure there is no source of fire, spark or open flame in the vicinity.**
  - **Close the safety valve on the gas bottle.**
  - **Open doors and windows to air out the vehicle.**

⚠ DANGER

Gas burners use up oxygen in the surrounding area. If the vehicle is not ventilated properly, a life threatening lack of oxygen will develop.

- **Always ensure that there is adequate fresh air entering the vehicle from the moment the gas flame is lit until it is turned off again.**
- **Never use the gas burners to heat the vehicle interior.**

⚠ WARNING

Work done improperly on the gas system can lead to serious injury.

- **All work on the gas system must be carried out by a qualified workshop only.**
- **Never make modifications to the gas system.**
- **If there is a leak or you suspect there is a leak in the gas system, have it checked by a qualified workshop.**

⚠ WARNING

Improper or insufficient maintenance of the gas system can compromise its safety and cause serious injury.

- **Check the gas hose between the pressure regulator and the gas system regularly. If there is a leak or you suspect there is a leak in the gas system, have it checked by a qualified workshop.**
- **Have a qualified workshop check the gas system for leaks and proper function every two years.**

⚠ WARNING (Continued)

- In addition, a leak/function check must be carried out on the gas system by a qualified workshop every time the system is repaired or the gas system connections are opened.

⚠ WARNING

Improper use of the gas system can cause serious injury.

- The cover on the gas bottle holder must be screwed on securely whenever the gas bottle is in the holder.
- Never connect the gas system to the town gas/gas mains.
- Close all gas shut-off valves before driving and when not using the cooker for long periods.
- Never allow the vents in the floor of the gas bottle holder to become blocked by snow slush, cleaning rags, or any other object. Check the floor vents regularly to make sure they are free from obstruction.

⚠ WARNING

There is a danger of fire any time a gas burner is lit.

- Never leave a lit burner unattended – especially when children are nearby.
- Make sure the gas flame never extends beyond the edge of the pot or pan.
- The refrigerator box lid must always be kept closed from the moment the gas flame is lit until it is turned off again.
- The blind on the window behind the gas cooker must always be kept open from the moment the gas flame is lit until it is turned off again.

⚠ WARNING (Continued)

- Make sure that no inflammable items are left close to the burners, e.g. cooking fat or oil.
- Keep towels, clothing, paper, plastic and other inflammable materials well away from the gas cooker.
- Never overheat oil or cooking fat.

⚠ WARNING

Improper use of the gas cooker can cause serious injury.

- Never allow the handles of pots and pans to protrude over the edge of the gas cooker. Otherwise, they could be knocked off the gas cooker.
- Never use the gas cooker while the vehicle is in motion.
- Close all gas shut-off valves before driving and when not using the cooker for long periods.

⚠ WARNING

Damp or wet oven mitts or potholders can become very hot and cause scalding.

- Use only dry oven mitts and potholders.

NOTICE

Never place hot objects, e.g. pots or pans, on the surface of the kitchen unit, on the refrigerated box, or on table tops. Such objects could damage these surfaces. ◁

Connecting the gas bottle

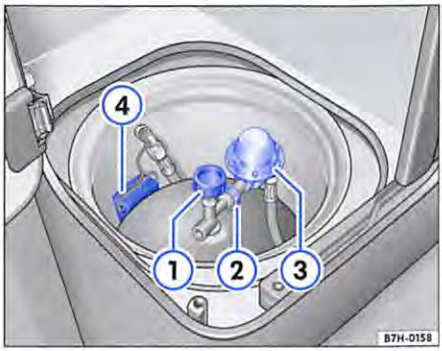


Fig. 199 Connected gas bottle with bottle safety valve and pressure regulator

First read and observe the introductory information and safety warnings ⚠ on page 233.

Key to Fig. 199:

① Bottle safety valve

② Union nut on the pressure regulator with left-hand thread

③ Pressure regulator (30 mbar)

④ Wedge for holding the gas bottle in position

Connecting the gas bottle

- Open the tailgate.
- Open the stowage compartment door at the rear of the vehicle on the left.
- Remove the central and lower shelves from the stowage compartment.
- Unscrew the cover on the gas bottle holder completely and remove it.
- Make sure that the bottle safety valve is fully closed ①. This prevents gas leaking when the bottle safety valve is connected.
- Connect the bottle safety valve to the gas bottle.
- Check that the bottle safety valve is screwed on properly and that the connection is airtight.
- Check that the gas hose is screwed securely onto the pressure regulator ③ and onto the transition piece to the gas pipe. Make sure that the connections are airtight.
- Place the gas bottle into the gas bottle holder.
- Place the wedge ④ on the side between the gas bottle and the gas bottle holder, with its thin edge pointing down.
- Make sure that the gas bottle is standing firmly on the bottom of the gas bottle holder.
- Connect the pressure regulator with the union nut ② to the bottle safety valve by turning it anti-clockwise.
- Check that the pressure regulator is properly screwed on to the bottle safety valve and that the connection is airtight.
- Make sure that the gas hose is positioned without impediment and that it is not pinched or damaged at any point.
- Screw the cover of the gas bottle holder back onto the gas bottle holder.
- Tighten it thoroughly.
- Place the shelves back in the stowage compartment and close the stowage compartment door.
- Close the tailgate.

⚠ DANGER

Leaking gas can cause an explosion.

- **If you smell gas while connecting the gas bottle, immediately take the following actions:**
  - **Ensure there is no source of fire, spark or open flame in the vicinity.**
  - **Close the safety valve on the gas bottle.**
  - **Open doors and windows to air out the vehicle.**
  - **If the source of the gas smell cannot be eliminated, do not connect the gas bottle. Have the gas system checked by a qualified workshop.**

◁

Changing the gas bottle

First read and observe the introductory information and safety warnings ⚠ on page 233.

Open the tailgate.

Open the stowage compartment door at the rear of the vehicle on the left. ▶

Remove the central and lower shelves from the stowage compartment.

Unscrew the cover on the gas bottle holder completely and remove it.

Make sure that the bottle safety valve ⇒Fig. 199 ① is completely closed. This prevents gas from leaking when the union nut ② is slackened.

Completely unscrew the union nut of the pressure regulator from the bottle safety valve by turning it clockwise.

Lift out the gas bottle together with the wedge.

Connecting a new gas bottle ⇒page 235

⚠ DANGER

Leaking gas can cause an explosion.

- **If you smell gas while changing the gas bottle, immediately take the following actions:**
  - **Ensure there is no source of fire, spark or open flame in the vicinity.**
  - **Close the safety valve on the gas bottle.**
  - **Open doors and windows to air out the vehicle.**
  - **If the source of the gas smell cannot be eliminated, do not connect the gas bottle. Have the gas system checked by a qualified workshop.**

The gas system does **not** need to be checked when a gas bottle is changed. ◁

Turning the gas cooker on and off

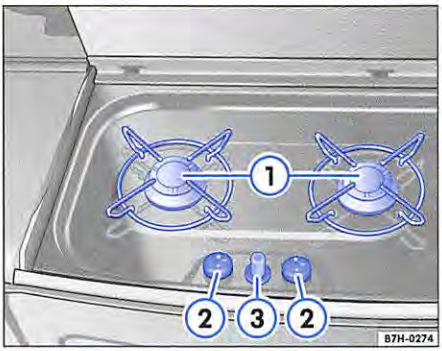


Fig. 200 Gas cooker with piezo igniter ③ and regulating knobs ② for the left-hand and right-hand burners ①.

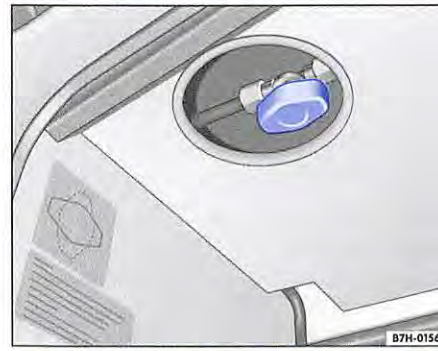


Fig. 201 Open gas shut-off valve in the kitchen unit underneath the gas cooker

First read and observe the introductory information and safety warnings ⚠ on page 233.

Turning on the gas flame

- Open the safety valve on the gas bottle.
- Open the gas shut-off valve in the kitchen unit ⇒Fig. 201. The valve is open when it is turned **parallel** to the gas pipe.
- Pull the opaque shade on the window behind the gas cooker all the way up ⇒⚠ in *Introduction* on page 234.
- Open the window behind the gas cooker to enable air circulation ⇒⚠ in *Introduction* on page 233.
- Place the backrest of the left front seat in an upright position or turn the left front seat so that you can open the kitchen unit's cover plate.
- Raise the kitchen unit's cover plate straight up.
- Push in the regulating knob ⇒Fig. 200 ② of the required burner and turn the knob to the small flame symbol.
- Push and hold the regulating knob of the selected burner and press the piezo igniter continually ③ until the gas has been lit. ▶

- Keep the knob pressed in for approx. 15 seconds to temporarily bridge the igniter safety device. If you let go of the knob too quickly, the gas flame goes out. If this occurs, re-light the burner as described above.
- Release the regulating knob and adjust the gas flame as required.

Turning off the gas flame

- Turn the appropriate knob (2) fully clockwise to turn off the gas flame.
- Close the gas shut-off valve in the kitchen unit.
- Close the safety valve on the gas bottle.
- Remove all objects from the gas cooker and allow the cooker to cool fully.
- Place the backrest of the left front seat in an upright position or turn the left front seat so that you can close the kitchen unit's cover plate.
- Lower the kitchen unit cover plate and latch it securely. ◁

Water supply and disposal, California

Introduction

This chapter contains information on the following subjects:

Fresh water system 238
Sterilising agent 239
Cleaning the fresh water tank 239
Waste water tank 240
Turning the water on and off 240
Cleaning the drain 241

Additional information:

- Central control panel ⇒page 204
- Rectifying faults on the camping equipment ⇒page 254
- Fuses for the camping equipment ⇒page 249
- Winter conditions ⇒page 253
- Filling the tank ⇒page 340

⚠ WARNING

Improper use of the fresh water system can lead to poisoning and illness.

- **The fresh water tank should only be filled with drinking water from the public water supply.**
- **Never fill the fresh water tank from springs or streams. Such water could be contaminated or contain debris.**
- **Never use commercially available household cleaners to clean the fresh water tank.**
- **Never leave water in the fresh water tank for long periods without replacing it with fresh water.**

⚠ WARNING (Continued)

- **Drain the fresh water system completely when it will not be used for a long time.**

⚠ WARNING

Both the fresh water tank and the waste water tank drain out underneath the vehicle. In very cold conditions this poses a danger from the formation of ice.

- **Be especially careful when fresh or waste water are drained during freezing or very cold weather.**

ⓘ NOTICE

In very cold weather the fresh and waste water systems should be emptied to prevent them from becoming damaged if the vehicle is not to be kept heated continuously or is only to be used for short periods.

ⓘ NOTICE

Do not allow the water pump to run dry as this will damage the pump.

- **Only switch on the water pump when there is water in the fresh water tank.**

If you do not use the sink for a long period, it should be kept dry and free of salt.

Never confuse the fresh water tank filler neck with the fuel tank filler neck. ◁



Fig. 202 Fresh water filler neck ①.

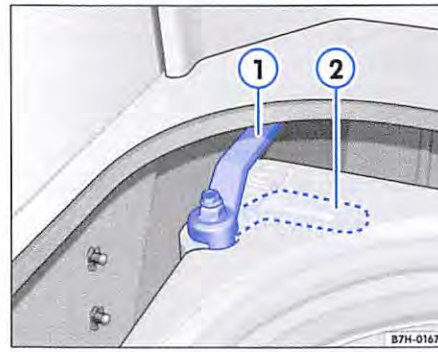


Fig. 203 In the rear stowage compartment under the shelve: closed ① or opened ② valve of the fresh water tank.

First read and observe the introductory information and safety warnings ⚠ on page 237.

The fresh water level is displayed on the central control panel.

Before using the fresh water system for the first time

- Volkswagen Commercial Vehicles recommends disinfecting the fresh water system with a commercially available disinfectant before using it for the first time.
- Fill up the fresh water tank completely ⇒page 238.
- Turn on the tap and allow a few litres of water to run into the sink and then into the waste water tank. This will flush any residue out of the fresh water system.
- Drain both water tanks until empty.

Filling up with fresh water

- Make sure the drain lever for the fresh water tank is closed ⇒Fig. 203 ①.
- Unlock the cap on the filler neck for the fresh water tank ⇒Fig. 202 ①.
- Unscrew the cap completely and remove it.
- Add the sterilising agent if needed ⇒page 239.
- Fill up the fresh water tank with fresh water through the filler neck.
- Screw the cap back on and lock it.

Draining the fresh water tank

- Open the door to the rear stowage compartment.
- Remove the lower shelves.
- Turn the red drain lever to position ⇒Fig. 203 ② to open the valve and empty the fresh water tank ⇒⚠ in *Introduction* on page 237.
- After emptying the tank, turn the drain lever back to position ① to close the valve.
- Make sure that the drain valve is completely closed.
- Replace the shelves and close the stowage compartment door.

Draining the water system

- Remove the water pump fuse SI 20.
- Place the backrest of the left front seat in an upright position or turn the left front seat so that you can open the kitchen unit's cover plate.
- Raise the kitchen unit's cover plate straight up.
- Raise the tap up.
- Lift up the lever on the tap to allow the water to drain out of the pipes. ◁

Sterilising agent

First read and observe the introductory information and safety warnings ⚠ on page 237.

Volkswagen Commercial Vehicles recommends adding a sterilising agent to the fresh water through the fresh water filler neck ⇒ ⚠. After adding sterilising agent, turn on the tap and allow approximately one litre of water to run out and down the drain. This will distribute the sterilising agent through the fresh water system.

You may also pour sterilising agent down the sink, followed by a little water, to sterilize the waste water tank.

⚠ WARNING

Improper use of the sterilising agent can cause poisoning or injury.

- **Follow the manufacturer's instructions for diluting and using the sterilising agent.**

Sterilising agent is available at specialist camping shops and in pharmacies. ◁

Cleaning the fresh water tank

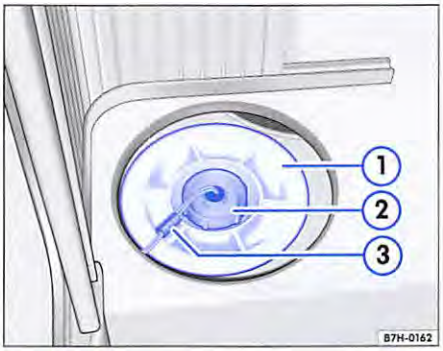


Fig. 204 In the rear stowage compartment under the shelve: opening for cleaning the fresh water tank.

First read and observe the introductory information and safety warnings ⚠ on page 237.

On top of the fresh water tank there is a large opening for use when cleaning the tank.

- Open the door to the wardrobe on the right of the luggage compartment.
- Remove the round plastic cover plate from the bottom of the wardrobe.
- Carefully disconnect the electrical connection ⇒ Fig. 204 ③ for the water level sensor ②.
- Turn the tank cap ① together with the water level sensor anticlockwise.
- Reassemble by following the preceding steps in reverse order.

Vehicles used for commercial purposes in Germany are required by law to have their fresh water systems checked to ensure compliance with drinking water regulations. ◁

Waste water tank

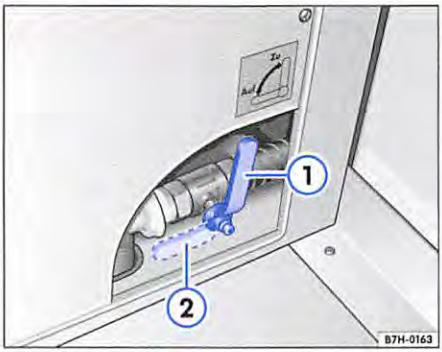


Fig. 205 In the kitchen unit: closed ① or opened ② valve of the fresh waste water tank.

First read and observe the introductory information and safety warnings ⚠ on page 237.

If the waste water tank is full, this will be indicated on the central control panel. The waste water tank holds approximately 30 litres and should be drained in a timely manner.

Draining the waste water tank

- Open the sliding door on the left side of the kitchen unit.
- Turn the drain lever to position ⇒Fig. 205 ② to open the valve and empty out the fresh water tank ⇒⚠ in *Introduction* on page 237.
- After emptying the tank, turn the drain lever back to position ① to close the valve.
- Make sure that the drain valve is completely closed.

The waste water tank can be drained at many campsites and other public facilities. Additional useful information can be found in various publications such as manuals for motor homes and camping guides. ◁

Turning the water on and off



Fig. 206 Sink in kitchen unit with tap

First read and observe the introductory information and safety warnings ⚠ on page 237.

Turning on the water

- Place the backrest of the left front seat in an upright position or turn the left front seat so that you can open the kitchen unit's cover plate.
- Raise the kitchen unit's cover plate straight up.
- Make sure there is water in the fresh water tank.
- Raise the water tap ⇒Fig. 206 ① into position.
- Lift the lever ② to switch on the water pump. Do not allow the water pump to run dry as this will damage the pump.

Turning off the water

- Push the lever down ② to switch the water pump off.
- Fold the water tap ① all the way down.
- Place the backrest of the left front seat in an upright position or turn the left front seat so that you can close the kitchen unit's cover plate.
- Lower the kitchen unit cover plate and latch it securely. ◁

Cleaning the drain

First read and observe the introductory information and safety warnings ⚠ on page 237.

- Make sure that there is no food debris or water in the sink.
- You will need a suitable container to catch any water that is drained out.
- Open the cupboard door under the sink.
- Pull out the drawer.
- Loosen the clamp on the drain hose on top of the waste water tank and carefully pull the drain hose from its waste water tank connection.
- Drain the water out of the drain hose into the container.
- Clean the drain hose and the drain in the sink using a soft flexible object such as a pipe cleaner.
- Insert the drain hose back into the waste water tank connection.
- Tighten the drain hose clamp on the waste water tank connection.
- Make sure that the drain hose is connected properly and check that the connection is watertight ⇒ⓘ.

NOTICE

Water leaking from a poor connection on the waste water drain hose can cause damage.

- **Always check to make sure the waste water drain hose connection is not leaking.** ◁

Refrigerator box, California

Introduction

This chapter contains information on the following subjects:

Using the refrigerator box 242
Cleaning the refrigerator box 242

Additional information:

- Central control panel ⇒ page 204.
- Rectifying faults on the camping equipment ⇒ page 254
- Fuses for the camping equipment ⇒ page 249.

WARNING

Objects that are not secured, or are secured incorrectly, can cause serious injuries in the event of a sudden driving or braking manoeuvre or accident.

- **The refrigerator box lid must always be kept closed and locked when the vehicle is in motion.**
- **Never use the refrigerator box as a table or stowage compartment when the vehicle is in motion.**

WARNING

If the ambient temperature in the vehicle is too low, the temperature in the refrigerator box could fall below +2 °C (+35 °F) degrees. This could cause the contents of the refrigerator box to freeze and bottles and other containers to burst, potentially causing injuries.

- **Do not use the refrigerator box when the ambient temperature is too low.**

NOTICE

Handling the refrigerator box incorrectly could damage it.

- **Do not place containers, food or other objects which are warmer than +50 °C (+122 °F) in the refrigerator box.**
- **Do not place corrosive substances or solvents in the refrigerator box.**
- **Never expose the refrigerator box to rain or humidity.**
- **To prevent mould and mildew from forming in the refrigerator box when it is not being used for long periods, place a folded dry towel between the box and its lid.**

The refrigerator box is not intended to cool or heat the vehicle interior. The refrigerator box should only be used to keep food cool and for transporting heat-sensitive items on short journeys. ◁

Using the refrigerator box

First read and observe the introductory information and safety warnings ⚠ on page 241.

The suspended **basket** in the refrigerator box is for cooling food. The temperature is lower under the basket than inside it. Closed containers or glass bottles are less likely to burst if they are stored in the basket rather than on the bottom of the refrigerator box ⇒ ⚠ in *Introduction* on page 241.

The additional battery will discharge if the refrigerator box is used for a long period while the engine is switched off and the 230-volt connection is not used.

Before the refrigerator box is used for the first time, it should be cleaned thoroughly using lukewarm water and a mild detergent.

The refrigerator box works independently of the engine and the ignition. It is fed exclusively by the additional battery. The refrigerator box is switched on and off and regulated using the central control panel.

As far as possible, keep food and drinks in the refrigerator box in leak-proof containers. Do not overfill the refrigerator box such that air circulation is impaired.

Cool the refrigerator box before placing food items and drinks in it. Items you wish to keep in the refrigerator box should be removed from your household fridge/freezer just before you start your journey. When shopping during a journey, we recommend items from shop fridges/freezers be placed in the refrigerator box as quickly as possible. ◁

Cleaning the refrigerator box

First read and observe the introductory information and safety warnings ⚠ on page 241.

- Clean the refrigerator box using a household detergent **before** using it for the first time, as well as when it becomes soiled.
- To prevent mould and mildew from forming in the refrigerator box when it is not being used for long periods, place a folded dry towel between the box and its lid. ◁

Power supply in the vehicle, California

Introduction

This chapter contains information on the following subjects:

12-volt socket 244
230-volt power supply 245
230-volt Euro socket, California 245
230-volt grounded safety socket 246
Residual current circuit breaker 247
Battery charger 247
Additional batteries 248
Fuses for the camping equipment 249

Electrical equipment can be connected to the sockets in the vehicle.

The connected devices must be in good condition. Do not use faulty devices.

There are two separate power circuits in the vehicle:

- 12-volt DC circuit
- 230-volt AC circuit

12-volt DC circuit

Power is supplied as standard from the additional batteries under the left front seat and in the wardrobe to the following 12-volt consumers:

- Interior lights in the living area
- 12-volt sockets in the living area
- 230-volt Euro socket in the side trim panel behind the left front seat
- Central control panel
- Refrigerator box ▶

- Pump for fresh water
- Auxiliary heater

230-volt grounded safety socket

The 230-volt grounded safety socket is supplied with 230 V alternating current via electrical feed from the external socket ⇒page 242.

The following electrical consumers are supplied from the 230-volt power supply via the external socket:

- Battery charger
- Depending on the vehicle equipment, the 230-volt grounded safety socket is located in the side trim panel behind the left front seat or on the side of the kitchen unit ⇒page 246.

230-volt Euro socket

The 230-volt Euro socket is supplied via additional batteries or via an inverter and is located in the side trim panel behind the left front seat ⇒page 245.

Additional information:

- Electrical sockets ⇒page 163
- Battery ⇒page 362
- Cigarette lighter ⇒page 161
- Accessories, modifications, repairs and renewal of parts ⇒page 394
- Fuses ⇒page 429
- Consumer information ⇒page 404
- Rectifying faults on the camping equipment ⇒page 254

⚠ DANGER

High voltage in the electrical system!

- **Never pour any liquid over the socket.**
- **Do not plug any adapters or extension cables into the 230-volt Euro socket. Otherwise the built-in child lock will disengage and power will be supplied to the socket.**
- **Do not insert any items which will conduct electricity, such as knitting needles, into the contacts of the 230-volt Euro socket.**

⚠ WARNING

Improper use of the sockets and electrical accessories can cause fires and severe injuries.

- **Never leave children in the vehicle unattended. Sockets and the devices connected to them can be used when the ignition is switched on.**

⚠ WARNING (Continued)

- **If the electrical device gets too hot, switch off the device immediately and disconnect it from the socket.**

ⓘ NOTICE

- **Observe the operating instructions for any device that you plug into the socket.**
- **Never exceed the maximum power rating as this could damage the whole vehicle electrical system.**
- **Only use accessories that have been approved in accordance with valid guidelines concerning electromagnetic compatibility.**
- **Never feed electricity into the socket.**
- **Do not plug any heavy devices or connections, such as mains adapters, directly into the socket.**
- **Only connect devices to the socket with a voltage that matches the voltage of the socket.**

ⓘ NOTICE

- **In order to prevent damage to the electrical system, never connect equipment that generates electricity, such as solar panels or battery chargers for charging the vehicle battery, to the 12-volt socket.**
- **Only use accessories that have been approved in accordance with current guidelines concerning electromagnetic compatibility.**
- **In order to avoid damage due to voltage fluctuation, always switch any electrical consumers connected to the 12-volt sockets off before switching the ignition or the engine on or off. When the start/stop system automatically switches off and restarts the engine, it is not necessary to switch off any connected electrical consumers.**
- **Never connect electrical devices requiring more electrical power to a 12-volt socket. The vehicle's electrical system can be damaged if the maximum power output is exceeded.**

ⓘ NOTICE

- **Observe the operating instructions for any device that you plug into the socket.**
- **230-volt Euro socket:**
  - **Do not plug any heavy devices or connections, such as mains adapters, directly into the socket.**

NOTICE (Continued)

– Do not connect any lights which use neon tubes.

– Only connect devices to the socket with a voltage that matches the voltage of the socket.

– With electrical devices that require a high level of current in the start phase, the built-in excess current switch will prevent the device from being switched on. If this happens, disconnect the device from the power supply and reconnect after waiting approximately 10 seconds.

Do not leave the engine running when the vehicle is stationary.

Using electrical appliances with the engine switched off and the ignition switched on will drain the battery.

Unshielded devices can cause interference with radio/navigation system reception and vehicle electronics.

Functional problems may occur with some devices when they are connected to the 230-volt Euro socket due to the lower power output (wattage). ◁

12-volt socket



Fig. 207 There is a 12-volt socket ① on the side of the kitchen unit.

First read and observe the introductory information and safety warnings ⚠ on page 242.

There is a 12-volt socket at each of the following locations:

- On the side of the kitchen unit ⇒ Fig. 207 ①.
- Near the lower portion of the sliding door, next to the bench seat/bed.
- In the front, either in the stowage compartment or in the ashtray (depending on equipment options), and in the rear in the luggage compartment.
- In the roof frame of the pop-up roof.

Electrical equipment can be connected to the 12-volt sockets in the vehicle.

The maximum power rating is **120 watts**. Do not exceed the maximum power rating. This also applies to the total power consumption of all connected devices if you connect several devices at the same time ⇒ ⓘ in *Introduction* on page 243. The power rating of each device is stated on its type plate.

The 12-volt socket in the dash panel is supplied with power from the vehicle battery in the engine compartment. Using electrical appliances with the engine switched off will drain the battery. ◁

230-volt power supply



Fig. 208 230-volt external socket.

First read and observe the introductory information and safety warnings ⚠ on page 242.

The 230-volt power supply via the external socket allows for charging the additional batteries and for using a 230-volt grounded safety socket in the interior ⇒page 246.

Connecting to the mains

- Unlatch the external socket's protective cover downwards and then swing it upwards.
- Keep the protective cover in this position.
- Connect the mains coupling to the feed plug of the external socket so that the blue locking catch on the feed plug of the external socket engages.
- Lower the cover on the external socket to protect the connection.
- Switch on the residual current circuit breaker ⇒page 247. Please note the positions of the bridge connection: "on" (red) or "off" (green).

Disconnecting from the mains

- Switch off the residual current circuit breaker ⇒page 247.
- Push up the external socket's protective cover.
- Depress the blue locking catch on the left of the feed plug and pull the mains coupling from the feed plug of the external socket.
- Push the protective cover of the external socket down until it clicks into place.

NOTICE

Never connect an inappropriate power source as this could damage the whole vehicle electrical system.

- **Power supplied to the vehicle must comply with valid standards and regulations.**
- **Never use power with excessive voltage, three-phase current, or the wrong frequency.**

When connected, the 230-volt power supply will charge the additional batteries under the left front seat and in the living area ⇒page 247.

The 230-volt electrical feed will be shown as a symbol in the display of the central control panel when charging. ◁

230-volt Euro socket, California



Fig. 209 230-volt Euro socket.

First read and observe the introductory information and safety warnings ⚠ on page 242.

The 230-volt Euro socket ⇒Fig. 209 is located in the side trim panel behind the left front seat ⇒⚠ in *Introduction* on page 243. It is supplied with power from the additional batteries via an inverter.

Raising the cover

- Grasp the socket cover in the gap from below.
- Raise the cover. ▶

Inserting the Euro plug

- Plug the Euro plug into the Euro socket. The child safety function will disengage at the same time. Electricity will not flow until the child lock has been unlocked.
- Push the Euro plug all the way into the Euro socket so that it is firmly in place and will not fall out as a result of vibration or other vehicle motion.

LEDs above the socket

Constant green light	The child lock is disengaged. The Euro socket is ready for use.
Flashing red light	A fault has occurred. for example cut-off due to excess current or temperature.

Compatible devices

Electrical devices with a Euro plug can be connected to the 230-volt Euro socket in the side trim panel behind the left front seat.

The maximum power rating is **150 watts**. Do not exceed the maximum power rating. This also applies to the total power consumption of all connected devices if you connect several devices at the same time ⇒ⓘ in *Introduction* on page 243. The power rating of each device is stated on its type plate.

Temperature switch-off

The inverter in the 230-volt Euro socket will switch off automatically if the temperature exceeds a specific value. The switch-off function prevents the connected device from overheating when the power consumption is too high or if the ambient temperature is too high. The 230-volt Euro socket cannot be used again until after the cool-down phase.

The plug on the connected device must first be removed and then reinserted before using the 230-volt Euro socket again after the cooling phase. This helps prevent the connected electrical devices being switched on accidentally. ◁

230-volt grounded safety socket



Fig. 210 There is a 230-volt grounded safety socket ① on the side of the kitchen unit.

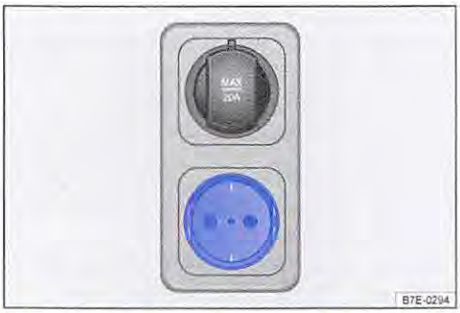


Fig. 211 At the side behind the left front seat: 230-volt grounded safety socket.

First read and observe the introductory information and safety warnings ⚠ on page 242.

Depending on the vehicle equipment, the 230-volt grounded safety socket is located on the side of the kitchen unit ⇒ Fig. 210 or in the side trim panel behind the left front seat ⇒ Fig. 211 ⇒ ⚠ in *Introduction* on page 243.

The 230-volt grounded safety socket only operates when the following conditions exist concurrently:

- The mains coupling is connected properly to the feed plug of the external socket ⇒ page 245.
- The other end of the cable is connected to the public power mains.
- The residual current circuit breaker has not been tripped.

Compatible devices

Household appliances (such as coffee makers, electric kettles, vacuum cleaners) can be connected to the 230-volt grounded safety socket. ▶

The maximum power rating is **2500 watts**. Do not exceed the maximum power rating. This also applies to the total power consumption of all connected devices if you connect several devices at the same time ⇒ⓘ in *Introduction* on page 243. The power rating of each device is stated on its type plate. ◁

Residual current circuit breaker

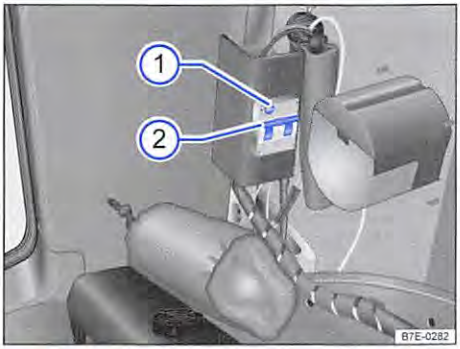


Fig. 212 Under the rear side trim panel: switched on residual current circuit breaker with test button ① and bridge connection ② on vehicles without cupboards.

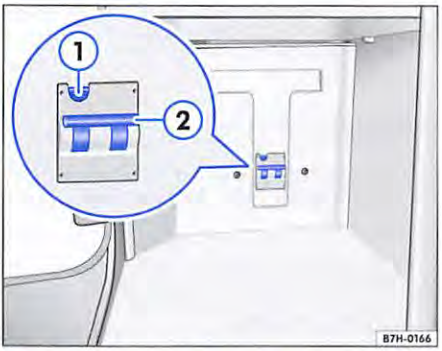


Fig. 213 In the rear left stowage area: switched on residual current circuit breaker with test button ① and bridge connection ② on vehicles with cupboards.

First read and observe the introductory information and safety warnings ⚠ on page 242.

The residual current circuit breaker offers both personal protection and wiring protection.

On vehicles without cupboards, the residual current circuit breaker is located under the rear side trim panel in the area of the vehicle tool kit ⇒ Fig. 212.

On vehicles with cupboards, the residual current circuit breaker is located in the rear left stowage compartment at the rear left ⇒ Fig. 213.

To **protect people** the residual current circuit breaker is tripped by a residual current of 10 mA.

To **protect the wiring** the device is tripped if overloaded (over 13 A) and in the event of a short circuit. The residual current circuit breaker is switched on when the bridge connection is at the top and a red marking can be seen. A green marking on the bridge connection can be seen if the residual current breaker is switched off.

⚠ DANGER

High voltage in the electrical system!

- **Modifications and repairs to the residual current circuit breaker and the electrical system should only be carried out by a qualified workshop.** ◁

Battery charger

First read and observe the introductory information and safety warnings ⚠ on page 242.

The battery charger is located in the rear left stowage compartment in the California Coast and Ocean. In the California Beach it is in the side trim panel behind the left front seat.

The battery charger is fully automatic.

If the 230-volt power supply is provided, the charge level of the additional batteries under the left front seat and in the living area is retained.

When the vehicle is in motion, both the vehicle battery (starter battery) and the additional batteries are charged by the engine alternator. ▶

The batteries will become depleted if electrical consumers such as the auxiliary heater, refrigerator box or interior lights are used while the vehicle is stationary for long periods of time without recharging the batteries. If the battery voltage falls below 11.5 volts, the auxiliary heater cannot be switched on.

The battery compartment and the battery charger are designed specifically for the factory-fitted AGM (absorbed glass mat) batteries ⇒ ⚠.

⚠ WARNING

If a conventional battery is charged it will give off a highly explosive mixture of gases.

- **Use only AGM batteries of the same type (batteries with the electrolyte absorbed into a special fibreglass matting) and with the same specifications as the factory-fitted batteries.**
- **Never use conventional batteries (wet cells with liquid electrolyte).**

Additional batteries

First read and observe the introductory information and safety warnings ⚠ on page 242.

The factory-fitted AGM batteries are located under the left front seat and in the wardrobe. They have deep discharge protection.

Should the additional batteries be subjected to deep discharge over a long period of time, they could be destroyed.

You can prevent deep discharge by:

- switching off the central control panel after charging,
- removing the fuses for the fresh water pump and the pop-up roof as necessary ⇒page 249.

AGM batteries are maintenance free, do not leak their electrolyte, are robust and have extremely low gas emissions.

When should the additional battery be charged?

- If the additional battery is not charged by the alternator while the engine is running, the additional battery must be charged on the battery charger at regular intervals - every 4 weeks at the latest - for at least 12 hours.
- The additional battery must be recharged for at least 12 hours before the start of a journey if the battery has not been used for an extended period (e.g. seasonal use).

⚠ WARNING

If a conventional battery is charged it will give off a highly explosive mixture of gases.

- **Use only AGM batteries of the same type (batteries with the electrolyte absorbed into a special fibreglass matting) and with the same specifications as the factory-fitted batteries.**
- **Never use conventional batteries (wet cells with liquid electrolyte).**

Fuses for the camping equipment

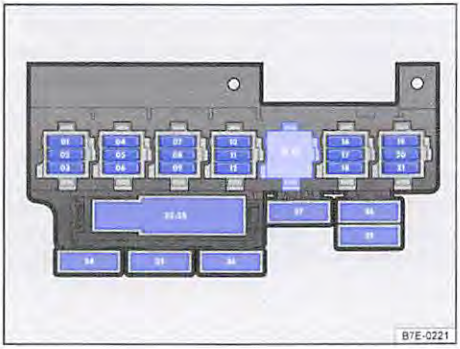


Fig. 214 Under the left front seat: fuse box.

The fuses for the camping equipment electrical consumers are located under the left front seat ⇒Fig. 214. Other vehicle parts will have to be removed in order to gain access to the fuse box. If you are unsure, have the fuses changed by a qualified workshop.

Several electrical consumers could share a single fuse. Conversely, a single consumer could have more than one fuse.

Therefore fuses should only be replaced when the cause of the fault has been rectified. If a new fuse blows shortly after insertion, have the electrical system checked by a qualified workshop as soon as possible.

First read and observe the introductory information and safety warnings ⚠ on page 242.

Colour	Amp rating
Purple	3
beige	5
Brown	7.5
Red	10
Blue	15
Yellow	20
White or clear	25
Green	30
Orange	40
beige	80

Colour coding of fuses

Electrical consumers	Fuse number (amp rating in brackets) ⇒Fig. 214
Battery charger	**16** (30)
Pop-up roof	**17** (30)
Reading lights	**18** (10)
Refrigerator box	**19** (10)
Water pump	**20** (5)
Central control panel	**21** (5)

Fuse table

In some vehicles, the locations of fuse blocks could vary from the those shown in the table. However, since the order of the amp ratings is identical within any individual fuse block, you will still be able to identify the electrical consumers if this is the case.

⚠ WARNING

Using unsuitable or repaired fuses and bridging an electrical circuit without fuses can cause a fire and serious injuries.

⚠ WARNING (Continued)

- **Never fit fuses that have a higher fuse protection limit. Fuses must always be replaced by a new fuse with the same amp rating (same colour and markings) and size.**
- **Never repair a fuse.**
- **Never use a metal strip, paper clip or similar objects to replace a fuse.**

NOTICE

- **To avoid damage to the electrical system in the vehicle, switch the ignition, the lights and all electrical consumers off and remove the vehicle key from the ignition before changing a fuse.**
- **You can damage another position in the electrical system by using a fuse with a higher amp rating.**
- **Fuse boxes must be protected from dirt and moisture when opened. Dirt and moisture in the fuse boxes can damage the electrical system.** ◁

Air conditioning system, California

Introduction

This chapter contains information on the following subjects:

Controls for the living area 250

Additional information:

- Air conditioning system ⇒page 322. ◁

Controls for the living area

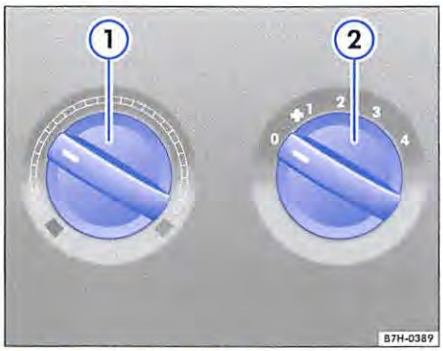


Fig. 215 Controls for the Climatic

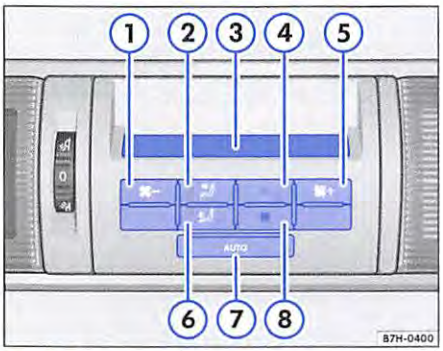


Fig. 216 Controls for the Climatronic

First read and observe the introductory information given on page 250.

Depending on equipment options, your vehicle is fitted with one of the control units shown here for the living area.

Climatic: heating the living area

- Turn the temperature control clockwise to set the required heating temperature ⇒Fig. 215 ①.
- Turn the blower control ② to one of the settings 1-4.
- Other functions ⇒page 322. ◁

Supplementary heater, California

Introduction

This chapter contains information on the following subjects:

Programming the supplementary heater 251

The supplementary heating system is supplied with fuel from the vehicle fuel tank and can be used when the vehicle is in motion or stationary.

Additional information:

- Central control panel ⇒page 204
- Supplementary heaters ⇒page 322
- Rectifying faults on the camping equipment ⇒page 254

⚠ WARNING

The fumes from the supplementary heating system contain carbon monoxide, which is an odourless and colourless poisonous gas. Carbon monoxide can cause people to lose consciousness. It can also cause death.

⚠ WARNING (Continued)

- **Never start or run the supplementary heating system in unventilated or closed rooms.**
- **Never programme the auxiliary heater so that it is switched on and run in unventilated or enclosed spaces.**

⚠ WARNING

Parts of the exhaust system of the supplementary heating system become very hot. This can cause fires.

- **Park the vehicle so that no part of the exhaust system can come into contact with any inflammable material underneath the vehicle, e.g. dry grass.**

NOTICE

Do not place any food, medicine or any other heat-sensitive items in front of the vents. Heat-sensitive food, medicine and other items could be either damaged or rendered useless. ◁

Programming the supplementary heater

First read and observe the introductory information and safety warnings ⚠ on page 251.

The built-in timer allows you to program up to seven switch-on times.

Functions	Submenu	Description
New	Set daily or day of week.	Turn the rotary/push knob ⇒Fig. 168 ④ to change the setting. Press the rotary/push knob to confirm the setting and move to the next submenu.
	Set the time	Set the switch-on time.
	Specify the run period.	Set the run period for the supplementary heating system. A low battery charge could cause the run period to be cut short.
	Select temperature.	Select the heating temperature.
Change	Change switch-on time.	Select the switch-on setting to be changed and select **Change**. Change the switch-on time as described under **New**.
Delete	Delete switch-on time.	Select the switch-on time to be deleted and select **Delete**. Confirm entry.

▶

⚠ WARNING

Never program the supplementary heating system so that is switched on and run in unventilated or enclosed areas. The fumes from the supplementary heating system contain carbon monoxide, which is an odourless and

⚠ WARNING (Continued)

colourless poisonous gas. Carbon monoxide can cause people to lose consciousness. It can also cause death.

All saved switch-on times will be deleted if you switch off the central control panel or disconnect the additional battery. They will also be deleted if there is a defective fuse in the control panel. ◁

Practical tips, California

Introduction

This chapter contains information on the following subjects:

Before setting off 252
Before you take a road trip 252
Actions to take during thunderstorms 253
Winter conditions 253
Cleaning cupboards, cooker and sink 253
Cleaning the display of the central control panel 254
Rectifying faults on the camping equipment . . 254
Technical data, living area 255

Additional information:

- Central control panel ⇒page 204.
- Before setting off ⇒page 33.
- Vehicle care and maintenance ⇒page 380. ◁

Before setting off

First read and observe the introductory information given on page 252.

Checklist

The following points should be verified in addition to the checklist ⇒page 33:

- ✓ Close the pop-up roof.
- ✓ Close all drawers, cabinet doors and flaps.
- ✓ Retract the awning completely.
- ✓ Remove all vehicle interior shades and open all blinds.
- ✓ Bring all tables into their stowed position.
- ✓ Close all gas shut-off valves.
- ✓ Secure all loose items in the vehicle. ◁

Before you take a road trip

First read and observe the introductory information given on page 252.

Checklist

Observe the following additional suggestions:

- ✓ Familiarise yourself with parking and manoeuvring the vehicle.
- ✓ Note the height and width of the vehicle – particularly if any accessories have modified these dimensions.
- ✓ Check that all items of equipment are in good working order.
- ✓ Observe the entry and vaccination requirements of any foreign country you will be visiting.
- ✓ Have the following documents on hand:
  - Valid identity cards or passports
  - Driving licence and vehicle registration papers ▶

Checklist (Continued)

- Insurance documents
- Camping and travel guides

✓ Inform yourself about the peculiarities of any foreign country you plan to visit, such as driving speed limits and required papers.

✓ Check the cooking gas supply and change the bottle if necessary.

✓ Fill up with fresh water.

✓ Drain the waste water tank.

✓ Check the vehicle toolkit.

✓ Take a mains cable and cable reel on board so you can use the 230-volt electrical feed. ◁

Actions to take during thunderstorms

First read and observe the introductory information given on page 252.

Checklist

Take the following actions before an impending storm:

✓ Close the pop-up roof.

✓ Retract the awning completely.

✓ Disconnect the 230-volt electrical feed.

✓ Wait out the storm while remaining inside the vehicle. ◁

Winter conditions

First read and observe the introductory information given on page 252.

When parked at a camping site

- Engage a gear and place chocks against the wheels to prevent the vehicle rolling away.
- Release the handbrake so that it does not freeze.
- Do **not** lay power cables on the ground as they could freeze to the ground.
- Keep the ground under the vehicle free of obstructions so that the exhaust from the supplementary heating system can escape.

Ventilation

High humidity levels in the vehicle can be reduced by using a commercially available fan.

Additional information:

- Read and observe the information under the index keyword "Winter conditions".

NOTICE

In very cold weather the fresh and waste water systems should be emptied to prevent them from becoming damaged if the vehicle is not to be kept heated continuously or is only to be used for short periods. ◁

Cleaning cupboards, cooker and sink

First read and observe the introductory information given on page 252.

Cleaning the cupboards

Clean the surfaces of the kitchen unit and cupboards with commercially available non-abrasive cleaning agents ⇒ⓘ.

Stubborn stains can be removed with a cloth moistened with spirits, alcohol or special plastic cleaner ⇒ⓘ. ▶

Cleaning the cooker and sink

Clean the surfaces of the gas cooker and sink with commercially available non-abrasive cleaning agents. ⇒ⓘ. Remove the pan supports from atop the burners to clean the surface of the gas cooker.

When cleaning the gas cooker, make sure that you do not damage or bend the heat sensors on the burners.

The gas burners should be cleaned with a brush at regular intervals.

NOTICE

Abrasive sponges and cleaning agents can scratch and otherwise damage surfaces.

NOTICE

Cleaning products that contain solvents, e.g. acetone, paint thinner, attack the material and can cause damage. ◁

Cleaning the display of the central control panel

First read and observe the introductory information given on page 252.

When cleaning the display, use an anti-static cloth or anti-static agent in order to prevent the build up of static charge on the display, which could render the display symbols unrecognizable ⇒ⓘ.

NOTICE

Do not use solvents such as turpentine or petrol to clean the display, as these will damage it. ◁

Rectifying faults on the camping equipment

First read and observe the introductory information given on page 252.

Fault	Possible cause	Solution
Supplementary heating system is malfunctioning or not working at all	**1.** The fuel tank is empty.	**1.** Fill up with fuel.
	2. There is a defective fuse ⇒page 429 and ⇒page 249.	**2.** Replace the fuse ⇒page 249.
	3. The warm air vent is blocked.	**3.** Remove objects blocking the air intake or warm air vents.
	4. Battery voltage too low.	**4.** Charge the battery using the battery charger or by running the engine.
	5. The switch-on time is not programmed or is incorrectly programmed.	**5.** Properly program the switch-on time.
	6. The central control panel is not switched on.	**6.** Switch on the central control panel.
Battery voltage too low	**1.** Electrical consumers have been switched on and caused the voltage of the additional battery to drop to 10.5 volts or below.	**1.** Charge the battery using the battery charger or by running the engine.
	2. The battery charger is malfunctioning.	**2.** Check the residual current circuit breaker or have the battery charger checked by a qualified workshop.
Battery charger is not charging the battery.	**1.** There is a defective fuse ⇒page 429 and ⇒page 249.	**1.** Replace fuse ⇒page 249.

Fault	Possible cause	Solution
	2. The feed plug is not connected properly.	2. Check the connection between the vehicle and the mains.
	3. Mains power failure.	3. Inform the electricity company if necessary.
	4. The residual current circuit breaker has tripped.	4. Switch the residual current circuit breaker back on.
Problem with the waste water system	1. The waste water tank is full.	1. Drain the waste water tank in a suitable location.
	2. The water level sensor for the waste water tank is malfunctioning.	2. Have the water level sensor checked by a qualified workshop.
Problem with the fresh water system	1. The fresh water tank is empty.	1. Fill the fresh water tank.
	2. The water level sensor for the fresh water tank is malfunctioning.	2. Have the water level sensor checked by a qualified workshop.
Refrigerator box does not cool.	1. There is a defective fuse ⇒page 429 and ⇒page 249.	1. Replace fuse ⇒page 249.
	2. Battery voltage too low.	2. Charge the battery using the battery charger or by running the engine.
	3. The central control panel is not switched on.	3. Switch on the central control panel.
The electric pop-up roof does not open or close or does not open or close fully.	1. The central control panel is not switched on.	1. Switch on the central control panel.
	2. The ignition is not switched on.	2 Switching on the ignition
	3. The overheating protection on the hydraulic pump is activated.	3. Wait a few minutes before you attempt to open or close the pop-up roof.
	4. Battery voltage too low.	4. Charge the battery using the battery charger or by running the engine.
	5. There is a defective fuse ⇒page 429 and ⇒page 249.	5. Replace fuse ⇒page 249.
	6. There is a temporary malfunction.	6. Press the ⮌ button for 5 seconds.
	7. The electrical system for the pop-up roof is malfunctioning.	7. Close the electric pop-up roof manually ⇒page 221 and have the electrical system checked by a qualified workshop.
	8. The childproof lock has been activated due to the electric pop-up roof having been opened and closed repeatedly within a short period of time.	8. Wait at least 7 minutes before you again attempt to open or close the electric pop-up roof.

Technical data, living area

First read and observe the introductory information given on page 252.

Supplementary heating system	Maximum heating output: 2.5 kW Fuel consumption: 0.3 l/h

	Connected load: 22 watts
Refrigerator box	Voltage: 12 volt
	Connected load: max. 54 watts
	Temperature: adjustable
	Refrigerator box capacity: 42 litres
Gas system	Gas bottle GAZ, type 907, with pressure regulator (30 mbar) and bottle safety valve
	Bottle capacity: 2.8 kg
	Operating pressure: 30 mbar
	Gas consumption per flame: max. 140 g/h
Water supply	Fresh water tank with immersed electric pump, water level sensor and drain valve under the vehicle.
	Fresh water tank capacity: approx. 30 litres
	Connected load: 15 watts
Water disposal	Waste water tank with water level sensor and a drain valve under the vehicle.
	Waste water tank capacity: approx. 30 litres ◁

Starting the engine, changing gear and parking

Starting and stopping the engine

Introduction

This chapter contains information on the following subjects:

Ignition lock 258
Starting the engine 258
Stopping the engine 259
Electronic immobilizer 260

Immobilizer display

When a vehicle key is not valid or there is a fault in the system, this will be displayed in the instrument cluster. The engine cannot be started.

Push-starting or tow-starting

For technical reasons, your vehicle **must not** be push-started or tow-started. Use jump leads to start the engine instead.

Additional information and warnings:

- Vehicle key set ⇒ page 36
- Changing gear ⇒ page 260
- Braking, stopping and parking ⇒ page 269
- Steering ⇒ page 281
- Pull-away assist systems ⇒ page 282
- Filling the tank ⇒ page 340
- Fuel ⇒ page 343
- Manual opening and closing ⇒ page 413
- Jump starting ⇒ page 443
- Tow-starting and towing ⇒ page 446

⚠ WARNING

Switching the engine off while the vehicle is moving makes it more difficult to stop the vehicle. This can lead to loss of control of the vehicle and to accidents and severe injuries.

- **Braking and steering support systems, the airbag system, the belt tensioners and other items of safety equipment in the vehicle are only active when the engine is running.**

⚠ WARNING (Continued)

- **The engine should only be switched off when the vehicle is stationary.**

⚠ WARNING

The risk of serious injury can be reduced with the engine running or when starting the engine.

- **Never start or run the engine in unventilated or closed spaces. The exhaust fumes contain carbon monoxide, an odourless and colourless toxic gas. Carbon monoxide can cause people to lose consciousness. It can also cause death.**
- **Never start or run the engine if oil, fuel or any other highly flammable fluids are under or near the vehicle, or are leaking out of the vehicle, e.g. as the result of damage.**
- **Never leave the vehicle unattended with the engine running, particularly if a gear or driving mode has been selected. The vehicle could move suddenly or something unexpected may happen that may cause damage, fire and serious injuries.**
- **Never use a start booster. Start boosters may explode and cause the engine to suddenly run at high revs.**

⚠ WARNING

The components of the exhaust system become very hot. This can cause fires and serious injuries.

- **Never park the vehicle where parts of the exhaust system can come into contact with inflammable material underneath the vehicle, e.g. undergrowth, leaves, dry grass, spilt fuel.**
- **Never apply additional underseal or anti-corrosion coatings to the exhaust pipes, catalytic converters or heat shields.** ◁

Ignition lock

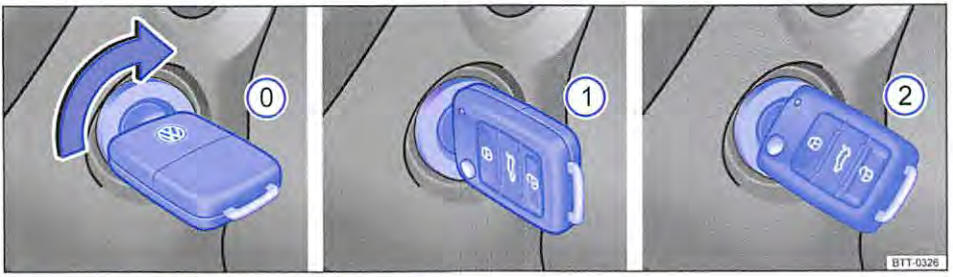


Fig. 217 Positions of the vehicle key in the ignition lock.

First read and observe the introductory information and safety warnings ⚠ on page 257.

The steering lock can be activated when there is no vehicle key in the ignition lock.

Vehicle key positions ⇒ Fig. 217

(0) Ignition switched off. The vehicle key can be removed.

(1) Ignition switched on. The steering lock can be released.

(2) Start the engine. Release the vehicle key as soon as the engine starts. Once released, the vehicle key moves back to position (1).

Non-authorised vehicle key

If a non-authorised vehicle key has been inserted in the ignition lock it can be removed as follows:

- Dual clutch gearbox, DSG®: vehicle key cannot be removed from the ignition lock in this position. Press the lock button in the selector lever and release. The vehicle key can be removed.
- Manual gearbox: remove the vehicle key from the ignition lock.

⚠ WARNING

Careless or unsupervised use of the vehicle key can lead to accidents or injuries.

- **Always take all vehicle keys with you every time you leave the vehicle. The engine can be started and electrical equipment such as the window controls can be operated. This can cause serious injury.**
- **Never leave children or people requiring assistance alone in the vehicle. They could become trapped in the vehicle in an emergency and may not be able to get themselves to safety. For example, locked vehicles may be subjected to very high or very low temperatures, according to season. This can cause serious injuries and illness or fatalities, especially for small children.**
- **Never remove the vehicle key from the ignition lock when the vehicle is in motion. The steering lock may be activated and you will no longer be able to steer the vehicle.**

In vehicles with the DSG® dual clutch gearbox the vehicle key can only be removed from the ignition lock if the selector lever is in position **P**. If necessary, press the lock button in the selector lever and then release it. ◁

Starting the engine

First read and observe the introductory information and safety warnings ⚠ on page 257.

The steps should only be carried out in the specified order.		
Step	**Vehicles with a manual gearbox**	**Vehicles with dual clutch gearbox DSG ®**
1.	Press the brake pedal, if required. Keep it held down until stage 5 has been completed.	
2.	Fully depress the clutch pedal until the engine has been started.	

The steps should only be carried out in the specified order.		
Step	**Vehicles with a manual gearbox**	**Vehicles with dual clutch gearbox DSG ®**
2a.	Shift the gear stick to a neutral position.	Shift the selector lever to position **P** or **N**.
3.	**Only vehicles with diesel engines:** to preheat the engine, turn the vehicle key to position ⇒Fig. 217 ①. The indicator lamp ʊʊ lights up in the instrument cluster.	
4.	Turn vehicle key to position ⇒Fig. 217 ② – do not depress accelerator.	
5.	Release the vehicle key once the engine has started.	
6.	If the engine does not start, stop the procedure and repeat it after approximately one minute.	
7.	Release the handbrake if you wish to pull away ⇒page 269.	

⚠ WARNING

Never leave the engine running if you leave the vehicle unattended, particularly not if a gear or driving mode has been selected. The vehicle could move suddenly or something unexpected may happen that may cause damage, fire or serious injuries.

⚠ WARNING

Start boosters may explode or suddenly cause the engine to run at high revs.

- **Never use a start booster.**

ⓘ NOTICE

- **The starter and the engine could be damaged if you attempt to start the engine while the vehicle is in motion or if the engine is started again immediately after it has been switched off.**

ⓘ NOTICE (Continued)

- **When the engine is cold, avoid high engine speeds, driving at full throttle and overloading the engine.**
- **Do not push-start or tow-start the vehicle. Unburnt fuel can damage the catalytic converter.**

Do not warm up the engine by running it while the vehicle is stationary. Instead, pull off as soon as there is good visibility through the windows. This helps the engine to reach operating temperature more quickly and reduces emissions.

Components with a high power consumption are switched off temporarily when the engine is started.

When starting from cold, the engine may be a little noisy for the first few seconds. This is quite normal, and no cause for concern.

At outside temperatures of less than +5°C (+41°F), fumes may be detected under a vehicle with a diesel engine if the fuel-powered supplementary heater is switched on. ◁

Stopping the engine

First read and observe the introductory information and safety warnings ⚠ on page 257.

The steps should only be carried out in the specified order.	
1.	The vehicle must be completely stationary ⇒⚠.
2.	Press the brake pedal. Keep it held down until step 4 has been completed.
3.	In vehicles with a dual clutch gearbox DSG®, shift selector lever to position **P**.
4.	Apply the handbrake ⇒page 269.
5.	Turn the vehicle key to position ⇒Fig. 217 ⓪.
6.	In vehicles with a manual gearbox, select the first gear or the reverse gear ⇒page 263. ▶

⚠ WARNING

Never switch off the engine while the vehicle is in motion. This can lead to a loss of vehicle control, accidents and serious injuries.

- **The airbags and belt tensioners will not work if the ignition is switched off.**
- **The brake servo will not work when the engine is switched off. That is why more pressure on the brake pedal is needed to stop the vehicle when the engine is switched off.**
- **The power assisted steering will not work when the engine is not running. More power is needed to steer the vehicle when the engine is switched off.**

⚠ WARNING (Continued)

- **If the vehicle key is removed from the ignition, the steering lock can activate and you will no longer be able to steer the vehicle.**

NOTICE

If the vehicle has been driven at high load for a long period, the engine could overheat when it is switched off. In order to avoid damage to the engine, allow the engine to run in neutral for approximately two minutes before switching it off.

In vehicles with DSG® dual clutch gearbox, the vehicle key can only be removed from the ignition lock if the selector lever is in position **P**.

After the engine is switched off, the radiator fan in the engine compartment may run on for some minutes, even if the ignition is switched off or the vehicle key has been removed. The radiator fan will switch itself off automatically. ◁

Electronic immobilizer

First read and observe the introductory information and safety warnings ⚠ on page 257.

The immobilizer helps to prevent the engine from being started and driven with an unauthorised vehicle key.

There is a chip in the key. It automatically deactivates the immobilizer when the vehicle key is inserted into the ignition lock.

The electronic immobilizer is automatically activated when the vehicle key is removed from the ignition lock.

The engine can only be started using a genuine Volkswagen vehicle key with the correct code. Coded vehicle keys are available from a Volkswagen Commercial Vehicles dealership ⇒page 36.

If a non-authorised vehicle key has been used, the display in the instrument cluster will show **SAFE**, or `Immobilizer active!`. The vehicle cannot be used if this occurs.

The vehicle cannot be operated properly if you do not have a genuine Volkswagen key. ◁

Changing gears

Introduction

This chapter contains information on the following subjects:

Warning and indicator lamps 261
Pedals 262
Manual gearbox: selecting a gear 263
Dual clutch gearbox DSG® 264
DSG® dual clutch gearbox: selecting a gear . 264
Changing gear with Tiptronic 266
Driving with dual clutch gearbox DSG® 266
Fault in the DSG® dual clutch gearbox 267
Gear-change indicator ..... 268 ▶

The following will occur if reverse gear is selected and the ignition is switched on:

- The reverse light comes on.
- The Climatronic switches automatically to air recirculation mode when the vehicle is reversing.
- If fitted, the ParkPilot and the rear view camera system are switched on.
- The static cornering light may be switched on on both sides.

Additional information and warnings:

- Instruments ⇒page 19
- Volkswagen information system ⇒page 24
- Braking, stopping and parking ⇒page 269
- Pull-away assist systems ⇒page 282
- ParkPilot ⇒page 287
- Reversing camera (Rear Assist) ⇒page 291
- Air conditioning ⇒page 322
- Engine management system and exhaust purification system ⇒page 407
- Manual opening and closing ⇒page 413

⚠ WARNING

Rapid acceleration can cause loss of traction and skidding, particularly on slippery roads. This can cause you to lose control of the vehicle, which can lead to accidents and serious injuries.

⚠ WARNING (Continued)

• The kickdown function or fast acceleration should only be used if the visibility, weather, road and traffic conditions permit.

⚠ WARNING

Never "ride" the brake pedal. Do not overuse the brake pedal. Constant braking will cause the brakes to overheat. This can considerably reduce the brake effect, increase the braking distance and, in certain circumstances, cause the brake system to fail completely.

NOTICE

• Never let the brakes "rub" by applying light pressure to the brake when it is not necessary to brake. This will increase levels of wear.

• Before driving down a long, steep gradient, reduce speed and change to a lower gear or move the selector lever to a lower position. This will make use of the engine braking effect and relieve the load on the brakes. The brakes could otherwise overheat and possibly fail. The brakes should only be used to slow or stop the vehicle. ◁

Warning and indicator lamps

First read and observe the introductory information and safety warnings ⚠ on page 260.

Lit up	Possible cause	Solution
	7-speed DSG® dual clutch gearbox overheating.	**Do not drive on!** Allow the gearbox to cool down in selector lever position P. If the warning light does not go out, do not drive on. Seek professional assistance. Failure to do so can cause considerable damage to the gearbox ⇒page 267.
	Brake pedal not depressed.	Fully depress the brake pedal. See also Adaptive cruise control (ACC) ⇒page 298.
	Brake pedal not depressed.	To select a position, press the brake pedal. ▶

Flashes	Possible cause	Solution
	The lock button in the selector lever is not engaged. The vehicle cannot drive off.	Engage the selector lever lock ⇒ page 265.
	Dual clutch gearbox DSG®. flashes alternately with selector lever display, e.g. **D**.	Drive to the nearest qualified workshop immediately at a low engine speed to have the system checked.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**

⚠ WARNING (Continued)

- **Stop the vehicle as soon as possible and when safe to do so.**
- **If the vehicle is stationary or has to be parked for repairs, always park the vehicle at a safe distance from the road, switch on the hazard warning lights, switch off the engine and take other precautionary measures in order to warn traffic behind you.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁

Pedals

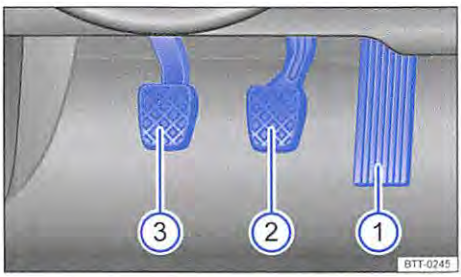


Fig. 218 In vehicles with a manual gearbox, accelerator pedal ①, brake pedal ② and clutch pedal ③.

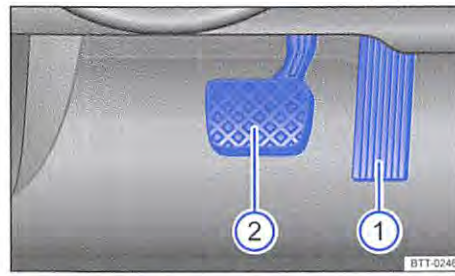


Fig. 219 In vehicles with a dual clutch gearbox, accelerator pedal ① and brake pedal ②.

First read and observe the introductory information and safety warnings ⚠ on page 260.

The operation and freedom of movement of all pedals must never be impaired by objects or floor mats.

Only use floor mats that leave the pedal area free and can be securely fastened in the footwell.

If a brake circuit fails, you will have to depress the brake pedal further than normal in order to bring the vehicle to a stop.

⚠ WARNING

Objects in the driver footwell can hinder pedal operation. This can lead to loss of control of the vehicle and increase the risk of serious injury.

- **Please ensure that all pedals can always be operated without any hindrance.**
- **The foot mats must always be properly secured in the footwell.** ▶

⚠ WARNING (Continued)

- **No additional foot mats or other floor coverings should be placed over the fitted foot mat.**
- **Ensure that no objects can enter the driver footwell while the vehicle is in motion.**

NOTICE

The pedals must be freely operable at all times. For example, the braking distance to fully stop the vehicle will be longer if a braking circuit is faulty. The brake pedal will have to be depressed further and harder than normal. ◁

Manual gearbox: selecting a gear

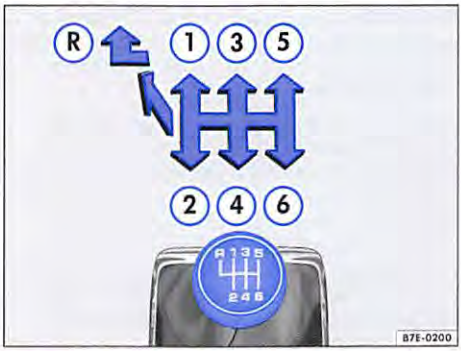


Fig. 220 Gear shift pattern of a 5 or 6-speed manual gearbox

First read and observe the introductory information and safety warnings ⚠ on page 260.

The positions of the individual driving gears are shown on the gearshift lever ⇒Fig. 220.

- Fully depress and hold the clutch pedal.
- Move the gear lever to the required position ⇒⚠.
- Release the clutch to engage.

In some countries, the clutch pedal will have to be depressed fully in order to start the engine.

Selecting reverse gear

- Reverse gear should only be selected when the vehicle is stationary.
- Fully depress and hold the clutch pedal ⇒⚠.
- Pull the ring on the gear level up.
- Push the gearshift lever fully to the left and then to the front in the reverse gear position Ⓡ.
- Release the clutch to engage.

Shifting down

You should always select the next immediate gear when shifting down a gear whilst the vehicle is in motion. The engine revs should not be too high when doing this ⇒⚠. Damage to the clutch and the gearbox can occur if one or more gears are skipped when shifting down a gear at high speeds or high engine revs, even if the clutch is not released in the process ⇒ⓘ.

⚠ WARNING

When the engine is running, the vehicle will start to move as soon as a gear is engaged and the clutch released. This also applies when the handbrake is on.

- **Never engage reverse gear while the vehicle is in motion.**

⚠ WARNING

Shifting gears incorrectly to a lower gear can lead to a loss of control of the vehicle, which can cause accidents and serious injuries.

NOTICE

Serious damage to the clutch and gearbox can occur if the gear stick on the manual gearbox is shifted to too low a gear when travelling at high speeds or at high revs. This also applies if the clutch remains depressed and the gears do not engage.

NOTICE

Please note the following to help avoid damage and premature wear:

- **Do not rest your hand on the gear lever when driving. The pressure from your hand is passed onto the selector forks in the gearbox.**
- **Ensure that the vehicle has come to a full stop before engaging reverse gear.**
- **Always fully depress the clutch pedal when changing gear.**
- **Do not hold the vehicle by "riding" the clutch on a hill with the engine running.** ◁

Dual clutch gearbox DSG®

First read and observe the introductory information and safety warnings ⚠ on page 260.

Description

The DSG® dual clutch gearbox is a **gearbox which uses dual-clutch technology to change gear automatically**. It uses a dual clutch and two independent gearboxes to enable very fast gear changes with no loss of torque. The DSG® dual clutch gearbox thus combines the performance and economy of a manual gearbox with the comfort and convenience of a conventional automatic transmission.

How the system works

Engine power is transferred to the drive shafts via the gearbox. In order to change gears, the power transmission between the engine and the gearbox has to be interrupted. This is what the clutch is for.

With the DSG® dual clutch system with its two complementary gearboxes, one gearbox is always connected under load to the engine. When one gear is engaged, another gear is always preselected in the other gearbox. The clutch on the non-driven gear is closed and the other is opened at the same time. This is what makes very fast gear changes possible.

The DSG® dual clutch gearbox is designed to be more efficient than an automatic gearbox. In an automatic gearbox, the torque converter is constantly in use, whereas in the DSG® dual clutch system the idle clutch can be opened, thus saving fuel. With its efficiency, low weight and intelligent control system, the DSG® dual clutch system usually enables fuel consumption equal to or lower than a manual gearbox.

However just like the manual gearbox, the clutch in the DSG® dual clutch system is subject to wear. Regular maintenance is necessary, varying according to what type of DSG® dual clutch system is installed. For more information see the service schedule. In the DSG® dual clutch system, if one gearbox malfunctions it is deactivated and the other gearbox functions alone ⇒page 267. If this happens, have the system checked as soon as possible by a qualified workshop. ◁

DSG® dual clutch gearbox: selecting a gear

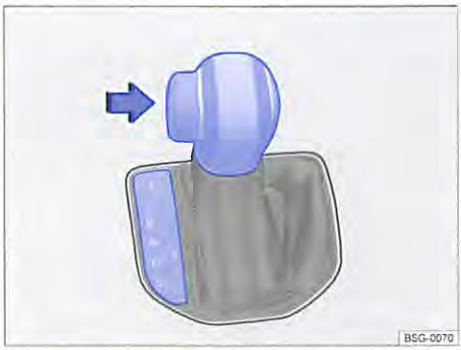


Fig. 221 Selector lever for automatic gearbox with lock button (arrow) in left-hand drive vehicles. The controls are mirrored for right-hand drive vehicles.

First read and observe the introductory information and safety warnings ⚠ on page 260.

The selector lever is equipped with a selector lever lock. When changing the selector lever position from **P** to a driving gear, depress the brake pedal and push the lock button in the selector lever in the direction of the arrow ⇒Fig. 221. To move the selector lever out of position **N** to position **D** or **R**, first depress and hold the brake pedal.

The current selector lever position or the selected gear will be shown in the instrument cluster display if the ignition is switched on. ▶

Selector lever position	Designation	Meaning ⇒⚠
P	**Parking lock**	The drive wheels are locked mechanically. May only be selected when the vehicle is *stationary*. To disengage this selector lever position while the ignition is switched on, depress the brake pedal and press the lock button in the selector lever ⇒Fig. 221 (arrow).
R	**Reverse gear**	Reverse gear is selected. May only be selected when the vehicle is *stationary*.
N	**Neutral**	The gearbox is in the neutral position. No force is transmitted to the wheels and the braking effect of the engine is not available.
D	**Standard driving position** (normal programme)	All forward gears are shifted up and down automatically. The timing of the gear shift is determined by the engine load, your individual driving style and the speed of the vehicle.
S	**Standard driving position** (sport programme)	All forward gears are automatically changed *up and down* at *higher engine speeds* than in selector lever position **D**. This uses the full power available from the engine. The timing of the gear shift is determined by the engine load, your individual driving style and the speed of the vehicle.

Selector lever lock

The selector lever lock in position **P** or **N** prevents gears from being engaged inadvertently, which would cause the vehicle to move.

To release the selector lever lock in the position **P** or **N** while the ignition is switched on, depress the brake pedal and hold. Press the lock button in the selector lever at the same time.

The selector lever lock is not engaged if the selector lever is moved quickly through position **N**, e.g. when shifting from **R** to **D**. This makes it possible, for instance, to "rock" the vehicle backwards and forwards if it is stuck in snow or mud. The selector lever lock engages automatically if the brake pedal is not depressed and the lever is in position **N** for more than approximately 1 second and the vehicle is travelling no faster than approximately 5 km/h (3 mph).

In rare cases, the selector lever lock may not engage in vehicles with a DSG® dual clutch gearbox. The drive is then deactivated to prevent the vehicle from accidentally pulling away. The green indicator lamp flashes and an information message is also displayed. Use the following procedure to engage the selector lever lock:

- Depress the foot brake and then release it again.

⚠ WARNING

Engaging an incorrect selector lever position can cause you to lose control of the vehicle, which can lead to accidents and serious injuries.

- **Never depress the accelerator pedal when selecting a position.**
- **When the engine is running, the vehicle starts moving as soon as a selector lever position is engaged and the brake pedal is released.**
- **Never select reverse gear or engage the parking lock while the vehicle is in motion.**

⚠ WARNING

Unintentional vehicle movements can cause serious injury.

- **The driver must never leave the driver seat when the engine is running and a position has been selected. If you have to leave the vehicle while the engine is running, always apply the handbrake and move the selector lever to position P.**
- **If the engine is running and the selector lever is in position D, S or R, the vehicle must be held with the foot brake. The vehicle will creep forward even when the engine is idling, as power transmission is even then not fully interrupted.**
- **Never select positions R or P when the vehicle is in motion.**

⚠ WARNING (Continued)

- **Never leave the vehicle in driving mode N. The vehicle will roll downhill irrespective of whether or not the engine is running.**

NOTICE

If the handbrake is not applied when the vehicle is stationary and the brake pedal is released when then selector lever is in position P, the vehicle may move a few centimetres forwards or backwards.

If the lever is moved accidentally to **N** when driving, take your foot off the accelerator. Wait for the engine revs in the neutral position before selecting a position again.

If the selector lever is left in any position other than **P** for long periods when the engine is switched off, the vehicle battery discharges. ◁

Changing gear with Tiptronic

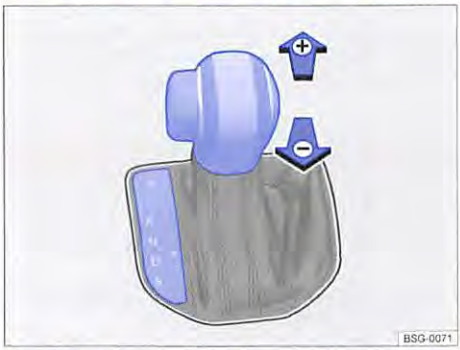


Fig. 222 Selector lever in Tiptronic position (left-hand drive). The controls are mirrored for right-hand drive vehicles.

First read and observe the introductory information and safety warnings ⚠ on page 260.

With a DSG® dual clutch gearbox, Tiptronic allows the gears to be shifted up and down manually.

The gear that is currently selected will be maintained when the Tiptronic programme is selected. This remains the case until the system does not perform a gear change due to the current driving situation.

Operating Tiptronic with the selector lever

- Push the selector lever from position **D** to the right into the Tiptronic gate ⇒⚠ in *DSG® dual clutch gearbox: selecting a gear* on page 265.
- Gently push the selector lever forwards ⊕ or back ⊖ to shift gear up or down ⇒Fig. 222.

NOTICE

- **When accelerating, the gearbox automatically shifts up to the next gear shortly before the maximum permitted engine speed is reached.**
- **When shifting down a gear manually, the gearbox will not change gear until the engine can no longer be overrevved.** ◁

Driving with dual clutch gearbox DSG®

First read and observe the introductory information and safety warnings ⚠ on page 260.

The gearbox changes the forward gears up and down automatically.

Driving down hills

The steeper the gradient, the lower the gear you will need. Lower gears increase the braking effect of the engine. Never allow the vehicle to roll down mountains or hills in the neutral position **N**. ▶

- Reduce your speed.
- Push the selector lever from position **D** to the right into the Tiptronic gate ⇒ page 266.
- Gently push the selector lever to the rear to change down gear.

Stopping the vehicle and pulling away when driving uphill

The steeper the incline, the lower the gear that is required.

If you wish to stop the vehicle or pull away when driving uphill, you should use the Hill Hold Assist function ⇒ page 282.

Vehicles without Hill Hold Assist: when the vehicle is stopped on an incline and remains in gear, the vehicle must always be prevented from rolling by depressing the brake pedal or by applying the handbrake. The brake pedal or the handbrake should not be released until you start to pull away ⇒ ⓘ.

Kickdown

The kickdown mechanism enables maximum acceleration in the selector lever positions **D** and **S**, or in the Tiptronic position.

If the accelerator pedal is depressed fully, the gearbox will automatically shift to a lower gear, depending on the speed and engine revs. This will make use of the full vehicle acceleration ⇒ ⚠.

The gearbox does not shift up to the next gear until the engine reaches the maximum engine speed for the gear.

Freewheel driving with 7-speed dual clutch gearbox DSG®

In coasting mode, the momentum of the vehicle can be used to save fuel in conjunction with a foresighted driving style. The engine is declutched and no longer brakes the vehicle – the vehicle can roll out over a longer distance.

Switch-on condition: the selector lever must be in position **D**.

Triggering coasting

- Remove foot from accelerator pedal. The engine will be disengaged and run in freewheel mode. The vehicle rolls without the braking effect of the engine.

Cancelling coasting mode

- Depress the brake pedal briefly.

Coasting can be switched on and off in the **Settings** menu of the Volkswagen Information system ⇒ page 24.

⚠ WARNING

Rapid acceleration can cause loss of traction and skidding, particularly on slippery roads. This can cause you to lose control of the vehicle, which can lead to accidents and serious injuries.

- **Always adjust your driving style in accordance with the flow of traffic.**
- **Only use kickdown or fast acceleration if visibility, weather, road and traffic conditions permit, and other road users are not put at risk due to the acceleration and the driving style.**
- **You should never endanger other road users through the acceleration of your vehicle or through your driving style.**

ⓘ NOTICE

- **If you stop the vehicle on an incline, do not attempt to stop it from rolling back by depressing the accelerator while a position is still selected. The automatic gearbox could overheat and be damaged.**
- **Never allow the vehicle to roll in position N, particularly if the ignition is switched off. The automatic gearbox will not be lubricated and could be damaged.** ◁

Fault in the DSG® dual clutch gearbox

First read and observe the introductory information and safety warnings ⚠ on page 260.

Emergency programme

There is a fault in the system if all the displays on the instrument cluster for the selector lever positions have a light background. The automatic gearbox is running in an emergency programme. The vehicle can still be driven in the emergency programme, but only at reduced speed and not in all gears.

In vehicles with a DSG® dual clutch gearbox, you may **no longer be able to select reverse gear**. The gearbox should be checked by a qualified workshop as soon as possible. ▶

In all cases the automatic gearbox should be checked by a qualified workshop immediately.

Overheating of the DSG® dual clutch gearbox

The dual clutch gearbox can overheat when the vehicle pulls off regularly, travels at a crawl for long periods, or in stop and go traffic. Gearbox overheating is indicated by the warning lamp ⓘ and in some cases by a text message in the instrument cluster display. A signal tone may also be given. Stop the vehicle and allow the gearbox to cool down ⇒ⓘ.

The vehicle will not move forwards or backwards even though a gear has been selected

If the vehicle will not move in the required direction, the system may have selected the position incorrectly. Depress the brake pedal and reselect the position.

If the vehicle still does not move in the required direction, there is a system fault. Seek expert assistance and have the system checked.

NOTICE

- **If the display indicates that the gearbox is overheating for the first time, the vehicle will have to be parked safely or driven faster than 20 km/h (12 mph).**
- **Safely park the vehicle immediately and switch the engine off if the text message and signal tone are repeated approximately every 10 seconds. Allow the gearbox to cool down.**
- **In order to prevent damage to the gearbox, you should not drive on until the acoustic warning stops. You should not pull away or drive the vehicle at very low speeds while the gearbox is overheated.** ◁

Gear-change indicator

First read and observe the introductory information and safety warnings ⚠ on page 260.

Depending on the vehicle equipment level, the instrument cluster may indicate the gear which you should select in order to reduce fuel consumption while the vehicle is in motion.

Display	Meaning
●	The current gear is optimal.
↑	A higher gear is recommended.
↓	A lower gear is recommended.

In vehicles with a *manual gearbox* the **recommended gear** will be indicated in the form of a number and a recommendation to shift up or down into the recommended gear will be displayed in the form of an arrow ⇒page 263.

In vehicles with a *DSG® dual clutch gearbox* if the selector lever is in the Tiptronic position, the **current gear** will be indicated in the form of a number and a recommendation to shift up or down a gear will be displayed in the form of an arrow ⇒page 266.

Information on "cleaning" the diesel particulate filter

The exhaust management system detects when a diesel particulate filter is filling up and aids the filter's self-cleaning process by recommending the most suitable gear when driving. This may mean driving with increased engine speed in exceptional cases ⇒page 407.

⚠ CAUTION

The gear-change indicator is only designed to assist the driver and cannot replace the driver's own judgement.

- **The driver has full responsibility for selecting the correct gear in all situations (e.g. when overtaking, driving up and down hills and when towing a trailer).**

Driving in the correct gear can help to reduce fuel consumption.

On vehicles with a dual clutch gearbox DSG®, the information on the gear-change indicator disappears when disengaging from the Tiptronic position.

On vehicles with a manual gearbox, the display on the gear-change indicator will disappear when the clutch pedal is depressed. ◁

Braking, stopping and parking

Introduction

This chapter contains information on the following subjects:

Warning and indicator lamps 270
Handbrake 271
Parking 272
Information on the brakes 272
Brake support systems 274
Switching the TCS on and off 276
Brake fluid 277

The **brake support systems** are the anti-lock brake system (ABS), the Brake Assist system (BAS), the electronic differential lock (EDS), the traction control system (TCS) and the Electronic Stability Control (ESC).

Additional information and warnings:

- Towing a trailer ⇒page 139
- Pull-away assist systems ⇒page 282
- Wheels and tyres ⇒page 367
- Accessories, modifications, repairs and renewal of parts ⇒page 394

⚠ WARNING

Driving with worn brake pads or with a faulty brake system can cause accidents and serious injuries.

• If the warning lamp ⓘ lights up either on its own or with a text message in the display of the instrument cluster, go to a qualified workshop immediately, have the brake pads checked and any worn brake pads replaced.

⚠ WARNING

Incorrect parking can cause serious injuries.

• Never remove the vehicle key from the ignition lock when the vehicle is in motion. The steering lock may be activated and you will no longer be able to steer or control the vehicle.

⚠ WARNING (Continued)

• Never park the vehicle where parts of the exhaust system can come into contact with inflammable material underneath the vehicle, e.g. undergrowth, leaves, dry grass, spilt fuel.

• Always apply the handbrake when the vehicle is parked.

• Never leave children or people requiring assistance alone in the vehicle. They could release the handbrake, move the selector lever or gearshift lever and thus set the vehicle in motion. This can lead to accidents and serious injuries.

• Always take all vehicle keys with you every time you leave the vehicle. The engine can be started and electrical equipment such as the window controls can be used which could cause serious injury.

• Never leave children or people requiring assistance alone in the vehicle. They could become trapped in the vehicle in an emergency and may not be able to get themselves to safety. For example, locked vehicles may be subjected to very high or very low temperatures, according to season. This can cause serious injuries and illness or fatalities, especially for small children.

ⓘ NOTICE

• To avoid unintentional movement when parking the vehicle, first apply the handbrake and then remove your foot from the brake pedal.

• Always take care when driving in car parks with protruding kerbstones or bollards. Objects that protrude from the ground can damage the bumper and other components when parking the vehicle. In order to avoid any damage, stop the vehicle before the wheels can touch the bollards or kerbs.

• Drive carefully through dips in the road, over driveways, ramps, kerbstones and other objects. Low-lying vehicle components such as the bumper, spoiler and parts of the running gear, engine or exhaust system could be damaged. ◁

Warning and indicator lamps

First read and observe the introductory information and safety warnings ⚠ on page 269.

Lit up	Possible cause ⇒⚠	Solution
(!)	Handbrake is applied.	
	Brake system fault.	**Do not drive on!** Seek expert assistance immediately ⇒page 273.
	Brake fluid level is too low.	**Do not drive on!** Check the brake fluid level ⇒page 277.
	Together with ABS indicator lamp: ABS not functioning.	Go to a qualified workshop. The vehicle can be braked without ABS.
	Brake pads worn.	Go to a qualified workshop immediately. **All** brake pads should be checked and renewed as necessary.
	ESC switched off by the system.	Switch the ignition on and off. If necessary, drive a short distance.
	ESC fault.	Go to a qualified workshop.
	In conjunction with ABS indicator lamp: ABS fault.	Go to a qualified workshop. The vehicle can be braked without ABS.
	Vehicle battery has been reconnected.	Drive a short distance at a speed of 15 – 20 km/h (10 – 12 mph). If the indicator lamp remains lit up, the vehicle should be checked by a qualified workshop ⇒page 362.
	TCS switched off manually.	Switch on TCS ⇒page 276. Switch on TCS automatically by switching the ignition off and on.
	In conjunction with ESC indicator lamp: ABS fault.	Go to a qualified workshop. The vehicle can be braked without ABS.
	In conjunction with warning lamp: ABS not functioning.	
	Brake pedal not depressed.	To select a position, press the brake pedal.

Flashes	Possible cause	Solution
	ESC/TCS is taking corrective action.	Remove foot from accelerator pedal. Adapt driving style to suit road conditions.
	Trailer stabilisation controlled.	Remove foot from accelerator pedal. If possible, do not turn the steering wheel ⇒page 139.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

⚠ WARNING (Continued)

- **Never ignore any illuminated warning lamps or text messages.**
- **Stop the vehicle as soon as possible and when safe to do so.**

⚠ WARNING

Driving with poor brakes can result in accidents and serious injuries.

⚠ WARNING (Continued)

- If the brake warning lamp ⓘ does not go out, or if it lights up when driving, the brake fluid level in the reservoir is too low or there is a fault in the brake system. Stop the vehicle immediately and seek expert assistance ⇒ page 277, *Brake fluid*.
- If the brake warning lamp ⓘ lights up together with the ABS indicator lamp ⓐ, the control function of the ABS may have failed. This can cause the rear wheels to lock quickly when you brake. Locked rear wheels can lead to a loss of control of the vehicle. If possible, reduce your speed and drive carefully at low speed to the nearest qualified workshop in order to have the brake system tested. Avoid sudden braking and driving manoeuvres on the way.
- The ABS is not functioning correctly if the ABS indicator lamp ⓐ does not go out or comes on while the vehicle is in motion. The vehicle can be stopped using the normal brakes only (without ABS). The protection provided by ABS is no longer available. Go to a qualified workshop as soon as possible.
- If the warning lamp ⓒ lights up either individually or together with a text message in the display of the instrument cluster, go to a qualified workshop immediately to have the brake pads checked or any worn brake pads replaced.

ⓘ NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁

Handbrake

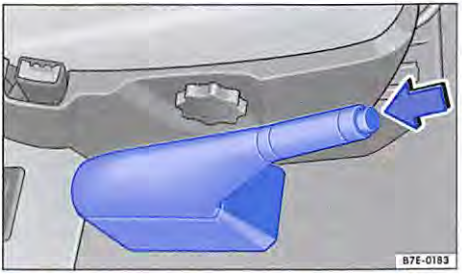


Fig. 223 Handbrake between the front seats.

First read and observe the introductory information and safety warnings ⚠ on page 269.

Applying the handbrake

- Lift the handbrake lever up fully.
- The handbrake is applied when the indicator lamp ⓘ lights up in the instrument cluster ⇒ page 270.

Releasing the handbrake

- Lift the handbrake lever up slightly and press the lock button ⇒ Fig. 223 (arrow).
- Guide the handbrake lever down whilst the lock button is pressed.

⚠ WARNING

Incorrect use of the handbrake can cause accidents and serious injuries.

- The handbrake should never be used to brake the vehicle, except in emergencies. The braking distance is considerably longer as only the rear wheels are braked. Always use the foot brake.
- Never drive the vehicle with the handbrake lightly applied. This can overheat the brakes and adversely affect the brake system. It can also cause premature wear to the rear brake pads.
- Never activate the accelerator from the engine compartment if a position or gear has been selected and the engine is running. The vehicle can start to move even if the handbrake is applied.

ⓘ NOTICE

To avoid unintentional movement when parking the vehicle, first apply the handbrake and then remove your foot from the brake pedal.

An acoustic warning is given if the car is driven faster than approximately 6 km/h (4 mph) with the handbrake applied. ◁

Parking

First read and observe the introductory information and safety warnings ⚠ on page 269.

Please adhere to relevant legislation when stopping and parking your vehicle.

Stopping the vehicle

The steps should only be carried out in the specified order.

- Stop the vehicle on a suitable surface ⇒⚠.
- Depress and hold the brake pedal until the engine has stopped.
- Apply the handbrake.
- With a DSG® dual clutch gearbox, move the selector lever to position **P**.
- Switch off the engine and take your foot off the brake pedal.
- Remove the vehicle key from the ignition lock.
- Turn the steering wheel slightly if necessary to engage the steering lock mechanism.
- With a manual gearbox, select the first gear for flat ground and uphill inclines, or the reverse gear for downhill inclines, and then release the clutch pedal ⇒page 263.
- Please ensure that all occupants, in particular children, leave the vehicle.
- Take all vehicle keys with you when you leave the vehicle.
- Lock the vehicle.

Additional points for ascending and descending inclines

Before switching off the engine, turn the steering wheel so that the front wheels will roll against the kerb if the parked vehicle starts to move.

- When facing downhill, turn the wheels so that they face the kerb.
- When facing uphill, turn the wheels so that they face the centre of the road.

⚠ WARNING

The components of the exhaust system become very hot. This can cause fires and serious injuries.

- **Never park the vehicle where parts of the exhaust system can come into contact with any inflammable material underneath the vehicle, e.g. undergrowth, leaves, dry grass, spilt fuel.**

NOTICE

- **To avoid unintentional movement when parking the vehicle, first apply the handbrake firmly and then remove your foot from the brake pedal.**
- **Always take care when driving in car parks with protruding kerbstones or bollards. Objects that protrude from the ground can damage the bumper and other components when parking the vehicle. In order to avoid any damage, stop the vehicle before the wheels can touch the bollards or kerbs.**
- **Drive carefully through dips in the road, over driveways, ramps, kerbstones and other objects. Low-lying vehicle components such as the bumper, spoiler and parts of the running gear, engine or exhaust system could be damaged.**
- **If the handbrake is not applied fully when the vehicle is stationary and the brake pedal is released when then selector lever is in position P, the vehicle may move a few centimetres forwards or backwards.** ◁

Information on the brakes

First read and observe the introductory information and safety warnings ⚠ on page 269.

New brake pads cannot generate the full braking effect during the first 200 to 300 km and must first be "run in" ⇒⚠. However, you can compensate for the slightly reduced braking force by applying more pressure to the brake pedal. **During the run-in period, the braking distance is longer when the brakes are depressed fully or during emergency braking** than with brakes that have been fully run in. In the run-in period, the brakes should not be depressed fully and situations that create a ▷

heavy load on the brakes should be avoided. For example, when driving too close to the vehicle ahead.

The **rate of wear** of the brake pads depends to a great extent on the conditions under which the vehicle is operated and the way in which the vehicle is driven. With regular urban trips, short journeys and a sporty driving style, the brake pads must be checked by a qualified workshop more regularly than stated in the service schedule.

When driving with **wet brakes**, for example after driving through water, after heavy rainfall or after washing the vehicle, the braking effect may be delayed as the brake discs will be wet, or possibly iced up (in winter). The brakes must be "dried" as quickly as possible by careful braking at higher speed. Ensure that no vehicle behind you or no other road user is put at risk as a result of this action ⇒ ⚠.

Any **salt layer accumulating on the discs and pads** will delay the braking effect and increase the braking distance. If the brakes on the vehicle have not been applied for a long time on roads that have been gritted with salt, the layer of salt must be reduced through careful braking ⇒ ⚠.

Corrosion on the brake discs and **dirt** in the brake pads are facilitated through long periods of inactivity, low mileage and low load levels. With inactivity or low use levels for the brake pads as well as corrosion, Volkswagen Commercial Vehicles recommends that the brake discs and brake pads be cleaned by braking strongly several times from high speed. Ensure that no vehicle behind you or no other road user is put at risk as a result of this action ⇒ ⚠.

Fault in the brake system

A brake circuit may have failed if you have to reduce speed and the vehicle does not brake as normal (sudden increase in braking distance). This will be indicated by the warning lamp (!) and in some cases a text message. Go to the nearest qualified workshop immediately to have the fault corrected. Drive at low speed when doing this and anticipate much longer braking distances and an increase in the pressure required on the pedal.

Brake servo

The brake servo will only function when the engine is running and reinforces the pressure applied by the driver on the brake pedal.

If the brake servo is not functioning or the vehicle is being towed, the brake pedal will have to be depressed more forcefully as the braking distance will be increased due to the lack of assistance for the brake system ⇒ ⚠.

⚠ WARNING

New brake pads will not have the optimal braking effect when first fitted.

- **New brake pads cannot generate the full braking effect during the first 300 km and must first be run in. A reduced braking effect can be increased by applying more pressure to the brake pedal.**
- **You must drive particularly carefully when driving with new brake pads in order to reduce the risk of accidents, serious injuries and loss of control of the vehicle.**
- **Never drive too close to other vehicles when running in new brake pads, and never create a driving situation that will place a heavy load on the brakes.**

⚠ WARNING

Overheated brakes reduce the braking effect and considerably increase the braking distance.

- **When driving downhill the brakes are placed under particular strain and become hot very quickly.**
- **Before driving down a long, steep gradient, reduce speed and change to a lower gear or move the selector lever to a lower position. This will make use of the engine braking effect and relieve the load on the brakes.**
- **Non-standard or damaged front spoilers could restrict the airflow to the brakes and cause them to overheat.**

⚠ WARNING

Wet brakes or brakes coated with ice or road salt react more slowly and require longer braking distances.

- **Carefully apply the brakes to test them.**
- **Always dry brakes and clean off any coating of ice and salt with a few cautious applications of the brake when visibility, weather, road and traffic conditions permit.**

⚠ WARNING

Driving without the brake servo can considerably increase the braking distance and thus cause accidents and serious injuries.

- **Never allow the vehicle to roll if the engine is switched off.**

⚠ WARNING (Continued)

• If the brake servo does not function or the vehicle is being towed, the brake pedal will have to be depressed more forcefully as the braking distance will be increased due to the lack of assistance for the brake system.

ⓘ NOTICE

• Never let the brakes "rub" by applying light pressure to the brake when it is not necessary to brake. Continual pressure on the brake pedal will overheat the brakes. This can considerably reduce the brake effect, increase the braking distance and, in certain circumstances, cause the brake system to fail completely.

ⓘ NOTICE (Continued)

• Before driving down a long, steep gradient, reduce speed and change to a lower gear or move the selector lever to a lower position. This will make use of the engine braking effect and relieve the load on the brakes. The brakes could otherwise overheat and possibly fail. The brakes should only be used to slow or stop the vehicle.

If the front brake pads are tested, the rear brake pads should be tested at the same time. Regularly check the thickness of the brake pads through the openings in the rims or from the underside of the vehicle. If necessary, remove the wheels to carry out a comprehensive check. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose. ◁

Brake support systems

First read and observe the introductory information and safety warnings ⚠ on page 269.

The brake support systems ESC, ABS, BAS, TCS and EDL only function when the engine is running. They make a considerable contribution to active driving safety.

Electronic stability control (ESC)

The ESC helps to reduce the risk of skidding and to improve driving stability by braking individual wheels in certain driving situations. The ESC detects critical driving situations such as oversteer, understeer and wheelspin. The system helps to stabilise the vehicle through targeted application of the brakes or by reducing engine torque.

ESC has its limitations. It is important to realise that ESC cannot overcome the laws of physics. ESC will not be able to assist in every situation faced by a driver. For example, ESC will not be able to assist every time that there is a sudden change in the road surface quality. If a section of dry road is suddenly covered with water, mud or snow, ESC will not be able to assist in the same manner as on a dry road. If the vehicle aquaplanes (drives on a layer of water rather than on the road surface), ESC will not be able to assist in steering the vehicle as the contact to the road surface has been interrupted and it is therefore no longer possible to steer or brake the vehicle. When driving at speed through bends, particularly on stretches of road with many bends, the ESC will not always be able to process complicated driving situations as effectively as at lower speeds. When towing a trailer, ESC is unable to assist the driver in regaining control over the vehicle.

Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions. ESC cannot defy the laws of motion, improve the available power output, or keep the vehicle on the road if insufficient care and attention on the part of the driver causes the vehicle to leave the road. Instead, the ESC improves the chances of keeping the vehicle under control and, in extreme on-road driving situations, exploits the driver's steering input to keep the vehicle travelling in the desired direction. If the vehicle is driving at a speed that leads it to leave the road before the ESC can provide any kind of support, the ESC will be unable to provide any assistance.

The ABS, BAS, TCS and EDL systems are integrated into the ESC. The ESC is always on. If the traction achieved in certain situations is not sufficient, TCS can be switched off by pressing the ASR (TCS) button ⇒Fig. 224. Always ensure that ASR (TCS) is switched back on again once traction is sufficient.

Automatic Post-Collision Braking System

In the event of an accident, the Automatic Post-Collision Braking System can help the driver to reduce the risk of skidding, and the danger of secondary collisions, through automatic braking. ▶

The Automatic Post-Collision Braking System only functions in frontal, side and rear collisions if the airbag control unit registers the corresponding triggering threshold during the accident, and the accident occurs at a speed greater than 10 km/h (6 mph).

The ESC brakes the vehicle automatically, provided that the hydraulic braking system, the ESC and the electrical system are undamaged in the accident and remain functional.

The following actions override automatic braking in the event of an accident:

- When the driver depresses the accelerator. No automatic braking occurs.
- When the brake pressure transmitted through the depressed brake pedal is greater than the brake pressure provided by the system. The vehicle is braked manually.

Anti-lock brake system (ABS)

The ABS prevents the wheels from locking when the brakes are applied up until the point where the vehicle is nearly stationary and assists the driver in steering the vehicle and keeping it under control. This means that the vehicle is less likely to spin, even when the brakes are depressed fully:

- Depress and hold the brake pedal with force. Do not take your foot off the brake pedal or reduce the force on the brake pedal.
- Do not pump the brake pedal or reduce the pressure on the brake pedal.
- Steer the vehicle while the brake pedal is fully depressed.
- The ABS will switch off when the brake pedal is released or if the pressure on the brake pedal is reduced.

If the ABS is taking corrective action, there is a **pulsing movement in the brake pedal** and some noise. However, ABS will not necessarily guarantee shorter braking distances in *all* conditions. The braking distance could even be longer when braking on gravel or on fresh snow covering an icy or slippery surface.

Brake Assist system (BAS)

The Brake Assist system can help to reduce the braking distance. The Brake Assist system reinforces brake pressure when the driver depresses the brake pedal quickly in an emergency situation. As a result, full braking power is made accessible very quickly, braking power is reinforced and the braking distance reduced. This means that the ABS is activated more quickly and more effectively.

Do not reduce the pressure on the brake pedal. The Brake Assist system will switch off the brake servo automatically when the brake pedal is released or if the pressure on the brake pedal is reduced.

Traction control system (TCS)

The TCS reduces the engine output if wheelspin occurs and adapts the output to suit road surface conditions. TCS helps the car to start moving, accelerate and climb gradients in unfavourable road conditions.

The TCS can be switched on and off manually ⇒page 276.

Electronic differential lock (EDL)

The EDL is available for normal driving on straight roads. EDL brakes the wheel that has lost traction and distributes the driving force to the other drive wheels. To prevent the disc brake of the braked wheel from overheating, the EDL cuts out automatically if subjected to excessive loads. The EDL will switch on again automatically when the brake has cooled down.

⚠ WARNING

Driving fast on icy, slippery or wet roads can lead to a loss of control of the vehicle and could cause serious injury to the driver and passengers.

- **Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions. Do not let the extra safety afforded by the brake support systems ABS, BAS, EDL, TCS and ESC tempt you into taking any risks when driving.**
- **The intelligent technology of the brake support systems cannot overcome the laws of physics or system-related vehicle limitations. Slippery and wet roads will remain dangerous, even when the ESC and other systems are active.**
- **Driving too fast on wet roads can cause the wheels to lose contact with the road surface and aquaplane. The vehicle cannot be braked, steered or controlled once it has lost contact with the road surface.**
- **Brake support systems cannot prevent an accident if, for example, you are driving too close to the vehicle in front or are driving too fast for the individual situation.**

⚠ WARNING (Continued)

- **Although the brake support systems are very effective and can help to control the vehicle in difficult driving situations, please always remember that the driving stability of the vehicle depends on the tyre grip.**
- **When accelerating on a slippery surface, for example on ice and snow, press the accelerator carefully. The wheels can spin even when brake support systems are active, and this can lead to a loss of control of the vehicle.**

⚠ WARNING

ESC will be considerably less effective if other components and systems that affect driving dynamics are not serviced correctly or are not functioning properly. This also applies, but not exclusively, to the brakes, tyres and other systems that have already been named.

⚠ WARNING (Continued)

- **Please always note that modifications and changes to the vehicle can affect the function of the ABS, BAS, EDL, TCS and ESC.**
- **Alterations to the suspension system or the use of non-approved wheel and tyre combinations can affect the function of ABS, BAS, TCS, EDL and ESC and reduce their effectiveness.**
- **Suitable tyres are also crucial if ESC is to function optimally ⇒page 367.**

The ESC and TCS can only function properly if all 4 wheels are fitted with the same tyres. Any differences in the rolling radius of the tyres can cause the system to reduce engine power unexpectedly.

If there is a fault in the ABS, the ESC, TCS and EDL will also stop working.

Operating noises may be heard during the self-regulation processes of the systems explained above. ◁

Switching the TCS on and off



Fig. 224 In the centre console: button for switching the TCS on and off manually.

First read and observe the introductory information and safety warnings ⚠ on page 269.

The Electronic Stability Control (ESC) only functions when the engine is running. It consists of ABS, EDL and TCS.

When the engine is running, the TCS can be switched off by pressing the ⇒Fig. 224 button. The TCS should only be switched off in certain situations when the traction achieved is not sufficient. For example:

- When driving in deep snow or on loose surfaces.
- When rocking the vehicle backwards and forwards to free it from mud.

Then press the ⇒Fig. 224 button to switch the TCS back on. ◁



Fig. 225 In the engine compartment: cap on the brake fluid container.

First read and observe the introductory information and safety warnings ⚠ on page 269.

Brake fluid will gradually absorb water from the surrounding air. The brake system will be damaged if there is too much water in the brake fluid. The boiling point of the brake fluid is also considerably reduced by the water content. Heavy use of the brakes may cause a vapour lock in the brake system if the water content is too high. Vapour locks reduce levels of braking power, considerably increase braking distance and can even cause the brake system to fail completely. Your own safety and that of other road users depends on having a brake system that functions properly at all times ⇒⚠.

Brake fluid specification

Volkswagen has developed a brake fluid that has been optimised for the brake system in the vehicle. To ensure optimal operation of the brake system, Volkswagen Commercial Vehicles recommends the use of brake fluid compliant with **VW standard 501 14**.

Before using a particular brake fluid, check that the specifications printed on the container correspond to the vehicle requirements.

Brake fluid that is compliant with VW standard 501 14 is available from Volkswagen Commercial Vehicles dealerships.

If this brake fluid is not available and it is necessary to use another high-quality brake fluid instead, brake fluid that is compliant with DIN ISO 4925 CLASS 4 or US standard FMVSS 116 DOT 4 can be used.

Not all brake fluids that are compliant with DIN ISO 4925 CLASS 4 or US standard FMVSS 116 DOT 4 have the same chemical composition. Some of these brake fluids may contain chemicals that can damage or destroy brake system components over time.

To ensure sustained optimal operation of the brake system, Volkswagen Commercial Vehicles therefore recommends the use of brake fluid that is compliant with **VW standard 501 14**.

Brake fluid that is compliant with VW standard 501 14 fulfils the requirements of DIN ISO 4925 CLASS 4 or US standard FMVSS 116 DOT 4.

Brake fluid level

The brake fluid level must always be between the MIN and MAX marking of the brake fluid container or above the MIN marking ⇒⚠.

The brake fluid level cannot be checked accurately in all models as engine components may partially conceal the brake fluid container. If the brake fluid level cannot be read exactly, please go to a qualified workshop.

The brake fluid level drops slightly when the vehicle is being used as the brake pads wear and the brakes are automatically adjusted.

Changing the brake fluid

The brake fluid must be changed as indicated in the service schedule ⇒Booklet *Service schedule*. The brake fluid should be changed by a qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose. Only brake fluid that conforms with the required specification should be used.

⚠ WARNING

Brake failure or reduced braking effect can be caused by the brake fluid level being too low or by brake fluid that is too old or unsuitable.

- **The brake system and brake fluid level must be checked regularly.**
- **The brake fluid should be changed regularly, according to the service schedule ⇒Booklet *Service schedule*.**
- **Heavy use of the brakes may cause a vapour lock if the brake fluid is left in the system for too long. Vapour locks reduce levels ▶**

⚠ WARNING (Continued)

of braking power, considerably increase braking distance and can cause the brake system to fail completely.

- **Please ensure that the correct brake fluid is used. Only use brake fluid that is explicitly compliant with VW standard 501 14.**
- **Any other brake fluid or a low-quality one can affect the functioning of the brakes and reduce their effectiveness.**
- **If a brake fluid compliant with VW standard 501 14 is not available, use a high-quality brake fluid compliant with DIN ISO 4925 CLASS 4 or the US standard FMVSS 116 DOT 4, but only in exceptional circumstances.**
- **The refilled brake fluid must be new.**

⚠ WARNING

Brake fluid is toxic.

- **In order to reduce the risk of poisoning, never use bottles or other containers to store brake fluid. These containers could encourage other people to drink out of them, even if they are labelled otherwise.**
- **Brake fluid must always be stored in its original sealed container and kept out of the reach of children.**

NOTICE

Brake fluid that has leaked or been spilt can damage the vehicle paintwork, plastic parts and tyres. Brake fluid that has leaked or been spilt should be cleaned off the vehicle paintwork and other components immediately.

Brake fluid can pollute the environment. Any spilt service fluids must be cleaned up and disposed of properly. ◁

Driving with respect for the environment

Introduction

This chapter contains information on the following subjects:

An economic driving style 278
Saving fuel 280

Fuel consumption, environmental impact and wear on the engine, brakes and tyres depend largely on three factors:

- Personal driving style.
- Conditions of use (weather, road surface).
- Technical conditions.

A few simple measures can help save fuel by up to 25%, depending on how you drive.

⚠ WARNING

Adapt your speed and distance from the vehicles ahead to suit visibility, weather, road and traffic conditions. ◁

An economic driving style

First read and observe the introductory information and safety warnings ⚠ on page 278. ▶

Changing gear earlier

In principle, the highest gear is always the most economical gear. A rule of thumb for most vehicles: at a speed of 30 km/h (19 mph) drive in third gear, at 40 km/h (25 mph) in 4th gear and at 50 km/h (31 mph) in 5th gear.

If the traffic and driving situation allows it, skipping gears when changing up a gear will also save fuel.

Do not drive gears to their upper limit. Use first gear only for pulling away then quickly change up to second gear. Avoid using the kickdown function in vehicles with a DSG® dual clutch gearbox.

Vehicles with a gear display help to improve fuel economy by indicating the optimum time to change gear.

Rolling to a stop

Taking your foot off the accelerator will interrupt the supply of fuel to the engine and decrease fuel consumption.

Therefore, in situations such as approaching a red traffic light, let the vehicle roll without applying the accelerator.

Only press on the clutch pedal to disengage if the vehicle becomes too slow or if the stopping distance is longer. The engine will then run at idling speed ⇒page 263.

Switch off the engine in situations when the vehicle might be stationary for a long time, e.g. at a level crossing. In vehicles with an active start/stop system, the engine will switch off automatically when the vehicle is stationary.

Thinking ahead when driving, and driving with the flow of traffic

Applying the brake and accelerator too often will significantly increase fuel consumption. If you think ahead when driving and maintain a sufficient distance from the vehicle in front, simply keeping your foot off the accelerator should stop the speed from fluctuating. This means that active braking and accelerating is not always necessary.

Driving smoothly and evenly

Smoothness is even more important than speed. The more evenly you drive, the lower your fuel consumption will be.

When driving on a motorway, it is much more effective to drive at a constant moderate speed than to drive with constant acceleration and braking. As a rule, driving with a constant style will get you to your destination just as quickly.

The cruise control system will help you to maintain a constant driving style.

Using additional equipment in moderation

It is always important to be comfortable in your vehicle, but it is also important to consider the environment.

Some equipment will increase fuel consumption when switched on:

- The cooling function of the air conditioning system: if the air conditioning system is set to a very high or low temperature it will require a lot of energy, which is generated by the engine. Therefore the temperature setting in the vehicle should not vary too much from the outside temperature. It may be a good idea to air the vehicle before setting off and then to travel a short distance with the windows open. The air conditioning system should then be switched on once the windows have been closed. Keep the windows closed when driving at high speeds. Having the windows open increases fuel consumption.
- Switch the seat heating off as soon as it has served its purpose.
- Switch the windscreen and rear window heating off as soon as the windows have defogged and are clear of ice.
- Do not leave the supplementary heating system on when the vehicle is moving ⇒page 332.

Other factors that increase fuel consumption (examples):

- Fault in engine management.
- Driving in hilly regions.
- Driving with a trailer. ◁

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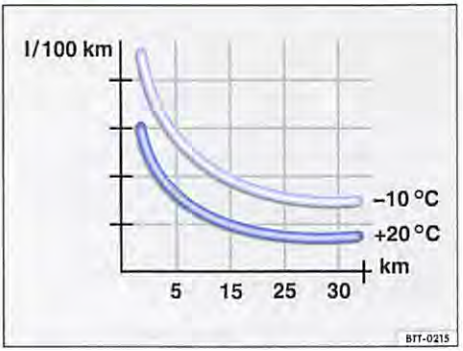


Fig. 226 Fuel consumption in litres per 100 km at two different outside temperatures.

First read and observe the introductory information and safety warnings ⚠ on page 278.

By adopting an economical driving style and anticipating the traffic situation ahead, you can easily reduce fuel consumption by 10-15%.

Cars use most fuel when accelerating. If you think ahead when driving, you will need to brake less and thus accelerate less. Wherever possible, let the car roll slowly to a stop, for instance when you can see that the next traffic lights are red.

Avoid short journeys

Directly after a cold start, the engine has a very high fuel consumption. The engine reaches its working temperature after a few kilometres, when fuel consumption will return to a normal level.

The engine and catalytic converter need to reach their proper **working temperature** in order to minimise fuel consumption and emissions. The **outside temperature** is a key factor.

The different rates of fuel consumption for the same distance at both +20°C (+68°F) and at -10°C (+14°F) are shown in Fig. 226.

Therefore, avoid making too many short journeys and car share whenever possible.

Under the same conditions, the vehicle will use more fuel in winter than in summer.

Not only is it illegal in some countries to "warm up" the cold engine by running it while the vehicle is stationary, it is also technically unnecessary and a waste of fuel.

Adjust the tyre pressure

The correct tyre pressure reduces rolling resistance and therefore also fuel consumption.

Ensure that any new tyres purchased have optimum rolling resistance.

Use low viscosity engine oils

Fully synthetic low viscosity engine oils reduce fuel consumption. Low viscosity engine oils decrease frictional resistance in the engine and spread better and more quickly, especially for cold starts. They are especially effective in vehicles that make a lot of short journeys.

Always ensure that the engine oil level is correct and that you keep to the service intervals (oil change intervals).

When buying engine oil, always make sure it complies with engine oil norms and has been approved by Volkswagen Commercial Vehicles.

Avoid unnecessary loads

Lighter vehicles are more economical and have lower environmental impact. An extra 100 kg, for example, can increase fuel consumption by up to 0.3 l/100 km.

Remove all unnecessary objects and loads from the vehicle.

Remove any unnecessary special equipment and accessories

The more aerodynamic a vehicle, the lower its fuel consumption. Special equipment and accessories, such as roof carriers or bicycle carriers, make the vehicle less aerodynamic.

You should therefore remove any special equipment and luggage carriers that are not in use, especially if you are going to be driving at high speeds. ◁

Steering

Introduction

This chapter contains information on the following subjects:

Information on steering 281

Additional information and warnings:

- Starting and stopping the engine ⇒page 257
- Battery ⇒page 362
- Tow-starting and towing ⇒page 446

⚠ WARNING

If the power steering is not working, the steering wheel is difficult to turn, which makes it difficult to steer the vehicle.

- **The power steering only functions when the engine is running.**
- **Never allow the vehicle to roll if the engine is switched off.**
- **Never remove the vehicle key from the ignition lock when the vehicle is in motion. The steering lock may be activated and you will no longer be able to steer the vehicle.**

◁

Information on steering

First read and observe the introductory information and safety warnings ⚠ on page 281.

Locking the steering wheel

- When the vehicle key has been removed, turn the steering wheel slightly until you hear the locking pin engage.

The steering should be locked every time you leave the vehicle to make it more difficult for the vehicle to be stolen.

Unlocking the steering wheel

- Turn the steering wheel slightly to take the load off the steering lock mechanism. Hold the steering wheel in this position and turn the vehicle key clockwise out of position ⇒Fig. 217 ⓪.

Power steering

With power steering, the steering assistance is automatically matched to vehicle speed, the steering wheel torque and the steering wheel angle. The power steering will only function when the engine is running.

You will need considerably more strength than normal to steer the vehicle if the power steering is reduced or has failed completely. ◁

Driver assist systems

Pull-away assist systems

Introduction

This chapter contains information on the following subjects:

Warning and indicator lamps 282
Start/stop system 283
Hill Hold Assist 284
Hill Descent Assist 285
Rear axle differential lock 286

Additional information and warnings:

- Volkswagen information system ⇒page 24
- Braking, stopping and parking ⇒page 269
- Battery ⇒page 362
- Wheels and tyres ⇒page 367
- Accessories, modifications, repairs and renewal of parts ⇒page 394
- Jump starting ⇒page 443

⚠ WARNING

The intelligent technology of the pull-away assist systems cannot overcome the laws of physics or system-related vehicle limitations. Never let the extra convenience afforded by pull-away assist systems tempt you into taking any risks when driving – this can cause accidents.

- **Unintentional vehicle movements can cause serious injury.**
- **The pull-away assist systems cannot replace the driver's full concentration.**
- **Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions.**
- **Pull-away assist systems cannot hold the vehicle in all hill start situations or brake it sufficiently on all slopes going downhill (e.g. if the ground is slippery or icy).** ◁

Warning and indicator lamps

First read and observe the introductory information and safety warnings ⚠ on page 282.

Lit up	Possible cause	Solution
	Rear axle differential lock switched on.	⇒page 286
	Hill Descent Assist switched on.	⇒page 285
Ⓐ	The start/stop system is available, automatic engine stop is active.	⇒page 283
Ⓐ	The start/stop system is not available. **OR:** the start/stop system has switched off the engine automatically.	Check whether all technical requirements have been fulfilled. If necessary, make sure that all technical requirements are fulfilled ⇒page 283.

Flashes	Possible cause	Solution
	The rear axle differential lock cannot be switched on.	⇒page 286
	Hill Descent Assist is regulating.	⇒page 285

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds. ▶

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**

⚠ WARNING (Continued)

- **Stop the vehicle as soon as possible and when safe to do so.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged.

Start/stop system

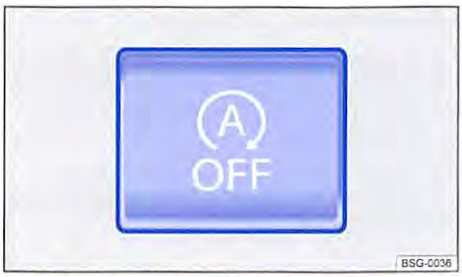


Fig. 227 In the centre console: button for the start/stop system.

First read and observe the introductory information and safety warnings ⚠ on page 282.

When the start/stop mode is active, the engine is switched off automatically whenever the vehicle is stationary. When required, the engine restarts automatically.

The start/stop mode is activated automatically each time the ignition is switched on. The instrument cluster display will show information about the current status.

Always switch off the start/stop system manually when driving through water.

Start/stop mode on vehicles with a manual gearbox

- When the vehicle is stationary, disengage the gear and release the clutch pedal. The engine is stopped.
- Depress the clutch pedal to restart the engine.

Start/stop mode on vehicles with a dual clutch gearbox DSG®

- When the vehicle is stationary, press and hold the brake pedal. The engine is stopped.
- To restart the engine, remove your foot from the brake pedal or depress the accelerator in selector lever position **P**.

Important preconditions for automatic engine switch-off

- The driver is wearing their seat belt.
- All vehicle doors have been closed.
- The bonnet is closed.
- A minimum engine temperature has been reached and the internal engine conditions allow switch off.
- The vehicle has been moved since the engine was last switched off.
- The temperature set in the interior deviates too greatly from the ambient temperature.
- On vehicles with Climatronic: The temperature control is set to around +22°C (+72°F).
- The defrost function of the air conditioning system is not switched on.
- The charging state of the vehicle battery is sufficient.
- The temperature of the vehicle battery is not too low or too high.
- The vehicle is not on a steep incline.
- The steering is not turned greatly.
- Reverse gear is not engaged.

Conditions for an automatic restart

The engine can start automatically under the following conditions:

- On vehicles with Climatronic: if the temperature inside the vehicle substantially increases or decreases.
- When the vehicle starts rolling or brake support is required.
- If the voltage of the vehicle battery falls.

Conditions that necessitate a manual key start

The engine has to be started manually with the vehicle key in the following conditions:

- If the driver unfastens their seat belt.
- If a vehicle door is opened.
- If the bonnet is opened.

Switching the start/stop system on and off manually

- Press the button in the centre console ⇒ Fig. 227.
- If the start/stop system has been deactivated, the indicator lamp in the button lights up.

The engine will start immediately if the vehicle is in stop mode when the system is switched off manually with the button.

⚠ WARNING

The brake servo and the power steering will not function if the engine is switched off.

- **Never allow the vehicle to roll if the engine is switched off.**
- **The start/stop system must be switched off if work is to be carried out in the engine compartment.**

NOTICE

If the start/stop system is used in very high outside temperatures over a long period, the vehicle battery can be damaged.

In some cases, it will be necessary to restart the engine manually with the vehicle key. Follow any corresponding messages on the instrument cluster display.

At low speeds, the engine can be started again if it has stalled by immediately pressing the clutch pedal. ◁

Hill Hold Assist

First read and observe the introductory information and safety warnings ⚠ on page 282.

The Hill Hold Assist function actively holds the vehicle when pulling away on an incline.

The Hill Hold Assist function is automatically activated if the following conditions are met

Points 1 to 3 must be fulfilled at the same time:

	Manual gearbox	DSG® dual clutch gearbox
1.	On an incline, the **stationary** vehicle must be held in position with the footbrake until the vehicle starts moving.	
2.	The engine is running smoothly.	
3.	The driver door is closed.	
4.	Fully depress the clutch pedal and move the gear stick to the **first gear** position if you want to drive forwards up a hill or to the **R** position if you want to reverse up a hill.	The driving mode **R**, **D** or **S** has been selected.
	In order to start moving, remove your foot from the brake pedal, then simultaneously release the clutch pedal (the clutch engages) and press the accelerator. **The brake will gradually be released as the clutch is engaged.**	To start moving, remove your foot from the brake pedal and press the accelerator immediately. **The brake will gradually be released as the vehicle pulls away.** ▶

The Hill Hold Assist function will be deactivated immediately:

	Manual gearbox	DSG® dual clutch gearbox
1.	As soon as one of the conditions indicated on page 284, *The Hill Hold Assist function is automatically activated if the following conditions are met* is not fulfilled.	
2.	If the vehicle does not pull away within 2 seconds.	
3.	If the engine is not running smoothly or there is an engine fault.	
4.	If the engine is switched off or has stalled.	If the engine is switched off.

Hill Descent Assist



Fig. 228 In the centre console: button for switching the Hill Descent Assist on and off.

First read and observe the introductory information and safety warnings ⚠ on page 282.

The Hill Descent Assist system supports the driver when driving down a steep incline by actively braking the vehicle.

The Hill Descent Assist reduces the engine speed and brakes actively so that the vehicle travels constantly at walking speed ⇒⚠.

The requirement for regulation is, among other things, that the ground allows enough grip. The Hill Descent Assist system **cannot** fulfil its function when driving down an icy or slippery slope.

Switching the Hill Descent Assist on and off

- To switch the Hill Descent Assist on, press the ⇒Fig. 228 button in the centre console at speeds under approximately 30 km/h (19 mph). The indicator lamp in the instrument cluster display lights up. The indicator lamp *flashes* when the Hill Descent Assist system is applying the brake.
- Press the button ⇒Fig. 228 in centre console again to switch off the Hill Descent Assist. The indicator lamp in the instrument cluster display is switched off.

Hill Descent Assist is regulating

- If the Hill Descent Assist is switched on using the button and the indicator lamp lights up.
- **AND:** the speed is less than 30 km/h (19 mph).
- **AND:** the gradient is at least 10%.
- **AND:** if the accelerator and brake are not depressed.
- **AND:** if the engine is running.

Regulation is stopped if the vehicle is accelerated or braked by the driver during regulation. The regulation restarts once the requirements are met again.

Hill Descent Assist does not regulate

- If the gradient is less than 10%.
- **OR:** The speed is greater than 30 km/h (19 mph).
- **OR:** If the driver brakes or accelerates.

⚠ WARNING

Always be prepared to brake the vehicle. Accidents and injuries could occur if this is not ensured.

- **The Hill Descent Assist system is only a support function and may not be able to brake the vehicle sufficiently in all situations when driving downhill.**
- **The vehicle may accelerate despite the Hill Descent Assist system.**

The Hill Descent Assist system also works if you reverse down a slope.

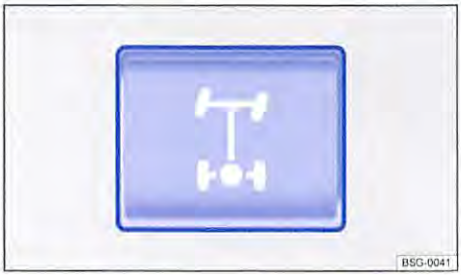


Fig. 229 On the dash panel: button for rear axle differential lock

First read and observe the introductory information and safety warnings ⚠ on page 282.

If the rear-axle differential lock is switched on, the vehicle has better traction on difficult ground and slopes ⇒⚠.

Switching the rear axle differential lock on and off

- To switch the rear axle differential lock on, press the ⇒Fig. 229 button on the dash panel at speeds under approximately 45 km/h (28 mph) ⇒ⓘ. The indicator lamp lights up in the instrument cluster.
- Press button ⇒Fig. 229 in dash panel again to switch off the rear-axle differential lock. The indicator lamp in the instrument cluster goes out.

If the engine is switched off with the rear axle differential lock switched on, the rear axle differential lock remains switched on for roughly another 30 seconds.

Not switching the rear axle differential lock on

- If you are driving on well-surfaced roads ⇒⚠.
- If the vehicle is being towed.
- If the brakes are being tested on a rolling road test bed.

Rear-axle differential lock cannot be switched on

The rear axle differential lock cannot be switched on in the following situations:

- if there is a large difference in the speed of rotation of the rear wheels
- if the drive train is loaded heavily
- If the mechanical teeth of the rear-axle differential lock are "tooth to tooth": the indicator light in the instrument cluster flashes.

⚠ WARNING

Never switch the rear axle differential lock on if you are driving on a solid road surface, the vehicle is being towed or if the tyres have no traction.

- **Your steering will be greatly impaired when the rear axle differential lock has been switched on. This could mean that you lose control over the vehicle and cause serious injuries.**

ⓘ NOTICE

Switching the rear axle differential lock on while being towed can damage the drive train.

If the rear axle differential lock is switched off when driving through a bend, this may cause a small shudder to go through the vehicle. This is caused by the release of wind-up in the drive train. This is normal and is not a indication of damage to the vehicle.

If you drive through bends with the rear axle differential lock switched on, the wheels "rub" on the road surface. You might be able to hear this. The "rubbing" of the tyres - especially on solid ground - will lead to increased wear on the tyres. ◁

ParkPilot

Introduction

This chapter contains information on the following subjects:

ParkPilot only at rear 288
ParkPilot front and rear 289
ParkPilot signal tones and displays 290

The ParkPilot assists the driver when parking and manoeuvring.

The ultrasound sensors in the bumpers transmit and receive ultrasound waves. The electronic system uses the ultrasound waves (i.e. transmission, reflection from the obstacle and reception) to calculate the distance between the bumper and the obstacle.

Additional information and warnings:

- Exterior views ⇒page 5
- Braking, stopping and parking ⇒page 269
- Reversing camera (Rear Assist) ⇒page 291
- Cleaning and caring for the vehicle exterior ⇒page 380
- Accessories, modifications, repairs and renewal of parts ⇒page 394
- Radio or navigation system ⇒Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

⚠ WARNING

ParkPilot technology cannot overcome system-related vehicle limitations. The ParkPilot cannot replace the full concentration of the driver.

- **Unintentional vehicle movements can cause serious injury.**
- **Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions.**
- **Ultrasound sensors have blind spots in which obstacles and people cannot be detected.**
- **Always check the area around the vehicle as the ultrasound sensors will not always detect infants, animals and objects.**

⚠ WARNING (Continued)

- **Certain surfaces of objects and clothes cannot reflect the signals from the ultrasound sensors. The system is unable to detect these objects or people wearing this type of clothing, or they may be detected incorrectly.**
- **External sources of sound can affect the signals of the ultrasound sensors. This may prevent the system from recognising people or objects.**

NOTICE

Various factors can negatively impact the ParkPilot functions or lead to damage to the vehicle and objects in the area surrounding the vehicle.

- **The ultrasound sensors may not always be able to detect objects such as trailer drawbars, thin rails, fences, posts, trees and open or opening boot lids. This can result in damage to your vehicle.**
- **If the ParkPilot has detected an obstacle and issued a warning, the obstacle may move out of the detection range of the ultrasound sensors as the vehicle approaches it, particularly if the object is very high or very low. These objects are no longer registered.**
- **The vehicle can sustain considerable damage if the warning given by the ParkPilot is ignored.**
- **Ultrasound sensors can be displaced or damaged through impacts, e.g. when parking.**
- **The ultrasound sensors must be kept clean and free of ice and snow, and must not be covered up by stickers or other objects, as this will prevent the system from working properly.**
- **Repainting the ultrasound sensors can impair the function of the ParkPilot.**
- **The ultrasound sensors should only be sprayed briefly when cleaning with pressure hoses and steam cleaners. The steam/hose nozzle must always be kept more than 10 cm away from the ultrasound sensors.**
- **Sources of noise can lead to errors in the ParkPilot system, e.g. rough asphalt, cobblestones, induction loops, building equipment, or interference from other vehicles.** ▶

NOTICE (Continued)

- **In some cases water and ice on the ultrasound sensors could be registered as an obstruction.**
- **Any equipment that has been retrofitted to the vehicle, e.g. bicycle carriers or number plate holders, can prevent the ParkPilot from functioning properly.**

Volkswagen Commercial Vehicles recommends that drivers practise using the ParkPilot in a traffic-calmed area or car park to allow them to familiarise themselves with the system and its functions.

If an ultrasound sensor fails, the corresponding area of the ultrasound sensor cluster is switched off and cannot be reactivated until the fault has been rectified (depending on the equipment level). Consult a qualified workshop in the event of a system fault. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

ParkPilot only at rear

First read and observe the introductory information and safety warnings ⚠ on page 287.

The ParkPilot uses ultrasound sensors to determine the distance between the rear bumper and an obstacle. There are 4 ParkPilot ultrasound sensors in the rear bumper (arrows).

Switching ParkPilot on and off

Function	What to do when the ignition is switched on
Switching on the ParkPilot:	Select reverse gear or move the selector lever to position **R**.
Switching off the ParkPilot:	Deselect the reverse gear or selector lever position **R**. If the ParkPilot screen display is activated, the ParkPilot is switched off approximately 10 seconds after the reverse gear has been disengaged or the selector lever has been moved out of the **R** position. **OR:** (depending on the equipment level) immediately after shifting out of reverse gear, or selector lever position **R**, with an inactive ParkPilot screen display. **OR:** accelerate forwards to a speed greater than approximately 10 – 15 km/h (6 – 9 mph).
Switching off the ParkPilot display manually (sound output remains active)	Press a button, e.g. RADIO, on the factory-fitted radio or navigation system. **OR:** touch the X function button.
Switching to the rear view camera system picture as required	Select reverse gear or move the selector lever to position **R**. **OR:** touch the function button.

Special features of ParkPilot

- In some cases, the ParkPilot registers water and ice on the ultrasound sensors as an obstacle.
- The acoustic warning will become quieter after a few seconds if the distance remains the same. The volume will remain constant if the signal tone is continuous.
- The intermittent signal tone switches off automatically as soon as the vehicle moves away from an obstacle again. If the vehicle approaches the obstacle again, the acoustic warning is switched on automatically.
- No acoustic signal is given in vehicles with a dual clutch gearbox DSG® if the selector lever is in position **P**.
- The ParkPilot ultrasound sensors cannot be switched on if the factory-fitted towing bracket is *electrically* connected to the trailer.
- A Volkswagen Commercial Vehicles dealership can adjust the volume of the acoustic warning signals.

If there is a function fault in the ParkPilot, an acoustic warning is emitted for approximately 3 seconds when switched on for the first time. The ParkPilot should be checked by a qualified workshop immediately. ◁

ParkPilot front and rear



Fig. 230 In the centre console: button for switching the ParkPilot on and off



Fig. 231 In the front bumper: ParkPilot sensors.

First read and observe the introductory information and safety warnings ⚠ on page 287.

The ParkPilot uses ultrasound sensors to determine the distance from the front or rear bumpers to an obstacle. There are 4 ultrasound sensors for the ParkPilot located in both the front and rear B bumpers.

Switching ParkPilot on and off

Function	What to do when the ignition is switched on
Switching on the ParkPilot manually	Press the P button *once*.
Switching off the ParkPilot manually	Press the P button *again*.
Switching off the ParkPilot display manually (sound output remains active)	Press a button, e.g. RADIO, on the factory-fitted radio or navigation system. **OR:** touch the X function button.
Switching on the ParkPilot automatically	Select reverse gear or move the selector lever to position **R**.
Switching off the ParkPilot automatically	Accelerate forwards to a speed greater than approximately 10 – 15 km/h (6 – 9 mph).
Temporarily muting ParkPilot (applies to certain equipment levels):	Touch the function button.
Switching to the rear view camera system picture as required	Select reverse gear or move the selector lever to position **R**. **OR:** touch the function button.

The indicator lamp in the button P ⇒ Fig. 230 lights up while the function is active. ▶

Special features of ParkPilot

- In some cases, the ParkPilot registers water and ice on the ultrasound sensors as an obstacle.
- The acoustic warning will become quieter after a few seconds if the distance remains the same. The volume will remain constant if the signal tone is continuous.
- The intermittent signal tone switches off automatically as soon as the vehicle moves away from an obstacle again. If the vehicle approaches the obstacle again, the acoustic warning is switched on automatically.
- No acoustic signal is given in vehicles with a dual clutch gearbox DSG® if the selector lever is in position **P**.
- The *rear* ultrasound ParkPilot sensors cannot be switched on if the factory-fitted towing bracket is *electrically* connected to the trailer.
- A Volkswagen Commercial Vehicles dealership can adjust the volume of the acoustic warning signals.

NOTICE

Failure to observe the illuminated text messages can lead to the vehicle being damaged. ◁

ParkPilot signal tones and displays

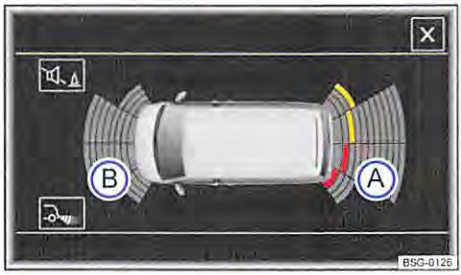


Fig. 232 ParkPilot screen display (colour display).

First read and observe the introductory information and safety warnings ⚠ on page 287.

Key to diagram

Fig. 232	Meaning
Ⓐ	Monitored area behind the vehicle.
Ⓑ	Scanned area in front of the vehicle.
	The yellow segment represents an obstacle in the vehicle's path.
	Red segment depicts an obstacle close to the vehicle.
	The grey segment represents an obstacle outside of the vehicle's path.
	Black segment depicts an obstacle (monochrome display).

The areas to the front and rear of the vehicle that are scanned by ultrasound sensors are shown on the screen of the factory-fitted radio or navigation system. The positions of potential obstacles are displayed relative to the vehicle ⇒⚠.

The areas to the front (only with ParkPilot front and rear) and rear of the vehicle are fully scanned by the ultrasound sensors.

Acoustic signals and screen

Acoustic signals are given when the vehicle approaches an obstacle located in the range of the ultrasound sensors. An intermittent signal tone is given if a sufficiently short distance between the vehicle and an obstacle is detected. The shorter the distance, the shorter the intervals. The signal tone will sound continuously if the obstacle is very close.

If you continue to drive the vehicle closer to the obstacle despite the continuous signal tone, the system will no longer be able to measure the distance.

With some vehicle equipment levels the scanned areas may be displayed as several segments in a display. The closer the vehicle drives towards an obstacle, the closer the segment will move to the vehicle in the display. The collision area has been reached when the penultimate segment is displayed, if not before. **Do not drive on!** ▶

Vehicles with ParkPilot at the front and rear				
Area of the vehicle		**Distance of the vehicle from an obstacle**	**Acoustic signal**	**Segment colour if an obstacle has been detected (colour display only)**
Ⓐ	Rear centre	approx. **31 – 160 cm**	Intermittent tone	Yellow
	Rear side	approx. **31 – 60 cm**		
Ⓑ	Front centre	approx. **31 – 120 cm**		
	Front side	approx. **31 – 60 cm**		
Ⓐ and Ⓑ	Obstacle close to the vehicle[a)]	approx. **0 – 30 cm**	Constant tone	Red

a) The distance range for the constant tone to the rear of the vehicle is slightly larger for vehicles with a factory-fitted towing bracket.

When towing a trailer

In vehicles with a factory-fitted towing bracket and a trailer connected via the vehicle electrics, a corresponding display appears on the screen of the factory-fitted radio or navigation system, depending on the vehicle equipment level. The distance behind the vehicle will then no longer be shown.

Muting the ParkPilot signal tones

The acoustic signals for the ParkPilot can be muted by touching the function button on the screen (in colour display only). Touch the function button again to switch the acoustic signals back on.

The mute setting will be cancelled if the ParkPilot system is switched off and on again. Error warnings cannot be switched off.

If the ParkPilot display has been switched off manually and ParkPilot remains active, the mute setting is also cancelled.

⚠ WARNING

Do not allow the images shown on the screen to distract you from the traffic around you.

It can take a few seconds for the acoustic or optical signals to be given. ◁

Reversing camera (Rear Assist)

🕮 Introduction

This chapter contains information on the following subjects:

General information 292
Camera 293
Operating the rear view camera system 294
Parking 295

The reversing camera (Rear Assist) makes it easier for the driver to see behind the vehicle when parking or reversing.

A camera in the tailgate ⇒Fig. 233 helps the driver when reverse parking or manoeuvring the vehicle. The camera picture and the orientation lines projected by the system are displayed on the screen of the factory-fitted radio or navigation system.

The functions and displays of the rear view camera system may differ between vehicles, depending on whether or not they are fitted with ParkPilot.

Additional information and warnings:

- Exterior views ⇒page 5
- ParkPilot ⇒page 287
- Accessories, modifications, repairs and renewal of parts ⇒page 394
- Radio or navigation system ⇒Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

⚠ WARNING

Using the rear view camera system to estimate the distance from obstacles (people, vehicles etc.) is inaccurate and could cause accidents and severe injuries. ▶

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⚠ WARNING (Continued)

- **The camera lens enlarges and distorts the field of vision and the objects on the screen will not be depicted as precisely and accurately as they are in reality.**
- **Certain objects, for example narrow posts or railings, may be difficult or impossible to see on the screen because of its low resolution or poor light conditions.**
- **The rear view camera system has blind spots within which obstacles and people cannot be detected.**
- **Keep the camera lens clean, free of snow and ice and do not cover it.**

⚠ WARNING

The intelligent rear view camera system technology cannot overcome the laws of physics, and functions only within the limits of the system. Careless or unintentional use of the rear view camera system can cause accidents and lead to serious injury. The system is not a substitute for the full concentration of the driver.

- **Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions.**

⚠ WARNING (Continued)

- **Keep looking in the direction in which you are parking and at the relevant area surrounding the vehicle. The front of the vehicle swings out more than the rear of the vehicle.**
- **Do not allow the images shown on the screen to distract you from the traffic around you.**
- **Always monitor the area around the vehicle as small children, animals and objects will not always be detected by the rear view camera system.**
- **The rear view camera system may not be able to display all areas clearly.**
- **The rear view camera system should only be used when the tailgate is fully closed.**

ⓘ NOTICE

- **The rear view camera system shows only two-dimensional images on the screen. The lack of depth of field means that potholes and protruding objects on the ground may only be detected with difficulty, or may not be detected at all.**
- **The rear view camera system may not always be able to detect objects such as thin rails, fences, posts, trees etc. This could result in damage to your vehicle.**

◁

General information

First read and observe the introductory information and safety warnings ⚠ on page 291.

Requirements for parking and manoeuvring while using the rear view camera system

Checklist

- ✓ The tailgate must be closed.
- ✓ The camera must give a clear and accurate image, i.e. there must be good visibility and the camera lens must be clean ⇒ Fig. 233.
- ✓ There must be a clear and unobstructed view of the area behind the vehicle.
- ✓ The rear of the vehicle must **not** be heavily loaded.
- ✓ The driver must be familiar with the system.
- ✓ The vehicle must be undamaged. The rear view camera system must be checked by a qualified workshop if the position or angle of the camera has changed, e.g. following a rear impact.

Volkswagen Commercial Vehicles recommends that you practise parking with the reversing camera in a traffic-calmed area or car park with good visibility and weather conditions, so that you can familiarise yourself with the system, orientation lines and guiding functions in a safer environment.

Rear view camera system settings

Various settings, including *brightness, contrast and colour*, can be adjusted by touching the relevant function buttons ⊖ or ⊕, or by moving the corresponding slider.

- Stop the vehicle in a safe place.
- Apply the handbrake firmly.
- Switch on the ignition.

▶

- Switch on radio/navigation system, if not already on.
- Select reverse gear or move the selector lever to position **R**.
- Touch the function button.
- Select the required settings in the menu. ◁

Camera



Fig. 233 In the tailgate: location of the rear view camera system.

First read and observe the introductory information and safety warnings ⚠ on page 291.

The reversing camera ⇒Fig. 233 provides two-dimensional images only. Due to the lack of depth of field on the screen, potholes and dips in the ground, protruding parts on another vehicle or protruding objects on the ground may be difficult or impossible to see on the image.

Objects or other vehicles may appear closer or further away on the screen than they actually are.

Optical illusions created by the rear view camera system (examples):

– If you drive from a level surface onto an upward or downward slope.

– If you drive from an upward or downward slope onto a level surface.

– If the vehicle is heavily loaded towards the rear.

– When approaching protruding objects. Such objects can leave the camera's field of vision while you are reversing.

Cleaning the camera lens

Keep the camera lens ⇒Fig. 233 clean and free of ice and snow:

- Stop the vehicle in a safe place.
- Apply the handbrake firmly.
- Moisten the lens with a commercially available alcohol-based glass cleaner and clean the lens with a dry cloth ⇒ⓘ.
- Remove snow with a brush.
- Remove ice with a de-icer spray ⇒ⓘ.

ⓘ NOTICE

- **Never use an abrasive cleaning product to clean the lens.**
- **Never use warm or hot water to remove snow and ice from the lens of the camera. This could damage the lens.** ◁

Operating the rear view camera system



Fig. 234 Infotainment system: screen display from the switched on reversing camera.

First read and observe the introductory information and safety warnings ⚠ on page 291.

Key to diagram Fig. 234:

Symbol	Meaning
✖	Closing current display.
	Setting display: brightness, contrast, colour.
	With some equipment levels: switch the ParkPilot tone on and off.
|▷	Depending on the vehicle equipment level: switch on ParkPilot display.
◁|	Depending on the vehicle equipment level: switch off ParkPilot display.
	With some equipment levels: display ParkPilot.

Switching the rear view camera system on and off.

The rear view camera system switches on and off automatically.

Function	What to do when the ignition is switched on	
	Vehicles without ParkPilot	**Vehicles with ParkPilot**
Switching on the display automatically.	Select reverse gear or move the selector lever to position **R**. The rear view camera system display is displayed on the infotainment system screen.	
		The ParkPilot miniature view is also displayed on the left side of the infotainment system screen.
Switching the display off automatically.	Switch off the ignition.	
	OR: drive forwards faster than 10 km/h (6 mph) or for longer than 10 seconds.	
	OR: approximately 10 seconds after shifting out of reverse or of gear position **R**.	**OR:** immediately after shifting out of reverse or of gear position **R**.
Hiding the image from the rear view camera system.	Press one of the infotainment system buttons or touch the ✖ function button on the screen.	
		OR: touch the function button. ParkPilot full-screen mode is displayed.
Showing the rear view camera system image again.	Take the car out of reverse or shift to another gear position then switch back into reverse or to gear position **R**.	
		OR: touch the function button. ◁

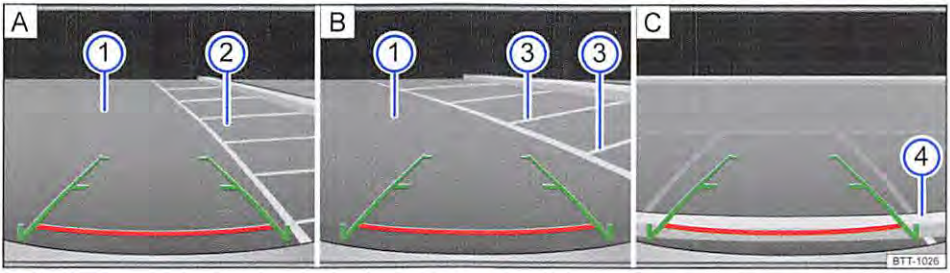


Fig. 235 On the Infotainment system: screen display when parking using the reversing camera.

First read and observe the introductory information and safety warnings ⚠ on page 291.

Key to diagram Fig. 235:	
	Meaning
A	Looking for a parking space.
B	Driving into the parking space.
C	Manoeuvring.
	Lateral green lines: rearward extension of the vehicle. The displayed green lines represent the area up to approximately 2 metres to the rear of the vehicle.
	Horizontal red line: indicates the safety clearance. The horizontal red line ends approximately 0.4 metres behind the vehicle on the road.
①	Road.
②	Selected parking space.
③	Lines showing side limits of the selected parking space.
④	Rear limit of the parking space, e.g. kerb.

All references to the length of orientation lines apply to a vehicle that is standing on a horizontal surface.

Parking using the rear view camera system

Step	Complete the following steps:
1.	The **requirements for parking while using the rear view camera system** must be fulfilled ⇒ page 292.
2.	Position the vehicle in front of the parking space ② ⇒ Fig. 235 A.
3.	Select reverse gear or move the selector lever to position **R**.
4.	Reverse slowly and steer the vehicle B to ensure that the lateral yellow lines are aligned with the selected parking space ②.
	Observe the message **Check roadway.** ⇒ ⚠ in *Introduction* on page 292.
5.	Position the vehicle in the selected parking space so that the lateral green lines are aligned with the side limits ③.
6.	At the very latest, stop the vehicle C when the horizontal red line reaches the rear limit, e.g. the kerb ④.

Cruise control system (CCS)

Introduction

This chapter contains information on the following subjects:

Indicator lamp 296
Using the cruise control system (CCS) 297

The cruise control system (CCS) helps to maintain a speed set by the driver. ▶

The cruise control system (CCS) is able to maintain an individual set speed at forward speeds between approx. 30 km/h (19 mph) and 180 km/h (112 mph).

The CCS slows the vehicle only by easing off the accelerator, not by actively braking. The CCS cannot maintain a constant speed when travelling downhill. The vehicle speed can increase under its own weight. Shift down gear and brake the vehicle using the foot brake ⇒ ⚠.

Additional information and warnings:

- Changing gear ⇒ page 260
- Accessories, modifications, repairs and renewal of parts ⇒ page 394

⚠ WARNING

The use of the cruise control system (CCS) can lead to accidents and serious injuries if traffic does not allow you to drive at a safe distance from the vehicle in front at a constant speed.

⚠ WARNING (Continued)

- **Never use the CCS in heavy traffic, with insufficient distance from the vehicle ahead, on steep or winding roads, or on slippery road surfaces e.g. on snow, ice, wet roads, loose chippings or flooded roads.**
- **Never use the CCS when driving off-road or on unsurfaced roads.**
- **Adapt your speed and distance from the vehicles ahead to suit visibility, weather, road and traffic conditions.**
- **Always switch cruise control off after use to avoid unintentional operation.**
- **It is dangerous to use a set speed that is too high for the prevailing road, traffic or weather conditions.**
- **The CCS cannot maintain a constant speed when travelling downhill. The vehicle speed can increase under its own weight. Shift down a gear or brake the vehicle using the foot brake.**

◁

Indicator lamp

First read and observe the introductory information and safety warnings ⚠ on page 295.

Lit up	Possible cause
	Cruise control system (CCS) is controlling the speed.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**

⚠ WARNING (Continued)

- **Stop the vehicle as soon as possible and when safe to do so.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged.

◁

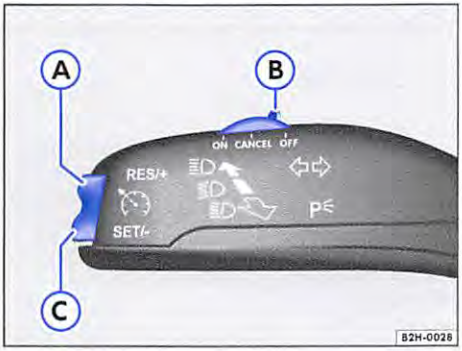


Fig. 236 On the left of the steering column: buttons and switch for setting the CCS in the turn signal and main beam lever (vehicles without multifunction steering wheel).



Fig. 237 Left-hand side of the multifunction steering wheel: buttons for operating the CCS.

First read and observe the introductory information and safety warnings ⚠ on page 295.

Function	Switch position, switch control in the turn signal lever ⇒ Fig. 236	Button on the multifunction steering wheel ⇒ Fig. 237	Action
Switching on the CCS.	Slide switch Ⓑ to position **ON**.	Press the button.	The system is switched on. After switch-on, no speed has been stored yet and the speed is not yet being controlled.
Activating the CCS.	Press button Ⓒ **SET/-**.	Press the SET button.	The current speed is stored and controlled.
Switching off the CCS control temporarily.	Slide switch Ⓑ to position **CANCEL**. **OR:** depress the brake pedal.	Press the button CNL **OR:** Press the button *briefly*. **OR:** depress the brake pedal.	Control is switched off temporarily. The speed is stored in the memory.
Resuming CCS control.	Press button Ⓐ **RES/+**.	Press the RES button.	The stored speed is reactivated and controlled.
Increase the speed in increments of 1 km/h (1 mph) and store it[a].	Press button Ⓐ *briefly* **RES/+**.	*Briefly* press the RES button.	The vehicle accelerates actively until it reaches the new set speed.
Increase the speed in increments of 10 km/h (5 mph) and store it[a].	—	*Briefly* press the + button.	
Increase the speed continuously until the button is released and store this speed[a].	Press and hold button Ⓐ *for an extended period of time* **RES/+**.	Press and hold button RES *for an extended period of time*.	

Function	Switch position, switch control in the turn signal lever ⇒ Fig. 236	Button on the multifunction steering wheel ⇒ Fig. 237	Action
Reduce the speed in increments of 1 km/h (1 mph) and store it[a].	Press button Ⓒ *briefly* SET/-.	*Briefly* press the SET button.	The system will decrease the speed until the new set speed is reached by easing off the acceleration *without* a braking intervention.
Reduce the speed in increments of 10 km/h (5 mph) and store it[a].	—	*Briefly* press the - button.	
Reduce the speed continuously until the button is released and store this speed[a].	Press and hold button Ⓒ *for an extended period of time* SET/-.	Press and hold button - *for an extended period of time.*	
Switch off the CCS.	Slide switch Ⓑ to position OFF.	With the CCS activated, press the button *twice briefly* **OR** In any operating mode, press and hold the button *for an extended period of time.*	The system is switched off. The stored speed will be deleted.

[a] During CCS control

Driving downhill with CCS

If the CCS cannot maintain the vehicle speed when driving downhill, brake the vehicle with the foot brake and shift down gear if necessary.

Automatic switch-off

The CCS control will be switched off automatically or switched off temporarily:

- If the system detects a fault that could impair the function of the CCS.
- If the vehicle speed is higher than the stored speed for an extended period with the accelerator pedal depressed.
- If the brake pedal or clutch pedal is depressed.
- If you change the gear on a manual gearbox ⇒page 263.
- If the airbag is triggered. ◁

Adaptive cruise control (ACC)

Introduction

This chapter contains information on the following subjects:

Displays, warning and indicator lamps 300
Radar sensor 301
Operating adaptive cruise control (ACC) 302
Switch off the adaptive cruise control (ACC) temporarily in the following situations 304
Special driving situations 305

Adaptive cruise control combines cruise control and distance control.

The **A**daptive **C**ruise **C**ontrol (ACC) can help to maintain a speed set by the driver ⇒⚠. The adaptive cruise control (ACC) can also maintain a set time interval to a vehicle travelling ahead. Two factory-fitted versions of the system are available: ▶

- System version 1 functions at speeds of 30 – 160 km/h (20 mph – 100 mph).
- System version 2 functions at speeds of 30 – 210 km/h (20 mph – 130 mph).

In vehicles with a dual clutch gearbox DSG®, the adaptive cruise control (ACC) can brake the vehicle **until it comes to a complete standstill** behind a vehicle in front that is stopping.

Driver prompt to take over control

There are system-specific limits on the adaptive cruise control (ACC) when driving. This means that the driver may have to control the speed and distance between the vehicle and other vehicles in certain circumstances.

The *driver is told to take control of the vehicle* via a message on the instrument cluster display prompts a braking intervention, and a signal tone ⇒page 300.

Additional information and warnings:

- Exterior views ⇒page 5
- Volkswagen information system ⇒page 24
- Cruise control system (CCS) ⇒page 295
- Area monitoring system (Front Assist) ⇒page 307
- Accessories, modifications, repairs and renewal of parts ⇒page 394

⚠ WARNING

The intelligent technology used in the adaptive cruise control (ACC) cannot overcome the laws of physics, and functions only within the limits of the system. Careless or unintentional use of the adaptive cruise control (ACC) can cause accidents and lead to serious injury. The system is not a substitute for the full concentration of the driver.

- **Adapt your speed and distance from the vehicles ahead to suit visibility, weather, road and traffic conditions.**
- **Do not use the adaptive cruise control (ACC) in poor visibility, on steep or winding roads, or on slippery road surfaces e.g. on snow, ice, wet roads, loose chippings or flooded roads.**

⚠ WARNING (Continued)

- **Never use the adaptive cruise control (ACC) off-road or on unsurfaced roads. The adaptive cruise control (ACC) is designed for use on surfaced roads only.**
- **The adaptive cruise control (ACC) does not react to stationary obstacles, e.g. the tail end of a traffic jam, a vehicle that has broken down, or vehicles waiting at traffic lights.**
- **The adaptive cruise control (ACC) does not react to persons, animals or vehicles crossing or approaching in the same lane.**
- **If the adaptive cruise control (ACC) speed reduction is insufficient, you should brake the vehicle by depressing the foot brake.**
- **Brake the vehicle by depressing the brake if the vehicle rolls inadvertently on after the driver has been prompted to take control of the vehicle.**
- **If the instrument cluster display indicates *that the driver should take control of the vehicle*, you have to regulate the distance yourself.**
- **The driver must be prepared to take control of the vehicle (by accelerating or braking) at all times.**

NOTICE

Switch off the adaptive cruise control (ACC) if you suspect that the radar sensor has been damaged. This can help to prevent secondary damage. Have the radar sensor realigned.

- **Repair work on the radar sensor will require special knowledge and tools. Volkswagen recommends using a Volkswagen dealership for this purpose.**

If the adaptive cruise control (ACC) does not function as described in this chapter, do not use it, and have the system checked by a qualified workshop. Volkswagen recommends using a Volkswagen dealership for this purpose.

The maximum vehicle speed when the adaptive cruise control (ACC) is active is limited to either 160 km/h (100 mph) or 210 km/h (130 mph). depending on the system version.

If the adaptive cruise control (ACC) is active, unfamiliar noises may be heard during the automatic braking procedure. These are caused by the braking system. ◁

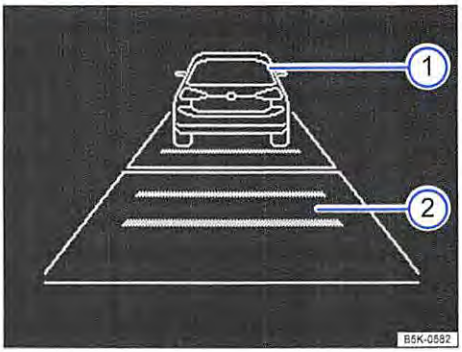


Fig. 238 On the instrument cluster display: adaptive cruise control (ACC) deactivated temporarily; vehicle detected ahead, time interval set

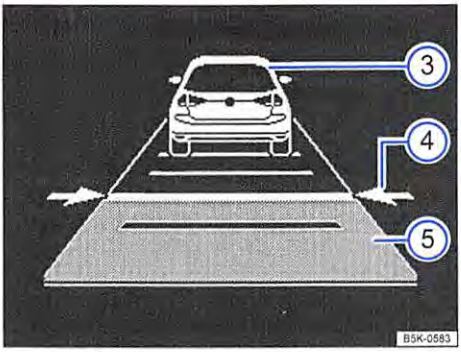


Fig. 239 On the instrument cluster display: adaptive cruise control (ACC) active: vehicle detected ahead, time interval is being set

First read and observe the introductory information and safety warnings ⚠ on page 298.

Displays

Display fields ⇒Fig. 238 or ⇒Fig. 239:

① Vehicle ahead when adaptive cruise control (ACC) is not active.
② Selected distance range when adaptive cruise control (ACC) is not active.
③ Vehicle detected ahead. Adaptive cruise control (ACC) active.
④ Setting the time interval to the vehicle in front while travelling at stored speed.
⑤ Time interval to the vehicle in front while travelling at stored speed has been set.

Warning and indicator lamps

Lit up	Possible cause ⇒⚠	Solution
	The speed reduction of the adaptive cruise control (ACC) to the vehicle ahead is insufficient.	**Brake!** Depress the brake pedal. The system tells the driver to take control.
	Adaptive cruise control (ACC) not available.[a]	Switch off the engine and restart it while stationary. Inspect the radar sensor (for dirt, ice etc.). Go to a qualified workshop immediately and have the system checked if it is constantly unavailable.
	Adaptive cruise control (ACC) currently not available.[a]	
	Adaptive cruise control (ACC) active. No vehicle has been detected ahead. The set speed is kept constant.	–
	When displayed in white: Adaptive cruise control (ACC) active. Vehicle detected ahead. The adaptive cruise control (ACC) regulates the speed and the distance from the vehicle ahead.	–
	When displayed in grey: Adaptive cruise control (ACC) not active. System switched on, does not regulate.	

[a] Displayed in colour on an instrument cluster with colour display.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Failure to observe the warning lamps and text messages could lead to accidents and serious injuries.

⚠ WARNING (Continued)

- **Never ignore any illuminated warning lamps or text messages.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged.

When the adaptive cruise control (ACC) is switched on, some system-related displays on the instrument cluster can be overwritten by other functions, e.g. incoming telephone calls. ◁

Radar sensor

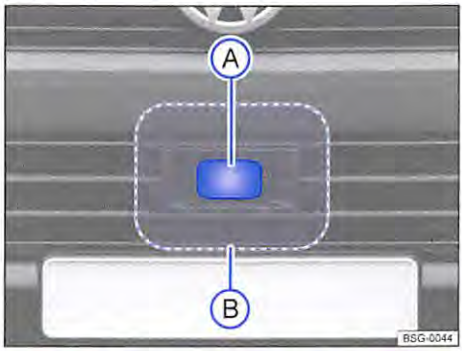


Fig. 240 In the ventilation grille under the Volkswagen badge: radar sensor Ⓐ and area around the radar sensor to be kept clear Ⓑ.

First read and observe the introductory information and safety warnings ⚠ on page 298.

A radar sensor is fitted to the front bumper to monitor the traffic situation ⇒ Fig. 240 Ⓐ. Vehicles travelling ahead can thus be detected up to a distance of approximately 120 m.

The efficacy of the radar sensor can be impaired by contamination such as slush or snow, or by environmental conditions such as heavy rain or spray. This means that the adaptive cruise control (ACC) also will not work. The instrument cluster display shows the message `ACC: No distance control!`. Clean the radar sensors as required ⇒ⓘ.

The adaptive cruise control (ACC) will automatically be available again as soon as the radar sensors are no longer impaired. The message on the instrument cluster display goes out, and the adaptive cruise control (ACC) can be reactivated.

Strong reflected radiation of the radar signal, e.g. in multi-storey car parks, can impair the function of the adaptive cruise control (ACC).

The area in front of and around the radar sensor Ⓑ must not be covered by objects such as stickers, auxiliary headlights, face plates for number plates or the like, as this can impair the function of the adaptive cruise control (ACC).

Any structural modifications to the vehicle, e.g. lowering the vehicle or making alterations to the front end trim, can impair the function of the adaptive cruise control (ACC). Structural modifications should therefore always be carried out by a qualified workshop. Volkswagen recommends using a Volkswagen dealership for this purpose.

Incorrectly performed repairs to the front end of the vehicle can alter the position of the radar sensor and therefore impair the function of the adaptive cruise control (ACC). Repair work should therefore only be carried out by a qualified workshop. Volkswagen recommends using a Volkswagen dealership for this purpose.

NOTICE

Switch off the adaptive cruise control (ACC) if you suspect that the radar sensor has been damaged or is incorrectly positioned. This can help to prevent secondary damage. Have the radar sensor realigned.

- **The radar sensor could be moved if it is hit, for example in parking manoeuvres. Readjusting the sensor could impair the performance of the system or cause it to be switched off.** ▶

NOTICE (Continued)

- **Repair work on the radar sensor will require special knowledge and tools. Volkswagen recommends using a Volkswagen dealership for this purpose.**

NOTICE (Continued)

- **Remove snow with a brush, and remove ice preferably with a solvent-free de-icer spray.** ◁

Operating adaptive cruise control (ACC)



Fig. 241 Left-hand side of the multifunction steering wheel: buttons for operating the adaptive cruise control (ACC)

First read and observe the introductory information and safety warnings ⚠ on page 298.

When the adaptive cruise control (ACC) is switched on, the green indicator lamp lights up in the instrument cluster, and the speed memory and the status of the adaptive cruise control are shown in the display.

Conditions for starting the adaptive cruise control (ACC)

- The selector lever must be in position **D/S** or be in the Tiptronic gate. A forward gear, but not first gear, must be selected in the manual gearbox.
- In vehicles with a manual gearbox, the actual speed must be a minimum of 25 km/h (16 mph).

Controlling speed

When switched on, the speed can be stored and set. The stored speed can vary from the speed actually being driven if the distance is being actively controlled.

Function	Button on the multifunction steering wheel ⇒ Fig. 241	Action
Switching on adaptive cruise control (ACC).	Press the button on the multifunction steering wheel.	The system is switched on. No speed has yet been stored and the speed is not yet being controlled.
Activating adaptive cruise control (ACC).	Press the SET button on the multifunction steering wheel.	The current speed is stored and controlled. **When adaptive cruise control (ACC) is already active:** *Press briefly:* reduces the speed by 1 km/h (1 mph) and stores it. *Press and hold:* As long as you keep pressing, the stored speed is reduced incrementally by 1 km/h (1 mph). A reduction in speed is achieved by accelerator release or automatic braking. ▶

Function	Button on the multifunction steering wheel ⇒Fig. 241	Action
Switching off adaptive cruise control (ACC) temporarily.	*Briefly* press the button on the multifunction steering wheel. **OR:** depress the brake pedal. **OR:** depress the clutch for longer than 30 seconds. **OR:** press the CNL button on the multifunction steering wheel.	Control is switched off temporarily. The speed is stored in the memory.
Resuming adaptive cruise control (ACC).	Press the RES button on the multifunction steering wheel.	The stored speed is reactivated and controlled. If no speed has yet been stored, the adaptive cruise control (ACC) adopts and regulates the current speed at which the vehicle is travelling. **When adaptive cruise control (ACC) is already active:** *Press briefly:* increases the speed by 1 km/h (1 mph) and stores it. *Press and hold:* As long as you keep pressing, the stored speed is increased incrementally by 1 km/h (1 mph).
Accelerating (while adaptive cruise control (ACC) is active).	Press the + button on the multifunction steering wheel.	*Press briefly:* increases the speed by 10 km/h (5 mph) and stores it. *Press and hold:* As long as you keep pressing, the stored speed is increased incrementally by 10 km/h (5 mph).
Decelerating (while adaptive cruise control (ACC) is active).	Press the − button on the multifunction steering wheel.	*Press briefly:* reduces the speed by 10 km/h (5 mph) and stores it. *Press and hold:* As long as you keep pressing, the stored speed is reduced incrementally by 10 km/h (5 mph). A reduction in speed is achieved by accelerator release or automatic braking.
Switching off adaptive cruise control (ACC).	*Press and hold* the button on the multifunction steering wheel. *Briefly* press the button on the multifunction steering wheel if the adaptive cruise control (ACC) is temporarily switched off.	The system is switched off. The stored speed will be deleted.

The mph figures given in brackets in the table relate exclusively to instrument clusters with mile readings.

Setting the distance level

The speed-dependent distance from the vehicle travelling ahead can be set to one of 5 levels.

In wet road conditions, you should always set a larger distance than when driving in dry road conditions.

The following distances can be pre-selected:

- Very small
- Small
- Medium
- Large
- Very large

The distance level to the vehicle ahead is set using the button on the multifunction steering wheel ⇒Fig. 241. The adaptive cruise control (ACC) display appears when the button is pressed ⇒page 300. To set the distance level, press the button. ▶

When the highest level is reached, the distance returns to the lowest level when the button is pressed again.

The distance level can also be set using the + or − buttons on the multifunction steering wheel immediately after the button on the multifunction steering wheel ⇒ Fig. 241 has been pressed.

Select the **Settings** menu, **Assist systems** submenu, **ACC** to set the distance to be used when the ACC is switched on ⇒ page 24.

Setting the gearbox programme

The acceleration response can be influenced by the gearbox programme selected. The programme can be set Using the **ACC** option in the **Assistant** submenu in the **Settings** menu. The following gearbox programmes can be selected:

- Normal
- Sport
- Eco

The following conditions can prevent the adaptive cruise control (ACC) from reacting:

- If the accelerator is depressed.
- If no gear is selected.
- If the ESC is taking corrective action.
- If there is a fault in several brake lights on the vehicle or on a trailer with an electrical connection to the vehicle.
- If the vehicle is reversing.
- System version 1: if the vehicle is travelling faster than approximately 160 km/h (100 mph).
- System version 2: if the vehicle is travelling faster than approximately 210 km/h (130 mph).

⚠ WARNING

If you do not maintain the minimum distance to a vehicle in front and the difference in speed between the two vehicles is so great that the braking action of the adaptive cruise control (ACC) is insufficient, you are in danger of colliding with the vehicle in front. You should reduce the vehicle speed immediately with the foot brake.

- **The adaptive cruise control (ACC) may not be able to detect all driving situations correctly.**
- **Leaving your foot on the accelerator means that the adaptive cruise control (ACC) will not brake automatically. This is because manual acceleration overrides the system.**
- **You should always be prepared to brake the vehicle yourself.**
- **Observe country-specific regulations regarding the minimum distance.**

The set speed will be deleted if the ignition or the adaptive cruise control (ACC) is switched off.

The adaptive cruise control (ACC) is automatically deactivated when the traction control system (TCS) is deactivated.

In vehicles with a start/stop system, the engine is switched off automatically during the stationary phase of adaptive cruise control (ACC) and is then restarted for moving off. ◁

Switch off the adaptive cruise control (ACC) temporarily in the following situations

First read and observe the introductory information and safety warnings ⚠ on page 298.

The adaptive cruise control (ACC) should be switched off in the following situations due to system limitations ⇒ ⚠:

- When turning off roads, driving around roundabouts, narrow curves, joining motorways, exiting from motorways or driving through road works, to prevent the vehicle from unnecessarily accelerating to the set speed in these situations
- When driving through a tunnel as this situation could impair the system function.
- On roads with more than one lane, if other vehicles are driving more slowly in the fast lane. The slower vehicles in the other lane would be overtaken from the right side in this case.
- In heavy rain, snow or spray as vehicles travelling ahead cannot be monitored sufficiently or maybe cannot be monitored at all. ▷

⚠ WARNING

Failure to switch off the adaptive cruise control (ACC) in the above-mentioned situations can cause accidents and result in serious injuries.

⚠ WARNING (Continued)

- **Always switch off the adaptive cruise control (ACC) in critical driving situations.**

Failure to switch off the adaptive cruise control (ACC) in the above-mentioned situations can cause a violation of legal requirements. ◁

Special driving situations

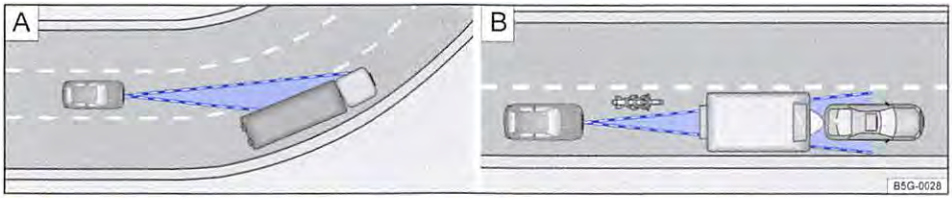


Fig. 242 A Vehicle in a bend. B Motorbike in front is outside the range of the radar sensor.

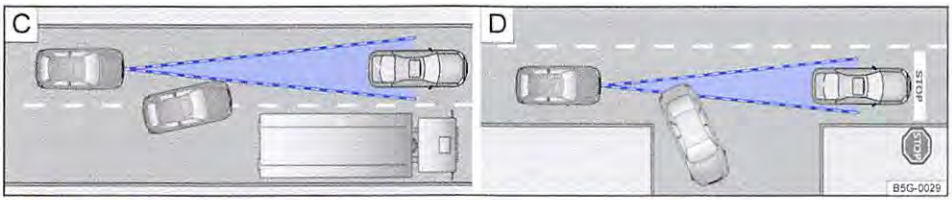


Fig. 243 C A vehicle is changing lanes. D Turning vehicle, stationary vehicle.

First read and observe the introductory information and safety warnings ⚠ on page 298.

The adaptive cruise control (ACC) has physical and system-related limits. As a result, certain adaptive cruise control (ACC) system reactions may occur, from the driver's perspective, unexpectedly or with some delay. You should therefore always be prepared to take full control of the vehicle if necessary.

The following traffic situations, for example, require particular vigilance:

Deceleration to standstill, only vehicles with dual clutch gearbox DSG®

If a vehicle travelling ahead brakes to a standstill, the adaptive cruise control (ACC) will also brake your vehicle to a standstill. The vehicle is then held stationary by the brakes.

Stationary phase, only vehicles with dual clutch gearbox DSG®

After the adaptive cruise control (ACC) has slowed down the vehicle to standstill, the vehicle is kept stationary for a short period of time. During the stationary phase the driver is prompted to depress the brake pedal ⇒page 300. If the brake pedal is depressed, the adaptive cruise control (ACC) is switched off. If the brake pedal is not depressed within the stationary phase, the adaptive cruise control (ACC) is switched off automatically.

Overtaking

If the turn signal is activated when starting an overtaking manoeuvre, the adaptive cruise control (ACC) accelerates the vehicle automatically and thus reduces the distance to the vehicle in front.

If you move your vehicle into the overtaking lane and there is no vehicle ahead of you, the adaptive cruise control (ACC) will automatically increase the speed to your set level and maintain it. ▶

Acceleration can be stopped at any time by depressing the brake pedal or pressing the CNL or button on the multifunction steering wheel ⇒page 302.

When driving through bends

While driving through bends, the radar sensor may sometimes lose the vehicle travelling ahead or may react to a vehicle in the next lane ⇒Fig. 242 A. In such situations, the vehicle might decelerate unnecessarily or not react to the vehicle in front. In this case the driver must override the adaptive cruise control (ACC) by depressing the accelerator, or interrupt the braking procedure by depressing the brake pedal or pressing the CNL or button on the multifunction steering wheel ⇒page 302.

Driving in tunnels

The radar sensor function may be restricted in tunnels. Switch off the adaptive cruise control (ACC) in tunnels.

Narrow vehicles and a zig-zag traffic situation

Narrow vehicles and vehicles travelling slightly to the left or right of your vehicle will only be recognised by the radar sensor once they have entered the radar range ⇒Fig. 242 B. This applies in particular to narrow vehicles such as motorbikes. If required, brake the vehicle yourself.

Vehicles with special load or special equipment

Any load or accessories on other vehicles that protrude from the side, rear or over the roof of the vehicle may not be detected by the adaptive cruise control (ACC) .

Switch off the adaptive cruise control (ACC) when the vehicle ahead has special load or special equipment, or while overtaking vehicles of this kind. If required, brake the vehicle yourself.

When other vehicles change lanes

Vehicles that are very close when they move into your lane can only be detected by the radar sensors when they have moved into the sensor range. This means that the adaptive cruise control (ACC) may have a delayed reaction ⇒Fig. 243 C. If required, brake the vehicle yourself.

Stationary vehicles

The adaptive cruise control (ACC) does not detect stationary objects during a journey, e.g. stationary traffic or a vehicle that has broken down.

If a stationary vehicle is hidden behind a vehicle that has been detected by the adaptive cruise control (ACC) and this vehicle turns off the road or changes lane, the adaptive cruise control (ACC) will not be able to react to the stationary vehicle ⇒Fig. 243 D. If required, brake the vehicle yourself.

Oncoming vehicles and vehicles crossing your path

The adaptive cruise control (ACC) does not react to approaching vehicles or vehicles crossing your path.

Metal objects

Metal objects, such as tracks in the road or metal plates used in roadworks, can confuse the radar sensor and cause incorrect reactions from the adaptive cruise control (ACC) .

Possible radar sensor function impairments

The adaptive cruise control (ACC) will switch off temporarily if the radar sensor function is impaired, e.g. due to heavy rain, spray, snow, ice or mud. A corresponding message will appear on the instrument cluster display. Clean the radar sensors as required.

The adaptive cruise control (ACC) will automatically be available again as soon as the radar sensors are no longer impaired. The message on the instrument cluster display goes out, and the adaptive cruise control (ACC) can be reactivated.

Strong reflected radiation of the radar signal, e.g. in multi-storey car parks, can impair the function of the radar sensor.

Towing a trailer

The adaptive cruise control (ACC) operates with reduced dynamics when the vehicle is towing a trailer.

Overheated brakes

If the brakes overheat, e.g. following heavy braking or when driving down steep inclines for long periods, the adaptive cruise control (ACC) may be deactivated temporarily. A corresponding message will appear on the instrument cluster display. It is then not possible to activate the adaptive cruise control (ACC).

As soon as the temperature of the brakes has decreased sufficiently, the adaptive cruise control (ACC) can be activated again. The message on the instrument cluster display goes out. If the message **ACC not available** does not go out for a long time, there is a fault. Go to a qualified workshop. Volkswagen recommends using a Volkswagen dealership for this purpose. ◁

Area monitoring system (Front Assist)

Introduction

This chapter contains information on the following subjects:

Displays 308
Radar sensor 309
Front scan system (Front Assist) 309
Temporarily switch off the front scan system (Front Assist) in the following situations 310
City Emergency Brake function 311
System limits 312

The area monitoring system (Front Assist) can help to avoid rear-end collisions.

Within the limits of the system, Front Assist can warn the driver about imminent collisions, prepare the vehicle for emergency braking in case of danger, assist with braking, and initiate automatic braking.

Front Assist is not a substitute for the full concentration of the driver.

Additional information and warnings:

- Exterior views ⇒ page 5
- Volkswagen information system ⇒ page 24
- Cruise control system (CCS) ⇒ page 295
- Adaptive cruise control (ACC) ⇒ page 298
- Accessories, modifications, repairs and renewal of parts ⇒ page 394

Distance warning

If the system detects danger from driving too close to the vehicle in front, within the speed range of approx. 60 km/h (37 mph) up to 210 km/h (130 mph), the system warns the driver by showing a corresponding message on the instrument cluster display ⇒ Fig. 244 B.

The warning period varies according to the traffic situation and the driver's response.

Advance warning

If the system detects a danger of collision with the vehicle ahead, within the speed range of approx. 30 km/h (18 mph) up to 210 km/h (130 mph), the system warns the driver by emitting a signal tone and showing a corresponding message on the instrument cluster display ⇒ Fig. 245.

The warning period varies according to the traffic situation and the driver's response. At the same time it prepares the vehicle for possible emergency braking ⇒ ⚠.

Urgent warning

If the driver fails to respond to the advance warning, within a speed range of approx. 30 km/h (18 mph) to 210 km/h (130 mph), the system can initiate a quick jolt of the brake in order to draw the driver's attention to the increasing danger of a collision. The warning period varies according to the traffic situation and the driver's response.

Automatic braking

If the driver does not react to the acute warning, within a speed range of approx. 4 km/h (2.5 mph) to 210 km/h (130 mph), the vehicle can brake automatically using brake pressure with gradually increasing intensity. By reducing speed during a possible collision the system can help to minimise the consequences of an accident.

Brake assistance

If the system detects that the driver is not braking sufficiently when there is a risk of collision, the system can increase the braking force and thereby help to prevent a collision from speeds of approximately 4 km/h (2.5 mph) to 210 km/h (130 mph). Brake assistance works only for as long as the brake pedal is pressed hard.

⚠ WARNING

The intelligent technology used in Front Assist cannot overcome the laws of physics, and functions only within the limits of the system. The driver is always responsible for braking in time. If Front Assist issues a warning, immediately apply the foot brake to slow the vehicle down or avoid the obstacle, depending on the traffic situation.

- **Adapt your speed and distance from the vehicles ahead to suit visibility, weather, road and traffic conditions.**
- **Front Assist cannot prevent accidents and serious injuries on its own.**
- **Front Assist can issue unnecessary warnings and carry out unwanted braking interventions in certain complex driving situations, e.g. at traffic islands.**

⚠ WARNING (Continued)

- **Front Assist can issue unnecessary warnings and carry out unwanted braking interventions when its function is impaired, e.g. if the position of the radar sensor has been soiled or changed.**
- **The Front Assist does not react to persons, animals or vehicles crossing or approaching in the same lane.**
- **The driver must be prepared to take full control of the vehicle at all times.**

The brake pedal feels "harder" when Front Assist triggers the brakes.

Automatic brake intervention by Front Assist can be stopped by using the accelerator or through steering intervention.

Deactivate Front Assist if it does not function as described in this chapter, e.g. if multiple unwanted interventions occur, deactivate Front Assist and have the system checked by a qualified workshop as soon as possible. Volkswagen recommends using a Volkswagen dealership for this purpose. ◁

Displays

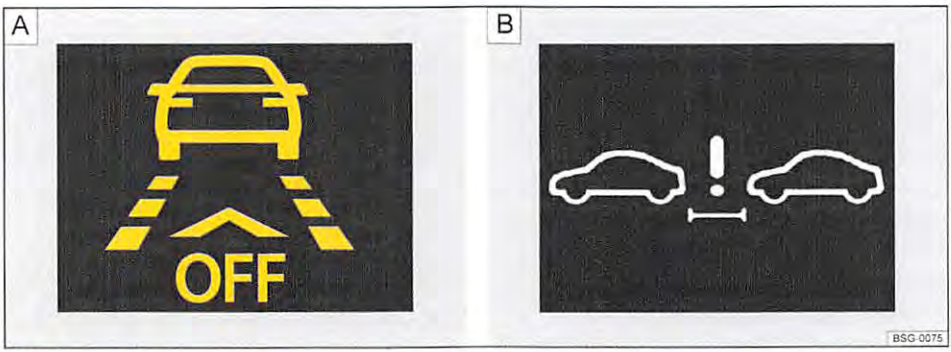


Fig. 244 In the instrument cluster display: A Front Assist deactivated. B Distance warning lamp.



Fig. 245 The display in the instrument cluster: advance warning display.

First read and observe the introductory information and safety warnings ⚠ on page 307.

Distance warning

If the safe distance to the vehicle in front drops below the minimum level, a distance warning will appear in the instrument cluster display ⇒ Fig. 244 B.

Increase the distance.

Advance warning

The system detects a potential collision with a vehicle in front ⇒ Fig. 245.

Brake or take avoiding action!

⚠ WARNING

Failure to observe illuminated warning lamps and displays can cause accidents and serious injuries.

- **Never ignore illuminated warning lamps and displays.** ▶

When Front Assist is switched on, the display in the instrument cluster can be overwritten by displays related to other functions, e.g. an incoming telephone call. ◁

Radar sensor

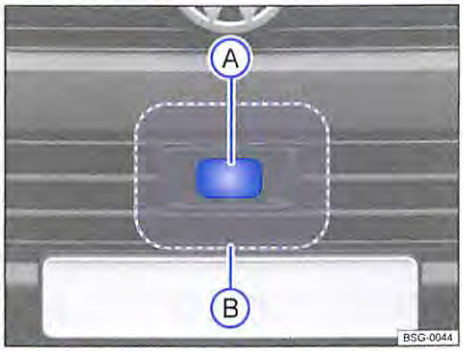


Fig. 246 In the bumper under the Volkswagen badge: radar sensor Ⓐ and area around the radar sensor to be kept clear Ⓑ.

First read and observe the introductory information and safety warnings ⚠ on page 307.

A radar sensor is fitted to the front bumper to monitor the traffic situation ⇒ Fig. 246 Ⓐ. Vehicles travelling ahead can thus be detected up to a distance of approximately 120 m.

The efficacy of the radar sensor can be impaired by contamination such as slush or snow, or by environmental conditions such as heavy rain or spray. In this case the area monitoring system (Front Assist) will not work. The instrument cluster display shows the message **`Front Assist: no sensor view!`**. Clean the radar sensors as required ⇒ⓘ.

Front Assist will automatically be available again as soon as the radar sensor is no longer impaired.

Strong reflected radiation of the radar signal, e.g. in multi-storey car parks, can impair the function of Front Assist.

The area in front of and around the radar sensor Ⓑ must not be covered by objects such as stickers, auxiliary headlights, face plates for number plates or the like, as this can impair the function of the Front Assist.

Any structural modifications to the vehicle, e.g. lowering the vehicle or making alterations to the front end trim, can impair the function of Front Assist. Structural modifications should therefore always be carried out by a qualified workshop. Volkswagen recommends using a Volkswagen dealership for this purpose.

Incorrectly performed repairs to the front end of the vehicle can alter the position of the radar sensor and therefore impair the function of Front Assist. Repair work should therefore only be carried out by a qualified workshop. Volkswagen recommends using a Volkswagen dealership for this purpose.

ⓘ NOTICE

Switch off Front Assist if you suspect that the radar sensor has been damaged or its position has been altered. This can help to prevent secondary damage. Have the radar sensor realigned.

- **The radar sensor could be moved if it is hit, for example in parking manoeuvres. Readjusting the sensor could impair the performance of the system or cause it to be switched off.**
- **Repair work on the radar sensor will require special knowledge and tools. Volkswagen recommends using a Volkswagen dealership for this purpose.**
- **Remove snow with a brush, and remove ice preferably with a solvent-free de-icer spray.** ◁

Front scan system (Front Assist)

First read and observe the introductory information and safety warnings ⚠ on page 307.

The front scan system (Front Assist) is activated automatically when the ignition is switched on.

The system also retains the programmed setting when the ignition is next switched on. ▶

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Volkswagen recommends that Front Assist is switched on at all times. Exceptions ⇒page 310, *Temporarily switch off the front scan system (Front Assist) in the following situations.*

Activating and deactivating the front scan system

The front scan system can be activated and deactivated using the **Front Assist** option in the **Assistant** submenu of the **Settings** menu. A tick indicates that a driver assist system is switched on.

The advance warning and distance warning are deactivated as well when the front scan system is deactivated.

If the front scan system is deactivated, a confirmatory symbol is shown in the instrument cluster display ⇒page 308 A.

Activating and deactivating the advanced warning

The advance warning can be activated and deactivated using the **Front Assist** option in the **Assistant** submenu of the **Settings** menu.

Activating or deactivating the distance warning

Depending on the vehicle equipment, the distance warning can be activated and deactivated using the **Front Assist** option in the **Assistant** submenu of the **Settings** menu.

Volkswagen recommends that the distance warning is switched on at all times. ◁

Temporarily switch off the front scan system (Front Assist) in the following situations

First read and observe the introductory information and safety warnings ⚠ on page 307.

The area monitoring system (Front Assist) should be switched off in the following situations due to system limitations ⇒⚠:

- If the vehicle is being towed.
- If the vehicle is on a rolling road test bed.
- If the vehicle is utilised in a capacity beyond usage on public roads, e.g. off-road or racing.
- If the radar sensor is faulty.
- On external force on the radar sensor, e.g. after a rear-end collision.
- In the event of multiple unwanted interventions.
- If the radar sensor is covered temporarily by any auxiliary equipment, e.g. auxiliary headlights.
- If the vehicle is being loaded onto a truck, car ferry or motorail train.

⚠ WARNING

Failure to switch off Front Assist in the situations mentioned can cause accidents and serious injuries. ◁



Fig. 247 The display in the instrument cluster: advance warning display.

First read and observe the introductory information and safety warnings ⚠ on page 307.

The City Emergency Brake function is part of the area monitoring system (Front Assist) and is active when Front Assist is switched on.

The front scan system and thus the City Emergency Brake function can be activated and deactivated using the **Assistant** menu in the Volkswagen information system or the **Front Assist** option in the **Assistant** submenu of the **Settings** menu ⇒page 24.

The City Emergency Brake function gathers information on the traffic situation up to a distance of about 10 m in front of the vehicle within a speed range of about 5 km/h (3 mph) to 30 km/h (19 mph).

The system prepares the vehicle for emergency braking if it detects a possible collision with a vehicle ahead ⇒⚠.

If the driver does not react to a possible serious collision, the system can automatically stop the vehicle with brake pressure with increasing intensity so as to reduce the speed in a possible collision. Hence the system can help minimise the consequences of an accident.

Display

Automatic deceleration by the City Emergency Brake function will be shown by the advance warning display in the instrument cluster ⇒Fig. 247.

⚠ WARNING

The intelligent technology used in the City Emergency Brake cannot overcome the laws of physics, and functions only within the limits of the system. The driver is always responsible for braking in time.

- **Adapt your speed and distance from the vehicles ahead to suit visibility, weather, road and traffic conditions.**
- **The City Emergency Brake function cannot prevent accidents and serious injuries by itself.**
- **The City Emergency Brake function can carry out unwanted brake interventions in certain complex driving situations, e.g. at building sites and metal tracks.**
- **The City Emergency Brake can carry out unwanted braking interventions when its function is impaired, e.g. if the position of the radar sensor has been contaminated or changed.**
- **The City Emergency Brake function does not react to persons, animals or vehicles crossing or approaching in the same lane.**

The brake pedal feels "harder" when the City Emergency Brake function triggers the brakes.

Automatic brake intervention by the City Emergency Brake function can be stopped by using the accelerator or through steering intervention.

The City Emergency Brake function can brake the vehicle to a standstill. The vehicle will not be held for any extended period by the braking system. Depress the brake.

Switch off Front Assist and the City Emergency Brake function in the event of multiple unwanted interventions. Go to a qualified workshop. Volkswagen recommends using a Volkswagen dealership for this purpose.

Multiple interventions can lead to automatic deactivation of the City Emergency Brake function. ◁

System limits

First read and observe the introductory information and safety warnings ⚠ on page 307.

The area monitoring system (Front Assist) has physical and system-related limits. The driver may therefore feel that, in certain circumstances, some Front Assist reactions occur unexpectedly or with a delay. You should therefore always be prepared to take full control of the vehicle if necessary.

The following conditions can prevent Front Assist from reacting, or cause a delay in its reaction:

- In tight bends.
- If the accelerator is fully depressed.
- If Front Assist is switched off or there is a fault.
- If TCS or ESC is switched off manually.
- If the ESC is taking corrective action.
- If there is a fault in several brake lights on the vehicle or on a trailer with an electrical connection to the vehicle.
- If the radar sensor is dirty or covered.
- If the vehicle is reversing.
- Under hard acceleration.
- In snow or heavy rain.
- In case of narrow vehicles, e.g. motorbikes.
- If vehicles are travelling slightly to the left or right of your vehicle.
- If vehicles are crossing in front of your vehicle.
- If there is oncoming traffic.
- In uncertain traffic situations.
- When loads or attachment parts on other vehicles protrude to the side, rear or above the normal dimensions of the vehicle. ◁

Lane change assist system (Side Assist)

Introduction

This chapter contains information on the following subjects:

Indicator lamp 313
Operation 314
Driving situations 315

The lane change assist system (Side Assist) provides assistance when checking for traffic behind the vehicle.

The lane change assist system cannot be switched on if the factory-fitted towing bracket is electrically connected to the trailer. The lane change assist system must be switched off manually for non-factory-fitted towing brackets.

The lane change assist system has been designed for use on surfaced roads only.

Additional information and warnings:

- Exterior views ⇒ page 5
- Volkswagen information system ⇒ page 24
- Accessories, modifications, repairs and renewal of parts ⇒ page 394.

⚠ WARNING

The intelligent technology of the lane change assist system (Side Assist) cannot change the laws of physics or the system-related vehicle limitations. Always take care when using the lane change assist system as you could otherwise cause accidents or injuries. The system is not a substitute for the full concentration of the driver.

- **Adapt your speed and distance from the vehicles ahead to suit visibility, weather, road and traffic conditions.**
- **Your hands should always be on the steering wheel so that you can steer at any time.**
- **Pay attention to the visual displays in the exterior mirror housing and in the instrument cluster display, and respond to the commands.**
- **The lane change assist system may react to special roadside structures, e.g. high or offset crash barriers. This can lead to error warnings.** ▶

⚠ WARNING (Continued)

- **Never use the lane change assist system on unsurfaced roads. The lane change assist system has been designed exclusively for use on surfaced roads.**
- **Always pay close attention to what is happening around the vehicle.**
- **Never use the lane change assist system, if the radar sensors are dirty, covered or damaged. These circumstances can impair the proper functioning of the system.**
- **It may be hard to see the display in the exterior mirror in direct sunlight.**

NOTICE

- **The sensors in the rear bumper can be shifted or damaged through impacts, e.g. when parking. As a result the system may switch itself off or at least be impaired.**

NOTICE (Continued)

- **The system sensors in the bumper must be kept clean and free of ice and snow and not be covered up otherwise the system will not work properly.**

Only Volkswagen-approved vehicle paints may be used on the rear bumper. Other vehicle paints could limit or even distort the function of the lane change assist system.

If the lane change assist system does not function as described in this chapter, or after a collision with another vehicle, do not use the system. Go to a qualified workshop.

Go to a qualified workshop and have the system checked if there is a fault in the system or after an accident. ◁

Indicator lamp

First read and observe the introductory information and safety warnings ⚠ on page 312.

Lights up or flashes	Possible cause
	The lane change assist system is currently not available.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**
- **Stop the vehicle as soon as possible and when safe to do so.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁



Fig. 248 Display in the exterior mirror

First read and observe the introductory information and safety warnings ⚠ on page 312.

The lane change assist system uses radar sensors to monitor the area behind the vehicle. The system then measures the distance and the difference in speed to other vehicles. The lane change assist system is activated at speeds over approximately 10 km/h (6 mph) and deactivated at speeds under 5 km/h (3 mph). The driver receives information via the visual display in the exterior mirror housing.

Visual display in the exterior mirror housing

The visual displays ⇒Fig. 248 in the exterior mirror housing notify the driver of following traffic on either side of the vehicle whenever a traffic situation is classified as critical when the driver intends to change lanes.

Tinted side windows or retrofitted tinting foils can negatively affect or distort the visual displays in the exterior mirror.

Visual display in the exterior mirror housing		Situation
—	None	No other vehicle at a critical distance from your vehicle detected by the lane change assist system ⇒⚠ in *Indicator lamp* on page 313.
	Lights up once briefly.	The lane change assist system is switched on and ready for use.
	Lit up (information level).	The lane change assist system has detected a potentially critical situation.
	Flashes several times (warning level).	The turn signal is active and the lane change assist system has detected a potentially critical situation on the corresponding side of the vehicle ⇒⚠ in *Indicator lamp* on page 313.

Radar sensors

The radar sensors are on the left and right behind the rear bumper and are not visible from outside. They monitor an area of approximately 70 metres behind the vehicle and the blind spots to the right and left of the vehicle. The monitored area to the side of the vehicle is approximately one lane wide.

The width of the lane is not detected in individual cases, but is predefined in the system. For this reason, incorrect displays could be shown when driving in narrow lanes or when driving in the middle of 2 lanes. In the same way, vehicles travelling in the lane next to the one you wish to change to could be detected, as could solid objects such as safety barriers, and trigger an incorrect warning. ◁



Fig. 249 A Driving situation when overtaking with traffic behind the vehicle B Visual display in the left-hand exterior mirror.

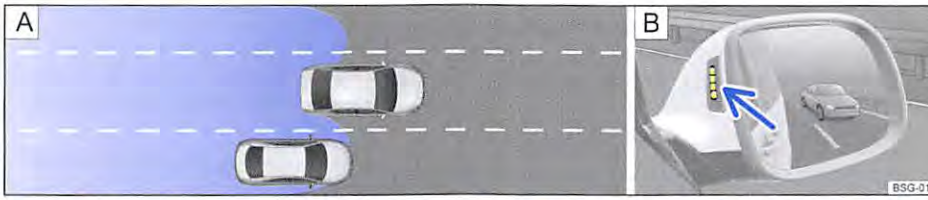


Fig. 250 A Driving situation when overtaking and pulling in. B Visual display in the right-hand exterior mirror.

First read and observe the introductory information and safety warnings ⚠ on page 312.

The following driving situations trigger a light in the exterior mirror ⇒Fig. 249 B (arrow) or ⇒Fig. 250 B (arrow):

- When another vehicle is overtaking your vehicle ⇒Fig. 249 A.
- When overtaking another vehicle ⇒Fig. 250 A with a speed difference of up to approximately 15 km/h (9 mph). No display will be shown if the take-over manoeuvre is much faster.

The display in the exterior mirror will be shown earlier the faster you are nearing another vehicle as the lane change assist system calculates the speed difference to other vehicles. For this reason, the display could be activated at different times despite your vehicle being at the same distance from other vehicles.

Physical and system-specific limits

The lane change assist system might, for example, interpret the traffic situation incorrectly in certain driving situations. In the following situations, for example:

- In tight bends.
- When road lanes are of varying width.
- At the brow of a hill.
- In poor weather conditions.
- Where there are special roadside structures, e.g. high or offset crash barriers. ◁

Driver Alert System (recommendation for rest breaks)

Introduction

This chapter contains information on the following subjects:

Function and operation by the user 316

The Driver Alert System informs the driver if their driving shows signs of tiredness. ▶

Additional information and warnings:

- Volkswagen information system ⇒page 24
- Accessories, modifications, repairs and renewal of parts (information stored in the control units) ⇒page 394

⚠ WARNING

The intelligent technology used in the Driver Alert System cannot overcome the laws of physics, and functions only within the limits of the system. Do not let the extra convenience afforded by the Driver Alert System tempt you into taking any risks when driving – this can cause accidents. During a long trip, plan regular and sufficient breaks.

- **The driver is responsible at all times for their fitness to drive.**
- **Never drive a vehicle when you are tired.**

⚠ WARNING (Continued)

- **The system cannot always detect the driver's level of alertness. Observe the information in the section "Function limitations" ⇒page 316.**
- **In certain situations, the system may wrongly interpret intentional driving manoeuvres as a lack of alertness from the driver.**
- **No urgent warning will be given in the event of the phenomenon known as "microsleep".**
- **Follow the information on the instrument cluster display and respond according to the commands.**

The Driver Alert System has been developed for use only while driving on highways and good roads.

If there is a system fault, proceed to a qualified workshop immediately to have the system checked. ◁

Function and operation by the user



Fig. 251 On the instrument cluster display: Driver Alert System.

First read and observe the introductory information and safety warnings ⚠ on page 315.

The Driver Alert System determines the driving behaviour at the beginning of a journey and uses it to evaluate the tiredness of the driver. This is compared to the behaviour of the driver while actually driving. If the system detects that the driver may be tired, an acoustic warning signal ("gong") will sound and an explanatory message or symbol (**BREAK** or ⇒Fig. 251) will appear in the instrument cluster display. The message on the instrument cluster display appears for about five seconds and may be repeated once. The last displayed message is saved by the system.

The message in the instrument cluster display can be switched off by pressing the OK/RESET button on the wiper lever or the OK button on the multifunction steering wheel ⇒page 24. The message can be displayed again on the instrument cluster display using the multifunction display ⇒page 24.

Functional limitations

The driving behaviour can be only be evaluated at speeds over approximately 65 km/h (40 mph) and up to approximately 200 km/h (125 mph).

Switching on and off

The system can be activated or deactivated in the **Assistants** menu ⇒page 24. A tick indicates that a driver assist system is switched on.

Function limitations

The Driver Alert System has system-related limitations. The following conditions can limit the function of the Driver Alert System, or prevent it from working altogether:

- When travelling at speeds of less than approximately 65 km/h (40 mph).
- When travelling at speeds of more than approximately 200 km/h (125 mph).
- Roads with bends.
- Roads with uneven surfaces.
- Adverse weather conditions.
- Sporty driving style. ▶

- Towing a heavy/long trailer.
- The driver is distracted.

The Driver Alert System is reset when:

- The ignition is switched off.
- The driver seat belt is unfastened and the driver door is open.
- The vehicle is stationary for longer than 15 minutes.

The Driver Alert System is automatically reset in case of long slow drives (speed less than 65 km/h (40 mph)). If the speed is increased, the system evaluates the driving behaviour again. ◁

Adaptive chassis control (DCC)

Introduction

This chapter contains information on the following subjects:

Indicator lamp 317
Function and operation 318

Additional information and warnings:

- Accessories, modifications, repairs and renewal of parts (information stored in the control units) ⇒page 394

⚠ WARNING

Setting the adaptive chassis control while the vehicle is in motion can distract you from the road and lead to accidents.

If the adaptive chassis control does not function as described in this chapter, have the system checked at a qualified workshop. ◁

Indicator lamp

First read and observe the introductory information and safety warnings ⚠ on page 317.

Lit up	Possible cause	Solution
	Fault in the adaptive chassis control (DCC).	Go to a qualified workshop and have the system checked.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**

⚠ WARNING (Continued)

- **Stop the vehicle as soon as possible and when safe to do so.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁



Fig. 252 In centre console: button for setting the adaptive chassis control.

First read and observe the introductory information and safety warnings ⚠ on page 317.

While the vehicle is in motion, the adaptive chassis control constantly adjusts the suspension characteristics to match the road surface and the current driving situation, in accordance with a preset programme.

Channel	Recommended driving situations
"Comfort" C	Comfort-oriented chassis setup, e.g. when driving for extended trips on poor quality roads.
"Normal"	Balanced setting, e.g. for everyday use.
"Sport" S	Sporty setting, e.g. for a sporty driving response.

Selecting a programme

- Switch on the ignition.
- Press the C/S button repeatedly until the required programme is displayed.

The "Normal" programme is active if neither C nor S light up in the button. The selected programme will remain set even after the ignition has been switched off.

⚠ WARNING

Adjusting the damping setting could alter the vehicle handling. The adaptive chassis control must never tempt you into taking any risks when driving.

- **Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions.**

If there is a fault in the adaptive chassis control, the displays C and S will flash in the button. The driving comfort of the vehicle could be affected until the fault is fixed. Go to a qualified workshop and have the system checked. ◁

Tyre monitoring system

Introduction

This chapter contains information on the following subjects:

Indicator lamp 319
Function and control 321

The tyre monitoring system warn the driver about low tyre pressures.

Additional information and warnings:

- Volkswagen information system ⇒page 24
- Transporting ⇒page 125
- Braking, stopping and parking ⇒page 269
- Wheels and tyres ⇒page 367
- Cleaning and caring for the vehicle exterior ⇒page 380
- Accessories, modifications, repairs and renewal of parts ⇒page 394
- Consumer information ⇒page 404 ▶

⚠ WARNING

The intelligent tyre monitoring system technology cannot overcome the laws of physics, and functions only within the limits of the system. Incorrect handling of the wheels and tyres can lead to a sudden loss of pressure in the tyres, tread separation and even tyre blow-out.

- **Check tyre pressures regularly and always maintain the specified tyre pressure value ⇒ page 367. If the tyre pressure is too low, it is possible that the tyre temperature will increase to such an extent that the tread peels off and the tyre bursts.**
- **Always maintain correct cold tyre pressure as listed on the tyre pressure label ⇒ page 367.**
- **Check tyre inflation pressure regularly when the tyres are cold. Adjust tyre pressure in the cold tyre to the recommended tyre pressure for the tyres installed on your vehicle as necessary.**
- **Check your tyres regularly for signs of wear or damage.**
- **Never exceed the top speed and load permitted for the fitted tyres.**

NOTICE

If valve caps are missing, the valve could be damaged. Always use valve caps that comply with the factory-fitted valve cap specifications. Always screw on valve caps fully. Do not use metal valve caps.

Under-inflated tyres will increase fuel consumption and tyre wear. A higher tyre pressure generally reduces the fuel consumption. However, the maximum tyre pressures specified by the manufacturer must always be adhered to.

When new tyres are driven at high speeds for the first time, they can expand slightly and trigger a one-off pressure warning.

Old tyres should only be replaced by tyres that have been approved by Volkswagen Commercial Vehicles for the vehicle type.

Do not rely solely on the tyre monitoring system. Check your tyres regularly to ensure that they are properly inflated and have no signs of damage, such as punctures, cuts, cracks, and blisters. Remove any objects that become embedded in the tyre tread but have not penetrated into the body of the tyre itself.

The tyre monitoring system is adjusted for the factory-recommended tyre pressures to be found on the tyre pressure label. ◁

Indicator lamp

First read and observe the introductory information and safety warnings ⚠ on page 318.

Lit up[a)]	Possible cause ⇒ ⚠	Solution
(!)	The tyre pressure of one tyre or several tyres has decreased considerably in comparison to the tyre pressure set by the driver, or the structure of the tyre is damaged.	**Do not drive on!** Reduce speed immediately. Stop the vehicle as soon as possible and when safe to do so. Do not undertake any extreme steering or braking manoeuvres! Check all wheels and tyre pressures, and correct if necessary ⇒ page 367. The damaged tyre should be replaced. The tyre monitoring system will have to be re-synchronised after changing the tyre pressure, or after changing one or more wheels ⇒ page 321.

a) An acoustic warning will also be sounded, and a corresponding message may appear in the instrument cluster display. ▶

Flashes[a)]	Possible cause ⇒⚠	Solution
(!)	System faulty.	If the tyre pressure is correct, but the indicator lamp fails to go out after the ignition is switched off and back on again and if it is not possible to calibrate the tyre monitoring system, please go to a qualified workshop. Have the system checked.

a) Indicator lamp flashes for around 1 minute and then lights continuously.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Differing tyre pressures or tyre pressures that are too low can cause tyre failure, the loss of vehicle control, accidents, serious injury and death.

- **If the indicator lamp (!) lights up, stop the vehicle as soon as possible and check all the tyres.**
- **Different tyre pressures or tyre pressures that are too low can increase wear on the tyres, reduce vehicle stability and increase the braking distance.**
- **Differing tyre pressures or tyre pressures that are too low can cause sudden tyre failure and lead to a tyre burst and the loss of control over the vehicle.**
- **The driver is responsible for the correct tyre pressure of all tyres on the vehicle. The recommended tyre pressure can be found on the tyre pressure label ⇒page 367.**
- **The tyre monitoring system cannot function correctly until all cold wheels have the correct tyre pressure.**
- **The use of incorrect tyre pressures can cause accidents and tyre damage. All tyres must always have the correct tyre pressure to suit the vehicle load.**
- **Always inflate all tyres to the correct tyre pressure before every journey.**
- **If driven with insufficient pressure, the tyre flexes more. This could warm up the tyre to such an extent that the tread may separate and the tyre could burst.**
- **High speeds and overloading of the vehicle may cause the tyres to heat up to such an extent that the tyre bursts, leading you to lose control of the vehicle.**

⚠ WARNING (Continued)

- **If the tyre pressure is too low or too high, the tyres will wear prematurely and the vehicle will not handle well.**
- **If the tyre is not flat and it is not necessary to change the wheel immediately, drive at low speed to the nearest qualified workshop and check and correct the tyre pressure.**

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**
- **Stop the vehicle as soon as possible and when safe to do so.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged.

If the tyre pressure is too low and this is detected while driving, the yellow indicator lamp lights up (!). An acoustic warning is also given, and a text notification may also be shown.

If a system fault is detected while the ignition is switched on, the yellow indicator lamp flashes (!) for around one minute and then lights up steadily. A text notification may also be displayed.

Driving on unpaved roads for a long time or a sporty driving style could temporarily deactivate the tyre monitoring system. The indicator lamp shows the functional fault, but disappears if the road conditions or driving style change. ◁

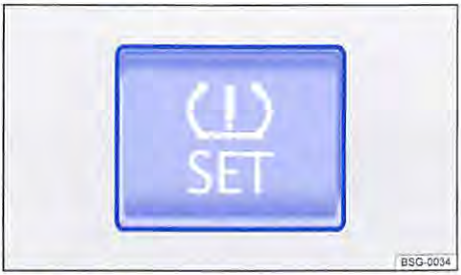


Fig. 253 In the stowage compartment on the front passenger side: button for the tyre monitoring system.

First read and observe the introductory information and safety warnings ⚠ on page 318.

The tyre monitoring system uses data from the ABS sensors and other functions to check the speed of rotation and the rolling circumference of the individual wheels. The rolling circumference of the wheels changes, if the tyre pressure is too low. This is then shown by the tyre monitoring system (!) in the instrument cluster.

The operation of the tyre monitoring system is impaired:

- If the tyre pressure has been changed manually.
- If the tyre has structural damage.
- If the vehicle is loaded more heavily on one side.
- If the wheels on one axle are loaded more heavily, e.g. high load level.
- If snow chains have been fitted.
- If one wheel per axle has been changed.
- When driving with a heavy trailer attached.
- If you are driving under winter conditions or on unsurfaced roads.
- When driving fast with hard acceleration and braking manoeuvres.

Synchronising the tyre monitoring system

The tyre monitoring system will have to be re-synchronised after changing the tyre pressure, or after changing one or more wheels. This also applies for changing the wheels, e.g. from the front to the rear, and for changing from summer tyres to winter tyres.

The saved values must be reset before the system can be resynchronised.

- Switch on the ignition, and while the vehicle is stationary
- Press and hold the ⇒ Fig. 253 button until an acoustic confirmation signal is emitted.
- **OR:** with some vehicle equipment options, you can open menu option **Tyre pressure** in the instrument cluster display and save the new tyre pressures there ⇒page 24.

Once the saved values have been reset, the system calibrates itself independently to the fitted tyres and the tyre pressures filled by the driver during normal vehicle operation. The calibrated values are adopted and monitored after a long journey at various speeds.

If the wheels are loaded more heavily than normal, e.g. if the vehicle is carrying heavy payload, the tyre pressure must be raised to the recommended full-load tyre pressure before synchronisation ⇒page 367.

The tyre monitoring system stops working if there is a fault in the ESC or ABS ⇒page 269.

When using snow chains, an incorrect display may be shown as the snow chains increase the tyre circumference ⇒page 367. ◁

Air conditioning system

Heating, ventilating, cooling

Introduction

This chapter contains information on the following subjects:

Controls for Climatic 323
Controls for Climatronic 325
Controls for the heating and fresh air system . 327
Information on the air conditioning system ... 328
Vents 329
Air recirculation mode 330
Windscreen heating 331
Roof ventilator 331

Displays for the Climatronic information

Depending on the vehicle equipment level, information on the Climatronic is displayed briefly on the screen of the factory-fitted radio or navigation system.

The dust and pollen filter

The dust and pollen filter with activated charcoal reduces the level of impurities in the outside air entering the vehicle.

The dust and pollen filter must be changed regularly to avoid impairing the performance of the air conditioning system.

The dust and pollen filter must be changed more frequently than stated in the service schedule if the efficiency of the filter declines prematurely due to the vehicle being used in areas with high levels of air pollution.

Additional information and warnings:

- Exterior views ⇒page 5
- Wipers/washer ⇒page 116
- Supplementary heaters (auxiliary air heater or auxiliary coolant heater) ⇒page 332
- Cleaning and caring for the vehicle exterior ⇒page 380

⚠ WARNING

Poor visibility through all windows increases the risk of collisions and accidents, which can cause serious injuries.

- **Always ensure that all windows are free of ice, snow and mist to ensure good visibility.**

⚠ WARNING (Continued)

- **Maximum heat output, which is needed to defrost the windows as quickly as possible, is only available when the engine has reached its operating temperature. Do not start your journey until you have good visibility.**
- **Always ensure that the heating and fresh air system or the air conditioning system and the rear window heating are used correctly so that you have good visibility.**
- **Never use the air recirculation mode for an extended period. If the cooling system is switched off, the windows can mist up very quickly in air recirculation mode and reduce visibility considerably.**
- **Always switch off the air recirculation mode when it is not required.**

⚠ WARNING

Stale air can quickly make the driver tired and affect their concentration, which in turn can cause collisions, accidents and serious injuries.

- **Never switch off the blowers or switch on the air recirculation mode for an extended period as this prevents fresh air from entering the vehicle interior.**

NOTICE

- **Switch off the air conditioning system if you suspect that it has been damaged. This can help to prevent secondary damage. The air conditioning system should be checked by a qualified workshop.**
- **Repairs to the air conditioning system require specialist knowledge and special tools. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.**

NOTICE

- **Do not insert any objects in the slots of the air outlets. This could cause damage to the air outlets.**

If the cooling system is switched off, the outside air that is drawn into the vehicle is not dehumidified. To prevent the windows misting over, Volkswagen Commercial Vehicles recommends that you leave the air conditioning (air conditioning compressor) switched on. To do this, press the AC or A/C button. The indicator lamp in the button must light up.

Maximum heat output, which is needed to defrost the windows as quickly as possible, is only available when the engine has reached its operating temperature.

Keep the air intake slots in front of the windscreen free of snow, ice and leaves to ensure heating and cooling is not impaired, and to prevent the windows from misting over. ◁

Controls for Climatic



Fig. 254 In the centre console: Climatic controls

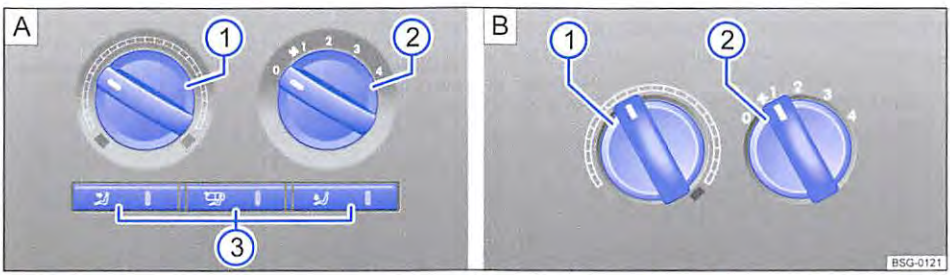


Fig. 255 In headliner of the passenger compartment A: Climatic controls for the passenger compartment. In the centre console B: controls of the heating and fresh air system for the passenger compartment.

First read and observe the introductory information and safety warnings ⚠ on page 322.

Press the corresponding button to switch a function on or off. Press the button again to switch the function off.

Illuminated LEDs in the controls indicate whether a particular function is active. ▶

Button, control	Additional information. Climatic ⇒ Fig. 254 and ⇒ Fig. 255.
① ■ ... ■	Temperature. Turn the regulator to set the temperature as required.
②	Blower. Setting 0: blower and Climatic are switched off. Setting 4: maximum blower setting.
③	Air distribution. Front infinitely adjustable. **Passenger compartment:** Can be adjusted manually with the buttons.
	Air distribution to the windscreen. In this position, the air recirculation mode is switched off automatically, or not switched on at all.
	Air distribution to the upper body via the air vents in the dash panel.
	Air distribution to the footwell.
	Air distribution to the windscreen and the footwell.
	Passenger compartment: air distribution to the side windows.
AC	Press the button to switch the cooling system on or off.
	Rear window heating: only functions when the engine is running and switches off automatically after approximately 10 minutes.
REAR	**Only for vehicles with controls in the roof of the passenger compartment:** enabling or disabling controls in the passenger compartment. An indicator lamp in the button lights up when a control is enabled.
	Air recirculation mode ⇒ page 330.
Switch off.	Turn the blower switch to setting 0.

⚠ WARNING

Stale air can quickly make the driver tired and affect their concentration, which in turn can cause collisions, accidents and serious injuries.

⚠ WARNING (Continued)

- **Never switch off the blowers or switch on the air recirculation mode for an extended period as this prevents fresh air from entering the vehicle interior.**

◁

Controls for Climatronic

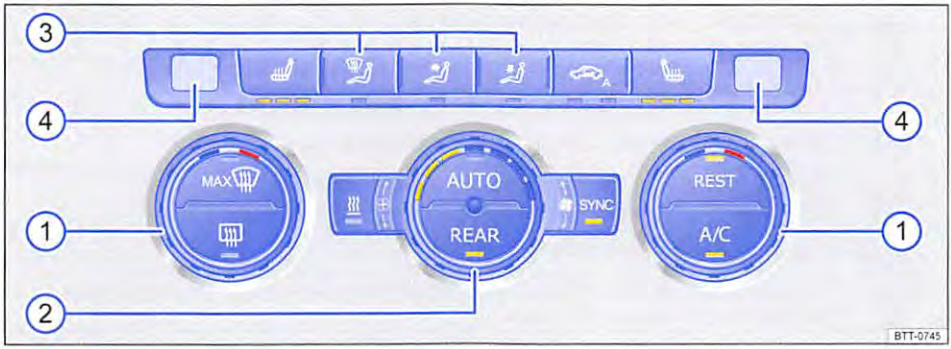


Fig. 256 In the centre console: Climatronic controls.

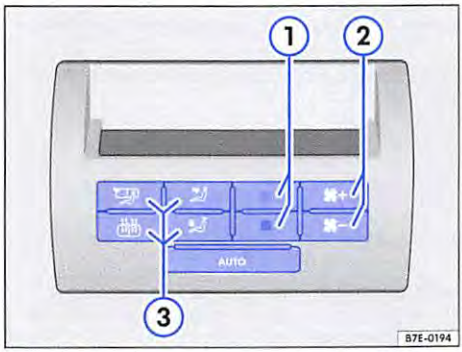


Fig. 257 In the passenger compartment headliner: controls for Climatronic

First read and observe the introductory information and safety warnings ⚠ on page 322.

Press the corresponding button to switch a function on or off. Press the button again to switch the function off.

Illuminated LEDs in the controls indicate whether a particular function is active.

Button, control	Additional information. Climatronic ⇒Fig. 256 and ⇒Fig. 257.
① ■ ... ■	Temperature. **Front:** left and right-hand side separately adjustable Turn the regulator to set the temperature as required. The temperature setting is shown on the display on the left or right. **Rear:** press a button to set the temperature as required. The temperature setting is shown on the display.
②	Blower. The strength of the blower is regulated automatically. Turn the control or push the buttons to set the blower manually.
③	Air distribution. The airflow is set to be comfortable automatically. It can also be set manually using the buttons.
MAX	De-frost function. The air drawn in from outside the vehicle is directed at the windscreen and the air recirculation mode is switched off automatically. In order to demist the windscreen as quickly as possible, the air will be dehumidified at temperatures above about +1.5°C (+35°F) and the blower will be set to a high speed.
	Air distribution to the windscreen.

Button, control	Additional information. Climatronic ⇒Fig. 256 and ⇒Fig. 257.
	Air distribution on the upper body via the air vents in the dash panel or in the headliner in the passenger compartment.
	Air distribution to the footwell.
	**Passenger compartment:** air distribution to the side windows.
	**Passenger compartment:** defogging the side windows. Press button REAR and then button MAX, to activate the function from the front.
	Automatic air recirculation mode ⇒page 330.
	Windscreen heating: only functions when the engine is running and switches off automatically after approximately 10 minutes.
	Rear window heating: only functions when the engine is running and switches off automatically after approximately 10 minutes.
AUTO	Automatic temperature, blower and air distribution control. **Press the button**: the AUTO High function (high blower output) is switched on. The right-hand indicator lamp in the button lights up. **Press the button again**: the AUTO Low function (low blower output) is switched on. The left-hand indicator lamp in the button lights up.
A/C	Press the button to switch the cooling system on or off.
MAX A/C	Press the button to achieve maximum cooling. The air recirculation mode and cooling system are switched on automatically, and air distribution is automatically set to position .
OFF	Switch off. Press the button OFF or manually set the blower to 0. An indicator lamp in the OFF button lights up when the system is switched off.
REAR	Press the button to readjust the air conditioning settings for the rear seats. The displays then show the settings for the rear seats. Press the button again or do not press any button for approximately 10 seconds in order to switch the function off.
REST	Use residual heat. If the ignition is switched off and the engine is warm, the residual heat from the engine is used to continue to heat the vehicle interior. The function switches off after 30 minutes or when battery capacity is low. Press button REST and then button REAR to use the residual warmth in the passenger compartment.
SYNC	Applying the driver-side temperature settings to all seats: if the indicator lamp in the SYNC button is lit up, the driver-side temperature settings also apply to the other seats. Press the button or activate the temperature regulator for the passenger side or the rear seats to set different temperatures for the passenger side and the rear seats. The indicator lamp in the button is not lit up.

⚠ WARNING

Stale air can quickly make the driver tired and affect their concentration, which in turn can cause collisions, accidents and serious injuries.

⚠ WARNING (Continued)

- **Never switch off the blowers or switch on the air recirculation mode for an extended period as this prevents fresh air from entering the vehicle interior.**

Controls for the heating and fresh air system

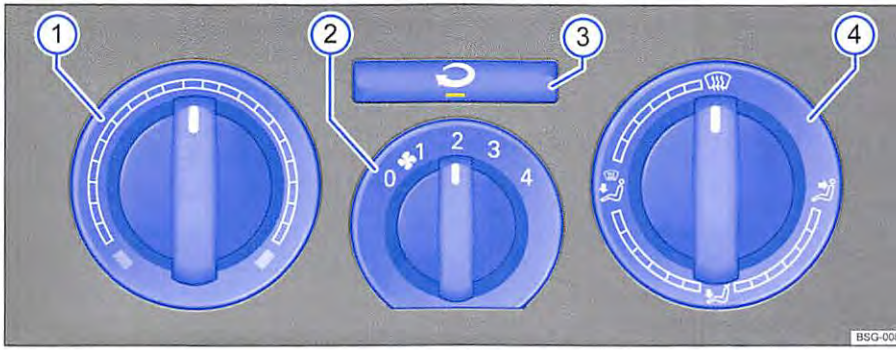


Fig. 258 In the centre console: controls for the heating and fresh air system.

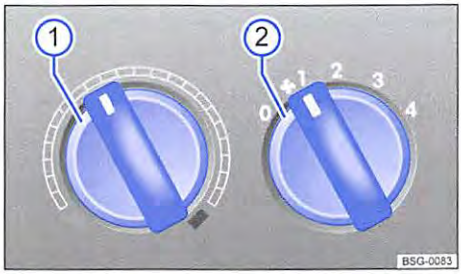


Fig. 259 In the centre console: controls of the heating and fresh air system for the passenger compartment

First read and observe the introductory information and safety warnings ⚠ on page 322.

Button, control	Additional information. Heating and fresh air system ⇒Fig. 258 and ⇒Fig. 259.
① ■ ... ■	Temperature. Turn the regulator to set the temperature as required.
② 0 ...	Blower. Setting 0: blower and fresh air system are switched off. Setting 4: maximum blower setting.
③	Air recirculation mode ⇒page 330.
④	Air distribution. Turn the control to direct the airflow exactly as required.
	Air distribution to the windscreen. In this position, the air recirculation mode is switched off automatically, or not switched on at all.
	Air distribution to the upper body via the air vents in the dash panel.
	Air distribution to the footwell.
	Air distribution to the windscreen and the footwell.
Switch off.	Turn the blower switch to setting 0.

Settings for optimal road visibility

- Switch off air recirculation mode ⇒page 330.
- Set blower (2) to level 1 or 2.
- Set the temperature selector (1) to the required position.
- Open and position all vents on the dash panel.
- Turn the air distribution controller ⇒Fig. 258 (4) to the desired position.

Rear window heating

A button for the rear window heating may be contained in the dash panel.

- When the engine is running, press the button to switch on the rear window heating.
- The rear window heating is switched off automatically after approx. 10 minutes. To switch it off before the automatic switch-off, press the button again.

⚠ WARNING

Stale air can quickly make the driver tired and affect their concentration, which in turn can cause collisions, accidents and serious injuries.

- **Never switch off the blowers or switch on the air recirculation mode for an extended period as this prevents fresh air from entering the vehicle interior.**

Information on the air conditioning system

First read and observe the introductory information and safety warnings ⚠ on page 322.

The cooling system for the vehicle interior only works when the engine is running and the blower is switched on.

The air conditioning system operates most effectively with the windows and the sliding/tilting roof closed. However, if the vehicle has heated up after standing in the sun for some time, the air inside can be cooled more quickly by opening the windows and the sliding/tilting roof for a short time.

Settings for optimal road visibility

Switching the cooling system on not only reduces the temperature of the vehicle interior, but also the humidity. This improves comfort for the vehicle occupants and prevents the windows from misting when the outside humidity is high.

Climatic

- Switch off air recirculation mode ⇒page 330.
- Set the blowers to the required level.
- Set the temperature to +22°C (+72°F).
- Open and position all vents on the dash panel ⇒page 329.
- Turn the air distribution controller to the desired position.
- Press the AC button to switch the cooling system on. The indicator lamp in the button lights up.

Climatronic

- Press the AUTO button.
- Set the temperature to +22°C (+72°F).
- Open and position all vents on the dash panel ⇒page 329.

The cooling system cannot be switched on

The following criteria may prevent the cooling system from being switched on:

- The engine is not running.
- The blower is switched off.
- The air conditioning system fuse has blown.
- The ambient temperature is lower than approximately +3°C (+38°F).
- The compressor has been temporarily switched off because the coolant temperature is too high.
- There is a different fault in the vehicle. The air conditioning system should be checked by a qualified workshop.

Things to note

If the humidity and temperature outside the vehicle are high, **condensation** can drip off the evaporator in the cooling system and form a pool underneath the vehicle. This is normal and does not indicate a leak.

The windscreen may mist up after starting the engine due to residual humidity in the air conditioning system. Switch the defrost function on in order to clear the windscreen of condensation or mist as quickly as possible. ◁

Vents

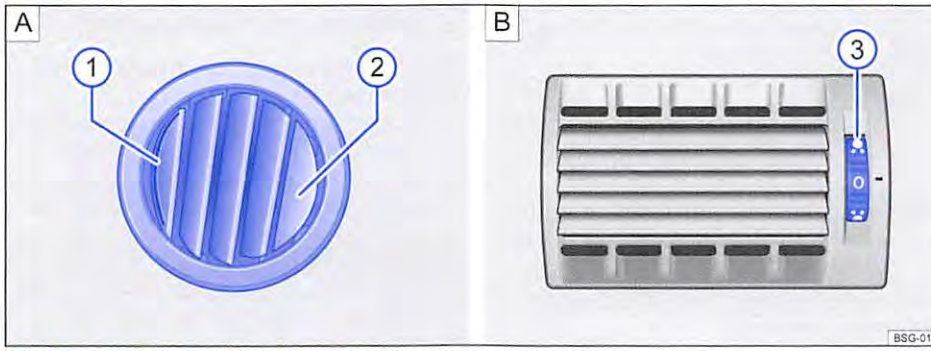


Fig. 260 Types of vents in the headliner

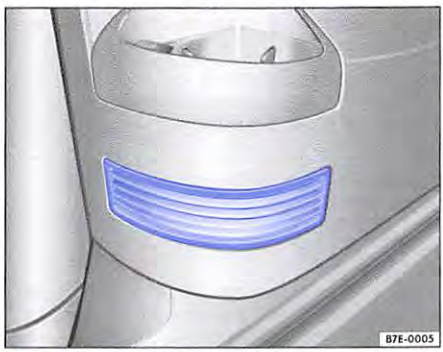


Fig. 261 Vent for the passenger compartment

First read and observe the introductory information and safety warnings ⚠ on page 322.

Vents in the headliner

To ensure that the vehicle interior is sufficiently heated, ventilated and cooled, you should never fully close the vents.

- To *open*, press the panel with a ridge (1).
- **OR:** turn thumb wheel (3) to position ○.
- To *close*, press the panel that is opposite the panel with the ridge (2).
- **OR:** turn thumb wheel (3) to position ●.

Indirect ventilation

Turn thumb wheel to position ⁂.

There is no indirect ventilation in some countries. The vent is closed in position ⁂.

NOTICE

Do not place any food, medicine or any other temperature-sensitive items in front of the vents. Heat-sensitive food, medicine and other items could be either damaged or rendered useless.

The air that comes out of the vents and flows through the entire passenger compartment escapes from the vehicle through the ventilation openings in the side panels on the left and right. The ventilation slots must not be covered by items of clothing or other objects. ◁

Air recirculation mode

First read and observe the introductory information and safety warnings ⚠ on page 322.

General notes

There are different types of air recirculation mode:	
	Manual air recirculation mode (Heating and fresh air system).
	Manual air recirculation mode (air conditioning system).
A	Left indicator lamp lit up in the button: manual air recirculation mode (Climatronic).
A	Right indicator lamp lit up in the button: automatic air recirculation mode (Climatronic).

The air recirculation mode prevents outside air from entering the vehicle.

If the outside temperature is very low or very high, the manual air recirculation mode should be selected for a short time in order to heat or cool the vehicle interior more quickly.

For safety reasons, the air recirculation mode will switch off if the button or button is pressed, or if the air distribution regulator is switched to ⇒⚠.

Switching the manual air recirculation mode on and off

Switching on: press button repeatedly until the indicator lamp in the button lights up.

Switching off: press button until the indicator lamp in the button is no longer lit up.

Switching the manual air recirculation mode on and off in the Climatronic A

Switching on: press the A button until the left indicator lamp in the button lights up.

Switching off: press the A button repeatedly until the indicator lamp in the button is no longer lit up.

Function of the automatic air recirculation mode A

In position A fresh air will enter the vehicle interior. The air recirculation mode will switch on automatically if the system detects an increase in the concentration of noxious substances in the outside air. The air recirculation mode will switch off as soon as this level has returned to normal.

The system cannot detect unpleasant odours.

The air recirculation mode will **not** be switched on automatically in certain circumstances such as when the ambient temperature is low or the air conditioning system has been switched on.

Switching the automatic air recirculation mode on and off

Switching on: press the A button repeatedly until the right indicator lamp in the button lights up.

Switching off: press the A button repeatedly until the indicator lamp in the button is no longer lit up.

⚠ WARNING

Stale air can quickly make the driver tired and affect their concentration, which in turn can cause collisions, accidents and serious injuries.

- **Never use the air recirculation mode for an extended period as no fresh air will enter the vehicle interior.**
- **If the cooling system is switched off, the windows can mist up very quickly in air recirculation mode and reduce visibility considerably.**
- **Always switch off the air recirculation mode when it is not required.**

NOTICE

In vehicles with an air conditioning system, do not smoke when the air recirculation mode is switched on. The smoke drawn into the cooling system can leave a residue on the evaporator and the dust and pollen filter with active carbon insert, producing a lasting unpleasant odour.

Climatronic: when reversing the vehicle, or when the wash and wipe system is being used, the air recirculation mode will switch on temporarily to prevent exhaust emissions from entering the vehicle interior. ◁

Windscreen heating

First read and observe the introductory information and safety warnings ⚠ on page 322.

Windscreen heating helps to de-ice the windscreen and only works when the engine is running.

Switching on and off

Press the button in the centre console or the Climatronic to switch the windscreen heating on and off.

The windscreen heating is switched off automatically depending on the outside temperature or after 10 minutes at the latest.

Switch-off conditions

The windscreen heating will switch off automatically when **one** of the following conditions applies:

- After the engine is switched off.
- If the vehicle's connected load is too high as a result of too much electrical equipment being used at the same time.
- Malfunctions in the air conditioning system.
- After the time specified has elapsed. ◁

Roof ventilator

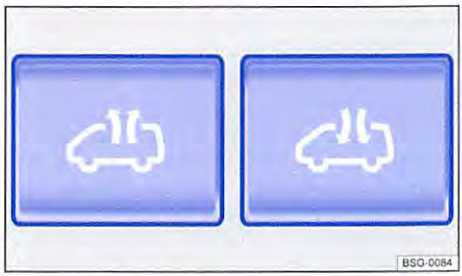


Fig. 262 On the dash panel: buttons for the roof ventilator

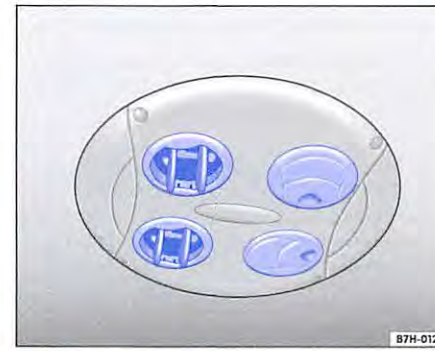


Fig. 263 In the headliner: roof ventilator

First read and observe the introductory information and safety warnings ⚠ on page 322.

Air extraction

- To *switch on*, switch the ventilation off, if on.
- Press the ⇒ Fig. 262 button.
- To *switch off*, press button again.

Ventilation

- To *switch on*, switch the air extraction off, if on.
- Press the button.
- To *switch off*, press button again.

NOTICE

At least one vent must be open if the air extraction or ventilation is switched on. The blower could otherwise be damaged.

Using electrical appliances with the engine off, ignition switched on or off and the roof ventilator switched on will drain the battery. ◁

Supplementary heaters (auxiliary air heater or auxiliary coolant heater)

Introduction

This chapter contains information on the following subjects:

Controls 333
Switching the supplementary heating system on and off 334
Remote control 335
Programming the supplementary heating system 338
Switching the childproof lock on and off 339
Operation 339

The supplementary heating system is supplied with fuel from the vehicle fuel tank and can be used when the vehicle is in motion or stationary. Electrical power is supplied by the vehicle battery.

The **auxiliary air heater** runs in air recirculation mode and heats the vehicle interior. It has separate vents in the passenger compartment ⇒ Fig. 265.

The **auxiliary coolant heater** heats the heating circuit. Heat is guided into the vehicle interior via the vents for the heating or air conditioning system. With the auxiliary coolant heater, it is possible to switch between heating and ventilating.

Additional information and warnings:

- Supplementary heater in the California ⇒ page 192
- Filling the tank ⇒ page 340
- Battery ⇒ page 362

DANGER

Swallowing batteries with a diameter of 20 mm or other lithium batteries can result in severe or even fatal injuries within a very short period of time.

- **Always keep the vehicle key, key ring with batteries, spare batteries, round cells and other batteries that are larger than 20 mm out of the reach of children.**

DANGER (Continued)

- **Call for medical help immediately you suspect that someone has swallowed a battery.**

WARNING

The fumes from the supplementary heating system contain carbon monoxide, which is an odourless and colourless poisonous gas. Carbon monoxide can cause people to lose consciousness. It can also cause death.

- **Never start or run the supplementary heating system in unventilated or closed rooms.**
- **Never program the supplementary heating system so that is switched on and run in unventilated or enclosed areas.**

WARNING

Parts of the exhaust system of the supplementary heating system become very hot. This can cause fires.

- **Park the vehicle so that no part of the exhaust system can come into contact with any inflammable material underneath the vehicle, e.g. dry grass.**

NOTICE

Do not place any food, medicine or any other temperature-sensitive items in front of the vents. Heat-sensitive food, medicine and other items could be either damaged or rendered useless.

After starting the engine with a discharged vehicle battery, or after the battery has been changed, system settings (time, date, personal convenience settings and programming) may have been changed or deleted. Check and correct the settings as necessary once the vehicle battery has been sufficiently charged. ◁

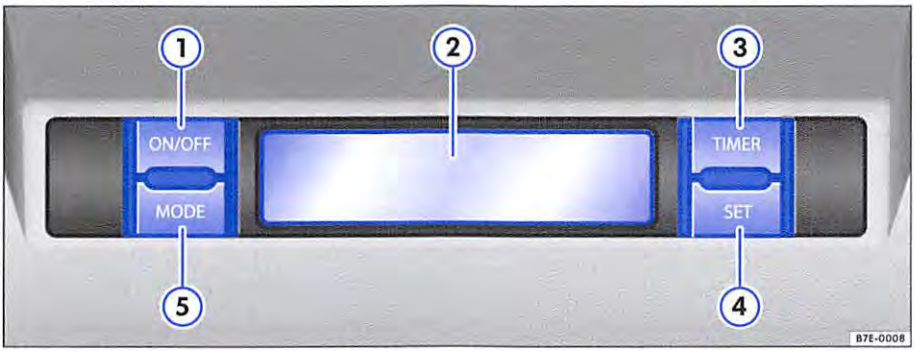


Fig. 264 In the headliner: controls of the supplementary heating system

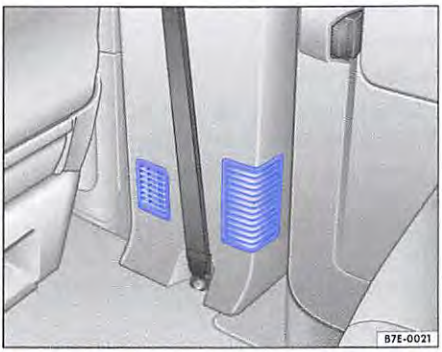


Fig. 265 In the passenger compartment: vent for auxiliary air heater.

First read and observe the introductory information and safety warnings ⚠ on page 332.

In vehicles with camping equipment (California), the supplementary heater is controlled via the central control panel ⇒ page 192.

Each button has its own assigned function (lettering) as well as a function for the menu (symbol in the display next to the button)

⇒ Fig. 264	Function
① **ON/OFF**	Switch supplementary heating system on and off. Menu-dependent function button: ▲ Setting within a menu.
② Display	Multifunction display 1-3 🕒: displays the programmed start times. ∞: Continuous mode (only auxiliary air heater). : Heating (auxiliary air heater and auxiliary coolant heater). : Ventilation (only auxiliary coolant heater).
③ **TIMER**	Set and display start time. Menu-dependent function button: ⮌ Close the menu.
④ **SET**	Activate the childproof lock. Open the menu ⇒ page 338. Menu-dependent function button: **OK** Confirm settings.
⑤ **MODE**	**Auxiliary air heater:** setting the heating level. **Auxiliary coolant heater:** Switch from heating to ventilation. Menu-dependent function button: ▼ Setting within a menu.

◁

Switching the supplementary heating system on and off

First read and observe the introductory information and safety warnings ⚠ on page 332.

In vehicles with camping equipment (California), the supplementary heater is controlled via the central control panel ⇒page 192.

Switching on the supplementary heating system:

ON/OFF	Manually with button [ON/OFF] in the roof display.
	Manually with the remote control key.
	Automatically with a programmed and activated switch-on time.

Switching off the supplementary heating system:

ON/OFF	Manually with the function button ⇒Fig. 264 (1) in the roof display.
OFF	Manually with the remote control key.
	Automatically after the set operating duration has elapsed.
	Only if the vehicle has an auxiliary coolant heater Automatically when the indicator lamp lights up ⛽ (fuel gauge) ⇒page 340.
	Automatically if the charge level of the additional battery is too low ⇒page 362.

Setting the operating duration (when the ignition is switched off)

The default setting for the operating duration is 30 minutes. You can set the operating duration between 10 and 120 minutes.

- Press any button on the roof display to activate the roof display.
- **Only if the vehicle has an auxiliary coolant heater**: Press the [MODE] button to set the operating mode.
- Press the [ON] button.
- Press the button [SET] to set the operating duration.
- Press the function button ▲ or ▼ until the required operating duration is displayed.
- Press button [SET] again to confirm the operating duration.
- **Only for auxiliary air heater**: press the function button ▲ or ▼ as often as necessary until the desired heating level is displayed.

The supplementary heating system has been switched on. The operating duration is counted backwards. Press button [OFF] to switch off the supplementary heating system prematurely.

Continuous mode ∞ (only for auxiliary air heater, with the ignition switched off)

Press any button on the roof display to activate the roof display.

Press the [ON] button.

Press the [SET] button.

Press the function button ▲ or ▼ as often as necessary until **Heating** ∞ is displayed.

Press button [SET] to confirm the setting.

Press the function button ▲ or ▼ as often as necessary until the required temperature level is displayed.

Press button [SET] again to confirm the temperature.

Things to note

The supplementary heating system runs on for a short time after it is switched off in order to cool the heating unit (switch-off delay). The exhaust gases in the system can also be emitted.

Switch-off delay for the auxiliary heater

If the ignition is switched off while the auxiliary water heater is on, the selected function continues being performed for a maximum of 10 minutes. The set switch-off delay is shown on the display.

Each time the [MODE] button is pressed, the switch-off delay is reduced by one minute. ◁

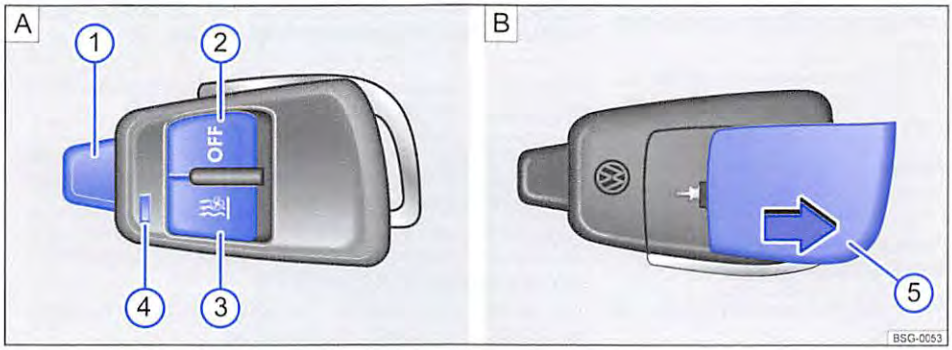


Fig. 266 Remote control for the auxiliary air heater.

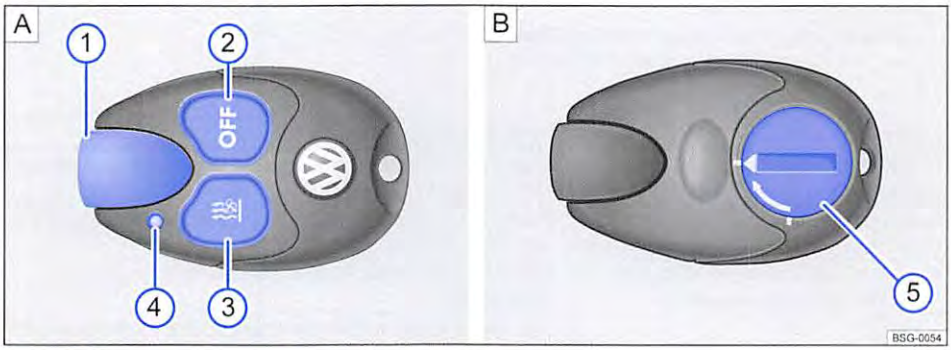


Fig. 267 Remote control of the auxiliary coolant heater.

First read and observe the introductory information and safety warnings ⚠ on page 332.

Auxiliary air heater Fig. 266 A Auxiliary coolant heater Fig. 267 A	Auxiliary air heater function	Auxiliary coolant heater function
①	Aerial.	Aerial.
② OFF	Switch off the auxiliary air heater.	Switch off the auxiliary coolant heater.
③	Switch on the auxiliary air heater.	Switch on the auxiliary coolant heater.
④	Indicator lamp.	Indicator lamp.

Pressing the button in the remote control can switch on the supplementary heating system unintentionally.

Indicator lamp in the remote control (auxiliary air heater)

The indicator lamp in the remote control provides the user with a variety of information after each input: ▶

Action	Indicator lamp Fig. 266 A ④
Switch on the auxiliary air heater by pressing button ③ (for approx. 2 seconds).	Lights up, when the button is pressed, and then flashes in green in short intervals for approximately 30 seconds.
Switch off the auxiliary air heater by pressing button ② (for approx. 2 seconds).	Lights up, when the button is pressed, and then flashes in red in short intervals for approximately 30 seconds.
Remote control is out of range Attempt to switch on by pressing the button ③.	Lights up in green, when the button is pressed, and then flashes in red in short intervals for approximately 10 seconds. The auxiliary air heater is **not** switched on.
System fault. Attempt to switch on by pressing the button ③.	Lights up in green, when the button is pressed, and then flashes in red in very short intervals for approximately 10 seconds. The auxiliary air heater is **not** switched on.
The battery in the remote control is discharged.	Not flashing, lamps not lit up. The auxiliary air heater cannot be controlled using the radio remote control.

Indicator lamp in the remote control (auxiliary coolant heater)

The indicator lamp in the remote control provides the user with a variety of information after each input:

Action	Indicator lamp Fig. 267 A ④
Switch on the auxiliary coolant heater by pressing button ③ (for approx. 1 second).	Lights up in green for approximately 2 seconds after the button has been pressed.
Switch off the auxiliary coolant heater by pressing button ② (for approx. 1 second).	Lights up in red for approximately 2 seconds after the button has been pressed.
Attempt to switch on or off using button ③ or ②. No signal was received [a].	Flashes green or red in short intervals for approximately 2 seconds.
Attempt to switch on or off using button ③ or ②. The auxiliary coolant heater is blocked [b].	Attempt to switch on: flashes green in very short intervals for approximately 2 seconds. The switch-on signal is **not** processed. Attempt to switch off: lights up red for approximately 2 seconds. The switch-off signal is **not** processed.
Attempt to switch on or off using button ③ or ② when the battery in the remote control is low.	Attempt to switch on: lights up orange for approximately 2 seconds, then turns green for another 2 seconds. The auxiliary coolant heater is switched on. Attempt to switch off: lights up orange for approximately 2 seconds, then turns red for another 2 seconds. The auxiliary coolant heater is switched off.
Attempt to switch on or off using button ③ or ② when the battery in the remote control is low [a].	Attempt to switch on: lights up orange for approximately 2 seconds, then flashes green in short intervals for another 2 seconds. The switch-on signal is **not** processed. Attempt to switch off: lights up orange for approximately 2 seconds, then flashes red in short intervals for another 2 seconds. The switch-off signal is **not** processed.

Action	Indicator lamp Fig. 267 A 4
Attempt to switch on or off using button 3 or 2 when the battery in the remote control is low. The auxiliary coolant heater is blocked [b].	Attempt to switch on: lights up orange for approximately 2 seconds, then flashes green in very short intervals for another 2 seconds. The switch-on signal is **not** processed. Attempt to switch off: lights up orange for approximately 2 seconds, then turns red for another 2 seconds. The switch-off signal is **not** processed.
Attempt to switch on or off using button 3 or 2 when the battery in the remote control is empty.	Flashes orange in very short intervals for approximately 5 seconds. The switch-on or switch-off signal is **not** processed.

[a] If you are at the edge of the receiving range, the remote control may not be able to receive the confirmation signal from the sensor in the vehicle. If this is the case, the remote control will show a fault even though the supplementary heating system has actually been switched on or off. Move closer to the vehicle and try pressing the corresponding button on the remote control again.

[b] If the automatic switch-off for electrical consumers page 365 is activated or if the reserve level in the fuel tank page 340 has been reached, the auxiliary coolant heater may be blocked automatically.

Settings for remote control

The supplementary heating system is activated or deactivated by means of the remote control. The Start Time menu can be used to program the operating duration and the heating level (auxiliary air heater) or the operating mode (auxiliary coolant heater).

- Press any button on the roof display to activate the roof display.
- Press and hold down the SET button for several seconds.
- Press the function button ▲ or ▼ as often as necessary until "REMOTE CONT." is displayed.
- Press the SET button to confirm.
- Press the function button ▲ or ▼ until the required temperature or mode is displayed.
- Press the SET button to confirm the selected heating level or operating mode. The operating duration menu is displayed.
- Press the function button ▲ or ▼ until the required operating duration is displayed.
- Press button SET to confirm the operating duration. A summary of the settings is displayed.

Replacing the battery for the remote control

Auxiliary air heater: the battery is located on the back of the remote control underneath a cover ⇒Fig. 266 B. Pull off the cover 5 towards the rear.

Auxiliary coolant heater: the battery is located on the back of the remote control underneath a cover ⇒Fig. 267 B. Use a flat object, e.g. a coin, to turn the slot anti-clockwise in order to open the cover 5.

When changing the batteries, ensure you insert them the right way (poles) and that they are the same type ⇒ⓘ.

Range

The receiver is located in the vehicle interior. The remote control key has a range of several hundred metres when the battery is fully charged. The range of the remote control key can be considerably reduced by obstacles between the remote control key and the vehicle, bad weather conditions, and a flat battery.

To achieve optimal range, hold the remote control vertically with the aerial ⇒Fig. 266 A 1 or ⇒Fig. 267 A 1 at the top. Do not hold the aerial with your fingers or the palm of your hand.

The distance between the remote control and the vehicle must be *at least* 2 metres.

NOTICE

- **The remote control contains electronic components. Protect the remote control from moisture, excessive vibration and direct sunlight.**
- **Unsuitable batteries can damage the remote control. Only replace discharged batteries with a new battery of the same voltage rating, size and specification.**

Discharged batteries must be disposed of in accordance with regulations governing the protection of the environment.

The battery in the remote control may contain perchlorate. Please comply with legislation regarding disposal.

Protect the remote control against inadvertent operation in order to prevent the supplementary heater from being switched on unintentionally. ◁

Programming the supplementary heating system

First read and observe the introductory information and safety warnings ⚠ on page 332.

In vehicles with camping equipment (California), the supplementary heater is programmed via the central control panel ⇒page 192.

Setting the date

Before being used for the first time and if the vehicle battery has been disconnected and reconnected, the date needs to be set.

- Press any button on the roof display to activate the roof display.
- Press button SET until the date is displayed.
- Press button SET again. The day flashes.
- Press the function button ▲ or ▼ until the required day is displayed.
- Press button SET again to confirm the day. The month flashes.
- Proceed in the same way for the month and the year.

Time

The time is automatically taken from the instrument cluster.

Setting the start time

You can programme up to three different start times. Only **one** of these can be activated at a time.

The following steps must be carried out in less than 10 seconds as the procedure will otherwise be stopped.

- Press any button on the roof display to activate the roof display.
- Press button TIMER until **OFF** is displayed.
- Press the SET button, press function button ▲ or ▼ as often as necessary until **ON** is displayed.
- Press the SET button to confirm.
- Press the function button ▲ or ▼ until the required temperature or mode is displayed.
- Press the SET button to confirm.
- Press the function button ▲ or ▼ as often as necessary until the start time to be switched on or off is displayed.
- Press the function button ▲ or ▼ until the required day of week is displayed. If a day is not displayed, no day has been programmed, only a time. The supplementary heater will then be switched on at this programmed time.
- Press the SET button to confirm the selected day of the week. The hour menu is displayed.
- Proceed in the same way for the hour, for minutes as well as the operating duration.
- Press the SET button to confirm the settings. A summary of the settings is displayed.

The start time for which the changes have been made has been activated. To activate additional start times, press and hold down button TIMER for several seconds, select the start time with the function buttons ▲ or ▼ and then proceed as described above.

Deactivating the start time

If changes have been made for a start time, this start time still remains activated. To deactivate the start time, proceed as follows:

- Press any button on the roof display to activate the roof display.
- Push and hold down the TIMER button for several seconds, then press the SET button until an active start time that is to be deactivated is displayed.
- Press the function button ▲ or ▼ as often as necessary until **OFF** is displayed.
- Press the SET button to confirm.

The start time has now been deactivated and is no longer shown on the roof display.

⚠ WARNING

Never program the supplementary heating system so that is switched on and run in unventilated or enclosed areas. The fumes from the supplementary heating system contain carbon monoxide, which is an odourless and colourless poisonous gas. Carbon monoxide can cause people to lose consciousness. It can also cause death. ◁

Switching the childproof lock on and off



Fig. 268 On the roof display: symbol for switched-on childproof lock

First read and observe the introductory information and safety warnings ⚠ on page 332.

Activating the childproof lock

- Press any button on the roof display to activate the roof display.
- Press and hold down the SET button for several seconds.
- Press the function button ▲ or ▼ until **CHILD-PROOF LOCK** is displayed.
- Press the SET button.
- Press the function button ▲ until **ON** is displayed, in order to switch childproof lock on. The display will show this symbol ⇒ Fig. 268.
- Press the SET button to confirm.

Deactivating the childproof lock

- Switch on the ignition.
- Press and hold down the SET button for several seconds.
- Press the function button ▲ or ▼ until **CHILD-PROOF LOCK** is displayed.
- Press the SET button.
- Press the function button ▲ until **OFF** is displayed, in order to switch childproof lock off.
- Press the SET button to confirm. The ⇒ Fig. 268 symbol on the display goes out.

If the childproof lock has been switched on and the ignition has been switched off, it is **not** possible to switch the supplementary heating system on manually.

It is still possible to switch off the supplementary heating system manually. ◁

Operation

First read and observe the introductory information and safety warnings ⚠ on page 332.

The supplementary heating exhaust system, located under the vehicle, must not be blocked by snow, mud or other items. The exhaust fumes must not be obstructed in any way. The emissions generated by the supplementary heating system are removed via an exhaust pipe fitted underneath the vehicle.

If the charge level of the additional battery is low, the supplementary heating system will switch off automatically or cannot be switched on.

Operating noises can be heard if the supplementary heating system is switched on.

At high levels of humidity and low temperatures outside the vehicle, condensation from the heating system can evaporate through the exhaust system when the supplementary heater is operating. If this is the case, steam may appear underneath the vehicle. The vehicle is not damaged.

The charge of the additional battery will be reduced if the supplementary water heater is operated several times over an extended period of time. Drive the vehicle for a sufficient length of time to recharge the additional battery. As a rule of thumb, drive the vehicle for the length of time you ran the system. ◁

At the filling station

Filling the tank

Introduction

This chapter contains information on the following subjects:

Indicator lamps and fuel gauge 341
Filling the tank with petrol or diesel 342
Capacities 343
Checks when filling the tank 343

The fuel cap is located at the left-hand side of the vehicle.

Additional information and warnings:

- Exterior views ⇒page 5
- Fuel ⇒page 343
- Preparation for working in the engine compartment ⇒page 350

⚠ WARNING

Filling the tank incorrectly and incorrect handling of fuel can cause explosions, fire, serious burns and other injuries.

- **Always ensure that the tank cap is properly closed, to prevent the evaporation and spillage of fuel.**
- **Fuel is highly explosive and inflammable and can cause serious burns and other injuries.**
- **Fuel can spill out if the engine is not switched off or the filler nozzle is not fully inserted into the fuel filler neck when filling the tank. This could cause fire, explosions, serious burns and other injuries.**
- **When refilling with fuel, the engine , supplementary heating system (⇒page 332) and the ignition must be switched off for security reasons.**
- **When filling the tank, always switch off your mobile telephone and two-way radio or any other radio equipment. Electromagnetic radiation can generate sparks which can in turn start a fire.**
- **Never get back into the vehicle while filling the tank. If in exceptional cases you have to enter the vehicle, close the door and touch a metal object before touching the filler nozzle again. This will remove any electrostatic**

⚠ WARNING (Continued)

charge from you. Failure to do so could generate a spark. Sparks can cause a fire when filling the tank.

- **Never refuel or fill a spare canister near open flames, sparks or smouldering items, e.g. cigarettes.**
- **Electrostatic discharge and electromagnetic radiation must be avoided when filling the tank.**
- **Follow all applicable safety information provided by the filling station when filling the tank.**
- **Never spill fuel in the vehicle or in the luggage compartment.**

⚠ WARNING

For safety reasons, Volkswagen Commercial Vehicles does not recommend carrying a spare fuel canister in the vehicle. Fuel can spill out of the full or empty canister and catch fire, especially in the event of an accident. This could cause explosions, fire and injuries.

- **If, in exceptional circumstances, you have to transport a spare fuel canister, please note the following:**
  - **When refilling never place the canister in or on top of the vehicle, for example in the luggage compartment or on the tailgate. There may be an electrostatic charge during refilling causing the fuel fumes to ignite.**
  - **Always place the spare fuel canister on the ground.**
  - **When filling a spare fuel canister, place the filler nozzle as far as possible into the filler opening.**
  - **If the spare fuel canister is made of metal, the filler nozzle must have constant contact with the canister in order to avoid static charging.**
  - **Please follow all legislation concerning the use, stowage and transport of a spare fuel canister.**

⚠ WARNING (Continued)

– Please ensure that the spare fuel canister corresponds with the industry standard, for example ANSI or ASTM F852-86.

ⓘ NOTICE

• Remove spilt fuel from all vehicle components as quickly as possible in order to avoid damage to the wheel housing, tyres and vehicle paint.

•

• Filling up with petrol in a vehicle fitted with a diesel engine or refilling with diesel in vehicle equipped with a petrol engine can cause serious ands expensive engine damage and damage to the fuel system that is not covered by

ⓘ NOTICE (Continued)

any Volkswagen Commercial Vehicles guarantee. Do not start the engine under any circumstances if you have refilled using the incorrect fuel. Seek expert assistance. The substances in these fuels can cause serious damage to the fuel system and to the engine itself if it is switched on.

• Vehicles with a diesel engine should under no circumstances be filled and driven with petrol, kerosene, heating oil or any other fuels that have not been expressly approved for diesel engines. Other fuels could cause extensive and expensive engine damage and damage to the fuel system which will not be covered by any Volkswagen Commercial Vehicles guarantee.

Fuels can pollute the environment. Any spilt service fluids must be cleaned up and disposed of properly. ◁

Indicator lamps and fuel gauge



Fig. 269 In the instrument cluster: fuel gauge for petrol and diesel.

First read and observe the introductory information and safety warnings ⚠ on page 340.

Lit up	Needle position ⇒ Fig. 269	Possible cause ⇒ ⚠	Solution
	Red marking (arrow)	Fuel tank almost empty. Reserve is used up ⇒ page 343.	Fill the tank as soon as possible ⇒ ⓘ.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

When the indicator lamp ⛽ lights up, the supplementary heating system and fuel-powered supplementary heater switch off automatically.

⚠ WARNING

Driving the vehicle when the fuel level is too low could lead to your vehicle breaking down in traffic, accidents and serious injuries.

• When the fuel level is too low, the fuel supply to the engine could be irregular, especially when driving up or down hills and inclines. ▶

⚠ WARNING (Continued)

- **The power steering, all driver assist systems and brake assist systems will not function if the engine "sputters" or stops completely due to a lack of fuel or irregular fuel supply.**
- **Always fill the tank when it is still 1/4 full. This reduces the risk of running out of fuel and breaking down.**

NOTICE

- **To avoid damage to your vehicle, always observe the indicator lamps and associated warning texts.**
- **Do not run the tank empty. Irregular filling periods can cause backfiring and allow unburnt fuel to enter the exhaust system. The catalytic converter or diesel particulate filter could be damaged as a result!**

The small arrow next to the petrol pump symbol ◀ ⇒Fig. 269 shows you which side of the vehicle the tank flap is located on. ◁

Filling the tank with petrol or diesel

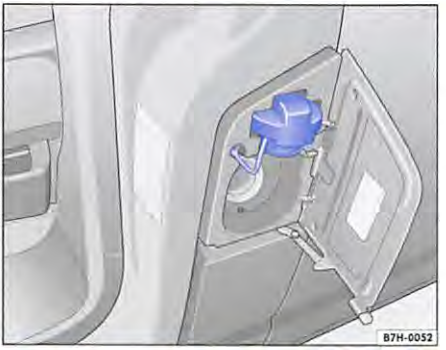


Fig. 270 Opened front door and open tank flap with tank cap attached to the holder

First read and observe the introductory information and safety warnings ⚠ on page 340.

Switch off the engine, ignition, mobile telephone and supplementary heating system **before** refuelling and leave them switched off during refilling.

Opening the tank cap

- Open left-hand front door.
- Open the tank flap.
- Turn the tank cap anticlockwise to remove it and place it in the provided retainer ⇒Fig. 270.

Filling the tank

The correct fuel grade for your vehicle is shown on a sticker on the inside of the tank flap ⇒page 343.

- The fuel tank is *full* when the (properly operated) automatic filler nozzle clicks off for the first time ⇒⚠.
- Do not continue filling the tank after it switches off. The expansion space in the fuel tank will otherwise fill up and the fuel could spill out. This could also happen when the fuel warms up and expands.

Closing the tank cap

- Turn the tank cap clockwise into the fuel filler neck until it perceptibly engages.
- Close the tank flap so that it engages audibly. The tank flap must be flush with the vehicle bodywork.
- Close left-hand front door.

⚠ WARNING

Do not continue filling the tank once the filler nozzle stops automatically. The fuel tank could be overfilled. This can cause fuel to splash out and overflow. This can cause fires, explosions and serious injuries.

NOTICE

Remove spilt fuel from the vehicle paint as quickly as possible in order to avoid damage to the wheel housing, tyres and vehicle paint.

Spilt fuel can pollute the environment. ◁

Capacities

First read and observe the introductory information and safety warnings ⚠ on page 340.

Fuel tank capacity
Approx. 80.0 l, of which approx. 10.0 l is reserve

Checks when filling the tank

First read and observe the introductory information and safety warnings ⚠ on page 340.

Checklist

Never carry out any work on the engine or in the engine compartment if you are not familiar with the necessary procedures and the general safety requirements or if the correct operating equipment, service fluids and unsuitable tools are not available ⇒page 350, *Preparation for working in the engine compartment*! The work should be carried out by a qualified workshop if you are uncertain. Please ensure that the following are checked regularly, preferably every time you fill the tank:

- ✓ Windscreen washer fluid level ⇒page 116
- ✓ Engine oil level ⇒page 353
- ✓ Engine coolant level ⇒page 358
- ✓ Brake fluid level ⇒page 269
- ✓ Tyre pressure ⇒page 367
- ✓ Vehicle lighting necessary for traffic safety:
  - Turn signals
  - Side lights, dipped beam headlights and main beam headlights
  - Tail light cluster
  - Brake lights
  - Rear fog light ⇒page 108

Information on changing bulbs ⇒page 432.

Fuel

Introduction

This chapter contains information on the following subjects:

Petrol 344
Diesel 345

Different engines require different fuels. The factory-fitted sticker on the inside of the tank flap indicates the fuel type that is required for your particular vehicle.

Volkswagen Commercial Vehicles recommends using fuels with a low sulphur content or which are sulphur-free in order to reduce fuel consumption and prevent damage to the engine.

If the engine is not running smoothly or begins to judder, this can indicate poor or inadequate fuel quality, e.g. water in the fuel. If these symptoms appear, reduce the vehicle speed immediately and drive to the nearest qualified workshop at medium engine speeds, avoiding high engine loading. If these symptoms occur immediately after the vehicle has been refuelled, switch the engine off as soon as it is safe to do so and seek expert assistance. This can help to prevent further damage.

Additional information and warnings:

- Filling the tank ⇒page 340
- Engine management system and exhaust purification system ⇒page 407
- ⇒Booklet *Service schedule*

⚠ WARNING

Incorrect handling of fuel can cause explosions, fire, serious burns and other injuries.

- **Fuel is highly explosive and inflammable.**
- **Never handle fuel near open flames, sparks or glowing matter (e.g. cigarettes).**
- **Keep naked flames, hot parts and sparks at a safe distance.**

⚠ WARNING (Continued)

- **Switch off your mobile telephone or two-way radio when dealing with fuel. Electromagnetic radiation can generate sparks which can in turn start a fire.**
- **Avoid electrostatic discharge and electromagnetic radiation in the direct vicinity of fuels.**
- **Never spill fuel in the vehicle or in the luggage compartment.**

⚠ WARNING (Continued)

- **Comply with any relevant safety information and legislation concerning the handling of fuels.**

Petrol

First read and observe the introductory information and safety warnings ⚠ on page 343.

Petrol types

Vehicles with a petrol engine must be run on unleaded petrol in compliance with the European standard EN 228 ⇒ⓘ. Fuels with a maximum ethanol content of 10% (E10) can be used for refuelling.

Petrol types are categorised according to their octane number, e.g. 91, 95, 98 or 99 RON (RON = research octane number). The vehicle may be filled with petrol that has a higher octane number than the engine requires. However, this does not provide any advantage in terms of fuel consumption or engine output. Where petrol complying with the EN 228 standard is not available, Volkswagen Commercial Vehicles dealerships and filling stations will have information on which fuels do comply with the EN 228 standard.

Volkswagen Commercial Vehicles recommends petrol with a low sulphur content or sulphur-free petrol for use with this engine. This reduces petrol consumption.

Petrol additives

The quality of petrol influences the running properties, performance and service life of the engine. This is why the vehicle should be refuelled with good quality petrol that has only non-metallic additives pre-added by the petroleum industry. These petrol additives help to prevent corrosion, keep the fuel system clean, and prevent the build-up of deposits in the engine.

If good quality petrol containing non-metallic additives is not available, or if engine problems arise, the necessary petrol additives must be added to the petrol when refuelling ⇒ⓘ.

Volkswagen Commercial Vehicles recommends "genuine Volkswagen or Audi fuel additives for petrol engines". These additives and information on how to use them are available from your Volkswagen Commercial Vehicles dealership.

Not all petrol additives are effective. The use of unsuitable petrol additives can cause considerable damage to the engine and catalytic converter. Metallic additives should be avoided at all times.

Petrol additives on sale that are intended to improve knock resistance or increase the octane number can also contain metallic additives ⇒ⓘ.

ⓘ NOTICE

- **Before filling up with petrol, check whether the fuel corresponds to the vehicle's requirements according to the fuel standard information at the pump.**
- **Only use fuel that complies with the EN 228 standard and has the correct octane number. Otherwise, the engine and the fuel system can suffer considerable damage. The engine can also lose power or fail.**
- **The use of unsuitable petrol additives can cause considerable damage to the engine and catalytic converter.**
- **If, in an emergency, you have to use petrol with an octane number lower than the recommended number, drive at medium engine speeds and avoid high engine loading. Avoid high engine speeds and heavy engine loads. Failure to do so can result in engine damage. Fill the tank with petrol with the correct octane number as soon as possible.**

NOTICE (Continued)

- **Fuels that are identified at the fuel pump as containing metallic additives may not be used. LRP fuel (lead replacement petrol) also contains high concentrations of metallic additives. Risk of engine damage!**

NOTICE (Continued)

- **Just one tankful of leaded fuel, or fuel containing other metallic additives, can seriously impair the efficiency of the catalytic converter and can also cause considerable damage to the catalytic converter and engine.** ◁

Diesel

First read and observe the introductory information and safety warnings ⚠ on page 343.

Diesel

Diesel fuel must comply with the European standard EN 590 (in Germany DIN EN 590).

The service intervals are shorter if you use diesel with a high sulphur content ⇒ Booklet *Service schedule* ⇒ ⓘ. A Volkswagen Commercial Vehicles dealership will be able to tell you which countries have diesel with a high sulphur content.

Where diesel fuel complying with the EN 590 standard is not available, Volkswagen Commercial Vehicles dealerships and filling stations will have information on which fuels do comply with the EN 590 standard.

Do not mix fuel additives (thinners, or similar additives) with diesel.

Winter diesel

When using summer-grade diesel, difficulties may be experienced at temperatures below 0°C (+32°F) because the fuel thickens due to paraffin separation. For this reason winter-grade diesel which can be used at temperatures below -20°C (-4°F) is available in countries such as Germany during the cold months.

In countries with different climatic conditions the diesel sold generally has different temperature characteristics. Check with a Volkswagen Commercial Vehicles dealer or filling stations in the country concerned regarding the type of diesel fuels available.

It is not unusual for a cold diesel engine to be louder in cold temperatures that in warm weather. In addition, exhaust emissions may be tinged with blue while the engine starts and reaches operating temperature. The amount of exhaust fumes depends on the outside temperature.

Filter preheater

Diesel vehicles are equipped with a filter pre-heater system. This ensures that the fuel system remains operational even down to approximately -24°C (-11°F) provided that winter-grade diesel which is safe down to -15°C (+5°F) is used.

However, if the fuel has thickened to such an extent that the engine will not start at temperatures below -24°C (-11°F) simply place the vehicle in a warm garage or workshop for a while.

Supplementary heater

Vehicles fitted with a diesel engine may also be equipped with a fuel-driven supplementary heater. This heater is powered with fuel from the vehicle tank. In this case, odour and water vapour may escape from the vehicle, and there may be a greater quantity of smoke. This is quite normal when the system is in use, and does not indicate damage or a fault in the system.

The supplementary heater will be switched off automatically if the level in the fuel tank is low (reserve level).

⚠ WARNING

Never use a start booster. Start boosters may explode or cause the engine to suddenly run at high revs, which can cause serious injuries and engine damage.

NOTICE

- **Before filling up with diesel, check whether the fuel corresponds to the vehicle's requirements according to the fuel standard information at the pump.**
- **Only use fuel that complies with the EN 590 standard and has the correct cetane number. Otherwise, the engine and the fuel system can suffer considerable damage. The engine can also lose power or fail.** ▶

NOTICE (Continued)

- **Your vehicle is not suitable for use with biodiesel and must not be filled up or driven with biodiesel. Failure to observe this point can result in damage to the fuel system and engine.**
- **Some diesel manufacturers blend biodiesel with diesel fuel in compliance with European Standard 590 or an equivalent standard (in Germany). Use of this diesel is allowed and will not damage the engine or fuel system.**
- **The diesel engine has been developed for use with diesel only. For this reason, petrol, heating oil or other unsuitable fuels may not be used. These fuels can cause serious damage to the fuel system and engine.**

NOTICE (Continued)

- **The service life of the diesel particulate filter can be reduced considerably if diesels with a high sulphur content are used. A Volkswagen Commercial Vehicles dealership will be able to tell you which countries have diesel with a high sulphur content.**

Emission control system for diesel vehicles (AdBlue®)

Introduction

This chapter contains information on the following subjects:

Warning and indicator lamps 347
Refilling AdBlue® 348

SCR catalysts can be used to reduce emissions from diesel engines (SCR = Selective Catalytic Reduction). The SCR catalyst uses AdBlue® urea solution to convert nitrogen oxides into nitrogen and water.

If the vehicle is equipped with this kind of emission control system for diesel vehicles, the filler neck for the AdBlue® tank is located below the filler cap for the fuel tank.

The AdBlue® level should be checked within the scope of the service work ⇒ Booklet *Service schedule*.

Information on AdBlue®

The AdBlue® consumption figures depend on the individual driving style, the system's operating temperature and the ambient temperature that the vehicle is operated in.

The vehicle is fitted with a separate tank for AdBlue®. The AdBlue® tank holds approximately 13 litres. For technical reasons, the capacity may be slightly larger when refilling using refill bottles.

The AdBlue® tank must never run empty. As of a remaining distance of approximately 2,400 km, the instrument cluster display will indicate that the AdBlue® must be refilled ⇒ page 348. If the remaining range is 0 km, the engine cannot be started anymore ⇒ page 347.

The AdBlue® trademark is held by the German Association of the Automobile Industry (VDA) in the USA, Germany, the European Union and other countries.

Additional information and warnings:

- Fuel ⇒ page 343
- Accessories, modifications, repairs and renewal of parts ⇒ page 394

WARNING

If the AdBlue® level is too low, the vehicle cannot be restarted after the ignition has been switched off. Starting with jump leads is also not possible.

- **Refill AdBlue® at the latest when the remaining distance reaches approximately 1,000 km.**
- **Never allow the AdBlue® tank to run empty.**

WARNING

AdBlue® is an irritant and corrosive fluid that can damage the skin, eyes and breathing passages upon contact.

⚠ WARNING (Continued)

- **If AdBlue® gets into the eyes or onto the skin, immediately wash the area with lots of water for at least 15 minutes and consult a doctor.**
- **If AdBlue® is swallowed, immediately rinse the mouth out with lots of water for at least 15 minutes. Do not induce vomiting unless instructed to do so by a doctor. Seek medical assistance immediately.**

NOTICE

AdBlue® can corrode surfaces such as painted vehicle parts, plastics, clothing and carpets. Remove any spilt AdBlue® as quickly as possible with a damp cloth and plenty of cold water.

- **If the AdBlue® has already formed crystals, use warm water and a sponge to remove.** ◁

Warning and indicator lamps

First read and observe the introductory information and safety warnings ⚠ on page 346.

Lit up	Possible cause ⇒⚠	Solution
	**The engine cannot be restarted!** AdBlue® level too low.	Park the vehicle in a suitable, flat location and refill the minimum amount of AdBlue® ⇒page 348.
 with 	**The engine cannot be restarted!** Fault in the AdBlue® system.	Go to a qualified workshop. Have the system checked.
	AdBlue® level is low.	Refill AdBlue® before the kilometres displayed drop to zero ⇒page 348.
with 	AdBlue® system faulty or not refilled using norm-standard AdBlue®.	Go to a qualified workshop. Have the system checked.
	AdBlue® level is low.	Refill AdBlue® before the kilometres displayed drop to zero ⇒page 348.
 with 	AdBlue® system faulty or not refilled using norm-standard AdBlue®.	Go to a qualified workshop. Have the system checked.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

⚠ WARNING (Continued)

- **Never ignore any illuminated warning lamps or text messages.**
- **Stop the vehicle as soon as possible and when safe to do so.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁

Refilling AdBlue®

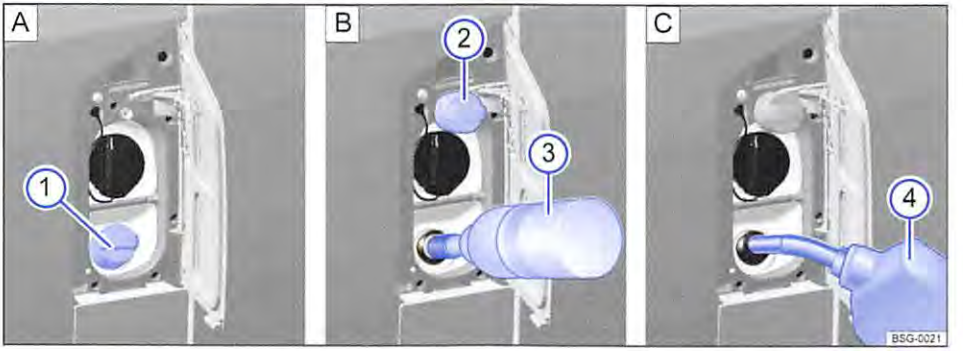


Fig. 271 Behind the tank flap: filler cap of the AdBlue tank unscrewed A (1) and attached in holder B (2). Fill the AdBlue tank using a filler bottle B (3) or a filler nozzle C (4).

First read and observe the introductory information and safety warnings ⚠ on page 346.

To refill with AdBlue®, park the vehicle on a level surface and not on any kind of incline. The tank level gauge may not detect the refill quantity correctly if the vehicle is not parked on a level surface.

Do not fill fuel and AdBlue® at the same time.

If a message about the AdBlue® level appears on the instrument cluster display, **refill with at least 7 litres of AdBlue®.** A smaller amount of refill is insufficient. If no message about the AdBlue® level appears on the instrument cluster display, use any quantity to refill the tank to the maximum level.

Opening the tank filler neck

- Opening the tank flap.
- Unscrew the cap of the tank filler neck ⇒Fig. 271 A (1) anticlockwise.
- Fit the cap of the filler neck into the holder B (2).

Use only AdBlue® that complies with the standard ISO 22241-1.

Refilling using a refill bottle

- Please read the manufacturer's notes and information on the refill bottle.
- Observe the expiry date.
- Remove the screw top of the refill bottle.
- Place the neck of the refill bottle ⇒Fig. 271 B (3) vertically onto the tank filler neck and turn it clockwise hand-tight.
- Push the refill bottle towards the filler neck, press and hold down.
- Wait until the contents of the refill bottle have entered the AdBlue® tank. Do not crumple up or damage the refill bottle!
- Unscrew the refill bottle anticlockwise and lift it carefully up and out ⇒ⓘ.
- When the AdBlue® tank is full, AdBlue® will no longer flow out of the bottle and into the tank.

Refilling using a filler bottle

- Please read the manufacturer's notes and information on the container.
- Observe the expiry date.
- Use the integrated spout.
- Refill **at least 7 litres of AdBlue®.** A smaller amount of refill is insufficient.
- Do overfill the tank. The AdBlue® tank is completely filled when AdBlue® reaches the top level of tank filler neck.

Refilling using a filler nozzle

- The procedure for refilling with an AdBlue® filler nozzle ⇒Fig. 271 C (4) is the same as for refilling the fuel tank with fuel ⇒ⓘ.
- The AdBlue® tank is full as soon as the (properly operated) filler nozzle clicks off for the first time ⇒ⓘ.

Closing the tank filler neck

- Screw the cap onto the tank filler neck ⇒Fig. 271 A (1) clockwise until it clicks into place.
- Close the tank flap. ▶

Before continuing the journey

- After refilling, switch on the ignition **only**.
- Leave the ignition switched on for at least 30 seconds to allow the system to detect the refill procedure.
- Do not start the engine until the 30 seconds have elapsed!

Filling at low temperatures

Ambient temperatures below -11°C (12°F) may affect the filling process.

If the AdBlue® is frozen and the warning lamp lights up, it may not be possible the complete the filling procedure. Leave the vehicle at a warmer location until the AdBlue® is liquid again, or have a qualified workshop fill the AdBlue®.

⚠ WARNING

AdBlue® should only be kept in sealed original containers in a safe place.

- **Never store AdBlue® in empty food containers, bottles or any other non-original containers as people finding these containers may not know that they contain AdBlue®.**
- **AdBlue® must be stored out of the reach of children.**

NOTICE

- **Only use AdBlue® which complies with the ISO 22241-1 standard and which is still in its original packaging.**

NOTICE (Continued)

- **Never mix water or additives with AdBlue®. Any damage caused by mixing in water or additives would not be covered by the factory warranty.**
- **Never fill AdBlue® in the diesel tank! Failure to do so can result in engine damage.**
- **Only refill AdBlue® into its own tank. Never fill AdBlue® in the diesel tank! Failure to do so can result in engine damage.**
- **Do not transport the refill bottle in the vehicle habitually. The bottle may develop a leak following changes in temperature and damage and the AdBlue® may damage the vehicle interior.**

NOTICE

Do not continue filling the tank once the filler nozzle stops automatically. The AdBlue® tank may have been overfilled and AdBlue® could leak out.

NOTICE

When filling with an AdBlue® filler nozzle, you may notice an odour.

The refill bottle must be disposed of in accordance with regulations governing the protection of the environment.

Suitable AdBlue® refill bottles are available from a Volkswagen dealership. ◁

In the engine compartment

Preparation for working in the engine compartment

Introduction

This chapter contains information on the following subjects:

Preparing the vehicle for working in the engine compartment 352
Opening and closing the bonnet 352

Always park the vehicle on a level and stable surface before carrying out any work in the engine compartment.

The engine compartment of a motor vehicle is a hazardous area. Never carry out any work on the engine or in the engine compartment if you are not familiar with the requisite procedures and general safety requirements, or if you only have access to incorrect operating equipment, service fluids, and unsuitable tools ⇒⚠. The work should be carried out by a qualified workshop if you are uncertain. Serious injuries can be caused if work is carried out incorrectly.

Additional information and warnings:

- Exterior views ⇒page 5
- Wipers/washer ⇒page 116
- Starting and stopping the engine ⇒page 257
- Brake fluid ⇒page 269
- Pull-away assist systems (start/stop system) ⇒page 282
- Checks when filling the tank ⇒page 340
- Engine oil ⇒page 353
- Engine coolant ⇒page 358
- Battery ⇒page 362
- Accessories, modifications, repairs and renewal of parts ⇒page 394

⚠ WARNING

Unintentional vehicle movements during service work can cause serious injury.

- **Never work underneath a vehicle if it is not secured against rolling away. If you are working underneath the vehicle while the wheels are on the ground, the vehicle must**

⚠ WARNING (Continued)

be on a level, the wheels must be blocked and the vehicle key must be removed from the ignition lock.

- **If you have to work underneath the vehicle, use suitable stands to provide extra support for the vehicle. The vehicle jack is not sufficient for this task and can fail, which can lead to serious injuries.**
- **The start/stop system must have been deactivated.**

⚠ WARNING

The engine compartment of any motor vehicle is a dangerous area. Serious injuries can be sustained here.

- **The utmost care and attention must be paid when carrying out any work and you must follow the general safety rules. Never take any risks.**
- **Never do any work on the engine or in the engine compartment unless you know exactly how to carry it out. If you are uncertain of what to do, the work should be carried out by a qualified workshop. Serious injuries can result from work that has not been carried out properly.**
- **Never open the bonnet if you see steam or coolant escaping from the engine compartment. Hot steam or coolant can cause serious burns. Always wait until you can no longer see or hear steam or coolant coming from the engine compartment.**
- **Always allow the engine to cool down before opening the bonnet.**
- **Hot parts of the engine or exhaust system can burn the skin.**
- **The following points should be noted before opening the bonnet once it has cooled down.**
  - **Apply the handbrake fully and move the selector lever to position P or move the manual gear lever to the neutral position.** ▶

⚠ WARNING (Continued)

– Remove the vehicle key from the ignition lock.

– Always keep children away from the engine compartment and never leave the vehicle unattended.

• The engine cooling system is under pressure when the engine is hot. Never open the cap of the coolant expansion tank when the engine is hot. Coolant may spray out and cause serious burns and other injuries.

– Turn the cap slowly and very carefully anti-clockwise while exerting gentle downward pressure on the cap.

– Always protect the face, hands and arms from hot coolant or steam with a large, thick cloth.

• When refilling, do not spill any service fluids on engine components or on the exhaust system. The spilt service fluids can start a fire.

⚠ WARNING

High voltages in the electrical system can cause electric shocks, burns, serious injuries and death!

• Never short circuit the electric system. The vehicle battery could explode.

• Please note the following guidelines to help reduce the risk of an electric shock and serious injuries while the engine is running or being started:

– Never touch the electrical wiring of the ignition system.

⚠ WARNING

There are rotating components in the engine compartment that can cause serious injury.

• Never place your hand near these components or in the radiator fan. Touching the rotary blades can result in serious injuries. The fan is temperature-controlled and can start automatically, even if the engine has been switched off and the vehicle key has been removed from the ignition lock.

• If any work has to be performed when the engine is started or with the engine running, there is an additional, potentially fatal, safety risk from the rotating parts, such as the drive belts, alternator, radiator fan, etc., and from the high-voltage ignition system. Always be particularly careful.

⚠ WARNING (Continued)

– Always ensure that no body parts, jewellery, ties, loose items of clothing or long hair can be caught up in rotating engine components. Before starting work, remove any jewellery and ties, tie up long hair and pull clothes in tightly to avoid them getting caught in the engine compartment.

– Always depress the accelerator carefully and never without due consideration. The vehicle can start to move even if the handbrake is applied.

• Always ensure that you have not left any objects, such as cleaning cloths and tools, in the engine compartment. Any forgotten items can cause malfunctions, engine damage and fires.

⚠ WARNING

Additional insulating materials such as covers in the engine compartment could disrupt the operation of the engine, cause damage and lead to severe injuries.

• Never cover the engine with any insulating materials.

⚠ WARNING

Service fluids and some materials in the engine compartment are highly flammable and can cause fires and serious injuries!

• Never smoke while working on the vehicle.

• Never work near naked flames or sparks.

• Never spill fluids onto the engine. They could ignite on hot engine components and hence cause injuries.

• Please note the following when carrying out any work on the fuel system or the electrical system:

– Always disconnect the vehicle battery. Ensure that the vehicle is unlocked when the vehicle battery is disconnected as otherwise the anti-theft alarm will be activated.

– Never work in the direct proximity of heating systems, water heaters or any other open flames.

• Always have a fully functional and tested fire extinguisher to hand. ▶

NOTICE

When refilling or changing service fluids, please ensure that the correct fluids are added through the correct openings. Incorrect service fluids can cause serious functional problems and engine damage.

Service fluids leaks are harmful to the environment. So you should regularly check the ground underneath your vehicle. If there are spots of oil or other fluids on the ground, the vehicle should be inspected by a qualified workshop. Any spilt service fluids must be disposed of properly and with respect to environmental legislation. ◁

Preparing the vehicle for working in the engine compartment

First read and observe the introductory information and safety warnings ⚠ on page 350.

Checklist

The following steps should always be carried out in the specified order before working in the engine compartment ⇒ ⚠:

- ✓ Park the vehicle on a level and stable surface.
- ✓ Depress and hold the brake pedal until the engine has stopped.
- ✓ Apply the handbrake firmly ⇒page 269.
- ✓ Select the neutral position or move the selector lever to **P** ⇒page 260.
- ✓ Stop the engine and remove the key from the ignition ⇒page 257.
- ✓ Allow the engine to cool sufficiently.
- ✓ Children and other people should be kept well away from the engine compartment.
- ✓ Ensure that the vehicle cannot roll away unexpectedly.

⚠ WARNING

Ignoring any of the items on this important safety checklist can lead to severe injuries.

- **Always follow the instructions in the checklist and observe the general safety procedures.** ◁

Opening and closing the bonnet

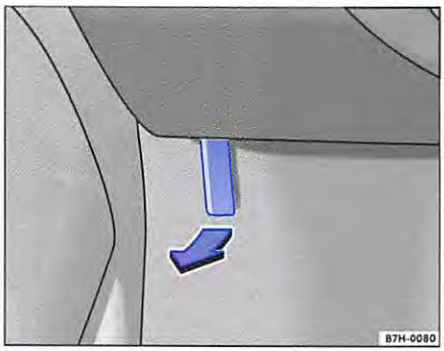


Fig. 272 The bonnet release lever is located in the driver side footwell.



Fig. 273 On the front edge of the bonnet: release lever for opening.

First read and observe the introductory information and safety warnings ⚠ on page 350. ▶

Opening the bonnet

- Please ensure that the wiper arms are lying on the windscreen before opening the bonnet ⇒ⓘ.
- Pull the release lever in the direction of the arrow ⇒Fig. 272. The bonnet is released from its lock by a spring mechanism ⇒⚠.
- Lift the bonnet at the release lever ⇒Fig. 273 (arrow) and open fully.
- **Vehicles with gas struts:** the bonnet is held in the open position by the gas-filled strut.
- **Vehicles with support rods:** hold the bonnet open.
- Remove the support rod on the right-hand side of the lock carrier.
- Hook the end of the support rod correctly in the retainer on the right side of the open bonnet.

Closing the bonnet (vehicles with gas struts)

- To close the bonnet, pull it down to overcome the gas strut pressure ⇒⚠.
- Let the bonnet drop into the catches – *do not* press it down!

If the bonnet is not closed, open it again and close it properly.

The bonnet sits flush with the body parts around it when it is closed properly.

Closing the bonnet (vehicles with support rods)

- Raise the bonnet until you can release the support rod.
- Hold the bonnet open and fold the support rod back into the bracket.
- Let the bonnet drop into the catches – *do not* press it down!

If the bonnet is not closed, open it again and close it properly.

The bonnet sits flush with the body parts around it when it is closed properly.

⚠ WARNING

If the bonnet is not closed properly, it can open suddenly while you are driving and completely obscure your view of the road. This can lead to accidents and serious injuries.

- **After closing the bonnet, always check that it is properly secured. The bonnet must be flush with the surrounding body panels.**
- **If you notice that the bonnet is not closed properly while the vehicle is in motion, stop the vehicle as soon as possible and close the bonnet.**
- **Therefore the bonnet should only be opened or closed when you are sure that nobody is in its path.**

ⓘ NOTICE

- **The bonnet should only be opened when the wiper arms are flush to the windscreen and when they are switched off in order to avoid damage to the bonnet and the wiper arms.**
- **Always fold the wiper arms back onto the windscreen before driving away.** ◁

Engine oil

Introduction

This chapter contains information on the following subjects:

Warning and indicator lamps 354
Engine oil specification 354
Checking the engine oil level and refilling engine oil 356
Engine oil consumption 357
Changing engine oil 357

Additional information and warnings:

- Preparation for working in the engine compartment ⇒page 350
- Accessories, modifications, repairs and renewal of parts ⇒page 394
- ⇒Booklet *Service schedule* ▶

⚠ WARNING

Incorrect handling of engine oil can cause serious burns and other injuries.

- **Always wear eye protection when handling engine oil.**
- **Engine oil is toxic and must be stored out of the reach of children.**
- **Engine oil must be kept in the closed original container. This also applies to used oil until it is disposed of.**
- **Never use empty food containers, bottles or other containers to store engine oil as other people may then drink the engine oil.**

⚠ WARNING (Continued)

- **Regular contact with engine oil can damage the skin. Skin that has been in contact with engine oil should be washed thoroughly with water and soap.**
- **Engine oil becomes extremely hot when the engine is running and can scald skin severely. Always allow the engine to cool down.**

Leaking or spilt engine oil can pollute the environment. Spilt service fluids must be collected then disposed of properly and in an environmentally responsible way. ◁

Warning and indicator lamps

First read and observe the introductory information and safety warnings ⚠ on page 353.

Lit up	Possible cause	Solution
	Engine oil level is too low.	Switch off the engine. Check the engine oil level ⇒page 356.

Flashes	Possible cause	Solution
	Engine oil pressure is too low.	**Do not drive on!** Switch off the engine. Check the engine oil level. - Do *not* drive on or remain at idling speed if the warning lamp is flashing even if the engine oil level is correct. The engine could otherwise be damaged. Seek expert assistance.
	Fault in the engine oil system.	Go to a qualified workshop. The engine oil sensor should be checked.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**

⚠ WARNING (Continued)

- **Stop the vehicle as soon as possible and when safe to do so.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁

Engine oil specification

First read and observe the introductory information and safety warnings ⚠ on page 353.

The engine oil used must correspond exactly to specifications. ▶

The correct engine oil is important for the function and service life of the engine. A special high quality multigrade oil has been filled at the factory and this can normally be used as an all-season oil.

If possible, only use Volkswagen-approved engine oil ⇒ⓘ. To comply with the requirements of the flexible service, only use approved flexible service engine oil that complies with the corresponding VW standard ⇒table on page 355. The engine oils listed are **multigrade high-lubricity oils**.

Engine oils are constantly being developed and improved. Volkswagen Commercial Vehicles dealers are kept up to date with regard to any changes. Volkswagen Commercial Vehicles therefore recommends having engine oil changes done by a Volkswagen Commercial Vehicles dealer.

The quality of the engine oil is not only tailored to the requirements of engines and exhaust gas treatment systems, but also to fuel quality. Due to the way in which a combustion engine works, engine oil always comes into contact with combustion residues and fuel, which has a knock-on effect on the ageing process of the oil.

The quality of fuels can vary greatly between individual markets and this must be taken into account when selecting the correct engine oil.

The use of engine oils compliant with the VW 504 00 und VW 507 00 specifications requires a fuel quality compliant with EN 228 (petrol) and EN 590 (diesel), or fuel of an equivalent quality. **Engine oils compliant with VW 504 00 und VW 507 00 are therefore unsuitable for use in a large number of markets.**

	Permitted engine oil specifications ⇒ⓘ	
Engine type	**Flexible service QI6, QI8**	**Fixed service QI1, QI2, QI3, QI4, QI5**
110 kW petrol engine	VW 504 00	VW 502 00
150 kW petrol engine	–	VW 502 00
All diesel engines **with** DPF	VW 507 00	VW 507 00
All diesel engines **without** DPF	VW 507 00	VW 505 01

ⓘ NOTICE

- **Do not add any additional lubricants to the engine oil. Any damage caused by the use of such additives is not covered by the warranty.**
- **Only engine oil specifications that have been approved for use with the engine should be used. Using other engine oils can cause engine damage.**
- **Another engine oil can be used in the event of an emergency if the listed engine oils (⇒table on page 355) are not available. To avoid damaging the engine, a maximum quantity of 0.5 litres of the following engine oil may be used only once until the next oil change:**
  - **Petrol engines: standards ACEAA3/B4 or API SN (API SM).**
  - **Diesel engines: standards ACEA C3 or API CJ-4.**

ⓘ NOTICE (Continued)

Checking the engine oil level and refilling engine oil

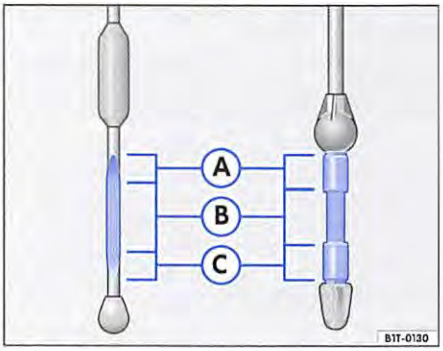


Fig. 274 Oil dipstick with markings.



Fig. 275 In the engine compartment: engine oil filler cap (illustration).

First read and observe the introductory information and safety warnings ⚠ on page 353.

Checklist

Carry out the steps in the specified order ⇒⚠:

1. With the engine at **operating temperature**, park the vehicle on a level surface to ensure that the engine oil reading is correct.
2. Switch off the engine and wait a few minutes for the engine oil to flow back into the sump.
3. Open the bonnet ⚠ ⇒page 350.
4. Identify the engine oil filler cap and oil dipstick. The engine oil filler opening bears the symbol on the cap ⇒Fig. 275 and the oil dipstick has a coloured handle. If you cannot find the cap and dipstick please contact a qualified workshop.
5. Pull the dipstick out of the guide tube and wipe it off with a clean cloth.
6. Insert the oil dipstick into the guide tube again as far as it will go. If there is a marking on the oil dipstick, this marking must fit in the corresponding groove at the top end of the guide tube when inserting.
7. Pull the dipstick out again and read the engine oil level on the dipstick ⇒Fig. 274 as follows:

   Ⓐ: **do not** refill oil ⇒ⓘ. Continue to step 15.

   Ⓑ: oil can be refilled (approximately 0.5 l). Continue to step 8 or 15.

   Ⓒ: oil **must** be refilled (approximately 1.0 l). Continue to step 8.
8. After reading the oil level, push the oil dipstick back into the guide tube as far as it will go.
9. Unscrew the engine oil filler opening cap ⇒Fig. 275.
10. Using only the engine oil approved by Volkswagen expressly for this engine, top up the oil in small gradual amounts (no more than 0.5 l).
11. To avoid overfilling, wait for approximately one minute after each pour to allow the engine oil to flow into the oil sump up to the marking on the engine oil dipstick.
12. Read the engine oil level from the dipstick again before refilling with a further small quantity of engine oil. Never overfill engine oil ⇒ⓘ.
13. After the refilling procedure, the engine oil level should be at least in the centre of area ⇒Fig. 274 Ⓑ, but never above area Ⓐ ⇒ⓘ.
14. After refilling, screw the engine oil filler cap back on correctly.
15. Reinsert the oil dipstick correctly into the guide tube as far as it will go.
16. Close the bonnet correctly ⚠ ⇒page 350.

⚠ WARNING

Engine oil can ignite if it comes into contact with hot engine components. It can cause fires, burns and other serious injuries.

⚠ WARNING (Continued)

- **If engine oil is spilt on cold engine parts it can heat up and ignite when the engine is running.**
- **Always ensure that the engine oil filler cap is securely tightened after refilling, and that the dipstick is properly inserted back into the guide tube. This will prevent the engine oil from draining out on to hot engine components when the engine is running.**

NOTICE

- **Do not start the engine if the engine oil level is above area Ⓐ. Seek expert assistance. The catalytic converter and the engine could otherwise be damaged.**
- **When refilling or changing service fluids, please ensure that the correct fluids are added through the correct openings. Incorrect service fluids can cause serious functional problems and engine damage.**

The engine oil level must never be above area Ⓐ. Otherwise oil can be drawn in through the crankcase breather and escape into the atmosphere via the exhaust system. ◁

Engine oil consumption

First read and observe the introductory information and safety warnings ⚠ on page 353.

Engine oil consumption can vary from engine to engine and can change during the working life of an engine.

The vehicle may consume up to 1.0 litre of engine oil per 2,000 km, depending on how you drive and the conditions in which the car is used. In new vehicles, consumption is likely to be higher for the first 5,000 km. The engine oil level must therefore be checked at regular intervals, preferably when refuelling and before long journeys.

When the engine is working hard the oil level must be kept within area ⇒ Fig. 274 Ⓐ, for instance during long motorway cruising in summer, trailer towing or climbing mountain passes. ◁

Changing engine oil

First read and observe the introductory information and safety warnings ⚠ on page 353.

The engine oil must be changed regularly in accordance with the data given in the service schedule.

The engine oil and filter change should be carried out by a qualified workshop due to the special tools and knowledge required, this also applies to the disposal of used oil. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

More details on the service intervals can be found in the service schedule.

Additives in the engine oil can cause new engine oil to discolour quickly. This is normal and does not mean that the engine oil should be changed more frequently.

⚠ WARNING

If, in exceptional cases, you have to carry out an oil change yourself, please note the following:

- **Always wear eye protection.** ▶

⚠ WARNING (Continued)

- **Always allow the engine to cool down completely to avoid burns.**
- **Avoid raising your arms when removing the oil drain plug with your fingers to help prevent oil from running down your arm.**
- **Use a suitable container when draining the used oil. It must be at least large enough to hold the entire quantity of engine oil required for refilling.**
- **Never store engine oil in empty food containers, bottles or any other non-original containers as people finding these containers may not know that they contain engine oil.**

⚠ WARNING (Continued)

- **Engine oil is toxic and must be stored out of the reach of children.**

Before changing the engine oil, first find out where old oil can be disposed of properly near you.

Used oil must be disposed of in accordance with regulations governing the protection of the environment. Never dispose of old oil in locations such as gardens, woods, sewerage systems, on streets and roads, or in rivers and waterways. ◁

Coolant

Introduction

This chapter contains information on the following subjects:

Warning lamp and coolant temperature display 359
Coolant specification 360
Checking the coolant level and refilling coolant 361

Never carry out any work on the engine coolant system if you are not familiar with the requisite procedures, or if you do not have access to the correct tools, operating equipment and fluids ⇒⚠. The work should be carried out by a qualified workshop if you are uncertain. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Serious injuries can be caused if work is carried out incorrectly.

Additional information and warnings:

- Towing a trailer ⇒page 139
- Preparation for working in the engine compartment ⇒page 350
- Accessories, modifications, repairs and renewal of parts ⇒page 394

⚠ WARNING

Engine coolant is poisonous and can cause serious injuries.

- **Engine coolant should only be kept in sealed original containers in a safe place.**
- **Never store engine coolant in empty food containers, bottles or any other non-original containers as people finding these containers may then drink the engine coolant.**
- **The engine coolant must be stored out of the reach of children.**
- **Please note that the amount of correct coolant additive used must be sufficient for the lowest ambient temperature that you expect the vehicle to be exposed to.**
- **Coolant can freeze at extremely cold outside temperatures, causing the vehicle to break down. Vehicle occupants with inadequate winter clothing could then freeze to death as the heating will also no longer function.**

Coolant and coolant additives can pollute the environment. Spilt service fluids must be collected then disposed of properly and in an environmentally responsible way. ◁

Warning lamp and coolant temperature display

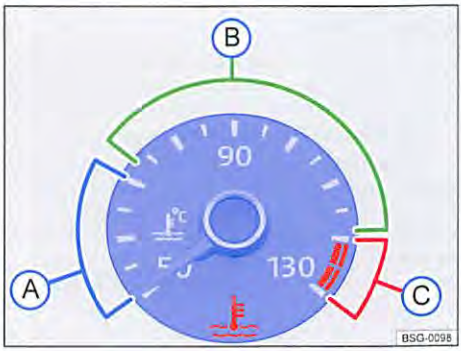


Fig. 276 In the instrument cluster: coolant temperature display with cold range Ⓐ, normal range Ⓑ warning range Ⓒ.

First read and observe the introductory information and safety warnings ⚠ on page 358.

In normal driving conditions, the needle will be in the middle section of the scale. The temperature may also rise when the engine is working hard, especially at high ambient temperatures.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

Lit up	Needle position ⇒Fig. 276	Possible cause	Solution
	Ⓒ Warning area	Coolant temperature too high.	**Do not drive on!** Stop the vehicle as soon as possible and when safe to do so. Stop the engine, let the engine cool down until the needle is back in the normal area. Check the coolant level ⇒page 361.
	Ⓑ Normal area	Coolant level too low.	After the engine has cooled down, check the coolant level and refill engine coolant if the level is too low ⇒page 361. There is a fault if the coolant level is correct.
	--	Fault in the coolant system.	**Do not drive on!** Seek expert assistance.
--	Ⓐ Cold area	--	Avoid high engine revs and heavy engine loads until the engine is warm.

Flashes	Possible cause	Solution
	Fault in the coolant system.	Seek expert assistance.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Always heed illuminated warning lamps and text messages.**

⚠ WARNING (Continued)

- **Never ignore any illuminated warning lamps or text messages.**
- **Stop the vehicle as soon as possible and when safe to do so.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁

Coolant specification

First read and observe the introductory information and safety warnings ⚠ on page 358.

The cooling system is filled at the factory with a mixture of specially prepared water and at least 40% coolant additive **G 13** (TL-VW 774 J). The coolant additive is dyed purple. This mixture of water and coolant additive gives the necessary frost protection down to -25°C (-13°F) and protects the alloy parts of the cooling system against corrosion. The mixture also prevents scaling and raises the boiling point of the coolant.

In order to protect the coolant system, the proportion of coolant additive must *always* be at least 40%, even if anti-freeze is not required in warm weather and warm climates.

If greater frost protection is required in very cold climates, the proportion of anti-freeze additive can be increased. However, the percentage of coolant additive should not exceed 60%, as this would reduce the frost protection and the cooling effect.

When refilling the coolant, a mixture of **distilled water** and at least 40% coolant additive G 13 or G 12 plus-plus (TL-VW 774 G) (both of which are dyed purple) must be used in order to obtain the optimum corrosion protection ⇒ⓘ. Mixing G 13 with the coolant additives G 12 plus (TL-VW 774 F), G 12 (dyed red) or G 11 (dyed blue-green) will significantly decrease the level of corrosion protection and should therefore be avoided ⇒ⓘ.

⚠ WARNING

Insufficient anti-freeze in the coolant system can cause the engine to break down and cause serious injuries.

- **Please note that the amount of correct coolant additive used must be sufficient for the lowest ambient temperature that you expect the vehicle to be exposed to.**
- **Coolant can freeze at extremely cold outside temperatures, causing the vehicle to break down. Vehicle occupants with inadequate winter clothing could then freeze to death as the heating will also no longer function.**

ⓘ NOTICE

Never mix genuine coolant additives with other coolants that have not been approved by Volkswagen. Mixing other coolants could cause serious damage to the engine and cooling system.

- **If the liquid in the coolant expansion tank is brown instead of purple, for example, G 13 has been mixed with another unsuitable engine coolant. The coolant must be changed as soon as possible if this is the case. Failure to observe this point can result in serious faults or engine damage.**

Coolant and coolant additives can pollute the environment. Spilt service fluids must be collected then disposed of properly and in an environmentally responsible way. ◁

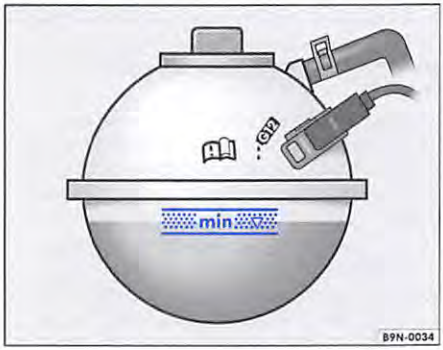


Fig. 277 In the engine compartment: markings on the coolant expansion tank.

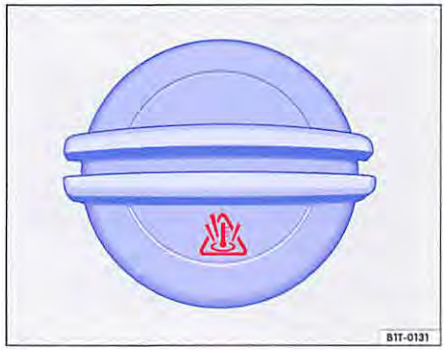


Fig. 278 In the engine compartment: coolant expansion tank cap.

First read and observe the introductory information and safety warnings ⚠ on page 358.

The warning lamp for the engine coolant will light up if the engine coolant level is too low.

Preparation

- Park the vehicle on a firm and level surface.
- Allow the engine to cool down ⇒ ⚠.
- Open the bonnet ⚠ ⇒ page 350.
- The coolant expansion tank has the symbol on its cap ⇒ Fig. 278.

Checking the coolant level

- When the engine is cold, check the coolant level on the side markings of the engine coolant expansion tank ⇒ Fig. 277.
- Refill the coolant if the liquid level is below the minimum marking ("min"). When the engine is warm, the coolant level may be slightly above the top end of the marked area.

Refilling coolant

- Always protect your face, hands and arms from hot coolant or steam by placing a suitable cloth on the cap of the coolant expansion tank.
- Unscrew the cap carefully ⇒ ⚠.
- Refill only **new** coolant according to the Volkswagen specification (⇒ page 360) ⇒ ⓘ.
- Only top up coolant if there is coolant residue in the expansion tank. If this is not observed, the engine could be damaged. If you cannot see any coolant in the expansion tank **do not drive on**. Seek professional assistance.
- If you can see coolant residue in the expansion tank, top up coolant until the level remains stable.
- The coolant level must be between the marks on the engine coolant expansion tank ⇒ Fig. 277. **Do not fill up over the top line of the marked area** ⇒ ⓘ!
- Close the cap tightly.
- If in an emergency you do not have access to the coolant of the required specification (⇒ page 360), do not use any other coolant additive. Instead, initially refill with **distilled water** ⇒ ⓘ only. Then add the correct proportion of coolant additive as soon as possible ⇒ page 360.

⚠ WARNING

Hot steam or engine coolant can cause serious burns.

- **Never open the bonnet if you can see or hear steam or engine coolant coming out of the engine compartment. Always wait until no escaping steam or coolant can be seen or heard.**
- **Always allow the engine to cool down completely before carefully opening the bonnet. Hot components can burn the skin.**
- **The following points should be noted before opening the bonnet once it has cooled down.**
  - **Apply the handbrake fully and move the selector lever to position P or move the manual gear lever to the neutral position.**
  - **Remove the vehicle key from the ignition lock.**

⚠ WARNING (Continued)

– Always keep children away from the engine compartment and never leave the vehicle unattended.

- The engine cooling system is under pressure when the engine is hot. Never open the cap of the coolant expansion tank when the engine is hot. Coolant may spray out and cause serious burns and other injuries.
  - Turn the cap slowly and very carefully anti-clockwise while exerting gentle downward pressure on the cap.
  - Always protect the face, hands and arms from hot coolant or steam with a large, thick cloth.
- When refilling, do not spill any service fluids on engine components or on the exhaust system. The spilt service fluids can start a fire. In certain circumstances, the ethylene glycol in the engine can catch fire.

NOTICE

- Refill only with distilled water. All other types of water can cause corrosion in the engine due to the chemical components contained therein. This can also lead to engine failure. If any other type of water is refilled, the fluid in the engine cooling system should be completely replaced immediately by a qualified workshop.
- Do not fill coolant above the top of the marked area ⇒ Fig. 277. Otherwise the excess coolant will be pressed out of the cooling system when the engine is hot and could cause damage.
- If a large amount of coolant has been lost, do not refill the coolant until the engine has *cooled completely*. Heavy coolant loss is an indication of leaks in the engine cooling system. The engine cooling system should be checked by a qualified workshop as soon as possible. Failure to do so can result in engine damage.
- Do not top up with coolant if there is no more coolant in the coolant expansion tank. Air could enter the cooling system. Do not drive on! Seek expert assistance. Failure to do so can result in engine damage.
- When refilling service fluids, please ensure that the correct container is filled. The use of incorrect service fluids can result in serious faults and engine damage. ◁

Vehicle battery

Introduction

This chapter contains information on the following subjects:

Warning lamp 364
Checking the electrolyte level of the vehicle battery 364
Charging, replacing, disconnecting and connecting the vehicle battery 365

The vehicle battery is a component of the electrical system in the vehicle.

Never carry out any work on the electrical system if you are not familiar with the necessary procedures and the general safety requirements and only unsuitable tools are available ⇒ ⚠. The work should be carried out by a qualified workshop if you are uncertain. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose. Serious injuries can be caused if work is carried out incorrectly.

Number and location of the vehicle battery

The vehicle battery is located on the left of the engine compartment.

Depending on the vehicle equipment level, the vehicle could have two vehicle batteries. Camper vans can have up to three vehicle batteries. The second vehicle battery is located under the left front seat; the third battery in camper vans is located in the wardrobe on the rear left of the vehicle. ▶

Explanation of the warnings on the vehicle battery

Symbol	Meaning
	Always wear eye protection!
	Electrolyte is very corrosive and caustic. Always wear protective gloves and eye protection!
	No fires, sparks, naked lights or smoking!
	A highly explosive mixture of gases is given off when the vehicle battery is charging!
	Always keep children away from acid and the vehicle battery!

Additional information and warnings:

- Additional batteries, California ⇒ page 192
- Pull-away assist systems (start/stop system) ⇒ page 282
- Preparation for working in the engine compartment ⇒ page 350
- Accessories, modifications, repairs and renewal of parts ⇒ page 394
- ⇒ Booklet *Service schedule*

⚠ WARNING

Any work on the vehicle battery and the electrical system can cause serious chemical burns, fire or electric shocks. Always read the following warnings and safety information before carrying out any kind of work:

- **Switch off the ignition and all electrical consumers before carrying out any work on the vehicle battery and also disconnect the negative cable from the vehicle battery.**
- **Children should always be kept away from electrolyte and the vehicle battery.**
- **Always wear eye protection.**
- **Electrolyte is very aggressive. It can burn the skin and can cause blindness. When working with the battery, ensure that your hands, arms and face in particular are protected from acid spillages.**

⚠ WARNING (Continued)

- **Do not smoke during the work, and never work near naked flames or sparks.**
- **When handling cables and electrical equipment, avoid generating sparks and electrostatic charge.**
- **Never short circuit the battery poles.**
- **Never use a damaged vehicle battery. It can explode. Damaged vehicle batteries must be replaced as soon as possible.**
- **Damaged or frozen vehicle batteries must be replaced immediately. Discharged vehicle batteries can even freeze at temperatures of around 0°C (+32°F).**
- **In vehicles with a second battery under the driver's seta or a third battery in the luggage compartment, ensure that the gas discharge hose is connected properly to the vehicle battery.**

NOTICE

- **Do not allow direct sunlight onto the vehicle battery for an extended period as the UV rays could damage the battery housing.**
- **If the vehicle is left standing in cold conditions for a long period, protect the vehicle battery from frost. If it freezes it will be damaged.**
- **Vehicles with a start/stop system are fitted with a special vehicle battery. The installation of a different vehicle battery could cause problems with the vehicle electronics. When replacing the vehicle battery, only insert a battery with specifications that correspond exactly with those of the original battery.**

After starting the engine with a discharged vehicle battery, or after the battery has been changed, system settings (time, date, personal convenience settings and programming) may have been changed or deleted. Check and correct the settings as necessary once the vehicle battery has been sufficiently charged. ◁

Warning lamp

First read and observe the introductory information and safety warnings ⚠ on page 362.

Lit up	Possible cause	Solution
	Fault in the alternator.	Go to a qualified workshop. Have the electrical system checked. Switch off any electrical consumers that are not required. The vehicle battery will not be charged by the alternator while the vehicle is in motion.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

⚠ WARNING (Continued)

- **Never ignore any illuminated warning lamps or text messages.**
- **Stop the vehicle as soon as possible and when safe to do so.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged. ◁

Checking the electrolyte level of the vehicle battery



Fig. 279 Engine compartment: pushing up the vehicle battery sleeve.

First read and observe the introductory information and safety warnings ⚠ on page 362.

The electrolyte level of the vehicle battery should be checked regularly in high-mileage vehicles, in hot countries and in older vehicle batteries. The vehicle battery is otherwise maintenance-free.

Vehicles with a start/stop system (⇒page 283) are fitted with special vehicle batteries. The acid level of these vehicle batteries cannot be checked for technical reasons.

Preparation

- Preparing the vehicle for working in the engine compartment ⇒page 350.
- Open the bonnet ⚠ ⇒page 350.

Opening the battery cover

Fold the sleeve away to one side ⇒Fig. 279.

Checking the electrolyte level

- Ensure that enough light is available for you to see the colours clearly. Never use naked flames or glowing matter (e.g. cigarettes) as a light source.
- The colour display in the round window on the top side of the vehicle battery will change according to the electrolyte level. ▶

Colour display	Action
Light yellow or without colour	The electrolyte level of the vehicle is too low. The vehicle battery should be checked and replaced by a qualified workshop if necessary.
Black	The electrolyte level of the vehicle battery is correct.

⚠ WARNING

Any work on the vehicle battery can cause serious chemical burns, explosions and electric shocks.

- **Always wear eye protection and protective gloves.**

⚠ WARNING (Continued)

- **Electrolyte is very aggressive. It can burn the skin and can cause blindness. When working with the battery, ensure that your hands, arms and face in particular are protected from acid spillages.**
- **Never tilt the vehicle battery. Electrolyte may spill out of the battery vents and cause chemical burns.**
- **Never open a vehicle battery.**
- **If acid is spilt in your eye or on your skin, rinse immediately for several minutes with cold water. Then consult a doctor immediately.**
- **If acid is swallowed, consult a doctor immediately.**

Charging, replacing, disconnecting and connecting the vehicle battery

First read and observe the introductory information and safety warnings ⚠ on page 362.

Charging the battery

The vehicle battery should always be charged by a qualified workshop, as the technology used in factory-fitted batteries requires voltage-limited charging ⇒⚠. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

If the battery cannot be charged in a qualified workshop, the charging cables of a suitable battery charger must be connected as described in ⇒page 443, *Jump starting* for vehicles with a Start/Stop system.

Replacing a vehicle battery

The battery has been developed to suit the conditions of its location and has special safety features. If a vehicle battery has to be replaced, discuss the electromagnetic compatibility, size and necessary servicing, output and safety requirements for the new vehicle battery with a Volkswagen Commercial Vehicles dealer before purchase. The vehicle battery should be replaced by a qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Only maintenance-free vehicle batteries compliant with the standards TL 825 06 and VW 7 50 73 should be used. These standards must be dated July 2012 or later.

Vehicles with a Start/Stop system ⇒page 282 or auxiliary heater ⇒page 332 are fitted with a special vehicle battery. These vehicle batteries may only be replaced by a vehicle battery with the same specifications.

Disconnecting the vehicle battery

Please note the following if the vehicle battery has to be disconnected from the electrical system in the vehicle:

- Switch off all electrical consumers and the ignition.
- Unlock the vehicle before disconnecting the battery in order to avoid triggering the alarm.
- First disconnect the negative cable and then the positive cable ⇒⚠.

Connecting the vehicle battery

- Switch off all electrical consumers and the ignition before reconnecting the vehicle battery.
- First reconnect the positive cable and then the negative cable ⇒⚠.

Various indicator lamps may light up after the vehicle battery has been connected and the ignition is switched on. They will go out if you drive a short distance at a speed of 15–20 km/h (10–12 mph). If the indicator lamps remain lit up, the vehicle should be checked by a qualified workshop.

If the vehicle battery was disconnected for long periods, the system may not able to calculate or correctly display the time when the next service is due ⇒page 19. Comply with the maximum permissible service intervals ⇒Booklet *Service schedule*.

Automatic switch-off for electrical consumers

The intelligent vehicle electrical system automatically implements a range of measures to prevent the battery from discharging under high loads:

- The idling speed is increased so that the alternator provides more electricity.
- The performance of large electrical consumers may be reduced or they may be switched off completely.
- The supply of electricity to the 12-volt sockets and the cigarette lighter is interrupted temporarily while the engine is being started.

The vehicle electrical system cannot always prevent the vehicle battery from discharging. For example, if the ignition is left on for an extended period of time with the engine off, or if the parking light is left on when the vehicle is parked for an extended period.

What can cause the vehicle battery to discharge?

- Long periods at a standstill in which the engine is not running, especially if the ignition is switched on.
- The use of electrical consumers when the engine is switched off.
- When the supplementary heater is in operation ⇒ page 332.

⚠ WARNING

Incorrectly attaching the battery and using incorrect vehicle batteries can cause short circuits, fire and serious injuries.

⚠ WARNING (Continued)

- **Always use maintenance-free and leak-proof batteries that have the same properties, specifications and dimensions as the factory-fitted vehicle battery.**

⚠ WARNING

A highly explosive mixture of gases is given off when the vehicle battery is being charged.

- **Vehicle batteries should only be charged in well-ventilated spaces.**
- **Never charge a vehicle battery once it has been frozen. Discharged vehicle batteries can even freeze at temperatures of around 0°C (+32°F).**
- **The vehicle battery has to be replaced if it has ever been frozen.**
- **Incorrectly connected cables can cause a short circuit. First connect the positive cable and then the negative cable.**

NOTICE

- **Never make or break connections between vehicle batteries if the ignition is switched on or the engine is running. Never use a vehicle battery that does not correspond with the vehicle's specifications. The vehicle's electrical system or electronic components could be damaged, which could lead to electrical faults, for example in the start/stop system.**
- **Never connect equipment that provides electricity, such as solar panels or a battery charger, to the 12-volt socket or to the cigarette lighter to charge the vehicle battery. This can damage the vehicle electrical system.**

Dispose of the vehicle battery as required by legislation. Batteries may contain toxic substances such as sulphuric acid and lead.

Electrolyte can pollute the environment. Clean up any service fluid leakages and dispose of them properly. ◁

Wheels and tyres

Useful information about wheels and tyres

Introduction

This chapter contains information on the following subjects:

Handling wheels and tyres 368
Rims 369
New wheels and tyres 370
Tyre pressure 371
Tread depth and wear indicators 372
Tyre damage 373
Spare wheel 374
Tyre lettering 375
Winter tyres 378
Snow chains 379

Volkswagen Commercial Vehicles recommends that work on tyres and wheels is carried out by a qualified workshop. They are familiar with the procedure and have the necessary special tools and spare parts and the proper facilities for disposing of the old tyres. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Additional information and warnings:

- Transporting ⇒page 125
- Towing a trailer ⇒page 139
- Braking, stopping and parking ⇒page 269
- Tyre monitoring system ⇒page 318
- Cleaning and caring for the vehicle exterior ⇒page 380
- Consumer information ⇒page 404
- Vehicle toolkit ⇒page 416
- Hubcaps ⇒page 417
- Changing a wheel ⇒page 420
- Breakdown set ⇒page 425

⚠ WARNING

New tyres or tyres which are old, worn down or damaged cannot provide full levels of vehicle control and braking power.

- **Incorrect handling of wheels and tyres can reduce vehicle safety and cause accidents and serious injuries.**

⚠ WARNING (Continued)

- **All four wheels must be fitted with radial tyres of the same type, size (rolling circumference) and the same tread.**
- **New tyres will have to be run in as they will initially have reduced grip and braking effect. Drive particularly carefully for the first 600 km in order to prevent accidents and serious injury.**
- **Check tyre pressures regularly and always keep to the specified tyre pressure value. If the tyre pressure is too low, it is possible that the tyre temperature will increase to such an extent when driving that the tread peels off and the tyre bursts.**
- **Never drive with worn tyres or tyres that are damaged (cuts, cracks or blisters). Driving with tyres in this condition can result in blown tyres, accidents and serious injuries. Worn or damaged tyres must be replaced as soon as possible.**
- **Never exceed the top speed and load permitted for the fitted tyres.**
- **The effectiveness of the driver assist systems and brake support systems depends on the tyre grip.**
- **If you notice unusual vibration or if the vehicle pulls to one side when driving, stop the car immediately and check the wheels and tyres for damage.**
- **In order to reduce the risk of losing control of the vehicle, and the risk of accident and serious injury, never loosen the bolts on rims with bolted on rim rings.**
- **Do not use wheels or tyres if you do not know their history. Used wheels and tyres could be damaged, even if the damage is not visible.**
- **Old tyres (even if never used) can suddenly lose pressure or burst, especially at high speeds. This can cause accidents and serious injuries. Avoid using tyres that are more than six years old. If you have no alternative, drive slowly and with extra care at all times.**

For technical reasons, it is not generally possible to use the wheels from other vehicles. This can also apply to wheels of the same vehicle ▶

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type. Refer to the vehicle documentation and ask a Volkswagen Commercial Vehicles dealership if necessary. ◁

Handling wheels and tyres

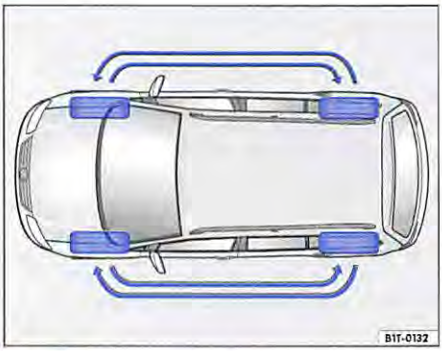


Fig. 280 How to swap wheels.

First read and observe the introductory information and safety warnings ⚠ on page 367.

The tyres are the most used and most underestimated parts of a vehicle. Tyres are very important as the narrow tyre surfaces are the only contact between the vehicle and the road.

The service life of tyres is dependent on tyre pressure, driving style handling and fitting.

The tyres and wheel rims are an essential part of the vehicle's design. The tyres and rims approved by Volkswagen Commercial Vehicles are specially matched to the characteristics of the vehicle and make a major contribution to good road holding and safe handling.

Avoiding damage to the tyres

- If you have to drive over a kerb or similar obstacle, drive slowly and at a right angle if possible.
- Inspect the tyres regularly for damage such as cuts, cracks or blisters.
- Remove foreign objects that are in the outer tyre tread and **have not penetrated the inner tyre** ⇒ page 373.
- Always respond to any warning messages given by the tyre monitoring system ⇒ page 318.
- Damaged or worn tyres must be replaced immediately ⇒ page 373.
- Regularly check the tyres for hidden damage ⇒ page 373.
- Never exceed the top speed and load permitted for the tyres that are fitted ⇒ page 375.
- Protect the wheels, including the spare wheel, from contact with corrosive substances, including oils, lubricants, fuel and brake fluid ⇒ ⚠.
- Replace missing dust caps immediately.

Tyres with directional tread pattern

Tyres with directional tread pattern have been developed to roll in one direction only. An arrow on the tyre sidewall indicates the direction of rotation on tyres with directional tread ⇒ page 375. The direction of rotation must be adhered to. This is the only guarantee for optimum grip and helps to avoid aquaplaning, excessive noise and wear.

If, however, the tyre is fitted in the opposite direction to the tread pattern, you must take more care when driving as the tyre is now no longer being used according to its designation. This is particularly important on wet roads. The tyres must be replaced as quickly as possible or be fitted with the tread in the correct direction.

Rotating wheels front to rear

Regularly rotating the wheels as shown in the illustration ⇒ Fig. 280 is recommended to help ensure that tyres wear evenly. All the tyres will then last for about the same time.

Volkswagen Commercial Vehicles recommends having the wheels changed by a qualified workshop.

Tyres that are older than 6 years

Tyres age through physical and chemical processes that can impair their function. Tyres that are stored unused for an extended period will harden and become brittle more quickly than tyres which are in constant use.

Volkswagen Commercial Vehicles recommends replacing tyres that are more than 6 years old with new tyres. This also applies for tyres, including the spare wheel, which appear to still be in good condition and whose tread depth has not yet reached the minimum value stipulated by legislation ⇒ ⚠.

The age of a tyre can be determined from the manufacturing date, which is a component of the tyre identification number (TIN) ⇒ page 375. ▶

Storing tyres

Mark tyres before you remove them to indicate the direction of rotation. This ensures you will be able to mount them correctly when you replace them (left, right, front, rear). When removed, the wheels or tyres should be stored in a cool, dry and preferably dark place. **Do not** store tyres mounted on the rim vertically.

Any tyres not fitted on rims should be kept in suitable sleeves to protect against dirt and should be stored vertically (standing on the tread).

All-terrain tyres

Some vehicles can be fitted at the factory with "all-terrain tyres". These tyres have a deep-tread profile that alters the vehicle's driving properties (such as comfort, consumption, braking distance, cornering behaviour, rolling noise) ⇒ ⚠.

⚠ WARNING

Corrosive liquids and other substances can cause visible and invisible damage to the tyres, which can cause the tyre to burst.

- **Always keep chemicals, oils, lubricants, fuel, brake fluid and other corrosive substances away from the tyres.**

⚠ WARNING

Old tyres (even if never used) can suddenly lose pressure or burst, especially at high speeds. This can cause accidents and serious injuries.

- **Avoid using tyres that are more than six years old. If you have no alternative, drive slowly and with extra care at all times.**

⚠ WARNING

The deep-tread profile of all-terrain tyres can considerably increase the braking distance or cornering behaviour and thus cause accidents and serious injuries.

- **Always bear the modified vehicle handling in mind, and drive carefully.**

NOTICE

Avoid heavy impacts and drive round obstacles whenever possible. Tyres, particularly low-profile tyres, can be considerably compressed and deformed by potholes and curb edges especially. This can cause the tyre's webbing reinforcement to brake, and cause dents or rips on the side walls or deformations or cracks on the rims.

Old tyres should be disposed of as required by legislation. ◁

Rims

First read and observe the introductory information and safety warnings ⚠ on page 367.

The design of the wheel bolts is matched to the rims. If different rims are fitted, the correct wheel bolts with the right length and correctly shaped bolt heads must be used. This ensures that wheels are fitted securely and that the brake system works properly ⇒page 420.

For technical reasons, it is not generally possible to use the wheels from other vehicles. This can also apply to wheels of the same vehicle type.

The tyres and rims approved by Volkswagen Commercial Vehicles are specially matched to the characteristics of the vehicle and make a major contribution to good road holding and safe handling.

Wheel bolts

Wheel bolts must always be tightened with the correct tightening torque ⇒page 420.

Rims with bolted-on rings

Rims with bolted-on rings consist of several components. These components are fastened using special bolts and special fastening technology. This ensures that the wheel functions properly, does not leak, remains safe and runs true. For this reason, damaged rims should be replaced. They may only ▶

be repaired by a qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose ⇒⚠.

Rims with bolted-on trims

Rims may have removable trims that are attached to the rim with self-locking bolts. Damaged trims may only be repaired by a qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose ⇒⚠.

Rim identification

In some countries, new rims are legally required to contain certain specifications on them. The following information may appear on the rims (varying from region to region):

- Seal of conformity
- Rim size
- Name of manufacturer or brand name
- Date manufactured (month/year)
- Country of origin
- Production number
- Raw materials batch number
- Product code

⚠ WARNING

The use of unsuitable or damaged rims can impair vehicle safety and cause accidents and serious injury.

- **Only use rims that have been approved for the vehicle.**
- **Check the rims regularly for damage and replace as necessary.**

⚠ WARNING

Incorrect loosening and tightening of the bolts on rims with bolted-on rings can cause accidents and serious injury.

- **Never remove the bolts on rims with bolted-on rings.**
- **All work on rims with bolted-on rings must be carried out by a qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.**

◁

New wheels and tyres

First read and observe the introductory information and safety warnings ⚠ on page 367.

New tyres

- Drive particularly carefully for the first 600 km with new tyres as the tyres have to be *run in*. Tyres that have not been run in have reduced grip ⇒⚠ and braking effect ⇒⚠.
- All four wheels must be fitted with radial tyres of the same type, size (rolling circumference) and the same tread.
- The tread depth of new tyres may vary, according to the type and make of tyre and the tread pattern.

Replacing tyres

- Tyres should be replaced at least in pairs and not individually (i.e. both front tyres or both rear tyres together) ⇒⚠.
- Old tyres should only be replaced by tyres that have been approved by Volkswagen Commercial Vehicles for the vehicle type. Make sure that the tyres used are correct in respect of size, diameter, load-carrying capacity and maximum speed.
- Never use tyres with an effective size that is larger than tyres approved by Volkswagen Commercial Vehicles. Larger wheels could rub against the body or other parts of the vehicle.

Additional information for vehicles with tyre monitoring system

For vehicles with a tyre monitoring system, the system will have to be "re-synchronised" after any wheel changes, regardless of whether the wheel in question is being fitted in the same or in a different position ⇒page 318.

Further information about the tyre monitoring system, how it functions and what you must know ⇒page 318. ▶

⚠ WARNING

New tyres will have to be run in as they will initially have reduced grip and braking effect.

- **Drive particularly carefully for the first 600 km in order to prevent accidents and serious injury.**

⚠ WARNING

Wheels must have the necessary freedom of operation. If the wheels do not have the necessary freedom of operation, the tyre could rub on parts of the running gear, the vehicle body and the brake lines. This can lead to a fault in the brake system and to tread separation and thus to a tyre bursting.

⚠ WARNING (Continued)

- **The actual tyre size must not exceed the tyre dimensions of manufacturers approved by Volkswagen Commercial Vehicles and must not rub on any vehicle body parts.**

Despite identical size details, the actual size of the various tyre makes may vary from these specified dimensions, or the tyre contours may vary considerably.

Volkswagen Commercial Vehicles-approved tyres are guaranteed to have the dimensions that are suitable for the vehicle. The salesperson will have to provide a certificate from the tyre manufacturer for other tyre makes to prove that the tyre is also suitable for the vehicle. This certificate must be stored in a safe place in the vehicle. ◁

Tyre pressure

First read and observe the introductory information and safety warnings ⚠ on page 367.

The correct tyre pressure for factory-fitted tyres is shown on the tyre pressure label and applies to all-season, summer and winter tyres. The tyre pressure label is located on the lock column on the left front door.

If the tyre pressure is too low or too high, the tyres will wear prematurely and the vehicle will not handle well ⇒⚠. The correct tyre pressure is particularly important at **high speeds**. Incorrect tyre pressure causes premature wear and can cause a tyre burst.

The pressure should therefore be checked at least once a month and before starting a journey.

The given tyre pressure applies to **cold tyres**. Tyre pressure is always higher in warm tyres than it is in cold tyres.

For this reason, never reduce the pressure in warm tyres to adjust the tyre pressure. This would result in low tyre pressures that could potentially cause the tyre to burst suddenly.

Checking tyre pressure

Always check the tyre inflation pressure on "cold" tyres. A "cold" tyre can be defined as one on a vehicle that has only been driven a few kilometres (miles) within 3 hours prior to the test and at low speeds.

- The tyre pressures should be checked regularly and only when the tyres are cold. Always check all the tyres, including the spare if fitted. The tyre pressure should be checked more frequently in colder regions, but only if the vehicle has not been moved beforehand. The tyre pressure tester must function correctly.
- The tyre pressures must be adjusted to suit a heavy vehicle load.
- After altering the tyre pressures, please ensure that the valve caps are screwed on and observe any information and instructions on setting the tyre monitoring system ⇒page 318.

The **temporary spare wheel** is filled to the highest tyre pressure permissible for the vehicle.

⚠ WARNING

Too high or too low a pressure may cause the tyre to suddenly lose pressure or burst while the vehicle is in motion. This can cause serious accidents and fatal injuries.

- **If the tyre pressure is too low, it is possible that the tyre temperature will increase to such an extent when driving that the tread peels off and the tyre bursts.**
- **Fast speeds or overloading of the vehicle can cause overheating, sudden tyre damage including tyre bursts and ripping of the tread surface and thus to a loss of control of the vehicle.**
- **If the tyre pressure is too low or too high, the tyres will wear prematurely and the vehicle will not handle well.** ▶

⚠ WARNING (Continued)

- **Check tyre pressures regularly, at least once a month, and before every long journey.**
- **All tyres must have the correct tyre pressure to suit the vehicle load.**
- **Never reduce excess pressure when the tyres are warm.**

NOTICE

- **When attaching the tyre pressure gauge make sure that you do not position it at an angle to the valve shaft. This can damage the tyre valve.**

NOTICE (Continued)

- **Missing valve caps, or valve caps that are not suitable or not screwed on properly, can cause damage to the tyre valve. Always use valve caps that comply with the factory-fitted valve cap specifications. Always screw on valve caps fully.**

Under-inflated tyres can contribute to an increase in fuel consumption.

If the tyre monitoring display warns that the tyre pressure in at least one tyre is too low, check tyre pressures with a functioning tyre pressure tester. Low tyre pressure cannot be determined exclusively by looking at the tyre. This also applies to tyres with a low profile.

Please refer to the special points of the tyre monitoring system when checking tyre pressures ⇒ page 318. ◁

Tread depth and wear indicators

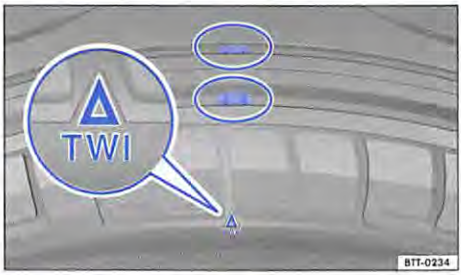


Fig. 281 Tread wear indicator.

First read and observe the introductory information and safety warnings ⚠ on page 367.

Tread depth

Difficult driving situations demand the deepest possible tread depth for the tyres and the same tread depth for the tyres on the front and rear axles. This applies in particular for driving in winter weather and cold temperatures and in wet conditions ⇒ ⚠.

In most countries, the minimum tread depth required by law is 1.6 mm (measured in the tread grooves next to the tread wear indicators). Observe any country-specific legal requirements.

Winter tyres lose a large degree of their effectiveness when the tread is worn down to a depth of 4 mm.

The tread depth of new tyres can vary according to type and manufacturer due to construction and tread design.

Tread wear indicator in tyres

The original tyres on your vehicle have 1.6 mm high tread wear indicators running across the tread ⇒ Fig. 281. These wear indicators are positioned at set intervals around the tyre. Markings on the tyre sidewall (for instance the letters "TWI" or other symbols) indicate the positions of the tread wear indicators.

The tread wear indicators show if a tyre is worn down. The tyre must be replaced at the latest when the tread depth is just down to the tread wear indicator.

⚠ WARNING

Worn tyres are a safety risk and can lead to a loss of control of the vehicle and cause serious injury.

- **Tyres must be replaced at the latest when the tread is worn down to the tread wear indicators.**
- **Worn tyres have considerably less tread, particularly on wet roads, which can cause the vehicle to glide along the road surface (aquaplaning).** ▶

⚠ WARNING (Continued)

- **Worn tyres reduce the possibility of controlling the vehicle well in normal and difficult driving situations and increase braking distance and the risk of sliding.**

◁

Tyre damage

First read and observe the introductory information and safety warnings ⚠ on page 367.

Damage to tyres and rims is often not readily visible. Any unusual **vibrations** or signs that the car is **pulling to one side** may indicate that one of the tyres is damaged ⇒⚠.

- Reduce your speed immediately if you suspect that a wheel is damaged.
- Check the tyres and rims for damage.
- If the tyre is damaged, do not drive on. Seek expert assistance.
- If there is no visible damage, drive slowly and cautiously to the next qualified workshop in order to have the vehicle checked.

Foreign bodies in the tyre

- Leave the foreign body in the tyre if it has entered the inner tyre. However, foreign bodies that are stuck between the tyre tread blocks can be removed.
- *For vehicles with a spare wheel:* where appropriate, change the damaged wheel ⇒ page 420 If required, seek expert assistance when changing the damaged wheel. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.
- *For vehicles with a breakdown set:* the tyre can be sealed and pumped up using the tools in the breakdown set ⇒ page 425. Go to a qualified workshop. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Tyre wear

The tyre wear is affected by several factors, for example:

- Driving style.
- Unbalanced wheels.
- Running gear setting.

Driving style – fast cornering, heavy acceleration and hard braking all increase tyre wear. The running gear should be checked by a qualified workshop if the tyres show excessive wear despite a normal driving style.

Unbalanced wheels – the wheels on new vehicles are balanced. However, various factors encountered in normal driving can cause them to become unbalanced, which results in steering vibration. Unbalanced wheels will affect levels of wear on the steering system and the suspension. In this case the wheels should be balanced again. New tyres have to be balanced after fitting.

Running gear setting – incorrect wheel alignment causes excessive tyre wear, impairing the safety of the vehicle. The wheel alignment should be checked by a qualified workshop if tyres show excessive wear.

⚠ WARNING

If you notice unusual vibration or the car pulling to one side while the vehicle is in motion, this may indicate that one of the tyres is damaged.

- **Reduce speed immediately and park the vehicle without obstructing traffic.**
- **Check the tyres and rims for damage.**
- **Never drive on if wheels or tyres are damaged. Seek expert assistance instead.**
- **If there is no visible damage, drive slowly and cautiously to the next qualified workshop in order to have the vehicle checked.**

◁

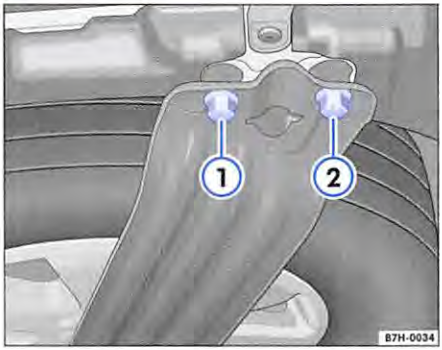


Fig. 282 Underneath the vehicle: retaining bolt ① and securing bolt ② on the spare wheel bracket

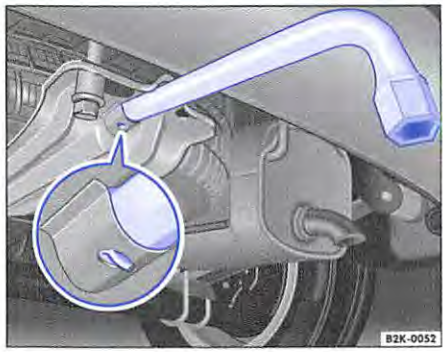


Fig. 283 Underneath the vehicle: spare wheel bracket with box spanner inserted

First read and observe the introductory information and safety warnings ⚠ on page 367.

Removing the spare wheel

These actions must be carried out in the specified order only ⇒⚠.

- Loosen the retaining bolt ⇒Fig. 282 ① until it is free using the box spanner from the toolkit.
- Unscrew the securing bolt ② completely. The spare wheel bracket is now supported by the retaining bolt.
- Fit the box spanner in the bracket ⇒Fig. 283.
- Make sure that the box spanner hook is located in the hole in the bracket ⇒Fig. 283 (close-up). If the box spanner is hooked in correctly, you should not be able to pull it out towards the back of the vehicle.
- Hold the box spanner with both hands.
- Lift the box spanner upwards together with the spare wheel bracket and guide the box spanner to the right. The head of the retaining bolt and the recess on the spare wheel bracket should be flush.
- Guide the box spanner downwards with the spare wheel bracket.
- Remove the spare wheel.

Storing the removed wheel

- Fit the box spanner in the spare wheel bracket.
- Place the replaced wheel in the spare wheel bracket.
- Lift the box spanner together with the spare wheel bracket in such a way that the head of the retaining bolt is guided through the recess in the spare wheel bracket.
- Move the spare wheel bracket together with the box spanner towards left, and place it on the retaining bolt.
- Screw in the securing bolt, and tighten it with the box spanner.
- Screw in the retaining bolt, and tighten it with the box spanner.

When the spare wheel is not the same as the other tyres mounted on the vehicle

If the spare tyre is not the same as the tyres that are mounted on the car - for example with winter tyres - only use the spare tyre for a short period of time and drive with extra care ⇒⚠.

Refit the normal, functional road wheel as soon as possible.

Follow these guidelines:

- Do not drive faster than 80 km/h (50 mph).
- Avoid full acceleration, sudden braking and fast driving through bends in the road.
- The tyre pressure must be checked as soon as possible after fitting the spare wheel ⇒page 371.

The tyre pressure of the spare wheel should be checked together with the normal tyres, at least once a month. The spare wheel should have the highest pressure allowed for the vehicle ⇒page 371.

⚠ WARNING

Incorrect use of the spare wheel can lead to a loss of control over the vehicle, to collisions or other accidents and cause serious injuries.

- **Never use a spare tyre if it is damaged or worn down to the tread wear indicators.**

⚠ WARNING (Continued)

- **In some vehicles, the spare wheel could be smaller than the standard wheel. The small spare wheel has a sticker with the text "80 km/h" or "50 mph". This is the maximum speed at which you are permitted to drive with this tyre.**
- **Never drive faster than 80 km/h (50 mph). Do not accelerate quickly, brake suddenly or drive at high speed through bends.**
- **The spare wheel must always be secured firmly with the wheel bolts supplied by the factory.**

⚠ WARNING (Continued)

- **After fitting the spare wheel, the tyre pressure must be checked as soon as possible ⇒page 371.**

If possible, stow the spare wheel or the removed wheel safely in the luggage compartment. In vehicles with a breakdown set, the removed wheel **cannot** be secured.

Depending on the vehicle equipment, some vehicles may be factory-fitted with a spare wheel bracket in the luggage compartment. ◁

Tyre lettering

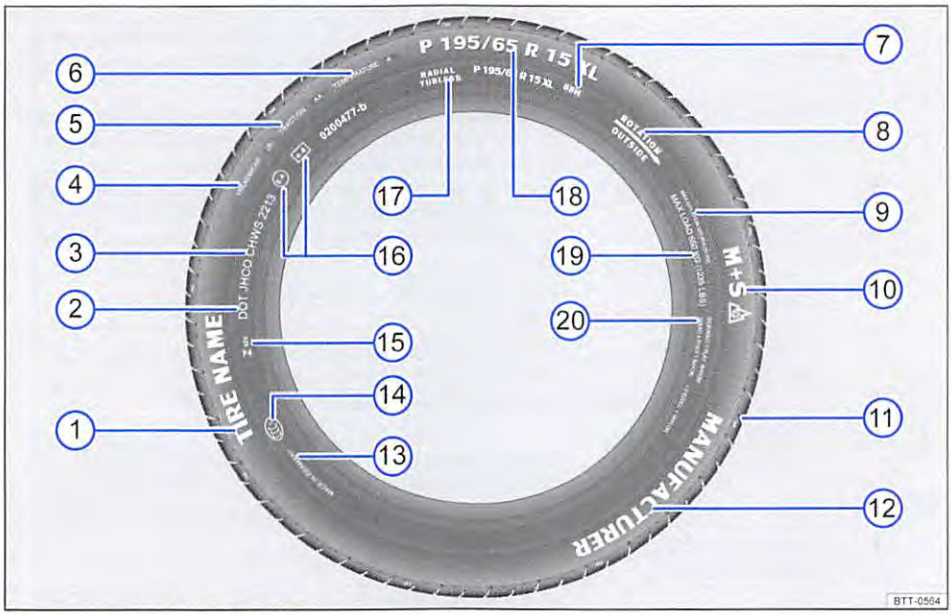


Fig. 284 International tyre lettering.

First read and observe the introductory information and safety warnings ⚠ on page 367.

⇒Fig. 284	Tyre lettering (example)	Meaning
①	*Product name*	Individual tyre lettering from manufacturer.
②	DOT	The tyre complies with the legal requirements of the USA Department of Transportation, responsible for tyre safety standards. ▶

⇒Fig. 284	Tyre lettering (example)	Meaning	
③	JHCO CHWS 2213	Tyre identification number (TIN[a] – may only be on the inner side of the wheel) and date of manufacture:	
		JHCO CHWS	Identifier of producing plant and specifications of the tyre manufacturer on size and characteristics
		2213	Manufacture date: 22nd week in 2013.
Information for the end user concerning comparative values for specified basic tyres (standardised test procedure) ⇒page 404:			
④	TREADWEAR 280	Relative life expectancy for the tyre, with reference to a US-specific standard test. Tyres with the specification *280* are used up at a rate of 2.8 times more slowly than standard tyres which have a treadwear value of 100. The performance of tyres is determined by how they are used and can notably deviate from norm values due to driving style, maintenance, road surface and climatic conditions.	
⑤	TRACTION AA	Wet braking response of the tyre (*AA*, *A*, *B* or *C*). This is tested under controlled conditions on certified testing routes. Tyres marked *C* have a low traction performance. The traction value assigned to the tyres are based on linear traction tests and do not include speed, lateral stability, or aquaplaning and traction under high load.	
⑥	TEMPERATURE A	Temperature stability of the tyre at higher test speeds (*A*, *B* or *C*). *A* and *B* tyres exceed legal requirements. The temperature evaluation is based on tyres with correct pressure and does not allow for excess pressure. Excessive speed, incorrect pressure or excess pressure can cause heat build-up or tyre damage. This applies to one or a combination of these factors.	
⑦	88 H	Load capacity index ⇒page 377 and speed index ⇒page 377.	
⑧	Rotation and arrow	Denotes direction of rotation ⇒page 377.	
	OR: outside	Denotes outside of tyres ⇒page 377.	
⑨	MAX INFLATION 350 KPA (51 psi / 3.51 bar)	US limitation for the maximum air pressure.	
⑩	M+S *or* M/S *or* ⛄	Denotes winter tyres (mud and snow tyres) ⇒page 378. Studded snow tyres are labelled with an *E* after the *S*.	
⑪	TWI	Indicates the position of the tread wear indicator ⇒page 372.	
⑫	*Brand name, logo*	Manufacturer.	
⑬	Made in Germany	Country of manufacture.	
⑭	(CCC)	Country-specific denotation for China (China Compulsory Certification).	
⑮	IMMETRO 023	Country-specific denotation for Brazil.	
⑯	E4 e4 0200477-b	Certification of conformity with international regulations. The next number is the code number of the country that granted approval. Approved tyres which comply with ECE regulations are denoted with *E*, tyres which comply with EC regulations are denoted with *e*. This is followed by the number of the type approval certificate.	
⑰	RADIAL TUBELESS	Tubeless radial tyres.	

⇒ Fig. 284	Tyre lettering (example)	Meaning	
⑱	P 195 / 65 R 15 XL	Size designation:	
		P	Identification for passenger vehicle.
		195	Tyre width from wall to wall in mm.
		65	Height/width ratio in %.
		R	Tyre construction: radial.
		15	Rim diameter in inches.
		XL	Heavy-duty tyres (reinforced).
⑲	MAX LOAD 615 KG (1235 LBS)	US load data for the maximum load per wheel.	
⑳	SIDEWALL 1 PLY RAYON	Data on the tyre carcass components: 1 layer of rayon (artificial silk).	
	TREAD 4 PLIES 1 RAYON + 2 STEEL + 1 NYLON	Data on the tread surface components: In the example there are 4 layers under the tread surface: 1 layer of rayon (artificial silk), 2 steel belt layers and 1 nylon layer.	

a) The TIN is the tyre serial number

Tyre lettering can also be found inside the tyre. Certain labels may only be found on one side of the tyre, e.g. tyre identification number and manufacturing date.

Any further numbers and letters are internal codes used by the tyre manufacturer or country-specific denotations.

Tyres with directional tread pattern

Tyres with directional tread pattern have been developed to roll in one direction only. An arrow on the tyre sidewall indicates the direction of rotation on tyres with directional tread. The direction of rotation must be adhered to. This guarantees optimum grip and helps to avoid aquaplaning, excessive noise and wear.

If, however, the tyre is fitted in the opposite direction to the tread pattern, you must take more care when driving as the tyre is now no longer being used according to its designation. This is particularly important on wet roads. The tyres must be replaced as quickly as possible or be fitted with the tread in the correct direction.

Asymmetrical tyres

Asymmetrical tyres take into account the differing behaviour of the inner and outer areas of the tread pattern. The sidewalls of asymmetrical tyres are marked to indicate "inside" or "outside". Maintain the correct tyre positioning on the wheel rim. This guarantees optimum grip and helps to avoid aquaplaning, excessive noise and wear.

If, however, the tyre is fitted in the opposite direction to the tread pattern, you must take more care when driving as the tyre is now no longer being used according to its designation. This is particularly important on wet roads. The tyres must be replaced as quickly as possible or be fitted with the tread in the correct direction.

Tyre load

The load capacity index indicates how many kilograms can be loaded onto an individual tyre (tyre load).

Examples:

100	800 kg
101	825 kg
102	850 kg
103	875 kg
104	900 kg
105	925 kg
106	950 kg
107	975 kg
108	1,000 kg
109	1,030 kg
110	1,060 kg

Speed index

The speed index indicates the maximum permitted speed that may be driven when particular wheels are fitted.

P	max. 150 km/h (93 mph)
Q	max. 160 km/h (99 mph)
R	max. 170 km/h (106 mph)
S	max. 180 km/h (112 mph)
T	max. 190 km/h (118 mph)
U	max. 200 km/h (125 mph)
H	max. 210 km/h (130 mph)
V	max. 240 km/h (149 mph)

Z over 240 km/h (149 mph)
W max. 270 km/h (168 mph)
Y max. 300 km/h (186 mph)

Some tyre manufacturers use the code "ZR" for tyres with a highest permitted speed of over 240 km/h (149 mph). ◁

Winter tyres

First read and observe the introductory information and safety warnings ⚠ on page 367.

In winter road conditions, winter tyres will considerably improve the car's handling. The design of summer tyres (width, rubber compound, tread pattern) gives less grip on ice and snow. Volkswagen Commercial Vehicles urgently recommends you use winter tyres or all-year tyres on all 4 wheels of the vehicle, particularly if winter conditions are expected on the roads. Winter tyres will also improve the braking response of the vehicle and will help to reduce braking distances in winter weather. Volkswagen Commercial Vehicles recommends that winter tyres be fitted to the vehicle at temperatures under +7°C (+45°F).

Winter tyres lose their effectiveness when the **tread** is worn down to a depth of 4 mm. Winter tyres also largely lose their effectiveness through **ageing** – regardless of the tread depth.

The following applies when using winter tyres:

- Observe any country-specific legal requirements.
- Use winter tyres on all four wheels at the same time.
- Only use in winter road conditions.
- Only use the sizes of winter tyre that have been approved for the vehicle.
- Winter tyres must have the same type, size (rolling circumference) and the same tread pattern.
- Heed the maximum speed permitted by the speed index ⇒ ⚠.

Speed limitation

Winter tyres have a speed limitation depending on the speed index ⇒ page 375.

In some vehicle versions, a speed warning can be set in the menu **MFD (multifunction display)** in the instrument cluster ⇒ page 24.

If you use **V-rated tyres** the speed limits and required tyre pressure will be determined by the engine size. You must ask a Volkswagen Commercial Vehicles dealership about the highest permitted speed and required tyre pressure.

Four-wheel drive (4MOTION)

Thanks to its four-wheel drive, the vehicle will have plenty of traction in winter conditions, even with the standard tyres. Nevertheless, Volkswagen Commercial Vehicles still recommends that winter tyres or all-year tyres should be fitted *on all four wheels* when winter road conditions are expected, mainly because this will give a better *braking response*.

Please refer to the appropriate information and notes when using **snow chains** ⇒ page 379.

⚠ WARNING

The improved winter driving characteristics afforded by the winter tyres should not encourage you to take any risks.

- **Always adapt your speed and driving style to suit visibility, weather, road and traffic conditions.**
- **Never exceed the top speed and load permitted for the winter tyres that are fitted.**

Summer tyres should be fitted in good time at the end of the winter. The vehicle handling is better if summer tyres are fitted at temperatures above +7°C (+45°F). They are quieter, do not wear so quickly and reduce fuel consumption.

In vehicles with a tyre monitoring system, the systems have to "re-synchronise" after wheels are changed ⇒ page 318.

Volkswagen Commercial Vehicles dealerships can provide details on permissible winter tyre sizes. ◁

Snow chains

First read and observe the introductory information and safety warnings ⚠ on page 367.

Please heed legislation and also the permitted speed when driving your vehicle with snow chains.

In winter conditions, snow chains will not only improve acceleration, but also braking response.

Snow chains **may only be fitted on the front wheels** – even on **four-wheel drive vehicles** (4MOTION) – and only with the **following wheel and tyre combinations**:

Tyre size	Wheel
205/65 R16 C	6 1/2 J x 16 offset 51 or 6 1/2 J x 16 offset 52
215/65 R16 C	6 1/2 J x 16 offset 51 or 6 1/2 J x 16 offset 52
215/60 R17 C	7 J x 17 offset 55 or 7 J x 17 offset 56

Volkswagen Commercial Vehicles recommends that you ask your Volkswagen Commercial Vehicles dealership for information about appropriate wheel, tyre and snow chain size.

If possible, use snow chains with fine-pitch links which do not protrude more than 15 mm, including the tensioner.

Remove wheel centre covers and trim rings before fitting snow chains ⇒ⓘ. For safety reasons cover caps must then be fitted over the wheel bolts. These are available from your Volkswagen Commercial Vehicles dealership.

⚠ WARNING

The use of snow chains that are unsuitable for your vehicle or the incorrect installation of snow chains can cause accidents and serious injuries.

- **Always use the correct snow chains.**
- **Follow the assembly instructions provided by the snow chain manufacturer.**
- **Never exceed the maximum speed permitted for the snow chains that are fitted.**

ⓘ NOTICE

- **Remove the snow chains when driving on roads that are free of snow. The snow chains will otherwise impair handling, damage the tyres and wear out very quickly.**
- **Snow chains that are in direct contact with the wheel can scratch or damage it. Volkswagen Commercial Vehicles recommends using non-scratch snow chains.**

Snow chains are available in a range of sizes for a vehicle type.

When using snow chains on vehicles with a tyre monitoring system, an incorrect display may be shown as the snow chains increase the tyre circumference ⇒ page 318. ◁

Vehicle care and maintenance

Caring for and cleaning the vehicle exterior

Introduction

This chapter contains information on the following subjects:

Washing the vehicle 381
Washing the vehicle with a high-pressure cleaner 382
Cleaning windows and exterior mirrors 382
Cleaning and changing wiper blades 383
Waxing and polishing the vehicle 384
Cleaning and caring for chrome and aluminium trim parts 385
Cleaning and caring for the decorative film .. 385
Cleaning wheels 386
Care of rubber seals 386
De-icing door lock cylinders 387
Underseal 387
Cleaning the engine compartment 387

Regular and expert care helps to **maintain the value** of the vehicle. Proper maintenance may also be one of the requirements for the approval of warranty claims in the event of corrosion or paint defects.

Suitable care products are available from Volkswagen Commercial Vehicles dealers.

Additional information and warnings:

- Preparation for working in the engine compartment ⇒ page 350
- Cleaning and caring for the interior ⇒ page 388
- Accessories, modifications, repairs and renewal of parts ⇒ page 394

⚠ WARNING

Car care products can be toxic and hazardous. Unsuitable care products and incorrect application of care products can cause accidents, serious injuries, burns or poisoning.

- **The care product must be kept in its original sealed container.**

⚠ WARNING (Continued)

- **Read the manufacturer's instructions.**
- **Never store car care products in empty food containers, bottles or any other non-original containers as people finding these containers may not know that they contain care products.**
- **Keep children away from care products.**
- **The products can give off harmful fumes during use. They should therefore only be used outside or in well-ventilated spaces.**
- **Never use fuel, turpentine, engine oil, nail varnish remover or other volatile fluids to wash, clean or care for your vehicle. These substances are toxic and highly inflammable.**

⚠ WARNING

Incorrect care and cleaning of vehicle parts can impair the safety features of the vehicle and thus cause serious injury.

- **Vehicle parts must be cleaned according to the manufacturer's instructions.**
- **Only use approved or recommended cleaning products.**

NOTICE

Cleaning agents that contain solvents attack the material and can cause damage.

In the interests of environmental protection, the vehicle should only be washed in specially provided wash bays. This prevents waste water contaminated with oil, grease or fuel from entering the sewerage system. In some countries, washing vehicles anywhere else may be prohibited.

Environmentally-friendly care products should be used.

Leftover car care products should not be disposed of with ordinary household waste. Read the manufacturer's instructions. ◁

First read and observe the introductory information and safety warnings ⚠ on page 380.

The longer substances such as insects, bird droppings, resinous tree sap, road dirt, industrial deposits, tar, soot or road salt and other corrosive materials remain on the vehicle, the more damage they do to the paintwork. High temperatures (for instance in strong sunlight) accelerate the corrosion process. The **underside** of the vehicle should also be cleaned thoroughly and regularly.

Car washes

Please observe the signs on the automatic car wash. Before using an automatic car wash take the usual precautions, such as closing all windows and folding in the exterior mirrors, in order to avoid damage to the vehicle. You must consult the car wash operator if there are special parts on your vehicle such as spoilers, roof luggage carrier systems or radio aerials ⇒ⓘ.

The paint is so hard-wearing that the car can normally be washed without problems in an automatic car wash. However, the effect on the paint depends to a large extent on the design of the car wash. Volkswagen Commercial Vehicles recommends the use of car washes without brushes.

To remove any wax residue from the windows and to stop wipers rubbing, please note the following points ⇒ page 382, *Cleaning windows and exterior mirrors*.

Washing the car by hand

When washing by hand, first soften the dirt with plenty of water and rinse off as well as possible.

Then clean the vehicle with a soft **sponge**, a **glove** or a **brush** using only light pressure. Start with the roof and work from the top to the bottom. Use a **shampoo** for very stubborn dirt only.

The sponge or glove should be wrung out thoroughly at regular intervals.

Clean the wheels, sill panels etc. last. Use a different sponge for this purpose.

⚠ WARNING

Parts of the vehicle with sharp edges can cause injury.

- **Protect your hands and arms from cuts on sharp parts, for example when cleaning the underbody or the inside of the wheel housings.**

⚠ WARNING

After the car has been washed, the braking effect could set in later than normal and extend the braking distance as the brake discs and brake pads will be wet, or iced up in winter.

- **You can "dry and de-ice" the brakes by performing careful braking manoeuvres. Make sure that you do not endanger any other road users or violate any legal regulations when doing so.**

ⓘ NOTICE

- **The water should be no warmer than +60°C (+140°F).**
- **Do not wash the vehicle in direct sunlight in order to avoid damage to the vehicle paintwork.**
- **Never clean with insect sponges, rough kitchen sponges or similar products as these can damage the surface.**
- **Never clean the headlights with a dry cloth or sponge. Always use a wet cloth or sponge. It is best to use soapy water.**
- **Washing the vehicle in cold weather: if the vehicle is rinsed with a hose, do not direct the water at the lock cylinders or the gaps around the doors, boot, or bonnet. The locks and seals could freeze.**

ⓘ NOTICE

Observe the following guidelines before driving the vehicle into an automatic car wash in order to avoid damage to the vehicle:

- **Ensure that the gap between the guide rails in the car wash is sufficient for the vehicle track. If the track is too narrow your wheels and tyres will be damaged.**
- **Switch off the rain sensor before driving the vehicle into an automatic car wash.**
- **Check that the car wash is tall and wide enough for your vehicle.**
- **Fold in the exterior mirrors. Electrically folding exterior mirrors must be moved electrically. Do not fold them in and out by hand.**
- **In order to prevent damage to the paintwork on the bonnet, fold the wipers back onto the windscreen after drying the wiper blades. Do not drop the wipers onto the glass.**
- **Lock the tailgate to prevent it from opening accidentally in the car wash.** ◁

Washing the vehicle with a high-pressure cleaner

First read and observe the introductory information and safety warnings ⚠ on page 380.

Follow the instructions provided by the manufacturer when cleaning your vehicle using a high-pressure cleaner. This applies in particular to the **pressure** and the **spraying distance** ⇒⚠.

Maintain sufficient distance to soft materials such as rubber hoses, insulation, and the ParkPilot sensors. The ParkPilot sensors are located in the front bumper, and in some cases also in the rear bumper ⇒ⓘ.

Never use **concentrated jet nozzles** or **dirt blasters** ⇒⚠.

⚠ WARNING

The incorrect use of a high-pressure cleaner can cause visible and invisible long-term damage to tyres and other materials. This can cause accidents and serious injuries.

- **Maintain sufficient distance between the washer jet and the tyres.**
- **Never clean the tyres with concentrated jet nozzles (dirt blasters). The tyres may incur visible and invisible damage even if cleaned briefly with the spray at a distance.**

⚠ WARNING

After the car has been washed, the braking effect could set in later than normal and extend the braking distance as the brake discs and brake pads will be wet, or iced up in winter.

- **You can "dry and de-ice" the brakes by performing careful braking manoeuvres. Make sure that you do not endanger any other road users or violate any legal regulations when doing so.**

ⓘ NOTICE

- **The water may be no warmer than +60°C (+140°F).**
- **Do not wash the vehicle in direct sunlight in order to avoid damage to the vehicle paintwork.**
- **The ParkPilot sensors in the bumpers must be kept clean and free of ice. When cleaning with pressure hoses or steam cleaners, the sensors should only be sprayed briefly and the steam/hose nozzle must be kept more than 10 cm away.**
- **Do not clean windows that are iced over or covered in snow with a high-pressure cleaner.**
- **Washing the vehicle in cold weather: if the vehicle is rinsed with a hose, do not direct the water into the lock cylinders or the gaps round the doors, boot, or bonnet. The locks and seals could freeze.** ◁

Cleaning windows and exterior mirrors

First read and observe the introductory information and safety warnings ⚠ on page 380.

Cleaning windows and exterior mirrors

Moisten the windows and exterior mirrors with commercially available, alcohol-based glass cleaner.

Dry the glass surfaces with a clean chamois leather or a lint-free cloth. Chamois leathers that have been used on painted surfaces are not suitable for use on glass surfaces. They will be soiled with wax deposits which could smear the surfaces.

Use window cleaner or a silicone remover to clean off rubber, oil, grease and silicone deposits ⇒ⓘ. ▶

Removing wax

Car washes and care products could leave **wax deposits** on the glass surfaces. Wax residue can only be removed using a special cleaning product or cleaning cloths. Wax deposits on the windscreen can cause the wiper blades to rub. Volkswagen Commercial Vehicles recommends that a glass cleaning cloth G 052 522 A1 be used to remove wax deposits from the windows and exterior mirrors each time the vehicle is washed.

A window cleaning agent specifically for removing wax will stop the blades rubbing if added to the windscreen wash water. Dilute the cleaner as instructed. Grease-removing cleaners will not remove wax deposits ⇒ⓘ.

Special cleaners, glass cleaners and glass cleaning cloths are available from Volkswagen Commercial Vehicles dealerships.

Removing snow

Use a small brush to remove snow from the windows and exterior mirrors.

Removing ice

The best method for removing ice is to use a deicer spray. If you use an ice scraper, **do not** move it to and fro, but push it in one direction only. Moving the ice scraper backwards can cause dirt to scratch the window.

⚠ WARNING

Dirty or misted windows reduce visibility and increase the risk of accidents and severe injuries.

- **Only drive when you have a clear view through all windows.**
- **Ice, snow and mist must be removed from the inside and outside of all windows.**

ⓘ NOTICE

- **Never combine the recommended cleaning agents with other cleaning agents for use in the windscreen washer fluid. This can cause the ingredients to separate and block the windscreen washer jets.**
- **Never use warm or hot water to remove snow and ice from windows and mirrors. This can cause the glass to crack.**
- **The heating elements for the rear window heater are on the inside of the rear window. Never apply stickers over the heating elements and never clean the inside of the rear window with corrosive or acidic detergents or any other chemicals.** ◁

Cleaning and changing wiper blades

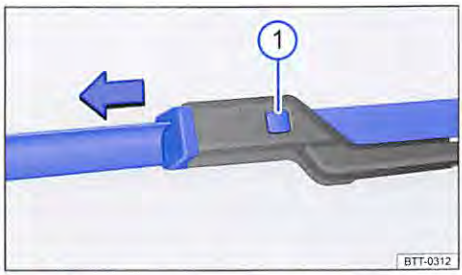


Fig. 285 Changing the wiper blades.

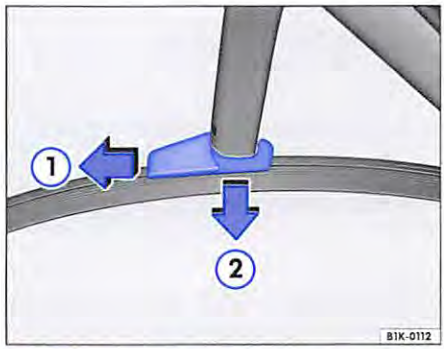


Fig. 286 Changing the rear window wiper blade.

First read and observe the introductory information and safety warnings ⚠ on page 380.

The factory-fitted wiper blades are coated with graphite. The graphite coating ensures that the wiper blade moves quietly over the windscreen. If the graphite coating is damaged, the windscreen wiper will become louder. ▶

Check the condition of the wiper blades on a regular basis. **Rubbing wiper blades** should be changed if damaged or cleaned if dirty ⇒ⓘ.

Damaged wiper blades should be replaced immediately. Wiper blades can be bought from a qualified workshop.

Cleaning wiper blades

Note for the front wipers: move the wiper arms to the service position before lifting them ⇒page 116.

- When lifting the wiper arm hold it **only** by the wiper blade mounting.
- Clean the wiper blade carefully using a damp cloth ⇒ⓘ.
- Place the wiper arm back onto the windscreen.

Changing the wiper blades

- Move the wiper arms to the service position before lifting ⇒page 116.
- When lifting the wiper arm hold it **only** by the wiper blade mounting.
- Press and hold the release button ⇒Fig. 285 ① and simultaneously pull off the wiper blade in the direction of the arrow.
- Insert a new wiper blade with the **same length and design** onto the wiper arm. Push it on until it engages.
- Place the wiper arm back onto the windscreen.

Changing the wiper blade for the rear window

- When lifting the wiper arm hold it **only** by the wiper blade mounting.
- Lift and fold back the wiper arm.
- Release the wiper blade in the direction of the arrow ⇒Fig. 286 ①.
- Pull off the wiper blade in the direction of the arrow ②.
- Insert a new wiper blade with the **same length and design** on to the wiper arm against the direction of the arrow. Push it on until it engages ②.
- Push the release against the direction of the arrow ① in order to lock the wiper blade.
- Place the wiper arm back onto the rear window.

⚠ WARNING

Worn or dirty wiper blades reduce visibility and increase the risk of accidents and severe injuries.

- **Therefore, always change wiper blades if they are damaged and worn and or longer clean the windscreen properly.**

ⓘ NOTICE

- **Damaged or dirty wipers could scratch the windscreen.**
- **Detergents containing solvents, hard sponges and other sharp objects can damage the graphite coating.**
- **Do not use fuel, nail varnish remover, paint thinner or similar products to clean the windows.** ◁

Waxing and polishing the vehicle

First read and observe the introductory information and safety warnings ⚠ on page 380.

Waxing

Waxing protects the paintwork. You will need to re-wax the vehicle with a good **hard wax** if water no longer clearly forms **small drops** and runs off the paintwork when it is *clean*.

Even if a **wax solution** is used regularly in the car wash, Volkswagen Commercial Vehicles recommends protecting the paint with a coat of hard wax at least twice a year.

Polishing

Polishing is only necessary if the paint has lost its shine, and the gloss cannot be brought back by applying wax.

The car must be waxed after polishing if the polish used does not contain wax compounds to seal the paint.

ⓘ NOTICE

- **In order to avoid damage, painted parts with a matt finish, plastic parts, headlight lenses and the tail lights should not be treated with polish or hard wax.**
- **Do not polish your vehicle in a sandy or dusty environment or when the vehicle is dirty.** ◁

Cleaning and caring for chrome and aluminium trim parts

First read and observe the introductory information and safety warnings ⚠ on page 380.

- Use a damp, clean, lint-free and soft cloth to clean the surfaces.
- For heavy soiling use a special **solvent-free** cleaning product.
- Polish the chrome and aluminium trim parts using a soft, dry cloth.

NOTICE

To ensure that the chrome and aluminium parts are not damaged:

- **Do not clean or polish in direct sunlight.**
- **Do not clean or polish in sandy or dusty environments.**

NOTICE (Continued)

- **Do not use any abrasive care products (e.g. cream cleaners).**
- **Never clean with insect sponges, rough kitchen sponges or similar products.**
- **Do not polish any dirty surfaces.**
- **Do not use solvent-based cleaning products.**
- **Do not use hard wax.**

NOTICE

Chrome rims or wheel covers may also have an additional varnish finish and should not be treated using chrome or aluminium cleaning agents or chrome or aluminium polish. A normal commercially available paint cleaning product should be used instead. ◁

Cleaning and caring for the decorative film

First read and observe the introductory information and safety warnings ⚠ on page 380.

Decorative film is a design feature and is made up of soft polyvinyl chloride (PVC).

In the areas of the vehicle where there is decorative film, the underlying paint layer is protected from weather and environmental conditions.

If the decorative film remains on the vehicle for a long time, the appearances of paint on the area protected by the decorative film and the area not covered by the film may begin to show differences. This can usually be rectified by polishing.

Volkswagen Commercial Vehicles recommends that you seek advice from a Volkswagen Commercial Vehicles partner or workshop as to a suitable care product.

Durability of the decorative film

Environmental conditions such as sunlight, moisture, pollution, stone impact, etc. affect the durability and colour of the decorative film. Signs of wear and age are normal and do not indicate a defect in quality.

After the decorative film is fitted, bubble formation may appear due to strong summer heat for example. These bubbles will usually go away without intervention. This will not limit the serviceability of the film in any way.

In warm or moderate climates slight bubble formation may be noticeable after two or three years. In warm or hot climates the decorative film can show signs of wear and slight bubble formation may appear after just one year.

Decorative film may become faded within one year in very hot climates, particularly when there is a build-up of heat due to exposure to sunlight.

Cleaning the decorative film

Decorative film is suitable for automatic car washes provided you do not select a programme with hot wax.

Please pay attention to the information and notes on washing the vehicle ⇒ page 381 and on washing using a high-pressure cleaner ⇒ page 382.

When using presprays and vapour jets always maintain a distance of at least 20 cm between the spray nozzle and the decorative film ⇒ ⓘ.

Insect residue, bird droppings, road dirt, industrial deposits, tar, soot, road salt and other aggressive deposits can cause damage to the decorative film.

The longer the aggressive deposits remain on the decorative film, the worse the negative impact will be. High temperatures (for instance in strong sunlight) accelerate the corrosion process. Immediately wash the vehicle thoroughly using warm water or soapy water ⇒ ⓘ. ▶

Remove stubborn impurities carefully using white spirits, and then rinse using warm water. Do not use any aggressive substances such as petrol, thinner or solvents.

Care of the decorative film

Basically, the same care instructions for vehicle paint apply ⇒ page 384.

Treat the decorative film regularly, every 3 months (no longer) with liquid hot wax. Hot wax smooths the surface and has a dirt-repellent effect.

Only use soft microfibre clothes to apply it.

Volkswagen Commercial Vehicles recommends that you seek advice from a Volkswagen Commercial Vehicles partner or workshop as to a suitable care product.

NOTICE

- **Always direct the nozzle perpendicular to the decorative film edges and surface.**
- **Depending on the condition of the brushes and car wash, fine scratches may appear in the decorative film.**
- **Remove impurities on the decorative film as soon as possible using suitable cleaning agents in order to avoid long-term damage to the film.**

If the surface of the decorative film is damaged, e.g. by the impact of gravel, the damage can only be rectified by replacing the whole decorative film element. Volkswagen Commercial Vehicles recommends having the work carried out by a qualified workshop. ◁

Cleaning wheels

First read and observe the introductory information and safety warnings ⚠ on page 380.

Cleaning steel wheels

An industrial cleaner is needed to remove accumulated brake dust. Steel wheels should therefore be cleaned regularly with a separate sponge.

Any damage to the paint on steel wheels should be touched up before the metal starts to rust.

Caring for and cleaning alloy wheels

Wash grit and brake dust from alloy wheels approximately **every 2 weeks**. Then use an acid-free detergent to clean the wheels. Volkswagen Commercial Vehicles recommends applying a hard wax compound to the wheels approximately **every 3 months**.

It is important to remove road salt and brake dust by washing the wheels at regular intervals, to deter corrosion to the alloy.

Always use an acid-free detergent for alloy wheels. Car polish or other abrasive agents should not be used on the wheels.

If the protective coating is damaged, e.g. by stone impact, the damaged area should be repaired immediately. ◁

Care of rubber seals

First read and observe the introductory information and safety warnings ⚠ on page 380.

The rubber seals on the doors, windows etc. will seal better, remain flexible and last longer if they are treated at regular intervals with a suitable care product.

Use a soft cloth to remove dust and dirt from the rubber seals. ◁

De-icing door lock cylinders

First read and observe the introductory information and safety warnings ⚠ on page 380.

Volkswagen Commercial Vehicles recommends the use of genuine Volkswagen spray with lubricating and anti-corrosive properties to de-ice the lock cylinders.

NOTICE

Do not use lock de-icers containing substances that dissolve grease, as this can cause the door lock cylinder to rust. ◁

Underseal

First read and observe the introductory information and safety warnings ⚠ on page 380.

The underside of the vehicle is coated to protect it from corrosion and damage. The protective coating on the underside of the vehicle could be damaged when driving. Therefore, Volkswagen Commercial Vehicles recommends that the protective coating on the underside of the vehicle and on the running gear should be checked regularly and repaired if necessary.

⚠ CAUTION

Underseal and anti-corrosion coatings can ignite on the hot exhaust system or on other hot engine parts.

- **Never apply underseal or anti-corrosion coatings to the exhaust pipes, catalytic converter, heat shields or other vehicle components that become hot.** ◁

Cleaning the engine compartment

First read and observe the introductory information and safety warnings ⚠ on page 380.

The engine compartment of any motor vehicle is a hazardous area ⚠ ⇒ page 350.

The engine compartment should be cleaned by a qualified workshop. Corrosion protection could be removed and electrical components damaged if the compartment is cleaned incorrectly. Furthermore, water could enter the vehicle interior directly via the plenum chamber ⇒ ⓘ.

If the engine compartment is very dirty, we recommend that you always go to a qualified workshop to have it cleaned by a professional mechanic. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Plenum chamber

The plenum chamber is located in the engine compartment between the windscreen and the engine and has a perforated cover. Air from outside is drawn in from the plenum chamber and is passed into the vehicle interior via the heating and air conditioning system.

Leaves and other loose objects must be removed from the cover of the plenum chamber at regular intervals using a vacuum cleaner or by hand.

⚠ WARNING

All work in the engine compartment carries the risk of injury, scalding, accidents and fire.

- **Before carrying out any work, ensure that you are familiar with the requisite procedures and general safety regulations ⇒ page 350.**
- **Volkswagen Commercial Vehicles recommends having the work carried out by a qualified workshop.**

NOTICE

Water that has entered the plenum chamber via a manual process (e.g. from a high-pressure cleaner) can cause considerable damage to the vehicle. ▶

In the interests of environmental protection, the engine compartment should be washed only in specially provided wash bays. This prevents toxic waste water containing oil, grease and fuel from entering the sewerage system. In some districts, washing the engine compartment anywhere else may be prohibited. ◁

Cleaning and caring for the interior

Introduction

This chapter contains information on the following subjects:

Handling seat covers 389
Cleaning cloth seat covers, fabric trim and Alcantara® upholstery 389
Cleaning and caring for natural leather covers 391
Cleaning leatherette upholstery 392
Cleaning stowage compartments, drink holders and ash trays 392
Cleaning and caring for the dash panel, wooden trims and plastic parts 392
Cleaning seat belts 392
Cleaning cool box 393
Cleaning seat rails 393
Cleaning opaque shades 393

Modern fabrics, such as dark denim, are often not colourfast. Light-coloured upholstery (soft materials or leather) is particularly sensitive to staining caused by these fabrics, even if you are careful. This is not caused by a fault in the upholstery, but by the non-colourfast nature of the garments.

Leaving stains, dirt and other deposits on the surface of vehicle components and cloth seat covers for a long time can make it difficult to clean and treat them. Stains, dirt and deposits may become impossible to remove, particularly if left for a long time.

Additional information and warnings:

- Cleaning and caring for the vehicle exterior ⇒ page 380
- Accessories, modifications, repairs and renewal of parts ⇒ page 394

⚠ WARNING

Car care products can be toxic and hazardous. Unsuitable care products and incorrect application of care products can cause accidents, serious injuries, burns or poisoning.

⚠ WARNING (Continued)

- **The care product must be kept in its original sealed container.**
- **Read the manufacturer's instructions.**
- **Never store car care products in empty food containers, bottles or any other non-original containers as people finding these containers may not know that they contain care products.**
- **Keep children away from care products.**
- **The products can give off harmful fumes during use. They should therefore only be used outside or in well-ventilated spaces.**
- **Never use fuel, turpentine, engine oil, nail varnish remover or other volatile fluids to wash, clean or care for your vehicle. These substances are toxic and highly inflammable.**

⚠ WARNING

Incorrect care and cleaning of vehicle parts can impair the safety features of the vehicle and cause serious injury.

- **Vehicle parts must be cleaned according to the manufacturer's instructions.**
- **Only use approved or recommended cleaning products.**

NOTICE

- **Cleaning products that contain solvents attack the material and may cause irreparable damage.**
- **Stains, dirt and other deposits containing aggressive and solvent-based ingredients attack the material and may cause irreparable damage, even if only left for a short time.**
- **Stains, dirt and other deposits should be removed as quickly as possible and not allowed to dry in.**
- **To avoid damage, stubborn stains should be removed by a specialist cleaning company.** ▶

Suitable care products are available from a Volkswagen Commercial Vehicles dealership. ◁

Handling seat covers

First read and observe the introductory information and safety warnings ⚠ on page 388.

Checklist

Please note the following for the cleaning and maintenance of the seat covers ⇒ⓘ:

✓ Before getting into the vehicle, close all Velcro fasteners that could touch the cloth seat covers and fabric trims. Open Velcro fasteners can cause damage to cloth seat covers and fabric trims.

✓ Avoid the direct contact of sharp-edged items and accessories to the upholstery and fabric trims in order to prevent damage. Accessories include zips, studs, rhinestones on clothing or belts.

✓ Dust and grit in upholstery pores, folds and seams should be removed regularly so that no lasting damage is caused to the surface of the seats by scratching.

✓ Always check whether garments are colourfast to prevent damage to the upholstery. This is especially important for light-coloured upholstery.

ⓘ NOTICE

Ignoring any of the items on this important checklist for maintaining the seat covers can lead to damage or discolouration of the seat covers and fabric trims.

- **Follow the instructions on the checklist.**

Volkswagen Commercial Vehicles recommends that stained upholstery is cleaned by a specialist company. ◁

Cleaning cloth seat covers, fabric trim and Alcantara® upholstery

First read and observe the introductory information and safety warnings ⚠ on page 388.

Cleaning upholstery on seat cushions with seat heating, electrically adjustable seats, or seats containing airbag components

Airbag-related components and electrical connectors may be installed in the driver seat, passenger seat and sometimes also in the rear outer seats. Seat cushions or backrests that are damaged, incorrectly cleaned or treated, or that become wet, may cause damage to the vehicle electrics or trigger a fault in the airbag system ⇒⚠.

Electrical components and connectors are installed in electrically adjustable seats and seat cushions with seat heating. These can be damaged if cleaned or treated incorrectly ⇒ⓘ. This can also result in damage to other parts of the vehicle electrics.

To avoid this please follow these cleaning guidelines:

- Do not use high-pressure cleaners, steam cleaners or coolant spray.
- Do not use washing paste or fine detergent solutions.
- Avoid getting the seat wet.
- Only use detergents that have been approved by Volkswagen.
- If in doubt, consult a specialist cleaning company.

Cleaning upholstery on seat cushions without seat heating, seats that are not electrically adjustable, and seats that do not contain airbag components

- Please read and follow the instructions, notes and warnings on the package before using cleaning products.
- Upholstery, fabric trims, Alcantara® seat covers and carpeting should be cleaned regularly with a vacuum cleaner (brush).
- Do not use high-pressure cleaners, steam cleaners or coolant spray. ▶

- We recommend that you use a soft sponge or commercially available lint-free microfibre cloth for cleaning jobs ⇒ⓘ.
- Clean Alcantara® surfaces with a slightly damp cotton or woollen cloth or a commercially available lint-free microfibre cloth ⇒ⓘ.

General surface soiling of the upholstery and fabric trim can be cleaned with a commercially available foam cleaner.

If the upholstery and fabric trims are generally heavily soiled, consult a Volkswagen dealership for information on suitable cleaning methods before attempting any cleaning. If required, take the vehicle to a specialist cleaning company.

Treating stains

When treating stains, it may be necessary to clean the entire surface and not just the stain itself. This particularly applies if the surface shows general signs of wear. The cleaned area could otherwise be lighter than the surrounding area. If in doubt, consult a specialist cleaning company.

Type of stain	Recommended cleaning method for seat cushions and upholstery
Water-based stains, e.g. coffee, fruit juice.	– Moisten a sponge using water from a spray bottle and treat the stain by wiping in a circular motion. – Wipe clean with an absorbent, dry cloth.
Stubborn stains, e.g. chocolate, foundation.	– Only use detergents that have been approved by Volkswagen. – If required, have the upholstery cleaned by a specialist cleaning company.
Oily stains, e.g. oil, lipstick.	– Only use detergents that have been approved by Volkswagen. – If required, have the upholstery cleaned by a specialist cleaning company.

⚠ WARNING

If there is a fault in the airbag system, the airbag may not trigger correctly, may not trigger at all or may trigger unexpectedly. This can cause severe or fatal injuries.

- **The airbag system should be checked by a qualified workshop as soon as possible.**

ⓘ NOTICE

If the upholstery on electrically adjustable seats or on seat cushions containing airbag components gets wet, electric components and the vehicle electrics could be damaged.

- **Wet seat cushions should be promptly dried out, and their system components checked, at a qualified workshop.**
- **Do not use steam cleaners as the steam pushes the soiling into the fabric and sets it.**

ⓘ NOTICE (Continued)

- **High-pressure cleaners and coolant sprays can damage the upholstery.**

ⓘ NOTICE

- **Brushes should be used on carpets and mats only. Other surfaces could be damaged by brushes.**
- **When washing paste or fine detergent solutions are applied with a damp cloth or sponge, visible edges may appear on the upholstery once it has dried. This can be due to substances such as surfactants. These edges are usually difficult or even impossible to remove.**

ⓘ NOTICE

- **Do not soak Alcantara® under any circumstances.**
- **Do not use leather care products, solvents, wax polish, shoe cream, stain removers or similar products on Alcantara®.**
- **Do not use brushes if cleaning with liquids. This could damage the surface of the material.** ◁

Cleaning and caring for natural leather covers

First read and observe the introductory information and safety warnings ⚠ on page 388.

Please contact a Volkswagen Commercial Vehicles dealership or other qualified workshop if you have any questions on cleaning and caring for the leather equipment in your vehicle.

Care and use

Natural leather is sensitive as it does not have a uniform coating of dye.

- Use a leather cream with sunlight protection and impregnation properties on a regular basis and always after cleaning. The cream nourishes the leather, keeps it breathable and supple and replaces lost moisture. It also protects the surface.
- Leather should be cleaned every 2 to 3 months and fresh stains removed.
- Treat the leather with a special leather care product every six months ⇒ⓘ.
- Apply cleaning and care products sparingly.
- Remove fresh stains such as ink, ball-point pen ink, lipstick, shoe cream etc. as quickly as possible.
- Look after the pigment. Use a special coloured leather cream to refresh the colour where necessary.
- Wipe it off with a soft cloth.

Cleaning

Volkswagen Commercial Vehicles recommends that you use a damp cotton or wool cloth for general cleaning purposes.

Do not let the water soak through the leather or soak into the seams.

Type of stain	Cleaning
Stubborn stains	– Wring out the cloth thoroughly before use and apply a mild soap solution[a]. – Dry with an absorbent, dry cloth.
Water-based stains, e.g. coffee, tea, juice, blood etc.	– Remove fresh stains with an absorbent cloth. – If the stain has already dried, use a suitable cleaning agent ⇒ⓘ.
Oily stains, e.g. oil, lipstick etc.	– Remove fresh stains with an absorbent cloth. – Use a suitable cleaning product for stains that are not yet on the surface ⇒ⓘ. – Treat dry stains with a grease-removing spray ⇒ⓘ.
Difficult stains, e.g. biro, felt tip pen, nail varnish, emulsion paint. shoe polish etc.	– Dry with an absorbent, dry cloth. – Clean with a suitable leather stain remover.

[a] Mild soap solution: 2 tablespoons of neutral soap diluted in 1 litre of water.

NOTICE

- **Do not use solvents, wax polish, shoe cream, spot removers or similar products on leather.**
- **Stains cannot be removed if they has been left on the leather for a long time and have penetrated the surface.**
- **Spilt liquids should be cleaned immediately using an absorbent cloth as the leather surface and the stitching absorb liquids quickly.**

NOTICE (Continued)

- **If the car is left standing outdoors for long periods, the leather should be protected against direct sunlight to prevent it from fading.**

However, slight colour variations will arise in normal use. ◁

Cleaning leatherette upholstery

First read and observe the introductory information and safety warnings ⚠ on page 388.

Only use water and neutral detergents to clean the leatherette upholstery.

NOTICE

Do not use solvents, wax polish, shoe cream, spot removers or similar products on the leatherette upholstery. These may cause the material to become hard and brittle prematurely. ◁

Cleaning stowage compartments, drink holders and ash trays

First read and observe the introductory information and safety warnings ⚠ on page 388.

Cleaning stowage compartments and drink holders

Some stowage compartments and drink holders have a removable rubber insert in the base.

- Moisten a clean, lint-free cloth with water and clean the parts.
- If this does not provide satisfactory results, use a special **solvent-free** plastic cleaning product.

Cleaning the ashtray

- Remove and empty the ashtray.
- Wipe the ashtray with a cloth to clean it.

To clean the snuffer, use a toothpick or similar object to pick out the ashes. ◁

Cleaning and caring for the dash panel, wooden trims and plastic parts

First read and observe the introductory information and safety warnings ⚠ on page 388.

- Moisten a clean, lint-free cloth with water and clean the parts.
- Treat *plastic parts (inside and outside the vehicle) and the dash panel* with a special **solvent-free** plastic cleaning and care product that has been approved by Volkswagen Commercial Vehicles ⇒⚠.
- Treat *wooden trims* with a mild soap solution.

⚠ WARNING

Cleaning agents that contain solvents cause the surface of the airbag modules to become porous. In an accident that triggers the airbag, loose plastic parts can cause serious injury.

- **Never clean the dash panel or the airbag covers with cleansers that contain solvents.** ◁

Cleaning seat belts

First read and observe the introductory information and safety warnings ⚠ on page 388.

Large particles of dirt on the automatic belt prevent it from rolling back properly and thus from working effectively.

The seat belts must never be removed for cleaning purposes.

- Remove dirt with a soft brush ⇒⚠.
- Carefully pull the dirty seat belt right out and leave it out.
- Clean the seat belt with a *mild* soap solution.
- Allow the seat belt fabric to dry completely.
- Do not allow the seat belt to roll up until it has dried completely. ▶

⚠ WARNING

Check the condition of all seat belts regularly. If the belt webbing or any other part of the seat belt becomes damaged have it removed and replaced immediately by a qualified workshop. Damaged seat belts are very dangerous and can cause severe or fatal injuries.

- **Never use chemical cleaning agents on the seat belts or their components. Furthermore the seat belts may not come into contact with corrosive fluids, solvents or sharp objects. These could considerably weaken the webbing.**
- **After cleaning, allow seat belts to dry completely before rolling them up. Otherwise the automatic belt retractors could become damaged and thus impair their function.**

⚠ WARNING (Continued)

- **Avoid allowing foreign bodies or liquids to enter the slot for the seat belt buckle. This could prevent the belt buckle and seat belt from working properly.**
- **Never try to repair, modify or remove the seat belts yourself.**
- **Damaged seat belts must be replaced immediately with new seat belts approved by Volkswagen Commercial Vehicles for your vehicle type. Seat belts subjected to stress and stretched during an accident must be replaced by a qualified workshop. Renewal may be necessary even if there is no apparent damage. The belt anchorage should also be checked.** ◁

Cleaning cool box

First read and observe the introductory information and safety warnings ⚠ on page 388.

- Clean the cool box with a household detergent **before** using it for the first time and whenever it needs cleaning.
- To prevent mould and mildew from forming in the cool box when it is not being used for long periods, place a folded dry towel between the box and its lid. ◁

Cleaning seat rails

First read and observe the introductory information and safety warnings ⚠ on page 388.

Clean the surface of the seat rails on a regular basis ⇒ⓘ.

- Use a narrow nozzle on a vacuum cleaner to remove sand, dirt etc. from the seat rails.

ⓘ NOTICE

If seats are moved when the seat rails are soiled, the seat rails and the seat feet could be damaged. ◁

Cleaning opaque shades

First read and observe the introductory information and safety warnings ⚠ on page 388.

For the best cleaning results have the opaque shades dry cleaned.

Please refer to the information on the labels sewn into the opaque shades before cleaning in a washing machine. ◁

Accessories, modifications, repairs and renewal of parts

Introduction

This chapter contains information on the following subjects:

Running-in 394
Accessories and replacement parts 395
Service fluids and consumables 395
Repairs and technical modifications 396
Repairs and faults in the airbag system 397
Retrofitting two-way radios 398
Information stored in the control units 398
Using a mobile telephone in the vehicle without a connection to the external aerial ... 399
Vehicle lifting points 401

Additional information and warnings:

- Seat belts ⇒page 79
- Airbag system ⇒page 87
- Towing a trailer ⇒page 139
- Ashtray and cigarette lighter ⇒page 161
- Electrical sockets ⇒page 163
- Braking, stopping and parking ⇒page 269
- Pull-away assist systems ⇒page 282
- ParkPilot ⇒page 287
- Reversing camera (Rear Assist) ⇒page 291
- Cruise control system (CCS) ⇒page 295
- Driver Alert System ⇒page 315
- Tyre monitoring system ⇒page 318
- Preparation for working in the engine compartment ⇒page 350
- Engine oil ⇒page 353
- Engine coolant ⇒page 358
- Battery ⇒page 362
- Cleaning and caring for the vehicle exterior ⇒page 380
- Cleaning and caring for the interior ⇒page 388
- Consumer information ⇒page 404
- ⇒Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

⚠ WARNING

Unsuitable spare parts and accessories, incorrectly carried out work, modifications and repairs can lead to damage to the vehicle and cause accidents and serious injuries.

- **Volkswagen Commercial Vehicles strongly recommends you use only approved Volkswagen accessories and Volkswagen Genuine Parts®. These parts and accessories have been specially tested by Volkswagen Commercial Vehicles for suitability, reliability and safety.**
- **Repairs and modifications to your vehicle should only be carried out by a qualified workshop. Qualified workshops have the necessary tools, diagnostic equipment, repair information and qualified personnel.**
- **Never fit parts to your vehicle that are in any way different from the factory-fitted parts.**
- **Never secure or mount objects such as drink holders or telephone holders on or next to the airbag covers or within the deployment zone of the airbag.**
- **Only use rim/tyre combinations which have been approved by Volkswagen Commercial Vehicles for your vehicle type.**

Running-in

First read and observe the introductory information and safety warnings ⚠ on page 394.

Please follow the regulations concerning running-in new parts.

Running in a new engine

Any new engine has to be run in during the first 1,500 kilometres. During its first few hours of running, the internal friction in the engine is greater than later on when all the moving parts have bedded down.

The style of driving during the first 1,500 kilometres will also affect the engine quality. Even after this time – and especially with a cold engine – drive the ▶

vehicle at moderate speeds in order to reduce engine wear and to increase the mileage that the engine can cover. Do not drive at engine speeds that are too low. Always shift down gear if the engine is not running smoothly. **The following applies up to 1,000 kilometres:**

- Do not depress the accelerator fully.
- Do not drive the vehicle at more than 2/3 of the top engine speed.
- Do not drive with a trailer attached.

From 1,000 to 1,500 kilometres, *gradually* increase driving performance to top speed and highest engine speed.

Running in new tyres and brake pads

- New wheels and tyres ⇒ page 367
- Information on the brakes ⇒ page 272

If the engine is run in gently, the life of the engine will be increased and its oil consumption reduced. ◁

Accessories and replacement parts

First read and observe the introductory information and safety warnings ⚠ on page 394.

Volkswagen Commercial Vehicles recommends that you seek advice from a Volkswagen Commercial Vehicles dealership before purchasing accessories, spare parts or service fluids. For example, if the vehicle is to be retrofitted with accessories or if parts have to be renewed. Volkswagen Commercial Vehicle dealerships can recommend accessories, parts and service fluids which are suitable for your requirements. They can also answer any questions you might have regarding official regulations.

Volkswagen Commercial Vehicles recommends you use only approved **Volkswagen accessories** and **Volkswagen Genuine Parts®**. These parts and accessories have been specially tested by Volkswagen Commercial Vehicles for suitability, reliability and safety. A Volkswagen Commercial Vehicles dealership is also qualified for correct installation.

Although the market is constantly scrutinised, Volkswagen Commercial Vehicles cannot assume responsibility for the reliability, safety and suitability of products **Volkswagen Commercial Vehicles has not approved**. Volkswagen Commercial Vehicles can therefore assume no responsibility for these parts, even if they have been approved by an official testing agency or are covered by an official approval certificate.

Any **retro-fitted equipment** which has a direct effect on the vehicle and/or the way it is driven must be approved by Volkswagen Commercial Vehicles for use in your vehicle and bear the **e** mark (the European Union's authorization symbol). These devices include cruise control systems or an electronically controlled suspension.

Any **additional electrical components** fitted that do not serve to control the vehicle itself must bear the CE mark (manufacturer conformity declaration in the European Union). Such devices include refrigerator boxes, laptops and ventilator fans.

⚠ WARNING

Incorrectly performed repairs or modifications to your vehicle can impair the effectiveness of the airbags, cause faults, accidents and fatal injury.

- **Never secure or mount objects such as drink holders, telephone holders either on or next to the airbag covers or within the deployment zone of the airbag.**
- **Objects either on or next to the airbag module covers or are in the deployment zone of the airbags can cause serious or even fatal injuries should the airbags be activated.** ◁

Service fluids and consumables

First read and observe the introductory information and safety warnings ⚠ on page 394.

All service fluids and consumables, e.g. toothed belts, tyres, coolant, engine oil, spark plugs and vehicle batteries, are being constantly developed. For this reason, service fluids and consumables ▶

should be replaced at a qualified workshop. Volkswagen Commercial Vehicles dealers are kept up to date with regard to any changes.

⚠ WARNING

Unsuitable service fluids and consumables, and the incorrect use of these fluids and consumables, can cause accidents, serious injuries, burns or poisoning.

- **Service fluids must be kept in their original sealed container.**
- **Never store service fluids in empty food containers, bottles or any other non-original containers as people finding these containers could drink them.**
- **Keep children away from all service fluids and consumables.**
- **Always read and follow the information and warnings on the service fluid packaging.**

⚠ WARNING (Continued)

- **When using products that give off harmful fumes, always work outdoors or in a well-ventilated area.**
- **Never use fuel, turpentine, engine oil, nail varnish remover or other volatile fluids for vehicle care. They are toxic and highly flammable. They could cause fires and explosions.**

NOTICE

- **Only use suitable service fluids for refilling. Never use the wrong service fluid. Failure to observe this warning can result in serious malfunctions and engine damage.**
- **Optional equipment and other accessories in front of the air inlet reduce the cooling effect of the coolant. The engine may overheat at high ambient temperatures and high engine loads.**

Leaking service fluids can pollute the environment. Spilt service fluids must be collected in suitable containers and disposed of properly and with respect for the environment. ◁

Repairs and technical modifications

First read and observe the introductory information and safety warnings ⚠ on page 394.

Repairs and modifications must always be carried out according to Volkswagen Commercial Vehicles specifications ⇒⚠!

Unauthorised modifications to the electronic components or software in the vehicle may cause faults. As the electronic components are linked together in networks, other systems may be affected by the faults. This can seriously impair safety, lead to excessive wear of components, and also invalidate the type approval for the vehicle.

The Volkswagen Commercial Vehicles dealer cannot be held liable for any damage caused by technical modifications and/or work performed incorrectly.

The Volkswagen Commercial Vehicles dealer cannot be held liable for any damage caused by technical modifications and/or work performed incorrectly. This is also not covered by the Volkswagen guarantee.

Volkswagen Commercial Vehicles recommends that all repairs and technical modifications be performed by an authorised Volkswagen Commercial Vehicles workshop using **Volkswagen Genuine Parts®**.

Vehicles with special auxiliary equipment or body parts

The manufacturer of these components must ensure that these parts (fittings) adhere to the stipulated environmental laws and regulations, particularly the EU directive 2000/53/EC concerning end-of-life vehicles and EU directive 2003/11/EC concerning the restriction on the marketing and use of certain dangerous substances and preparations.

The vehicle owner should keep all assembly documentation for these auxiliary fittings, and pass it on to any scrapping company later engaged. This is to facilitate environmentally responsible disposal for all vehicles, including refitted vehicles.

Windscreen repairs

To function properly, some items of equipment require a camera or sensor, which is located on the inside of the windscreen near the interior mirror. If the windscreen in the viewing field of the camera ▶

or sensors has been damaged, e.g. by stone impact, the windscreen must be replaced. Repairing the crack can lead to malfunction or functional faults in the equipment.

After changing the windscreen, the camera and sensors must be set up and calibrated by a qualified workshop.

⚠ WARNING

Incorrect repairs and modifications can cause functional problems and damage to the vehicle and impair the effectiveness of the driver assist systems. This can result in accidents and severe injuries.

- **Repairs and modifications to your vehicle should only be carried out by a qualified workshop.**

◁

Repairs and faults in the airbag system

First read and observe the introductory information and safety warnings ⚠ on page 394.

Repairs and modifications must always be carried out according to Volkswagen Commercial Vehicles specifications ⇒⚠!

Modifications and repairs to the front bumper, the doors, the front seats, the headliner, or the bodywork should be carried out by a qualified workshop. System components and airbag system sensors might be fitted on these vehicle components.

If you work on the airbag system or remove and install parts of the system when performing other repair work, parts of the airbag system may be damaged. The consequence may be that, in the event of an accident, the airbag inflates incorrectly or does not inflate at all.

Regulations must be observed to ensure that the effectiveness of the airbags is not reduced and that removed parts do not cause any injuries or environmental pollution. Qualified workshops are familiar with these requirements.

Any modifications to the vehicle's suspension could prevent the airbag system from working properly during a collision. For example, using tyre/rim combinations which have not been approved by Volkswagen Commercial Vehicles, lowering the vehicle, making modifications to the suspension rate including work on the springs, struts and shock absorbers could cause the forces which are measured by the airbag sensors and sent to the electronic control unit to change. Some changes to the suspension could cause the forces measured by the sensors to increase. This can lead to the airbag system being triggered in collision scenarios where it normally would not be triggered if modifications to the suspension had not been made. Other modifications can cause the forces measured by the sensors to decrease, therefore preventing the airbag system from being triggered when it should have been.

⚠ WARNING

Incorrect repairs and modifications can cause function problems and damage to the vehicle and impair the effectiveness of the airbag system. This can result in accidents and serious or even fatal injuries.

- **Repairs and modifications to your vehicle should only be carried out by a qualified workshop.**
- **Airbag modules cannot be repaired. They must be replaced.**
- **Never use recycled airbag components or components that have been taken from end-of-life vehicles in your vehicle.**

⚠ WARNING

Modifications to the vehicle's suspension, including the use of unsuitable tyre/rim combinations, can cause the airbag system to work differently and increase the risk of serious or fatal injuries in the event of an accident.

- **Never install any components in the suspension system that do not have the same characteristics as the original factory-fitted components.**
- **Never use tyre/rim combinations that have not been approved by Volkswagen Commercial Vehicles.**

◁

Retrofitting two-way radios

First read and observe the introductory information and safety warnings ⚠ on page 394.

You will need an external aerial to use a two-way radio in the vehicle.

Any retrofit installation of electrical or electronic equipment in the vehicle will affect its vehicle type approval. Under certain circumstances, this can negate the type approval for the vehicle.

Volkswagen Commercial Vehicles has approved the vehicle for use with two-way radios providing the following conditions are observed:

- Correct installation of external aerial.
- A maximum transmitting power of 10 watts.

The equipment can only operate at maximum range with an external aerial.

Check first with a qualified workshop if you wish to use a two-way radio with a transmitting power of over 10 watts. Qualified workshops are familiar with the technical options for retrofitting. Volkswagen Commercial Vehicles recommends using a Volkswagen Commercial Vehicles dealership for this purpose.

Please comply with relevant legislation and the instructions and information given in the operating manuals for radio equipment.

⚠ WARNING

If radio equipment is not secured or not properly secured in the vehicle, it could be flung though the interior during a sudden driving or braking manoeuvre, or in the event of an accident. This can cause injuries.

- **While the vehicle is in motion, always secure radio equipment properly outside the airbag deployment zone or stow them away safely.**

⚠ CAUTION

If you use two-way radios in the car without an external aerial, electromagnetic radiation in the vehicle could exceed limit values. This also applies to external aerials which have not been correctly installed.

- **Two-way radios should only be used in the vehicle if an external aerial is properly connected.**

◁

Information stored in the control units

First read and observe the introductory information and safety warnings ⚠ on page 394.

Your vehicle is factory fitted with electronic control units which are responsible for engine and gearbox management. The control units also monitor the function of the exhaust system and the airbags.

These electronic control units continuously evaluate data relevant to the vehicle while the vehicle is being driven. Only these data will be stored if there are any faults recorded or any deviations from the specified values. This is generally displayed by the indicator lamps on the instrument cluster.

Special units are required to read and evaluate data stored in the control units.

These data are stored so that specialist workshops can diagnose and solve problems. The following data may have been stored:

- Engine and gearbox-relevant data.
- Speed.
- Direction of travel.
- Braking power.
- Seat belt monitor.

The control units never record conversations that take place in the vehicle. It is neither possible nor permitted to use the stored data to create movement profiles.

When the vehicle is being used, situations may arise in which the stored data (alone or in conjunction with other information such as accident reports, vehicle damage, witness statements etc.) can become assignable to a particular person, whereby consultation of an expert and use of the expert's information may be necessary.

In vehicles with an emergency call function via a mobile telephone or other units, the current location can be transmitted. In the event of an accident in which the control units register that an airbag has been triggered, the system can automatically send out a signal. This depends on your service provider. Transmission is possible only in areas with a sufficiently strong mobile telephone signal. ▶

Additional functions that are contractually agreed with the customer, e.g. vehicle positioning in an emergency, allow certain vehicle data to be transmitted from the vehicle.

Event data recorder

The vehicle is **not** fitted with an event data recorder.

Event data recorders temporarily store vehicle information. This provides precise information in the event of an accident. In vehicles with an airbag system, data that might be relevant in the event of an accident can be stored, e.g. impact speed, belt buckle status, seat positions and trigger speed. The scope of the data is manufacturer-specific.

An event data recorder may only be fitted if the owner has approved the procedure. This is covered by legislation in some countries.

Reprogramming control units

All data for the control of components are stored in the control units. Some convenience functions, such as lane change flash, single door unlocking and displays, can be reprogrammed using special workshop equipment. If this is the case, the descriptions in your vehicle wallet will no longer correspond with the original functions. Volkswagen Commercial Vehicles recommends that any reprogramming should be confirmed in the service schedule under "Workshop comments".

Information about possible reprogramming can be obtained from the Volkswagen dealership.

Reading the vehicle's event memory

There is a diagnostic interface for reading the event memories in the vehicle interior ⇒ ⚠. Data relating to the function and status of the electronic control units are stored in the event memory. Additional information on the stored data is available from qualified workshops.

The diagnosis interface is located in the footwell on the driver side behind a cover next to the lever for opening the bonnet.

The event memory should only be read and reset by a qualified workshop.

After a fault has been rectified, the information in the memory pertaining to the fault is deleted. Other memory content is overwritten on an on-going basis.

⚠ WARNING

Incorrect use of the diagnostic interface can cause faults, which can result in accidents and serious injuries.

- **Never read the event memory using the diagnostic interface yourself.**
- **The diagnostic interface should only be read by a qualified workshop.**

◁

Using a mobile telephone in the vehicle without a connection to the external aerial

First read and observe the introductory information and safety warnings ⚠ on page 394.

Both during telephone calls and in standby mode, mobile telephones transmit and receive radio waves, which may also be termed "high-frequency energy". Current scientific literature warns us that radio waves can be harmful to human beings if they exceed certain limits. Government bodies and international committees have introduced threshold values and guidelines to ensure that electromagnetic radiation produced by mobile telephones does not pose a hazard to health. However, there is no proven scientific evidence that demonstrates that cordless telephones are absolutely safe.

For this reason, some experts are calling for more precautions to be taken in the use of mobile telephones, by taking steps to reduce the level of personal exposure to electromagnetic radiation.

If a mobile telephone that is not connected to the vehicle's external aerial is used inside the vehicle, the level of electromagnetic radiation could be higher than when the mobile telephone is connected to an integrated aerial or any other external aerial.

If the vehicle is fitted with a suitable hands-free unit which enables the use of innumerable additional functions of Bluetooth® compatible mobile telephones, this will satisfy the legal requirements in many countries which permit the use of a mobile telephone in a vehicle only if a hands-free unit is used.

The factory-fitted hands-free system in your vehicle has been developed for use with mobile telephones that are compatible with Bluetooth®. Mobile telephones must be carried in a suitable telephone holder or be stored securely in the vehicle. If a telephone holder is used it must be securely attached to the base plate. This is the only way to ▶

ensure that the mobile telephone is securely attached to the dash panel and always within reach of the driver. Depending on which hands-free system is installed, the connection between the mobile telephone and the external aerial is established either via the telephone holder or via an existing Bluetooth® connection between the mobile telephone and the vehicle.

Connecting the mobile telephone is to a telephone aerial integrated in the vehicle or to an external telephone aerial reduces the electromagnetic radiation generated by the telephone which could affect the human body. Using an aerial also improves the quality of the signal.

If a mobile telephone is used in the vehicle interior without this hands-free system, it is not safely secured in the vehicle and also not connected to the vehicle's external telephone aerial. Furthermore, the mobile telephone is not being charged in the telephone holder. It is also likely that the telephone connection will be disrupted and the signal strength will be poor.

No mobile telephone should be used in the vehicle unless it is connected to a hands-free unit. Volkswagen Commercial Vehicles recommends the use of an external aerial when a mobile telephone is used in the vehicle.

Bluetooth® is a registered trademark of Bluetooth® SIG, Inc.

⚠ WARNING

Any mobile telephone that is not secured or is incorrectly secured in the vehicle could be flung though the interior during a sudden driving or braking manoeuvre, or in the event of an accident. This could cause injuries.

- **Mobile telephones, other devices and telephone accessories such as telephone holders, notepads and portable navigation devices must always be secured properly outside of the airbag deployment zones or be stowed in a safe place whilst the vehicle is in motion.**

⚠ WARNING

If mobile telephones or two-way radios that are not connected to an external aerial are used, electromagnetic radiation in the vehicle could exceed limit values and thus be a health hazard for drivers and other vehicle occupants. This also applies to external aerials which have not been correctly installed.

- **Keep mobile telephone aerials at least 20 cm away from pacemakers, as the telephones may affect their functioning.**
- **Do not carry a mobile telephone in your breast pocket above a pacemaker when the telephone is switched on or in standby mode.**
- **Switch off the mobile telephone immediately if you suspect it may be interfering with a pacemaker.**

◁

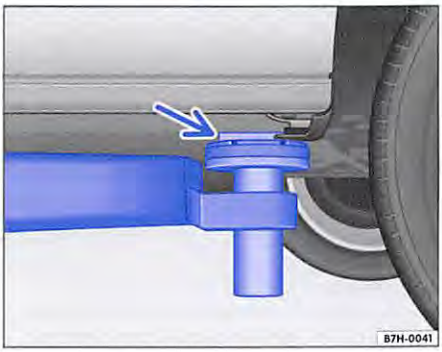


Fig. 287 Lifting points at front for the lifting platform or vehicle jack.

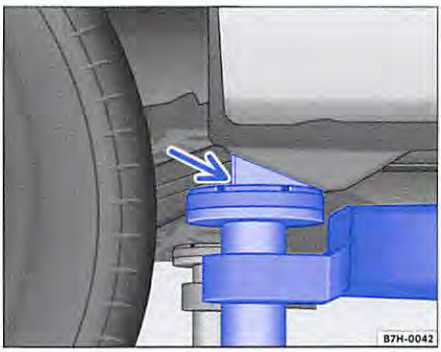


Fig. 288 Lifting points at rear for the lifting platform or vehicle jack.

First read and observe the introductory information and safety warnings ⚠ on page 394.

The vehicle may only be lifted at the points shown in the illustrations ⇒ Fig. 287 and ⇒ Fig. 288. If the vehicle is not raised on the lifting points shown, the vehicle could be damaged ⇒ ⓘ. There is also a risk of serious injury ⇒ ⚠.

Lifting platforms with fluid filled cushions (receiving platforms) may not be used for lifting the vehicle.

There are many precautions that have to be followed when lifting a vehicle on a workshop hoist or floor jack. Do not try to lift a vehicle on a lifting platform or vehicle jack unless you have the training, knowledge and experience to be able to do so safely.

Using the jack to lift the vehicle ⇒ page 423.

⚠ WARNING

Lifting your vehicle incorrectly with a lifting platform or vehicle jack can cause accidents and serious personal injury:

- **Always read and heed the operating instructions from the lifting platform or vehicle jack manufacturer and any legal regulations before lifting the vehicle.**
- **All occupants should leave the vehicle before it is lifted.**
- **The vehicle should only be lifted at the points indicated in the illustrations ⇒ Fig. 287 and ⇒ Fig. 288. If the vehicle is not lifted at the points shown, it could fall off the lifting platform when work is being carried out, e.g. when the engine or gearbox is removed.**
- **The vehicle jacking points must be placed on the centre of the vehicle lift support surfaces, with as much surface contact between the vehicle and the support surfaces as possible.**
- **Never start the engine when the vehicle is raised. The vibration of the engine could cause the vehicle to fall off the lifting point.**
- **If work has to be carried out underneath the lifted vehicle, secure the vehicle with suitable jack stands with a sufficient load-bearing capacity.**
- **Never climb up the lifting platform.**
- **Always check that the vehicle is not heavier than the lifting capacity of the lifting platform.**

ⓘ NOTICE

- **Never lift the vehicle by the engine oil sump, the gearbox or the front or rear axle.**
- **To prevent damage to the underside of the vehicle when lifting, rubber pads must be used. Ensure that the lifting platform arms are able to move freely.**
- **The lifting platform arms must not be allowed to come into contact with the sills or any other part of the vehicle.** ◁

Mobile online services

Introduction

This chapter contains information on the following subjects:

Volkswagen Car-Net services 402
Applications (apps) 404

Information on the Volkswagen Car-Net mobile online services and applications (apps) can be transmitted directly to your vehicle and integrated.

For information on Volkswagen Car-Net services and applications, their availability and the related technical requirements and compatible devices go to www.volkswagen-commercial-vehicles-carnet.com.

Additional information and warnings:

- ⇒page 399, *Using a mobile telephone in the vehicle without a connection to the external aerial*
- ⇒Booklet *Radio, provision for mobile telephone, infotainment system, navigation system*

⚠ WARNING

If mobile equipment is not secured or is incorrectly secured in the vehicle, it could be flung though the interior during a sudden driving or braking manoeuvre, or in the event of an accident. This can cause injuries.

⚠ WARNING (Continued)

- **While the vehicle is in motion, always secure mobile equipment properly outside the airbag deployment zone or stow them away safely.**

⚠ WARNING

Unsuitable or incorrect use of applications and Volkswagen Car-Net services can cause damage to the vehicle, accidents or serious injury.

- **Volkswagen recommends that you only use Volkswagen applications and Volkswagen Car-Net services for your vehicle.**
- **Protect the mobile device and the applications on it from misuse.**
- **Never make changes to applications or Volkswagen Car-Net services.**
- **Observe the user guide for your mobile device.**

⚠ WARNING

Using applications and Volkswagen Car-Net services while driving can distract you from the road. Accidents and injuries can occur if the driver is distracted.

- **Always drive carefully and responsibly.**

NOTICE

Your mobile devices must always be switched off in areas where special regulations apply and when the use of such devices is not permitted. The radiation emitted by these mobile devices when switched on could interfere with sensitive technical and medical equipment, possibly resulting in malfunction of or damage to the equipment. ◁

Volkswagen Car-Net services

First read and observe the introductory information and safety warnings ⚠ on page 402.

Volkswagen Car-Net services encompass both information services such as extended navigation services, and vehicle-related services such as vehicle status, emergency and breakdown services, and convenience operation functions. ▶

The radio communications connection required for Volkswagen Car-Net services is provided by the user's mobile end device, e.g. mobile telephone, SIM card reader. This network signal allows Volkswagen Car-Net services to receive data online, pass on vehicle data online and transmit additional information, new functions or extended vehicle functions. Volkswagen Car-Net offers the driver or user support functions based on vehicle data together with data obtained from the internet and IT systems.

The use of Volkswagen Car-Net and the necessary mobile network connection may be subject to a fee. Due to the potentially high volume of data in use, Volkswagen recommends using a mobile phone tariff which includes a data flatrate. For more information contact your mobile telephone provider.

Depending on the service, Volkswagen Car-Net can be operated via the factory-fitted radio or navigation system, via mobile devices or via the online customer portal (www.volkswagen-commercial-vehicles-carnet.com).

Availability

Volkswagen Car-Net services can be subject to a limited period or changed, set, deactivated, reactivated and expanded without prior notice.

Content, scope and provider of Volkswagen Car-Net services can vary. They may also be specific to the vehicle and country/market. Some Volkswagen Car-Net services also depend on availability of service offered by third parties.

Volkswagen Car-Net services can be subject to region-specific limitations. This means that a service may not be available in all parts of a country. This applies in particular to large countries such as Russia. Availability also depends on the network coverage in each country.

Determining the current vehicle position

Some services require the exact location of the vehicle in order to provide functions. Depending on the service installed the current vehicle position will be transmitted to the service provider. The driver can choose this option or this will take place automatically. When automatic transmission is selected, the current location can also be transmitted at regular intervals.

Lending or selling the vehicle to others

When the vehicle is being sold or lent, the owner or rental/leasing firm must inform the purchasing or lending party about Volkswagen Car-Net services installed in the vehicle and their functions.

Interferences

The following situations could lead to the interruption of a data transfer or operation of Volkswagen Car-Net services, or impairment of one of the services which has been installed:

- High speeds
- Areas with insufficient mobile and GPS reception
- Maintenance, repairs, software updates and technical changes to your service provider's telecommunication networks and databases
- Impairment or interruption to mobile and GPS reception, for instance due to weather, tunnels, garages, car parks, underpasses or intensive use of the mobile network
- In countries where Volkswagen Car-Net services are not available
- A fault in the vehicle electrical system
- Vehicle battery empty or voltage too low
- If the control unit for the Volkswagen Car-Net service or the compatible radio navigation system is not working properly

Exchanging your system

If the factory-fitted radio-navigation system is damaged or must be exchanged in a vehicle with Volkswagen Car-Net services installed, go to a qualified workshop. This may entail re-registering or re-activating the Volkswagen Car-Net services.

Necessary registration

Use of Volkswagen Car-Net services requires registration, authentication and activation of a contract only if Volkswagen Car-Net services for the relevant vehicle can also be activated on the customer portal. Further information about this can be found on the internet at (www.volkswagen-commercial-vehicles-carnet.com) or obtained from a Volkswagen dealer.

If Volkswagen Car-Net services can only be activated using the radio navigation system, registration on the customer portal is **not** required.

Volkswagen recommends seeking advice from a Volkswagen dealership before using and activating Volkswagen Car-Net services. Your Volkswagen dealership can provide information on the country-specific range of services and the compatibility of the radio or navigation systems.

If a Volkswagen Car-Net service is activated for a vehicle, the person who has entered into the mobile telephone contract is obliged to provide information to each driver of the vehicle regarding the transmission and reception of data ▶

in the interest of data protection. Depending on which services are activated, any relevant information must also be given to the driver.

Volkswagen collects, processes, transmits and uses personal data entered by the user within the framework of legal regulations for the purpose of smooth functioning of individual Volkswagen Car-Net services and their provision. Data is not forwarded to third parties. Current terms of use can be found at www.volkswagen-commercial-vehicles-carnet.com.

Volkswagen Car-Net services is a system based on a mobile network. If a fault arises despite the fact that all requirements have been fulfilled, please try using the services again at a later stage. ◁

Applications (apps)

First read and observe the introductory information and safety warnings ⚠ on page 402.

Many mobile devices have the option to download applications (apps). Apps can display additional information regarding factory-fitted radio and navigation systems or can allow you to activate, manage or deactivate certain functions in the vehicle.

Applications, use of applications and the required mobile network may be subject to fees.

The range of applications available can be wide or they can be vehicle-specific and country-specific ⇒ⓘ. Content, range and provider of applications can vary. Some applications also depend on availability of services offered by third parties. A mobile network with sufficient signal strength for exchange of data must be available for the use of applications.

The provider of an application may provide a description of it.

Due to the high number of mobile devices and the fast pace of software development, the applications on offer cannot be operated on all mobile devices and their operating systems. This even applies to mobile devices of the same type. For example, it may be possible to run an app with the second version of an operating system but not with the third version.

Applications can be changed, set, deactivated, reactivated and expanded without prior notice.

The network or cable connection between the factory-fitted radio or navigation system and mobile device must be adequate and free of interruptions to allow for the use of applications.

NOTICE

Volkswagen is not responsible for damage to the vehicle caused by poor quality or faulty applications, insufficient programming of applications, insufficient network strength or loss of data during transmission or by misuse of the mobile equipment. ◁

Consumer information

Introduction

This chapter contains information on the following subjects:

Information stickers and plates 405
Using the vehicle in other countries and continents 405
Radio reception and aerials 406
Volkswagen Commercial Vehicles repair information 406
Declaration of conformity 406
Recycling and scrapping end-of-life vehicles .. 407

Additional information and warnings:

- Exterior views ⇒ page 5
- Pull-away assist systems ⇒ page 282
- Accessories, modifications, repairs and renewal of parts ⇒ page 394
- ⇒ Booklet *Service schedule* ▶

⚠ WARNING

Handling the vehicle incorrectly will increase the risk of accident and injuries.

- **Comply with legal regulations.**
- **Observe the owner's manual.**

NOTICE

Handling the vehicle incorrectly could lead to the vehicle becoming damaged.

- **Comply with legal regulations.**
- **Carry out service jobs in accordance with the service schedule.**
- **Observe the owner's manual.**

Information stickers and plates

First read and observe the introductory information and safety warnings ⚠ on page 404.

Safety certificates, stickers and plates showing important vehicle operation information are factory-fitted in the engine compartment and on certain parts such as the tank flap, front passenger sun visor, the driver door pillar or in the luggage compartment floor.

- Never remove or damage the safety certificates, stickers and plates. They must remain legible at all times.
- If vehicle parts bearing safety certificates, stickers or plates are removed from the vehicle, replacement safety certificates, stickers or plates with the same information must be applied properly to the new parts by the qualified workshop.

Safety certificate

A safety certificate on the door pillar of the driver door provides the information that all necessary safety standards and specifications of the transport safety authorities of the individual country have been met at the time of production. The month and year of production and the chassis number may also be listed.

High voltage warning sticker

There is a sticker near the bonnet lock showing a warning about the high voltage in the vehicle's electrical system. The vehicle's ignition system fulfils the requirements of standards that include Canadian standard ICES-002.

Using the vehicle in other countries and continents

First read and observe the introductory information and safety warnings ⚠ on page 404.

The vehicle has been manufactured specifically for a particular country and complies with the registration regulations that applied in that country at the time of vehicle production.

If you want to use the vehicle abroad for a short period, all relevant information and instructions should be followed ⇒page 34, *Driving abroad*.

If the vehicle is going to be sold in another country or used in another country for an extended period, the legal requirements applicable in that country must be observed.

In some cases, certain equipment will have to be fitted or removed and functions deactivated. The service scope and service types could also be affected. This is particularly important if the vehicle is driven in another climate region for a long period of time.

Because different frequency bands are used in different countries, the factory-fitted radio or navigation system may not work in other countries.

Rail transport

Due to differing tunnel heights and loading standards in some countries, there may be restrictions on transporting your vehicle by rail or special measures may be required. Volkswagen Commercial Vehicles Service will provide information on this.

NOTICE

- **Volkswagen Commercial Vehicles is not responsible for any vehicle damage which is caused by low-quality fuel, inadequate servicing work or lack of availability of Genuine Parts.**

NOTICE (Continued)

- **Volkswagen Commercial Vehicles cannot be held responsible if the vehicle does not comply with or only partly complies with the relevant legal requirements in other countries and continents.** ◁

Radio reception and aerials

First read and observe the introductory information and safety warnings ⚠ on page 404.

The vehicle aerials are located in the exterior mirrors. If any metallic chrome plates, such as chrome mirror caps, are retrofitted to the exterior mirrors, you may experience problems with the radio, mobile telephone and navigation services or they may lose the ability to send and receive signals completely.

Interference with AM radio reception could occur if electrical devices are used in the vicinity of the aerial. ◁

Volkswagen Commercial Vehicles repair information

First read and observe the introductory information and safety warnings ⚠ on page 404.

Volkswagen Commercial Vehicles Service information and official Volkswagen Commercial Vehicles repair information can be purchased from the following addresses:

Please contact a Volkswagen Commercial Vehicles dealership or a qualified workshop or order the literature you require from www.erwin.volkswagen.de.

⚠ WARNING

Incorrect repairs and modifications can cause functional problems and damage to the vehicle and impair the effectiveness of the driver assist systems and the airbag systems. This can result in accidents and severe injuries.

- **Repairs and modifications to your vehicle should only be carried out by a qualified workshop.** ◁

Declaration of conformity

First read and observe the introductory information and safety warnings ⚠ on page 404.

The individual manufacturer declares herewith that the following products conform, at the time of vehicle production, with the basic requirements and other relevant laws and regulations, including FCC Part 15.19, FCC Part 15.21 and RSS-Gen Issue 1:

Radio-based equipment

- Electronic immobilizer.
- Remote control key for the vehicle.
- Remote control for the supplementary heating system (auxiliary heater).

Electrical equipment

- 12-volt socket. ◁

Recycling and scrapping end-of-life vehicles

First read and observe the introductory information and safety warnings ⚠ on page 404.

Recycling end-of-life vehicles

Volkswagen Commercial Vehicles has already made provision for the time when you choose to have your vehicle recycled in an environmentally-friendly manner. The recycling system operating in many European countries will take back your vehicle at the end of its useful life. Once the vehicle has been recycled, a certificate of destruction will be issued to show that the vehicle has been disposed of correctly.

End-of-life vehicles are recycled free of charge, provided that national legislation is complied with.

Further information on the recycling of end-of-life vehicles can be found at a Volkswagen Commercial Vehicles dealership.

Scrapping

The relevant safety requirements must be observed when the vehicle or components of the airbag and the belt tensioners are scrapped. Qualified workshops are familiar with these requirements. ◁

Engine management system and exhaust purification system

Introduction

This chapter contains information on the following subjects:

Indicator lamps 407
Catalytic converter 408
Diesel particulate filter 409

Additional information and warnings:

- Changing gear ⇒page 260
- Filling the tank ⇒page 340
- Fuel ⇒page 343
- Engine oil ⇒page 353
- Battery ⇒page 362
- Information stored in the control units ⇒page 394
- Tow-starting and towing ⇒page 446

⚠ WARNING

The components of the exhaust system become very hot. This can cause fires.

- **Park the vehicle so that no part of the exhaust system can come into contact with any inflammable material underneath the vehicle, e.g. dry grass.**
- **Never apply underseal or anti-corrosion coatings to the exhaust pipes, catalytic converter, diesel particulate filter or the heat shields on the exhaust system.** ◁

Indicator lamps

First read and observe the introductory information and safety warnings ⚠ on page 407.

Lit up	Possible cause	Solution
EPC	Engine management system fault (Electronic Power Control).	The engine should be checked by a qualified workshop as soon as possible.
	Diesel engine is preheating before starting.	⇒page 257
	Fault in catalytic converter.	Decrease speed. Drive carefully to the next qualified workshop. The engine should be checked. ▶

Lit up	Possible cause	Solution
	Diesel particulate filter has become saturated with soot (*except for courier vehicles*).	Drive in 4th gear (manual gearbox) or in gear **D** (DSG® dual clutch gearbox) at a speed of at least 70 km/h (43 mph) for approximately 15 minutes. Observe the valid speed limits ⇒ ⚠. Go to the nearest qualified workshop if the indicator lamp still does not go out ⇒ page 409.
	Only for specially equipped courier vehicles: diesel particulate filter is being regenerated.	If possible, **do not** switch off the engine. Please observe the applicable regulations for switching off the engine in special traffic situations (e.g. at level crossings) ⇒ ⚠. The indicator lamp switches off when the diesel particulate filter has been regenerated.

Flashes	Possible cause	Solution
	Fault in engine management system (diesel engine).	The engine should be checked by a qualified workshop as soon as possible.
	Misfiring, which damages the catalytic converter.	Decrease speed. Drive carefully to the next qualified workshop. The engine should be checked.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Please observe legal requirements if cleaning the diesel particulate filter when in traffic.

- **Follow driving recommendation only if visibility, weather, road and traffic conditions are suitable.**
- **Do not endanger other vehicles on the road.**

⚠ WARNING

The exhaust fumes contain carbon monoxide, an odourless and colourless toxic gas. Carbon monoxide can cause people to lose consciousness. It can also cause death.

- **Never start or run the engine in unventilated or closed spaces.**
- **Never leave the engine running if you leave the vehicle unattended.**

NOTICE

To avoid damage to your vehicle, always observe the indicator lamps and associated warning texts.

If the indicator lamps  ,  or EPC are lit up, fuel consumption may be higher and engine performance reduced. ◁

Catalytic converter

First read and observe the introductory information and safety warnings ⚠ on page 407.

The catalytic converter is used for exhaust gas post-treatment and helps to reduce exhaust emissions. To help ensure long-term functionality in the exhaust system and the catalytic converter: ▶

- Use unleaded petrol only.
- Do not allow the fuel tank to run empty.
- Do not overfill engine oil ⇒ page 353.
- Do not tow-start the vehicle. Use jump leads ⇒ page 443.

If you notice misfiring, uneven running or loss of power when the vehicle is moving, reduce speed immediately. The vehicle should be inspected at the nearest qualified workshop. If this happens, unburnt fuel can enter the exhaust system and escape into the atmosphere. The catalytic converter can also be damaged by overheating.

Even when the exhaust purification system is working perfectly, there may be a smell of sulphur from the exhaust in some conditions. This depends on the sulphur content of the fuel being used. ◁

Diesel particulate filter

First read and observe the introductory information and safety warnings ⚠ on page 407.

The diesel particulate filter filters out soot particles in the exhaust gas. The soot particles gather in the filter and are burnt under high temperatures periodically (**regeneration**). Heat produced can warm the engine.

Regeneration can cause noises, light smells and delay in radiator fan irrespective of the outside temperature, even after the engine is switched off.

To assist the regeneration of diesel particle filter, Volkswagen recommends that you avoid making only short journeys. In vehicles with a DSG® dual clutch gearbox the engine speed can increase while the vehicle is being driven. However, the indicator lamp will not light up.

Observe the following points to ensure that the exhaust system and the diesel particulate filter will work properly for a long time:

- Only use diesel with low sulphur levels ⇒ page 343.
- Never use biodiesel, petrol or heating oil.
- Do not allow the fuel tank to run empty.
- Do not overfill engine oil ⇒ page 353.
- Do not tow-start the vehicle. Use jump leads ⇒ page 443.

Even when the exhaust purification system is working perfectly, there may be a smell of sulphur from the exhaust in some conditions. This depends on the sulphur content of the fuel being used.

Note for courier vehicles: vehicles with diesel particulate filter are identified accordingly with a sticker. ◁

Practical tips

Frequently asked questions

If you suspect that a vehicle fault has arisen or your vehicle has been damaged, read and observe the following information **before** contacting a Volkswagen Commercial Vehicles dealership or qualified workshop. You may also find useful information in the index under the headings "Things to note" or "Checklist".

To note	Some possible causes	Possible solution
Engine does not start.	Vehicle battery is discharged.	– How to jump start ⇒page 443. – Recharge vehicle battery ⇒page 362.
	The incorrect vehicle key is being used.	Use a valid vehicle key ⇒page 36.
	Fuel level is too low.	Fill the tank ⇒page 340.
Smoke is coming from the wing.	Supplementary heating system is running.	Switch off the supplementary heating system ⇒page 332.
	Supplementary heater is running.	No solution ⇒page 345.
Vehicle cannot be locked or unlocked with the remote control key.	– Battery in the remote control key is flat. – Located too far away from the vehicle. – Buttons were pressed outside the range.	– Replace the battery ⇒page 36. – Move closer to the vehicle. – Synchronise the vehicle key ⇒page 36. – Lock or unlock the vehicle manually ⇒page 413.
Unusual noises.	Cold engine, brake assist systems, supplementary heating system.	Refer to the index under entries for "Noises".
Unusual handling.	Assist systems are active.	Refer to the index under entries for "Assist systems".
	DSG® dual clutch gearbox is too hot.	Stop the vehicle immediately ⇒page 266.
Front seats cannot be adjusted electrically.	Vehicle battery is discharged.	Recharge vehicle battery ⇒page 362.
	Fuse blown.	Check fuse and replace as necessary ⇒page 429.
The vehicle has no vehicle jack, spare wheel or breakdown set.	Equipment depends on type of vehicle.	No direct solutions possible as it depends on the equipment level. Contact a Volkswagen Commercial Vehicles dealership if necessary ⇒page 416.
The interior monitoring system triggers a false alarm.	– Windows or sliding roof are open. – Item attached to the interior mirror is moving. – A mobile telephone is vibrating inside the vehicle.	Remove any objects that could trigger a false alarm ⇒page 44.
Functions are not working as described in the owner's manual.	Settings have been made in the Volkswagen information system.	Check and if necessary reset back to factory settings ⇒page 24.

To note	Some possible causes	Possible solution
The road ahead is not lit up properly.	– Headlights are adjusted for driving on the left or right. – Headlight beams set too high. – Bulbs are defective. – The dipped beam headlights are not switched on.	– Change over the headlights for driving on the left or right ⇒ page 106. – Set the headlight range ⇒ page 106. – Change the bulbs ⇒ page 432. – Switching on dipped headlights ⇒ page 106.
Electrical consumers not working.	Low vehicle battery charge.	Recharge vehicle battery ⇒ page 362.
	Low fuel level.	Fill the tank ⇒ page 340.
	Fuse blown.	Check fuse and replace as necessary ⇒ page 429.
Fuel consumption is higher than indicated.	– Short journeys. – Uneven acceleration.	– Avoid short journeys. – Think ahead when driving. – Accelerate evenly.
	An electrical consumer is switched on.	Switch off all consumers that are not needed.
	Fault in engine management system.	Have the fault rectified ⇒ page 407.
	Tyre pressure too low.	Adjust the tyre pressure ⇒ page 367.
	Driving in hilly regions.	No direct solutions possible.
	Driving with a trailer or roof carrier.	– Check whether it is needed. – Remove when not being used.
	Driving with a heavy load.	No direct solutions possible.
	Driving at high engine speed.	Select a high gear. ◁

In an emergency

Introduction

This chapter contains information on the following subjects:

Making you and your vehicle safe 412
First aid kit, warning triangle, high-visibility waistcoat and fire extinguisher 413

Additional information and warnings:

- Braking, stopping and parking ⇒ page 269
- Manual opening and closing ⇒ page 413
- Vehicle toolkit ⇒ page 416
- Changing a wheel ⇒ page 420

⚠ WARNING

Any broken-down vehicle increases the risk of accidents in road traffic – both for you and other road users.

- **Stop the vehicle as soon as possible and when safe to do so. Park the vehicle at a safe distance from moving traffic in order to lock all doors securely in an emergency. Switch on the hazard warning lights to warn other road users.**
- **Never leave children or people requiring assistance alone in the vehicle when the doors are locked. This may mean that they are locked in the vehicle in an emergency. People locked in the vehicle may be subjected to very high or very low temperatures.** ◁

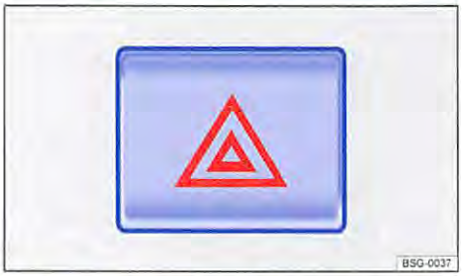


Fig. 289 In the middle of the dash panel: hazard warning light switch.

First read and observe the introductory information and safety warnings ⚠ on page 411.

Observe any legislation concerning the safety of a broken down vehicle. For example, many countries stipulate that you have to switch on the hazard warning lights and wear a high-visibility waistcoat ⇒page 413.

Checklist

To ensure your own safety and the safety of your passengers, observe the following actions in the specified order ⇒⚠:

1. Stop the vehicle at a safe distance away from moving traffic and on a suitable surface ⇒⚠.
2. Switch on the hazard warning lights using the ⚠ button ⇒Fig. 289.
3. Apply the handbrake ⇒page 269.
4. Select the neutral position or move the selector lever to **P** ⇒page 260.
5. Stop the engine and remove the key from the ignition ⇒page 257.
6. Ensure that all occupants exit the vehicle and go straight to a safe place away from moving traffic, e.g. behind the safety barrier.
7. Take all vehicle keys with you when you leave the vehicle.
8. Place the warning triangle in position to draw the attention of other road users to your vehicle.
9. Allow the engine to cool down and seek expert assistance.

When the hazard warning lights are switched on, for example if the vehicle is being towed, a change in direction or lane change can still be indicated by operating the turn signal. The warning lights will be interrupted temporarily.

Switch on the hazard warning lights:

- When traffic ahead suddenly starts moving more slowly or you reach the tail end of a traffic jam, to will warn vehicles behind you.
- When there is an emergency.
- When the vehicle breaks down.
- When the vehicle is being towed.

Always follow local regulations for the use of the hazard warning lights.

If the hazard warning lights are not working, use an alternative method of drawing attention to the broken-down vehicle. This method must comply with traffic legislation.

⚠ WARNING

Ignoring any of the items on this important safety checklist can lead to accidents and severe injuries.

- **Always follow the instructions in the checklist and observe the general safety procedures.**

⚠ WARNING

The components of the exhaust system become very hot. This can cause fires and serious injuries.

- **Park the vehicle so that no part of the exhaust system can come into contact with any inflammable material underneath the vehicle, e.g. dry grass, fuel.**

The vehicle battery will discharge if the hazard warning lights are left on over a long period of time – even when the ignition is switched off.

If you brake hard at speeds over approximately 60 km/h (37 mph), the brake lights will flash to warn the traffic behind. If you then continue to brake, the hazard warning lights will be switched on automatically at speeds under approximately 10 km/h (6 mph). The brake light will light up steadily. Once the vehicle starts to accelerate, the hazard warning lights will switch off again. ◁

First aid kit, warning triangle, high-visibility waistcoat and fire extinguisher

First read and observe the introductory information and safety warnings ⚠ on page 411.

High-visibility waistcoat

In some vehicles there is a stowage compartment for a high-visibility waistcoat in the driver door ⇒ page 9.

Warning triangle

The warning triangle must comply with legal requirements.

First aid kit

The **first aid kit** must comply with legal requirements. Comply with the expiry dates of the contents.

In some vehicles, there is a bag containing the warning triangle and first aid kit next to the vehicle toolkit.

To *remove* the bag, pull it inwards by the long end at the front while turning it downwards slightly.

In vehicles with a kitchenette, the first aid kit is located on the rear panel of the left stowage compartment in the kitchen unit.

Fire extinguisher

Before using the fire extinguisher, make sure you are familiar with its operation. If an operating manual is supplied with the fire extinguisher, place it in the vehicle wallet.

The **fire extinguisher** must comply with the valid legal requirements. It must be fully functional and checked regularly. See the test certificate on the fire extinguisher.

⚠ WARNING

In the event of a sudden driving or braking manoeuvre or accident, loose objects could be flung though the vehicle and cause severe injuries.

- **Always secure the fire extinguisher, high-visibility waistcoat, first aid kit and warning triangle safely in the holders.**

Manual opening and closing

Introduction

This chapter contains information on the following subjects:

Unlocking the driver door manually 414
Unlocking the tailgate manually 414
Closing the sliding/tilting roof manually 415
Unlocking the selector lever lock manually . . . 415

Should the radio signal of the remote control key or the central locking system fails, the doors, tailgate and sliding/tilting roof can be locked and, with some exceptions, unlocked manually.

Additional information and warnings:

- Vehicle key set ⇒ page 36
- Central locking system ⇒ page 39
- Doors ⇒ page 45
- Tailgate ⇒ page 49
- Sliding/tilting roof ⇒ page 58
- Closing the electric pop-up roof manually, California ⇒ page 192
- Securing the pop-up roof manually from outside the vehicle, California ⇒ page 192
- In an emergency ⇒ page 411

⚠ WARNING

Careless manual opening and closing can cause serious injury.

- **If the vehicle is locked from the outside, the doors and windows cannot be opened from the inside.**
- **Never leave children or people requiring assistance alone in the vehicle. They could become trapped in the vehicle in an emergency and may not be able to get themselves to safety.**
- **Temperatures inside a locked vehicle may reach extremes of heat or cold, according to season. This can cause serious injuries and illness or fatalities, especially to small children.**

⚠ WARNING

The path of the doors, tailgate and sliding/tilting roof is a dangerous area. Injuries could be sustained here.

⚠ WARNING (Continued)

- **Therefore doors, the tailgate and the sliding/tilting roof should only be opened or closed when nobody is in their path.**

NOTICE

When carrying out manual opening or closing remove and install parts carefully in order to avoid damage to the vehicle. ◁

Unlocking the driver door manually

First read and observe the introductory information and safety warnings ⚠ on page 413.

If unlocked manually, only the driver door is unlocked. Observe information on the anti-theft alarm ⇒ page 39.

- Fold the key bit out of the remote control key ⇒ page 36.
- Insert the key bit into the driver door lock cylinder and unlock the vehicle. The anti-theft alarm remains activated. However, the alarm will not be triggered.
- Switch on the ignition within 15 seconds. When the ignition is switched on, the electronic immobilizer recognises a valid remote control key and deactivates the anti-theft alarm system. ◁

Unlocking the tailgate manually



Fig. 290 In the vehicle interior: removing the cover in the tailgate.

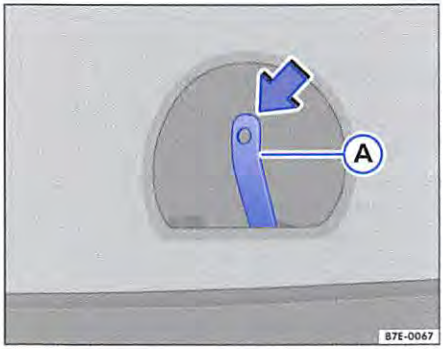


Fig. 291 release lever in the tailgate

First read and observe the introductory information and safety warnings ⚠ on page 413.

- Ensure that the childproof lock is not engaged.
- Remove the round cover from the interior trim on the tailgate ⇒ Fig. 290.
- Push the release lever ⇒ Fig. 291 Ⓐ in the direction of the arrow to unlock the tailgate.

In some vehicles, there is a rubber stopper instead of the cover. Carefully lever it out with the screwdriver from the vehicle toolkit. ◁

Closing the sliding/tilting roof manually

First read and observe the introductory information and safety warnings ⚠ on page 413.

- Take the screwdriver from the vehicle toolkit.
- Remove cover with the sliding/tilting roof rotary button. Use the flat blade of the screwdriver sideways between the cover and the roof console and pull it downwards.
- Fit a commercially available hexagon key[1] of the right size in the hexagon socket head bolt and push the hexagon key approximately 2 mm upwards.
- Turn the hexagon key to close the sliding/tilting roof.
- Remove the hexagon key and fit the cover again. The cover should lie flush with the surrounding parts.
- The sliding/tilting roof should be checked by a qualified workshop. The functioning and roll-back function of the sliding/tilting roof could malfunction if it is closed manually. ◁

Unlocking the selector lever lock manually

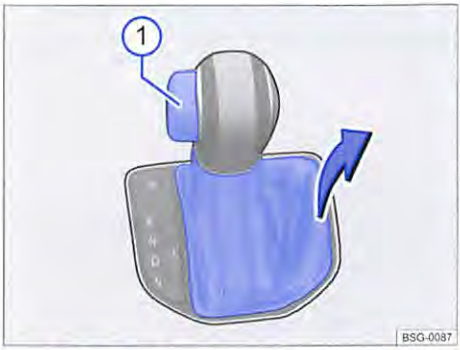


Fig. 292 Removing the cover of the gearshift gate.

First read and observe the introductory information and safety warnings ⚠ on page 413.

If the power fails in the vehicle (for example if the battery is discharged) and the vehicle has to be pushed or towed, the manual release mechanism must be used to put the selector lever in the **N** position.

The manual release mechanism is located under the cover of the gearshift gate.

Preparation

- Apply the handbrake.
- Switch off the ignition.

Removing the cover of the gearshift gate

- Using one finger, reach into the selector lever gaiter at the indicated point ⇒ Fig. 292 (arrow) and pull the cover upwards out of the dash panel.
- Pull the cover up and over the selector lever ⇒ ⚠.

Unlocking the selector lever lock manually

- Push the yellow release lever to the rear and hold it there.
- Press the lock button (1) on the selector lever and put the selector lever into position **N**.

⚠ WARNING

Never move the selector lever out of the position P if the handbrake is not firmly applied. Otherwise the vehicle could move unexpectedly if it is stopped on an incline, which could lead to accidents and serious injuries.

NOTICE

The automatic gearbox will become damaged if the vehicle is allowed to roll for a long period of time or at a high speed (for example while being towed) with the selector lever in position N and the engine switched off. ◁

[1] Not included in the vehicle toolkit.

Vehicle toolkit

Introduction

This chapter contains information on the following subjects:

Stowage 416
Contents 417

Observe any country-specific legislation when securing your vehicle in the event of a breakdown.

Additional information and warnings:

- Seat functions, passenger compartment ⇒page 72
- Stowage ⇒page 150
- Preparation for working in the engine compartment ⇒page 350
- In an emergency ⇒page 411
- Changing a wheel ⇒page 420
- Breakdown set ⇒page 425

⚠ WARNING

In the event of a sudden driving or braking manoeuvre or accident, a loose vehicle tools container, breakdown set and spare wheel could be flung though the vehicle and cause severe injuries.

- **Always ensure that the vehicle toolkit, breakdown set and spare wheel are secured safely in the vehicle.**

⚠ WARNING

Unsuitable or damaged tools in the vehicle toolkit can lead to accidents and injuries.

- **Never work with unsuitable or damaged tools from the vehicle toolkit.** ◁

Stowage

First read and observe the introductory information and safety warnings ⚠ on page 416.

The vehicle toolkit and the removable ball coupling for the towing bracket can be located in different places depending on the model.

Model	Stowage	Action
Multivan, California Beach	In the luggage compartment possibly above the left-hand rear wheel housing:	Loosen securing strap if necessary[a]. If necessary, loosen the bolt to remove the vehicle jack.
California Coast and Ocean	In the stowage compartment on the rear of the bench seat/ bed:	Open the stowage compartment.

[a] In vehicles with a 3-seat bench in the fourth row of seats, the 3-seat bench needs to be supported with the support rod so you can reach the vehicle toolkit ⇒page 72

After using the vehicle jack, crank it back to its original position so that it can be stored safely. ◁

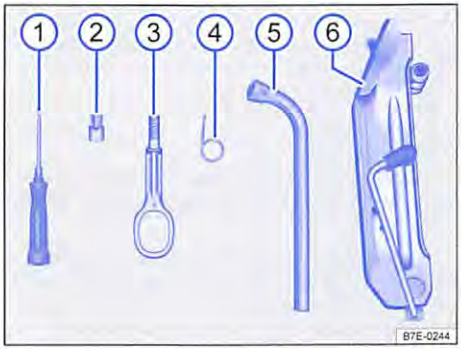


Fig. 293 Contents of the vehicle toolkit.

First read and observe the introductory information and safety warnings ⚠ on page 416.

The content of the vehicle toolkit is determined by the vehicle equipment level. The following describes the maximum scope.

Contents of the toolkit ⇒ Fig. 293	
①	Screwdriver with hexagon socket in the handle for slackened wheel bolts. The screwdriver blade is reversible. The screwdriver is located in the box spanner.
②	Adapter for the anti-theft wheel bolts. Volkswagen Commercial Vehicles recommends you carry the wheel bolt adapter in the vehicle toolkit at all times. The **code number** of the anti-theft wheel bolt is stamped on the front of the adapter. You will need this number to replace the adapter if lost. Make a note of the code number for the anti-theft wheel bolt and keep it in a safe place – but not inside the vehicle.
③	Removable towing eye.
④	Wire hook for pulling off the centre covers, wheel covers, the wheel bolt caps and the cover for the screw-in towing eye at front.
⑤	Box spanner for wheel bolts.
⑥	Vehicle jack. Before you return the vehicle jack to the toolbox, fully wind in the claw. To stow the vehicle jack securely the crank lever must be braced against the side of the jack.

Vehicle jack: maintenance

There are no maintenance cycles for the vehicle jack. Grease it with universal lubricant when necessary. ◁

Hubcaps

Introduction

This chapter contains information on the following subjects:

Centre cover 418
Wheel cover 419
Wheel bolt caps 419

Additional information and warnings:

- Cleaning and caring for the vehicle exterior ⇒page 380
- Vehicle toolkit ⇒page 416
- Changing a wheel ⇒page 420
- Breakdown set ⇒page 425 ▶

⚠ WARNING

Using unsuitable hubcaps, or fitting them incorrectly, can cause accidents and serious injuries.

- **Incorrectly fitted hubcaps can become loose while the vehicle is in motion and endanger other road users.**
- **Do not use damaged hubcaps.**

⚠ WARNING (Continued)

- **Make sure that the airflow to cool the brakes is never restricted or reduced. This also applies if hubcaps are retrofitted. If the airflow is not sufficient, the braking distance could increase significantly.**

NOTICE

- **Remove the hubcaps carefully and fit them again properly so as to avoid damage to the vehicle.**
- **Volkswagen Commercial Vehicles recommends driving only with fitted cover caps, centre covers or wheel covers. If cover caps, centre covers or wheel covers are not fitted for long periods the wheel hubs and bearings can be damaged.** ◁

Centre cover



Fig. 294 Removing the centre covers by pulling.

First read and observe the introductory information and safety warnings ⚠ on page 417.

To remove, take the wire hook from the vehicle toolkit, and insert it into a hole in the cover ⇒ Fig. 294. Then, pull the cover off in direction of arrow.

To replace, press the centre cover against the rim until you feel it engage. ◁

Wheel cover

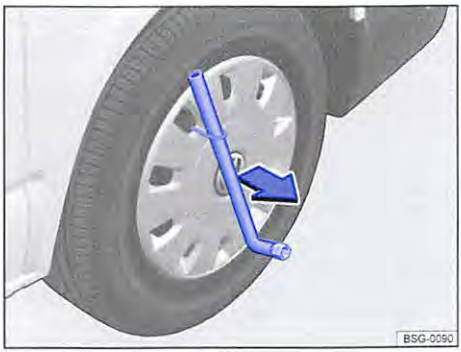


Fig. 295 Removing the wheel covers.

First read and observe the introductory information and safety warnings ⚠ on page 417.

Removing the wheel covers

- Take the box spanner and wire hook from the vehicle toolkit ⇒ page 416.
- Insert the wire hook into one of the holes in the wheel cover.
- Push the box spanner through the wire hook ⇒ Fig. 295 and remove the wheel cover in the direction of the arrow.

Fitting the wheel covers

Before fitting the wheel cover, the anti-theft wheel bolt must be screwed into position ⇒ Fig. 298 ② or ③. Otherwise, it will not be possible to fit the wheel cover.

The wheel covers must be pushed on to the rims with the hole for the valve aligned with the valve ⇒ Fig. 298 ①. When fitting the wheel cover make sure that it engages securely on the entire circumference. ◁

Wheel bolt caps



Fig. 296 Removing the wheel bolt caps.

First read and observe the introductory information and safety warnings ⚠ on page 417.

- Take the wire hook from the vehicle toolkit ⇒ page 416.
- Insert the hook through the opening in the cap ⇒ Fig. 296 and pull off in the direction of the arrow.

The caps protect the wheel bolts and must be replaced after changing the tyre.

The **anti-theft wheel bolt** has a separate cap. It only fits onto the anti-theft wheel bolts and not onto conventional wheel bolts. ◁

Changing a wheel

Introduction

This chapter contains information on the following subjects:

Preparations for changing a wheel 420
Wheel bolts 421
Lifting the vehicle with the jack 423
Changing a wheel 424
After changing a wheel 425

Some models are delivered without a factory-fitted jack or box spanner. If this is the case, the wheel should be changed by a qualified workshop.

The vehicle jack supplied with the vehicle is only designed for changing a wheel when one vehicle tyre is damaged and has to be replaced. Seek expert assistance if both tyres on one side of the vehicle, both tyres on one axle, or all tyres are damaged.

Only change the wheel yourself when the car is parked in a safe place, you are familiar with the necessary steps and safety procedures and you have access to all the correct tools. Seek expert assistance if this is not the case.

Additional information and warnings:

- Exterior views ⇒ page 5
- Vehicle key set ⇒ page 36
- Tyre monitoring system ⇒ page 318
- Wheels and tyres ⇒ page 367
- In an emergency ⇒ page 411
- Vehicle toolkit ⇒ page 416
- Hubcaps ⇒ page 417

⚠ WARNING

Changing a wheel can be dangerous, especially when carried out at the side of a road. Please note the following steps in order to reduce the risk of serious injuries:

- **Stop the vehicle as soon as possible and when safe to do so. Park the vehicle at a safe distance from moving traffic in order to carry out the wheel change.**
- **All passengers and children in particular must be at a safe distance and away from your area of work during the wheel change.**
- **Switch on the hazard warning lights to warn other road users.**
- **Check that the surface the vehicle is parked on is level and firm. If necessary use a large, strong board or similar support for the vehicle jack.**
- **Only change the wheel yourself if you feel confident carrying out the procedure. If not, seek expert assistance.**
- **Always use suitable and undamaged tools to change the wheel.**
- **Always switch off the engine, apply the handbrake and move the selector lever to the position P or select a gear on a manual gearbox in order to reduce the risk of unintended vehicle movement.**
- **The wheel bolt tightening torque should be checked with a torque wrench immediately after changing a wheel.**

◁

Preparations for changing a wheel

First read and observe the introductory information and safety warnings ⚠ on page 420.

Checklist

The following actions must always be carried out in the given order in preparation for changing the wheel ⇒ ⚠:

1. In the event of a flat tyre, park your vehicle on a firm and level surface at a safe distance from the flow of traffic.
2. Apply the handbrake ⇒ page 269.
3. With a DSG® dual clutch gearbox, move the selector lever to position **P** ⇒ page 260.
4. Stop the engine and remove the key from the ignition ⇒ page 257.
5. Manual gearbox: select a gear ⇒ page 260.
6. Make sure all vehicle occupants exit the vehicle and move to safety, for instance behind the safety barrier.
7. Chock the wheel diagonally opposite the wheel being worked on with a stone or a similar object.

▶

Checklist (Continued)

8. When towing a trailer, unhitch the trailer from the vehicle and park it properly.
9. Remove any items of luggage from the luggage compartment.
10. Remove the spare wheel and vehicle tools from the vehicle.
11. Remove the hubcaps ⇒page 417.

⚠ WARNING

Ignoring any of the items on this important safety checklist can lead to accidents and severe injuries.

- **Always follow the instructions in the checklist and observe the general safety procedures.**

Wheel bolts

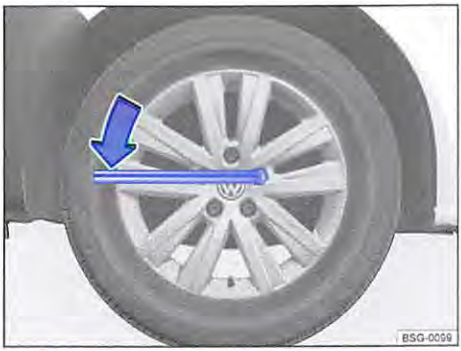


Fig. 297 Loosening the wheel bolts for changing the wheels.

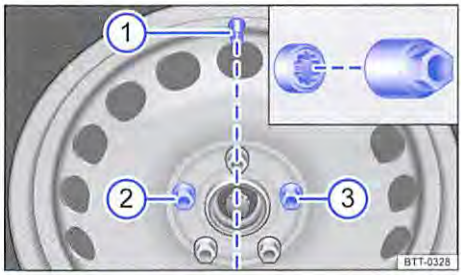


Fig. 298 Tyre valve ① and locations of the anti-theft wheel bolt ② or ③

First read and observe the introductory information and safety warnings ⚠ on page 420.

Only the spanner delivered with the vehicle should be used to loosen the wheel bolts.

Only loosen the wheel bolts by approximately one turn before raising the vehicle with the vehicle jack.

If the wheel bolt is very tight, you may be able to loosen it by pushing down the end of the spanner carefully with your foot. Hold on to the car for support and take care not to slip.

Loosening the wheel bolts

- Fit the box spanner over the wheel bolt as far as it will go ⇒Fig. 297.
- Hold the end of the box spanner and turn the wheel bolt *one* turn anticlockwise ⇒⚠.

Loosening the anti-theft wheel bolt

The anti-theft wheel bolt must be bolted into position ⇒Fig. 298 ② or ③ on wheels with a wheel cover. Otherwise, it will not be possible to fit the wheel cover.

- Take the adapter for anti-theft wheel bolts out of the vehicle toolkit.
- Insert the adapter into the anti-theft wheel bolt. Push it in as far as it will go.
- Insert the box spanner into the adapter as far as it will go.
- Hold the end of the box spanner and turn the wheel bolt *one* turn anticlockwise ⇒⚠.

Important information about the wheel bolts

The design of the wheel rims and wheel bolts is matched to the factory-fitted wheels. If different rims are fitted, the correct wheel bolts with the right length and correctly shaped bolt heads must be used. This ensures that wheels are fitted securely and that the brake system works properly.

In certain circumstances, wheel bolts from a vehicle of the same model series may not be used.

Tightening torque for the wheel bolts

The tightening torque for wheel bolts for steel and alloy wheels is **180 Nm**. The tightening torque should be checked with a torque wrench immediately after changing a wheel.

If the wheel bolts are corroded and difficult to turn, they must be replaced and the wheel hub threads cleaned **before the tightening torque is checked**.

Never grease or lubricate the wheel bolts or the threads of the wheel hub. This could cause them to loosen while the vehicle is in motion, even if the required torque setting is used.

⚠ WARNING

Incorrectly tightened wheel bolts can loosen while the vehicle is in motion and cause accidents, serious injury, and loss of control of the vehicle.

- **Only use wheel bolts that belong to the wheel.**
- **Never use different wheel bolts.**
- **The wheel bolts and threads of the wheel hubs must be clean, free from oil and grease, and turn easily.**

⚠ WARNING (Continued)

- **Always use the box spanner placed in the vehicle at the factory to loosen and tighten the wheel bolts.**
- **Only loosen the wheel bolts by approximately one turn before raising the vehicle with the vehicle jack.**
- **Never grease or lubricate the wheel bolts or the threads of the wheel hub. This could cause them to loosen while the vehicle is in motion, even if the required torque setting is used.**
- **Never remove the bolts on rims with bolted-on rings.**
- **If the tightening torque of the wheel bolts is too low, the wheel bolts and rims can loosen while the vehicle is in motion. The wheel bolts and threads can be damaged if the tightening torque is too high.**

◁

Lifting the vehicle with the jack

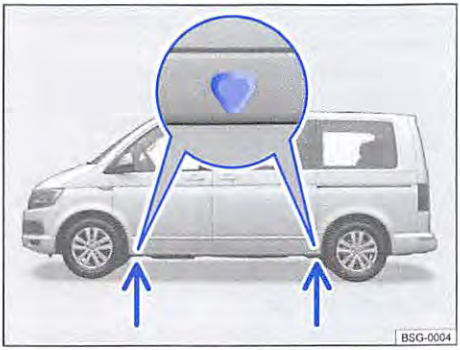


Fig. 299 Jacking points.

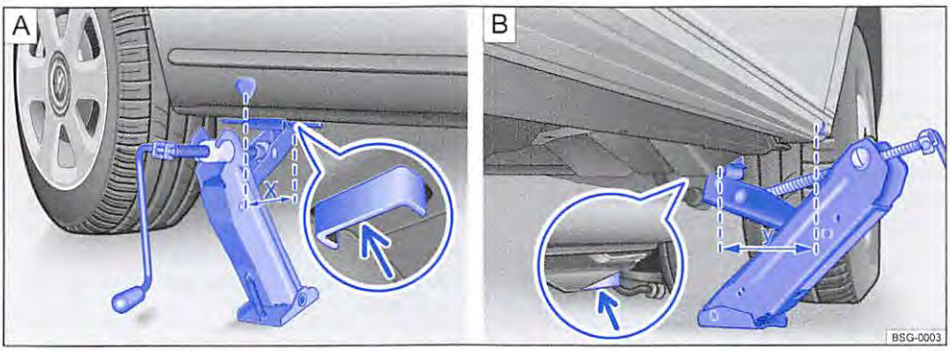


Fig. 300 On the left side of the vehicle: jack fitted at the front A and at the rear B.

First read and observe the introductory information and safety warnings ⚠ on page 420.

The jack may be applied only at the jacking points shown (markings on the body) ⇒ Fig. 299.

- Front jacking point: web **under** the vehicle, at a distance approx. of 9 cm (dimension x) from the outer edge of the vehicle ⇒ Fig. 300 A.
- Rear jacking point: web **under** the vehicle, at a distance approx. of 15 cm (dimension y) from the outer edge of the vehicle ⇒ Fig. 300 B.

The jack may be applied only on this rib.

Always use the jacking point closest to the wheel you are working on ⇒ ⚠.

Checklist

To ensure your own safety and the safety of your passengers, observe the following actions in the specified order ⇒ ⚠:

1. Find a firm and level surface suitable for lifting the vehicle.
2. Stop the engine, select a gear of the manual gearbox or move the selector lever of the dual clutch gearbox DSG® to position **P** ⇒ page 260, and apply the handbrake ⇒ page 269.
3. Chock the wheel diagonally opposite using the collapsible chocks or other suitable objects.
4. When towing a trailer, unhitch the trailer from the vehicle and park it properly.
5. Loosen the wheel bolts on the wheel that is being changed ⇒ page 421.
6. Find the jacking point under the vehicle ⇒ Fig. 299 which is closest to the wheel that is being changed. ▶

Checklist (Continued)

7. Raise the vehicle jack until it just fits under the jacking point of the vehicle.
8. Make sure that the foot of the jack is resting securely on the ground with its whole surface and that its axis of rotation is positioned precisely, i.e. vertically beneath the point of application. For better clarity, extend the line from the point of application to the axis of rotation of the jack foot ⇒ Fig. 300.
9. Position the vehicle jack. At the same time, continue to crank the claw up until it is in position around the vertical rib underneath the vehicle ⇒ Fig. 300.
10. Crank the vehicle jack further until the wheel is just clear of the ground.

⚠ WARNING

Incorrect use of the vehicle jack can cause the vehicle to slip off the jack, which can lead to severe injuries. Please note the following points in order to reduce the risk of injuries:

- **Only use vehicle jacks which have been approved by Volkswagen Commercial Vehicles for your vehicle type. Other vehicle jacks could slip out of position – this includes vehicle jacks supplied with other Volkswagen models.**
- **The ground must be firm and level. Soft ground or surfaces at an incline under the vehicle jack may cause the vehicle to slip off the jack. If necessary use a large, strong board or similar support for the vehicle jack.**

⚠ WARNING (Continued)

- **On a hard, slippery surface (such as tiles) use a rubber mat or similar to prevent the vehicle jack from slipping.**
- **Fit the vehicle jack only at the points described. The vehicle jack claw must grip the vertical rib under the door sill securely ⇒ Fig. 300.**
- **Never place any part of your body (e.g. an arm or leg) underneath the vehicle if the latter is only supported by the vehicle jack.**
- **If you have to work underneath the vehicle, use suitable stands to provide extra support for the vehicle.**
- **Never lift the vehicle when the engine is running, or if the vehicle is tilted to the side or on a gradient.**
- **Never start the engine when the vehicle is raised on a vehicle jack. Engine vibrations can cause the vehicle to fall off the vehicle jack.**

⚠ WARNING

Ignoring any of the items on this important safety checklist can lead to accidents and severe injuries.

- **Always follow the instructions in the checklist and observe the general safety procedures.** ◁

Changing a wheel



Fig. 301 removing the wheel bolts with the screwdriver handle.

First read and observe the introductory information and safety warnings ⚠ on page 420.

Removing the wheel

- Read the checklist ⇒ page 420.
- Loosen the wheel bolts ⇒ page 421.
- Jack up the vehicle ⇒ page 423.
- Using the hexagonal socket in the screwdriver handle ⇒ Fig. 301, unscrew the loosened wheel bolts, remove and place on a clean surface.
- Remove the wheel.

Fitting the spare wheel

Note any specific tyre running direction ⇒ page 367. ▶

- Clean the area around the fastening holes of the spare wheel.
- Position the spare wheel.
- Insert the anti-theft wheel bolt using the adapter at position ⇒ Fig. 298 (2) or (3) and tighten it slightly.
- Screw in all the other wheel bolts in a clockwise direction and use the box spanner to tighten them *gently*.
- Lower the vehicle with the jack.
- Use the box spanner to tighten all the wheel bolts securely in a clockwise direction ⇒ ⚠. Do not tighten the bolts in clockwise or anticlockwise sequence. Tighten them in diagonal sequence.
- Fit the cover caps, centre covers or wheel covers ⇒ page 417.

⚠ WARNING

Incorrect torque or incorrect use of wheel bolts can lead to a loss of control of the vehicle, cause accidents and serious injuries.

- **Always keep all wheel bolts and threads in the wheel hubs clean and free from oil and grease. The wheel bolts must be easy to turn and be tightened to the specified torque.**
- **The hexagonal socket in the screwdriver handle should only be used for turning wheel bolts, not use for loosening or tightening them.**

◁

After changing a wheel

First read and observe the introductory information and safety warnings ⚠ on page 420.

- If necessary, clean the vehicle tools and stow them safely in the vehicle ⇒ page 416.
- Stow the spare wheel or the removed wheel safely under the vehicle.
- The tightening torque of the wheel bolts should be checked immediately with a torque wrench ⇒ page 421.
- The damaged wheel should be replaced as soon as possible.

In vehicles with a tyre monitoring system, the system may have to "re-learn" if new tyres are fitted ⇒ page 318. ◁

Breakdown set

Introduction

This chapter contains information on the following subjects:

Storing 426
Contents of the breakdown set 427
Preparation 427
Sealing and inflating tyres 428
Test after driving for 10 minutes 429

You can use the breakdown set (tyre mobility set) to safely seal any tyre damage caused by foreign bodies or punctures (up to **4 mm (0.16 inches)** in diameter). **Do not remove foreign objects (e.g. screws or nails) from the tyre!**

Once the sealant has been added to the tyre, the tyre pressure must be checked again after approximately 10 minutes of driving.

Seek expert assistance if more than one vehicle tyre is damaged. The breakdown set is only designed for filling one tyre.

Only use the breakdown set if the car is parked in a safe place, you are familiar with the required actions and safety procedures, and you have access to the correct breakdown set. Seek expert assistance if this is not the case.

The tyre sealant must not be used:

- If the rim is damaged.
- If the outside temperature is below -20°C (-4°F).
- If there are cuts or punctures in the tyre that are larger than 4 mm. ▶

- If the tyre pressure is very low or the tyres are flat.
- If the use-by date on the tyre filler bottle has expired.

Additional information and warnings:

- Vehicle key set ⇒ page 36
- Seat functions, front ⇒ page 69
- Stowage ⇒ page 150
- Braking, stopping and parking ⇒ page 269
- Wheels and tyres ⇒ page 367
- In an emergency ⇒ page 411
- Hubcaps ⇒ page 417

⚠ WARNING

Using the breakdown set can be dangerous, especially if the tyres are inflated at the roadside. Please note the following points in order to reduce the risk of serious injuries:

- **Stop the vehicle as soon as possible and when safe to do so. Park the vehicle at a safe distance from moving traffic in order to fill the tyre.**
- **Check that the surface the vehicle is parked on is level and firm.**
- **All passengers, and children in particular, must be at a safe distance and away from your area of work.**
- **Switch on the hazard warning lights to warn other road users.**
- **The breakdown set should only be used if you feel confident with carrying out the procedure. If not, seek expert assistance.**

⚠ WARNING (Continued)

- **Tyres repaired with the breakdown set are intended for temporary, emergency use only. They should only be used until you can reach the nearest qualified workshop.**
- **Tyres that have been repaired using the breakdown set should be replaced as soon as possible.**
- **Sealant is hazardous to health and must be washed off immediately if it gets onto the skin.**
- **The breakdown set must be stored out of the reach of children.**
- **Never use a vehicle jack, even if it is approved for the vehicle.**
- **Always switch off the engine, apply the handbrake and move the selector lever to the position P or select a gear on a manual gearbox in order to reduce the risk of unintended vehicle movement.**

⚠ WARNING

Tyres that have been filled with sealant will not handle in the same way as a standard tyre.

- **Never drive faster than 80 km/h (50 mph).**
- **Avoid full acceleration, sudden braking and fast driving through bends in the road.**
- **Drive for just 10 minutes at no more than 80 km/h (50 mph) and then check the tyre.**

Dispose of used or out-of-date sealant in accordance with legal requirements.

You can get a new tyre filler bottle from a Volkswagen Commercial Vehicles dealership.

Observe the separate instructions from the manufacturer of the breakdown set. ◁

Storing

First read and observe the introductory information and safety warnings ⚠ on page 425.

The breakdown set can be located in different places depending on the model.

Model	Stowage
Multivan	In the drawer in the 3-seat bench or in the drawer of the rear left single seat.
California	Behind the load-through hatch cover on the side of the bench seat/bed. ◁

Contents of the breakdown set

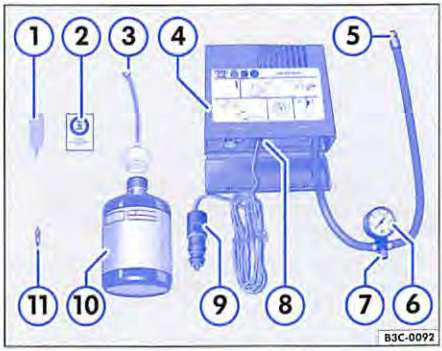


Fig. 302 The breakdown set.

First read and observe the introductory information and safety warnings ⚠ on page 425.

The breakdown set consists of the following components ⇒ Fig. 302:

① Valve core extractor
② Sticker with the maximum permitted speed "max. 80 km/h" or "max. 50 mph"
③ Filler hose with plug
④ Air compressor
⑤ Tyre filler hose
⑥ Tyre pressure display[1)]
⑦ Air bleed screw[2)]
⑧ On/off switch
⑨ 12-volt plug
⑩ Tyre filler bottle with sealant[1)]
⑪ Spare valve core

There is a slot on the lower end of the **valve insert extractor** ① for the valve insert. This is required for extracting and fitting the tyre valve. This also applies to the spare valve core ⑪. ◁

Preparation

First read and observe the introductory information and safety warnings ⚠ on page 425.

The steps should only be carried out in the specified order.

Checklist

The following actions must always be carried out in the given order in preparation for filling a tyre ⇒ ⚠:

1. If you get a flat tyre, park your vehicle on a firm and level surface at a safe distance from the flow of traffic.
2. Apply the handbrake firmly ⇒ page 269.
3. With a DSG® dual clutch gearbox, move the selector lever to position **P** ⇒ page 260.
4. Manual gearbox: select a gear ⇒ page 263.
5. Stop the engine and remove the key from the ignition ⇒ page 257.
6. Ensure that all vehicle occupants exit the vehicle and go straight to a safe place, e.g. behind the safety barrier.
7. Switch on the hazard warning lights and position the warning triangle ⇒ page 411. Observe any legal requirements.
8. Check whether the puncture can be repaired with the breakdown set ⇒ page 425.
9. When towing a trailer, unhitch the trailer from the vehicle and park it properly.
10. Remove any items of luggage from the luggage compartment.
11. Take the breakdown set out of the luggage compartment.
12. Take the sticker ⇒ Fig. 302 ② from the breakdown set and stick it on the dash panel within the driver's field of vision.
13. Do **not** remove foreign objects (e.g. screws or nails) from the tyre.

⚠ WARNING

Ignoring any of the items on this important safety checklist can lead to accidents and severe injuries. ▶

1) Could also be integrated in the compressor.
2) This function may be carried out by a button in the compressor instead.

⚠ WARNING (Continued)

- **Always follow the instructions in the checklist and observe the general safety procedures.**

◁

Sealing and inflating tyres

First read and observe the introductory information and safety warnings ⚠ on page 425.

Sealing a tyre

- Unscrew the cap from the tyre valve.
- Use the valve core extractor ⇒Fig. 302 ① to screw the valve core out of the tyre valve. Place the core on a clean surface.
- Shake the tyre filler bottle ⇒Fig. 302 ⑩ vigorously up and down several times.
- Screw the filler hose ⇒Fig. 302 ③ tightly onto the tyre filler bottle in a clockwise direction. The plastic foil on the plug is pierced automatically.
- Remove the plug from the filler hose ⇒Fig. 302 ③ and place the open end fully on the tyre valve.
- Hold the bottle upside down and inject the **entire** contents of the tyre filler bottle into the tyre.
- Remove the empty tyre filler bottle from the valve.
- Use the valve core extractor ⇒Fig. 302 ① to screw the valve core back onto the tyre valve.

Inflating the tyre

- Screw the tyre filler hose ⇒Fig. 302 ⑤ of the air compressor tightly onto the tyre valve.
- Check that the bleed screw ⇒Fig. 302 ⑦ is closed.
- Start the engine and let it run.
- Insert the plug ⇒Fig. 302 ⑨ into one of the vehicle's 12-volt sockets ⇒page 163.
- Use the on/off switch ⇒Fig. 302 ⑧ to switch on the air compressor.
- Run the compressor until the tyre pressure has reached 2.0 – 2.5 bar (29 – 36 psi / 200 – 250 kPa) ⇒⚠. **The maximum running time is 6 minutes** ⇒ⓘ.
- Switch off the air compressor.
- If a pressure level of 2.0 – 2.5 bar (29 – 36 psi / 200 – 250 kPa) **cannot be achieved** unscrew the tyre filler hose from the tyre valve.
- Drive (or reverse) the vehicle approximately 10 metres so that the sealing compound is more evenly distributed in the tyre.
- Screw the tyre filler hose for the air compressor firmly back onto the tyre valve and inflate the tyre again.
- If the required pressure still cannot be reached, the tyre is too badly damaged. The tyre cannot be sealed with the breakdown set. Do not drive on. Seek expert assistance ⇒⚠.
- Disconnect the air compressor and unscrew the tyre filler hose from the tyre valve.
- Drive the vehicle no faster than 80 km/h (50 mph) once a tyre pressure of 2.0 – 2.5 bar (29 – 36 psi / 200 – 250 kPa) has been reached.
- Check the tyre pressure after driving for **10 minutes** ⇒page 429.

⚠ WARNING

The tyre filler hose and the air compressor can get hot during inflation.

- **Protect your hands and skin from the hot components.**
- **Do not place the hot tyre filler hose or the hot air compressor on any inflammable materials.**
- **Allow the device to cool down fully before stowing.**
- **If the tyre will not inflate to at least 2.0 bar (29 psi / 200 kPa), the tyre is too damaged. The sealant is unable to seal the tyre. Do not drive on. Seek expert assistance.**

ⓘ NOTICE

Switch the air compressor off after a maximum of 6 minutes to avoid overheating. Let the air compressor cool down for a few minutes before switching it back on.

◁

Test after driving for 10 minutes

First read and observe the introductory information and safety warnings ⚠ on page 425.

Reconnect the tyre filler hose ⇒ Fig. 302 ⑤ and check the tyre pressure on the Tyre Pressure Loss Indicator ⑥.

1.3 bar (19 psi / 130 kPa) and lower:

- **Do not drive on!** The tyre cannot be sealed adequately with the breakdown set.
- Seek expert assistance ⇒⚠.

1.4 bar (20 psi / 140 kPa) and higher:

- Set the tyre pressure back to the correct value ⇒page 367.
- Resume your journey to the nearest qualified workshop. Do not exceed a maximum speed of 80 km/h (50 mph).
- The damaged tyre should be replaced at the qualified workshop.

⚠ WARNING

Driving with an unsealed tyre is dangerous as it can cause accidents and serious injuries.

- **Do not carry on driving if the tyre pressure is 1.3 bar (19 psi / 130 kPa) or lower.**
- **Seek expert assistance.**

Fuses

Introduction

This chapter contains information on the following subjects:

Fuse box in the dash panel 430
Fuses in the engine compartment 431
Changing a blown fuse 431

At the time of print we are unable to provide an up-to-date overview of the locations of the fuses for the electrical consumers. This is because the vehicle is under constant development, because fuses are assigned differently depending on the vehicle equipment level and because several consumers may use a single fuse. You can get more information about the fuse layout from a Volkswagen Commercial Vehicles dealership.

Several electrical consumers could share a single fuse. Conversely, a single consumer could have more than one fuse.

Therefore fuses should only be replaced when the cause of the fault has been rectified. If a new fuse blows shortly after insertion, have the electrical system checked by a qualified workshop as soon as possible.

Additional information and warnings:

- Drink holder ⇒page 153
- Preparation for working in the engine compartment ⇒page 350
- Battery ⇒page 362

⚠ WARNING

High voltages in the electrical system can cause electric shocks, serious burns and death.

- **Never touch the electrical wiring of the ignition system.**
- **Avoid causing short circuits in the electrical system.**

⚠ WARNING

Using unsuitable or repaired fuses and bridging an electrical circuit without fuses can cause a fire and serious injuries.

⚠ WARNING (Continued)

- **Never fit fuses that have a higher fuse protection limit. Fuses must always be replaced by a new fuse with the same amp rating (same colour and markings) and size.**
- **Never repair a fuse.**
- **Never use a metal strip, paper clip or similar objects to replace a fuse.**

NOTICE

- **To avoid damage to the electrical system in the vehicle, switch the ignition, the lights and all electrical consumers off and remove the vehicle key from the ignition before changing a fuse.**
- **You can damage another position in the electrical system by using a fuse with a higher amp rating.**
- **Fuse boxes must be protected from dirt and moisture when opened. Dirt and moisture in the fuse boxes can damage the electrical system.** ◁

Fuse box in the dash panel

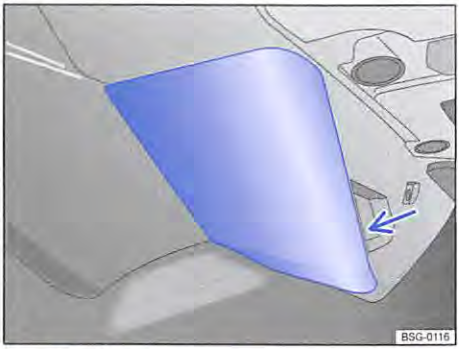


Fig. 303 At the bottom of the centre console: fuse box cover.

First read and observe the introductory information and safety warnings ⚠ on page 429.

Opening and closing the fuse box in the dash panel

- Grasp into the recess ⇒Fig. 303 (arrow), and carefully open the cover.
- Carefully pull the cover out of the mountings, and remove it.
- When fitting the cover, first insert it into the mountings and then engage it on the opposite side.

NOTICE

- **Remove the covers for the fuse boxes carefully and fit them again properly so as to avoid damage to the vehicle.**
- **Fuse boxes must be protected from dirt and moisture when opened. Dirt and moisture in the fuse boxes can damage the electrical system.**

This chapter does not refer to all the fuses in the vehicle. These should be changed only by a qualified workshop. ◁

Fuses in the engine compartment

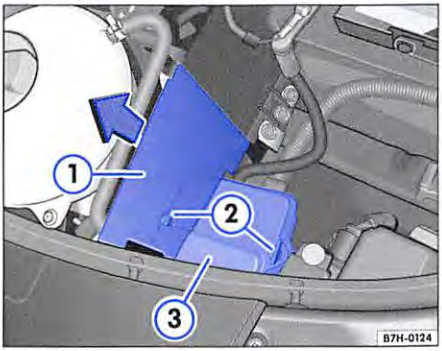


Fig. 304 In the engine compartment: fuse box cover.

First read and observe the introductory information and safety warnings ⚠ on page 429.

Opening the fuse box in the engine compartment

- Open the bonnet ⚠ ⇒page 350.
- If necessary, remove the battery cover. Turn the quick release catches 90° ⚠ ⇒page 362.
- Lift out the partition ⇒Fig. 304 ①.
- Turn both quick release catches 90°.
- Hold the fuse cover ③ at the front, and fold it upwards.

Closing the fuse box in the engine compartment

- Close the fuse cover and turn both quick release catches.
- Insert partition. Make sure that the two grooves of the partition fit securely into the rib on the fuse cover and the rib on the vertical partition.

NOTICE

- **Remove the covers for the fuse boxes carefully and fit them again properly so as to avoid damage to the vehicle.**
- **Fuse boxes must be protected from dirt and moisture when opened. Dirt and moisture in the fuse boxes can damage the electrical system.**

This chapter does not refer to all the fuses in the vehicle. These should be changed only by a qualified workshop. ◁

Changing a blown fuse

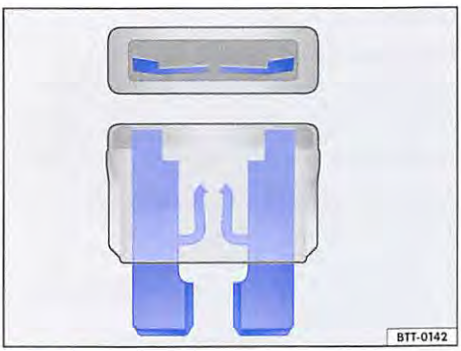


Fig. 305 A blown fuse.

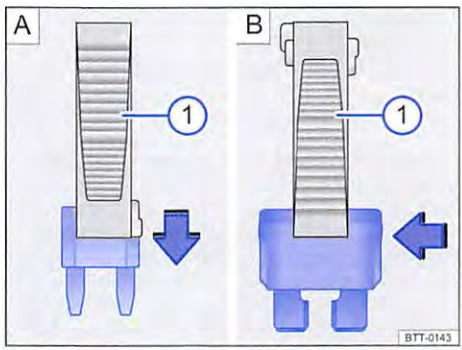


Fig. 306 Removing or fitting a fuse using the plastic pliers ①.

First read and observe the introductory information and safety warnings ⚠ on page 429.

Preparation

- Switch off the ignition, the lights and all electrical consumers.
- Open the appropriate fuse box ⇒page 430. ▶

Detecting a blown fuse

If the metal strip is melted this indicates that the fuse has blown ⇒ Fig. 305.

Shine a torch onto the fuse. This will help you to spot the blown fuse more easily.

Changing a fuse

- If applicable, take the plastic pliers ⇒ Fig. 306 ① out of the fuse box cover.
- For *small fuses*, push the catch on ① from above ⇒ Fig. 306 A.
- For *larger fuses*, push the catch ① onto the fuse from the side ⇒ Fig. 306 B.
- Pull out the blown fuse.
- If the fuse has blown, replace it with a new fuse of the *same* amp rating (same colour and same markings) and *same* size ⇒ ⓘ.
- Replace the cover.

NOTICE

You can damage another position in the electrical system by using a fuse with a higher amp rating. ◁

Changing bulbs

Introduction

This chapter contains information on the following subjects:

Indicator lamp 433
Information on changing bulbs 433
LED lights on the vehicle 434
Changing bulbs in H4 halogen headlights ... 435
Changing bulbs in H7 halogen headlights ... 437
Changing bulbs in the LED headlights 438
Changing the bulbs in the fog light 439
Changing the bulbs in the tail light cluster on vehicles with tailgate 440
Changing the bulbs in the tail light cluster on vehicles with wing doors 441
Changing the bulbs in the LED tail light cluster 442
Changing the side turn signal bulbs 443

Changing the vehicle bulbs requires considerable technical skill. Therefore if you do not feel confident with the procedure, Volkswagen Commercial Vehicles recommends having the bulbs changed by a Volkswagen Commercial Vehicles dealership or other professional assistance. You must contact a qualified workshop if other vehicle parts around the lights need to be removed or LED lights need to be replaced.

You should keep a box with spare light bulbs for the lights that ensure the vehicle is roadworthy in the vehicle at all times. Spare bulbs are available from Volkswagen Commercial Vehicles dealers. In some countries it is a legal requirement to have these spare bulbs in the vehicle.

It may be illegal to drive with a defective bulb in the exterior lighting.

You can change the following bulbs yourself:

- Bulbs of the halogen headlights.
- Turn signal bulb in the LED headlights.
- Bulbs in non-LED tail light cluster.
- Turn signal and reversing light bulb in the LED tail light cluster.
- Bulb of turn signal repeater.
- Bulb of fog lights.

All LED lights in the vehicle should always be changed by an expert.

Additional bulb specifications

Some bulbs in headlights or in tail light clusters might have factory specifications that are different to standard bulbs. The designation is inscribed on the bulb, either on the glass part or on the base.

Additional information and warnings:

- Exterior views ⇒ page 5
- Lights and vision ⇒ page 106
- Preparation for working in the engine compartment ⇒ page 350
- Vehicle toolkit ⇒ page 416
- Fuses ⇒ page 429

WARNING

Accidents can occur if roads are not sufficiently illuminated and other road users have difficulty seeing the vehicle, or cannot see it at all. ▶

⚠ WARNING

Changing the bulb incorrectly can cause accidents and serious injuries.

- **When working in the engine compartment, always read and observe the safety warnings ⇒ page 350. The engine compartment of any motor vehicle is a dangerous area. Serious injuries can be sustained here.**
- **Halogen bulbs are pressurised and could explode when they are being changed.**
- **Only change the defective bulb once it has had time to cool down completely.**
- **Never change a bulb unless you are familiar with the procedure. If you are uncertain of what to do, the work should be carried out by a qualified workshop.**

⚠ WARNING (Continued)

- **Do not touch the glass part of the bulb with unprotected fingers. When the light is switched on, heat will cause fingerprints to evaporate on the bulb, which in turn will cause the reflector to dim.**
- **There are sharp-edged parts in the headlight housing in the engine compartment and on the tail light cluster housing. Protect your hands when changing bulbs.**

NOTICE

Damage to the electrical system can be caused by water entering the system if the rubber covers or plastic caps on the headlight housing are not properly mounted after a bulb has been changed. ◁

Indicator lamp

First read and observe the introductory information and safety warnings ⚠ on page 432.

If bulbs of the exterior lighting fail, an indicator lamp lights up in the instrument cluster.

Lit up	Possible cause	Solution
	A bulb in the exterior lighting has failed.	Change the defective bulb.

Several warning and indicator lamps will light up briefly as a functional check when the ignition is switched on. They will go out after a few seconds.

⚠ WARNING

Failure to observe illuminated warning lamps and text messages can lead to your vehicle breaking down in traffic, and can cause accident and serious injury.

- **Never ignore any illuminated warning lamps or text messages.**

⚠ WARNING (Continued)

- **Stop the vehicle as soon as possible and when safe to do so.**

NOTICE

Failure to observe illuminated indicator lamps and text messages can lead to your vehicle being damaged.

If an individual light emitting diode (LED) in the exterior lighting fails, no warning is given. If all LEDs fail, this is indicated by the indicator lamp ☼. ◁

Information on changing bulbs

First read and observe the introductory information and safety warnings ⚠ on page 432.

Checklist

Always carry out the following actions for changing a bulb in the given order ⇒ ⚠:

1. Park the vehicle on a firm and level surface at a safe distance from the flow of traffic.
2. Apply the handbrake firmly ⇒ page 269. ▶

Checklist (Continued)

3. Turn the light switch to position **0** ⇒page 106.
4. Shift the turn signal lever to neutral ⇒page 106.
5. With a DSG® dual clutch gearbox, move the selector lever to position **P** ⇒page 260.
6. Manual gearbox: select a gear ⇒page 263.
7. Stop the engine and remove the key from the ignition ⇒page 257.
8. Switch off the orientation lighting ⇒page 106.
9. Leave the defective bulbs to cool down.
10. Check to see if a fuse has blown ⇒page 429.
11. Follow the instructions to change the affected bulb ⇒ⓘ. Always use identical bulbs of the same type. The designation is inscribed on the bulb, either on the glass part or on the base.
12. Do not touch the glass part of the bulb with unprotected fingers. The heat of the bulb would cause the fingerprint to evaporate and condense on the reflector. This will impair the brightness of the headlight.
13. After changing the bulb, check to ensure that the bulb is working properly. If the bulb is not working properly, the bulb may not have been inserted properly or may have failed again, or the connector may have been inserted incorrectly.
14. Any time you change a bulb in the front of the vehicle, the headlight settings should be checked by a qualified workshop.

⚠ WARNING

Ignoring any of the items on this important safety checklist can lead to accidents and severe injuries.

- **Always follow the instructions in the checklist and observe the general safety procedures.**

ⓘ NOTICE

Always take care when removing or fitting lights in order to prevent damage to the paintwork or to other vehicle parts. ◁

LED lights on the vehicle

First read and observe the introductory information and safety warnings ⚠ on page 432.

Depending on the vehicle equipment, the following lights may be LED lights:

- Dipped beam, main beam, daytime running lights and side lights on vehicles with LED headlights.
- Tail light, brake light and fog light on vehicles with LED tail lights.
- Number plate lights.

Owners cannot replace the LEDs themselves. If some LEDs fail, this may be an indication that more elements are on the point of failure. If this happens, have the lights checked and replaced if necessary at a qualified workshop. ◁

Changing bulbs in H4 halogen headlights

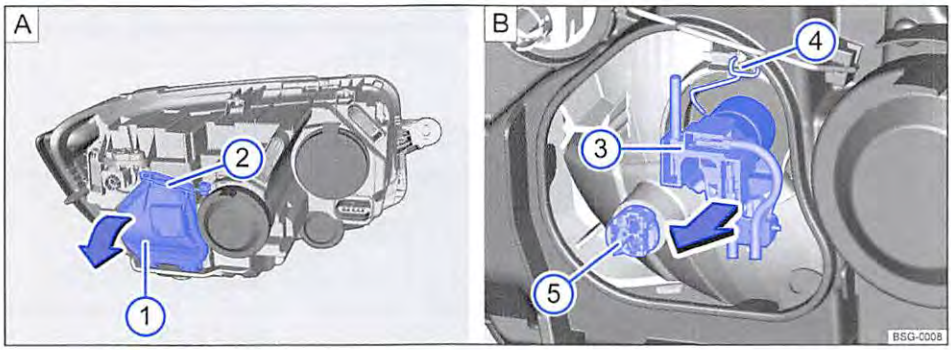


Fig. 307 Changing the dipped beam and main beam bulb and the side light bulb.

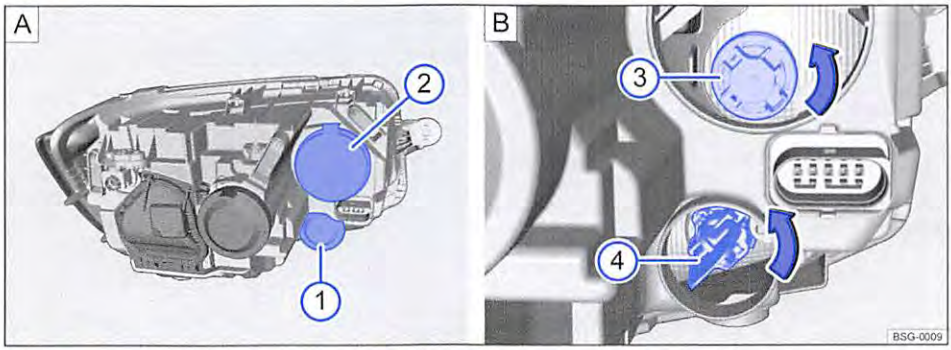


Fig. 308 Changing the daytime running light bulb and the turn signal bulb.

First read and observe the introductory information and safety warnings ⚠ on page 432.

The front halogen headlight does not need to be removed in order to change a bulb.

The actions should only be carried out in the specified order:

⇒ Fig. 307	Dipped beam/main beam bulb	Side light bulb
1.	Follow the instructions on the checklist ⇒ page 433.	
2.	Open the bonnet ⚠ ⇒ page 350.	
3.	Push the wire hook (2) firmly upwards over the locking lugs on the sealing cap (1), and swing the sealing cap downwards (arrow) to open it.	
4.	Pull off the connector (3), and push the wire hook (4) firmly downwards in direction of arrow.	Pull the bulb and bulb holder (5) out to the rear.
5.	Pull the bulb straight towards rear out of the headlight insert.	Pull the bulb straight out of the bulb holder.
6.	Replace the defective bulb with a new bulb of the same type (see the last line in the table "Bulbs").	
7.	Insert the bulb into the headlight insert, pull the wire hook upwards until it engages, and connect the connector.	Insert the bulb holder into the headlight, and push it all the way in.

The actions should only be carried out in the specified order:

⇒Fig. 307	Dipped beam/main beam bulb	Side light bulb
8.	Swing the sealing cap upwards, and swing the wire hook over the locking lugs on the sealing cap.	
Bulb	H4	W5W

The actions should only be carried out in the specified order:

⇒Fig. 308	Daytime running light bulb	Turn signal bulb
1.	Follow the instructions on the checklist ⇒page 433.	
2.	Open the bonnet ⚠ ⇒page 350.	
3.	Remove the sealing cap ②.	Remove the sealing cap ①.
4.	Turn the bulb holder ③ anticlockwise as far as it will go and pull it out to the rear along with the bulb.	Turn the bulb holder ④ anticlockwise as far as it will go and pull it out to the rear along with the bulb.
5.	Push the bulb slightly into the bulb holder, turn it anti-clockwise, and pull it out straight.	
6.	Replace the defective bulb with a new bulb of the same type (see the last line in the table "Bulbs").	
7.	Insert the bulb holder, and turn it clockwise until it engages.	
8.	Fit the sealing cap.	
Bulb	BA15S	PY21W

The illustrations show the left-hand H4 halogen headlight from behind. The right-hand halogen headlight is a mirror image of the one shown. ◁

Changing bulbs in H7 halogen headlights

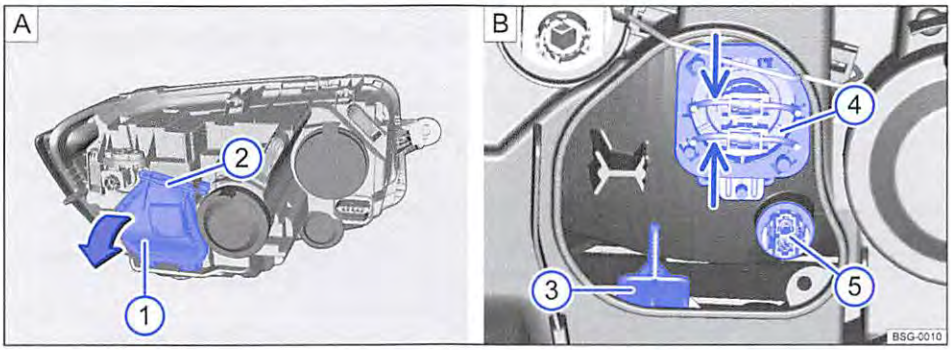


Fig. 309 Changing the dipped beam bulb, the side light bulb and the turn signal bulb.

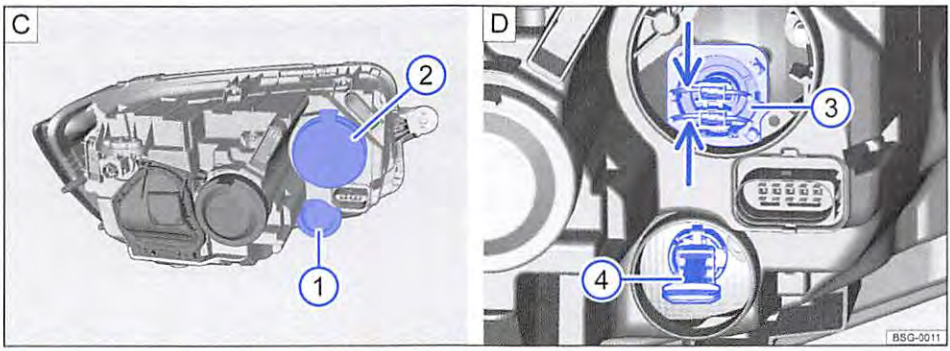


Fig. 310 Changing the main beam bulb and daytime running light bulb.

First read and observe the introductory information and safety warnings ⚠ on page 432.

The front halogen headlight does not need to be removed in order to change a bulb.

The actions should only be carried out in the specified order:

⇒ Fig. 309	Dipped beam bulb	Side light bulb	Turn signal bulb
1.	Follow the instructions on the checklist ⇒ page 433.		
2.	Open the bonnet ⚠ ⇒ page 350.		
3.	Push the wire hook (2) firmly upwards over the locking lugs on the sealing cap (1), and swing the sealing cap downwards (arrow) to open it.		
4.	Push the ends of the wire hook together (B arrows), and swing it over the bulb (4).	Pull the bulb and bulb holder (5) out to the rear.	Pull the bulb and bulb holder (3) out to the rear.
5.	Tilt the bulb (4), and pull it towards rear out of the headlight insert.	Pull the bulb straight out of the bulb holder.	
6.	Replace the defective bulb with a new bulb of the same type (see the last line in the table "Bulbs").		

The actions should only be carried out in the specified order:

⇒Fig. 309	Dipped beam bulb	Side light bulb	Turn signal bulb
7.	Swing the wire hook over the bulb, and push it into the catches.	Insert the bulb holder into the headlight, and push it all the way in.	
8.	Swing the sealing cap upwards, and swing the wire hook over the locking lugs on the sealing cap.		
Bulb	H7	W5W	PW24W

The actions should only be carried out in the specified order:

⇒Fig. 310	Main beam bulb	Daytime running light bulb
1.	Follow the instructions on the checklist ⇒page 433.	
2.	Open the bonnet ⚠ ⇒page 350.	
3.	Remove the sealing cap ②.	Remove the sealing cap ①.
4.	Push the ends of the wire hook together (D arrows), and swing it over the bulb ③.	Pull the bulb and bulb holder ④ out to the rear.
5.	Tilt the bulb ③, and pull it towards rear out of the headlight insert.	Pull the bulb straight out of the bulb holder.
6.	Replace the defective bulb with a new bulb of the same type (see the last line in the table "Bulbs").	
7.	Swing the wire hook over the bulb, and push it into the catches.	Insert the bulb holder into the headlight, and push it all the way in.
8.	Fit the sealing cap.	
Bulb	H7	W21W

The illustrations show the left-hand H7 halogen headlight from behind. The right-hand halogen headlight is a mirror image of the one shown. ◁

Changing bulbs in the LED headlights

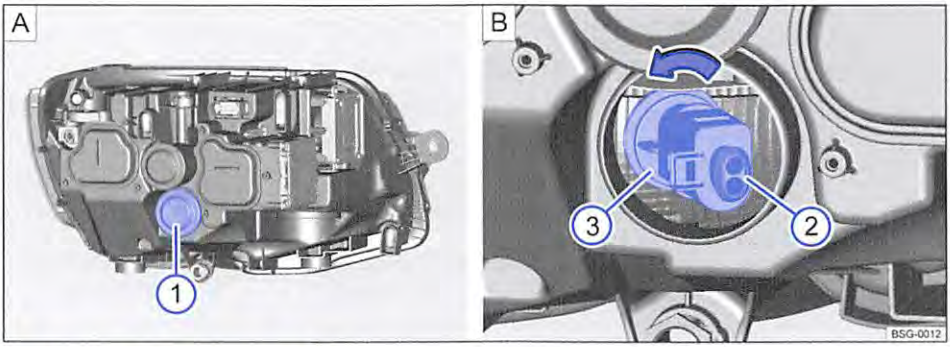


Fig. 311 Changing the turn signal bulb.

First read and observe the introductory information and safety warnings ⚠ on page 432.

The LED headlight does not need to be removed in order to change the bulb. ▶

The actions should only be carried out in the specified order:

⇒Fig. 311	Turn signal bulb
1.	Observe and follow the instructions on the checklist ⇒page 433.
2.	Open the bonnet ⚠ ⇒page 350.
3.	Remove the sealing cap (1).
4.	Release the connector (2), and pull it off the bulb holder.
5.	Turn the bulb holder (3) anticlockwise as far as it will go and pull it out to the rear along with the bulb.
6.	Push the bulb slightly into the bulb holder, turn it anti-clockwise, and pull it out straight.
7.	Replace the defective bulb with a new bulb of the same type (see the last line in the table "Bulbs").
8.	Insert the bulb holder into the headlight and turn it clockwise as far as it will go.
9.	Fit the sealing cap.
Bulb	H21W

The illustrations show the left-hand LED headlight from behind. The right-hand LED headlight is a mirror image of the one shown. ◁

Changing the bulbs in the fog light

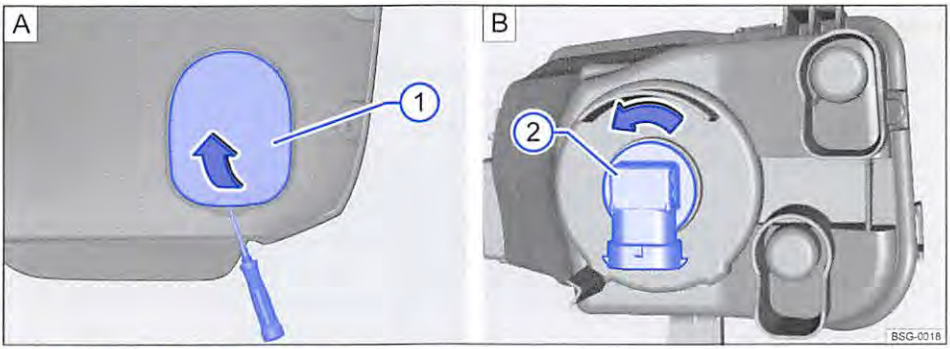


Fig. 312 Changing the fog light bulb.

First read and observe the introductory information and safety warnings ⚠ on page 432.

The actions should only be carried out in the specified order:

1.	Follow the instructions on the checklist ⇒page 433.
2.	When changing the right bulb, set the steering wheel to the left stop, and when changing the left bulb, set the steering wheel to the right stop.
3.	Use the screwdriver from the vehicle tool kit to open the service flap ⇒Fig. 312 (1) in the wheel housing liner.
4.	Release the connector, and pull it off the bulb holder (2).
5.	Turn the bulb holder anticlockwise and pull it out towards the rear with the bulb.
6.	Turn the new bulb holder with the same designation and working bulb clockwise to the original position until it clicks into place (see the last line in the table "Bulbs").
7.	Connect the connector to the bulb holder. The connector should click into place. ▶

The actions should only be carried out in the specified order:	
8.	Close the service flap (1) in the wheel housing liner.
Bulb	H11

Changing the bulbs in the tail light cluster on vehicles with tailgate

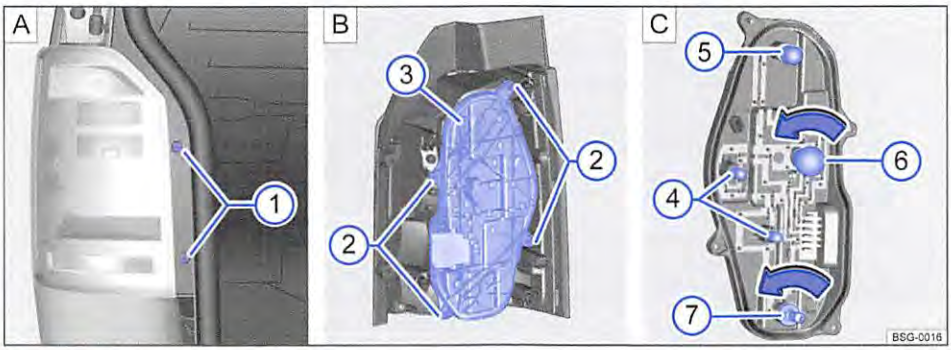


Fig. 313 Changing the tail light bulbs.

First read and observe the introductory information and safety warnings ⚠ on page 432.

The actions should only be carried out in the specified order:

⇒Fig. 313	Tail light bulb	Turn signal bulb	Brake light/tail light bulb	Rear fog light bulb or reversing light bulb
1.	Observe and follow the instructions on the checklist ⇒page 433.			
2.	Unscrew the two securing bolts (1).			
3.	Push the tail light cluster towards the outside out of the mounting, release the connector, and pull it off the bulb holder.			
4.	Unscrew the four securing bolts (2), and pull the bulb holder (3) out of the tail light cluster.			
5.	Pull the bulb (4) straight out of the bulb holder.	Pull the bulb (5) straight out of the bulb holder.	Push the bulb (6) slightly into the bulb holder, turn it anti-clockwise, and pull it out straight.	Push the bulb (7) slightly into the bulb holder, turn it anti-clockwise, and pull it out straight.
6.	Replace the defective bulb with a new bulb of the same type (see the last line in the table "Bulbs").			
7.	Insert the bulb holder into the tail light cluster and tighten the bolts.			
8.	Carefully insert the tail light cluster into the body so that it is flush with the vehicle bodywork, and tighten the bolts.			
Bulb	W5W	W16W	P21/4W	H21W or P21W

Changing the bulbs in the tail light cluster on vehicles with wing doors

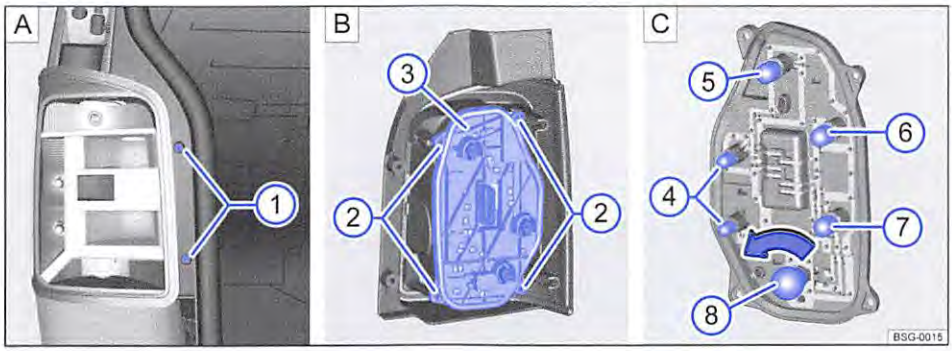


Fig. 314 Changing the tail light bulbs.

First read and observe the introductory information and safety warnings ⚠ on page 432.

The actions should only be carried out in the specified order:

⇒Fig. 314	Tail light bulb	Brake light bulb	Turn signal bulb
1.	Observe and follow the instructions on the checklist ⇒page 433.		
2.	Unscrew the two securing bolts ①.		
3.	Push the tail light cluster towards the outside out of the mounting, release the connector, and pull it off the bulb holder.		
4.	Unscrew the four securing bolts ②, and pull the bulb holder ③ out of the tail light cluster.		
5.	Pull the bulb ④ straight out of the bulb holder.	Pull the bulb ⑤ straight out of the bulb holder.	Pull the bulb ⑥ straight out of the bulb holder.
6.	Replace the defective bulb with a new bulb of the same type (see the last line in the table "Bulbs").		
7.	Insert the bulb holder into the tail light cluster and tighten the bolts.		
8.	Carefully insert the tail light cluster into the body so that it is flush with the vehicle bodywork, and tighten the bolts.		
Bulb	W5W	W16W	W16W

The actions should only be carried out in the specified order:

⇒Fig. 314	Reversing light bulb	Tail light/rear fog light bulb
1.	Observe and follow the instructions on the checklist ⇒page 433.	
2.	Unscrew the two securing bolts ①.	
3.	Push the tail light cluster towards the outside out of the mounting, release the connector, and pull it off the bulb holder.	
4.	Unscrew the four securing bolts ②, and pull the bulb holder out of the tail light cluster.	
5.	Pull the bulb ⑦ straight out of the bulb holder.	Push the bulb ⑧ slightly into the bulb holder, turn it anti-clockwise, and pull it out straight.
6.	Replace the defective bulb with a new bulb of the same type (see the last line in the table "Bulbs").	
7.	Insert the bulb holder into the tail light cluster and tighten the bolts.	

The actions should only be carried out in the specified order:

⇒ Fig. 314	Reversing light bulb	Tail light/rear fog light bulb
8.	Carefully insert the tail light cluster into the body so that it is flush with the vehicle bodywork, and tighten the bolts.	
Bulb	P21W	P21/4W

Changing the bulbs in the LED tail light cluster

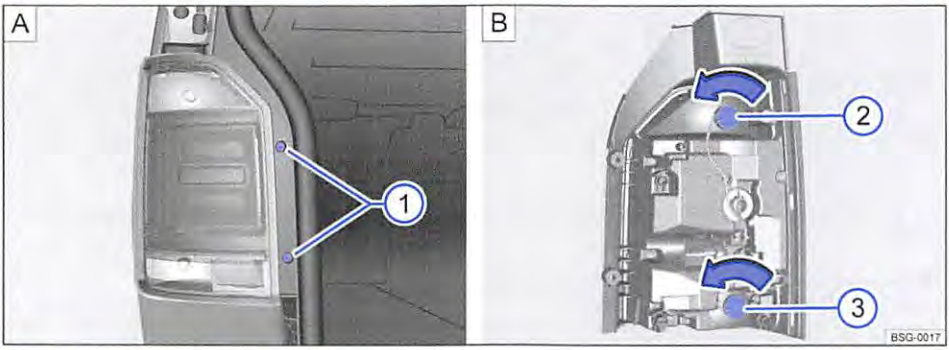


Fig. 315 Changing the tail light bulbs.

First read and observe the introductory information and safety warnings ⚠ on page 432.

The actions should only be carried out in the specified order:

⇒ Fig. 315	Turn signal bulb	Reversing light bulb
1.	Observe and follow the instructions on the checklist ⇒ page 433.	
2.	Unscrew the two securing bolts (1).	
3.	Push the tail light cluster towards the outside out of the mounting, release the connector, and disconnect it.	
4.	Turn the bulb holder (2) anticlockwise as far as it will go and pull it out to the rear along with the bulb.	Turn the bulb holder (3) anticlockwise as far as it will go and pull it out to the rear along with the bulb.
5.	Pull the bulb straight out of the bulb holder.	
6.	Replace the defective bulb with a new bulb of the same type (see the last line in the table "Bulbs").	
7.	Insert the bulb holder into the tail light cluster, and turn it clockwise to stop.	
8.	Carefully insert the tail light cluster into the body so that it is flush with the vehicle bodywork, and tighten the bolts.	
Bulb	WY16W	W16W

Changing the side turn signal bulbs

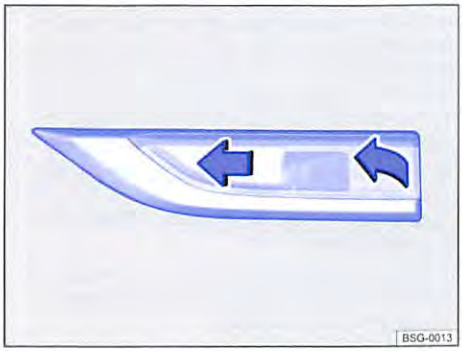


Fig. 316 On the side of the vehicle: removing the turn signal repeater.

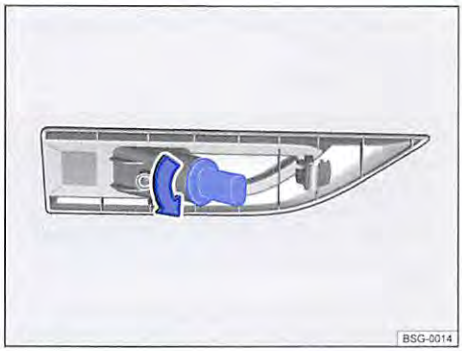


Fig. 317 Changing the bulbs in the turn signal repeater.

First read and observe the introductory information and safety warnings ⚠ on page 432.

The actions should only be carried out in the specified order:

1.	Observe and follow the instructions on the checklist ⇒page 433.
2.	Push the turn signal repeater in direction of travel ⇒Fig. 316, and swing it out at the rear.
3.	Lever the side turn signal out of the body.
4.	Turn the bulb holder ⇒Fig. 317 anti-clockwise, and pull it out towards the rear with the bulb.
5.	Pull the bulb straight out of the bulb holder.
6.	Replace the defective bulb with a new bulb of the same type (see the last line in the table "Bulbs").
7.	Insert the bulb holder into the headlight and turn it clockwise as far as it will go.
8.	Fit the spring clip of the turn signal repeater at front into the body, push it against the spring force in direction of travel, and engage it at the rear into the body.
Bulb	W5W

Jump starting

Introduction

This chapter contains information on the following subjects:

How to start the engine using jump leads 444

If the engine cannot be started because the vehicle battery is discharged, the battery can be connected to the battery of another vehicle to start the engine. Before using jump leads, check the battery window ⇒page 362.

Jump leads must comply with DIN 72553 (see manufacturer's documentation). The wire cross section must be at least 25 mm^2 (0.038 in^2) for petrol engines and at least 35 mm^2 (0.054 in^2) for diesel engines.

Additional information and warnings:

- Pull-away assist systems ⇒page 282
- Preparation for working in the engine compartment ⇒page 350
- Battery ⇒page 362

⚠ WARNING

Using the jump leads incorrectly or completing the jump start procedure incorrectly can cause the battery to explode, which can lead to severe injuries. Please note the following in order to reduce the risk of the battery exploding:

- **All work on the vehicle battery and the electrical system can cause serious chemical burns, fire or electric shocks. Always read the warnings and safety information before carrying out any kind of work on the vehicle battery ⇒page 362, *Vehicle battery*.**
- **The vehicle battery providing assistance must have approximately the same voltage as the flat vehicle battery (12-volts) and approximately the same capacity (see imprint on battery).**
- **Never charge a vehicle battery once it has been frozen. Discharged vehicle batteries can even freeze at temperatures of around 0°C (+32°F).**
- **The battery should be replaced if it is or has ever been frozen.**

⚠ WARNING (Continued)

- **A highly explosive mixture of gases is given off when the vehicle battery is jump started. Always keep fire, sparks, naked flames and lit cigarettes away from the vehicle battery. Never use a mobile telephone when the jump leads are being connected or disconnected.**
- **Only charge the battery in a well-ventilated space as the battery emits a highly explosive mixture of gases when the vehicle is being jump started.**
- **Position the jump leads so that they never come into contact with any moving parts in the engine compartment.**
- **Never confuse the negative and positive terminals or connect the jump leads incorrectly.**
- **Observe the jump lead manufacturer's instructions.**

NOTICE

Please note the following in order to avoid considerable damage to the vehicle electrical system:

- **A short circuit can be caused if the jump leads are wrongly connected.**
- **The vehicles must not touch each other, as any contact could mean that electricity could flow as soon as the positive terminals are connected.** ◁

How to start the engine using jump leads

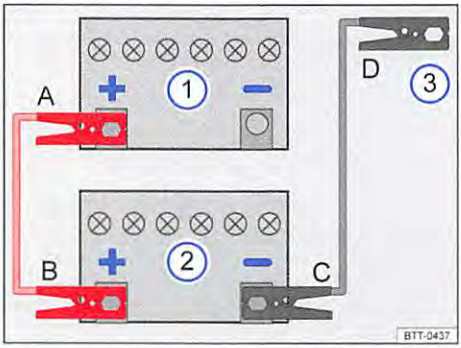


Fig. 318 How to connect the jump leads in starting vehicles without start/stop system: discharged battery ① and battery providing assistance ②.

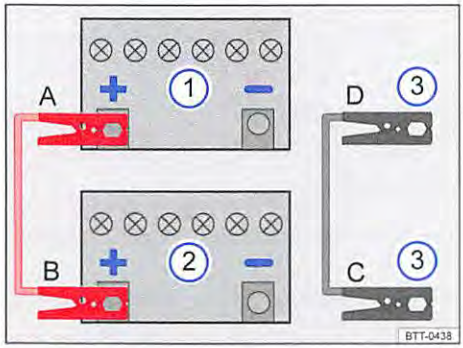


Fig. 319 How to connect the jump leads in starting vehicles with start/stop system: discharged battery ① and battery providing assistance ②. ▶

First read and observe the introductory information and safety warnings ⚠ on page 443.

① Vehicle with discharged battery that is being jump-started.

② Vehicle with vehicle battery that is supplying power and jump-starting the other vehicle.

③ Suitable earth connection. A solid metal part that is firmly bolted to the engine block, or the engine block itself.

The discharged vehicle battery must be properly connected to the vehicle's electrical system.

The vehicles must not touch. Otherwise electricity could flow as soon as the positive terminals are connected.

Ensure that the battery clamps have good metal-to-metal contact with the battery terminals.

If the engine does not start immediately, switch off the starter after about 10 seconds and try again after about half a minute.

The steps should only be carried out in the specified order.

Attaching the jump leads

- Switch off the ignitions in both vehicles ⇒page 257.
- If necessary, open the battery cover in the engine compartment ⇒page 362.
- Connect one end of the *red* jump lead to the positive terminal ⇒Fig. 318 ⊕ or ⇒Fig. 319 ⊕ of the vehicle with the discharged battery ① ⇒⚠.
- Connect the other end of the *red* jump lead to the positive terminal ⊕ in the vehicle providing assistance ②.
- In vehicles **without start/stop system:** connect one end of the *black* jump lead to the negative terminal ⊖ in the vehicle providing assistance ② ⇒Fig. 318.
- In vehicles **with start/stop system:** connect one end of the *black* jump lead ③ to a suitable earth connection, to a solid metal part which is securely bolted onto the cylinder or to the cylinder block itself ⇒Fig. 319.
- Connect the other end of the *black* jump lead ③ to a solid metal component that is bolted firmly to the engine block of the vehicle with the flat battery, to the engine block itself or, if necessary, to the screwed-in towing eye at the front. Do not connect it to a point near the battery ① ⇒⚠.
- Position the leads in such a way that they cannot come into contact with any moving parts in the engine compartment.

Starting the engine

- Start the engine of the vehicle which is providing assistance and let it run at idle.
- Start the engine of the car with the discharged vehicle battery and wait two or three minutes until the engine is running "smoothly".

Removing the jump leads

- Before disconnecting the jump leads, switch off the dipped beam headlights if they are switched on.
- Turn on the heater blower and rear window heater in the vehicle battery with the discharged battery. This helps minimise the voltage peaks generated when the leads are disconnected.
- With the engines running, disconnect the jump leads in the exact reverse order to the instructions given above.

⚠ WARNING

Jump starting the vehicle incorrectly can cause the battery to explode, which can lead to serious injuries. Please note the following in order to reduce the risk of the battery exploding:

- **All work on the vehicle battery and the electrical system can cause serious chemical burns, fire or electric shocks. Always read the warnings and safety information before carrying out any kind of work on the vehicle battery ⇒page 362, *Vehicle battery*.**
- **Always wear suitable eye protection and never lean over the vehicle battery.**
- **Attach the connector cables in the correct order – the positive cable first, followed by the negative.**
- **Never connect the negative cable to parts of the fuel system or to the brake lines.**
- **The non-insulated parts of the battery clamps must not be allowed to touch. The jump lead attached to the positive vehicle battery terminal must not touch metal parts of the vehicle.**
- **Check the battery window using a torch if necessary. If the display is light yellow or colourless, do not jump start the vehicle. Seek expert assistance.**
- **Avoid electrostatic discharge in the vicinity of the vehicle battery. The gas emitted from the vehicle battery could be ignited by sparks.**
- **Do not use jump leads to start the engine if the vehicle battery is damaged or if it is or has ever been frozen.** ◁

Tow-starting and towing

Introduction

This chapter contains information on the following subjects:

Notes on tow-starting 446
Notes on towing 447
Fitting the towing eye at front 448
Notes on driving while towing 448

Observe any legal requirements when towing.

For technical reasons, vehicles with a discharged battery must not be tow-started.

Towing a vehicle when the engine is switched off and the ignition is switched on discharges the vehicle battery. Depending on the vehicle battery charge level, the drop in voltage can be large enough after just a few minutes that electrical consumers in the vehicle will no longer function, e.g. the hazard warning lights.

Additional information and warnings:

- Exterior views ⇒page 5
- Changing gear ⇒page 257
- Engine management system and exhaust purification system ⇒page 407
- Jump starting ⇒page 443

⚠ WARNING

Never tow a vehicle that has no power supply.

- **Never remove the key from the ignition. The steering lock may be activated and you will no longer be able to steer the vehicle. This can lead to a loss of control of the vehicle, accidents and serious injuries.**

⚠ WARNING (Continued)

- **If the power supply to the towed vehicle is disconnected, stop towing immediately and seek expert assistance.**

⚠ WARNING

If a vehicle is being towed, the vehicle handling and braking effect will change significantly. Please note the following in order to reduce the risk of an accident or serious injuries:

- **Notes for the driver of the towed vehicle:**
  - **You will need to depress the brake pedal more vigorously than normal as the brake servo is not working. Always be careful not to drive into the vehicle that is pulling your vehicle.**
  - **You will need to turn the steering wheel more vigorously as the power-assisted steering function is not working.**
- **Notes for the driver of the towing vehicle**
  - **Accelerate carefully and gently.**
  - **Avoid sudden braking and driving manoeuvres.**
  - **Brake earlier than normal by pressing lightly on the brake pedal.**

NOTICE

- **Remove and install the cover and the towing eye carefully so as to avoid damage to the vehicle, e.g. the paintwork.**
- **Unburnt fuel can enter the catalytic converter and damage it while the vehicle is being towed.** ◁

Notes on tow-starting

First read and observe the introductory information and safety warnings ⚠ on page 446.

Vehicles should not be tow-started wherever possible. Use jump leads to start the engine instead ⇒page 443.

For technical reasons, the following vehicles **cannot** be tow-started:

- Vehicles with DSG® dual clutch gearbox.
- If the vehicle battery has discharged, the engine control units will not function properly.

However, if the vehicle still has to be tow-started (manual gearbox):

- Engage second or third gear.
- Keep the clutch pressed down. ▶

- Switch on the ignition and the hazard warning lights.
- Once both vehicles are in motion, release the clutch.
- As soon as the engine starts, press the clutch and put the gear into neutral. This helps to prevent driving into the towing vehicle.

NOTICE

When tow-starting, unburnt fuel can enter the catalytic converter and damage it. ◁

Notes on towing

First read and observe the introductory information and safety warnings ⚠ on page 446.

Fixed towing eye at rear

On vehicles without a towing bracket there is a fixed towing eye under the bumper at the rear right.

Towing bracket instead of a fixed towing eye

If the vehicle has a factory-fitted towing bracket, it should also be used for towing other vehicles.

Tow rope or tow bar

It is easier and safer to tow a vehicle with a tow bar. Only use a tow rope if you do not have a tow bar.

The tow rope should be slightly elastic to reduce the strain on both vehicles. It is advisable to use a tow rope made of synthetic fibre or similarly elastic material.

Only attach the tow rope or tow bar to the specially provided towing eyes or to the towing bracket.

Vehicles with a **factory-fitted towing bracket** must be towed **only** with a tow bar that is specially designed for fitting to a ball coupling ⇒page 139.

When your vehicle has to be towed:

- Switch on the ignition.
- Select the neutral position or move the selector lever to **N** ⇒page 257.
- Release the handbrake, if necessary.
- Do not allow the vehicle to be towed at speeds faster than 50 km/h (30 mph).
- Do not allow the vehicle to be towed further than 50 km.
- Vehicles with a DSG® dual clutch gearbox may only be towed by the breakdown truck with the front wheels raised.

Towing vehicles with four-wheel drive (4MOTION)

Vehicles with four-wheel drive (4MOTION) may be towed with a tow bar or tow rope. If the vehicle is towed with the rear or front axle raised, the engine must be switched off otherwise the drive train could be damaged.

When should your vehicle not be towed?

- If, due to damage, the vehicle gearbox no longer contains any lubricant.
- If the vehicle battery is discharged.
- If the distance to be towed is further than 50 km – applies only to vehicles with the DSG® dual clutch gearbox.
- If the steering function or the operating clearance of the wheels cannot be ensured, e.g. after an accident.

Please comply with the following when towing another vehicle:

- Comply with legal regulations.
- Comply with the information on towing contained in the owner's manual for the other vehicle. ◁

Fitting the towing eye at front

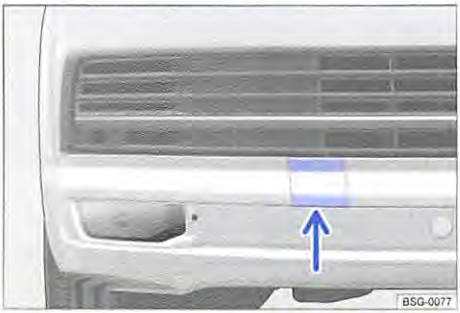


Fig. 320 On the right side of the front bumper: cover for towing eye on unpainted bumper.

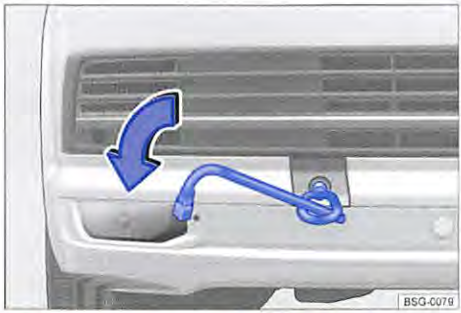


Fig. 321 Front bumper, right-hand side: screwing in the towing eye.

First read and observe the introductory information and safety warnings ⚠ on page 446.

The towing eye is screwed into a threaded hole behind a cover on the right of the front bumper.

The towing eye must always be kept in the vehicle ⇒ page 416.

Observe the notes on driving while towing ⇒ page 448.

Fitting the towing eye at front

- Take the towing eye and wire hook out of the tool set in the luggage compartment ⇒ page 416.
- Fit the wire hook into the recess below the cover ⇒ Fig. 320 (arrow), pull out the cover, and leave it hanging on the vehicle.
- Screw the towing eye **anticlockwise** ⇒ Fig. 321 (in direction of arrow) into the bracket ⇒ ⓘ.
- Use the box spanner as a lever to tighten the towing eye as firmly as possible.
- When you have finished towing, turn the towing eye **clockwise** to remove it and fit the cover.
- If necessary clean the towing eye and place them back in the vehicle toolkit in the luggage compartment.

ⓘ NOTICE

The towing eye must always be screwed firmly into the mounting. Otherwise, the towing eye can be ripped out of the mounting when the vehicle is being tow-started or towed. ◁

Notes on driving while towing

First read and observe the introductory information and safety warnings ⚠ on page 446.

Towing requires some experience, especially when using a tow rope. Both drivers should be familiar with the technique required for towing. Inexperienced drivers should not attempt to tow.

When driving, remember not to pull too hard on the towing vehicle and take care to avoid jerking movements. When towing on an unpaved road, there is always a risk of overloading and damaging the anchorage points.

It is still possible to activate the turn signals in a vehicle that is being towed, even if the hazard warning lights are switched on. To do this, operate the turn signal lever in the required direction while the ignition is switched on. The hazard warning lights will not flash while the turn signal is being used. The hazard warning lights will start flashing automatically as soon as the turn signal lever is moved back to the neutral position.

Notes for the driver of the towed vehicle:

- Leave the ignition switched on so that the turn signals, horn, wipers and windscreen washer system can be switched on.
- As the power steering does not work if the engine is not running, you will need more strength to steer the vehicle than you normally would. ▶

- You will need to depress the brake pedal more vigorously than normal as the brake servo is not working. Do not drive too close to the towing vehicle.
- Read and comply with the information and notes in the owner's manual of the towing vehicle.

Notes for the driver of the towing vehicle

- Accelerate carefully and gently. Avoid any sudden driving manoeuvres.
- Brake earlier than normal by pressing lightly on the brake pedal.
- Read and comply with any information and notes in the owner's manual of the towed vehicle. ◁

Technical data

Vehicle data

Introduction

This chapter contains information on the following subjects:

Vehicle identification data 451
Dimensions 452

Unless otherwise specified, the technical data of the basic model apply. The values quoted here may differ if additional equipment is fitted, for different models, for special vehicles or if country-specific equipment is fitted. All data in the official vehicle documents take precedence over these data.

Engine

The vehicle data sticker and the official vehicle documents show which engine is installed in your vehicle.

Weight

The values for the kerb weight in the following tables apply for the road-ready vehicle with driver (75 kg), service fluids including fuel tank carrying 90% of its capacity and, if applicable, toolkit and spare tyre ⇒⚠. Additional equipment and retrofitted accessories increase the stated kerb weight and reduce the maximum permitted load accordingly.

The load comprises the weights of the following:

- Passengers
- All luggage
- Roof load including the mounts or roof bars and the load carrier system
- Drawbar load when towing a trailer

Performance figures

The performance figures were measured without equipment which may influence performance, such as a roof carrier or mud flaps.

Gross combination weight rating

The gross combination weight ratings listed are only applicable for altitudes up to 1,000 m above sea level. The maximum weight of the car and trailer must be reduced by approximately 10% for every further 1,000 m in altitude.

Descriptions of the tables

Gearbox abbreviations: MG = manual gearbox, DSG® = dual clutch gearbox DSG®.

Additional information and warnings:

- Transporting ⇒page 125
- Driving with respect for the environment ⇒page 278
- Fuel ⇒page 343
- Engine oil ⇒page 353
- Engine coolant ⇒page 358
- Wheels and tyres ⇒page 367
- Consumer information ⇒page 404

⚠ WARNING

Exceeding the maximum permissible weights, payload, dimensions, vehicle speed and axle weight rating could cause damage to the vehicle, accidents and serious injuries.

- **Do not exceed the permitted weights, loads, dimensions and maximum speeds.**
- **The actual axle loads must never exceed the maximum permissible axle loads.**
- **The payload and the distribution of the load in the vehicle have an effect on the driving response and braking distance of the vehicle. Adjust your speed accordingly.**

⚠ WARNING

Accidents and severe injuries can occur if the maximum permitted gross combination weight is exceeded.

- **Never exceed the specified gross combination weight rating.**

NOTICE

The payload should be distributed as evenly as possible in the vehicle. When transporting heavy objects in the luggage compartment, they should be placed either in front of or over the rear axle in order to minimise the effect on the vehicle's handling. ◁

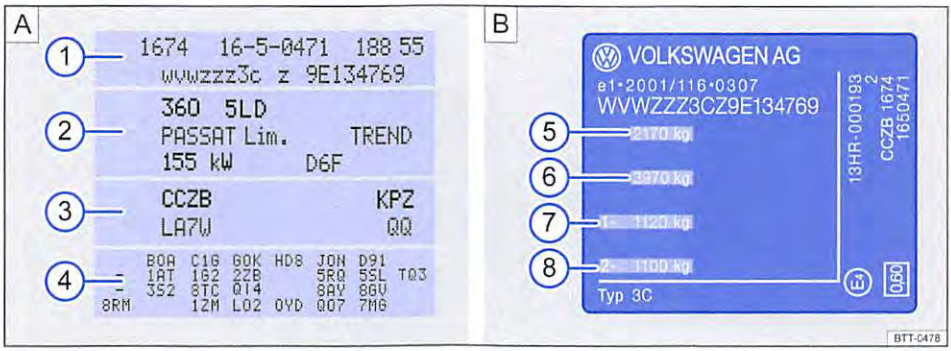


Fig. 322 A: Vehicle data sticker: example shows a vehicle with engine code CCZB ③. B: type plate.



Fig. 323 In the windscreen: vehicle identification number.

First read and observe the introductory information and safety warnings ⚠ on page 450.

Vehicle data sticker

The vehicle data sticker ⇒ Fig. 322 A is located in the ⇒ Booklet *Service schedule* and contains the following data:

① Vehicle identification number (chassis number)
② Vehicle type, engine power, gearbox type
③ Engine and gearbox code, paint number, interior equipment. In the example, the engine code is "CCZB" ⇒ Fig. 322.
④ Optional extras, PR numbers

Type plate

Open the bonnet ⚠ to gain access to the type plate ⇒ page 350.

The type plate ⇒ Fig. 322 B is attached to the right of the plenum chamber bulkhead. Vehicles for certain export countries do not have a type plate.

The type plate contains the following data:

⑤ Gross vehicle weight rating
⑥ Gross combination weight (vehicle plus trailer)
⑦ Gross axle weight rating, front
⑧ Gross axle weight rating, rear

Vehicle identification number

The vehicle identification number can be read from outside the vehicle through a viewer in the windscreen ⇒ Fig. 323. The viewer is located in the lower corner of the windscreen. ◁

Dimensions

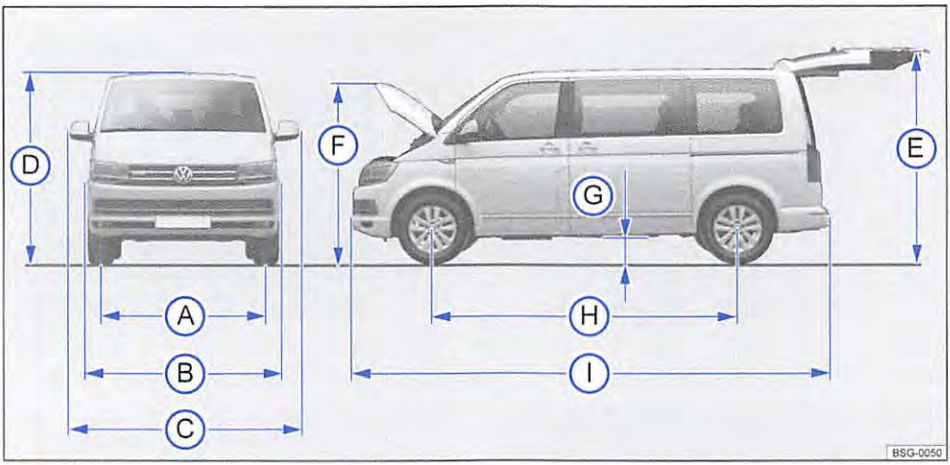


Fig. 324 Dimensions.

First read and observe the introductory information and safety warnings ⚠ on page 450.

The data in the table apply to the most basic model.

The specified values can vary due to different tyre and wheel sizes, if additional equipment is fitted, for different model versions, for retrofitted accessories, and for special vehicles. They can also vary in vehicles that have been manufactured for other countries.

Key for Fig. 324:		Short wheelbase	Long wheelbase
Ⓐ	Front track	1,622 – 1,634 mm	
	Rear track	1,628 – 1,640 mm	
Ⓑ	Width	1,904 mm	
Ⓒ	Width across the mirrors	2,297 mm	
Ⓓ	Height at kerb weight[a)]	1,950 – 1,990 mm	
Ⓔ	Height with open tailgate at kerb weight[a)]	b)	b)
Ⓕ	Height with open bonnet and kerb weight[a)]	b)	b)
Ⓖ	Ground clearance in road-ready state[c)] between the axles	178 – 202 mm	
Ⓗ	Wheelbase	3,000 mm	3,400 mm
Ⓘ	Length	4,904 – 5,006 mm	5,304 – 5,406 mm
–	Turning circle diameter	11.9 m	13.2 m

a) Kerb weight without driver, without payload.

b) Figures were not available at time of publication.

c) Kerb weight with driver (75 kg) and service fluids.

NOTICE

- **Take care when driving in car parks with protruding kerbstones or bollards. Objects that protrude from the ground can damage the bumper and other components when parking the vehicle.**

NOTICE (Continued)

- **Drive carefully through dips in the road, over driveways, ramps, kerbstones and other objects. Low-lying vehicle components such as the bumper, spoiler and parts of the running gear, engine or exhaust system could be damaged.**

Petrol engines

110 kW, 4-cylinder TSI®, emission standard EU6[1)]

Power output			110 kW at 3,750 – 6,000 rpm
Engine code			CJKB
Capacity			1,984 ccm
Injection technology			TSI®
Maximum torque			280 Nm at 1,500 – 3,750 rpm
Gearbox			**MG6**
Maximum speed	Normal roof	km/h	182[a)]
	Pop-up roof	km/h	179[a)]
Kerb weight	Multivan	kg	2,007 – 2,537
	California	kg	1,719 – 2,102
Gross vehicle weight rating		kg	3,000 – 3,080
Gross axle weight rating, front	Multivan	kg	1,610 – 1,680
	California	kg	1,610
Gross axle weight rating, rear	Multivan	kg	1,515 – 1,600
	California	kg	1,550 – 1,575
Maximum trailer weight, trailer with separate brakes gradients up to 12%		kg	2,500
Maximum trailer weight, trailer with no separate brakes		kg	750
Maximum permitted gross combination weight		kg	5,200

a) Maximum speed is reached in 5th gear.

1) The emissions class of this engine can also be EU2, EU3, EU4 or EU5 in some regions.

150 kW, 4-cylinder TSI®, emission standard EU6[1)]

Power output			150 kW at 4,200 – 6,000 rpm	
Engine code			CJKA	
Capacity			1,984 ccm	
Injection technology			TSI®	
Maximum torque			350 Nm at 1,500 – 4,000 rpm	
Gearbox			DSG®7	DSG®7 4MOTION
Maximum speed	Normal roof	km/h	202[a)]	198[a)]
	Pop-up roof	km/h	198[a)]	194[a)]
Kerb weight	Multivan, Business	kg	2,053 – 2,598	
	California	kg	2,335 – 2,758	
Gross vehicle weight rating		kg	3,000 – 3,080	
Gross axle weight rating, front	Multivan, Business	kg	1,610 – 1,680	
	California	kg	1,610	
Gross axle weight rating, rear	Multivan, Business	kg	1,515 – 1,600	
	California	kg	1,550 – 1,575	
Maximum trailer weight, trailer with separate brakes gradients up to 12%		kg	2,500	
Maximum trailer weight, trailer with no separate brakes		kg	750	
Maximum permitted gross combination weight		kg	5,300	

a) Maximum speed is reached in 6th gear. ◁

1) The emission standard of this engine can also be EU2, EU3, EU4 or EU5 in some regions.

Diesel engines

62 kW, 4-cylinder TDI®, emission standard EU5[1)]

Power output			62 kW at 3,500 rpm
Engine code			CAAA
Capacity			1,968 ccm
Injection technology			TDI®
Maximum torque			250 Nm at 1,250 – 2,500 rpm
Gearbox			**MG5**
Maximum speed		km/h	146[a)]
Kerb weight		kg	1,946 – 2,530
Gross vehicle weight rating		kg	3,000 / 3,080
Gross axle weight rating, front		kg	1,610
Gross axle weight rating, rear		kg	1,515 – 1,575
Trailer load, braked gradients up to 12%		kg	2,200
Trailer without brakes		kg	750
Maximum permitted gross combination weight		kg	4,800

a) Maximum speed is reached in 5th gear.

62 kW, 4-cylinder TDI®, emission standard EU6

Power output			62 kW at 2,750 – 3,250 rpm
Engine code			CXGA
Capacity			1,968 ccm
Injection technology			TDI®
Maximum torque			220 Nm at 1,250 – 2,500 rpm
Gearbox			**MG5**
Maximum speed	Normal roof	km/h	146[a)]
	Pop-up roof	km/h	143[a)]
Kerb weight	Multivan, Business	kg	1,946 – 2,530
	California	kg	2,274 – 2,557
Gross vehicle weight rating		kg	3,000 / 3,080
Gross axle weight rating, front	Multivan, Business	kg	1,610
	California	kg	1,550
Gross axle weight rating, rear	Multivan, Business	kg	1,515 – 1,575
	California	kg	1,550

1) The emissions class of this engine can also be EU3 or EU4 in some regions.

Maximum trailer weight, trailer with separate brakes gradients up to 12%	kg	2,200
Maximum trailer weight, trailer with no separate brakes	kg	750
Maximum permitted gross combination weight	kg	4,800

a) Maximum speed is reached in 5th gear. ◁

75 kW, 4-cylinder TDI®, emission standard EU5[1)]

Power output			75 kW at 3,500 rpm
Engine code			CAAB
Capacity			1,968 ccm
Injection technology			TDI®
Maximum torque			250 Nm at 1,500 – 2,500 rpm
Gearbox			**MG5**
Maximum speed	Normal roof	km/h	157[a)]
	Pop-up roof	km/h	154[a)]
Kerb weight	Multivan, Business	kg	1,976 – 2,034
	California	kg	2,231 – 2,649
Gross vehicle weight rating	Multivan, Business	kg	3,000 / 3,080
	California	kg	3,000 – 3,080
Gross axle weight rating, front	Multivan, Business	kg	1,610 – 1,680
	California	kg	1,550 – 1,610
Gross axle weight rating, rear	Multivan, Business	kg	1,515 – 1,600
	California	kg	1,550 – 1,575
Maximum trailer weight, trailer with separate brakes gradients up to 12%		kg	2,200
Maximum trailer weight, trailer with no separate brakes		kg	750
Maximum permitted gross combination weight		kg	4,900

a) Maximum speed is reached in 5th gear.

1) The emissions standard of this engine can also be EU3 or EU4 in some regions.

75 kW, 4-cylinder TDI®, emission standard EU6

Power output			75 kW at 3,000 – 3,500 rpm
Engine code			CXGB
Capacity			1,968 ccm
Injection technology			TDI®
Maximum torque			250 Nm at 1,500 – 2,500 rpm
Gearbox			**MG5**
Maximum speed	Normal roof	km/h	157[a)]
	Pop-up roof	km/h	154[a)]
Kerb weight	Multivan, Business	kg	1,946 – 2,543
	California	kg	2,274 – 2,647
Gross vehicle weight rating	Multivan, Business	kg	2,700 / 3,000 / 3,080
	California	kg	3,000 / 3,080
Gross axle weight rating, front	Multivan, Business	kg	1,610 – 1,680
	California	kg	1,550 – 1,610
Gross axle weight rating, rear	Multivan, Business	kg	1,515 – 1,600
	California	kg	1,550 – 1,575
Maximum trailer weight, trailer with separate brakes gradients up to 12%		kg	2,200
Maximum trailer weight, trailer with no separate brakes		kg	750
Maximum permitted gross combination weight		kg	4,900

a) Maximum speed is reached in 5th gear.

◁

103 kW, 4-cylinder TDI®, emission standard EU5[1)]

Power output			103 kW at 3,500 rpm		
Engine code			CAAC, CCHA		
Capacity			1,968 ccm		
Injection technology			TDI®		
Maximum torque			340 Nm at 1,750 – 2,500 rpm		
Gearbox			**MG6**	**MG6 4MOTION**	**DSG®7**
Maximum speed	Normal roof	km/h	173[a)]	170[a)]	172[b)]
	Pop-up roof	km/h	170[a)]	167[a)]	169[b)]
Kerb weight	Multivan, Business	kg	1,980 – 2,600		
	California	kg	2,261 – 2,763		
Gross vehicle weight rating	Multivan, Business	kg	3,000 / 3,080		
	California	kg	3,000 – 3,080		
Gross axle weight rating, front	Multivan, Business	kg	1,610 – 1,680		
	California	kg	1,610		
Gross axle weight rating, rear	Multivan, Business	kg	1,515 – 1,600		
	California	kg	1,550 – 1,575		
Maximum trailer weight, trailer with separate brakes gradients up to 12%		kg	2,500		
Maximum trailer weight, trailer with no separate brakes		kg	750		
Maximum permitted gross combination weight		kg	5,200	5,300	

a) Maximum speed is reached in 5th gear.

b) Maximum speed is reached in 6th gear.

1) The emissions standard of this engine can also be EU3 or EU4 in some regions.

110 kW, 4-cylinder TDI®, emission standard EU6

Power output			110 kW at 3,500 – 4,000 rpm			
Engine code			CXHA, CXFA			
Capacity			1,968 ccm			
Injection technology			TDI®			
Maximum torque			340 Nm at 1,750 – 3,000 rpm			
Gearbox			**MG6**	**MG6 4MOTION**	**DSG®7**	**DSG®7 4MOTION**
Maximum speed	Normal roof	km/h	182[a]	179[a]	181[b]	178[b]
	Pop-up roof	km/h	179[a]	176[a]	178[b]	175[b]
Kerb weight	Multivan, Business	kg	2,023 – 2,620			
	California	kg	2,304 – 2,764			
Gross vehicle weight rating	Multivan, Business	kg	3,000 / 3,080			
	California	kg	3,000 / 3,080			
Gross axle weight rating, front	Multivan, Business	kg	1,610 – 1,680			
	California	kg	1,610			
Gross axle weight rating, rear	Multivan, Business	kg	1,515 – 1,600			
	California	kg	1,550 – 1,575			
Maximum trailer weight, trailer with separate brakes gradients up to 12%		kg	2,500			
Maximum trailer weight, trailer with no separate brakes		kg	750			
Maximum permitted gross combination weight		kg	5,200		5,300	

a) Maximum speed is reached in 5th gear.

b) Maximum speed is reached in 6th gear.

◁

132 kW, 4-cylinder TDI®, emission standard EU5[1)]

Power output			132 kW at 4000 rpm			
Engine code			CFCA			
Capacity			1,968 ccm			
Injection technology			TDI®			
Maximum torque			400 Nm at 1,500 – 2,000 rpm			
Gearbox			**MG6**	**MG6 4MOTION**	**DSG®7**	**DSG®7 4MOTION**
Maximum speed	Normal roof	km/h	191[a)]	188[a)]	191[b)]	188[b)]
	Pop-up roof	km/h	188[a)]	185[a)]	188[b)]	185[b)]
Kerb weight	Multivan, Business	kg	2,055 – 2,628			
	California	kg	2,336 – 2,667			
Gross vehicle weight rating	Multivan, Business	kg	3,000 / 3,080			
	California	kg	3,000 / 3,080			
Gross axle weight rating, front	Multivan, Business	kg	1,610 – 1,680			
	California	kg	1,610			
Gross axle weight rating, rear	Multivan, Business	kg	1,515 – 1,600			
	California	kg	1,550			
Maximum trailer weight, trailer with separate brakes gradients up to 12%		kg	2,500			
Maximum trailer weight, trailer with no separate brakes		kg	750			
Maximum permitted gross combination weight		kg	5,200		5,300	

a) Maximum speed is reached in 5th gear.

b) Maximum speed is reached in 6th gear.

1) The emissions standard of this engine can also be EU3 or EU4 in some regions.

150 kW, 4-cylinder TDI®, emission standard EU6

Power output			150 kW at 4000 rpm			
Engine code			CXEB			
Capacity			1,968 ccm			
Injection technology			TDI®			
Maximum torque			450 Nm at 1,400 – 2,500 rpm			
Gearbox			**MG6**	**MG6 4MOTION**	**DSG®7**	**DSG®7 4MOTION**
Maximum speed	Normal roof	km/h	203[a]	199[a]	203[b]	199[b]
	Pop-up roof	km/h	199[a]	195[a]	199[b]	195[b]
Kerb weight	Multivan, Business	kg	2,070 – 2,625			
	California	kg	2,351 – 2,764			
Gross vehicle weight rating	Multivan, Business	kg	3,000 / 3,080			
	California	kg	3,000 / 3,080			
Gross axle weight rating, front	Multivan, Business	kg	1,610 – 1,680			
	California	kg	1,610			
Gross axle weight rating, rear	Multivan, Business	kg	1,515 – 1,600			
	California	kg	1,550 – 1,575			
Maximum trailer weight, trailer with separate brakes gradients up to 12%		kg	2,500			
Maximum trailer weight, trailer with no separate brakes		kg	750			
Maximum permitted gross combination weight		kg	5,200			

a) Maximum speed is reached in 6th gear.

b) Maximum speed is reached in 7th gear.

Abbreviations

Abbreviation	Definition
4MOTION	Four-wheel drive.
A2DP	Advanced Audio Distribution Profile
ABS	Anti-lock brake system.
ACC	Adaptive cruise control.
AdBlue®	AdBlue® for diesel vehicles with SCR catalytic converters.
ATA	Anti-theft alarm.
BAS	Brake Assist system.
ccm	Cubic centimetres. Unit of displacement.
CCS	Cruise control system.
CO_2	Carbon dioxide.
DCC	Adaptive chassis control.
DIN	German Standards Authority.
DPF	Diesel particulate filter.
DSG®7	DSG® automatic dual clutch gearbox.
DVE	Digital voice enhancement
EC	Engine code.
EDL	Electronic differential lock.
EN	European standard.
EPC	Engine management system (electronic power control).
ESC	Electronic Stability Control.
g/km	Carbon dioxide emissions in grams per kilometre.
ICC	In-car communication
kN	Kilo Newton, pulling power.
kPa	Kilopascal. Unit of measurement for pressure.
kW	Kilowatt, indication of engine power.
LED	Light-emitting diode.
LW	Long wheelbase
MFD	Multifunction display.
MG5	5-speed manual gearbox.
MG6	6-speed manual gearbox.
N	Newton, pulling power.
Nm	Newton metres, unit of engine torque.
PGVW	Gross vehicle weight rating.
PS	The approximate equivalent of brake horse power, formerly used to denote engine power.
psi	Pound-force per square inch, imperial measure for the pressure
PVC	Polyvinyl chloride.
RON	Research octane number, indication of the knock resistance of petrol.

Abbreviation	Definition
rpm	Revolutions per minute – engine speed.
SCR	SCR catalytic converters (SCR = selective catalytic reduction).
SWB	Short wheelbase
TCS	Traction control system.
TDI®	Diesel engine with direct injection and turbocharging (turbocharged direct or diesel injection).
trip	Trip recorder.
TSI®	Twin-charged stratified injection.
UTC	Universal Time Coordinated

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Description of symbols

Refers to a section within a chapter that contains important information and safety notes ⚠ that should always be observed.

Indicates that the section is continued on the next page.

Indicates the end of a section.

Indicates situations in which the vehicle must be stopped as quickly as possible.

® The symbol indicates a registered trademark. However, the absence of this symbol does not constitute a waiver of the rights concerning any term.

⇒⚠ ⇒⚠ ⇒⚠ Symbols like these refer you to warnings within the same section or on a given page. They draw your attention to possible risks of accident or injury and explain how they can be avoided.

⇒ⓘ Cross reference to potential risks of damage to property in the same section or on the page specified.

⚠ DANGER

Texts with this symbol indicate dangerous situations which will lead to fatal or severe injuries if you do not observe the warning.

⚠ WARNING

Texts with this symbol indicate dangerous situations which could lead to fatal or severe injuries if you do not observe the warning.

⚠ CAUTION

Texts with this symbol indicate dangerous situations which could lead to slight or severe injuries if you do not observe the warning.

ⓘ NOTICE

Texts with this symbol indicate situations which could cause vehicle damage if you do not observe the warning.

Texts with this symbol contain additional information on the protection of the environment.

Texts with this symbol contain additional information.

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By purchasing this Volkswagen, you have become the owner of a vehicle fitted with the most up-to-date technology and a multitude of convenience functions for your use and enjoyment.

Before using your vehicle for the first time, please read and observe the information in this owner's manual. It will quickly help you to become familiar with your vehicle and all of its functions as well as making you aware of dangers to yourself and others and of how these dangers can be avoided.

If you have any further questions about your vehicle, or you think that the vehicle wallet has not covered everything, please get in touch with your Volkswagen Commercial Vehicles dealership. They will always be happy to deal with your questions, suggestions or problems.

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⚠ DANGER

Please observe important safety notes on the front passenger airbag ⇒ page 87. ◁

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