



MANUAL

From model year 2021



PLEASE NOTE



NOTE!

- ☞ Our motorhomes/caravans are always undergoing further development. We reserve the right to make changes to the equipment, design and engineering without notice. This Operating Manual is only valid in so far as the motorhome/caravan corresponds to the technology and specifications described within. For this reason, the **EuroCaravaning GmbH & CO KG** cannot accept any claims made on the basis of this operating manual.
- ☞ The **EuroCaravaning GmbH & CO KG** accepts no liability for damages to the motorhome/caravan resulting from failure to observe this operating manual.
- ☞ In addition to this Operating Manual, the generally applicable national and local safety regulations and statutory provisions for the use of motorhomes/caravans must be observed.
- ☞ This Operating Manual describes the latest version of the motorhome/caravan when going to print.
- ☞ Reproduction, copying and translation (including extracts) are not permitted without the express permission of the **EuroCaravaning GmbH & CO KG**.

EXPLANATION OF THE EQUIPMENT:

The equipment (factory-fitted standard equipment and optional accessories/accessories) in our motorhomes/caravans varies from model to model.

For this reason the features of the standard equipment as well as the features of the optional accessories/extras are described in this Operating Manual as far as an explanation is necessary.

The instructions and information given in the operating manuals provided by the respective manufacturers must be observed in addition.

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My local **VANTourer** service centre



EuroCaravaning GmbH & CO KG

Im Metternicher Feld 5-7
D-56072 Koblenz

Address/stamp of the local **VANTourer** service centre



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1. Foreword



NOTE!

This operating manual is only valid for the **VANTourer** model.

1.1 Introduction

- ◆ Congratulations on your new **VANTourer** vehicle. Your "holiday home on wheels" has been designed and manufactured to give you the maximum possible enjoyment.
- ◆ Please read through this Operating Manual carefully before using the vehicle for the first time to ensure you get the very best out of your vehicle. Taking the time to read through the manual will help you to relax and truly enjoy the excellent comfort and high technical standards of your vehicle.
- ◆ Please pay particular attention to the safety information.
- ◆ Due to the variety of models and equipment options, some passages in this Operating Manual may not apply to your vehicle.
- ◆ In addition to this Operating Manual, you should also familiarise yourself with the separate operating manuals of the base vehicle manufacturer and the manufacturers of the appliances.
- ◆ If your vehicle is fitted with optional accessories, observe the accompanying special permits and the related requirements.
- ◆ For maintenance and repair work and any questions you might have, please contact your local **VANTourer** dealer. The staff at your authorised specialist workshop will be happy to advise and assist.
- ◆ Only approved spare parts from the original manufacturer can ensure quality and a perfect fit.
- ◆ We cannot fulfil our warranty obligations according to the terms of our warranty if maintenance work has been neglected or carried out incorrectly.
- ◆ This Operating Manual is only valid in so far as the vehicle corresponds to the specifications described within this document.

We wish you a good journey and lots of enjoyment with your new **VANTourer** vehicle.

The Management

1.2 Vehicle data

The following vehicle specifications are particularly important when making enquiries or ordering spare parts:

For this reason, please enter the model, type, year of manufacture and the chassis number of your **VANTourer** motorhome/caravan in the fields shown opposite.

Model:

Type:

Year of manufacture:

Chassis number:

1.3 Rating plate

You will find details of your vehicle on the rating plate. This is located in the engine compartment next to the engine cover catch.

2. Safety instructions

This section contains safety instructions that must be followed when using the vehicle.

We point out explicitly that we will not assume any liability for damage and malfunctions resulting from non-observance of this Operating Manual!

2.1 List/explanation of utilised safety markings



DANGER!

This safety symbol appears when operating procedures must be observed in full to prevent **"RISK OF PERSONAL INJURY"**.



CAUTION!

This safety symbol appears whenever operating procedures must be fully observed to prevent the **"RISK OF PROPERTY DAMAGE"**.



NOTE!

This safety symbol appears with **"TECHNICAL REQUIREMENTS"** that the user must observe.

The safety symbols **"DANGER"** and **"CAUTION"** appear at the beginning of the paragraph(s) to which they refer.

The safety symbol **"NOTE"** may appear at the beginning or the end of the paragraph(s) to which it refers.



NOTE!

It is imperative that these safety instructions are observed.

2.2 Safety devices





















Particular attention should be paid to the safety devices fitted in your vehicle. These safety devices must always be checked to ensure that they are working correctly. The motorhome must not be used if the safety devices are malfunctioning or not working.



2.3 Safety regulations for participation in road traffic

- ◆ The vehicle must be officially registered.
- ◆ The driver must have an appropriate driving license.

In Germany, the maximum speed permitted for vehicles is:

Within built-up areas...	up to 3.5 t total weight	
	above 3.5 t total weight	
Outside built-up areas...	up to 3.5 t total weight	
	between 3.5 t and 7.5 t total weight	   
	above 7.5 t total weight	   
On motorways and expressways...	up to 3.5 t total weight	
	between 3.5 t and 7.5 t total weight	   
	above 7.5 t total weight	   

Tab. 1 Maximum speeds permitted for vehicles in Germany

- ◆ Carrying persons in the living area of the vehicle while it is moving is principally allowed according to German traffic regulations. However, these persons may only use the seats equipped with seat belts. Seats not equipped with seat belts must not be used when moving. Persons facing forwards in the living area of the vehicle must wear the three-point seat belts. Persons facing backwards in the living area of the vehicle must also wear seat belts. For journeys abroad, the regulations in the specific country are to be observed. We recommend always wearing the safety belts.
- ◆ Due to the vehicle height you need to be aware of the vehicle's higher vulnerability to side winds during the journey.
- ◆ When loading the vehicle, pay attention to the permissible maximum laden mass and the permissible axle loads (see registration certificate (vehicle documents)).
- ◆ Distribute the payload evenly throughout the vehicle (see section "4.3 Loading the vehicle").
- ◆ During the journey all seats must be turned to face the direction of travel and locked in place.

- ◆ Before beginning the journey, check that the vehicle doors, all doors inside the vehicle, the cabinet doors, drawers and flaps as well as all windows and roof lights are closed.
- ◆ The refrigerator door must be completely closed and locked with the door latch.
- ◆ Before beginning the journey, check that the movable washbasins, movable mirrors, movable shelves and shower doors are locked.
- ◆ Before beginning the journey, check that the electrically operated entrance step and the satellite dish are fully retracted.
- ◆ Before setting off, ensure that the pop-up roof is closed and securely locked and that the ladder is safely stowed.
- ◆ If accessories are fitted, this will alter the dimensions, the total weight and the handling of the vehicle. Such accessories may have to be entered in the vehicle documents!
- ◆ When parking the vehicle, pull the parking brake up as far as it will go.
- ◆ Use wheel chocks if parking on a slope.
- ◆ In winter, clear the roof of ice and snow before starting the journey.
- ◆ If the vehicle is transported (e.g. by train, lorry), the vehicle must be loaded in the direction of travel!

2.4 General safety instructions



DANGER!

Climbing onto or walking on the vehicle roof is not permitted.



CAUTION!

Risk of damage to the vehicle roof, canvas blind, awning or the sun roof

Snow load can damage the vehicle roof, canvas blind, awning or the sun roof.

Water accumulation can damage the canvas blind, awning or the sun roof.

☞ Keep the vehicle roof, canvas blind and awning free of snow.

☞ Avoid the accumulation of water on the canvas blind, awning and sun roof.

- ◆ Do not damage the outer hull of the vehicle!
- ◆ Collect all operating fluids (e.g. lubricants, used oil and detergents) in suitable containers and dispose of correctly!
- ◆ Always ensure there is adequate ventilation when residing in the vehicle. Forced ventilation openings in the roof lights, mushroom vents and in the floor plate in the kitchen area must never be obstructed (e.g. by winter mats) or sealed due to the risk of suffocation from increased carbon monoxide in the air.
- ◆ The separate operating manuals of all built-in units (e.g. gas heater, gas cooker, refrigerator), as well as those of the base vehicle (engine, brakes, etc.) must always be kept at hand and observed.

- ◆ Be aware of the headroom of the vehicle doors.
- ◆ Close all doors and windows when leaving the vehicle.

2.5 Safety instructions for fitting rear carrier systems

For safety reasons, only have rear carrier systems (e.g. bike racks) fitted by authorised specialist workshops. Your local **VANTourer**- dealer will be happy to direct you to a specialist workshop in your area.



CAUTION!

Observe the following after attaching a rear carrier system to your vehicle.

- ☞ Only carry items that are listed in the respective operating manual of the rear carrier.
- ☞ Follow all instructions when attaching and securing the load to the rear carrier.
- ☞ Do not exceed the permissible payload capacity of the rear carrier.
- ☞ The distribution of the load on the axle and the total weight of the vehicle are altered by the attached carrier.
- ☞ The driving/braking behaviour of the vehicle will change.
- ☞ The vehicle is longer than in standard configuration.



NOTE!

In Germany, removable rear carrier systems need not be entered in the vehicle documents.

2.6 Safety regulations for towing



CAUTION!

- ☞ To prevent severe damage to the chassis and body, the tow rope, cable or bar must only be mounted to the eyelet at the front when towing the vehicle.
- ☞ Towing other vehicles with the vehicle is only permitted when the vehicle is equipped with a trailer hitch or eyelet. Otherwise there is a risk of severe damage to the chassis and body.

2.7 Safety instructions for the gas system



DANGER!

If you smell gas or suspect a gas leak, immediately take the following measures:

- ☞ Close the shut-off valve on the gas cylinder!
- ☞ Avoid ignition sources, naked flames or smoking!
- ☞ Provide ventilation through the rooms!
- ☞ Clear the danger area!
- ☞ Inform the camping site superintendent and the fire service if necessary!
- ☞ The gas system may be put into service again only after inspection by a technical expert!

**DANGER!**

- ☞ To avoid damage to persons and/or property, always ensure any additional gas-operated appliances installed at a later point in time are equipped for an operating pressure of 30 millibar [mbar].
- ☞ Do not use gas-operated appliances with varying connection pressures.
- ☞ No additional gas-operated appliances must be connected under any circumstances.
- ☞ When using the gas cooker, you must open either a roof light, a window or a door! Failure to observe this may lead to an acute lack of oxygen and the possible creation of odourless and toxic carbon monoxide (CO) which can cause suffocation and death.

**DANGER!**

- ☞ Do not use gas-operated appliances when refuelling, in multi-storey car parks, in garages or on ferries.
- ☞ Do not use fuel-powered appliances (e.g. diesel-powered heater) when refuelling, in multi-storey car parks, in garages or on ferries.
- ☞ Do not block ventilation devices or exhaust openings for gas-operated or fuel-powered appliances (refrigerator, heater, etc.) and clean them regularly.
- ☞ The caravan must never be heated with radiant heaters and other appliances that take their combustion air from the interior of the caravan.
- ☞ Repairs and modifications to the gas system may only be carried out by an authorised specialist workshop.
- ☞ The LPG (liquefied petroleum gas) system is inspected by an engineer before it leaves the factory. The gas system must be re-inspected every 2 years and following modification or repair.
- ☞ To ensure a continuous exchange of air in the vehicle, the forced ventilation openings in the roof lights, mushroom vents and in the floor plate in the kitchen area must never be covered!
- ☞ Before starting up the gas heating system, remove any dirt and snow from the combustion air inlets to prevent carbon monoxide (CO) in the exhaust gas increasing to an inadmissible level!
- ☞ The gas locker must be hermetically sealed from the interior of the vehicle and there must be a ventilation opening of at least 100 cm² on or immediately above the floor which must never be covered!
- ☞ Gas cylinders must be kept in the gas locker where they must be held upright and securely tied down to prevent them from turning.
- ☞ Do not store current-carrying electrical devices (e.g. batteries) and/or devices which can create a source of ignition in the gas locker.
- ☞ Electrical leads of any type may only be led through the gas locker when properly insulated, and not fastened with clips!
- ☞ It is not permissible to store any objects inside the gas locker. The gas locker is not a storage compartment.

- ☞ Only use pressure regulators with a safety valve! Other regulators are not permitted! Carefully connect the regulator to the gas cylinder by hand (do not use spanners, pliers or similar). The screw fitting on the gas regulator has a **left-hand thread**. Use a de-icing system for the regulator when temperatures are below 5 °C (e.g. Eis-Ex).
- ☞ When switching on gas appliances (e.g. gas cookers) which are ignited by pressing a button, it must be ensured that this button automatically returns to its original position after pressing.
- ☞ The flue pipe of the gas heater must be installed ascending over its complete length and fitted tightly with clamps and, if necessary, with flue pipe supports.
- ☞ The flue pipe must be properly connected and sealed to the gas heater and to the flue, and must not be damaged in any way.
- ☞ Operate the gas system only with propane, butane or a mix of the two gas types. Propane can gasify down to -42 °C, butane only down to 0 °C.
- ☞ The gas cylinder shut-off valve must remain closed during the journey.
- ☞ Always close the appliance gas tap when you have finished using a gas appliance!
- ☞ If you intend to take the vehicle out of service for a prolonged period of time, close the stop valve on the gas cylinder, remove the gas regulator from the gas cylinder and place the cover on the gas cylinder!
- ☞ The regulators and flue pipes must also be checked regularly! The inspection must be confirmed on the inspection certificate according to the DVGW [German Technical and Scientific Association on Gas and Water] worksheet G 607! The operator is solely responsible for ensuring the checks are carried out!
- ☞ Observe relevant national legislation outside Germany!



NOTE!

At altitudes exceeding 1,000 m, malfunctions may occur when igniting gas for reasons of physics. This however does not mean that the appliance is not functioning properly.

2.8 Safety instructions for the electrical system

2.8.1 Starter and living area battery



DANGER!

- ☞ To avoid flying sparks and a risk of fire when **removing** the starter/living area battery, first disconnect the negative lead (black) and then the positive lead (red).
- ☞ When **refitting** the starter / living area battery, first reconnect the positive lead (red) and then the negative lead (black).
- ☞ To avoid short circuits and a risk of fire, only insulated battery terminals should be used. Jump leads must also have insulated battery terminals!

2.8.2 Emergency power generator



CAUTION!

- ☞ Prevent damage to the electronics by avoiding voltage fluctuations when operating the emergency power generator!
- ☞ Pay attention to the device manufacturer's specifications when using an emergency power generator!

2.9 Fire safety

2.9.1 Prevention of fire hazards

- ☞ All repairs and modifications to the electrical or LPG systems and equipment must be carried out by trained personnel!
- ☞ Never leave any children inside the vehicle alone or unattended.
- ☞ Keep flammable materials such as curtains, wardrobe and front panels made of fabric away from heating and cooking appliances and lamps!
- ☞ Never use portable heating or cooking appliances!
- ☞ Cushions, upholstered parts or mattresses made of polyurethane foam are inflammable. Do not expose these parts to naked lights and any other direct or indirect sources of high temperature (e.g. welding, cutting, lighted cigarettes, heaters, open light sources)!

2.9.2 Fire fighting

- ☞ It is recommended to always carry a 1 kg dry powder fire extinguisher in the vehicle! This extinguisher must be approved, tested and kept within easy reach. Familiarise yourself with the operation of the fire extinguisher before you may get into a situation in which you need to use it.
- ☞ Motorhomes and caravans licensed for Norway must always carry at least one 2 kg dry powder fire extinguisher. This extinguisher must be approved, tested and kept within easy reach. Familiarise yourself with the operation of the fire extinguisher before you may get into a situation in which you need to use it.
- ☞ The fire extinguisher must be checked regularly by approved trained personnel (make a note of the inspection date)!

2.9.3 In case of fire

- ☞ Evacuate all vehicle occupants!
- ☞ Switch off the electrical power supply and disconnect from the mains!
- ☞ Immediately close the gas cylinder stop valve!
- ☞ Fight the fire if this is possible without risk!
- ☞ Sound the alarm and call the fire service!
- ☞ Be aware of the location and use of emergency exits!
- ☞ Keep emergency exits clear!
- ☞ Follow the instructions for use of the fire extinguisher!

2.10 Important notes for the sanitary area



CAUTION!

- ☞ Only use the bathroom cubicle for showering in conjunction with a shower curtain or a shower door!
- ☞ Only use a damp cloth to clean the bathroom cubicle!
- ☞ Do not use any cleaning agents containing solvents (such as acetone) since those agents can damage the surfaces of the bathroom cubicle.

2.11 Important note for the kitchen range



DANGER!

Risk of injury

When the vehicle is moving, the unfastened kitchen sink cover may lead to injury if the vehicle suddenly brakes.

- ☞ Before starting your journey, take the kitchen sink cover off and stow it away safely.

2.12 Environmental notes

- ☞ Collect all operating fluids (e.g. lubricants, spent oil and detergents) in suitable containers and dispose of properly!
- ☞ Never dispose of waste water of any kind or domestic refuse in the gutter or in the countryside.
- ☞ Only empty the waste water tank and the toilet cassette at specially designated disposal facilities. Observe town and district regulations and ask about disposal facilities.
- ☞ For the WC, use small doses of an environmentally friendly and biodegradable WC chemical.
- ☞ Separate domestic refuse into glass, metal tins, plastic and wet refuse.
- ☞ Never dispose of domestic refuse in waste bins in car parks. Ask about disposal facilities in towns and districts.
- ☞ If residing for a longer period in a town or district, look for a specially designated parking place for motorhomes. Ask about parking facilities in towns or districts.
- ☞ Turn off the vehicle engine when parked. The engine operating temperature is reached quickest by driving fast.

2.13 Supplementary notes

In addition to this manual, the manuals and brochures of your local automobile club must be observed.
For example:

- ◆ Free camping and overnight stays in Europe
- ◆ Traffic regulations for trailers and motorhomes in Europe
- ◆ Special traffic regulations for camping vehicles in Germany



NOTE!

Ask the automobile clubs or similar organisations in your country about the availability of such brochures.

2.14 Safety instructions for using the beds



DANGER!

Do not exceed the maximum load for the beds to rule out any risk of the bed collapsing!

See on the right for a list of all beds and their maximum loads.



NOTE!

The figures given for the maximum loads of the individual beds always apply to single occupancy, i.e., with a bed accommodating two people the load is doubled.

Type of bed	Max. load per occupant
Single beds	100 kg
Fixed beds	100 kg
Lifting beds	100 kg
Bunk beds	60 kg

Tab. 2 Maximum load of beds

2.15 Disposal of the vehicle



NOTE!

- ☞ The vehicle should only be disposed of by specialist firms authorised to carry out this work.
- ☞ When disposing of the vehicle, observe national and regional provisions as well as relevant guidelines/directives.

3. Description & equipment

3.1 Base vehicle

A FIAT Ducato chassis is used as the base vehicle for the **VANTourer** motorhome.



NOTE!

For further information on the base vehicle, please refer to the separate operating manual provided by the manufacturer of the base vehicle.

3.2 Gas locker

- ◆ The vehicle is equipped with a separate lockable gas locker. The gas locker is sealed off from the interior of the vehicle and has a vent hole in or directly above the floor plate.

3.3 Interior fittings and furniture

- ◆ The high-quality furnishings are manufactured from a combination of various materials and are patterned. A special technique is used to bend curved furniture. Curved furniture sections are made with multiple-bonded wood, also patterned. This type of finish ensures that furniture surfaces are simple and easy to keep clean.
- ◆ Particular attention is also paid to securing the furniture in the interior of all **VANTourer** vehicles. To enable the absorption of correspondingly large forces, multi-laminated plywood strips and metal inserts are fastened to the side walls at corresponding places. These attachment points are incorporated during manufacture of the side walls which ensures a high level of strength.
- ◆ All flaps on storage compartments and cupboard doors are fitted with high-quality locks to prevent unwanted opening. Great importance is also attached to quality when choosing the fittings on the flaps and doors used in the vehicle.
- ◆ Depending on the layout, equipment or model, the vehicle may be equipped with a swivelling driver's seat and passenger seat which can be arranged to form a seating group with a dinette table.

3.4 Beds

- ◆ Depending on the layout, equipment and model, the vehicle may be equipped with fixed beds, lifting beds or a bed in the pop-up roof. In addition to that, the seating group may be converted into a bed depending on the layout, equipment and model. Spacious storage compartments can be found above the rear bed.

3.5 Kitchen range

- ◆ The kitchen range is fitted with a cooker, a sink and a refrigerator. Apart from that, the kitchen range provides plenty of space to put down and store things as well as storage compartments above the kitchen range.
- ◆ Some models have a light above the cooker.

3.6 Seating layout

- ◆ All forward-facing seats approved for use by persons during the journey are provided with 3-point seat belts and head restraints.

3.7 Heating and hot water

- ◆ The vehicle is equipped with a hot air heating including hot water supply system.

3.8 Sanitary equipment

- ◆ The vehicle is equipped with a bathroom cubicle (toilet, sink, washroom).

3.9 Fresh water and waste water

- ◆ All vehicles have a built-in fresh water tank and a waste water tank. The fresh water tank is located in the rear area. The waste water tank is fitted under the floor. The fresh water and waste water tanks are insulated and heated via a heating line routed in the underbody. Thus making the fresh water and the waste water tank frost-proof even at low temperatures.



NOTE!

- ☞ If there is the risk of frost, open the string-operated shut-off for heating.
- ☞ In order to avoid freezing or excessive heating up of the tank, increase or reduce the heat supply to the tank by adjusting the string-operated warm-air shut off.

4. Before setting off

4.1 Using the vehicle for the first time



DANGER!

Read all safety instructions in this Operating Manual carefully before using the vehicle!



CAUTION!

- ☞ The first time you use the vehicle, check the wheel bolts/wheel nuts are still tight after driving about 50 km and re-tighten if necessary. The correct tightening torque can be found in section "21.3 Tyre pressure and wheel bolt tightening torque table".
- ☞ Then check the wheel bolts/wheel nuts for tightness at regular intervals!

4.2 Registering the vehicle



CAUTION!

Never drive the vehicle without a number plate or insurance cover!

Vehicles must always be officially registered before they are taken on public roads. Vehicles may not be used without valid insurance.

- ☞ Vehicles that have an EU number plate do not require any further identification for driving within the EU. The additional relevant identification is required when driving in non-EU countries.
- ☞ Vehicles that do not have an EU number plate additionally require the relevant national identification when driving in foreign countries.

Display the national identification in accordance with the regulations which apply in the country you are visiting.

Contact your local **VANTourer** dealer about the individual formalities required.

4.3 Loading the vehicle



DANGER!

Risk of accident and damage to the vehicle

Loading the vehicle incorrectly will have a negative impact on the driving characteristics of the vehicle and may cause accidents or damage to the vehicle.

- ☞ Do not exceed the permissible maximum laden mass and the permissible axle load as indicated in the registration certificate (vehicle documents) when loading the vehicle.
- ☞ Exceeding the permissible maximum laden mass and too little tyre pressure may cause the tyres to burst. The vehicle could veer out of control!
- ☞ All additional weights carried beyond the information in section "21.2.4 Maximum load capacity" reduce the maximum payload!
- ☞ Make sure that the centre of gravity of the loaded items is just above the vehicle floor or as close to the vehicle floor as possible when loading the vehicle.
- ☞ Ensure that the payload is distributed evenly between the left and the right side of the vehicle when loading the vehicle.



NOTE!

The registration certificate (vehicle documents) only specifies the permissible maximum laden mass, not the unladen weight of the vehicle. Therefore, we recommend weighing the vehicle on a public weigh-bridge before starting the journey!

4.3.1 Loading the interior

- ☞ Ensure that the payload is distributed evenly between the left and right sides of the vehicle!
- ☞ Stow away heavy items (such as dishes, utensils, food cans) in lower storage areas or on the floor inside suitable containers and attach them to prevent them from slipping.
- ☞ Place lightweight items (such as clothes) in the upper storage areas.

4.3.2 Loading the roof



DANGER!

Climbing onto or walking on the vehicle roof is not permitted.



CAUTION!

Damage to the vehicle roof

- Heavy snowfall can damage the vehicle roof.
- ☞ Keep the roof of the vehicle free from snow.

- ☞ The maximum permissible roof load is 75 kg.
- ☞ The roof bars (optional accessory) may only be used to carry roof loads, such as surfboards, inflatable boats or light canoes!
- ☞ Transverse bars can be attached to the roof bars (optional accessory). The maximum load of the transverse bars is 50 kg. The transverse bars are movable. When loaded, position the transverse bars near the feet of the roof bars.
- ☞ Tie down roof loads securely. Do not use rubber expanders!
- ☞ Always note the increased total height of the vehicle when the roof bars are loaded!
- ☞ Refer to section "21.2.3 Determining the payload weight".

4.3.3 Loading the bike rack (optional accessory)



DANGER!

Risk of accident

Loading or mounting bicycles incorrectly can lead to accidents.

- ☞ Only bicycles may be transported.
- ☞ Before transporting the bicycles, remove all loosely mounted bicycle parts (child's seat, shopping basket, locks, bicycle pumps, etc.).
- ☞ Follow the instructions in the operating manual of the manufacturer of the rack to securely mount the bicycles.
- ☞ Do not exceed the maximum load capacity of the bike rack as specified by the rack manufacturer.
- ☞ Do not cover the rear lights.
- ☞ Regularly check that all tension belts and brackets are secure and tighten if necessary.
- ☞ Replace any damaged or worn parts of the rear carrier immediately.
- ☞ Do not transport tandem bicycles.



CAUTION!

Damage to the vehicle

Incorrectly loading the bike rack can damage the vehicle.

- ☞ Carefully lift the bicycles onto the bike rack and attach them in place in accordance with the instructions provided in the operating manual of the rack manufacturer.
- ☞ Only load the bicycles when the rear door is closed.
- ☞ Make sure the bike rack or bicycles do not touch the side wall when opening the rear door (i.e. do not open fully).



NOTE!

- ☞ The mounted bike rack can influence driving characteristics, especially around bends and when braking.
- ☞ The mounted bike rack can change the axle load distribution and the total weight.
- ☞ The mounted bike rack extends the length of the vehicle. The height and width of the vehicle may increase when loaded.



NOTE!

For further information, please refer to the operating manual supplied by the manufacturer or contact a **VANTourer** dealer.

4.4 GPS tracker (optional accessory)

Your vehicle is equipped with a GPS tracker. Despite the installation of the GPS tracker, **EuroCaravaning GmbH & CO KG** cannot be held liable in case of loss or theft of the vehicle.



NOTE!

Charge the internal battery of the GPS tracker every 2 months by switching on the 12-volt power supply on the on-board control (see section "11.5 On-board control"). The charging process takes one day. The charge status of the battery in the GPS tracker is displayed in the app.



NOTE!

For further information, please refer to the operating manual supplied by the manufacturer or contact a **VANTourer** dealer.

4.5 Brake system



DANGER!

Any defects in the brake system must be immediately repaired by a specialist workshop!

Ensure the vehicle's brake system is operating correctly before commencing any journey.

Test the brakes while driving at moderate speed and ensure ...

- ◆ the vehicle's brake system is working,
- ◆ the wheels brake evenly,
- ◆ the vehicle does not pull to one side.

4.6 Tyres



DANGER!

- ☞ Damaged tyres are a hazard and must be attended to immediately! There is a possibility of losing control of the vehicle if a tyre blows.
 - ☞ When the vehicle is fully laden, tyres may burst if not inflated to the correct pressure. You may lose control of the vehicle as a result!
 - ☞ Always check tyre pressures with cold tyres.
 - ☞ The minimum statutory depth of tread in the respective country must be complied with!
-
- ☞ Check all tyre pressures (including spare wheel) before every journey and adjust as necessary. If you cannot avoid driving with excessively low tyre pressure, you should not exceed a maximum speed of 20 km/h.
 - ☞ See section "21.3 Tyre pressure and wheel bolt tightening torque table" for the correct tyre pressure.
 - ☞ If a trailer is used, increase the tyre pressure of the rear tyres of the towing vehicle by 0.2 bar compared to normal because the additional weight of the trailer on the hitch also affects the weight on the rear tyres.
 - ☞ Check the profile depth of the tyres regularly. The more worn the tread, the greater the risk of aquaplaning.
 - ☞ Tyres may deflate in the areas in contact with the ground over long stationary periods when tyre pressures are too low or tyres can gradually deflate. You should therefore inflate tyres to 0.3 bar above the pressures shown in the table if the vehicle is to be parked for any length of time.
 - ☞ Inadequate tyre pressure can cause tyres to heat up excessively and damage them. **At high speeds this can cause the tread to separate from the tyre and can even lead to a tyre blowing.**
 - ☞ Subsequently correcting the tyre pressure will not cure hidden tyre damage!
 - ☞ Kerbs should only be negotiated slowly and at right angles where possible. Avoid driving over steep and sharp-edged kerbs. Hidden tyre damage can be caused if you drive over kerbs or sharp objects such as stones violently or at too narrow an angle. Such damage will have a delayed action! **An accident may be caused by a tyre blowing at high speed!**
 - ☞ Regularly check the tyres for damage, e.g. sharp objects sticking in the tyre, holes, cuts, cracks and blisters in the tyre wall. Any object lodged in the tyre may also damage the tyre interior. Damage should always be examined by a qualified specialist to see whether it can be repaired. A damaged tyre must be replaced if it cannot be repaired or if successful repair is in doubt. **A damaged tyre may blow!**
 - ☞ Never use tyres if you do not know their 'history'. All tyres age even if they are used little or not at all. We recommend replacing the tyres (plus the spare wheel!) on your vehicle when they are 6 years old. After 6 years, even your own spare wheel is only to be used in emergencies and with extreme caution!

4.7 Snow chains

If you have any questions about snow chains, please contact an authorised dealer or the rim manufacturer.



NOTE!

You will find further information on snow chains in the separate Operating Manual supplied by the manufacturer of the base vehicle.

4.8 Adjusting the vehicle seats



DANGER!

- ☞ Vehicle seats should only be adjusted when the vehicle is stationary!
- ☞ Before starting the journey, ensure both vehicle seats are pointing in the direction of travel and the rotary unit is correctly locked!



CAUTION!

When putting on the seat belt, ensure it passes **inside** the armrest!

Vehicle seat: Forward-backward adjustment

1. Pull up and hold unlocking lever (Fig. 1, item 1).
2. Move the vehicle seat into the desired position.
3. Release the lever to automatically lock the seat rail in the desired position.

Vehicle seat: Rotary adjustment



DANGER!

Before starting the journey, ensure both vehicle seats are pointing in the direction of travel and the rotary unit is correctly locked!

1. Pull up and hold unlocking lever (Fig. 1, item 2).
2. Rotate the vehicle seat into the desired position.
3. Release the lever to automatically lock the seat rail in the desired position.

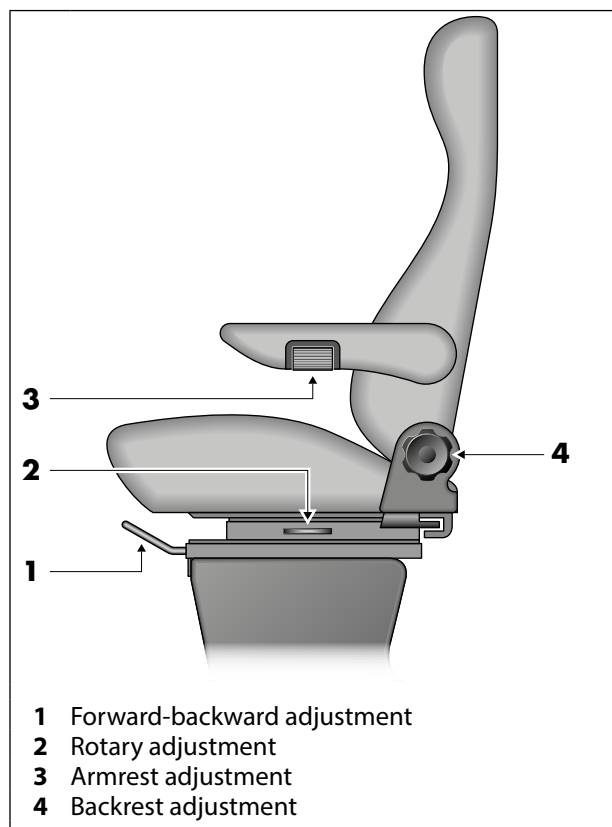


Fig. 1 Control elements on the vehicle seat

Vehicle seat: Backrest adjustment

1. Turn the handwheel (Fig. 1, item 4) backwards or forwards to adjust the backrest backwards or forwards.

Vehicle seat: Armrest adjustment

1. To move up the armrest, swivel up with light pressure.
2. Use rotary unit (Fig. 1, item 3) to set the armrest height.

**NOTE!**

You will find further information in the separate Operating Manual supplied by the manufacturer of the base vehicle.

4.9 Seat heating (optional accessory)

Depending on the model, seat heating is available as an optional accessory.

**DANGER!****Risk of fire and injury**

Improper use of the seat heating can lead to a risk of fire and injury.

- ☞ Only operate the seat heating when a person is in the seat.
- ☞ The person must be able to feel and react to temperatures.
- ☞ Only use the seat heating under supervision.
- ☞ Avoid inadvertent activation of the seat heating.
- ☞ In the case of unusual odour development or uneven heat distribution, switch the seat heating off immediately and go to a specialist workshop.

**CAUTION!****Damage to the seat heating**

Improper use can cause damage to the seat heating.

- ☞ The seat heating must not come into contact with pointed objects.
- ☞ Do not transport or place pointed or heavy objects on the seat.
- ☞ Avoid excessive weight or placing heavy objects on the seat.
- ☞ Do not cover the seat with insulating material (including blankets, jackets, cushions, pouches, bags, retrofit seat mats, child seats, seat boosters, protective covers, etc.).
- ☞ Do not expose the seat heating to excessive moisture.
 - ◆ Small amounts of the following liquids do not impair the seat heating after completely drying off: Sweat, beverages (e.g. coffee, cola, mineral water, etc.), salt water (5 % solution), ammonia-containing cleaners (10 % volume), alcohol-containing cleaners (10 % volume), plastic or vinyl cleaners and soap water.
 - ◆ Excessive contact with the a.m. liquids can lead to a shortened service life.
- ☞ Do not operate the seat heating if the surface or internal components are damp or wet.
- ☞ Do not use the seat heating with wet or damp clothing.
- ☞ Do not use the seat heating to dry clothes or objects.



NOTE!

- ☞ Modification or decommissioning of the seat heating may only be carried out by a specialist workshop.
- ☞ It is not possible to remove the seat heating whilst maintaining its functionality.

4.9.1 Operating the seat heating

The seat heating switch is located on the dashboard to the left and right of the ventilation grilles.



CAUTION!

Overheating of the seat heating

Improper use can lead to the seat heating overheating.

- ☞ When the desired temperature is reached, switch the heating to "Low".
- ☞ If the temperature is too high, switch the heating off.

"High" (maximum heating) stage

1. Press the seat heating switch up to "High" (Fig. 2, item 3).

The LED (Fig. 2, item 1) is red. The heating up time is about 2 minutes.



NOTE!

The "High" (maximum heating) stage is not suitable for continuous operation.

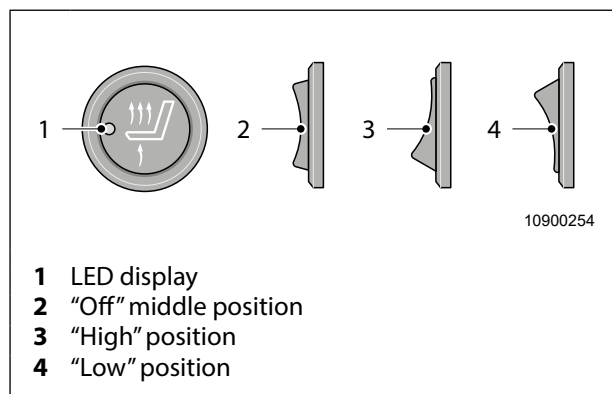


Fig. 2 Seat heating switch

"Low" stage

1. Press the seat heating switch down to "Low" (Fig. 2, item 4).

The LED (Fig. 2, item 1) is green. The heating up time is about 6 minutes.

Switching off the seat heating

1. Press the seat heating switch to the middle position (Fig. 2, item 2).

4.10 Child seat

4.10.1 Universal child seat



DANGER!

Risk of injury

If the child seat is not correctly fastened to the passenger seat, there is an increased risk of injury for the child.

- ☞ Deactivate the passenger air bag!
- ☞ Move the passenger seat backward as far as possible!
- ☞ Adjust the passenger seat as high as possible!

Group	Seat position	
	Passenger seat	In the back, facing the direction of travel
0 up to 10 kg	U*	U
0+ up to 13 kg	U*	U
1 9-18 kg	U*	UF
2 15-25 kg	U*	UF
3 22-36 kg	U*	UF

U: Suitable for universal retention systems that are fastened by means of the safety belt for adults and that are approved for use for the age group stated.

UF: Suitable for forward-facing universal retention systems that are approved for use for the age group stated.

***:** See the Danger Note above the table.

Tab. 3 Child seat fastening Universal child seat



NOTE!

You will find further information in the separate Operating Manual supplied by the manufacturer of the base vehicle.

4.10.2 ISOFIX child seat

**CAUTION!****Damage to the child seat or vehicle seat**

When installing or removing a child seat equipped with Top Tether, the vehicle seat may be damaged.

- ☞ Follow the instructions in the operating manual provided by the manufacturer of the child seat.
- ☞ Use child seats equipped with Top Tether only on seats that have retaining eyelets.

**NOTE!**

- ☞ The permitted seat positions for the ISOFIX child seat are marked by means of sew-on badges.
- ☞ You will find further information in the separate Operating Manual supplied by the manufacturer of the base vehicle.

Group	Child seat size class	Seat position		
		Passenger seat	In the back, rear-facing	In the back, facing the direction of travel
0 up to 10 kg	E			
0+ up to 13 kg	E			
	D			
	C			
1 9-18 kg	A			IUF
	B			
	B1			
	C			
2 15-25 kg	D			IUF
3 22-36 kg				IUF

IUF: Suitable for forward-facing ISOFIX universal retention systems that are approved for use for the age group stated.



ISOFIX connection points that are **not** suitable for this weight class and/or size class.

Tab. 4 Child seat fastening Universal child seat

4.11 Electrically operated entrance step – entrance door (optional accessory)



DANGER!

Danger of accident and injury

If the main switch on the on-board control is switched off, the electrically operated entrance step will not work and will remain in the final position. There is thus a risk of falling when leaving the vehicle through the entrance door or the sliding door. When driving, an entrance step that has not been retracted may cause an accident or damage the vehicle.

- ☞ If the main switch is switched off, take care when exiting the vehicle through the entrance door or sliding door.
- ☞ Do not use the entrance step when it is retracted or not fully extended.
- ☞ Before setting off, make sure (e.g. by looking into the side mirror) that the electrically operated entrance step is completely retracted.

Retracting and extending the electrically operated entrance step

1. To extend the entrance step, operate the sensor field (Fig. 3, item 1).
2. To retract the entrance step, operate the sensor field (Fig. 3, item 2).

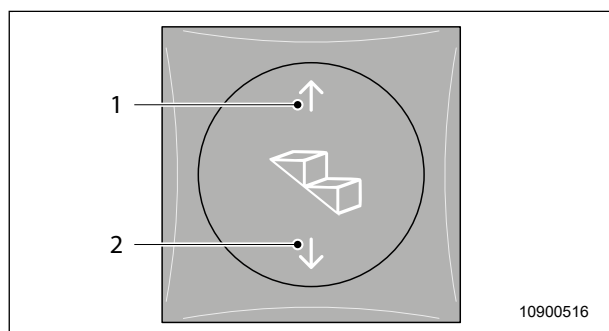


Fig. 3 Entrance step button - entrance door

4.12 Electrical vehicle lighting

Before commencing any journey, it is advisable to check all lights on the inside and outside of the vehicle to ensure they work properly, and immediately replace any defective bulbs.

Familiarise yourself with changing individual bulbs and the associated procedures beforehand.

4.13 Obtaining replacement keys

Should you ever need to obtain replacement keys for your vehicle, make sure to have the following information available:

Key for	Necessary for procuring the key	Obtainable from
FIAT base vehicle	Code No. or code card Second key Chassis No.	FIAT - authorised workshop
VANTourer structure	Serial No. Chassis No. Second key or key No.	VANTourer service centre

Tab. 5 Obtaining replacement keys

4.14 Vehicle check before setting off

Perform an inspection of the vehicle (see section "23.1 Checklist before setting off") each time before setting off.



DANGER!

Risk of injury or damage to the vehicle

Payload that is not securely tied down and unlocked drawers, flaps and covers may cause injury or damage the vehicle in the event of sudden braking.

- ☞ Before starting your journey, stow the payload safely.
- ☞ Before starting your journey, lock all drawers, flaps and covers.
- ☞ Stop after driving a few kilometres and check once again that the payload inside the vehicle is securely tied down and cannot slip.



DANGER!

Risk of accident

During the journey, snow or ice sliding off the roof of the vehicle can lead to accidents.

- ☞ Remove ice and snow from the vehicle roof before starting the journey.

Optional accessory pop-up roof



DANGER!

Danger of accident and injury

An open or unlocked pop-up roof can come loose during the journey and lead to accidents.

An unsecured ladder can lead to injuries or damage to the vehicle in the event of sudden braking.

- ☞ Close and lock the pop-up roof before each journey.
- ☞ Store the ladder in a safe place during the journey.

5. During the journey

5.1 Driving your vehicle



DANGER!

- ☞ Carrying persons in the living area of the vehicle while moving is principally allowed according to German traffic regulations. However, these persons must be seated on the designated seats.
- ☞ Persons sitting in the living area of the vehicle and facing forward, the driver and the person sitting on the passenger seat in front must wear their 3-point seat belts during the journey.
- ☞ Persons facing backwards in the living area of the vehicle must also wear seat belts.
- ☞ The maximum speed of the vehicle is listed in the registration certificate (vehicle documents).



CAUTION!

When driving into courtyards, tunnels etc. as well as when manoeuvring, it is important that you correctly judge the height, width and length of the vehicle! Please refer to the registration certificate (vehicle documents) to check the dimensions of the vehicle.



NOTE!

Always drive attentively and with consideration for other road users.

Follow these useful hints when driving your vehicle:

- ☞ Never drive faster downhill than you would uphill.
- ☞ Consider side winds when driving over bridges and take into account that turbulence can influence the vehicle when overtaking trucks. In either situation, you may have to counter-steer quite heavily.
- ☞ Due to the vehicle height, you need to be aware of the vehicle's higher vulnerability to side winds during the journey.
- ☞ Do not underestimate the length of the vehicle.
- ☞ Remember to change gear in good time.
- ☞ Avoid jerky steering movements.

5.2 Refuelling the vehicle



DANGER!

Risk of explosion when refuelling the vehicle

Fuel is highly flammable and can cause severe burns and other injuries.

- ☞ Switch off all gas-operated built-in appliances.
- ☞ Keep away from fire and open light.
- ☞ Smoking is prohibited.
- ☞ The use of mobile phones is prohibited.
- ☞ Observe any country-specific safety instructions at the petrol pumps.



CAUTION!

Damage to the vehicle

Fuel mixtures will damage the fuel system.

- ☞ Only use diesel fuel to refuel the vehicle!
- ☞ Do not fill petrol or AdBlue® into the diesel tank!
- ☞ Only fill AdBlue® into the AdBlue® tank!

If you accidentally refuel with other types of fuel, do not start the engine and empty the tank. Even if the engine was operated for only a very short time, empty the tank and the entire feed pipe.

You will find further information in the separate Operating Manual supplied by the manufacturer of the base vehicle.

5.2.1 Refuelling diesel fuel

The tank filler neck for diesel fuel is located behind the fuel filler door (Fig. 4, item 3) next to the driver's door.

Opening the tank filler neck

1. Push in the fuel filler door (Fig. 4, item 3) and swing the door open.
2. Use the key to open the filler cap for the diesel fuel (Fig. 4, item 1) and screw it off.

Closing the tank filler neck

1. Screw on tightly the filler cap for the diesel fuel (Fig. 4, item 1) and lock it with the key.
2. Press shut the fuel filler door (Fig. 4, item 3) until it snaps into place.



NOTE!

You will find further information in the separate Operating Manual supplied by the manufacturer of the base vehicle.

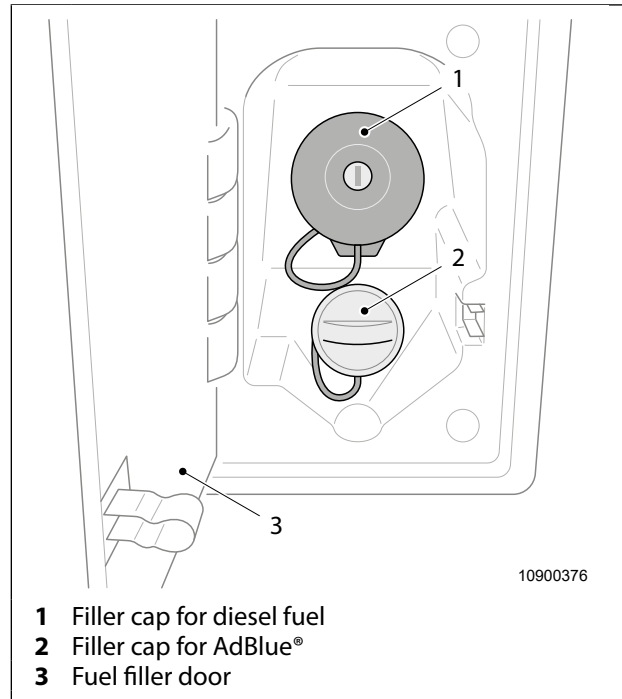


Fig. 4 Tank filler necks

5.2.2 Filling up AdBlue®



DANGER!

Risk of chemical burns from AdBlue®

AdBlue® is an irritant and a corrosive liquid that can cause injury if it touches the skin, eyes or respiratory organs.

- ☞ Observe the instructions when using AdBlue®. If used according to instructions, it is unlikely that a user will come into contact with AdBlue®.
- ☞ Store AdBlue® only its closed original container. Never use empty food or beverage containers or other containers.
- ☞ Always store AdBlue® in a safe place, outside the reach of children.
- ☞ If AdBlue® comes into contact with your eyes, rinse with plenty of water for at least 15 minutes. Seek medical help.
- ☞ If AdBlue® comes into contact with your skin, rinse with plenty of water for 15 minutes. If skin irritation occurs, seek medical help.
- ☞ If you accidentally swallow AdBlue®, immediately rinse your mouth with plenty of water for at least 15 minutes. Do not induce vomiting unless advised to by a doctor. Seek medical help immediately.

AdBlue® is a registered trademark and also known as AUS32 or DEF (Diesel Exhaust Fluid).

The tank filler neck for AdBlue® is located behind the fuel filler door (Fig. 4, item 3) next to the driver's door.

Opening the tank filler neck

1. Push in the fuel filler door (Fig. 4, item 3) and swing the door open.
2. Screw off the filler cap for AdBlue® (Fig. 4, item 2).

Closing the tank filler neck

1. Screw on the filler cap for AdBlue® (Fig. 4, item 2).
2. Press shut the fuel filler door (Fig. 4, item 3) until it snaps into place.



NOTE!

You will find further information in the separate Operating Manual supplied by the manufacturer of the base vehicle.

6. After the journey

6.1 Parking brake



DANGER!

When parking the motorhome, apply the parking brake by pulling it up as far as it will go, especially on inclines.

6.2 Pitching the vehicle

1. Apply the parking brake as far as it will go.
2. Align the vehicle in the direction of travel (e.g. with a spirit level). Only adjust by blocking up the wheels as necessary.
3. Align the vehicle crosswise to the direction of travel (e.g. with a spirit level). Adjust by blocking up the wheels as necessary.

6.3 Sun awning, awning and sun roof

Depending on the vehicle model or vehicle type, either a sun awning, an awning or a sun roof can be attached to the vehicle as a special accessory.



CAUTION!

Risk of damage to the canvas blind, awning or the sun roof

Snow and accumulated water can damage the canvas blind, awning and the sun roof.
Strong winds can damage the canvas blind, awning or the sun roof.

- ☞ Keep the canvas blind, awning and the sun roof free of snow.
- ☞ Avoid the accumulation of water on the canvas blind, awning and sun roof.
- ☞ Retract the canvas blind when it rains and when there are strong winds.
- ☞ Remove the sun roof when it rains and when there are strong winds.



CAUTION!

Damage to the vehicle

- ☞ Never move the vehicle with the awning extended.
- ☞ Do not move the vehicle when the awning or sun roof is set up.

6.3.1 General notes on the awning

The following points should be remembered when using the canvas blind:

- ☞ Do not place the canvas blind on the weather side.
- ☞ Do not pull the canvas of the blind too tightly, but only just straighten it.
- ☞ Keep oil and grease away from the canvas fabric.
- ☞ Prevent water from accumulating.
- ☞ Never move the vehicle while the canvas blind is extended.
- ☞ Thoroughly clean the canvas blind and allow it to dry when intending not to use it for a prolonged period of time. Also lightly grease its mechanical parts.



NOTE!

- ☞ Always wait until the awning is completely dry before storing it to avoid potential mould and staining (see section "18.7 Cleaning and care of the awning").

6.3.2 Extending and retracting the canvas blind



CAUTION!

Risk of damage to the sliding door!

If the awning is mounted to the roof, there is a risk of collision with the sliding door.

- ☞ Close the sliding door before extending or retracting the awning!



CAUTION!

- ☞ Once the canvas blind has been extended by approx. 1 meter or more, it must be supported using the built-in support legs for the canvas blind!
- ☞ When extending the sun awning and using the support feet, make sure that they are always at right angles to the ground!



NOTE!

- ☞ The crank is located in the rear of the vehicle.

1. Set the awning crank handle to the required length and fit it into the awning mechanism.
 2. Extend the awning by about 1 metre by turning the handle anticlockwise.
 3. Open out both awning support legs and adjust to the correct length.
 4. Now extend the awning fully while adjusting the support legs so that they are always at right angles to the ground.
- Reverse the process to retract the awning.

7. Living

7.1 Ventilating the vehicle



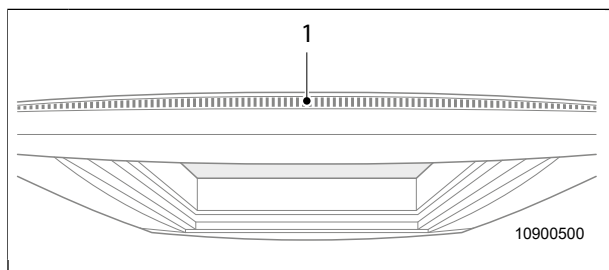
DANGER!

Risk of suffocation

If the vehicle does not have a continuous exchange of air with the surrounding air, there is an acute danger to life due to an increased carbon monoxide concentration in the breathing air.

- ☞ Never cover or obstruct the built-in safety ventilation openings (forced ventilation) in the roof lights (Fig. 5, item 1), the mushroom vents and in the entrance area.

Forced ventilation



Picture may differ to your model

Fig. 5 Forced ventilation

Providing adequate and correct ventilation for your vehicle is the best way of ensuring optimum conditions of living comfort. Cooking and wet clothing releases water vapour. Every person releases up to 35 grams of water into the atmosphere each hour just by breathing. This is why your vehicle must be ventilated via the windows and roof lights depending on the level of humidity.

Condensation may also form inside the acrylic glass double-glazing in extreme weather conditions. As the temperature rises again, the condensation evaporates and the glass demists.



NOTE!

- ☞ Condensation can form under the upholstery during the night. Cushions (expanded foam) should be placed upright and aired to remove any moisture.
- ☞ Cushions and mattresses absorb moisture. Therefore, cushions and mattresses must be ventilated regularly.
- ☞ When cushions or mattresses are covered in protective film, the moisture cannot escape into the surrounding air. Mould caused by condensation will form. Remove all protective films from cushions, pillows or mattresses.
- ☞ Damage caused by lack of ventilation is not covered by the warranty.

You will find further information in section "16 Winter camping".

7.2 Central locking

The driver and passenger doors as well as all entrance doors can be locked and unlocked centrally using a remote control in the ignition key.



CAUTION!

Risk of injury when the metal insert springs out!

- ☞ Only press the unlock knob of the ignition key when the key is far enough away from the body, especially from the eyes and objects that can be damaged.
- ☞ Never let children play with key unattended.

7.2.1 Ignition key with three buttons

The following functions are available:

- 1 Metal insert of ignition key
- 2 Unlock knob for ignition key
- 3 Unlock entrance doors
- 4 Lock entrance doors

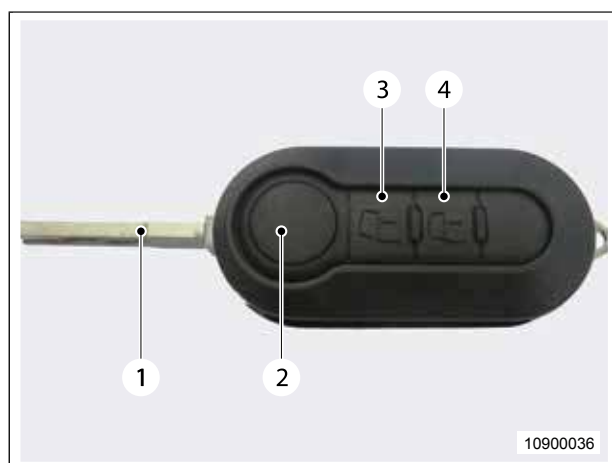


Fig. 6 Remote control for central locking (three buttons)

7.2.2 Ignition key with four buttons

The following functions are available:

- 1 Metal insert of ignition key
- 2 Unlock knob for ignition key
- 3 Unlock front doors
- 4 Lock all entrance doors
- 5 Unlock storage compartment doors

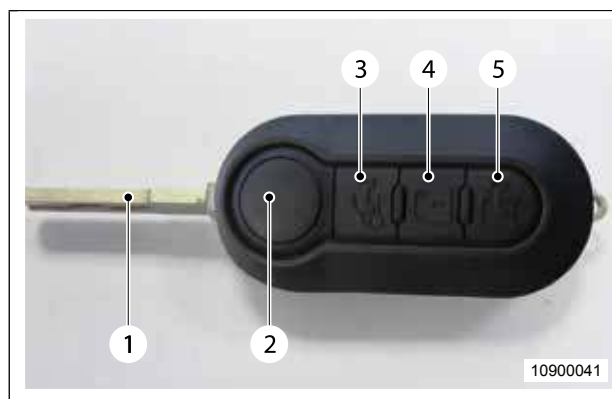


Fig. 7 Remote control for central locking (four buttons)

7.3 Driver's and passenger door

7.3.1 Opening/closing the driver's door/passenger door from the outside

Opening

1. Insert the key in the door lock and turn anticlockwise, position "A". The key jumps back to its initial position.
2. Remove the key.
3. Pull the door handle and open the door.

Closing

1. Close the door gently, insert the key in the door lock and, with slight pressure against the door, turn clockwise, position "B". The key jumps back to its initial position.
2. Remove the key.

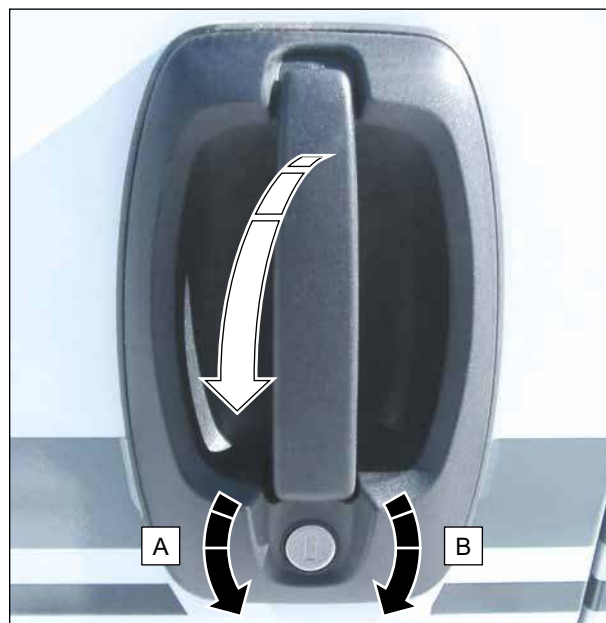


Fig. 8 Opening/closing the driver's door/passenger door from the outside

7.3.2 Opening/closing the driver's door/passenger door from the inside

Opening

1. Pull on the door handle and open the door.

Closing

1. Pull the driver's door closed by its handle.



Fig. 9 Opening/closing the driver's door/passenger door from inside

7.4 Sliding door

7.4.1 Opening/closing the sliding door from outside

Opening

1. Unlock the door lock with the remote control.
2. Pull the door handle and slide the door open until it locks in the end position.

Closing

1. Pull the door handle and release the door from the end position lock, then slide the door closed.
2. Lock the door lock with the remote control.



Fig. 10 Opening/closing the sliding door from outside

7.4.2 Opening/closing the sliding door from inside



CAUTION!

The quarter vent must be locked before opening and closing the sliding door otherwise there is a risk of breaking the window.

Opening

1. Turn the lever clockwise to position A and slide the door open with the handhold under the door lock.

Closing

1. Turn the lever clockwise to position A, release the door from the end position lock, then slide the door closed.

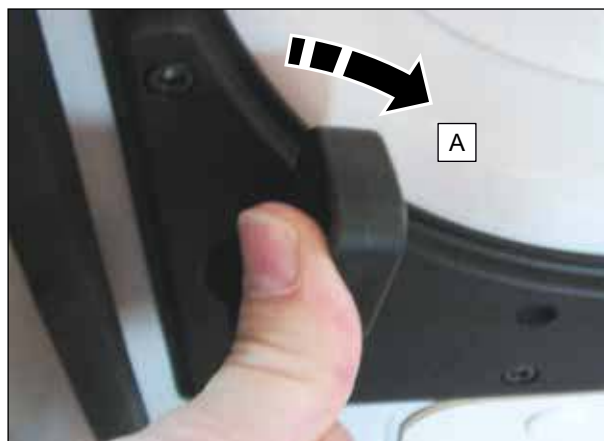


Fig. 11 Opening/closing the sliding door from inside

7.4.3 Flyscreen blind, sliding door



CAUTION!

Damage to the flyscreen door

The flyscreen door can be damaged by the handle of the sliding door.

☞ Open the mosquito protection blind completely before closing the sliding door.

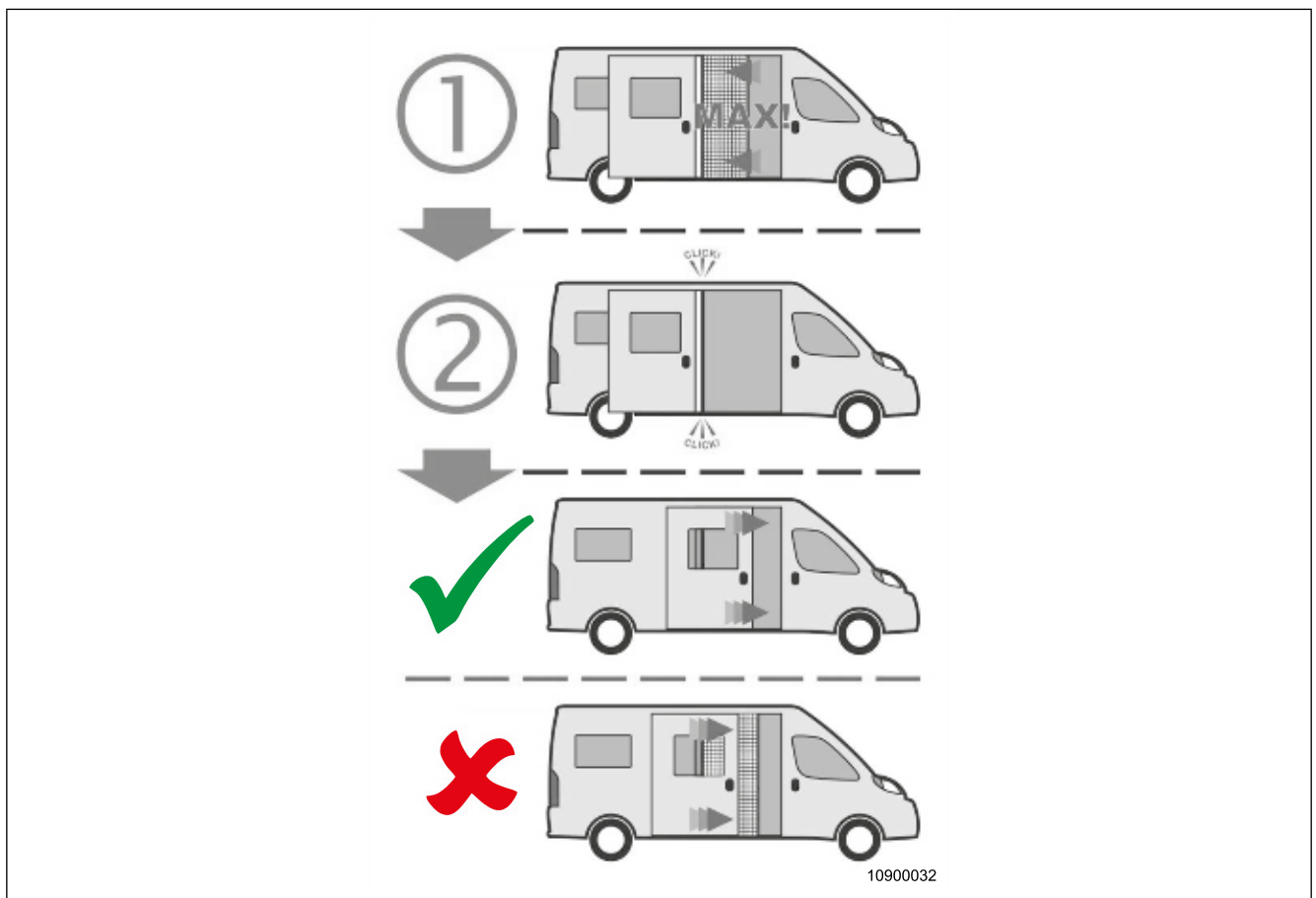


Fig. 12 Flyscreen blind, sliding door

7.5 Opening/closing the two-part rear door



DANGER!

Risk of injury

For vehicles that come equipped with a bike rack, there is a risk of injury when opening and closing the rear doors.

☞ Open and close the rear doors carefully.



CAUTION!

Damage to the vehicle

There is a risk of damaging the rear door windows when opening and closing the rear doors.

☞ Close the windows before opening and closing the rear doors.

7.5.1 Opening/closing the first door leaf from the outside

Opening

1. Insert the key in the door lock and turn anticlockwise, position "A". The key jumps back to its initial position.
2. Remove the key.
3. Pull the door handle and open the door.

Closing

1. Close the door gently, insert the key in the door lock and, with slight pressure against the door, turn clockwise, position "B". The key jumps back to its initial position.
2. Remove the key.



Fig. 13 Opening/closing first wing of two-wing rear door from outside

7.5.2 Opening/closing the first door leaf from inside

Opening

1. Pull on the door handle and open the door.

Closing

1. Pull the door closed with the door handle.

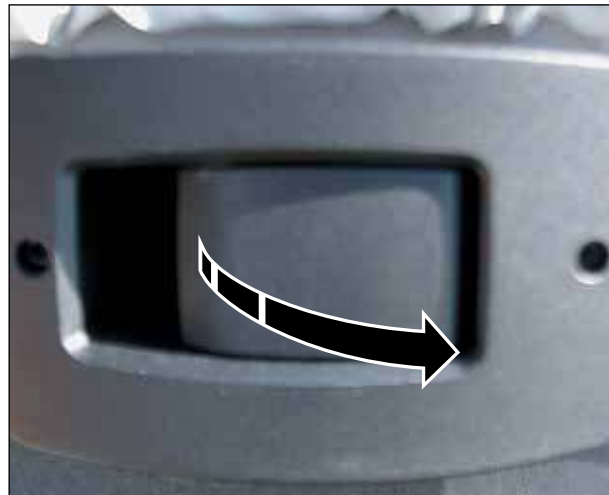


Fig. 14 Opening/closing first wing of two-wing rear door from inside

7.5.3 Opening/closing the second door leaf

Opening

1. Pull the handle to position "A" to open the second wing of the rear door.

Closing

1. Close the door.

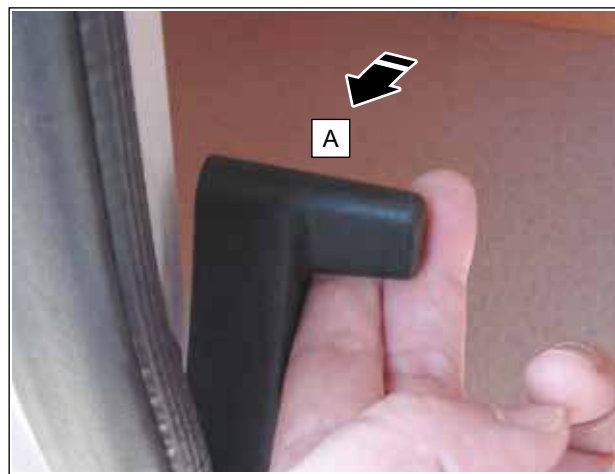


Fig. 15 Opening/closing second wing of two-wing rear door



NOTE!

The angle of the open doors can be increased. Further information can be found in the separate Operating Manual supplied by the manufacturer.

7.6 Midi-Heki



CAUTION!

- ☞ Do not tread on the acrylic glass dome!
- ☞ The glass dome should be closed fully and the blackout blinds opened before commencing your journey and when laying up the vehicle for lengthy periods of time!
- ☞ Contact your local Service Centre if the Heki develops any problems or faults!
- ☞ Any snow, ice and other obstructions must be removed before opening the glass dome!
- ☞ Do not open the glass dome in high winds, rain or snow.

See section "18.6 Cleaning and care of roof lights and roof windows" for cleaning and care instructions for the Midi-Heki.

The Midi-Heki makes the interior of the caravan lighter, provides improved ventilation and gives the living area a pleasant sense of space.

The inside frame of the Midi-Heki incorporates a combined insect protection and blackout blind. The insect protection and blackout blind can be used separately or together.

The wide glass overhang also allows the glass dome to be raised in rain without water getting into the interior of the caravan.

Opening/closing the Midi-Heki

1. The Midi-Heki is opened and closed using the crank.

Any intermediate position is possible.



NOTE!

Open and close the glass dome according to the instructions on the crank.

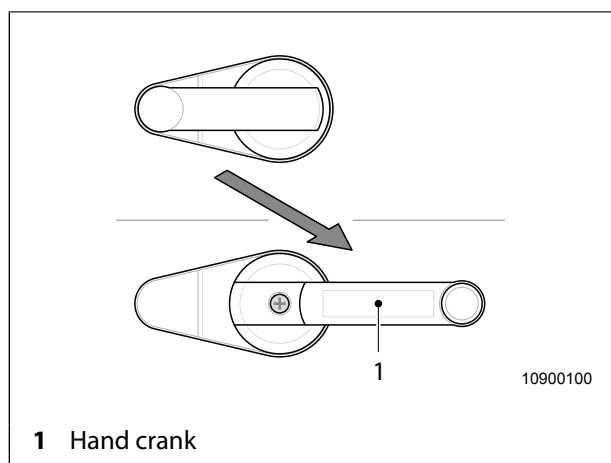


Fig. 16 Opening/closing the Midi-Heki



NOTE!

You will find further information in the separate Operating Manual supplied by the manufacturer.

7.7 Opening/closing the roof light

The roof light can be opened on one side to a maximum angle of 70°.

Opening

1. Grip the middle of the transverse bar (Fig. 17, item 1) with one hand and pull downward.
2. Hold the transverse rod (Fig. 17, item 1) pulled down and slide the roof light until it has reached the desired opening angle.
3. Let go of the transverse rod (Fig. 17, item 1).

The standout mechanism engages with the notched bar (Fig. 17, item 3) and the skylight dome remains at that angle.

Closing

1. Gripping the middle of the transverse rod with one hand, pull downward.
2. With the transverse rod (Fig. 17, item 1) pulled downward, push the roof light in the opposite direction until it is completely closed.
3. Let go of the transverse rod (Fig. 17, item 1).

When the end position is reached, the stop hooks (Fig. 17, item 2) will automatically lock the skylight dome.

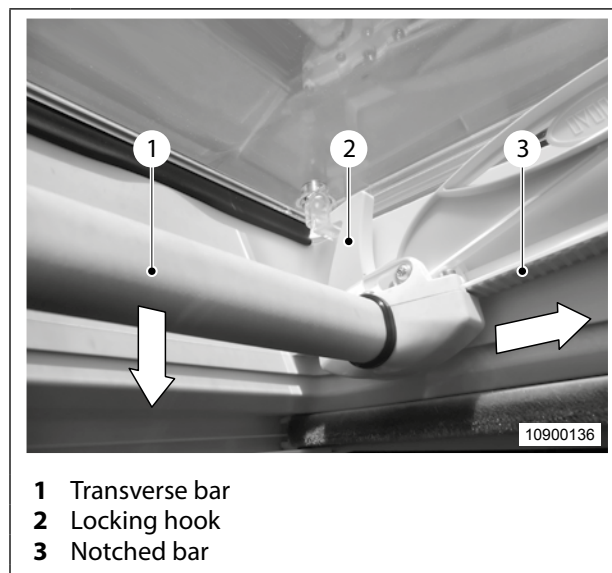


Fig. 17 Opening/closing the roof light



NOTE!

Mesh blind and blackout blind can be opened/closed individually or together.

7.8 Opening/closing the quarter vents

The quarter vents are fitted with an automatic catch mechanism. When opened, the quarter vents automatically engage in the desired position.

Opening

1. Turn the locking lever (Fig. 18, item 1) to position B.
2. Open the quarter vent to the desired position. The telescopic strut (Fig. 18, item 2) engages automatically.

Closing

1. Open the quarter vent a little more until the catch is released.
2. Close the window.
3. Turn the locking lever (Fig. 18, item 1) to position A.

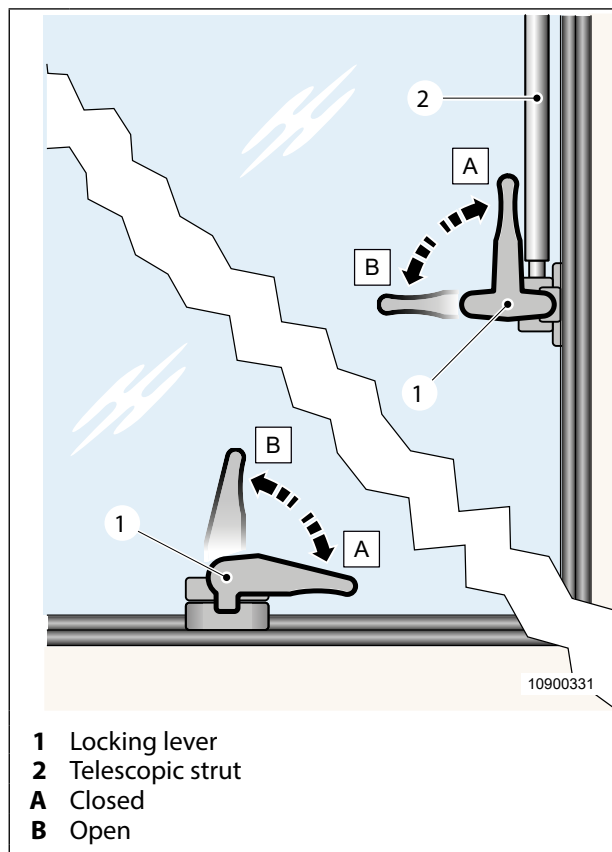


Fig. 18 Opening/closing the quarter vents

7.9 Blackout blind, front and side windows

The illustration opposite shows the blackout blind for the front and side windows.

1. To unlock the blackout blind, press both unlock knobs in arrow direction.



Fig. 19 Blackout blind, front and side windows

The illustration opposite shows the left front window blind in **extended** position.

- ☞ To make the inside of the vehicle completely dark, also extend the right front window blind and join it with the left blind at the rear-view mirror.

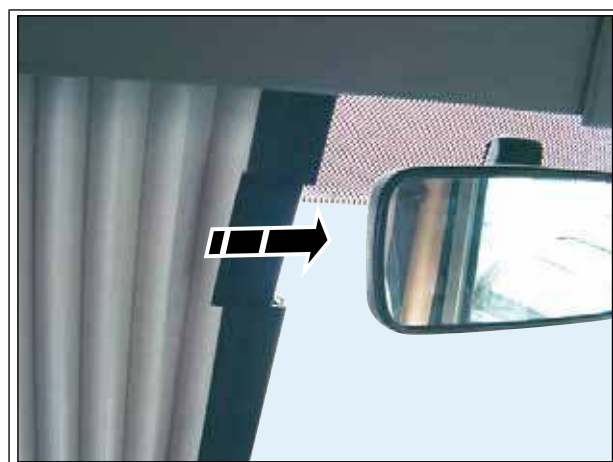


Fig. 20 Windscreen blackout blind

7.10 Variable seat bench (optional accessory)

Extending the seat bench

1. Reach into the opening (Fig. 21, item 1) and pull the handle upwards.
2. Push the seat (Fig. 21, item 2) towards the other seat.
3. Clamp the compensating cushion (Fig. 21, item 3) between the seats.

Minimising the seat bench

1. Remove the compensating cushion (Fig. 21, item 3).
2. Reach into the opening (Fig. 21, item 1) and pull the handle upwards.
3. Push back the seat (Fig. 21, item 2).

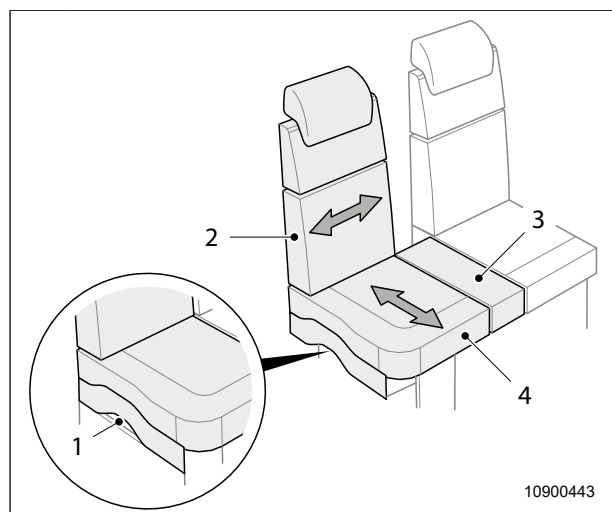


Fig. 21 Seat bench

Extending/minimising the seating surface

1. Raise the seat cushion of the seating surface (Fig. 21, item 4).
2. Push the seat cushion of the seating surface into the preferred position and click into place.

7.11 Tables

7.11.1 Hook-in table



DANGER!

Risk of injury

When the vehicle is moving, the hook-in table may come loose and could lead to injury if the vehicle brakes suddenly.

☞ Before setting off, remove the hook-in table and stow it away safely.

Moving the table

1. Lift the table top (Fig. 22, item 2) on the right-hand side.
2. Slide the lifted table along the guide rail (Fig. 22, item 1) into the desired position.
3. Lower the table top in the desired position.
The table top is now locked.

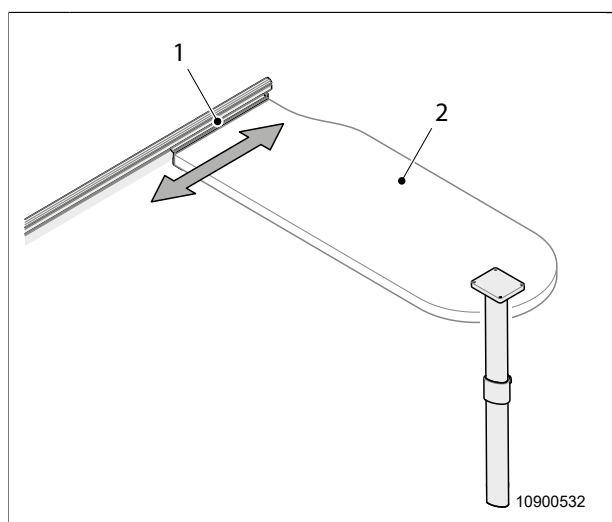


Fig. 22 Hook-in table

7.11.2 Swivelling hook-in table (optional accessory)



DANGER!

Risk of injury

When the vehicle is moving, the swivelling hook-in table may come loose and could lead to injury if the vehicle suddenly brakes.

☞ Before setting off, remove the swivelling hook-in table and stow away safely.

Swivelling the table top

1. Pull the knob (Fig. 23, item 4) down.
2. Swivel the swivelling table top (Fig. 23, item 3) until the knob latches in place.

Moving the table

1. Lift the table top (Fig. 23, item 2) on the right-hand side.
2. Slide the lifted table along the guide rail (Fig. 23, item 1) into the desired position.
3. Lower the table top in the desired position.
The table top is now locked.

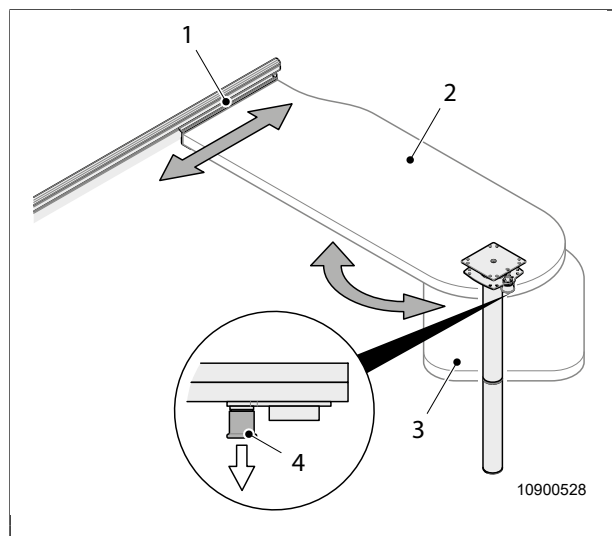


Fig. 23 Swivelling hook-in table

7.12 Flat-screen TV (optional accessory)**DANGER!****Risk of accident or damage to the vehicle**

If the 12-volt power supply for the living area is switched off, the automatic satellite system will not work and the satellite dish will remain in the last position before the deactivation. This may lead to accidents during the journey or cause damage to the vehicle.

☞ Before setting off, make sure that the satellite dish is completely retracted.

**CAUTION!****Damage to the satellite antenna**

Obstacles in the operating range of the antenna may damage the antenna.

☞ Before switching on the TV set, ensure that there are no obstacles within the range of movement of the satellite antenna!

7.12.1 Swivelling and height-adjustable flat-screen TV



DANGER!

Risk of crushing when swivelling the TV bracket

☞ Take care when swivelling the TV bracket.



CAUTION!

Damage to the flat-screen TV

- ☞ Before starting your journey, swivel the flat-screen TV back to its original position and secure with the locking screws.
- ☞ Before lowering the lifting bed, swivel the flat-screen TV back to its original position and secure with the locking screws.



NOTE!

You will find information on operating the flat-screen TVs in the separate Operating Manual supplied by the manufacturer.

Swivelling the TV bracket

1. Loosen the locking screw (Fig. 24, item 1).
2. Pull down and hold the locking button (Fig. 24, item 4).
3. Swivel the flat-screen TV into the desired position.
4. Push up the locking button (Fig. 24, item 4).
5. Secure the TV bracket using the locking screw (Fig. 24, item 1).

Adjusting the height of the TV bracket

1. Loosen the locking screw (Fig. 24, item 2).
2. Press and hold together the mechanism for adjusting the height (Fig. 24, item 3).
3. Adjust to the preferred height and release the mechanism for adjusting the height (Fig. 24, item 3).
4. Secure the TV bracket using the locking screw (Fig. 24, item 2).

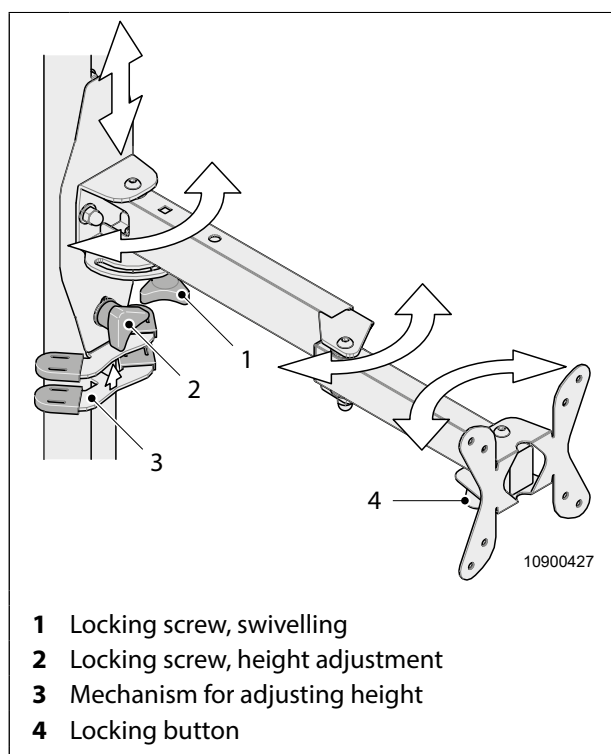


Fig. 24 TV bracket

7.12.2 Sliding flat-screen TV



CAUTION!

Damage to the flat-screen TV

- ☞ Before starting your journey, slide the flat-screen TV back to its starting position and lock it in place.
- ☞ Before lowering the lifting bed, push back the flat-screen TV and click it into place.



NOTE!

You will find information on operating the flat-screen TVs in the separate Operating Manual supplied by the manufacturer.

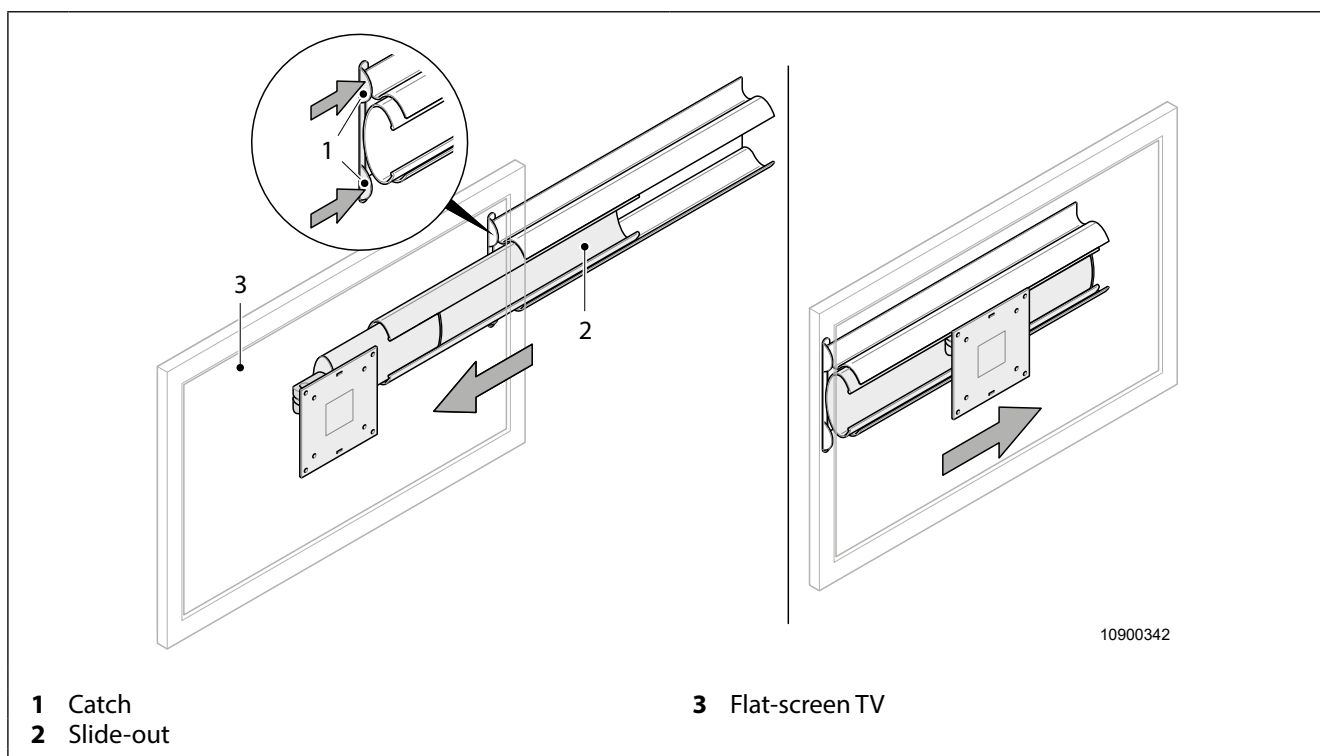


Fig. 25 Sliding flat-screen TV

Extending the TV bracket

1. Press and hold the catch (Fig. 25, item 1).
2. Pull out the flat-screen TV (Fig. 25, item 3) until it reaches its end position.

Pushing the TV bracket back in

1. Push the flat-screen TV (Fig. 25, item 3) back until it clicks in place in the end position.

7.13 Kitchen range

7.13.1 Sink



DANGER!

Risk of injury

When the vehicle is moving, the unfastened kitchen sink cover may lead to injury if the vehicle suddenly brakes.

☞ Before starting your journey, remove the kitchen sink cover and stow it away safely.

Depending on the vehicle equipment, the sink is equipped with a cover.

Stowing the cover

The cover (Fig. 26, item 1) can be stowed in the compartments underneath the sink.

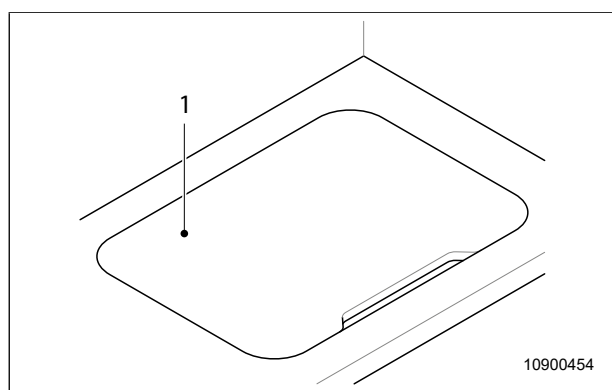


Fig. 26 Sink cover

7.13.2 Flexible work surface (optional accessory)



CAUTION!

Damage to the flexible work surface

- ☞ Fold down the work surface before setting off with the vehicle.
- ☞ Do not lean on the flexible work surface.
- ☞ Do not place heavy objects on the work surface.

Expanding the work surface

1. Fold up the extension (Fig. 27, item 1) for the work surface until it clicks into place.

Reducing the work surface

1. Press the locking lever (Fig. 27, item 2) and fold down the extension for the work surface (Fig. 27, item 1) until it clicks into place.

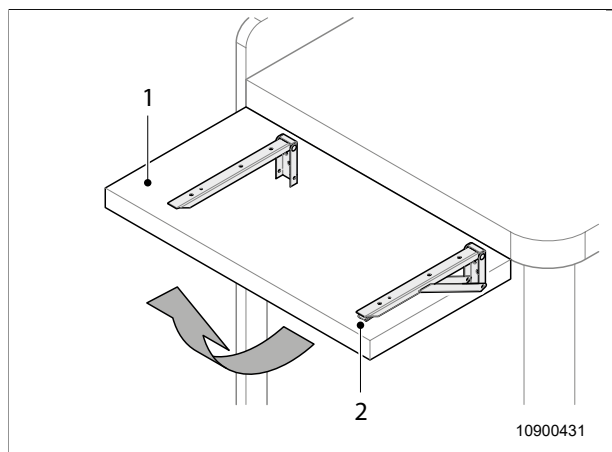


Fig. 27 Work surface extension

7.14 Bathroom cubicle

7.14.1 Vario bathroom



CAUTION!

Damage to the vario bathroom

Risk of damage to the vario bathroom door when the vehicle is moving!

- ☞ Close and lock the door before setting off with the vehicle.

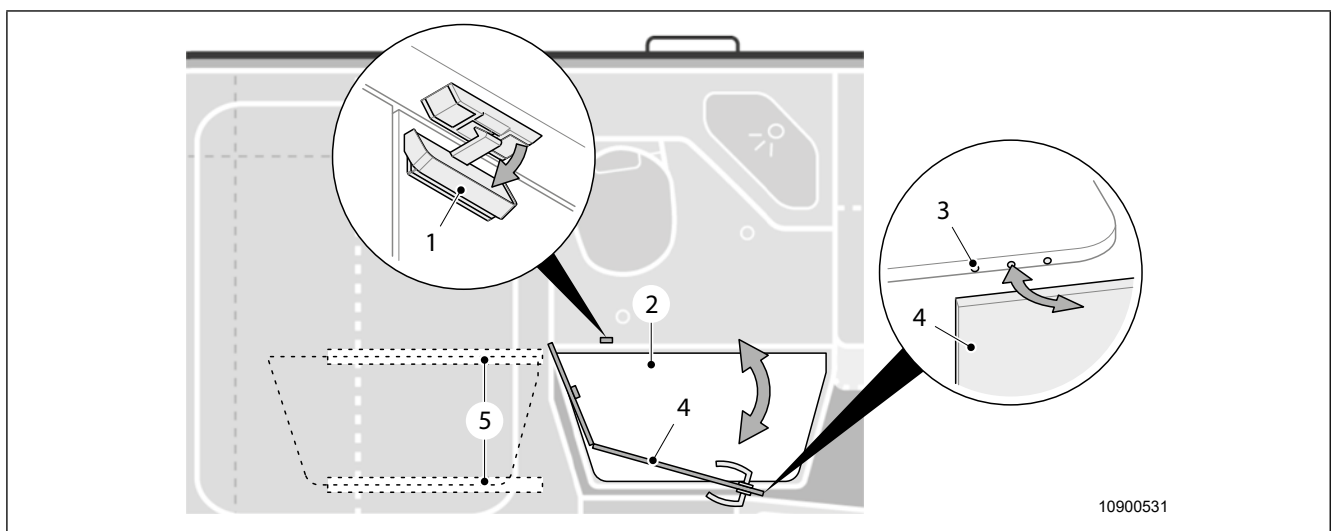


Fig. 28 Vario bathroom

Opening the vario bathroom

1. Open the lock (Fig. 28, item 1).
2. Open the door (Fig. 28, item 4) and secure it with the magnetic holder (Fig. 28, item 3).

Closing the vario bathroom

1. Close the door (Fig. 28, item 4) and lock it (Fig. 28, item 1).

7.14.2 Shower



CAUTION!

Damage to the shower curtain

If the shower curtain is folded when damp, mould and mildew can form.

- ☞ Dry the shower curtain completely after showering.
- ☞ Clean the shower curtain regularly.

Setting up the shower

1. Remove the floor plate (Fig. 28, item 2) and slide it into the holder under the rear bed (Fig. 28, item 5).
2. Open the vario bathroom (see 7.14.1).
3. Close the shower curtain completely.

Removing the shower

1. Wait until the shower curtain is completely dry and then open it.
2. Close the vario bathroom (see 7.14.1).
3. Remove the floor plate (Fig. 28, item 2) from the holder (Fig. 28, item 5) and place it on the shower tray.

7.14.3 Mirrors**CAUTION!****Corrosion of the mirror**

Moisture and cleaning agent residues can damage the mirror coating. High air humidity and insufficient ventilation of the bathroom cubicle causes corrosion on the edges of the mirror.

- ☞ If possible, clean the mirror without water and cleaning agents.
- ☞ If the area near the mirror edges is wet, dry it immediately.
- ☞ If the mirror is fogged up (e.g. after a shower), dry it immediately.
- ☞ If the mirror fogs up frequently, change your showering and ventilation habits.
- ☞ If there is a lot of humidity in the bathroom cubicle (e.g. after taking a shower), ventilate the bathroom cubicle as soon as possible.
- ☞ Do not use acidic bathroom cleaners, glass cleaners, all-purpose cleaners or window cleaners for cleaning the mirror.

**NOTE!****Instructions for care**

- ☞ Remove stains that occur during daily use (e.g. water droplets, toothpaste stains) with a soft cloth or with your towel after drying your hands.
- ☞ Remove stubborn stains (e.g. cosmetics residues) carefully with a slightly moistened microfibre cloth or a chamois leather cloth.
- ☞ If possible, clean the mirror without water and cleaning agents to ensure that no moisture or chemicals can penetrate the mirror coating.

8. Sleeping

Depending on the layout, the vehicle comes equipped with a rear bed or a lifting bed (optional accessory). The seating group can also be converted into a bed in just a few simple steps. A double bed can be set up under the pop-up roof (optional accessory).

8.1 Converting the seating group into a bed

8.1.1 Spare bed (optional accessory)

Converting the seating group into a spare bed

1. Turn the driver's seat (Fig. 30, item 2). The backrest should face the windscreen.
2. Push the driver's seat (Fig. 30, item 2) in the direction of the steering wheel until the stop is reached.
3. Push the front passenger seat in the direction of the windscreen as far as it will go.
4. Lift the table top (Fig. 29, item 3) on the right-hand side and unhook it from the upper guide rail (Fig. 29, item 1).
5. Remove the lower part of the table's leg (Fig. 29, item 7).
6. With the right-hand side of the table top lifted, hook the table top into the lower guide rail (Fig. 29, item 2).
7. Lower the table top.
8. Swivel out the swivelling table top (Fig. 29, item 4).
9. Fold out the supporting board (Fig. 29, item 6) from the base frame (Fig. 29, item 5).
10. Place the base frame (Fig. 29, item 5) on the swivelling table top (Fig. 29, item 4).
11. Place cushions (Fig. 30, item 1 and 3) on the table and base frame.

To return the equipment to its original position, proceed in the reverse sequence.

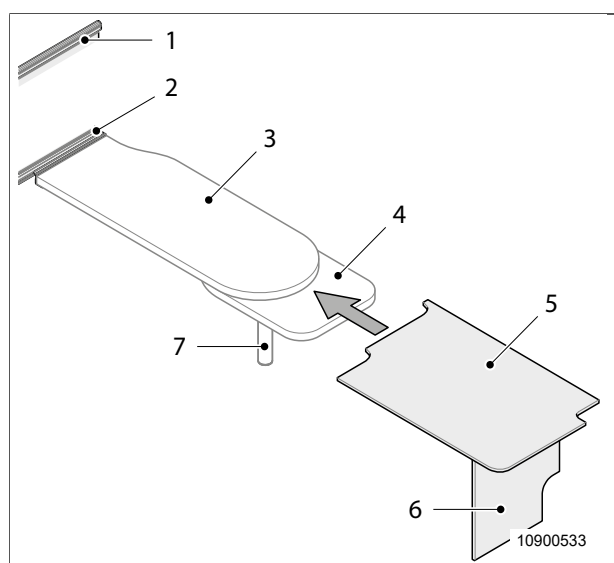


Fig. 29 Converting the seating group into a spare bed 1

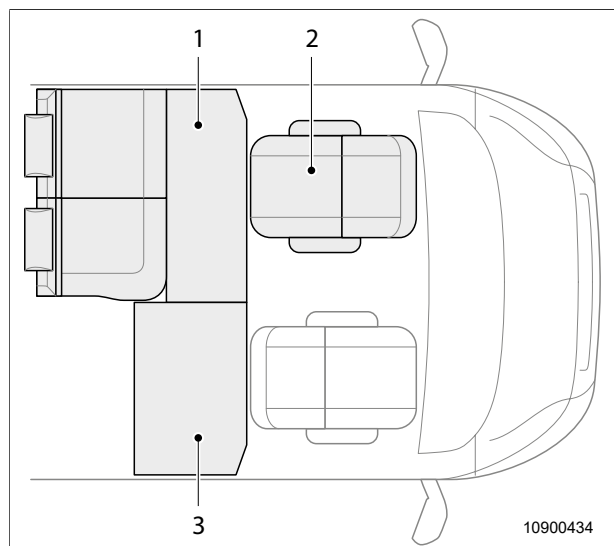


Fig. 30 Converting the seating group into a spare bed 2

8.1.2 Extra bed

Converting the seating group with swivelling hook-in table into an extra bed

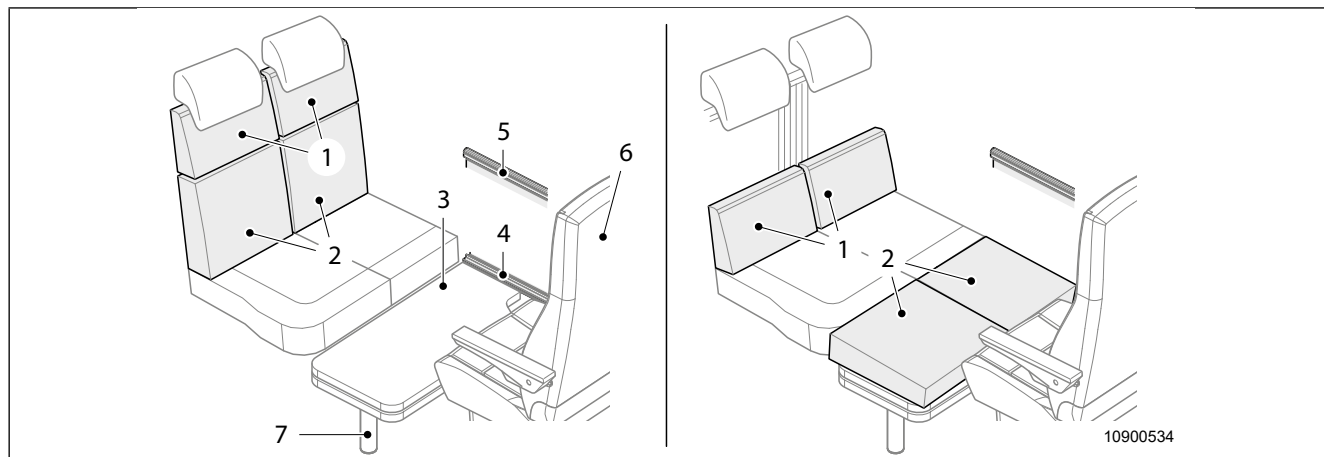


Fig. 31 Conversion of an extra bed

1. Turn the driver's seat (Fig. 31, item 6). The backrest should face the windscreen.
2. Push the driver's seat towards the steering wheel until the stop is reached. You may need to tilt the backrest.
3. Lift the table top (Fig. 31, item 3) on the right-hand side and unhook it from the upper guide rail (Fig. 31, item 5).
4. Swivelling hook-in table: Remove the lower part of the table's leg (Fig. 31, item 7).
5. With the right-hand side of the table top lifted, hook the table top into the lower guide rail (Fig. 31, item 4).
6. Lower the table top.
7. Remove the back cushions (Fig. 31, item 1 and 2) from the seat bench and distribute.
8. Attach the upper parts of the back cushions (Fig. 31, item 1) to the frame of the backrest.
9. Place the lower parts of the back cushions (Fig. 31, item 2) on the table.

Reverse the process to convert back to the seating group.

Converting the seating group with hook-in table into an extra bed

1. Turn the driver's seat (Fig. 31, item 6). The backrest should face the windscreen.
2. Push the driver's seat towards the steering wheel until the stop is reached. You may need to tilt the backrest.
3. Lift the table top (Fig. 32, item 3) on the right-hand side and unhook it from the upper guide rail (Fig. 32, item 1).
4. Press the button on the joint of the table leg (Fig. 32, item 6) and fold the table leg.



CAUTION!

Damage to the floor

The floor of the vehicle will be scratched if the floor plate is not attached to the bottom of the joint.

☞ Attach the floor plate to the joint.

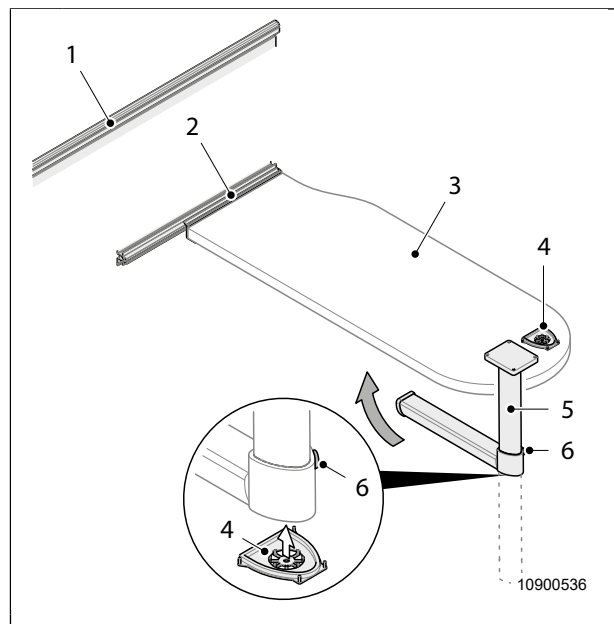


Fig. 32 Converting the hook-in table into a bed

5. Remove the floor plate (Fig. 32, item 4) from the holder under the table.
6. Attach the floor plate (Fig. 32, item 4) to the bottom of the joint.
7. With the right-hand side of the table top lifted, hook the table top into the lower guide rail (Fig. 32, item 2).
8. Lower the table top.
9. Remove the back cushions (Fig. 31, item 1 and 2) from the seat bench and distribute.
10. Attach the upper parts of the back cushions (Fig. 31, item 1) to the frame of the backrest.
11. Place the lower parts of the back cushions (Fig. 31, item 2) on the table.

To return the equipment to its original position, proceed in the reverse sequence.

8.2 Rear bed with lounge function

The vehicle is equipped with a double bed with lounge function in the rear.



DANGER!

Danger of falling and risk of injury

- ☞ Before opening the rear doors, make sure the anti-fall guards have been attached to the rear beds correctly.
- ☞ If there are no anti-fall guards on the rear beds, then the rear beds may only be used when the rear doors are closed.

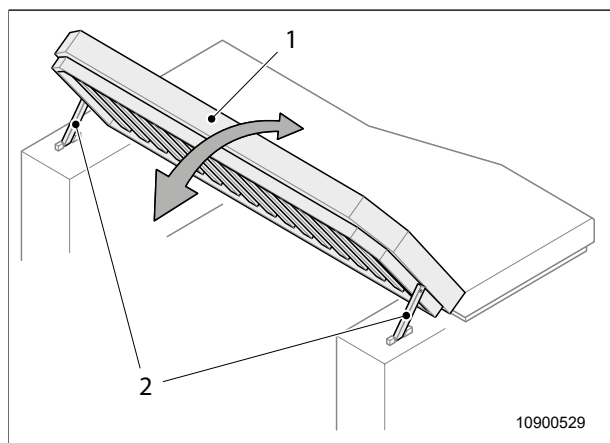


Fig. 33 Lounge function 1

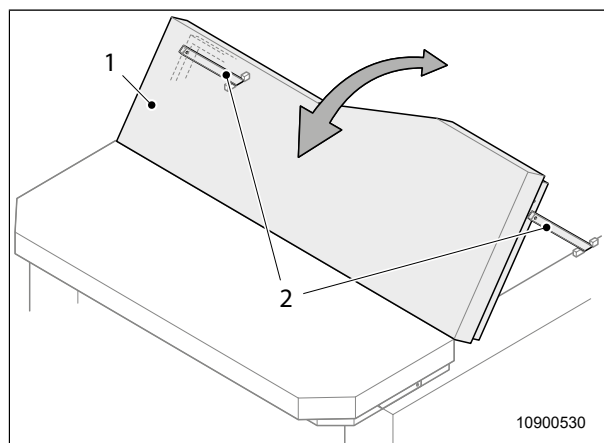


Fig. 34 Lounge function 2

Setting up the lounge

1. Fold up the desired bed frame (Fig. 33, item 1, or Fig. 34, item 1) of the double bed.
2. Fold up the supports (Fig. 33, item 2) and secure them.

Removing the lounge

1. Fold down the supports (Fig. 33, item 2).
2. Fold down the bed frame (Fig. 33, item 1, or Fig. 34, item 1) of the double bed.

8.3 Lifting bed (optional accessory)

The vehicle may be equipped with a lifting bed in the rear as an optional accessory. In that case, the double bed does not have a lounge function.



DANGER!

Risk of injury

- ☞ Small children below the age of 3 may fall out of the lifting bed!
- ☞ The maximum capacity of the lifting bed of 100 kg per sleeping place must not be exceeded!
- ☞ Before using the lifting bed, the fall protection net must always be installed!



CAUTION!

Damage to the lifting bed during travel

- ☞ Before commencing travel, raise the lifting bed all the way to the top.



CAUTION!

Damage to the lifting bed

- ☞ Do not move the lifting bed while objects are placed on it!



NOTE!

The fall protection nets are located under the mattress.

Operating the lifting bed

1. Lift the lifting bed slightly and press the button (Fig. 35, item 1).
2. Keep the button (Fig. 35, item 1) pressed and pull the lifting bed down.
3. Release the button (Fig. 35, item 1) when the desired position is achieved. The lifting bed engages in the next catch.
4. Secure the fall protection net (Fig. 35, item 3) with the straps (Fig. 35, item 4) at the top.
5. Secure the second fall protection net (Fig. 35, item 3) with the straps (Fig. 35, item 4) at the top when the rear door is open.

To return the equipment to its original position, proceed in the reverse sequence.

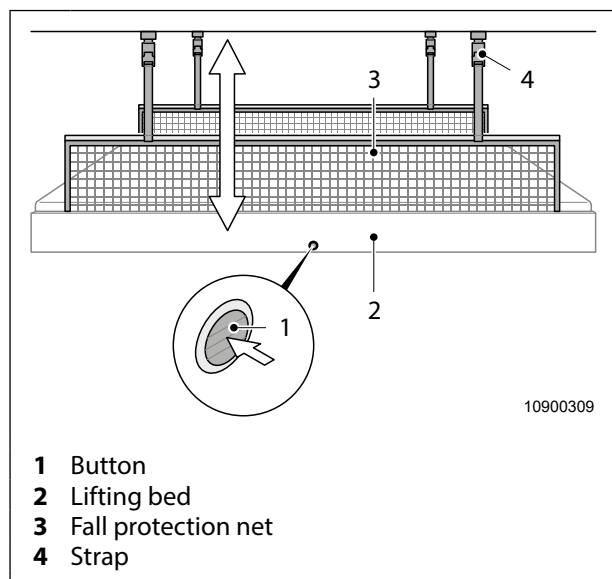


Fig. 35 Lifting bed

8.4 Pop-up roof (optional accessory)



DANGER!

Risk of injury or damage to the vehicle

When the vehicle is moving, the ladder may lead to injury or damage to the vehicle if the vehicle suddenly brakes.

- ☞ Store the ladder in a safe place during the journey.



DANGER!

Risk of accident

An open or unlocked pop-up roof can come loose during the journey and lead to accidents.

- ☞ Close and lock the pop-up roof before each journey.

During the journey, snow or ice sliding off the roof of the vehicle can lead to accidents.

- ☞ Remove ice and snow from the vehicle roof before starting the journey.



DANGER!

Risk of injury

There is a risk of injury if the pop-up roof is opened or closed carelessly. Limbs (e.g. fingers) may get crushed.

- ☞ Open and close the pop-up roof carefully.
- ☞ Do not reach into the turn lock.



CAUTION!

Risk of damage to the pop-up roof

Improper handling can damage the pop-up roof.

- ☞ Close and securely lock the pop-up roof before each journey.
- ☞ Before opening the pop-up roof, check that sufficient height is available.
- ☞ Close the pop-up roof in case of heavy rain or storm.
- ☞ Always remove ice and snow from the pop-up roof.



NOTE!

Instructions for care

- ☞ Remove dirt and deposits from the fabric bellows and mosquito net at regular intervals (see section "18.8 Cleaning the pop-up roof").
- ☞ Wash off salt water/deposits immediately with clean water.
- ☞ Immediately remove dirt, such as bird droppings, that can damage the material.



NOTE!

Information on handling

- To protect against burglary, always close the pop-up roof before leaving the motorhome.
- Do not squeeze the fabric bellows between the pop-up roof and vehicle roof.
- Do not leave the pop-up roof closed with wet fabric bellows for extended periods.
- Before placing the vehicle out of service, clean the pop-up roof and allow it to dry completely.
- After the pop-up roof has not been used for a longer period of time, check the pop-up roof and the fabric bellows for proper function.
- Wipe dry any damp interior surfaces caused by humidity (e.g. by breathing air, dew drops and steam during cooking).
- Ventilate sufficiently: Insufficient ventilation creates constant moisture. This moisture promotes mould formation.

8.4.1 Opening the pop-up roof

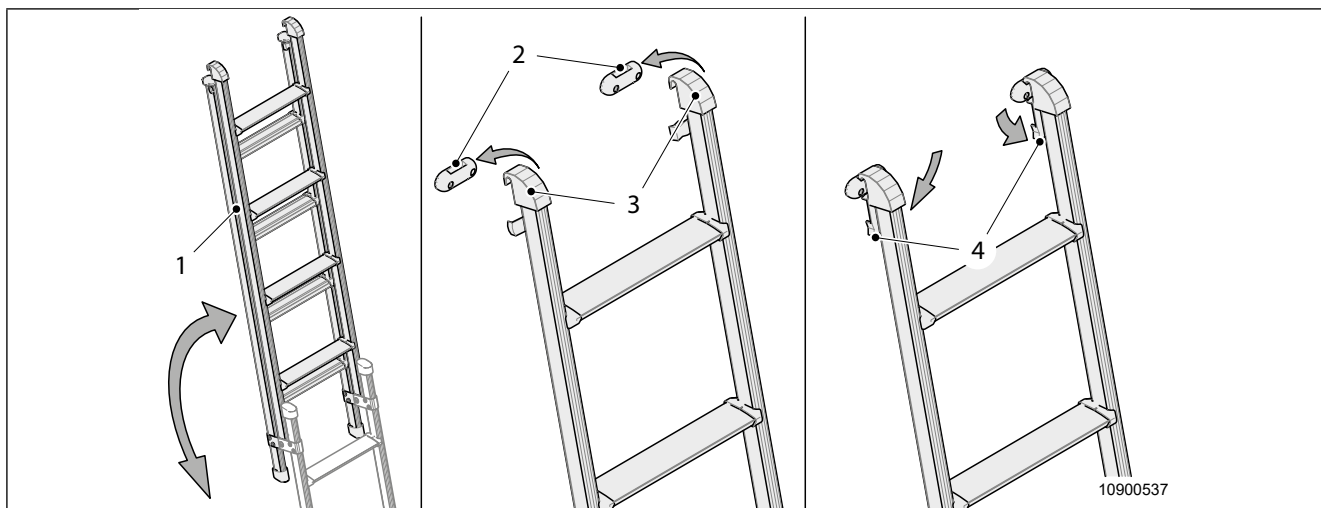


Fig. 36 Attaching the ladder

1. Extend the ladder (Fig. 36, item 1) completely.
2. Hook the ladder into the ladder holder (Fig. 36, items 2 and 3) on the roof frame and close the catches (Fig. 36, item 4).
3. Open the quick-release buckles (Fig. 37, item 2) on the right and left side.

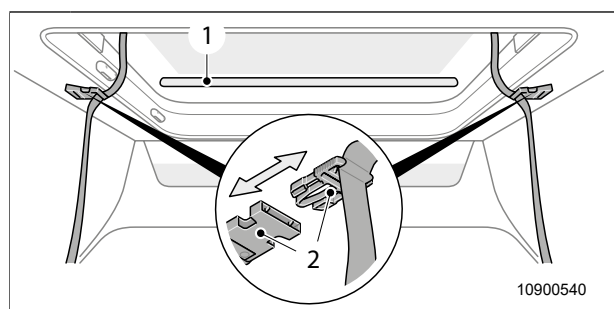


Fig. 37 Opening the pop-up roof

4. Open the turn locks (Fig. 38) on the right and left side:
 - Fold out the handle (Fig. 38, item 1) of the turn lock.
 - Release the turn lock by turning the handle anti-clockwise.
 - Release the movable hook of the turn lock (Fig. 38, item 2) from the permanently fitted counterpart (Fig. 38, item 3).
 - Fold in the handle.
5. Press the pop-up roof upwards by the handle bar (Fig. 37, item 1). The roof must not tilt.
At a certain point, the pop-up roof opens automatically by means of the gas springs and is retained in the end position.

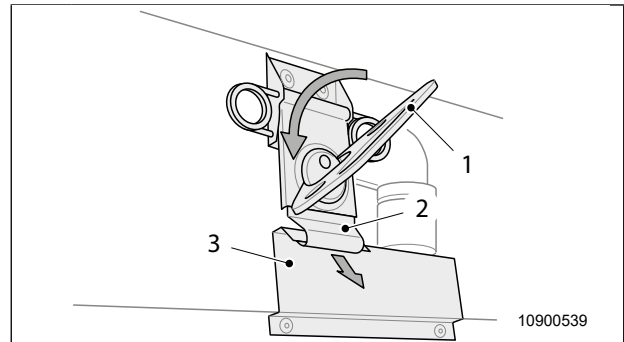


Fig. 38 Opening the turn lock



NOTE!

At temperatures below 0 °C, the pop-up roof does not open automatically.

8.4.2 Using the bed



NOTE!

Information on use

- ☞ Do not exceed the maximum load capacity of the bed of 200 kg.
- ☞ Always open the pop-up roof completely to the limit stop.
- ☞ To ensure that there is always an adequate supply of fresh air, there is forced ventilation at the front fabric bellows.
- ☞ At low temperatures, it is more difficult to open the pop-up roof.

Anti-fall guard



DANGER!

Risk of injury

If the bed is not properly secured, people could fall out of the bed.

- ☞ As soon as there are people on the bed, install the anti-fall guard correctly.
- ☞ Children are not allowed to use the bed unattended.

1. Pull out the anti-fall guard (Fig. 39, item 1) from under the mattress.
2. Insert both straps of the anti-fall guard into the corresponding coupling (Fig. 39, item 3) with the plug lock (Fig. 39, item 2).

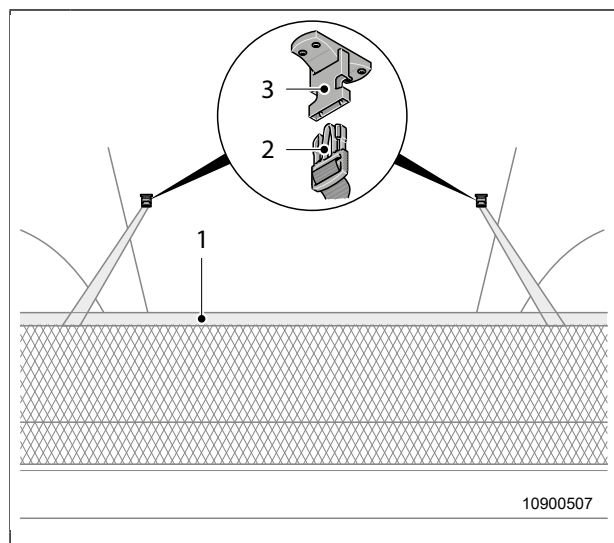


Fig. 39 Anti-fall guard

Convertible function

The fabric bellows can be opened for air conditioning in summer and for a panoramic view to the front and on both sides. From the outside a fixed mosquito net offers protection against insects.



DANGER!

Danger of falling

If the mosquito net is opened, there is an increased risk of falling from the roof of the vehicle.

- ☞ Only open the mosquito net if bulky objects (e.g. the mattress) are to be removed from the bed room under the pop-up roof.
- ☞ The mosquito net must not be opened when there are children on the bed.



CAUTION!

Damage to the vehicle

The mosquito net is not waterproof. Therefore, the convertible function must not be used when it rains.

- ☞ To avoid water damage inside the vehicle, close the fabric bellows immediately in case of rain.
- ☞ Always close the fabric bellows or pop-up roof before leaving the vehicle.



NOTE!

If the flue is located under one side of the pop-up roof, the zip fastener on this side is secured against opening. This protection must not be removed.

1. Open the zip fasteners (Fig. 40, item 1).
2. Bundle fabric bellows together and fasten with the hook-and-loop straps (Fig. 40, item 2).

To return the equipment to its original position, proceed in the reverse sequence.

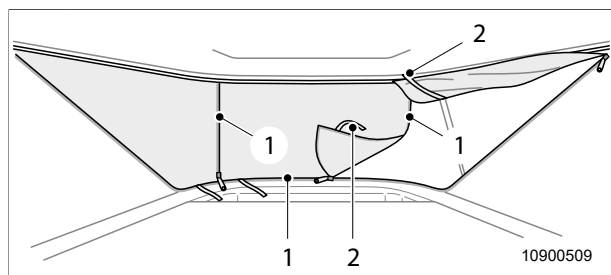


Fig. 40 Convertible function



NOTE!

When closing the zip fasteners, make sure that they are not under tension (Fig. 41, item 1). To do so, pull the fabric bellows towards the zip fastener.

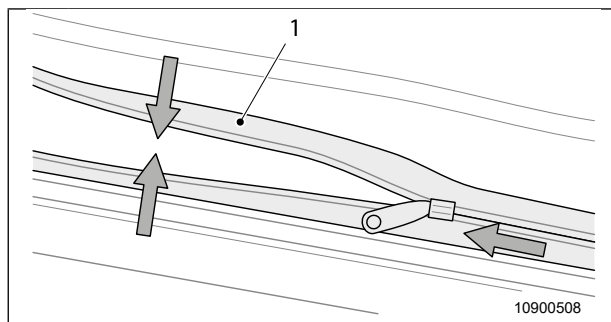


Fig. 41 Zip fastener

Heating

The bed under the pop-up roof is connected to the heating system. A hot air outlet is used to distribute the warm air.

- ☞ The hot air outlet (Fig. 42, item 3) is opened by pressing down the recess (Fig. 42, item 2). The supply of hot air is regulated by setting up the slats (Fig. 42, item 1).
- ☞ The air flow direction is adjusted by changing the angle of the slats and turning the hot air outlet.
- ☞ To interrupt the hot air supply, close the slats.

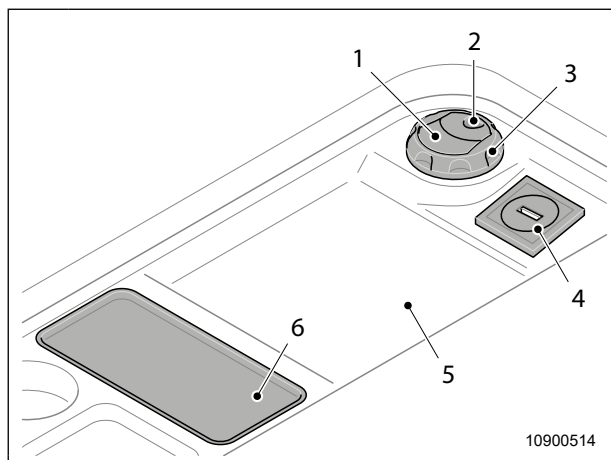


Fig. 42 Hot air outlet

Light and USB ports

- The power supply for the lights and all appliances on the bed under the pop-up roof is switched on centrally at the switch in the kitchen.
- The lights in the front area of the pop-up roof are switched on and off directly on the lamp via touch switch.
- Depending on the equipment, the pop-up roof comes with LED lights and a USB port (Fig. 42, item 4) on the shelves (Fig. 42, item 5).
- Depending on the equipment and model, the LED lights are operated via remote control or a switch at the bed under the pop-up roof.
- Depending on the equipment, the pop-up roof comes with a charging tray (Fig. 42, item 6) for inductive charging of a smartphone.

8.4.3 Closing the pop-up roof

1. Close all zip fasteners on the fabric bellows completely.
2. Unhook the anti-fall guard and stow it under the mattress.
3. Remove any bulky objects from the bed.



NOTE!

The bedding can remain in place if it is laid out flat on the mattress so that the pop-up roof can be closed easily.

4. Switch off the power supply at the switch in the kitchen.
5. Close the roof hood over the ladder.
6. Open a door or window on the vehicle to prevent the fabric bellows from being inflated to the outside by overpressure. Otherwise, there is a risk that the fabric bellows could be squeezed between the pop-up roof and the vehicle roof when closing.



CAUTION!

Damage to the fabric bellows

Do not squeeze the fabric bellows.

7. Pull down the pop-up roof slowly and evenly on the two straps (Fig. 43, item 1).
8. Secure the pop-up roof on the right and left side using the turn locks (Fig. 44):
 - Fold out the handle (Fig. 44, item 1) of the turn lock.
 - Hook the movable hook (Fig. 44, item 2) of the turn lock into the permanently fitted counterpart (Fig. 44, item 3).
 - Tension the turn lock by turning the handle clockwise up to the limit stop.
 - Fold in the handle.

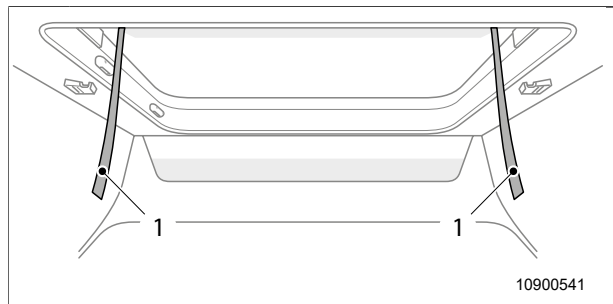


Fig. 43 Closing the pop-up roof

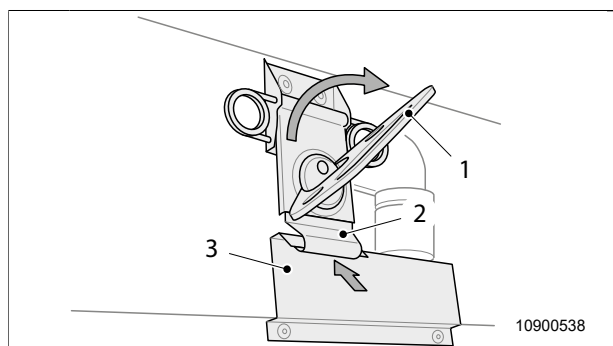


Fig. 44 Closing the turn lock

9. Close the quick-release buckles (Fig. 45, item 2) on the right and left side.
10. Unlock and unhook the ladder.
11. Stow away the ladder in a safe place.
12. If the pop-up roof is closed, stow the fabric bellows so that it does not protrude from the access hatch.

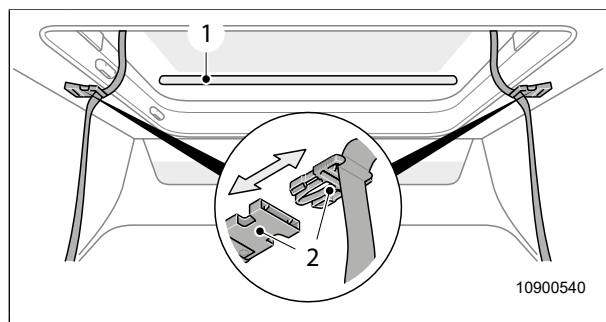


Fig. 45 Closing the quick-release buckles

9. Gas supply

9.1 Notes on gas supply

9.1.1 Instructions for using the gas system



DANGER!

Risk of explosion

- ☞ Repairs and modifications to the gas system may only be carried out by an authorised specialist workshop!
- ☞ It is essential to follow the safety instructions and safety information when using the gas system or gas appliances!
- ☞ Altering the gas system or appliances yourself is prohibited and dangerous!
- ☞ The only intervention that the customer is allowed to do, is connecting the pressure regulator to the gas cylinder. All other work must be carried out by an authorised specialist workshop.
- ☞ The hoses must be checked regularly and, in the case of a defect, replaced by an authorised specialist workshop.
- ☞ Never search for gas leaks in gas pipe connections with a cigarette lighter or other naked flame!
- ☞ Gas-operated appliances may only be used for the purpose for which they are intended.



CAUTION!

Pressure regulators and hoses must be replaced within 10 years of manufacture at the very latest.
The user is responsible for replacement!

9.1.2 Notes on leaks in the gas system



DANGER!

Risk of explosion

There is a risk of explosion with any defect in the gas system (leaks, smell of gas, excessive gas consumption).

- ☞ No smoking, no naked flames and no actuation of electrical switches (ignition, light switch, etc.).
- ☞ Close the gas shut-off valve of the gas cylinder immediately.
- ☞ Open the windows and doors.
- ☞ Have the gas system repaired by an authorised specialist workshop. Do not open the gas shut-off valve of the gas cylinder in the meantime.



CAUTION!

To prevent contamination in the pressure regulator, use a gas filter (optional accessory).

**NOTE!**

- ☞ The complete gas system in the vehicle is designed for an operating pressure of 30 mbar (millibar)!
- ☞ At altitudes exceeding 1,000 m, malfunctions may occur when igniting gas for reasons of physics. This however does not mean that the appliance is not functioning properly.
- ☞ The gas system should be checked every 2 years by a gas engineer.

The owner of the vehicle is responsible for having the gas system tested!

- ◆ The complete gas system has been designed according to the applicable regulations governing LPG appliances and fires in vehicles, and has been tested and certified by a qualified specialist (Germany).
- ◆ All installed gas-operated appliances have safety devices. If the flame goes out, the automatic flame failure device interrupts the gas supply.
- ◆ Get a specialist workshop to certify the repair or modification of the gas system in the yellow gas test certificate (Germany) and always insist on a gas leak test being carried out.
- ◆ To ensure a continuous exchange of air in the vehicle, the forced ventilation openings in the roof lights, mushroom vents and in the floor plate in the kitchen area must never be covered!

9.2 LPG

The gas-powered appliances can be operated with propane or butane or a mixture of these two LPG types.

**NOTE!**

Operation of the gas appliances requires gas from the gas phase. For winter camping, the highest possible proportion of propane should be used, as butane does not change to a gaseous state below 0 °C!

9.3 Placing gas cylinders in the gas locker

The gas locker is located in the rear of the vehicle. Secure the gas locker against unauthorised access.



CAUTION!

Damage to the vehicle or gas cylinders

If gas cylinders are stored in the rear garage, inside the vehicle or unsecured in the gas locker, they may become damaged or they may damage the vehicle.

- ☞ The gas cylinders may only be kept in the gas locker.
- ☞ Store the gas cylinders in the gas locker in an upright position and secured firmly with the straps provided.

- ☞ Fit the pressure regulator on the gas cylinder by hand. Do not use any tools (spanner, pliers or similar). Only the screwing tool provided by Truma may be used.

- ☞ The high-pressure hose fittings are suitable for standard gas cylinders.

- ☞ Do not kink or tightly bend high-pressure hoses!

The gas locker is designed for holding one 3 kg gas cylinder.

9.4 General information on gas consumption

The amount of gas you consume will depend on how much you use the gas appliances:

- ◆ The cooker consumes about 300 g/h.

9.5 Replacing the gas cylinder



DANGER!

Risk of explosion

- ☞ The only intervention that the customer is allowed to do, is connecting the pressure regulator to the gas cylinder. All other work must be carried out by an authorised specialist workshop!
- ☞ Never use a lighter or other naked source of light when changing the gas cylinder!
- ☞ There is still some gas left even in an "empty" gas cylinder. Therefore, the gas cylinder must be changed using utmost care!
- ☞ Check whether there are any leaks after changing the gas cylinder!



CAUTION!

- ☞ Only attach the connecting piece with hose rupture protection push button to the gas cylinder by hand. Do not use any tools.
- ☞ When replacing the gas cylinder, make sure the gas hose is in perfect working condition.
- ☞ Keep the gas hose free from kinks or tension when connecting it to the gas cylinder.

1. Close the gas cylinder shut-off valve (Fig. 46, item 1).
2. Unscrew the connecting piece with hose rupture protection push button (Fig. 46, item 3) from the gas cylinder by hand (caution: left-hand thread).
3. Detach the fastening strap (Fig. 46, item 4) and take the empty gas cylinder out of the gas locker.
4. Protect the empty gas cylinder with the threaded cap and a protective cap.
5. Store and secure the empty gas cylinder in a suitable place in the gas locker.
6. Place the full gas cylinder in the mounting in the gas locker and secure it with the fastening strap (Fig. 46, item 4).
7. Screw on the connecting piece with hose rupture protection push button (Fig. 46, item 3) by hand (caution: left-hand thread).
8. Open the gas cylinder shut-off valve (Fig. 46, item 1).
9. Firmly press the hose rupture protection push button (Fig. 46, item 3).

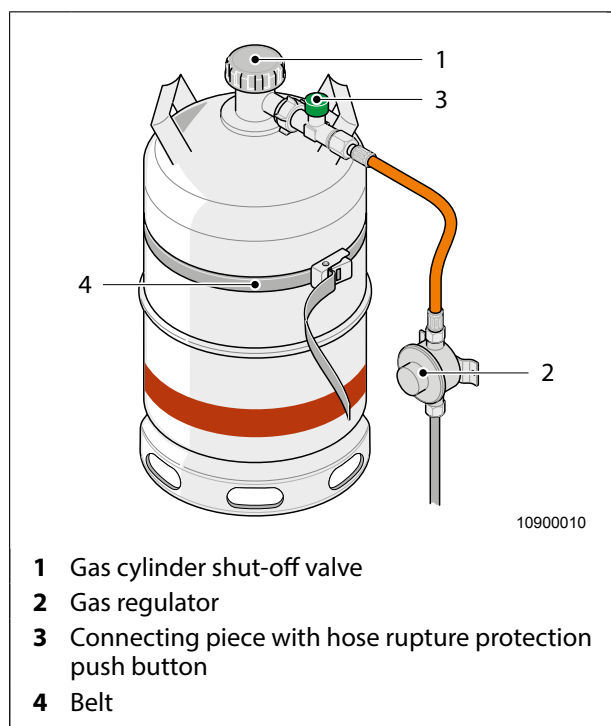


Fig. 46 Gas cylinder in gas locker

10. Water supply

10.1 Fresh water supply



NOTE!

- ☞ The water supply corresponds at least with the state of the art of 03/2009 (Directive 2002/72/EC).
- ☞ Water from the fresh water tank should be used as drinking water only if it is certain that at the time of filling the water had, and still has, drinking water quality. **The owner/user bears the sole responsibility for the quality of the water added to the tank.**



CAUTION!

Damage to the water pump

The water pump will jam if operated without water.

- ☞ Do not use the water pump without water.

For a supply of fresh water, all models come equipped with a fresh water tank and a water pump. The water pump is operated using a 12 V system. The pump fitted in the fresh water tank starts when a tap is used.

The fresh water tank is located under a cover in the rear of the vehicle. The fresh water tank is heated via a heating line (see section "12.4 Heating the fresh water tank and waste water tank").

The cleaning opening (Fig. 47, item 1) is used when carrying out maintenance work on or cleaning the fresh water tank. The cleaning opening is located under a cover in the rear of the vehicle.

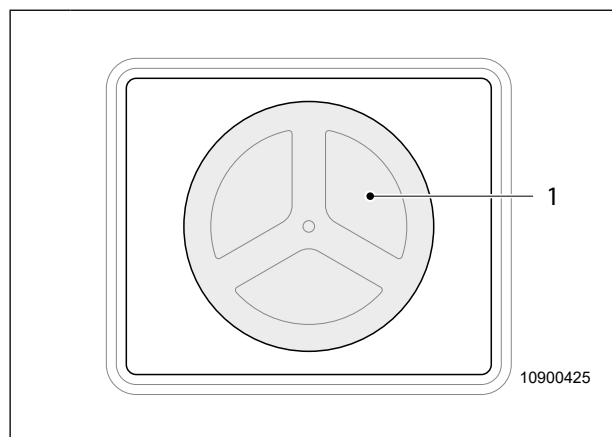


Fig. 47 Cleaning opening

10.2 Filling the fresh water tank



DANGER!

Germ formation in drinking water

Germs in drinking water can lead to diseases.

- ☞ Only use water with drinking quality to fill the fresh water tank.
- ☞ When filling the fresh water tank with a water hose, only use a drinking water hose certified by KTW and DVGW [German Technical and Scientific Association on Gas and Water].
- ☞ Rinse the drinking water hose regularly.
- ☞ When filling the fresh water tank with a watering can, ensure that the watering can is clean and that the water it contains is free of streaks.
- ☞ Clean the watering can regularly.

The fresh water filler neck (Fig. 48, item 1) is located on an outer panel at the rear of the vehicle.

1. Close the drain valve (Fig. 49, item 1). To do so, rotate the drain valve clockwise as far as it will go.
2. Close the Truma FrostControl (see section "12.3.1 Truma FrostControl").
3. Unlock and open the water tank cover (Fig. 48, item 2).
4. Fill the fresh water tank using a suitable container with a pouring fixture (e.g. watering can).
5. Close water tank cover (Fig. 48, item 2).

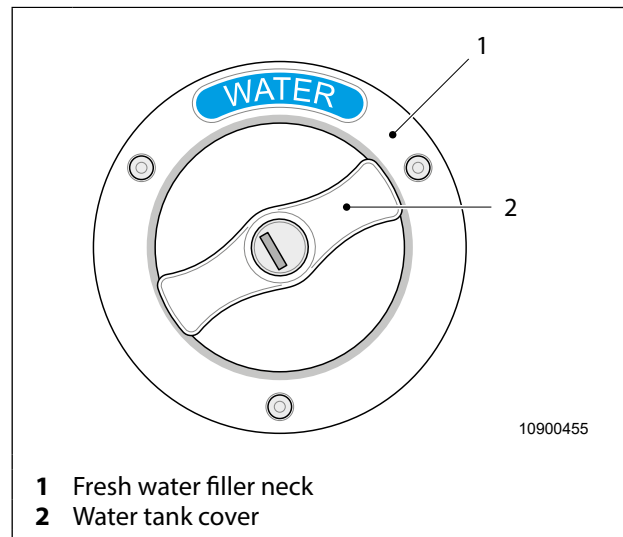


Fig. 48 Fresh water filler neck

10.3 Filling the water system

1. Fill the fresh water tank (see 10.2).
2. Switch on the main switch and the water pump on the on-board control (see section "11.5 On-board control").

Filling the hot water pipes with water:

3. Open all taps and shower heads in the "hot" position.
4. Leave all taps open until the water flows out without bubbles.

Filling the cold water pipes with water:

5. Open all taps and shower heads in the "cold" position.
6. Leave all taps open until the water flows out without bubbles.
7. Close all taps.

10.4 Draining the water system



CAUTION!

Damage to the water system

The water system can be damaged by freezing water.

- ☞ The entire water system should be completely drained if you intend not to use it for a longer time, especially before the vehicle is laid up for the winter.
- ☞ If there is a risk of frost, drain the entire water system completely or heat the vehicle.

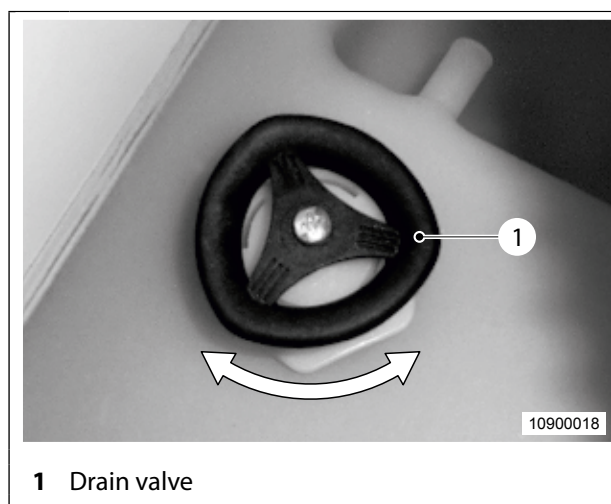


NOTE!

We recommend that you change the water in the fresh water canister/tank regularly (e.g. weekly) even when full as bacteria will form in the fresh water after only a few days and make the water undrinkable.

10.5 Draining the fresh water tank

1. Switch off the water pump on the on-board control (see section "11.5 On-board control").
2. Open all taps.
3. Open the cover to the fresh water tank.
4. Turn the drain valve (Fig. 49, item 1) counterclockwise to the stop.
5. Let the fresh water tank drain empty.
6. Leave the drain valve and taps open until the next refill.



1 Drain valve

Fig. 49 Draining the fresh water tank

10.6 Reducing weight for driving

The contents of the fresh water tank can be reduced to 20 litres.

1. Open the cover to the fresh water tank.
2. Turn the drain valve (Fig. 49, item 1) clockwise until water comes out.
Do not open the drain valve all the way, as the fresh water tank will empty.
3. Allow fresh water to drain until the reduced filling level has been reached.
4. Close the drain valve.
5. Close the cover to the fresh water tank.

10.7 Waste water disposal

The waste water produced is collected in all models in a waste water tank. The waste water tank is fitted under the floor. An optional heating for the waste water tank as well as a pipe auxiliary heating (heating for the waste water line) are available. This keeps the waste water tank frost-proof even at low temperatures.



NOTE!

Waste water should only be drained on camping sites with suitable sewage systems or specially designated disposal facilities!

10.8 Emptying the waste water tank

The drain valve and the drain outlet for the waste water are located underneath the vehicle, centrally, on the left-hand side.

1. Open the waste water tank drain valve (Fig. 50, item 1) and drain the waste water at a suitable disposal station.
2. Close the drain valve of the waste water tank (Fig. 50, item 1).

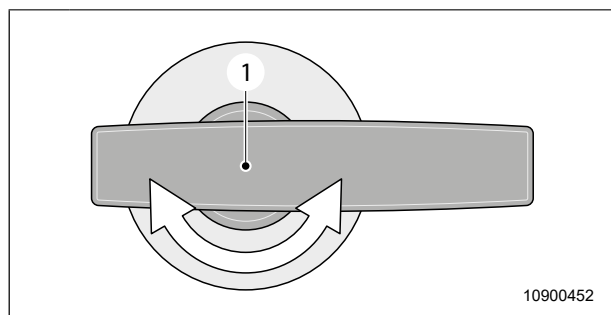


Fig. 50 Drain valve, waste water tank



NOTE!

A small amount of water will escape through a drain hole when closing the drain valve. This prevents the drain valve from freezing shut.

11. Power supply

11.1 General information

The vehicle is equipped with a 230-volt circuit and a 12-volt circuit (direct current).

All appliances operated on the vehicle's 12-volt supply system can be operated independently of an external 230-volt power supply.

Appliances which can only be operated with 230 volts will only work when the vehicle is connected to an external 230-volt power supply.



DANGER!

Risk of injury due to electric shock

Improper use of electrical appliances can cause serious injury or death.

- ☞ Only skilled and trained (specialised) personnel is allowed to perform work on the electrical system. All locally applicable standards, regulations and fire prevention measures must be adhered to.
- ☞ Have the electrical system checked at least once a year by a specialist workshop.
- ☞ Never touch an electrical appliance when your hands or feet are wet or when you are barefooted.
- ☞ Never use an electrical appliance outdoors.
- ☞ The electrical safety of appliances is only guaranteed if the devices are plugged into a properly grounded electrical system and if they comply with the electrical safety standards.
- ☞ Damaged power supply cables must be replaced immediately. If cables or connectors are damaged, you are not allowed to use the appliance any longer.
- ☞ Never use a pressure washer or steam cleaner for cleaning work. Moisture may penetrate electrical components.
- ☞ Only start electrical appliances when they are dry.
- ☞ You are not allowed to perform any other interventions on the appliance than the cleaning and maintenance tasks described in the operating manual of the appliance manufacturer.



DANGER!

Risk of accident

Installed appliances which were not included in the original equipment of the vehicle and appliances used while driving (such as mobile telephones, entertainment appliances) may impair the functional reliability of the vehicle during the journey. These appliances may trigger the airbag or interfere with the on-board electronic system.

- ☞ All electrical appliances installed after delivery of the vehicle or operated during the journey must comply with the following requirements: CE marking, EMC test (electromagnetic compatibility), ECE certification.



NOTE!

Also take note of and adhere to the information in the individual operating manuals of the respective appliance's manufacturer in addition to the information in this chapter.

11.2 230-V power supply (mains voltage)

You can connect your vehicle to an external power supply of 230 Volt (mains voltage). The CEE connector is located behind a flap on the outer wall of the vehicle.

Establishing/disconnecting the electrical connection between the vehicle and the power source



CAUTION!

When using a cable drum without a thermal safety cut-out, fully unwind the electric cable from the drum.

Establish electrical connection

1. Properly lay the cable between the vehicle and the power supply point.
2. Plug the electrical cable into the CEE connector of the vehicle.
3. Plug the electrical cable into the power supply point or the emergency power generator.

Disconnecting the electrical connection

1. Disconnect the electrical cable from the power supply point or the emergency power generator.
2. Disconnect the electrical cable from the CEE connector on the vehicle.
3. Stow away the electrical cable.

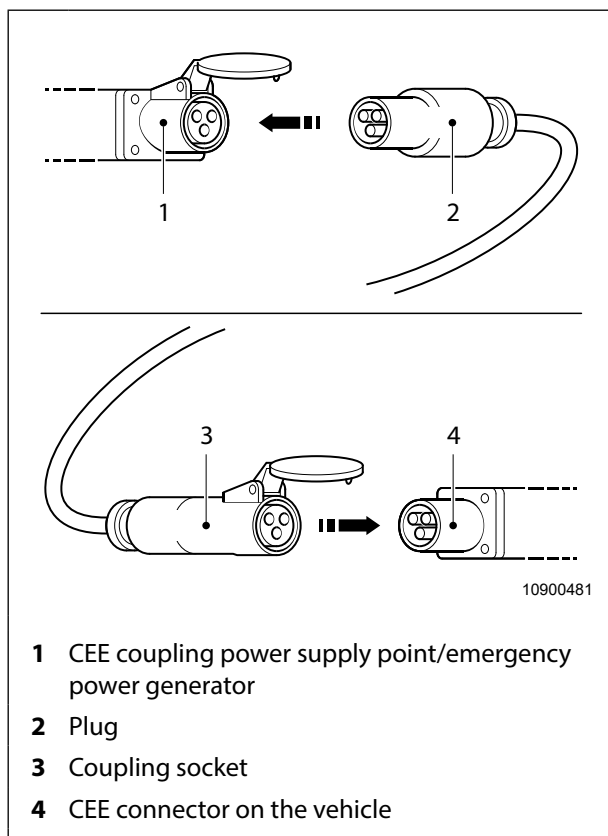


Fig. 51 Connection to mains supply



NOTE!

Use a rubber-insulated HO7 RN-F 3G 2.5 mm² type flexible cable or equivalent with EN 60309-2 compliant connectors (Europe) to connect the vehicle (electrical cable and adapter) to the 230-volt mains.



NOTE!

The total length of the electric cable should not exceed max. 25 m ± 2 m!

11.3 Electric unit

The electric unit is located under one or two cover(s) on the left-hand side of the vehicle in a box under the rear bed.

The electric unit is used for the safeguarding and distribution of the 230-volt and 12-volt circuits, and for further control and monitoring functions.

- 1 Charge booster
- 2 Automatic circuit breaker
- 3 Charger with switch (illuminated)
- 4 Distribution box

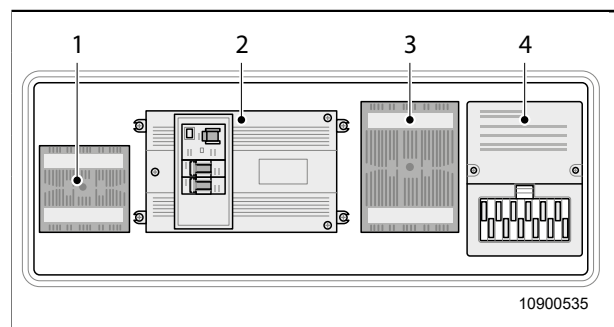


Fig. 52 Electric unit

Picture may differ to your model

The charge booster amplifies the power of the charger. Day-to-day operations do not require any intervention on the charge booster.

11.3.1 Automatic circuit breaker

When connected to an external 230-volt power supply, the vehicle is protected by the fuses (Fig. 53, item 2) ground-fault circuit breaker (Fig. 53, item 1) in the automatic circuit breaker.

The air conditioning (optional accessory) is also protected by the automatic circuit breaker (Fig. 53, item 3).

Switch positions:

- Switch up = ON
- Switch down = OFF

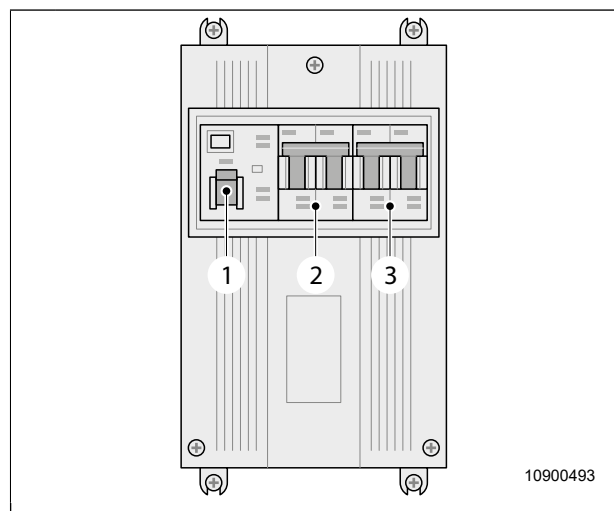


Fig. 53 Automatic circuit breaker

11.3.2 Distribution box

The electrical appliances in the living area connected to the 12 Volt power supply are protected by separate wire fuses in distribution box (Fig. 52, item 4).

The distributor box controls the charging process of the living area battery and starter battery.

11.3.3 Charger

The charger is the central energy supply device for all 12-volt appliances in the vehicle's electrical system.

The charger starts as soon as it is connected to the 230 Volt supply. The switch of the charger (Fig. 52, item 3) light up. If the switch does not light up, press the switch.



NOTE!

You will find further information in the separate Operating Manual supplied by the device manufacturer.

11.4 12-volt power supply in the living area

The maintenance-free living area battery and the charger provide the vehicle with an independent 12-volt power supply.

When not connected to a 230-volt power supply or when that source is switched off, the 12-volt appliances in the living area are supplied with 12-volt power from the living area battery irrespective of the fact that the vehicle engine is running or not.

The entire 12-volt system is controlled by the on-board control.

11.5 On-board control

The on-board control is installed in the area of the sliding door.

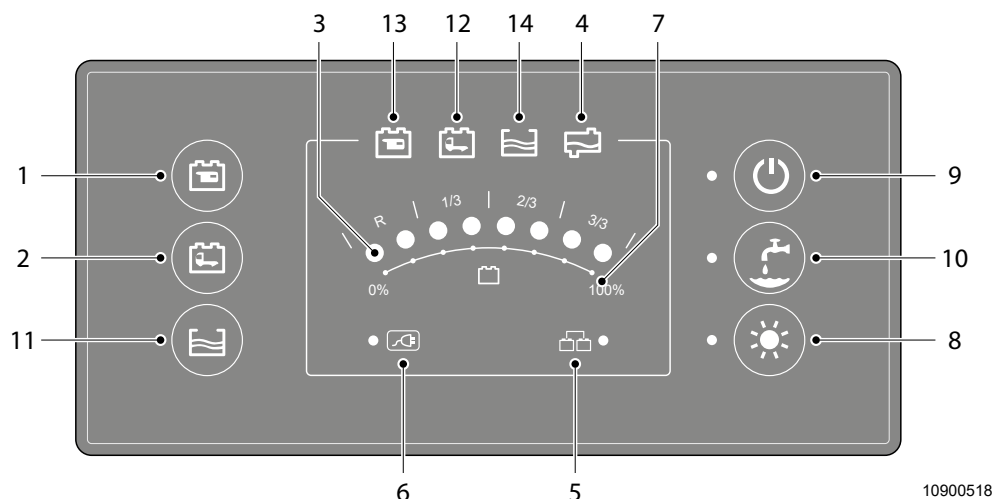
The water pump (Fig. 54, item 10) can be switched on and off via the main switch (Fig. 54, item 9) or using the respective individual switch on the on-board control.

The charge state of the starter battery (Fig. 54, item 2), the charge state of the living area battery (Fig. 54, item 1) and the tank level of the fresh water tank (Fig. 54, item 3) can be shown using the respective button on the on-board control. The LED display shows the charge state (Fig. 54, item 7) or the tank level (Fig. 54, item 3).

Red LED (Fig. 54, item 4) signals a full waste water tank.

The on-board control is equipped with a protective device to prevent the battery from completely discharging. When activated, the protection against battery discharging is shown on the on-board control. At a battery voltage of approx. 10.0 Volt, all appliances that can be switched on and off using the main switch are switched off.

By activating the main switch (Fig. 54, item 9), these appliances may be switched on again for approx. 1 minute, then they are switched off again automatically. The appliances are automatically switched on again when the voltage is above 12 V.

On-board control PC 110


- 1 Button "Charging status living area battery"
- 2 Button "Charging status starter battery"
- 3 LED row "Fresh water tank level"
- 4 "Waste water tank full" indicator
- 5 Indicator light "Alternator charging the starter and living area batteries"
- 6 Indicator "230 Volt mains connected"
- 7 LED voltmeter "Monitoring voltage of starter and living area batteries"
- 8 "Awning light" switch
- 9 Main switch
- 10 "Water pump" switch (if item 9 switched on)
- 11 Button "Fresh water tank level"
- 12 "Starter battery" charge status (empty battery symbolised by flashing light)
- 13 "Living area battery" charge status (empty battery symbolised by flashing light)
- 14 "Fresh water tank empty" indicator

Fig. 54 On-board control PC-110


NOTE!

You will find further information in the separate Operating Manual supplied by the device manufacturer.

11.6 Living area battery

Depending on the layout, equipment or model, the living area battery is either located on the left-hand or right-hand side of the vehicle, in a box below the rear bed.

All 12-volt appliances in the living area are powered by the living area battery when the system is set to 12-V operation.



DANGER!

Risk of chemical burns, formation of an explosive gas mixture

- ☞ No work may be performed on maintenance-free batteries. There is a risk of the battery exploding.
- ☞ The battery may only be replaced by another battery of the same type.



CAUTION!

Damage to the living area battery

Incorrect charging and improper handling of the living area battery can lead to damage of the living area battery.

- ☞ Fully charge the living area battery if it will not be used for a longer period of time and then switch it off via the 12 V main switch (Fig. 54, item 9) on the on-board control.
- ☞ In winter, remove the fully-charged living area battery. Complete discharge can damage the living area battery beyond repair.
- ☞ The living area battery may only be charged with a suitable charger when removed from the vehicle. Follow the instructions regarding the charging characteristic given by the manufacturer of the charger.



NOTE!

Draining the living area battery

If the 230 V power supply of the vehicle is switched off, disconnected or the vehicle engine is switched off, the living area battery will be discharged within a matter of hours if the electrical appliances are switched on (especially the refrigerator, the hot air blower, air conditioner and television).



NOTE!

Draining the living area battery

Power is also steadily drained from the living area battery, about 20 to 65 mA, even when the appliances are switched off. In order to prevent damage to the living area battery, check the state of charge of the living area battery in regular intervals. If the living area battery is not used for an extended period of time, switch off the power supply using the main switch on the on-board control unit (Fig. 54, item 9).



NOTE!

You will find further information in the separate Operating Manual supplied by the device manufacturer.

11.7 Charging the living area battery and the starter battery

When the vehicle is connected to the 230 Volt power supply, both the living area battery and the starter battery are automatically charged via the charger. The starter battery is only charged with a trickle charge.

While the engine is running, the living area battery and the starter battery are both charged by the vehicle's alternator. The starter battery receives the main charge.

Make sure that the living area battery is always fully charged.

11.7.1 Checking the state of charge of the living area battery and starter battery

Before starting your journey, check the charge state of the living area battery and the starter battery.

1. Switch on the 12 Volt power supply on the main switch (Fig. 54, item 9).
2. Press the button "Charging status living area battery" (Fig. 54, item 1) or the button "charging status starter battery" (Fig. 54, item 2).

The battery voltage of the living area battery or the starter battery is displayed on the LED voltmeter "Monitoring voltage of starter and living area batteries" (Fig. 54, item 7).

11.7.2 Checking the charging process of the living area battery and starter battery

Before starting your journey, check whether the living area battery and the starter battery are charging after connecting and activating the 230-volt power supply.

1. Connect the vehicle to the 230-volt power supply (see 11.2).
 - ◆ When the indicator "230 Volt mains connected" (Fig. 54, item 6) is illuminated, the living area battery and the starter battery are charged.
 - ◆ When the indicator "230 Volt mains connected" (Fig. 54, item 6) is not illuminated, the living area battery and the starter battery are not charged.
2. If the living area battery or the starter battery are not charged,
 - ◆ check if the charger is switched on.
 - ◆ check the 2 A, 30 A and 50 A fuses in the battery compartment.
3. If this does not solve the problem, please contact a **VANTourer** dealer.

11.7.3 Charging the living area battery following a longer period of vehicle inactivity

It is advisable to charge the living area battery for at least 18 hours with the charger before use.

1. Connect the vehicle to the 230-volt power supply (see 11.2).
2. Check if the indicator "230 Volt mains connected" (Fig. 54, item 6) is illuminated.
3. Switch off all electrical appliances. This guarantees quick and effective charging.

11.8 Installing or removing the living area battery



DANGER!

Short circuit or sparks

Installing or removing the living area battery may cause a short circuit or sparks.

- ☞ When **removing** the living area battery, first detach the negative lead (black) before disconnecting the positive lead (red).
- ☞ When **installing** the living area battery, first connect the positive lead (red) before connecting the negative lead (black).
- ☞ Only use insulated battery terminals.



NOTE!

You will find further information in the separate Operating Manual supplied by the device manufacturer.

11.9 Electrical supply

The electrical supply for appliances in the vehicle is split as follows:

Appliance	230 V (mains connection) Mains connection direct	230 V (mains connection) Via charger	12 V Living area battery
Refrigerator	X		X
230-volt sockets	X		
12-volt power supply of living area		X	X
Thetford toilet flush			X
Lighting			X
Water pump			X
Heating			X
12-volt sockets			X

Tab. 6 Electrical supply



NOTE!

Depending on the equipment, several appliances may alternatively be operated with gas.

11.10 Example calculation of the energy consumption

The calculation below is based on a power supply via a 80 Ah battery.

These values are approximate and depend on the model.

ENERGY BALANCE			SUMMER			WINTER		
Appliance	Power	Current	Hrs/day (operating hrs.)	Power per day	Current per day	Hrs/day (operating hrs.)	Power per day	Current per day
Spots (per spot)	10 W	0.8 A	2.0	20 W	1.6 Ah	4.0	40 W	6.4 Ah
Kitchen light	8 W	0.7 A	1.0	8 W	0.7 Ah	2.0	16 W	1.4 Ah
Refrigerator	48 W	4.0 A	5.0	240 W	20.0 Ah	5.0	240 W	20.0 Ah
Lighting bathroom cubicle	8 W	0.7 A	1.0	8 W	0.7 Ah	1.5	12 W	1.05 Ah
Water pump	40 W	3.4 A	0.5	20 W	1.7 Ah	0.5	20 W	1.7 Ah
Heater/hot water boiler	72 W	6.0 A	3.0	216 W	18.0 Ah	16	1,152 W	96.0 Ah
Ceiling/storage compartment light	8 W	0.7 A	1.0	8 W	0.7 Ah	2.0	16 W	1.4 Ah
Television set	40 W	3.4 A	2.0	80 W	6.8 Ah	4.0	160 W	13.6 Ah
Energy consumption			Total:	600 W	50.2 Ah	Total:	1,656 W	141.55 Ah
Approx. 1.5 days independent						Approx. 0.5 days independent		

Tab. 7 Example showing how to calculate energy consumption (using an 80-Ah battery for power supply)



NOTE!

- ☞ This table is provided for orientation purposes only and uses exemplary consumption values.
- ☞ For batteries with larger or smaller Ah capacities, the capacity information should be correspondingly adjusted to higher or lower values.
- ☞ For your own calculations, use the actually installed capacity and consumptions values of batteries and consumers.

11.11 External 230-volt power supply via emergency power generator (optional accessory)



CAUTION!

Damage to the electrical system

Voltage fluctuations occurring during the operation of the emergency power generator may cause damage to the electrical system of the vehicle.

- ☞ Avoid voltage fluctuations during operation via the emergency power generator.
- ☞ Follow the device manufacturer's instructions regarding the use of the emergency power generator.
- ☞ Introduce a surge protection device into the 230-volt circuit before the transformer/rectifier when using an emergency power generator. For further information on this topic, please contact your local **VANTourer** dealer.

11.11.1 Starting the emergency power generator

1. Start the emergency power generator and wait until it has reached operating temperature.

Depending on the ambient temperature, it may take approximately 5 to 10 minutes for the emergency generator to attain operating temperature. Wait until the voltage indicator on the emergency power generator shows a constant voltage.

Causes for voltage fluctuations include suddenly switching the emergency power generator on or off, or the emergency power generator shutting off automatically because it is running low on fuel.

2. Electrically connect the emergency power generator to the vehicle (see 11.2).

11.11.2 Shutting down the emergency power generator

1. Remove the electrical connection between the emergency power generator and the vehicle (see 11.2).
2. Switch the emergency power generator off.



NOTE!

You will find further information in the separate Operating Manual supplied by the device manufacturer.

11.12 USB charging ports (optional accessory)



CAUTION!

- ☞ Only devices that are suitable for that purpose may be connected to the USB charging ports.
- ☞ These devices must be designed for a voltage of 5 volts.

Some models are equipped with USB charging ports (Fig. 55, item 1) in the living area. Only devices supporting this type of charging may be connected to the USB charging ports.



NOTE!

Before connecting a device to the USB charging port, verify that the device to be connected is suitable for that purpose.

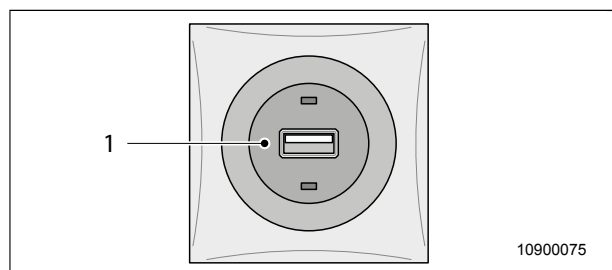


Fig. 55 USB socket

11.13 Car radio switch (optional accessory)

Regardless of the position of the ignition key, the car radio can be switched on and off with the toggle switch shown opposite.

The switch for the car radio is located on the dashboard near the cigarette lighter.

Three switch positions are possible:

- I - Radio functions with ignition switched on
- - Radio without function
- II - Radio functions with ignition switched off

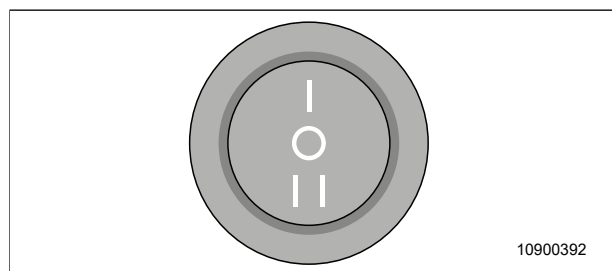


Fig. 56 Car radio switch on the dashboard

11.14 Interior lighting and switches

Depending on the layout, the switches for the living area lighting (Fig. 57) are either located in the area of the kitchen range or on the bathroom wall.

Some of the switches installed are changeover switches.

Lights that are not switched on or off by the switches are switched on or off by touch switch directly on the lamp.

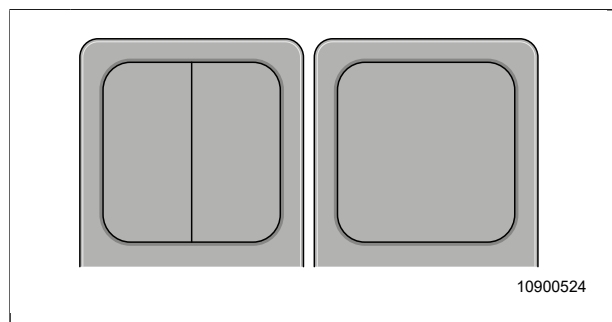


Fig. 57 Switch for LED living area lighting

12. Heating, hot water & air con

12.1 Truma Combi D

The vehicle is equipped with a Truma Combi D 6 diesel heater. The heater is located inside the bench seat.

The integrated hot water boiler holds 10 litres. In winter, the water is heated when the heating system is operated. In summer, the water may be heated separately from the heating system. It takes about 20 minutes to heat the water to 60 °C.



DANGER!

Risk of suffocation

If the ventilation devices or exhaust openings become blocked, this can lead to a fatal concentration of gas in the vehicle.

- ☞ Do not block the ventilation devices or exhaust openings.
- ☞ Clean the ventilation devices and exhaust openings regularly.



DANGER!

Risk of explosion

There is a risk of explosion when using gas-powered or fuel-powered appliances when refuelling the vehicle, in multi-storey car parks, in garages and on ferries.

- ☞ Switch off the gas-operated or fuel-powered appliances at the control element.
- ☞ Make sure the gas-operated or fuel-powered appliances cannot be switched on remotely (e.g. using the Truma App).



CAUTION!

Damage to heating

Improper handling can damage the heating system.

- ☞ Only trained personnel (specialists) may install, repair or check the function of Truma products.
- ☞ Do not cover hot air outlets that cannot be closed.



CAUTION!

Damage to the water pump

The water pump will jam if operated without water.

- ☞ Do not use the water pump without water.

**CAUTION!****Draining the living area battery**

Even when the Truma Combi or water pump is switched off, a few milliamperes of current will be constantly drawn from the living area battery.

- ☞ Switch the main switch on the on-board control off for longer periods of absence (see section "11.5 On-board control").

**NOTE!**

Before putting the Truma Combi heater into operation, observe the separate operating manual supplied by the device manufacturer.

**NOTE!****Truma Combi D**

When first operating the diesel-powered Truma Combi heating systems or if the tank is empty, multiple startups of the heater are generally required to fill the fuel lines.

12.1.1 Heating and water heating

1. Remove the chimney cover and check that the chimney is not obstructed. The chimney is located in the left-hand side of the vehicle.
2. Close the side window at the seat bench. There is a switch located at the side window which shuts down the heater if the window is not completely closed.
3. Fill the water system before preparing hot water (see sections "10.2 Filling the fresh water tank" and "10.3 Filling the water system").
4. Set the operating mode on the control panel.

To set the respective modes for heating/hot water heating, see the sections 12.1.2, 12.1.3 or 12.1.4.

12.1.2 Setting the operating mode using the CP classic control element

The CP classic control element is installed in the area of the sliding door.

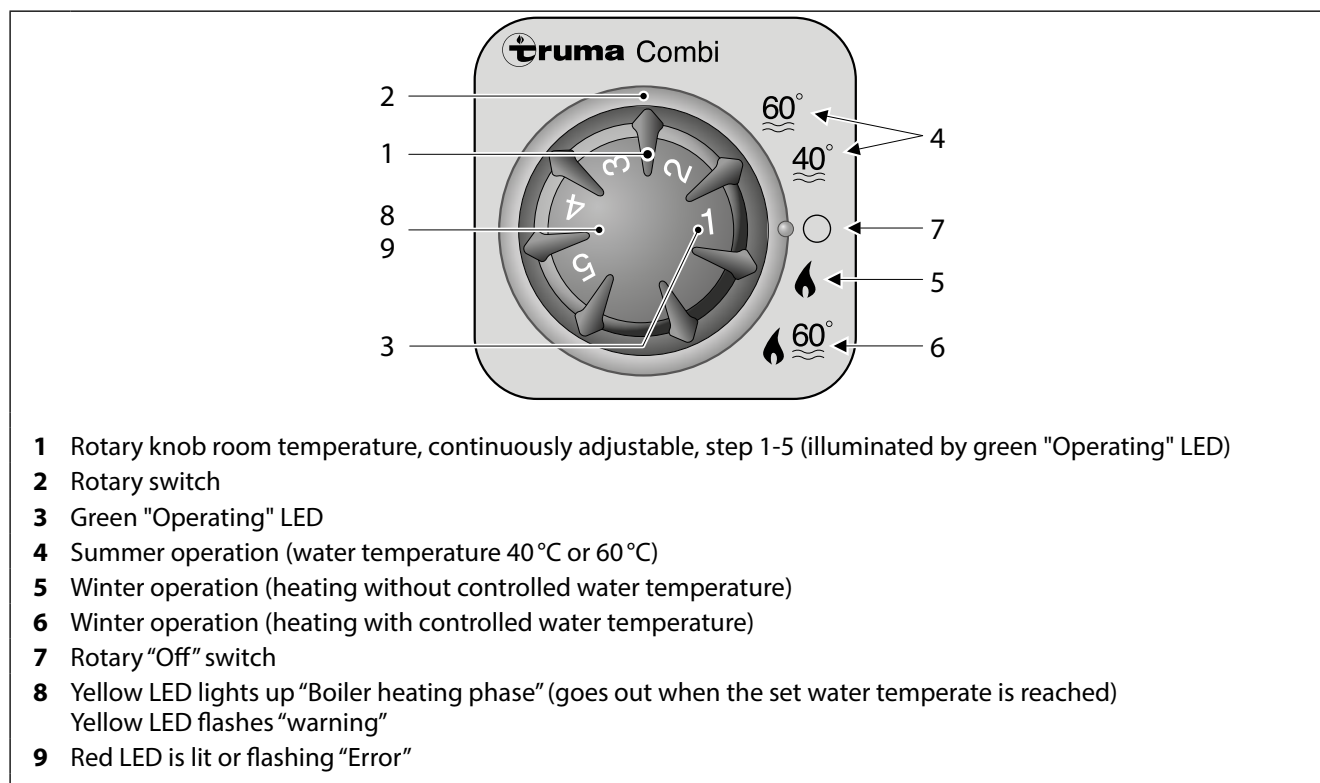


Fig. 58 Control element CP classic

The CP classic control element allows setting the following operating modes:

- ◆ Summer operation: only hot water without heating
- ◆ Winter operation: heating operation with controlled water temperature
- ◆ Winter operation: heating operation without controlled water temperature
- ◆ Winter operation: heating operation with drained water system

If one of these operating modes is activated, the green LED behind the rotary knob (Fig. 58, item 1) will light up.



NOTE!

If one of the following situations occur, please follow the instructions in the separate operating manual supplied by the manufacturer.

- ☞ The green LED does not light up despite the operating mode being set.
- ☞ The yellow LED is flashing.
- ☞ The red LED is lit or flashing.

12.1.2.1 Summer operation

Only generate hot water

1. Set the rotary switch (Fig. 58, item 2) to the desired water temperature of 40 °C or 60 °C (Fig. 58, item 4).

When the set temperature is attained, the heating element will switch off and the yellow LED (Fig. 58, item 8) will go out. The burner operates at the lowest burner setting.

12.1.2.2 Winter operation

Heating with controlled water temperature

1. Turn the rotary knob (Fig. 58, item 2) to position 6.
2. Turn the rotary knob (Fig. 58, item 1) to the desired thermostat setting of 1 – 5 for the room temperature.

The green LED (Fig. 58, item 3) lights up and displays the position of the set room temperature.

After attaining the room temperature selected, the burner switches to the lowest setting and heats the water in the boiler to 60 °C. The yellow LED (Fig. 58, item 8) indicates the heating phase; this goes out when the water temperature has been achieved.

Heating without controlled water temperature

1. Turn the rotary knob (Fig. 58, item 2) to position 5.
2. Turn the rotary knob (Fig. 58, item 1) to the desired thermostat setting of 1 – 5 for the room temperature.

The green LED (Fig. 58, item 3) lights up and displays the position of the set room temperature. After attaining the room temperature selected, the heating switches off.

When the boiler is filled, the water is heated automatically as well. The yellow LED (Fig. 58, item 8) only lights up at water temperatures below 5 °C.

Heating with drained water system

1. Turn the rotary knob (Fig. 58, item 2) to position 5.
2. Turn the rotary knob (Fig. 58, item 1) to the desired thermostat setting of 1 – 5 for the room temperature.

The green LED (Fig. 58, item 3) lights up and displays the position of the set room temperature. After attaining the room temperature selected, the heating switches off.

12.1.2.3 Switching off the heating/hot water boiler

1. Turn the rotary knob (Fig. 58, item 2) to the ○ position.
2. Refit the chimney cover.

12.1.3 CP E classic energy selector switch (optional accessory)

For vehicles with Truma Combi D and the CP classic control element, the CP E classic energy selector switch is additionally installed in the area of the sliding door.

Selecting electric operation (230 volts)

1. Turn the rotary knob (Fig. 59, item 2) to position 3 (1800 W) or 4 (900 W). The yellow LED (Fig. 59, item 1) signals electric operation with 230 volts.

Selecting diesel operation

1. Turn the rotary knob (Fig. 59, item 2) to position 5.

Selecting mixed operation

1. Turn the rotary knob (Fig. 59, item 2) to position 6 or 7.

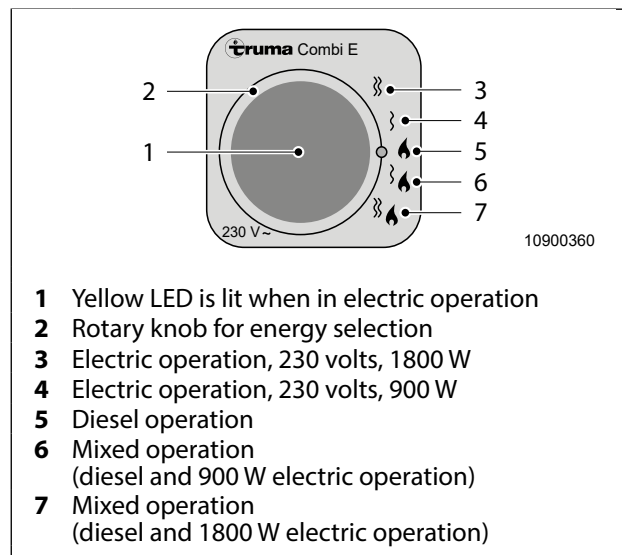


Fig. 59 CP E Classic energy selector switch



NOTE!

Mixed operation is not possible in summer operation mode. At this setting, the heater automatically selects electric operation with the preset electrical power of 900 W or 1800 W.

In winter operation mode, electrical mode has priority. If the electrical heating is insufficient, diesel operation is added.

12.1.4 Selecting the operating modes using the Truma CP plus control element (optional accessory)

The Truma CP plus control element (optional accessory) is installed in the area of the sliding door.

Rotary push button (Fig. 60, item 8) serves to select menus or to change the values to be set.

- ☞ Turn the rotary push button to the left or right to select a menu item or to change the values.
- ☞ Press the rotary push button to activate the menu item or to save the setting.
- ☞ Press the rotary push button for longer than 3 seconds to switch the control element on or off.

Back button (Fig. 60, item 9) serves to switch back to the previous menu or previous display.

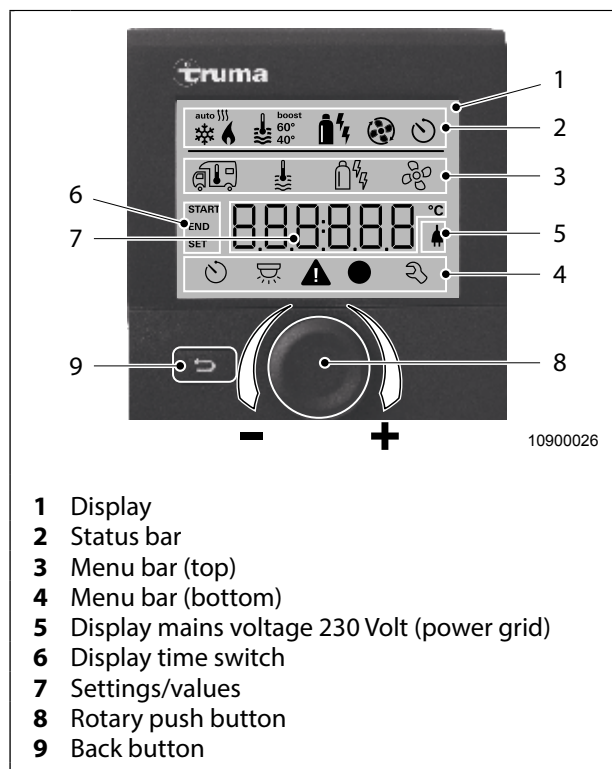


Fig. 60 Truma CP plus control element (optional accessory)



NOTE!

You will find further information in the separate Operating Manual supplied by the device manufacturer.

12.2 Truma iNet system (optional accessory)



NOTE!

You will find further information in the separate Operating Manual supplied by the device manufacturer.

12.3 Heating: Emptying the hot water boiler

12.3.1 Truma FrostControl

The Truma FrostControl is located in the area of the heating system.

Truma FrostControl is an overpressure relief valve and drain valve with frost protection function which is operated without using electrical power.



CAUTION!

Damage to the water system

If the Truma FrostControl cannot empty the hot water boiler at temperatures below approx. 3 °C, this may lead to frost damage on the water system.

- ☞ The drain plug on the Truma FrostControl must be kept free from debris (slush, ice, leaves, etc.).
- ☞ If you expect frost, empty the water system completely when the heating system is switched off.

Opening the Truma FrostControl

1. Switch off the water pump via the switch on the on-board control (see section "11.5 On-board control").
2. Open all taps and shower heads to the centre position.
3. Turn the rotary switch (Fig. 61, item 1) from position B, "Closed", by 90° until it engages in position A, "Empty". The push-button (Fig. 61, item 2) springs out.

The contents of the hot water boiler are then emptied directly outside via the drain plug.

4. During draining, check that the contents of the hot water boiler empties completely.

Closing the Truma FrostControl

1. Turn the rotary switch (Fig. 61, item 1) from position A "Drain" by 90° until it engages in position B "Closed".
2. Push in the push-button (Fig. 61, item 2).

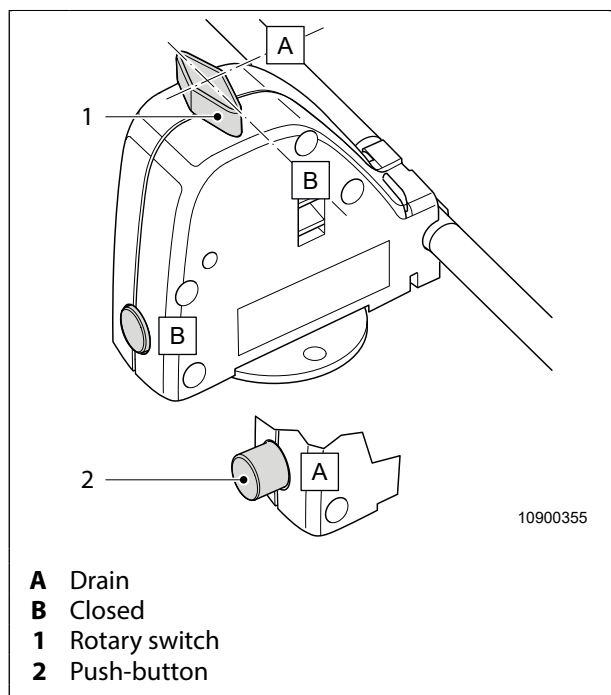


Fig. 61 Truma FrostControl hot water boiler



NOTE!

- ☞ When the heating is off, the Truma FrostControl can only be closed at temperatures above 7 °C!
- ☞ When temperatures drop to about 3 °C and lower at the Truma FrostControl, this will open automatically and drain the content of the water lines.
- ☞ The Truma FrostControl only protects the hot water boiler from frost damage. All other components of the water circuit (water pump, taps, etc.) are not protected by the Truma FrostControl.



NOTE!

You will find further information in the separate Operating Manual supplied by the device manufacturer.

12.4 Heating the fresh water tank and waste water tank

A heating for the waste water tank and a pipe auxiliary heating (heating for the waste water line) are available as optional accessories. This keeps the waste water tank frost-proof even at low temperatures.

The fresh water tank and the waste water tank are heated via a heating line. Thus making the fresh water tank and the waste water tank frost-proof even at low temperatures. The heating line is opened or closed with a string-operated shut-off.

The string-operated shut-off (Fig. 62, item 1) is located in the bathroom.

Opening the string-operated shut-off

1. Loosen the string. The fresh water tank and the waste water tank will be heated.

Closing the string-operated shut-off

1. Pull the string and clamp into place. The fresh water tank and the waste water tank will not be heated.

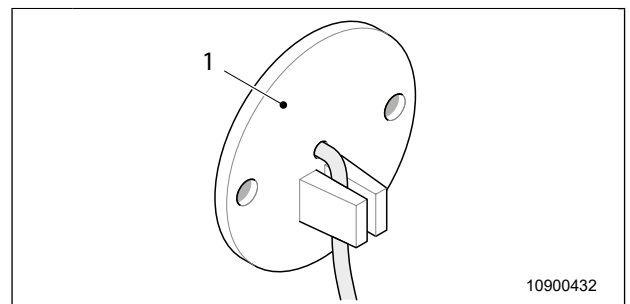


Fig. 62 String-operated shut-off

12.5 Air conditioning



NOTE!

Please contact your local **VANTourer** dealer about installing an air conditioner!

13. Cooking & baking

13.1 Gas cooker



DANGER!

Risk of suffocation

When the ventilation devices are blocked, a fatal concentration of gas may build up within the vehicle.

- ☞ Never cover the forced ventilation openings in the roof lights, mushroom vents and entrance area.
- ☞ Clean the ventilation equipment in regular intervals.

When windows and vehicle doors are closed while the gas cooker or the gas oven is used, a fatal gas concentration can build up within the vehicle.

- ☞ When using the gas cooker or the gas oven, at least one vehicle door, window or roof light must be opened to ensure that enough oxygen can enter the interior of the vehicle.



DANGER!

Fire risk

Hot fat or oil can ignite.

- ☞ Never leave hot oil and fat unattended.
- ☞ Never try to extinguish a fire using water. Turn the hotplate off. Carefully cover the flames with a lid, fire blanket or similar to cut off the oxygen supply of the fire.

Objects lying on the gas cooker may ignite.

- ☞ Do not place any combustible objects on the gas cooker.

The heat created during the cooking process may cause objects and spray cans stored in the drawers directly underneath the gas cooker to ignite.

- ☞ Do not store flammable items or spray cans in the drawers under the gas cooker.

Flames glinting beyond the gas cooker may cause adjacent walls, the panelling of the furniture, faceplates, curtains, blinds or other items to ignite.

- ☞ If equipped, always put up the flame guard plate whenever you use the gas cooker.



DANGER!

Risk of explosion

Unburned gas escaping from the cooker can lead to the formation of an explosive gas-air mixture.

- ☞ Never allow gas to escape unburned.
- ☞ The user must always have a clear view on the ignition process and must make sure that cookware (such as pots, pans or woks) and other objects do not block their view.

There is a risk of explosion when using gas cookers while refuelling the vehicle, in multi-storey car parks, in garages and on ferries.

- ☞ Switch off the gas cooker.
- ☞ Close the gas shut-off valve of the gas cylinder.

**CAUTION!****Damage to the kitchen area adjacent to the gas cooker**

Flames glinting beyond the gas cooker may damage adjacent walls, the panelling of the furniture, faceplates, curtains, blinds or other items.

- ☞ When placing the cookware (pots, pans, woks, etc.), make sure that they are placed in the centre of the burner grate and that the flames do not flare beyond the cookware.

Cookware (such as pots, pans, woks etc.) protruding beyond the gas cooker can damage adjacent walls, panelling on furniture, faceplates, curtains, blinds or other objects.

- ☞ The cookware used must not be larger than the grate on the burner.

**NOTE!**

The right burner by the control element works with reduced heat so that the adjacent kitchen area cannot be damaged by the burner.

**NOTE!**

Do not use the gas cooker for heating the vehicle.

**NOTE!**

Before using the gas cooker for the first time, carefully read the operating manual for the device provided by the manufacturer.

Using the gas cooker

1. Open the gas cylinder shut-off valve.
2. Lift up the cover on the hob.
3. To light the burner, push down the respective rotary knob in the recess in the hob and hold it down.
4. Ignite the escaping gas with the lighter and keep the control knob held down for another 5 to 7 seconds. The flame may go out if the control knob is released too soon. Repeat the operation if this happens.
5. Set the desired burner performance – large flame or small flame – with the rotary knob.
6. To switch off, turn the control knob to the zero position.

**NOTE!**

- ☞ A flame with an indistinct pattern is a sign of poor combustion, and we therefore recommend annual servicing by a qualified specialist.
- ☞ If the thermocouple is bent or faulty, the burner will not operate correctly and the flame will keep going out even though the control knob is pressed for a long time. If this happens, a new thermocouple must be fitted by a qualified specialist.
- ☞ You will find further information in the separate Operating Manual supplied by the device manufacturer.

14. Refrigerator

- ◆ The refrigerator can be operated with the following operating modes (types of energy):
 - ◆ 230 V
 - ◆ 12 V
- ◆ The capacity of the refrigerator is indicated on the nameplate on the interior of the refrigerator.

Operating the refrigerator

The control knob in the refrigerator can be used to switch the refrigerator on and off and adjust the temperature.



NOTE!

You will find further information in the separate Operating Manual supplied by the device manufacturer.

15. Toilet

Cassette



CAUTION!

Damage to the service cassette door

If the wall flue of the vehicle is located next to the service cassette door, the opened cassette door is damaged during heating operation by the heated air!

☞ Close the service cassette door when the heating is activated.



CAUTION!

Damage to the toilet

Frost can cause the cassette to freeze and damage the cassette.

☞ Drain the unit completely whenever you expect frost and the vehicle is not heated.

Frost can damage the water pump of the toilet in winter operation.

☞ Only use the toilet flush once the bathroom cubicle has properly heated up.



NOTE!

- ☞ Only empty the cassette on camping sites with suitable sewage systems or specially designated disposal facilities!
- ☞ Use an environmentally friendly and biodegradable chemical toilet additive.
- ☞ If environmental concerns exist, the WC can also be used without chemical additives but the cassette will require more frequent emptying as a result.

Using the toilet

1. Closely follow the instructions and carry out any preparatory measures given in the operating manual provided by the manufacturer before putting the cassette into service for the first time or after it has not been used for some time.
2. Press the flush button before using the toilet to allow a small amount of water to flow into the bowl.
3. Slide open the valve blade underneath the bowl. The toilet is now ready for use.
4. Press the flush button. The toilet is flushed.
5. Fully slide back and close the valve blade after flushing.



NOTE!

You will find further information in the separate Operating Manual supplied by the device manufacturer.

16. Winter camping

16.1 General notes on winter camping

If you plan to enjoy the freedom of camping in winter as much as in summer, here are some advices for you should to follow:

- ☞ After driving on roads that have been sprayed with salt, wash the underbody of the base vehicle with water.
- ☞ Find out as much as you can about weather and driving conditions before you set out and during your journey.
- ☞ Your vehicle has all-round insulation and double glazing, and is perfectly 'winter-worthy' if used correctly. The water supply is inside the vehicle on all models.
- ☞ Proper ventilation is just as important in winter as is the heating. Ski boots and other wet items will encourage the formation of condensation inside the vehicle.
- ☞ When camping in winter, the heater is of particular importance. This is because it is very important to quickly remove the water vapour produced by cooking, from wet clothing and breathing when camping in winter. In addition to good ventilation, the heated air will quickly remove the water vapour as warm air can absorb much more moisture than cold air. The lower the room temperature at relative air humidity, the quicker condensation will form if there is a slight difference between the temperature of the room air and the temperature on the inside wall.
- ☞ The windows, window frames and the corners of storage lockers are particularly prone to condensation depending on use, the number of persons, the site and the level of humidity both inside and outside the vehicle. Adequate heating of the vehicle with the hot air blower switched on will improve this situation.



CAUTION!

Damage to the window panes

If an agent containing alcohol is used for de-icing, the vehicle's acrylic glass window panes (PMMA) will get damaged!

- ☞ Do not use a de-icing agent containing alcohol for the acrylic glass (PMMA) windows!



CAUTION!

Risk of damage to the vehicle roof, canvas blind, awning or the sun roof

Snow load can damage the vehicle roof, the sun awning or the awning.

Water accumulation can damage the canvas blind, awning or the sun roof.

- ☞ Keep the vehicle roof, canvas blind and awning free of snow.
- ☞ Avoid water accumulation on the sun awning, awning and sun roof.

16.2 Additional notes on winter camping

- ☞ Secure the vehicle against rolling away and then release the parking brake to prevent it from freezing.
- ☞ Whenever possible place all cushions in the vehicle upright to ensure they are aired and dried.
- ☞ Use only 100 % propane in winter as butane will not gasify below freezing point. Make sure you have an adequate supply of gas cylinders. Keep gas cylinders in the gas locker only!
- ☞ Avoid the use of electrical appliances that consume a lot of power. Camp sites do not have unlimited amounts of electricity.
- ☞ In cold weather, the water pipes in the vehicle can freeze if the vehicle is left for long periods with the heating switched off.
- ☞ To prevent freezing, drain the waste water tank when the heating is switched off (see section "10.8 Emptying the waste water tank").
- ☞ The living area battery should be kept fully charged at all times.
- ☞ While heating up the vehicle, open all cupboards, flaps and storage lockers to prevent condensation forming.
- ☞ Avoid storing containers (bottles, cans etc.) containing water, juice or other liquids in the unheated vehicle as they may freeze.
- ☞ All snow and ice should be carefully removed from the roof of the vehicle and from the awning; it is particularly important to ensure the flue on the side wall is kept free at all times.
- ☞ Always keep the forced ventilation openings open, and open the roof light slightly if required.
- ☞ Never run power cables on the ground - they may freeze to the soil or be damaged by snow clearing vehicles.
- ☞ Keep metal taps open in an unheated vehicle at low temperatures, even if the water system has been drained. Always remember to open the mixer lever in both the "cold water" and then in the "hot water" position and to leave it in one of these opened positions.

16.3 Recommended accessories for winter camping

To be equipped for any eventuality when winter camping, we recommend the following accessories:

Remarks:		Date:	
Winter cover refrigerator (optional accessory)	OK: <input type="checkbox"/>	Jump leads	OK: <input type="checkbox"/>
Flue extension (optional accessory)	OK: <input type="checkbox"/>	A bag of sand is always useful should you get stuck in snow	OK: <input type="checkbox"/>
Snow shovel	OK: <input type="checkbox"/>	Snow covers for roof lights (only for permanent campers)	OK: <input type="checkbox"/>
Brush	OK: <input type="checkbox"/>		OK: <input type="checkbox"/>
Plastic ice scraper	OK: <input type="checkbox"/>		OK: <input type="checkbox"/>
De-icing spray	OK: <input type="checkbox"/>		OK: <input type="checkbox"/>
Talcum powder or Vaseline	OK: <input type="checkbox"/>		OK: <input type="checkbox"/>
Table salt or an environmentally friendly antifreeze for the waste water tank	OK: <input type="checkbox"/>		OK: <input type="checkbox"/>
Snow mats	OK: <input type="checkbox"/>		OK: <input type="checkbox"/>
Snow chains*	OK: <input type="checkbox"/>	* Before using snow chains, please contact an authorised dealer or the rim manufacturer.	

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Tab. 8 Recommended accessories for winter camping



NOTE!

Further information on winter camping can be found in the separate operating manuals provided by the respective appliance manufacturers.

17. Laying up



DANGER!

- ☞ You should completely drain the water system even if you are only laying up the vehicle for a short period. Bacteria will grow in fresh water after just a few days, making the water undrinkable. For the fresh water tank, we recommend a disinfectant available from your **VANTourer** dealer.
- ☞ After the caravan has been laid up for an extended period, have the entire brake system checked by an authorised specialist workshop!

17.1 Temporarily laying up the vehicle

The vehicle will not suffer from being left outdoors all year round provided proper precautions are taken.

If the vehicle is to be temporarily laid up you should follow these steps:

VEHICLE	Keep forced ventilation openings in the roof lights, mushroom vents and floor plate in the kitchen area open at all times.	OK: <input type="checkbox"/>
	Remove any rust spots and repair minor paint damage. Products suitable for repairing paintwork are available from your VANTourer dealer.	OK: <input type="checkbox"/>
	Wash the vehicle thoroughly and apply wax. Suitable vehicle care products are available from your VANTourer dealer.	OK: <input type="checkbox"/>
	If the vehicle is not jacked up, move it once a month to avoid pressure marks on the tyres and the wheel bearings. Secure the vehicle by placing chocks under the wheels.	OK: <input type="checkbox"/>
	Refuel the vehicle. In this way you can prevent corrosion damage to the fuel system.	OK: <input type="checkbox"/>
	Release the vehicle's parking brake.	OK: <input type="checkbox"/>
	If you use a tarpaulin to cover the vehicle, make sure that air can still pass above the roof (e.g. position lightweight wooden slats on the roof of the vehicle). The tarpaulin must not stick to the external surface of the vehicle.	OK: <input type="checkbox"/>
	Also ensure adequate air circulation underneath.	OK: <input type="checkbox"/>
	Thoroughly air the vehicle approximately every 3 weeks.	OK: <input type="checkbox"/>
	Fit cover on flue (if available).	OK: <input type="checkbox"/>
	Retract the sun awning.	OK: <input type="checkbox"/>
	Remove the awning and sun roof.	OK: <input type="checkbox"/>
	Clean the pop-up roof (optional accessory), allow it to fully dry, close and lock it properly.	OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>

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WATER SYSTEM	Empty the water system completely.	OK: <input type="checkbox"/>
	Metal water taps must be left open when the water system has been emptied. Make absolutely sure the mixer lever is opened to both positions ("cold water" and "hot water") and is then left open in one of these positions.	OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
GAS SYSTEM	Close gas cylinder shut-off valve.	OK: <input type="checkbox"/>
	Close all valves for appliances.	OK: <input type="checkbox"/>
	Always remove gas cylinders – even empty ones – from the gas locker and store them properly at home.	OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
LIVING AREA	Leave all cupboard doors, service hatches and storage compartments open.	OK: <input type="checkbox"/>
	Clean all storage compartments.	OK: <input type="checkbox"/>
	Stand up all cushions or keep in the house.	OK: <input type="checkbox"/>
	Clean the refrigerator.	OK: <input type="checkbox"/>
	Leave the refrigerator door and the freezer compartment slightly open.	OK: <input type="checkbox"/>
	Make sure that the forced ventilation openings are not covered.	OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
BUILT-IN APPLIANCES	For information on temporarily placing the appliances out of service, see the separate appliance operating manuals. The individual measures can be collected and listed below for simplification.	
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>

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17.2 Laying up the vehicle over winter

If the vehicle is laid up over the winter, the following steps are to be taken in addition to 17.1:

VEHICLE	Clear snow from the roof of the vehicle in case of snowfall.	OK: <input type="checkbox"/>
	Heat and air the vehicle well once a month.	OK: <input type="checkbox"/>
	Clean and grease all door and service hatch hinges.	OK: <input type="checkbox"/>
	Oil all locks.	OK: <input type="checkbox"/>
	Coat all rubber seals with talcum or Vaseline.	OK: <input type="checkbox"/>
	Treat all lock cylinders with graphite powder.	OK: <input type="checkbox"/>
	Install/close the winter cover for the refrigerator ventilation grille (if available).	OK: <input type="checkbox"/>
	Retract the sun awning.	OK: <input type="checkbox"/>
	Remove the awning and sun roof.	OK: <input type="checkbox"/>
	Clean the pop-up roof (optional accessory), allow it to fully dry, close and lock it properly.	OK: <input type="checkbox"/>
ELECTRICAL SYSTEM	Remove starter battery (vehicle) and living area battery, charge with a suitable charger and store in a frost-free place at home.	OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
LIVING AREA	Remove all cushions from the vehicle and keep in a dry place in the house.	OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
BUILT-IN APPLIANCES	For information on temporarily placing the appliances out of service for the winter, see the separate appliance operating manuals. The individual measures can be collected and listed below for simplification.	
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>

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17.3 Using the vehicle again after laying up temporarily or over the winter

The following measures must be taken to put the vehicle back into service after it was temporarily laid up:

VEHICLE	Check function of all quarter vents, forced ventilation openings and roof lights, and lift and tilt roofs (Heki).	OK: <input type="checkbox"/>
	Check the function of all locks on the service hatches and vehicle doors.	OK: <input type="checkbox"/>
	Remove cover from flue (if available).	OK: <input type="checkbox"/>
	Remove winter cover for refrigerator ventilation grille (if available).	OK: <input type="checkbox"/>
	Check the tyre pressure in all tyres (also in the spare wheel if present).	OK: <input type="checkbox"/>
	Check the pop-up roof (optional accessory).	OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
WATER SYSTEM	Rinse through water pipes and fresh water tank with fresh water. Taps must be open.	OK: <input type="checkbox"/>
	Close all drain valves and taps.	OK: <input type="checkbox"/>
	Check taps, drain valves and water distributors for leaks.	OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
GAS SYSTEM	Set gas cylinders upright in gas locker, strap in tight and connect.	OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
ELECTRICAL SYSTEM	For information on putting the electrical appliances back into operation, see the separate appliance operating manuals. The individual measures can be collected and listed below for simplification.	
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
BUILT-IN APPLIANCES	For information on putting the appliances back into operation, see the separate appliance operating manuals. The individual measures can be collected and listed below for simplification.	
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>
		OK: <input type="checkbox"/>

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18. Cleaning & care

18.1 General information

Regular and properly advised care helps preserving the value of the vehicle.

You can purchase the required cleaning and care products from **VANTourer** dealers or specialised shops. Please follow the instructions for use on the packaging.



DANGER!

Danger to health or risk of poisoning

Cleaning and care products can be harmful or toxic when not applied correctly.

- ☞ Always comply with the instructions given by the manufacturer of the cleaning and care products when using the care products.
- ☞ Observe all warnings on the packaging of the cleaning and care products.
- ☞ Keep the cleaning and care products in a safe place.
- ☞ Keep the cleaning and care products away from children.



CAUTION!

Damage to the vehicle

The pressurised jet of water from pressure washers or hot water pressure washers can damage the vehicle's surfaces and tyres. External applications (decorative films) may come off.

- ☞ Do not clean the vehicle using a round jet nozzle or dirt blaster nozzle.
- ☞ Do not point the pressurised jet directly at external applications (decorative films).
- ☞ Do not clean tyres with pressure washers or hot water pressure washers.
- ☞ Only point the pressurised jet of water at the vehicle from a certain distance.
- ☞ Do not point the pressurised jet directly at the clearance between doors and body, electronic accessories, connectors, seals, ventilation grilles, chimneys or skylight domes.
- ☞ Do not clean the vehicle interior using a pressure washer or hot water pressure washer.

The temperature of the pressurised jet of water from a hot water pressure washer can damage external surfaces and external applications (decorative films) of the vehicle.

- ☞ Only point the pressurised jet of water from the hot water pressure washer at the vehicle from a certain distance.
- ☞ Do not set an excessively high temperature on the hot water pressure washer.



NOTE!

Environmental note

- ☞ Use environmentally friendly cleaning agents.
- ☞ Do not dispose residual cleaning agents in your household waste.

18.2 Cleaning and care of the vehicle exterior



CAUTION!

Damage to the window panes

If an agent containing alcohol is used for cleaning or, in winter, for de-icing, the vehicle's acrylic glass window panes (PMMA) will get damaged!

- ☞ Do not use cleaning agents or de-icing agents containing alcohol for the acrylic glass (PMMA) window panes!

To maintain the high quality of the finish, observe the following information on care:

- ☞ Salt (at the seaside), soot, bird droppings and other aggressive substances should always be removed from the paintwork of the vehicle immediately before they have time to leave a mark.
- ☞ Wash your vehicle with water regularly if you are near the sea.
- ☞ You should clean your vehicle as you would a car.
- ☞ Wash your vehicle with a pH-neutral product (pH value: 6-8). Do not forget to wash the vehicle roof!
- ☞ Always thoroughly rinse off the vehicle with water and dry it.
- ☞ Use only sponges, soft cloths or soft brushes. Hard tools can damage the paintwork.
- ☞ The vehicle should be waxed from time to time to protect and enhance its sheen. Apply the coat of wax as directed by the manufacturer of the product.
- ☞ GRP parts can acquire a yellowish hue over time. This is not however a quality defect. There are special cleaning and polishing products to improve the look of these parts. These products can be obtained through authorised dealers.
- ☞ To freshen up old paintwork, the vehicle can be treated with a suitable polish. Here again, you should follow the manufacturer's directions. Polishing can damage the paintwork of your vehicle (abrasion). So do not apply polish unless absolutely necessary.
- ☞ Plastic parts must not be treated with aggressive cleaning agents such as benzene, methylated spirits, thinners, etc. (see 18.2.1).
- ☞ Tar stains or other organic marks on the painted surface are best removed with benzene. We strongly advise against the use of other solvents!
- ☞ Insects should be softened with water and then removed with a sponge wrapped in a nylon stocking.
- ☞ Damage to the surface of your vehicle should be repaired immediately with refinish paint to prevent corrosion.
- ☞ Check the condition of the underseal once a year. Please contact your **VANTourer** dealer if the underbody protection is damaged.
- ☞ After driving on roads that have been sprayed with salt, wash the underbody of the base vehicle with water.

18.2.1 Cleaning plastic parts on the outside of the vehicle

- ☞ Products made of plastic and/or GRP products can be cleaned gently using warm water with the addition of a weak acidic, neutral or weak alkaline cleaner.
- ☞ You can use low concentrations (< 2 %) of mild household cleaners dissolved in water.
- ☞ Abrasive agents such as scouring powder are not recommended as these will scratch plastic surfaces.
- ☞ Very greasy or oily surfaces can be washed down with petroleum substances free from aromatic compounds such as ethanol. The use of organic solvents can damage the material.
- ☞ Plastic mouldings can be damaged by stress cracks caused by a variety of products. Other chemicals may cause the plastic to swell and soften. Therefore, these plastic mouldings should only be subjected to contact with the solvents referred to above for a short period of time (maximum of 2 minutes) at room temperature.

18.3 Cleaning and care of the vehicle interior



CAUTION!

- ☞ Use only standard household cleaning and care products.
- ☞ Caustic and abrasive products should not be used.
- ☞ Avoid using anything that might scratch or score surfaces.
- ☞ The bathroom cubicle should only be cleaned with a little water containing a mild cleaner and a damp cloth!
- ☞ Never lay the carpet onto wet PVC floor covering as the carpet can stick to the PVC and pull the covering with it when the carpet is next taken up!



NOTE!

Care instructions for the mirror in the bathroom cubicle

- ☞ Remove stains that occur during daily use (e.g. water droplets, toothpaste stains) with a soft cloth or with your towel after drying your hands.
- ☞ Remove stubborn stains (e.g. cosmetics residues) carefully with a slightly moistened microfibre cloth or a chamois leather cloth.
- ☞ If possible, clean the mirror without water and cleaning agents to ensure that no moisture or chemicals can penetrate the mirror coating.
- ☞ The furniture is only to be cleaned with a commercially available furniture polish. Strong cleaning products should not be used.
- ☞ The kitchen sink is made from stainless steel and can be cleaned with standard household products.
- ☞ Use only water with washing-up liquid or a mild household cleaner to clean the table tops and kitchen worktops.
- ☞ Dry clean upholstery covers, main curtains and the net curtains.
- ☞ The PVC floor covering is hard-wearing and easy-care. To clean it, just wet-mop and rub dry; do not use wax.
- ☞ Never use abrasives or aggressive cleaners.

**NOTE!**

Sunshine can cause plastic parts in the interior of the bathroom cubicle to turn yellow over time. This is not however a quality defect.

18.3.1 Cleaning plastic parts of the vehicle's interior**DANGER!**

Working with concentrated acids is dangerous and should be avoided! To remove calcium deposits, use commercially available acids only (e.g. acetic acid).

- ☞ Plastic products can be carefully cleaned using warm water with the addition of a very slightly acidic, neutral or very slightly alkaline cleaner.
- ☞ You can use low concentrations (< 2 %) of mild household cleaners dissolved in water.
- ☞ Abrasive agents such as scouring powder are not recommended as these will scratch plastic surfaces.
- ☞ Very greasy or oily surfaces can be washed down with petroleum substances free from aromatic compounds such as petroleum ether, ethanol or perchloroethylene. The use of organic solvents can damage the material.
- ☞ Plastic mouldings can be damaged by stress cracks caused by a variety of products. Other chemicals may cause the plastic to swell and soften. Therefore, these plastic mouldings should only be subjected to contact with the solvents referred to above for a short period of time (maximum of 2 minutes) at room temperature.
- ☞ While cleaning, keep mechanical stress on mouldings, e.g. clamping, to a minimum to prevent any deformation.
- ☞ Water used for cleaning should be softened to prevent lime scale. If calcium deposits appear on the surface, these can be removed with commercially available acids (e.g. acetic acid).

18.3.2 Cleaning and care of wooden parts (optional accessory)

In some models, the showering area is equipped with a shower grid and panelling made of wood. In order to assure the lasting value of these wooden parts, follow the instructions for cleaning and care given below.

**CAUTION!**

- ☞ Do not use chemical or cleaning agents containing chlorine for cleaning of the wooden parts!
- ☞ In order to prevent the shower grate from degrading, regularly clean this accessory after use and let it dry thoroughly outside the bathroom cubicle.
- ☞ Clean the wooden parts using a scrubbing brush and a mild detergent.
- ☞ In order to preserve the decorative wood grain and the hues of the wood it is recommended to treat the wood with high-quality wood oil for hard woods and tropical wood. Depending on the frequency of use, this care measure should be carried out two to three times a year.

18.4 Cleaning and care of stainless steel surfaces

- ☞ Clean all stainless steel surfaces (e.g. sink) only with common household cleaners.



CAUTION!

Metallic objects may not be placed for a longer period of time on stainless steel surfaces (e.g. sinks) due to the risk of contact corrosion!

18.5 Cleaning the acrylic glass windows in the vehicle body and the roof scoop



CAUTION!

- ☞ Never clean the vehicle in a car wash facility because the acrylic glass windows can be scratched by the rotating brushes!
- ☞ The acrylic glass windows must not be cleaned using chemical cleaners, glass cleaners or products that contain alcohol spirit. Cleaning products must not contain plasticisers, as this would cause the acrylic glass windows to become brittle and crack!
- ☞ Avoid twisting and distorting the windows when opening and closing them!
- ☞ Clean the acrylic glass windows with plenty of water, a clean sponge and a soft cloth.
- ☞ Do not use any other liquid than water with a mild washing-up liquid (10% solution) to keep the acrylic glass of the window clear and to avoid electrostatic charge.
- ☞ To remove stubborn stains, use a special acrylic glass cleaner that is available from your **VANTourer** dealer.
- ☞ Regularly lubricate all hinges, flaps and windows with acid-free terminal grease or gun oil (e.g. Ballistol) to ensure moving parts continue to move freely and do not seize.



NOTE!

Because of the physical properties of acrylic glass, the colder of the two glass panes, usually the one on the outside, will mist up on the inside. This condensation will disappear again when the air around the window becomes very dry, but this process of diffusion may still be quite slow.

18.6 Cleaning and care of roof lights and roof windows



CAUTION!

- ☞ Failure to follow the instructions for care and cleaning of the roof window will void the manufacturer's warranty!
- ☞ When washing the vehicle, make sure the water jet is not pointed at the roof window. There is an air gap around the glass dome and the frame (forced ventilation) through which the water could enter the vehicle.

- ☞ Never use aggressive cleaners (solvents/scouring agents).
- ☞ The ventilation grilles and light covers can be removed for cleaning.
- ☞ Only clean acrylic glass (glass dome) and frame elements with a damp cloth and mild soap solution, if necessary use a special cleaner (at your own risk). This special cleaner is available from your **VANTourer** dealer. Ensure that no water penetrates onto mechanical parts.
- ☞ Treat all rubber seals with talcum powder.
- ☞ Clean folds and insect blind with a soft brush, if necessary using a damp cloth.

18.7 Cleaning and care of the awning

- ☞ Regularly use a sponge and clear water or PVC cleaner to clean the fabric of the awning, as dirt particles can otherwise quickly create a medium for the growth of mould and bacteria.

18.7.1 Dealing with mould on the awning

If the fabric of the awning is not properly maintained and sufficiently aired (e.g. when being folded and stowed away when wet), mould can form on the fabric. Avoid the use of strong solvents in this case.



DANGER!

- ☞ When applying fungicides you must use protective equipment such as safety glasses, mask and safety gloves, and ensure that the area is well ventilated!
- ☞ The directions for use in the leaflet enclosed with the fungicide must be strictly followed!
- ☞ Clean the affected area with a 3 % caustic soda solution (available from any pharmacist).
- ☞ Allow the caustic soda solution to act, then thoroughly rinse the fabric and dry.
- ☞ Repeat this treatment at regular intervals.

18.8 Cleaning the pop-up roof



NOTE!

- ☞ Do not apply pressure or unnecessary strong rubbing during cleaning. Otherwise, chafing may occur or the dirt may be rubbed into the fibre gaps of the fabric bellows or the impregnation may be damaged.
- ☞ Do not use high-pressure cleaner.
- ☞ Cleaning and re-impregnation should ideally be carried out while spread out.

18.8.1 Regular cleaning

- ☞ Clean or vacuum the fabric bellows and mosquito net with a soft brush at regular intervals when they are dry. Recommendation: after every long journey where the pop-up roof was used and at the end of the camping season.
- ☞ Minor contamination of the fabric bellows can either be dabbed off using a damp sponge (do not rub), carefully be removed using a colourless eraser with little pressure or rinsed with lukewarm water (max. 35 °C).
- ☞ In the case of large areas of contamination, clean the fabric bellows with a mild soap solution (e.g. solution of soft soap and water at approx. 35 °C). Apply the cleaning solution over a large area with a spray bottle. Allow the solution to soak in for approx. 5 minutes and then rinse thoroughly with fresh water until all residues of the cleaning agent have been removed. Repeat the procedure if necessary.
- ☞ After cleaning, allow the fabric bellows to fully dry, preferably in the sun.

18.8.2 Removal of stains

There are special cleaners for every type of stains. They can contain aggressive solvents that can cause changes in colour. Skin contact can cause allergic reactions. Their use may also lead to irritation of the eyes, mucous membranes or respiratory tract. You should therefore avoid using these agents if possible. If you want to use these agents, check whether the agent is suitable for the intended purpose and observe the manufacturer's processing instructions.

- ☞ In the case of larger contamination, clean with a mild soap solution (e.g. solution of soft soap and water at approx. 35 °C). Foam up the cleaning solution by soaking and squeezing out a sponge and apply the foam to the stain. Allow the solution to soak in for approx. 15 minutes and then rinse thoroughly with fresh water until all residues of the cleaning agent have been removed. Repeat the procedure until the stain is removed.
- ☞ If stains cannot be removed in this manner, they can be dabbed with benzine and a clean, dry, absorbent cloth. Test this at an unnoticeable spot to see if the colour of the fabric bellows changes due to the benzine. Avoid rubbing movements if possible. If rubbing cannot be avoided to treat a large stain, rubbing in circular movements should always be done from the inside out to avoid stain edges.

18.8.3 Information on mould formation

Deposits (dirt) on the surface of the fabric bellows can form mould. The visible black deposits are excretions of the moulds. Therefore these deposits must be removed as soon as possible.

Even after cleaning, the moulds may appear again after some time.

- ☞ Dirt particles, moisture and heat easily lead to the formation of mould by bacteria, fungi and other microorganisms. Therefore, do not store contaminated fabric bellows folded or bundled together in a wet condition for a long period of time.

18.8.4 Re-impregnation of the fabric bellows

An impregnation contains environmentally-friendly microcides to protect the textile as much as possible from the formation of mould. However, the approved impregnating agents do not act universally against all microorganisms. Therefore, the care and cleaning of textiles are of particular importance.

Depending on how regularly the fabric bellows is used, repeated treatment with impregnation may be necessary.

- ☞ Only carry out re-impregnation when the fabric is dry.
- ☞ Use a silicone-free impregnating agent for re-impregnation.
- ☞ Always follow the instructions for use of the reimpregnation agent.

18.9 Treatment of stiff zip fasteners

Pop-up roof (optional accessory)

The zip fasteners can sometimes be a bit stiff.

- ☞ This can be cured by rubbing candle wax into the zips (make sure to use the right colour) or spraying them with a silicone spray.

19. Maintenance & inspection

19.1 Maintenance work

In the interest of road safety, the vehicle must be maintained as regularly and carefully as a normal passenger car.



CAUTION!

- ☞ Carrying out maintenance work requires specialist skills and knowledge. This is why you should only have servicing performed by a specialist workshop!
- ☞ The service centre will stamp your Customer Service Record Book to confirm that the leak tests on all tanks and pipes, hoses etc. have been carried out.
- ☞ If any parts need replacing, ensure that the manufacturer's original spare parts are used!



NOTE!

For vehicles that are not used very often, servicing should be carried out once a year and in plenty of time before the start of a journey.

19.2 Statutory testing of the vehicle (Germany)

§ 29 of the German road traffic type approval law (StVZO) stipulates that caravans registered in Germany must be officially inspected regularly by an authorised inspection body (e.g. TÜV, DEKRA). These inspections comprise the general inspection (HU), the exhaust gas test (AU) (vehicle) and the inspection of the liquid gas system.

A gas engineer must issue a gas test certificate certifying that the gas system has been properly tested. The gas test sticker is located near the rear number plate (in Germany).

The general inspection intervals depend on the weight of the vehicle.

Statutory testing	Vehicles up to 3.5 t	Vehicles from 3.5 t to 7.5 t	Vehicles above 7.5 t
TÜV/DEKRA - General inspection and exhaust gas inspection	36 months up to 1st inspection, then every 24 months	Every 24 months up to the 6th year, then every 12 months	Every 12 months
Inspection of the LPG system by a gas engineer	Every 24 months as well as after modifications or conversions		

Tab. 9 Statutory tests in Germany (vehicle)



NOTE!

The relevant regulations which apply in other countries must be complied with!

19.3 Superstructure maintenance plan

Just like any other technical equipment, your vehicle also needs to be properly maintained and serviced from time to time. The scope and frequency of this work depends first and foremost on the conditions under which the vehicle is used and operated.

All maintenance and service work requires specialist skills and knowledge. It is therefore essential for this work to be carried out by trained specialists.

The following table only lists the maintenance and inspection work that is carried out on the body of the vehicle. Required maintenance and inspection measures for the base vehicle can be found in the separate operating manual provided by the manufacturer of the base vehicle.

Maintenance measure	Maintenance interval
Perform handover inspection (see warranty booklet)	On the day of handover
Perform first leak test	After 12 - 14 months
Perform second leak test	After 24 - 26 months
Perform third leak test	After 36 - 38 months
Perform forth leak test	After 48 - 50 months
Perform fifth leak test	After 60 - 62 months
Perform sixth leak test	After 72 - 74 months
Perform seventh leak test	After 84 - 86 months
Perform eighth leak test	After 96 - 98 months
Perform ninth leak test	After 108 - 110 months
Perform tenth leak test	After 120 - 122 months
Perform TÜV inspection	Every 2 years
Perform gas inspection	Every 2 years
Check air pressure in tyres	Every 14 days

Tab. 10 Superstructure maintenance plan

20. Troubleshooting and fault rectification



DANGER!

For your own safety, have repairs on the base vehicle carried out by an authorised specialist workshop, especially repairs and adjustments to the brake system!

20.1 Replacing the illuminants of the rear lights



DANGER!

Risk of injury due to electric shock

When the caravan is connected to the 230-volt mains, there is a risk of electric shock.

☞ Disconnect the vehicle from the 230-volt mains supply before starting any work.



NOTE!

- ☞ It is recommended to carry a replacement set containing all illuminants used in the vehicle so as to be able to perform an immediate replacement if required.
- ☞ You will find further information in the separate Operating Manual supplied by the manufacturer of the base vehicle.
- ☞ Replacing the lights and removing the covers can be performed with the onboard toolkit of the base vehicle.

Depending on the equipment of the vehicle, different covers are used.
The illustrations may differ from the actual appearance.

1. Disconnect the 230 volt power supply.
2. Remove mattresses or cushions if necessary.
3. Remove the protective caps (Fig. 63, item 1) from the cover (Fig. 63, item 2).



CAUTION!

Damage to the cables

The cables for the sockets and speakers may become damaged when removing the covers.

- ☞ Carefully remove the covers.
- ☞ Do not pull on the cables.

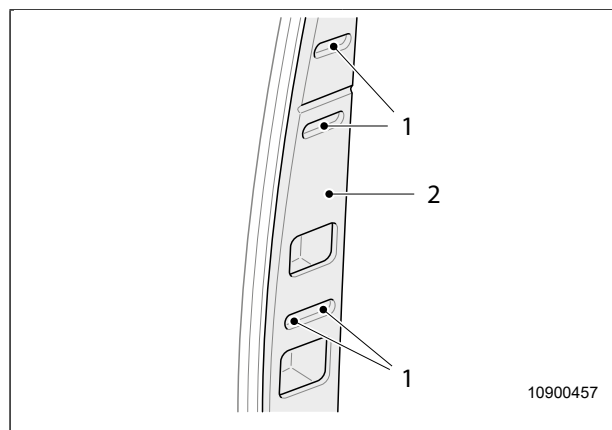


Fig. 63 Cover

Illustration may differ to your model

4. Use a screwdriver from the on-board toolkit to remove the attachment screws of the cover (Fig. 63, item 2).

5. Carefully remove the cover (Fig. 63, item 2).

Pay attention to the cable lengths of the speakers and sockets.

6. Remove the inspection opening (Fig. 64, item 1), if present.

Depending on the base vehicle, equipments and layout, the inspection openings can be found under the bed, in the gas locker or on the shelf.

7. Depending on the layout, carefully remove obstructive components or additional covers in the lower area at the height of the rear lights.

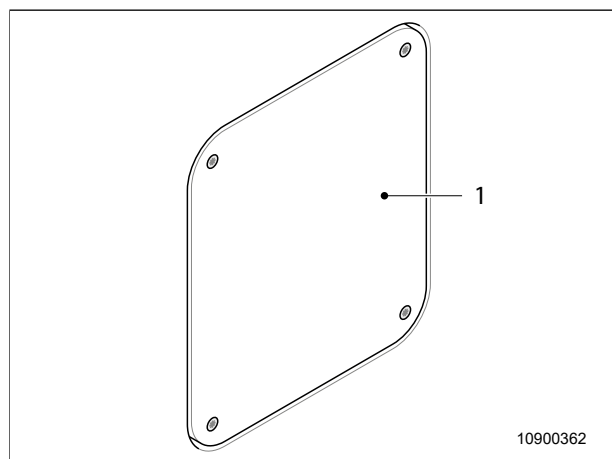


Fig. 64 Inspection opening

8. Loosen both nuts (Fig. 65, item 2) of the rear light with the tool in the onboard toolkit (Fig. 65, item 1) and remove them by hand.
9. Carefully remove the rear light from the vehicle.
10. Unscrew the screws of the inner lamp socket and pull out lamp socket.

**NOTE!**

Please observe the instructions in the operating manual provided by the manufacturer of the base vehicle.

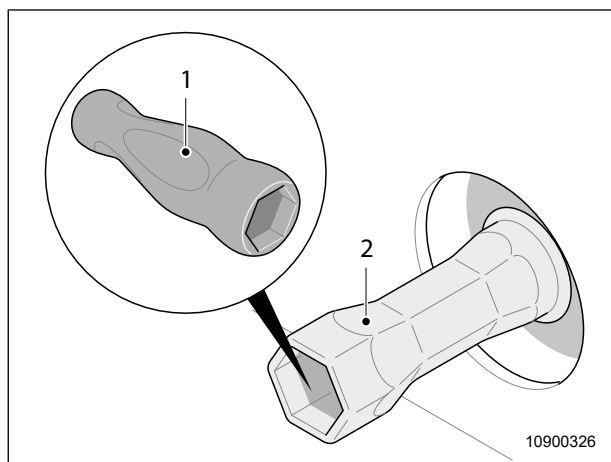


Fig. 65 Rear light nut with tool from the onboard toolkit

11. Open the bayonet lock of the illuminant and replace the illuminant.

To re-fit, proceed in the reverse sequence.
Tighten the screws by hand.

**NOTE!**

Depending on the base vehicle, equipment and layout, an inspection opening can be found in the gas locker. When refitting. Ensure that the seal is not damaged and that the gas locker is closed tightly again.

20.2 Changing a wheel

**DANGER!**

- ☞ You should only change a wheel on firm, level ground and well away from moving traffic!
- ☞ Other road users must be made aware of your motorhome according to the national regulations which apply in the country you are visiting, e.g. by using the hazard warning triangle!
- ☞ Never lie under the motorhome when it is jacked up!
- ☞ The wheel jack is only provided for wheel changing. It must never be used for carrying out work under the motorhome!

**CAUTION!**

Additional support legs fitted (accessories) must not be used to jack up the motorhome!

The spare wheel is located underneath the motorhome behind the rear axle.



NOTE!

You will find further information in the separate Operating Manual supplied by the manufacturer of the base vehicle.

20.3 Towing

20.3.1 Towing the vehicle



CAUTION!

Damage to the chassis and the superstructure

If the tow rope or the tow bar are not attached to the towing eye for towing the vehicle or if the towing rope used does not have sufficient tensile strength, the chassis and the body will get severely damaged!

- ☞ Only use the front towing eyelet for towing the vehicle.
- ☞ Use a tow rope or a tow bar with sufficient tensile strength.

Towing the vehicle

1. Fasten the tow rope or tow bar to the front towing eyelet on the vehicle.
2. Fasten the tow rope or tow bar to the respective towing fixture on the towing vehicle.
3. When towing, observe the legal regulations (hazard warning lights, maximum speed, towing on motorways, etc.).
4. After towing, remove the tow rope or tow bar from both vehicles and stow it away.



NOTE!

You will find further information in the separate Operating Manual supplied by the manufacturer of the base vehicle.

20.3.2 Towing with the vehicle



CAUTION!

Damage to the chassis and the superstructure

Towing other vehicles with the vehicle if the vehicle is not equipped with a trailer hitch will result in severe damage to chassis and body.

☞ Towing other vehicles with the vehicle is only permitted if the vehicle is equipped with a trailer hitch.

Towing with the vehicle

1. Fasten the tow rope or tow bar to the trailer hitch or eyelet on the vehicle.
2. Fasten the tow rope or tow bar to the respective towing fixture on the vehicle to be towed.
3. When towing, observe the legal regulations (hazard warning lights, maximum speed, towing on motorways, etc.).
4. After towing, remove the tow rope or tow bar from both vehicles and stow it away.



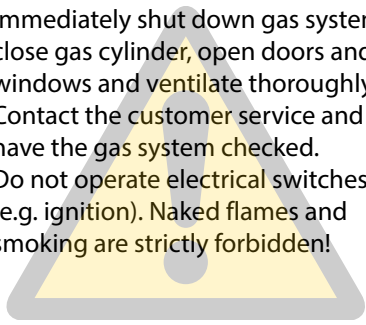
NOTE!

You will find further information in the separate Operating Manual supplied by the manufacturer of the base vehicle.

20.4 Troubleshooting tables

☞ Troubleshooting should be carried out by reference to the following Troubleshooting table.

☞ If you are unable to correct faults yourself, you should contact customer service at your local **VANTourer** service centre or the respective appliance manufacturer (heating = Truma or Alde, refrigerator = Dometic or Thetford, toilet = Thetford etc.).

GAS SYSTEM			1/1
Fault	Cause	Action	
Gas smell, high gas consumption.	Leak in gas system.	Immediately shut down gas system, close gas cylinder, open doors and windows and ventilate thoroughly. Contact the customer service and have the gas system checked. Do not operate electrical switches (e.g. ignition). Naked flames and smoking are strictly forbidden!	
No gas.	Gas cylinder shut-off valve is closed.	Open gas cylinder shut-off valve.	
	Outside temperature too low. Propane: -42 °C Butane: 0 °C	Wait for outside temperature to rise.	
	Faulty appliance.	Contact customer service.	

TRUMA COMBI HEATER/HOT WATER BOILER with CP classic control element

1/1

The Truma CP (E) classic control element indicates faults using green, yellow and red LEDs that either light up or flash. You will find further information on what the various LED signals mean in the separate operating manual supplied by the device manufacturer. Information on how to eliminate any faults is also found in these separate instructions.

The operating manuals supplied with the Truma CP (E) classic and the Truma CP plus can also be found on the Truma company website.

TRUMA COMBI HEATER/HOT WATER BOILER with CP plus control element

1/1

The Truma CP plus control element indicates faults using error codes. Further information regarding what the individual error codes mean can be found in the separate operating manual supplied by the device manufacturer. Information on how to eliminate any faults is also found in these separate instructions.

The operating manuals supplied with the Truma CP (E) classic and the Truma CP plus can also be found on the Truma company website.

TRUMA HEATER/HOT WATER BOILER FrostControl

1/1

The drain valve (FrostControl) opens after switching off the heater.

Temperature on the drain valve below 3 °C.

Switch on heating. The drain valve opens automatically at temperatures below about 3 °C! When the heating is off, the drain valve can only be closed again at temperatures above about 7 °C!

Use heating element for FrostControl.

The drain valve (FrostControl) can no longer be closed.

Temperature on the drain valve below about 7 °C.

Switch on heating. When the heating is off, the drain valve can only be closed again at temperatures above about 7 °C!

Rotary switch not in "Operation" position.

Turn rotary switch of the drain valve to "Operating" position, then press the push-button until it snaps in.

Water spurts from the drain tap of the FrostControl.

Water pressure too high.

Check pump pressure (max. 2.8 bar). When connecting to a central water supply (land or city connection), a pressure reducer must be used which prevents higher pressures than 2.8 bar in the boiler.

If all the fault clearance measures listed in this TRUMA COMBI section do not have the desired result, please contact the Truma Service Centre.

GAS COOKER			1/1
Fault	Cause	Action	
No ignition, flame goes out when control knob is released.	Ignition detector defective.	Contact customer service.	
Flame goes out on "Low Flame" setting.	Ignition detector sensor not correctly adjusted.	Adjust ignition detection sensor correctly (do not bend!). The tip of the sensor should project above the burner by 5 mm. The sensor neck should be no more than 3 mm from the burner ring. Contact the customer service, if necessary.	

POWER SUPPLY		1/2
Fault	Cause	Action
Living area battery not charging when connected to 230 Volt mains. Green LED on the on-board control is not lighting (Fig. 54, item 6).	Automatic circuit breaker switched off.	Reset automatic circuit breaker.
	Fuses 2 A or 20 A in charger defective.	Replace defective fuse. If it blows again, contact customer service immediately.
	Living area battery deep discharged.	Charge living area battery. Start the engine and run for about 1 minute. Voltage of the living area battery rises above 2 volts and the charging process begins. If the living area battery cannot be charged, renew the battery, contact customer service if necessary.
Living area battery does not charge during travel. Green LED on the on-board control is not lighting (Fig. 54, item 5).	Starter battery 40 A fuse in distribution box defective.	Replace defective fuse.
	Relay or electronics in distribution box defective.	Contact customer service.
12 Volt consumer (lights and socket) without function.	Main switch (Fig. 54, item 9) on on-board control switched off.	Switch main switch on.
	Fuse in distribution box defective.	Replace fuse.
	Main fuse on living area battery defective.	Replace fuse.
	Relay or electronics in distribution box/onboard controls defective.	Contact customer service.

POWER SUPPLY			2/2
Fault	Cause	Action	
Water pump without function.	Main switch (Fig. 54, item 9) or water pump switch (Fig. 54, item 10) on the on-board control switched off.	Switch appropriate switch on.	
	Fuse in distribution box defective.	Replace fuse.	
	Water pump defective.	Renew water pump.	
	Electronics in distribution box/on-board controls defective.	Contact customer service.	
	Switch in tap defective.	Renew tap.	
Fresh water tank display (Fig. 54, item 3) not working.	Connection between onboard controls and measuring sensor defective.	Identify fault and correct.	
	On-board control defective.	Have the on-board control replaced by customer service.	
Waste water tank display (Fig. 54, item 4) not working.	Connection between onboard controls and measuring sensor defective.	Identify fault and correct.	
	On-board control defective.	Have the on-board control replaced by customer service.	
	Measuring sensor heavily soiled.	Clean measuring sensor.	
Outside and inside lighting does not function.	Fuse on passenger side B-pillar defective.	Check fuse and renew as necessary.	

WATER SUPPLY			1/1
Fault	Cause	Action	
No fresh water.	Fresh water tank empty.	Fill fresh water tank.	
	Fuse in distribution box defective.	Replace or press in defective fuse.	
	Water pump defective.	Have the water pump replaced by customer service at your local VANTourer service centre.	
	Pinched water hose.	Remove kink from water hose or replace.	
	Transformer/rectifier defective.	Contact customer service.	
Water leaking in vehicle.	Leak in water system.	Locate leak, reclip supply hoses.	

REFRIGERATOR			1/1
Fault	Cause	Action	
Refrigerator does not switch on in 12-volt operation.	Refrigerator fuse in distribution box defective.	Replace the fuse.	
	Battery is discharged.	Charge battery. Always make sure the battery is charged.	

Seat heating			1/1
Fault	Cause	Action	
The heating does not work even though it is switched on. The LED does not light up.	Fuse defective.	Check and replace the fuse. The fuse for the seat heating is located in the FIAT battery box on the driver's side.	
	The temperature of the seat cover is too high. The thermostat in the seat heating has switched off.	Wait until the temperature of the seat cover has decreased.	
The heating is working. The LED does not light up.	The lighting in the switch is defective.	Switch the seat heating off and go to a specialist workshop.	
Uneven heat distribution between seating surface and backrest.		Switch the seat heating off and go to a specialist workshop.	
Repeated failure of the fuse.	Incorrect fuse rating.	Check the fuse rating. If the fuse rating is correct, switch the seat heating off and go to a specialist workshop.	

21. Technical data



21.1 Vehicle dimensions



Please refer to the registration certificate (vehicle documents) for the technical data (engines, weights, dimensions etc.).



NOTE!

- ☞ Dimensions and weights may vary within $\pm 5\%$ due to the use of natural raw materials.
- ☞ The weights and dimensions specified in the registration certificate (vehicle documents) do not include any additional equipment.

		
	VANTourer 540 D	VANTourer 600 D
Total length (cm)	541	599
Width (cm) outer/inner	205/187	205/187
Height (cm) outer/inner	258/190	258/190
Wheel base (cm)	345	403.5

		
	VANTourer 600 L	VANTourer 630 L
Total length (cm)	599	747
Width (cm) outer/inner	205/187	205/187
Height (cm) outer/inner	258/190	258/190
Wheel base (cm)	403.5	403.5

21.2 Payload



DANGER!

- ☞ Do not exceed the permissible maximum laden mass of the vehicle as specified in the registration certificate (vehicle documents).
- ☞ An overloaded vehicle may veer out of control while driving.
- ☞ Load the vehicle according to section "4.3 Loading the vehicle".
- ☞ Before starting the journey, weigh the completely loaded vehicle on a public weighbridge.
- ☞ If the total weight determined for your vehicle exceeds the permissible maximum laden mass in the specifications, all warranty claims against the manufacturer as well as the insurance cover will be voided.

The weight of a vehicle is specified as mass of the vehicle in running order and permissible maximum laden mass (EC Directive 97/27/EC and DIN EN 1645-2). Optional accessories increase the mass of the vehicle in running order. The maximum load capacity is the difference between the permissible maximum laden mass and the mass of the unladen vehicle (unladen mass). Please refer to the registration certificate (vehicle documents) for the respective value.

21.2.1 Mass of the vehicle in running order

The mass of the vehicle in running order is defined as follows:

- Mass of unladen vehicle (incl. on-board tools, without spare wheel)
- 75 kg driver's weight
- Diesel tank (90 % full)
- Liquid gas (100 % full)
- Toilet flush tank (100 % full)
- Fresh water heater (100 % full)
- Fresh water tank (100 % full, capacity limited to 20 litres of fresh water in driving operation, if technically planned).*

* Capacity of the fresh water tank acc. to App. V. Part A, No. 2.6 Fn (h) Directive (EU) 1230/2012 limited to 10, 20 or 40 litres by overflow valve (recommended driving fill level).

21.2.2 Permissible maximum laden mass

The permissible maximum laden mass specifies the maximum permissible weight of a vehicle (including optional accessories/equipment/packages and gas, water, luggage and load, etc.) in driving operation.

This permissible maximum laden mass takes into account the specific operating conditions, including such factors as material strength, load bearing capacity of the tyres, etc. The permissible maximum laden mass may on no account be exceeded.

21.2.3 Determining the payload weight

21.2.3.1 Optional accessories

This includes all items that are available in addition to the standard equipment.

21.2.3.2 Personal equipment

Personal equipment comprises articles carried on the vehicle over and above the optional accessories such as:

Pets	Food, drink
Clothing, shoes	Sports and leisure articles
Sanitary articles, toiletries, cleaning products	Multimedia, cine camera, photo camera
Kitchen articles, crockery, cutlery, etc.	Toys, games, etc.

Determine the weight of the individual personal pieces of equipment carried along and enter the values you have determined into the list on Page 139. Then, calculate the total of the weights you have determined.

21.2.4 Maximum load capacity

The important value of the maximum payload (luggage, loading, gas, water, etc.) results from the difference between the permissible maximum laden mass and the mass of the unladen vehicle.

Example:	Permissible maximum laden mass	3,500 kg	
	– Mass of unladen vehicle	2,700 kg	
	Maximum load capacity	800 kg	> (luggage, loading, gas, water, etc.)

The mass of the unladen vehicle is determined by weighing a vehicle with standard fitting (without optional accessories, equipment or packages).

Optional accessories, equipment or packages may reduce the maximum payload of a vehicle by increasing the mass of the unladen vehicle. A vehicle user is obliged not to exceed the permissible maximum laden mass in driving operation.



NOTE!

- ☞ The information in the registration certificate (vehicle documents) are binding for the specified technical data.
- ☞ Other specifications are not part of this Operating Manual. These figures are enclosed with the caravan as a separate manual.

21.2.5 Weights of the equipment and accessory packages

The following table lists the weights of the different **VANTourer** equipment and accessory packages. The empty lines below this can be used to enter further accessories which are installed in your vehicle. You will find the weight specifications in the **VANTourer** price list. All weight information provided are approximate values.

Tick the packages that are installed in your vehicle. Enter name and weight for any additional optional accessory into the empty lines below. Calculate the sum of the determined weights and enter the value into the "Total weight of **VANTourer** accessories on board" field at the end of this table.

EQUIPMENT AND ACCESSORY PACKAGES			
CHASSIS PACKAGE PLUS	52.0 kg	OK:	<input type="checkbox"/>
COMFORT PACKAGE	45.5 kg	OK:	<input type="checkbox"/>
PRIME PACKAGE	9.5 kg	OK:	<input type="checkbox"/>
ROOF PACKAGE	135.0 kg	OK:	<input type="checkbox"/>
	kg	OK:	<input type="checkbox"/>
	kg	OK:	<input type="checkbox"/>
	kg	OK:	<input type="checkbox"/>
	kg	OK:	<input type="checkbox"/>
	kg	OK:	<input type="checkbox"/>
	kg	OK:	<input type="checkbox"/>
	kg	OK:	<input type="checkbox"/>
Additional optional accessories			
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	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	kg	
	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	kg	
Total weight of VANTourer accessories on board	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	kg	

Copy if necessary

21.2.6 Weights of personal equipment

Use this page to enter and add up the weight of the personal equipment you carry along.

Remarks:	Date:
	Page of
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	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> kg
Total weight of the personal equipment on board	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> kg



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21.2.7 Total weight of the *VANTourer* accessories and the personal equipment**DANGER!**

The total (sum of the *VANTourer* accessories **plus** all persons on board **plus** personal equipment) must never exceed the specified maximum load capacity.

**NOTE!**

Once you have entered into the list and added up all weights – that of the *VANTourer* accessories, all persons on board and the personal equipment – compare this figure with the maximum load capacity of your vehicle. The following table can be used for comparison.

My caravan: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Take the total weight of the <i>VANTourer</i> accessories on board from Page 138. <i>VANTourer</i> accessories <input type="text"/> <input type="text"/> <input type="text"/> kg Enter the total weight of personal equipment carried from Page 139. Personal equipment: <input type="text"/> <input type="text"/> <input type="text"/> kg	If the total weight is lower than the maximum payload:  Have a good trip!
For the maximum load capacity of your vehicle, please refer to the technical data on Page 136. <div style="text-align: center;">↓</div>	<div style="text-align: center;">↓</div>	If the total weight is greater than the maximum payload:  Reduce payload!
Maximum payload: <input type="text"/> <input type="text"/> <input type="text"/> kg	Total weight: <input type="text"/> <input type="text"/> <input type="text"/> kg	

Copy if necessary

21.3 Tyre pressure and wheel bolt tightening torque table

Tyre size	Size of alloy wheel rims	Size of steel wheel rims	Tyre pressure [bar or kg/cm ²]		
			Front	Back	Spare wheel
235/60 R17 C	71/2 J x 17	–	4.3	5.0	5.0
The specified tyre pressure values apply to cold tyres and a fully laden vehicle.					

Tab. 11 Tyre pressure table



NOTE!

Please refer to the operating manual of the manufacturer of the base vehicle for the tyre pressure required for other tyre sizes.

Rim size	Tightening torque [Nm] Steel rims	Tightening torque [Nm] Light-metal rims
6 J x 15	160 ± 10	160 ± 10
6 J x 16	180 ± 10	180 ± 10
7½ J x 17 (optional accessory)	–	180 ± 10

Tab. 12 Table of tightening torques for steel and alloy rims

22. Information & tips



NOTE!

- ☞ All stipulations made in this chapter are only applicable in Germany.
- ☞ For journeys abroad, the regulations in the specific country are to be observed.

22.1 Emergency accessories to be carried by motorhomes (Germany)

Accessories to be carried in case of emergency	Motorhome up to 2.8 t	Motorhome from 2.8 t to 3.5 t	Motorhome above 3.5 t
These accessories must be carried in the motorhome for emergencies.	<ul style="list-style-type: none"> • First-aid kit • Hazard warning triangle • Safety vest 	<ul style="list-style-type: none"> • First-aid kit • Hazard warning triangle • Safety vest 	<ul style="list-style-type: none"> • First-aid kit • Hazard warning triangle • Hazard warning light • Safety vest

Tab. 13 Accessories to be carried in case of emergency in Germany (motorhome)

22.2 Emergency telephone numbers (Europe)

The 24-hour service of the ADAC headquarters in Munich can be contacted from all countries without ADAC emergency call centres:

Telephone: 00 49 (0) 89 22 22 22 or 00 49 (0) 89 76 76 76.



NOTE!

Obtain information about the relevant emergency telephone numbers before travelling abroad.

22.3 Daytime running lights mandatory (Europe)

Different regulations concerning mandatory daytime running lights exist abroad.



NOTE!

For journeys abroad, the regulations in the specific country are to be observed.

22.4 Reflective vest mandatory (Europe)



NOTE!

Equip your vehicle in accordance with the legal requirements. For journeys abroad, the regulations in the specific country are to be observed.

22.5 Provisions governing road tolls (Europe)

Road toll charges are nowadays applicable in many European countries. The provisions governing road tolls and the method of collection vary between countries.

As in the case of the traffic regulations, motorists are obliged to find out about these provisions **before** setting off.



NOTE!

Information in this regard is available from all automobile clubs or on the Internet.

23. Checklist

23.1 Checklist before setting off

Check the motorhome according to the following checklist before starting each journey:

Remarks:	Date:
	Page of
Have you got all the vehicle documents (including the green insurance card) on board, and have all passengers got their travel documents (passports, ID cards, children's passports etc.)? Check that travel documents are still valid in good time!	OK: <input type="checkbox"/>
Have you got all the necessary documents (health and vaccination certificates) for pets with you? Information on the necessary documents can be obtained from the relevant consulate, the tourist office or an automobile club.	OK: <input type="checkbox"/>
Is the gas test certificate (see gas test disc) still valid? Check the valid until date in good time!	OK: <input type="checkbox"/>
Have you got a full set of spare keys (keep separately!) for the motorhome and any alarm system with you?	OK: <input type="checkbox"/>
Has all the necessary maintenance and inspection work been carried out on the motorhome in time?	OK: <input type="checkbox"/>
Has the permissible total weight of the motorhome been exceeded (see sections "4.3 Loading the vehicle" and "21.2 Payload")?	OK: <input type="checkbox"/>
Has the motorhome been loaded properly (see section "4.3 Loading the vehicle")?	OK: <input type="checkbox"/>
Have all doors, flaps, the gas locker, windows, roof lights and the HEKI – except forced ventilation openings – been closed properly?	OK: <input type="checkbox"/>
Has the pop-up roof (optional accessory) been closed and securely locked?	OK: <input type="checkbox"/>
Have all ladders (e.g. for the bunk bed or the pop-up roof) been securely stowed away in their designated storage location?	OK: <input type="checkbox"/>
Are the electrically operated entrance step and the satellite dish fully retracted?	OK: <input type="checkbox"/>
Are all liquid containers, including those in the refrigerator, secured against leaking?	OK: <input type="checkbox"/>
Are the gas cylinders in the gas locker securely fastened with straps? Is the gas cylinder shut-off valve closed?	OK: <input type="checkbox"/>
Is the payload stowed securely against slipping?	OK: <input type="checkbox"/>
Has the pressure of all tyres (including spare tyres) on the motorhome been checked according to section "21.3 Tyre pressure and wheel bolt tightening torque table"?	OK: <input type="checkbox"/>
Are the first-aid kit (check regularly for completeness and expiry date), hazard warning triangle and reflective safety vests for all persons carried stowed away on board where they are easy to reach (regulations governing availability vary between countries)?	OK: <input type="checkbox"/>
Are a correctly inflated spare tyre and the appropriate tools and a jack suitable for the permissible total weight on board for the event that a tyre on the motorhome needs changing?	OK: <input type="checkbox"/>
Are all lighting devices on the motorhome working properly (do a function test!)?	OK: <input type="checkbox"/>
Is the fresh water tank full?	OK: <input type="checkbox"/>
Has the lifting bed been raised and properly secured?	OK: <input type="checkbox"/>

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23.2 Checklist for personal entries

Remarks:	Date:
	Page of
	OK: <input type="checkbox"/>
	OK: <input type="checkbox"/>
	OK: <input type="checkbox"/>
	OK: <input type="checkbox"/>
	OK: <input type="checkbox"/>
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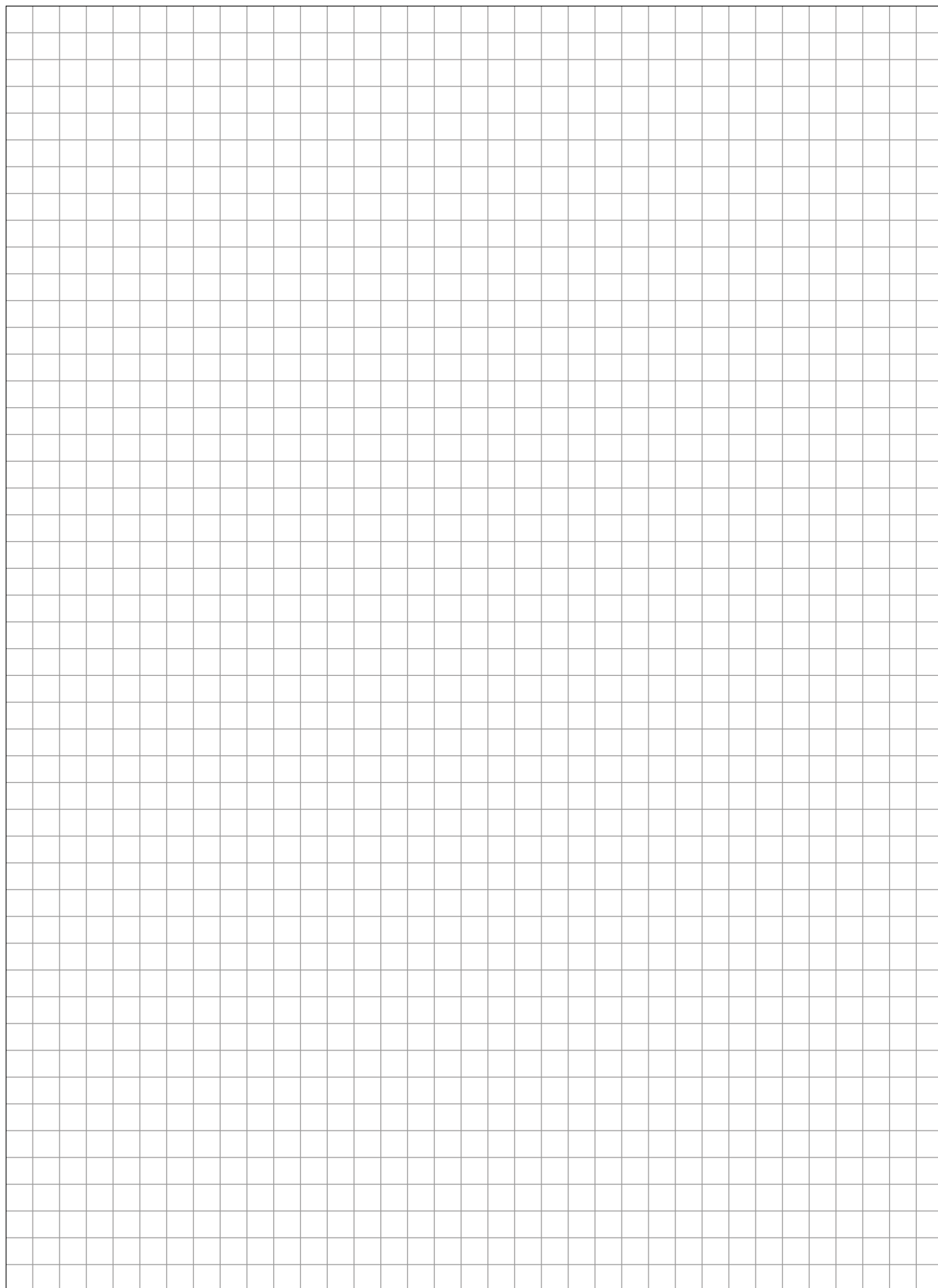
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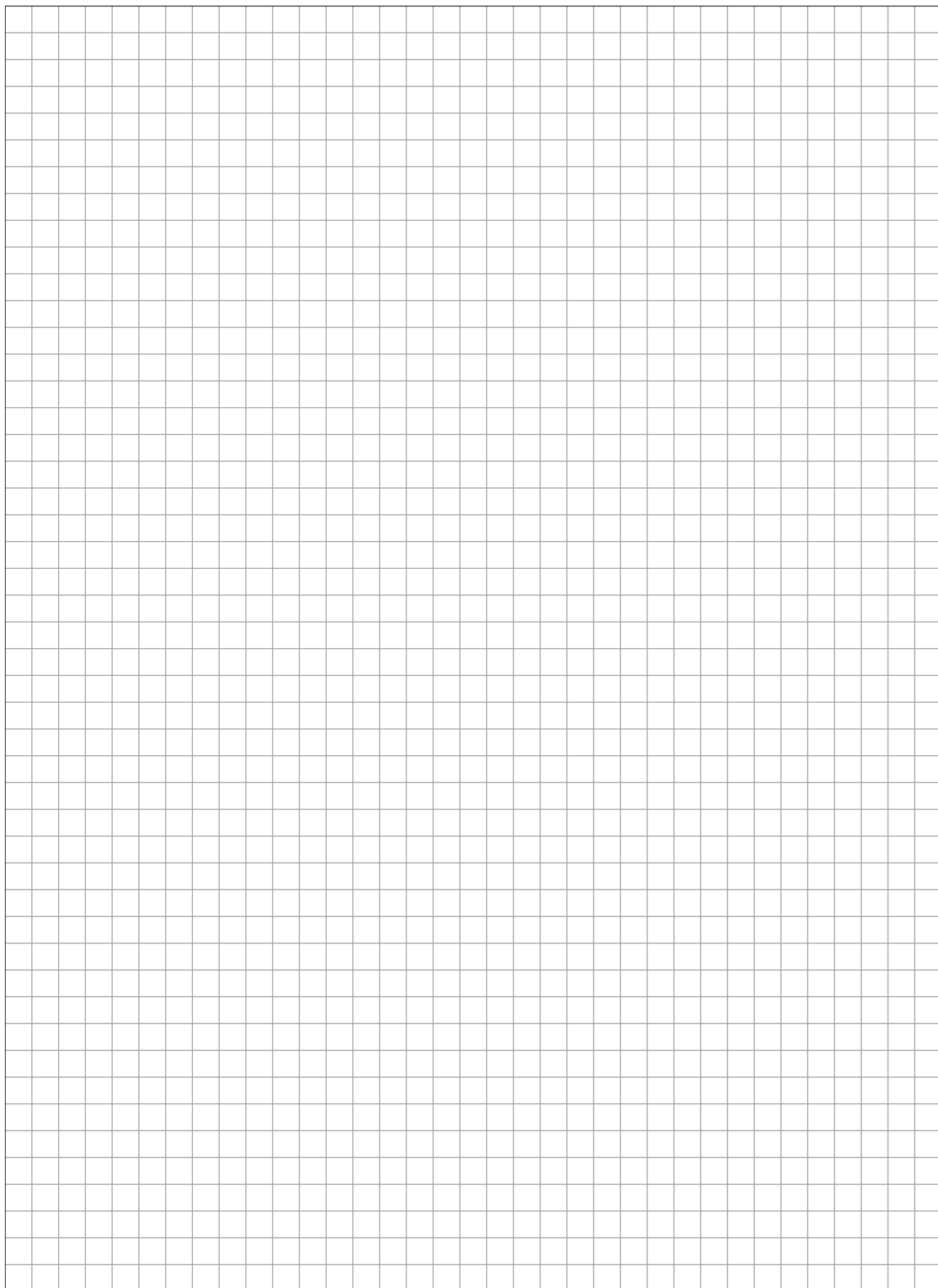
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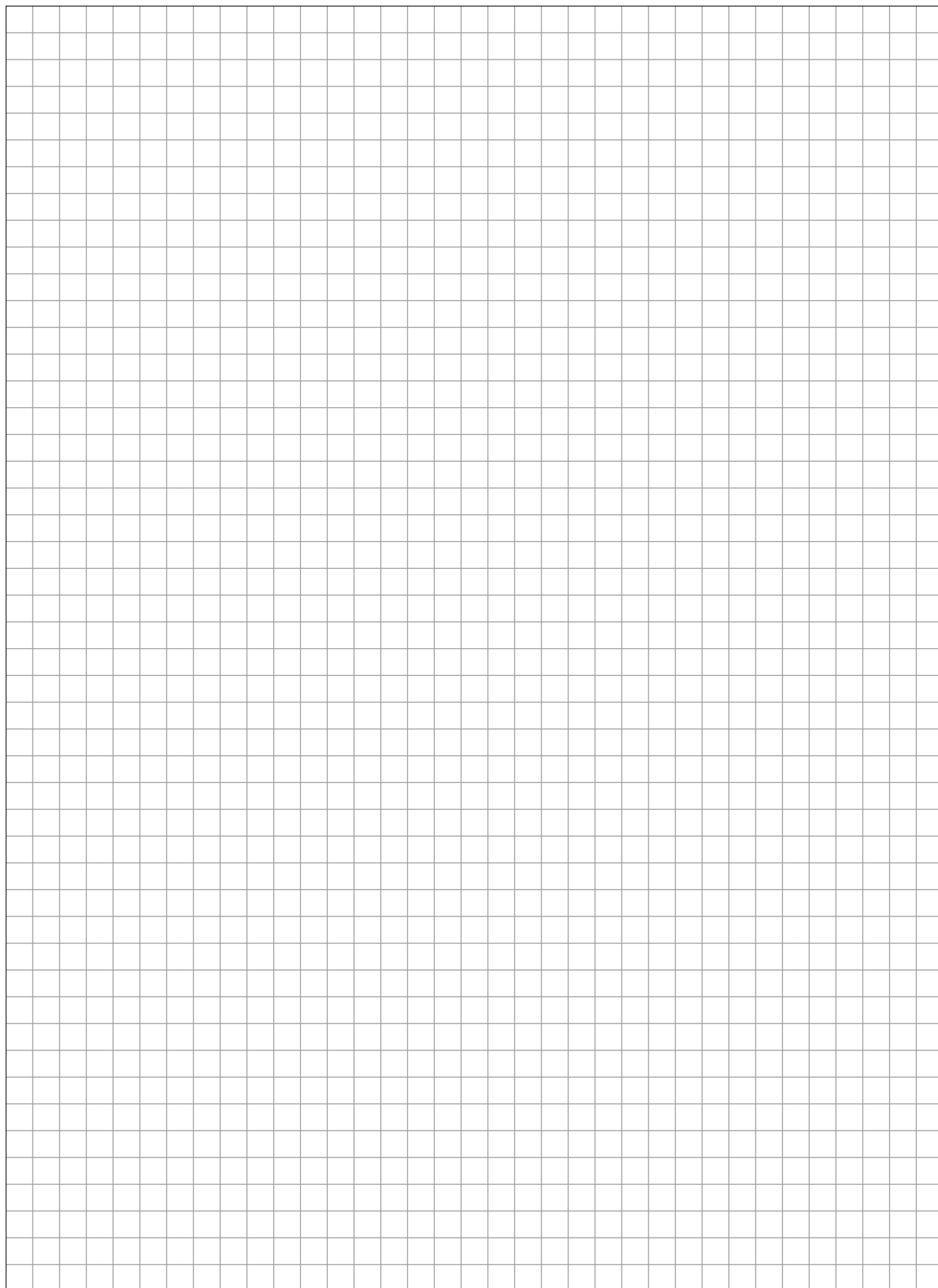
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Angelestraße 56 - D-88214 Ravensburg
info@tef.de – www.tef.de

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